# 1990 Mazda MX-5 Workshop Manual

#### **FORWARD**

This workshop manual is intended for use by service technicians of Authorised Mazda Dealers to help them service Mazda vehicles. It can also be useful to owners and operators of Mazda vehicles in diagnosing some problems and performing limited repair and maintenance on Mazda vehicles.

For proper repair and maintenance a thorough familiarisation with this manual is important, and it should always be kept in a handy place for quick and easy reference.

All the contents of this manual, including drawing and specifications, are the latest available at the time of printing. As modifications affecting repair or maintenance occur, relevant information supplementary to this volume will be made available at Authorised Mazda dealers. This manual should be kept up-to-date.

Mazda Motor Corporation reserves the right to alter the specifications and contents of this manual without obligation or advance notice.

Mazda Motor Corporation HIROSHIMA, JAPAN

#### APPLICATION:

This manual is applicable to vehicles beginning with the Vehicle Identification Numbers (VIN) shown on the following page.

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# **VEHICLE IDENTIFICATION NUMBERS (VIN)**

JM1 NA351\*L0 100001~ JM1 NA352\*L0 100001~

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# IMPORTANT INFORMATION

# **BASIC ASSUMPTIONS**

This workshop manual assumes that you have certain special tools that are necessary for the safe and efficient performance of service operations on Mazda vehicles and that you know how to use them properly. It also assumes that you are familiar with automobile systems and basic service and repair procedures. You should not attempt to use this manual unless these assumptions are correct and you understand the consequences described below.

# SAFETY RISK

This manual contains certain notes, warnings, and other precautionary information that you should carefully read and follow to reduce the risk of personal injury to yourself or others and the risk of improper service that may damage the vehicle or render it unsafe. If there is no such information in regard to any specific service method, this does not mean there is no possibility that personal safety or vehicle safety will be jeopardized by the use of incorrect methods or tools.

# POSSIBLE LOSS OF WARRANTY

The manufacturer's warranty on Mazda vehicles and engines can be voided if improper service or repairs are performed by persons other than those at an Authorized Mazda Dealer.

# **WARNING ON LUBRICANTS AND GREASES**

Avoid all prolonged and repeated contact with mineral oils, especially used oils. Used oils contaminated during service (e.g., engine sump oils) are more irritating and more likely to cause serious effects, including skin cancer, in the event of gross and prolonged skin contact.

Wash skin thoroughly after work involving oil.

Protective hand cleaners may be of value provided they can be removed from the skin with water. Do not use gasoline, paraffin, or other solvents to remove oil from the skin.

Lubricants and greases may be slightly irritating to the eyes.

Repeated or prolonged skin contact should be avoided by wearing protective clothing. Particular care should be taken with used oils and greases containing lead. Do not allow work clothing to be contaminated with oil. Dry clean or launder such clothing at regular intervals.

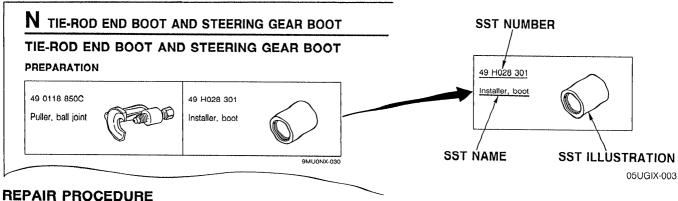
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# HOW TO USE THIS MANUAL

# **PREPARATION**

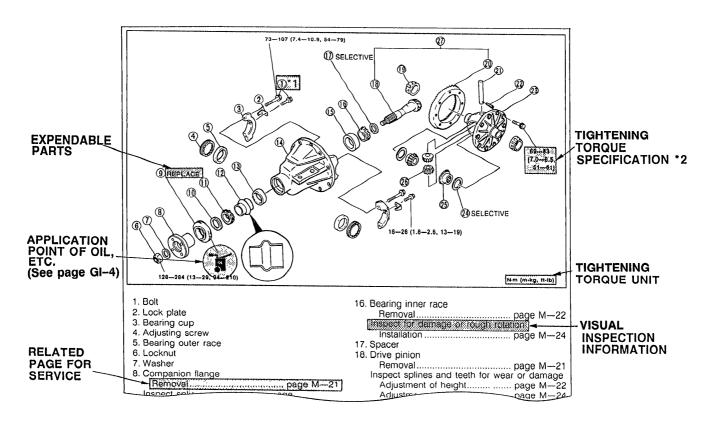
PREPARATION points out the needed Special Service Tool (SST) for the service operation that it preceeds. Gather all necessary SST before beginning work.

# **Example:**



- 1. Most repair operations begin with an overview illustration. It identifies the components, shows how the parts fit together, and describes visual parts inspections. If a damaged or worn part is found, repair or replace it as necessary.
- 2. Expendable parts, tightening torques, and symbols for oil, grease, and sealant are shown in the overview illustration.
- 3. Pages related to service procedures are shown under the illustration. Refer to this information when servicing the related part.

# **Example:**



\*1: The numbers (1) ex.) refer to parts identification and where necessary servicing procedure.

\*2: Units are in Nm (m-kg, ft-lb) unless otherwise specified.

# **SYMBOLS**

There are six symbols indicating oil, grease, and sealant. These symbols show the points of applying such materials during service.

Symbol	Meaning	Kind
OIL	Apply oil	New engine oil or gear oil as appropriate
BRAKE . FLUID	Apply brake fluid	Only brake fluid
ATF	Apply automatic transmission fluid	Only ATF
DD) OREASE	Apply grease	Appropriate grease
SEALANT	Apply sealant	Appropriate sealant
P	Apply petroleum jelly	Appropriate petroleum jelly

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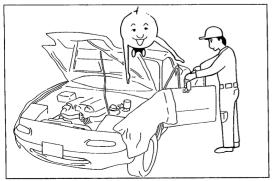
# Note

• When special oil or grease is needed, this is shown in the illustration.

# NOTES, CAUTIONS, AND WARNINGS

As you read through the procedures, you will come across NOTES, CAUTIONS, and WARNINGS. Each one is there for a specific purpose. **NOTES** give you **added information** that will help you to complete a particular procedure. **CAUTIONS** are given to prevent you from making an error that could **damage the vehicle. WARNINGS** remind you to be especially careful in those areas where carelessness can cause **personal injury.** The following list contains some general WARNINGS you should follow when you work on a vehicle.

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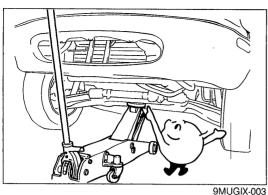


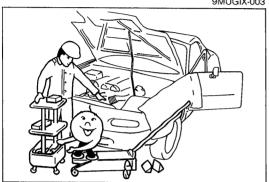
## PROTECTION OF VEHICLE

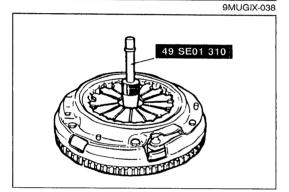
FUNDAMENTAL PROCEDURES

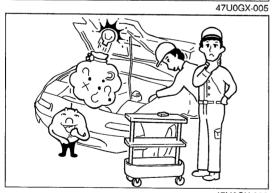
Always be sure to cover fenders, seats, and floor areas before starting work.

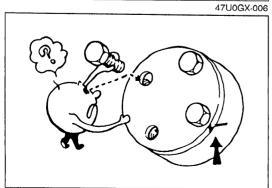
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# A WORD ABOUT SAFETY

The following precautions must be followed when jacking up the vehicle.

- 1. Block the wheels.
- 2. Use only the specified jacking positions.
- 3. Support the vehicle with safety stands.

Start the engine only after making certain the engine compartment is clear of tools and people.

# PREPARATION OF TOOLS AND MEASURING EQUIPMENT

Be sure that all necessary tools and measuring equipment are available before starting any work.

# SPECIAL TOOLS

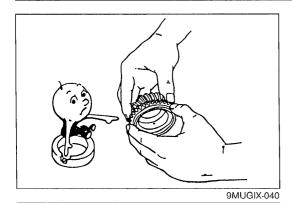
Use special tools when they are required.

# **REMOVAL OF PARTS**

While correcting a problem, try also to determine its cause. Begin work only after first learning which parts and subassemblies must be removed and disassembled for replacement or repair.

# **DISASSEMBLY**

If the disassembly procedure is complex, requiring many parts to be disassembled, all parts should be disassembled in a way that will not affect their performance or external appearance and identified so that reassembly can be performed easily and efficiently.



1. Inspection of parts

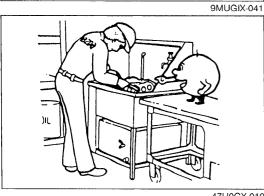
When removed, each part should be carefully inspected for malfunctioning, deformation, damage, and other problems.



2. Arrangement of parts

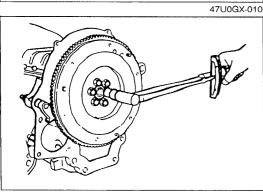
All disassembled parts should be carefully arranged for reassembly.

Be sure to separate or otherwise identify the parts to be replaced from those that will be reused.



3. Cleaning parts for reuse

All parts to be reused should be carefully and thoroughly cleaned in the appropriate method.



## REASSEMBLY

Standard values, such as torques and certain adjustments, must be strictly observed in the reassembly of all parts. Refer to STANDARD BOLT AND NUT TIGHTENING TORQUE in Section TD for tightening torques not mentioned in the main text.

If removed, these parts should be replaced with new ones:

1. Oil seals

2. Gaskets

3. O-rings

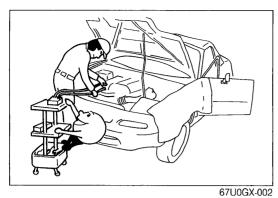
- 4. Lock washers
- 5. Cotter pins
- 6. Nylon nuts



Depending on location:

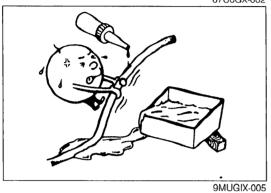
- 1. Sealant should be applied to gaskets.
- 2. Oil should be applied to the moving components of parts.
- 3. Specified oil or grease should be applied at the prescribed locations (such as oil seals) before reassembly.





# **ADJUSTMENTS**

Use suitable gauges and/or testers when making adjustments.



# **RUBBER PARTS AND TUBING**

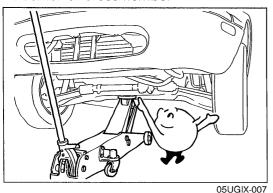
Prevent gasoline or oil from getting on rubber parts or tubing.

# GI JACK AND SAFETY STAND POSITIONS, VEHICLE LIFT (2-SUPPORT TYPE) POSITIONS

# **JACK AND SAFETY STAND POSITIONS**

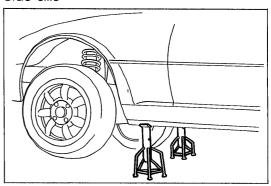
# **FRONT** Jack position:

At center of crossmember



# Safety stand positions:

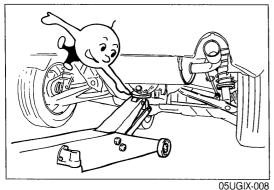
Side sills



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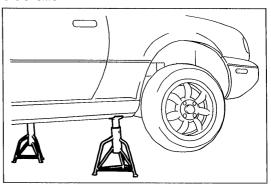
**REAR** Jack position:

At center of differential



# Safety stand positions:

Side sills

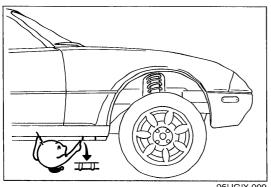


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# **VEHICLE LIFT (2-SUPPORT TYPE) POSITIONS**

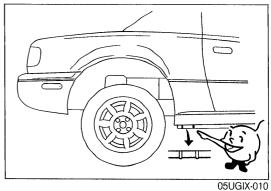
**FRONT** Frame

Side sills

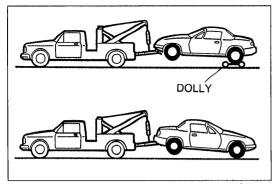


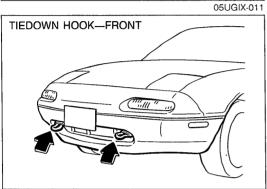
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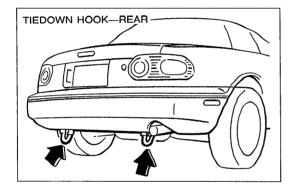
# **REAR Frame** Side sills



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# **TOWING**

Proper towing equipment is necessary to prevent damage to the vehicle during any towing operation.

Laws and regulations applicable to vehicles in tow must always be observed.

Release the parking brake, place the shift lever in neutral, and set the ignition switch in the ACC position. As a rule, towed vehicles should be pulled with the driving wheels off the ground.

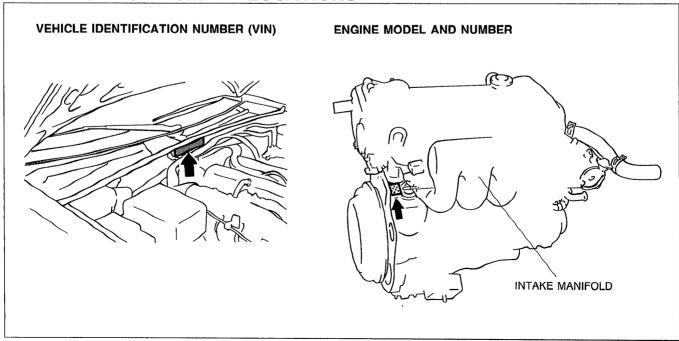
# WITH MANUAL TRANSMISSION

If the transmission, rear axle, and steering system are not damaged, the vehicle may be towed on all four wheels. If any of these components is damaged, use a towing dolly.

#### CAUTION

- The power assists for the brakes and steering are inoperable while the engine is off.
- Do not use the tiedown hooks of the vehicle for towing. These hooks are designed ONLY for transport tiedown. If the tiedown hooks are used for towing, the front or rear skirt and bumper will be damaged.

# **IDENTIFICATION NUMBER LOCATIONS**



# UNITS

N·m (m-kg or cm-kg,	
ft-lb or in-lb)	Torque
rpm	Revolutions per minute
A	
V	Volt(s)
Ω	Ohm(s) (resistance)
kPa (kg/cm², psi)	Pressure
	(usually positive)
mmHg (inHg)	Pressure
	(usually negative)
W	Watt
liters (US qt, Imp qt)	
mm (in)	Length

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# **ABBREVIATIONS**

A/C	
ACC	
	. After top dead center
	. Before bottom dead center
BTDC	. Before top dead center
DRL	. Daytime running light
	. Engine control unit
	. Electronic gasoline injection
E/L	. Electrical load
EX	
IC	. Integrated circuit
IN	
INT	. Intermittent
ISC	. Idle-speed control
LH	
LSD	. Limited slip differential
M	. Motor, electric
MIL	. Malfunction indicator lamp
	. Manual transmission
OFF	
ON	
PCV	. Positive crankcase
	ventilation
PPF	. Power plant frame
PRC	Pressure regulator control
P/S	
P/W	
RH	
SST	. Special service tool
	. Top dead center
VRIS	. Variable resonance
	induction system

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CAUTION

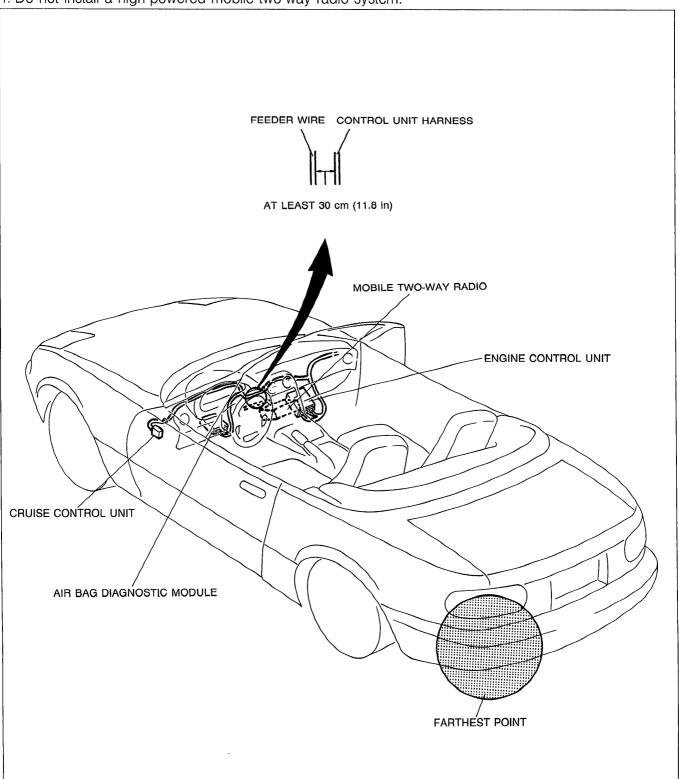
# **CAUTION**

# **INSTALLATION OF MOBILE TWO-WAY RADIO SYSTEM**

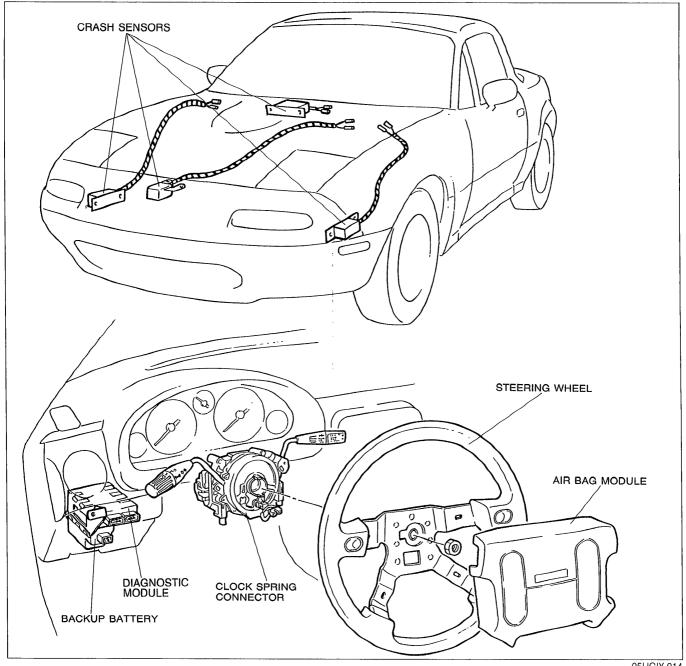
If a mobile two-way radio system is installed improperly or if a high-powered type is used, the EGI system and other systems may be affected.

When the vehicle is to be equipped with a mobile two-way radio, observe the following precautions:

- 1. Install the antenna at the farthest point from control units.
- 2. Install the antenna feeder as far as possible from the control unit harnesses (at least 30 cm [11.8 in]).
- 3. Ensure that the antenna and feeder are properly adjusted.
- 4. Do not install a high-powered mobile two-way radio system.



# SERVICE PRECAUTIONS CONCERNING AIR BAG SYSTEM



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# **Before Replacing any Components**

Before replacing of any air bag system components, or before disconnecting any connectors of the system. first disconnect the negative battery cable. Then remove the air bag module from the vehicle even if it has not failed.

# Prohibitation of Component Disassembly and Wiring Harness Repair

The components of the air bag system are not intended to be disassembled for service. If a component failure is indicated by the diagnostic module, replace the suspected component after verifying the condition of the connections and the wire harness. Do not disassemble any components. If an open circuit is found by a continuity test, replace the wire harness. Do not attempt to repair the wiring.

# Handling of Air Bag Module

- 1. Do not use an ohmmeter for inspection of the air bag module; it may cause an accidental deployment.
- 2. When carrying a live air bag module, make sure the trim cover is pointed away from your body to prevent injury in the event of an accidental deployment.

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3. When placing a live air bag module on any surface, always face the trim cover upward. This will reduce the motion of the module if it is accidentally deployed.

4. When handling a deployed air bag module, wear gloves and safety glasses because the deployed air bag module may display deposits of sodium hydroxide, a product of the gas generant combustion.

5. An air bag module must disposed of only by the proper procedure recommended for the specific situation. (Refer to page T-160.)

# **Crash Sensor Installation**

1. The angle and direction of the sensor is very important for its proper operation. If a vehicle has been involved in a crash where the its front sheet metal has been damaged, inspect the body structure at the sensor mounting area for deformation. If damaged, restore it to its original shape.

2. When installing a crash sensor, be sure to tighten the mounting bolts to the specified torque to ensure proper grounding. The ground circuit is made directly through the sensor's mounting plate.

# **Adjustment of Clock Spring Connector**

When the steering wheel is removed or the clock spring connector is replaced, the clockspring connector must be properly aligned.

Align the clock spring connector as follows:

(1) Set the front wheels straight ahead.

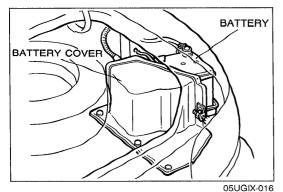
(2) Turn the clock spring connector clockwise until it stops. Do not force it.

(3) Return it 2.5 turns.

(4) Align (counterclockwise) the mark on the clock spring connector to the outer housing.

(5) Carefully install the steering wheel without disturbing the clockspring connector.

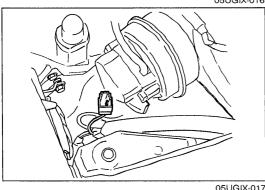
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# **BATTERY**

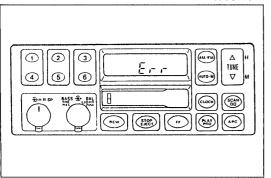
1. The battery is installed in the right rear of the trunk.

2. The battery installed in the MX-5 Miata is unique. When a replacement battery is installed, install it with a Mazda genuine battery replacement kit or equivalent. (Refer to page G-10 for replacement.)



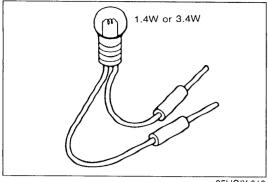
# POWER CONNECTOR IN ENGINE COMPARTMENT

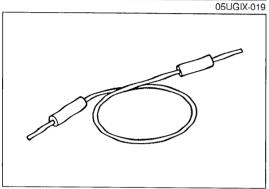
- 1. When using externally powered test equippment, connect it to the special power connector (Blue: 1-pin) for battery voltage.
- 2. Do not ground the power connector terminal; the Wiper 20A fuse will be burned.

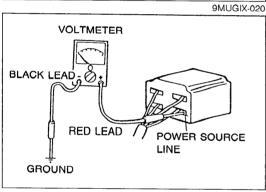


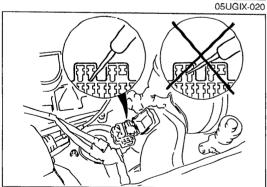
**AUDIO ANTI-THEFT SYSTEM** 

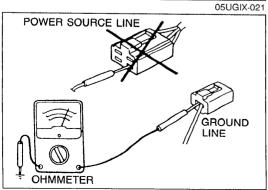
An audio with an anti-theft function is optionally available. Before removing the negative battery terminal or disconnecting the audio power source, obtain the code number and deactivate the audio anti-theft system. (Refer to page T-113.)











ELECTRICAL TROUBLESHOOTING TOOLS
Test Light

The test light, as shown in the figure, uses a 12V bulb. The two lead wires should be connected to probes. The test light is used for simple voltage checks and for checking for short circuits.

#### Caution

• When checking a control unit, never use a bulb over 3.4W.

# **Jumper Wire**

The jumper wire is used for testing by shorting across switch terminals and ground connections.

#### Caution

 Do not connect a jumper wire from the power source line to a body ground; this may cause burning or other damage to harnesses or electronic components.

#### Voltmeter

The DC voltmeter is used to measure circuit voltage. A voltmeter with a range of 15V or more is used by connecting the positive (+) probe (red lead wire) to the point where voltage is to be measured and the negative (-) probe (black lead wire) to a body ground.

**Diagnosis Connector** 

Insert the probe into the service hole when connecting a jumper wire to the diagnosis connector.

#### Caution

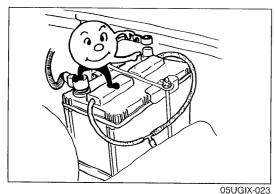
Do not insert the jumper wire probe into the diagnosis connector terminal, which may damage the terminal.

## **Ohmmeter**

The ohmmeter is used to measure the resistance between two points in a circuit, and to check for continuity and short circuits.

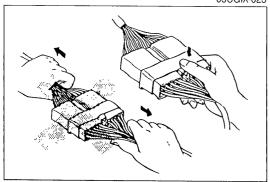
# Caution

Do not attempt to connect the ohmmeter to any circuit to which voltage is applied; this may burn or otherwise damage the ohmmeter.



# **CAUTION WITH ELECTRICAL PARTS**Battery Cable

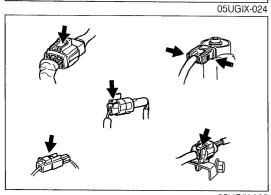
Before disconnecting connectors or removing electrical parts, disconnect the negative battery cable.



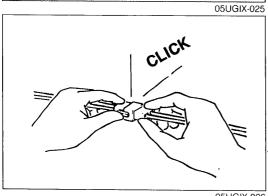
# Connectors

nectors.

**Disconnecting connectors**Never pull on the wire harness when disconnecting con-

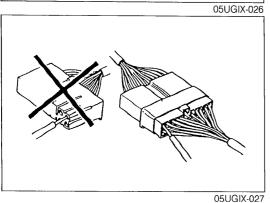


Connectors can be disconnected by pressing or pulling the lock lever as shown.



# **Locking connectors**

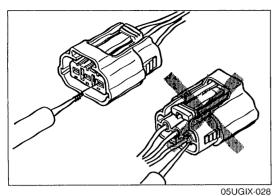
When locking connectors, listen for a click that will indicate they are securely locked.



# Inspection

1. When a tester is used to check for continuity or to measure voltage, insert the tester probe from the wire harness side.

# **CAUTION**





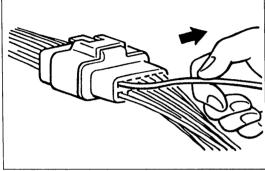
2. Check the terminals of waterproof connectors from the connector side, as they cannot be accessed from the wire harness side.

#### Caution

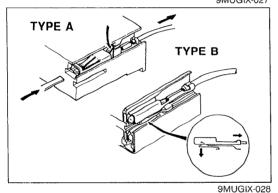
- Use fine wire to prevent damage to the terminal.
- Do not damage the terminal when inserting the tester lead.



Pull lightly on individual wires to check that they are secured in the terminal.



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# Replacement of terminals

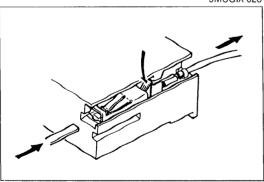
Use the appropriate tools to remove the terminal as shown. When installing the terminal, be sure to insert it until it locks securely.

# <Female>

Insert a thin piece of metal from the terminal side of the connector, and then, with the terminal locking tab pressed down, pull the terminal out from the connector.

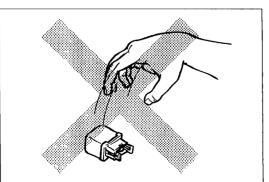
# <Male>

Same as the female type.

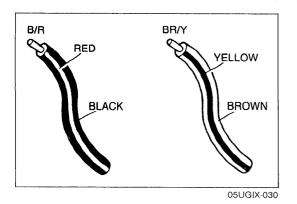


Sensors, Switches, and Relays

Handle sensors, switches, and relays carefully. Do not drop them or strike them against other objects.



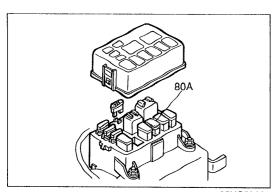
05UGIX-029



Wire Harness
Wiring color codes

Two-color wires are indicated by a two-color code symbol. The first letter indicates the base color of the wire and the second the color of the stripe.

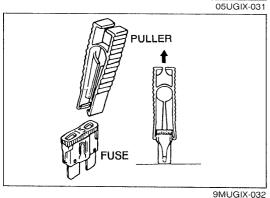
CODE	COLOR	CODE	COLOR
В	Black	0	Orange
BR	Brown	Р	Pink
G	Green	R	Red
GY	Gray	V	Violet
L	Blue	W	White
LB	Light Blue	Y	Yellow
LG	Light Green	_	



# Fuse Replacement

- 1. When replacing a fuse, be sure to replace it with one of the specified capacity.
  - If a fuse again fails after it has been replaced, the circuit probably has a short and the wiring should be checked.
- 2. Be sure the negative battery terminal is disconnected before replacing a main fuse (80A).

3. When replacing a pullout fuse, use the fuse puller supplied



in the fuse box cover.

# PRE-DELIVERY INSPECTION AND SCHEDULED MAINTENANCE SERVICES

A- 2	PRE-DELIVERY INSPECTION
	PRE-DELIVERY INSPECTION TABLE
A- 3	SCHEDULED MAINTENANCE SERVICES
	SCHEDULE 1
A- 3	(NORMAL DRIVING CONDITIONS)
	SCHEDULE 2
A- 6	(UNIQUE DRIVING CONDITIONS)
J0AX-001	05U

# **PRE-DELIVERY INSPECTION**

# PRE-DELIVERY INSPECTION TABLE

EX.	ΤE	RI	0	R

INSPECT and ADJUST, if necessary, the following items to specification:  ☐ Glass, exterior bright metal and paint for damage ☐ Convertible top and detachable hard top (if equipped) for damage ☐ Wheel lug nuts ☐ 88—118 N·m (9—12 m·kg, 65—87 ft·lb) ☐ Tire pressure (Refer to Section Q) ☐ All weatherstrips for damage or detachment ☐ Operation of hood release and lock ☐ Operation of fuel lid ☐ Door operation and alignment ☐ Headlight aiming INSTALL the following parts: ☐ Wheel caps or rings (if equipped) ☐ Outside rearview mirror(s) ☐ Mast antenna	<ul> <li>□ Power windows (if equipped)</li> <li>□ Heater, defroster and air conditioner at all mode selections (if equipped)</li> <li>CHECK the following items:</li> <li>□ Presence of spare fuses</li> <li>□ Upholstery and interior finish</li> <li>CHECK and ADJUST, if necessary, the following items:</li> <li>□ Operation and fit of windows</li> <li>□ Pedal height and free play of brake and clutch pedals</li> <li>□ Pedal height mm (in) Free play mm (in)</li> <li>□ Clutch pedal 175-185 (6.89-7.28) (with carpet)</li> <li>□ Brake pedal 171-181 (6.73-7.13) (with carpet)</li> <li>□ Parking brake</li> <li>5-7 notches/98 N (10 kg, 22lb)</li> </ul>
UNDER HOOD—ENGINE OFF	UNDER HOOD—ENGINE RUNNING AT
INSPECT and ADJUST, if necessary, the following items to	OPERATING TEMPERATURE
specification:  ☐ Fuel, coolant and hydraulic lines, fittings, connections and components for leaks ☐ Engine oil level ☐ Power steering fluid level (if equipped) ☐ Brake and clutch master cylinder fluid level ☐ Windshield washer reservoir fluid level ☐ Radiator coolant level and specific gravity	CHECK the following items:  ☐ Initial ignition timing  10° ± 1° BTDC (with diagnosis connector TEN and GND terminals connected)  (Refer to page F-75)  ☐ Idle speed  850 ± 50 rpm (with diagnosis connector TEN and GND terminals connected)
Protection °C (°F) Specific gravity at 20°C (68°F)  -16 (3) 1.054 -26 (-15) 1.066 -40 (-40) 1.078	(Refer to page F–76)  ON HOIST  CHECK the following items:  □ Underside fuel, coolant and hydraulic lines, fittings, con-
☐ Tightness of water hose clamps (including heater hoses) ☐ Tightness of battery terminals ☐ Drive belt tensions (Refer to Section B) ☐ Accelerator cable and linkage for free movement CLEAN spark plugs	nections and components for leaks  ☐ Tires for cuts or bruises ☐ Steering linkage, suspension, exhaust system and all underside hardware for looseness or damage ☐ Manual transmission oil level ☐ Rear axle oil level
INTERIOR  INSTALL the following parts:  Fuse for accessories  CHECK operation of the following items:  Seat controls (sliding and reclining)  Door locks  Seat belts and warning system  Air bag system using indicator light (if equipped) (Refer to Section T)  Ignition switch and steering lock  Starter interlock switch (clutch pedal)  All lights, including warning and indicator lights	ROAD TEST  CHECK the following items:  Brake operation  Clutch operation  Steering control  Operation of meters and gauges  Squeaks, rattles and unusual noise  Overall engine performance  Seat belt emergency locking retractors  Cruise control system (if equipped)  AFTER ROAD TEST
☐ Audible warning system ☐ Horn, wipers and washer	<b>REMOVE</b> seat and floor mat protective covers <b>CHECK</b> for necessary owner information materials, tools and

spare tire in vehicle

05U0AX-002

A-2

☐ Audio system (if equipped)

☐ Cigarette lighter

# SCHEDULED MAINTENANCE SERVICES

Follow Schedule 1 (Normal Driving Conditions) if the vehicle is mainly operated where none of the following conditions apply Follow Schedule 2 (Unique Driving Conditions) if any of the conditions below apply:

- Repeated short-distance driving.
- Driving in dusty conditions.
- Driving with extended use of brakes.
- Driving in areas where road salt or other corrosive materials are used
  - Driving on rough and/or muddy roads.
- Extended periods of idling and/or low-speed operation.
- Driving for prolonged periods in cold temperatures and/or extremely humid climates.

# SCHEDULE 1 (NORMAL DRIVING CONDITIONS)

# Chart symbols:

: Inspect, and if necessary correct, clean or replace

R: Replace or change

**T :** Tighten

# Remarks:

After 60 months or 60,000 miles (96,000 km), continue to follow the described maintenance at the recommended intervals.

As for \* marked items in this maintenance chart, note the following points:
\*1 Replacement of the timing belt is required every 60,000 miles (96,000 km). Failure to replace the timing belt may result in damage to the engine.

- This maintenance is recommended by Mazda. However, it is not necessary for emission warranty coverage or manufacturer recall liability.
  - This maintenance is required for all states except California. However, we recommend that it also be performed on California vehicles.

SCHEDULE 1 (NORMAL DRIVING CONDITIONS)

/		Number o	of month	s or mil	es (km).	of months or miles (km), whichever comes first	rer come	S first			
/	Months	7.5	15	22.5	30	37.5	45	52 5	90		
Maintenance	Miles		0		2	37.500	4	52.500	60.000	Service data and inspection point	Page
operation	Kilometers 12,000		_	-		60,000			96,000		
ENGINE			-								
Engine oil		œ	Œ	æ	Œ	œ	Œ	æ	Œ	Oil pan capacity: 3.2 liters (3.4 US qt, 2.8 Imp qt)	D-5
Engine oil filter		Œ	Œ	۳	Œ	œ	Œ	Œ	Œ	Oil filter capacity: 0.17 liters     (0.18 US qt, 0.15 lmp qt)	D-5
Drive belts					_				_	<ul> <li>Cracks or damage</li> <li>Tension</li> </ul>	B-5 G-19
Air cleaner element					2				Œ		F-75
Engine timing belt *1		1	Rek	place eve	ary 60,00	Replace every 60,000 miles (96,000 km)	96,000 Ki	(F			B-12
IGNITION SYSTEM											
										<ul> <li>Plug gap: 1.0—1.1mm (0.039—0.043 in)</li> <li>Recommended spark plugs:</li> </ul>	
Spark plugs				187	Œ				Œ	BKR5E-11 NGK BKR6E-11 BKR7E-11	G-3
				· · · · · · · · · · · · · · · · · · ·						Nippon K16PR-U11 Denso K22PR-U11	
FUEL SYSTEM		1	-								
Idle speed					*3					• Idle speed: 850 ± 50 rpm	F-72
Fuel filter									Œ		F-101
Fuel lines					*				_	<ul> <li>Fittings, connections and components for leaks</li> </ul>	F-96
COOLING SYSTEM											
Cooling system			<u> </u>							<ul><li>Hoses for cracks or wear</li><li>Coolant level</li></ul>	E-4
Engine coolant					Ж				В		E-4

SCHEDULE 2 (UNIQUE DRIVING CONDITIONS) (Cont'd)

Interval	2	Number	1 -	onths	or mi	les (k	m), w	hiche	of months or miles (km), whichever comes first	mes f	irst				
/	Months	ß	2	15	20	25	30	35	40	45	20	55	09	taion acitocacai bac ctab comes o	0500
Maintenance	Miles (x1,000)	Ŋ	10	15	20	25	30	35	40	45	20	55	09	service data and mispection point	r Sg
operation	Km (x1,000)	æ	16	24	32	40	48	99	. 64	72	80	88	96		
CHASSIS AND BODY															
Brake lines, hoses, and connections													_	<ul> <li>Proper attachment and connections</li> </ul>	P-6
Disc brakes				_								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_	<ul> <li>Disc plate thickness:</li> <li>16.0mm (0.63 in)—Minimum</li> <li>Pad thickness:</li> <li>1.0mm (0.04 in)—Minimum</li> </ul>	P-20, 24
Steering operation and linkages														<ul> <li>Free play: 0—30mm (0—1.18 in)</li> <li>Operation and looseness</li> <li>Fluid leakage or oozing</li> </ul>	80    Z
Front suspension ball joints							_							<ul> <li>Damage, looseness and grease leakage</li> </ul>	R-15, 17
Manual transmission oil							Œ						œ	<ul> <li>Oil capacity:         <ul> <li>2.0 liters</li> <li>(2.1 US qt, 1.8 lmp qt)</li> </ul> </li> </ul>	£D
Rear axle oil							œ						œ	<ul> <li>Oil capacity:         <ul> <li>0.65 liters</li> <li>(0.69 US qt, 0.57 lmp qt)</li> </ul> </li> </ul>	M-23
Bolts and nuts on chassis and body				-			<b>-</b>			<b>⊢</b>			<b>⊢</b>	<ul> <li>Retighten all loose bolts and nuts</li> </ul>	1
Exhaust system heat shield							_							<ul> <li>Insulator clearance between body and exhaust system</li> </ul>	F-115
AIR CONDITIONER SYSTEM															
Refrigerant					nspect	t refrig	jerant	amour	Inspect refrigerant amount annually	ially				<ul> <li>Refrigerant pressure:         <ul> <li>Low pressure: 147—294 kPa</li> <li>(1.5—30 kg/cm², 21—43 psi)</li> <li>High pressure: 1,177—1,619 kPa</li> <li>(12.0—16.5 kg/cm², 171—235 psi)</li> </ul> </li> </ul>	U-49
Compressor					Ins	spect (	Inspect operation annually	on an	nually						1

# SCHEDULE 2 (UNIQUE DRIVING CONDITIONS)

Chart symbols:

I : Inspect, and if necessary correct, clean or replace

R: Replace or change

T: Tighten

# Remarks:

After 60 months or 60,000 miles (96,000 km), continue to follow the described maintenance at the recommended intervals.

As for \* marked items in this maintenance chart note the following points:
\*1 Replacement of the timing belt is required every 60,000 miles (96,000 km). Failure to replace the timing belt may result in damage to the engine.

\*2 This maintenance is recommended by Mazda. However, it is not necessary for emission warranty coverage or manufacturer recall liability.
\*3 This maintenance is required for all states except California. However, we recommend that it also be performed on California vehicles.

SCHEDULE 2 (UNIQUE DRIVING CONDITIONS)

		No market	١	4	months or miles (km) whichever comes first	1) 30	(W	hiche	Vor C	Semic	first				
Interval	- 1	4		4	5 6	35	کی	ي ت	8	45	20	55	09	:	(
/	Miles (x1 000)	טע	2 9	<u>5</u> لَر	3 6	3 2	3 8	3 2	8	45	20	55	09	Service data and inspection point	Page
Maintenance	Km (x1 000)	2 00	16	24	32	9	8	26	64	22	8	88	96		
Special Control of the Control of th	(2226.22)														
Engine oil		<u>مح</u>	~	<u>~</u>	Œ	<u>«</u>	Œ	<u>م</u>	œ	α.	Œ	Œ	œ	<ul> <li>Oil pan capacity: 3.2 liters</li> <li>(3.4 US qt, 2.8 lmp qt)</li> </ul>	D-5
Engine oil filter		<u>«</u>	~	8	~	~	ش	Œ	Œ	<u>«</u>	Œ	۳	82	Oil filter capacity: 0.17 liters     (0.18 US qt, 0.15 lmp qt)	D-5
Drive belts							_						_	<ul><li>Cracks or damage</li><li>Tension</li></ul>	B-5 G-19
Air cleaner element				*3			æ			*3			œ		F-75
Fnoine timing helt *1				R R	Replace	every		60,000 miles	s (96, (	(96,000 km)	(F			1	B-12
SASTEM		ļ													
Spark plugs							Œ						œ	Plug gap: 1.0—1.1mm (0.039—0.043 in) Recommended spark plugs: BKR5E-11 BKR6E-11 BKR6E-11 BKR7E-11 K16PR-U11 Chippon K20PR-U11 Denso K22PR-U11	Ö-3
FUEL SYSTEM							ľ								L
Idle speed							-*3						-	• Idle speed: 850 = 50 rpm	7/-1
Fuel filter													r	1	F-101
Fuel lines							1*2						-	Fittings, connections and components for leaks	F-96
COOLING SYSTEM															
Cooling system				L			_						-	Hoses for cracks or wear     Coolant level	E-4
Engine coolant							æ						۳		E-4

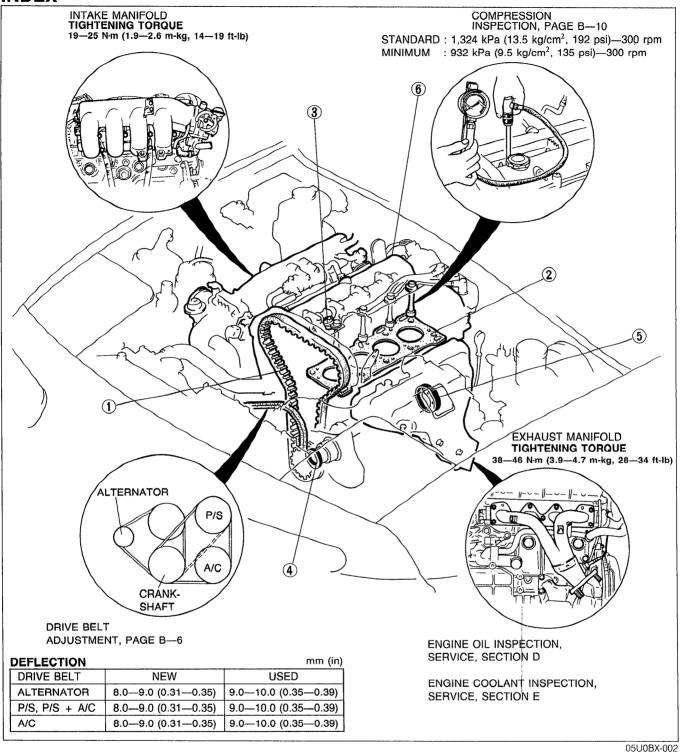
SCHEDULE 1 (NORMAL DRIVING CONDITIONS) (Cont'd)

Maintenance					(	.)::	n months of miles (kin), winchever comes mist	12 II 21			
901	Months	7.5	15	22.5	30	37.5	45	52.5	09		C
/	Miles	7,500	15,000	22,500	ဗ္ဂ	37,500	45	52,500	000,09	Service data and inspection point	Page
/	Kilometers	12,000	24,000	24,000 36,000	48,000	48,000 60,000 72,000 84,000	72,000	84,000	96,000		
CHASSIS AND BODY											
Brake lines, hoses, and connections					_				_	Proper attachment and connections	9-d
Disc brakes									_	<ul> <li>Disc plate thickness:</li> <li>16.0mm (0.63 in)—Minimum</li> <li>Pad thickness:</li> <li>1.0mm (0.04 in)—Minimum</li> </ul>	P-20, 24
Steering operation and linkages					_				_	<ul> <li>Free play: 0—30mm (0—1.18 in)</li> <li>Operation and looseness</li> <li>Fluid leakage or oozing</li> </ul>	8-N
Front suspension ball joints										Damage, looseness and grease leakage	R-15, 17
Manual transmission oil									æ	• Oil capacity: 2.0 liters (2.1 US qt, 1.8 lmp qt)	L-3
Rear axle oil									æ	Oil capacity:     0.65 liters     (0.69 US qt, 0.57 Imp qt)	M-23
Bolts and nuts on chassis and body					<b>-</b>				-	Retighten all loose bolts and nuts	
Exhaust system heat shield					_					<ul> <li>Insulator clearance between body and exhaust system</li> </ul>	F-115
AIR CONDITIONER SYSTEM											
						:				<ul> <li>Refrigerant pressure: Low pressure: 147—294 kPa</li> </ul>	•
Refrigerant				Inspect re	efrigerant	Inspect refrigerant amount annually	annually			(1.5—3.0 kg/cm², 21—43 psi) High pressure: 1,177—1,619 kPa (12.0—165 kg/cm², 171—235 psi)	U-49
Compressor				lnspe	ect opera	Inspect operation annually	ıally				J

# **ENGINE**

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	Disassembly	page	B-36
	Inspection / Repair		
	Assembly		
	Engine stand dismounting		
	Installation	page	B-84

# **OUTLINE**

# **SPECIFICATIONS**

Item				Engine	B6 DOHC
Туре					· Gasoline, 4-cycle
Cylinder arrange	ment and n	umber			In-line, 4-cylinders
Combustion cha	mber				Pentroof
Valve system					DOHC, belt-driven
Displacement				cc (cu in)	1,597 (97.42)
Bore and stroke		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		mm (in)	78.0 x 83.6 (3.07 x 3.29)
Compression rat	io				9.4
Compression pre	essure	kl	a (kg/cm	<sup>2</sup> , psi)-rpm	1,324 (13.5, 192)-300
	INI		Open	BTDC	5°
Nation Alemania			Close	ABDC	51°
Valve timing			Open	BBDC	53°
	EX		Close	ATDC	15°
\/_! =		(in)	IN		0: Maintenance-free
Valve clearance		mm (in)	EX		0: Maintenance-free
Idle speed				rpm	850 ± 50 (Neutral)*
Ignition timing				BTDC	10° ± 1°*
Firing order					1—3—4—2

<sup>\*</sup> With System Selector (49 B019 9A0) test switch at SELF TEST.

05U0BX-003

# TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy	Page
Difficult starting	Malfunction of engine-related components Burned valve Worn piston, piston ring, or cylinder Failed cylinder head gasket	Replace Replace or repair Replace	B-49 B-54, 56 B-16
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
Poor idling	Malfunction of engine-related components Malfunction of HLA* Poor valve-to-valve seat contact Failed cylinder head gasket	Replace Replace or repair Replace	B-20 B-51 B-16
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
Excessive oil consumption	Oil working up Worn piston ring groove or sticking piston ring Worn piston or cylinder	Replace Replace or repair	B-56 B-54, 56
	Oil working down Worn valve seal Worn valve stem or guide	Replace Replace	B-40, 71 B-49
	Oil leakage	Refer to Section D	

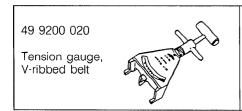
Problem	Possible Cause	Remedy	Page
Insufficient power	Insufficient compression  Malfunction of HLA*  Compression leakage from valve seat Seized valve stem  Weak or broken valve spring Failed cylinder head gasket Cracked or distorted cylinder head Sticking, damaged, or worn piston ring Cracked or worn piston	Replace Repair Replace Replace Replace Replace Replace Replace Replace Replace	B-20 B-51 B-49 B-52 B-16 B-48 B-56 B-56
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
	Others Slipping clutch Dragging brakes Wrong size tires	Refer to Section H Refer to Section P Refer to Section Q	
Abnormal combustion	Malfunction of engine-related components Malfunction of HLA* Sticking or burned valve Weak or broken valve spring Carbon accumulation in combustion chamber	Replace Replace Replace Eliminate carbon	B-20 B-49 B-52
	Malfunction of fuel system	Refer to Section F	
	Malfunction of ignition system	Refer to Section G	
Engine noise	Crankshaft- or bearing-related parts Excessive main bearing oil clearance Main bearing seized or heat-damaged Excessive crankshaft end play Excessive connecting rod bearing oil clearance Connecting rod bearing seized or heat-damaged	Replace or repair Replace Replace or repair Replace or repair Replace	B-63 B-58 B-64 B-65 B-58
	Piston-related parts Worn cylinder Worn piston or piston pin Seized piston Damaged piston ring Bent connecting rod	Replace or repair Replace Replace Replace Replace	B-54 B-57 B-56 B-56 B-57
	Valves or timing-related parts Malfunction of HLA* Broken valve spring Excessive valve guide clearance	Replace Replace Replace	B-20 B-52 B-49
	Malfunction of cooling system	Refer to Section E	
	Malfunction of fuel system	Refer to Section F	
	Others  Malfunction of water pump bearing Improper drive belt tension Malfunction of alternator bearing Exhaust gas leakage Malfunction of timing belt tensioner	Refer to Section E Adjust Refer to Section G Refer to Section F Replace	B- 6 B-12

05U0BX-004

<sup>\*</sup> Tappet noise may occur if the engine has set idle for an extended period. The noise should dissipate after the engine has reached normal operating temperature. (HLA troubleshooting: Refer to page B-7)

# **ENGINE TUNE-UP PROCEDURE**

# PREPARATION SST

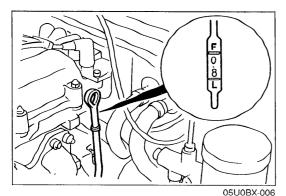


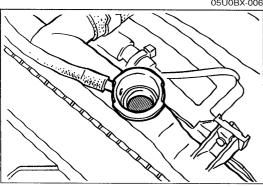
For inspection of drive belt tension

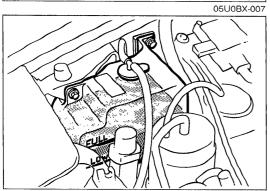
49 B019 9A0
System selector

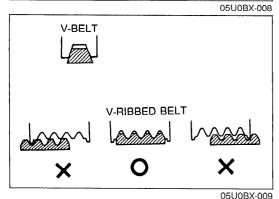
For inspection of ignition timing and idle speed

05U0BX-005









# **ENGINE OIL**Inspection

- 1. Be sure the vehicle is on level ground.
- 2. Warm up the engine to normal operating temperature and stop it.
- 3. Wait for five minutes.
- 4. Remove the oil level gauge and check the oil level and condition.
- 5. Add or replace oil if necessary.

#### Note

 The distance between the L and F marks on the level gauge represents 0.8 liter (0.85 US qt, 0.70 Imp qt).

# ENGINE COOLANT Inspection Coolant level (engine cold)

# Warning

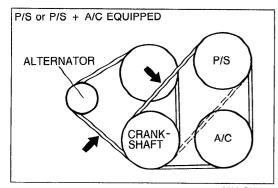
- Never remove the radiator cap while the engine is hot.
- Wrap a thick cloth around the cap when removing it.
- 1. Verify that the coolant level is near the radiator filler neck.
- 2. Verify that the coolant level in the coolant reservoir is between the FULL and LOW marks.
- 3. Add coolant if necessary.

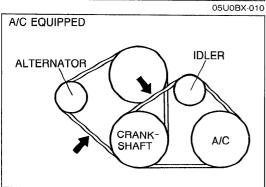
# Coolant quality

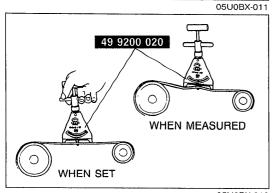
- 1. Verify that there is no buildup of rust or scale around the radiator cap or radiator filler neck.
- 2. Verify that the coolant is free of oil.
- 3. Replace the coolant if necessary.

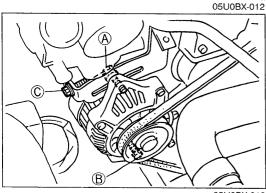
# DRIVE BELT Inspection

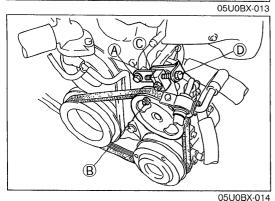
- 1. Remove the air intake pipe.
- 2. Check the drive belts for wear, cracks, and fraying. Replace if necessary.
- 3. Verify that the drive belts are correctly mounted on the pulleys.











Check the drive belt deflection by applying moderate pressure (98 N, 10 kg, 22 lb) midway between the pulleys, as shown. Adjust if necessary.

# **Deflection**

mm (in)

Drive belt	New	Used
Alternator	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
P/S, P/S + A/C	8.0—9.0 (0.31—0.35)	9.010.0 (0.350.39)
A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)

5. Check the drive belt tension with the **SST** (tension gauge).

# Note

• Belt tension can be measured between any pulleys.

#### Tension

N (kg, lb)

	<del></del>	
Drive belt	New	Used
Alternator	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)
P/S, P/S + A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)
A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)

6. Install the air intake pipe.

# Adjustment

#### Caution

- If a new belt is used, adjust the belt deflection at the midpoint of new belt specification.
- (1) Alternator belt
  If necessary, loosen the alternator bolts (A) and (B) and
  adjust the belt deflection by turning the adjusting bolt
  (C).

**Tightening torque** 

(A): 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb) (B): 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

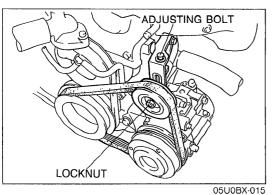
(2) P/S belt, P/S + A/C belt
If necessary, loosen the P/S oil pump bolt (A) and nuts
(B) and (C) and adjust the belt deflection by turning the adjusting bolt (D).

**Tightening torque** 

A: 31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)
B: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
C: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

# **ENGINE TUNE-UP PROCEDURE**





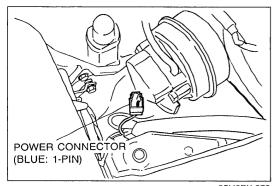
(3) A/C belt If necessary, loosen the locknut and adjust the belt deflection by turning the adjusting bolt.

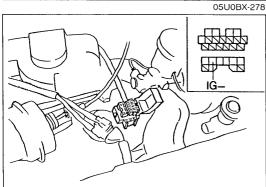
Tightening torque: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

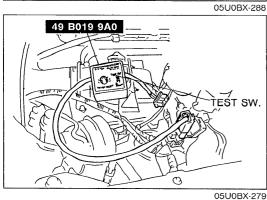
# HLA

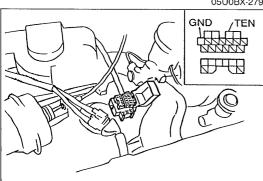
Problem	Possible Cause	Remedy
Tappet noise occurs when engine started immediately after engine oil replacement     Tappet noise occurs when engine started after setting more than one day     Tappet noise occurs when engine started after cranking by starter more than three seconds     Tappet noise occurs when engine started after HLA replaced	No oil in HLA	Tappet noise should dissipate from within a few seconds to ten minutes
5. Tappet noise continues more than ten	Low oil pressure	Check oil pressure (Refer to Section D)
minutes	Defective HLA	Inspect HLA (Refer to page B-54)
6. Tappet noise occurs at idle after high-	Low oil level	Add engine oil
speed driving	Degenerated oil	Replace engine oil

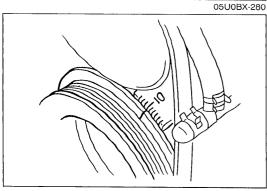
05U0BX-016











05U0BX-281

# IGNITION TIMING, IDLE SPEED Preparation

- 1. Check the engine condition (spark plugs, leaks in hoses, etc.).
- 2. Warm up the engine to normal operating temperature.
- 3. Make sure all accessories are OFF.

#### Note

 When using an externally powered timing light and/or tachometer, connect it to the power connector (Blue: 1-pin).

#### Caution

- Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.
- 4. Connect a timing light and a tachometer to the diagnosis connector terminal IG-.

# Caution

- Be extremely careful when making connections to the diagnosis connector because a mistaken connection will cause a malfunction.
- 5. Connect the **SST**.
- 6. Set the **SST** switch (A) to 1 position and test switch to SELF TEST position.

#### Noto

If the SST is not used, jump across the (TEN) terminal and the (GND) terminal of the diagnosis connector.

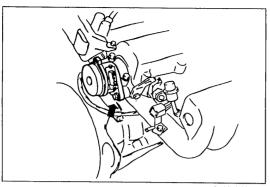
# Ignition Timing Inspection / Adjustment

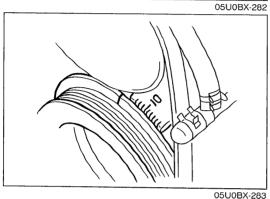
1. Check the idle speed and set it to specification if necessary.

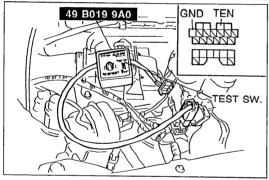
Idle speed:  $850 \pm 50 \text{ rpm (Neutral)}$ 

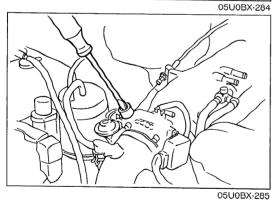
2. Verify that the timing mark (Yellow) on the crankshaft pulley is aligned with the timing belt lower cover mark.

Ignition timing: 10° ± 1° BTDC (at idle speed)









3. If the marks are not aligned, loosen the crank angle sensor lock bolt and adjust by turning the crank angle sensor.

4. Tighten the crank angle sensor lock bolt.

# Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

5. After adjusting the ignition timing, disconnect the **SST** or jumper wire from the diagnosis connector.

6. Increase the engine speed and verify that the ignition timing advances.

# Idle Speed Inspection / Adjustment

1. Connect the **SST** or jumper wire to the diagnosis connector. (Refer to page B-8.)

2. Verify that the idle speed is within specification.

# Idle speed: $850 \pm 50 \text{ rpm (Neutral)}$

3. If the idle speed is not within specification, remove the blind cap from the air adjusting screw and adjust it.

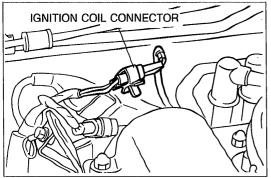
 After adjusting the idle speed, install the blind cap and disconnect the SST or jumper wire from the diagnosis connector.

## **COMPRESSION**

If the engine exhibits low power, poor fuel economy, or poor idle, check the following:

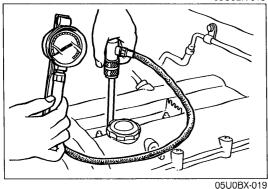
- 1. Ignition system (Refer to page G-17.)
- 2. Compression
- 3. Fuel system (Refer to page F-100.)

05U0BX-017



INSPECTION

- 1. Check that the battery is fully charged. Recharge it if necessary. (Refer to page G–8.)
- 2. Warm up the engine to the normal operating temperature.
- 3. Turn the engine OFF.
- 4. Remove all spark plugs.
- 5. Disconnect the ignition coil connector.



05U0BX-018

- 6. Connect a compression gauge to the No.1 spark plug hole.
- 7. Fully depress the accelerator pedal and crank the engine.
- 8. Record the maximum gauge reading.
- 9. Check each cylinder.

Compression:

1,324 kPa (13.5 kg/cm<sup>2</sup>, 192 psi) - 300 rpm Minimum:

932 kPa (9.5 kg/cm<sup>2</sup>, 135 psi) - 300 rpm Differential limit between cylinders: 196 kPa (2.0 kg/cm<sup>2</sup>, 28 psi)

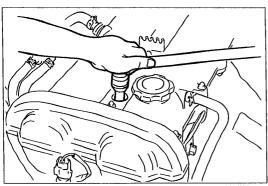
- 10. If the compression in one or more cylinders is low, pour a small amount of engine oil into the cylinder and recheck the compression.
  - (1) If the compression increases, the piston, piston rings, or cylinder wall may be worn.
  - (2) If the compression stays low, the valve may be stuck or seating improperly.
  - (3) If the compression in adjacent cylinders stays low, the cylinder head gasket may be defective or the cylinder head distorted.
- 11. Connect the ignition coil connector.

05U0BX-020

- 12. Apply antiseize compound or molybdenum-based lubricant to the spark plug threads.
- 13. Install the spark plugs.

Tightening torque:

15-23 N·m (1.5-2.3 m-kg, 11-17 ft-lb)



05U0BX-021

## **ON-VEHICLE MAINTENANCE**

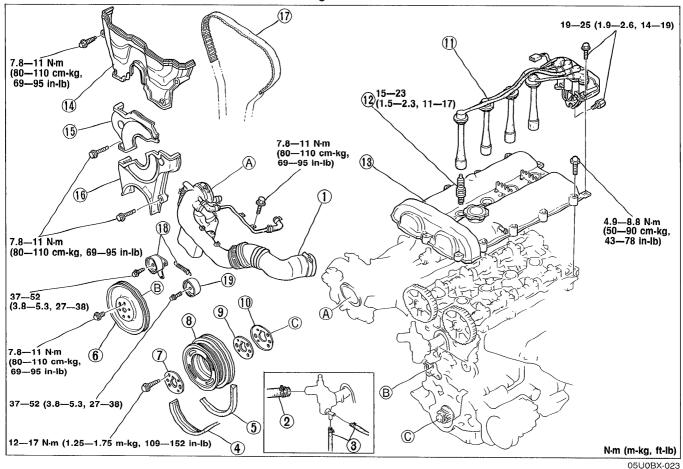
# PREPARATION SST

49 S120 710 Holder, coupling flange	For removal and installation of timing belt pulley	49 B011 102  Lock tool, crankshaft	For removal and installation of timing belt pulley
49 E301 060 Brake, ring gear	For prevention of engine rotation	49 E301 061  Body (Part of 49 E301 060)	For prevention of engine rotation
49 E301 062  Collar (Part of 49 E301 060)	For prevention of engine rotation	49 SE01 310 Centering tool, clutch disc	For installation of clutch disc

# TIMING BELT Removal / Installation

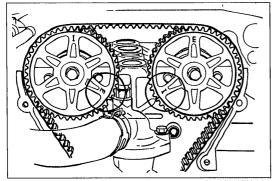
## Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.
- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove in the order shown in the figure, referring to **Removal Note**.
- 4. Install in the reverse order of removal, referring to Installation Note.



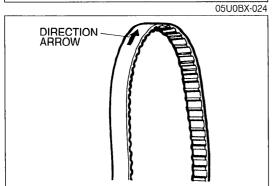
<ol> <li>Air intake pipe</li> <li>Upper radiator hose</li> <li>Water hoses (Connect to thermostat housing)</li> <li>P/S and/or A/C drive belt</li> </ol>
Removal / Installation page B- 6
5. Alternator drive belt
Removal / Installation page B- 6
6. Water pump pulley
7. Plate
8. Crankshaft pulley
9. Timing belt guide plate, outer
<ul><li>10. Timing belt guide plate, inner</li><li>Installation Note page B–15</li><li>11. Ignition coil and high-tension lead</li></ul>
12. Spark plug Installation Note page B-15

<ul><li>13. Cylinder head cover</li></ul>	page	B-15
17. Timing belt Removal Note Installation Note Inspection	page	B-13
Installation Note		
Inspection	page	B-59



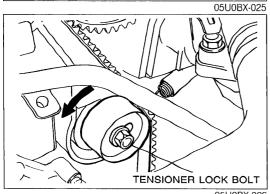
## Removal note Timing belt

1. Turn the crankshaft and align the marks.



## Note

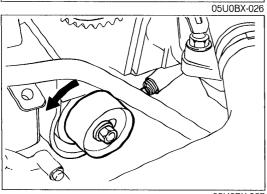
 Mark the timing belt rotation for proper reinstallation.



2. Loosen the tensioner lock bolt.

## Caution

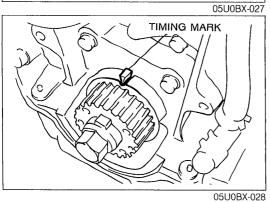
- To prevent damage to the tensioner, secure it with a rag.
- 3. Temporarily secure the tensioner with the spring fully extended.
- 4. Remove the timing belt.



## Installation note

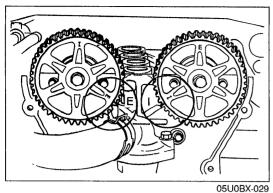
## Tensioner, tensioner spring

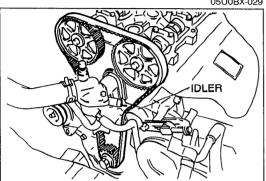
- 1. Install the tensioner and the tensioner spring.
- 2. Temporarily secure the tensioner with the spring fully extended.

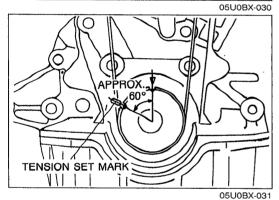


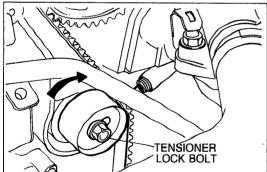
**Timing belt** 

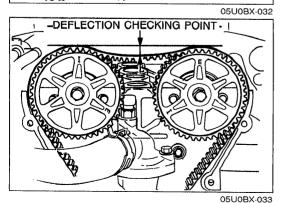
1. Verify that the timing belt pulley mark is aligned with the timing mark.











2. Verify that the camshaft pulley marks are aligned with the seal plate marks.

## Caution

- For intake side, align the E mark.
- For exhaust side, align the I mark.
- 3. Install the timing belt so that there is no looseness at the idler side or between the two camshaft pulleys.

## Caution

- Do not turn the crankshaft counterclockwise.
- 4. Turn the crankshaft two turns clockwise, and align the timing belt pulley mark with the timing mark.
- 5. Verify that the camshaft pulley marks are aligned with the seal plate marks.
  - If not aligned, remove the timing belt and repeat from tensioner installation.
- 6. Turn the crankshaft 1 and 5/6 turn clockwise, and align the timing belt pulley mark with the tension set mark.

- 7. Loosen the tensioner lock bolt to apply tension to the timing belt.
- 8. Tighten the tensioner lock bolt.

## Tightening torque:

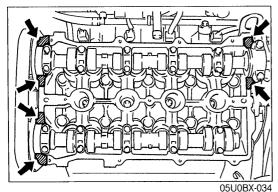
37-52 N·m (3.8-5.3 m-kg, 27-38 ft-lb)

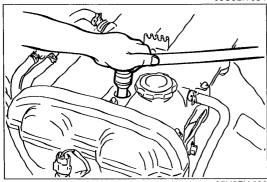
- 9. Turn the crankshaft 2 and 1/6 turns clockwise and verify that the timing marks are correctly aligned.
- 10. Measure the timing belt deflection by applying moderate pressure (98 N, 10 kg, 22 lb) midway between the two camshaft pulleys.

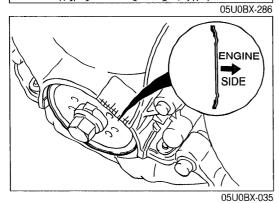
If the deflection is not correct, repeat from Step 7 above.

## Deflection:

9.0—11.5mm (0.35—0.45 in) at 98 N (10 kg, 22 lb)







## Cylinder head cover

- 1. Apply silicone sealant to the shaded areas as shown in the figure.
- 2. Install the cylinder head cover.

Tightening torque: 4.9—8.8 N·m (50—90 cm-kg, 43—78 in-lb)

## Spark plug

- 1. Apply antiseize compound or molybdenum-based lubricant to the spark plug threads.
- 2. Install the spark plugs.

Tightening torque: 15—23 N·m (1.5—2.3 m-kg, 11—17 ft-lb)

## Timing belt guide plate, inner

## Caution

- Make sure the timing belt inner guide plate is installed in the proper direction.
- 1. Install the timing belt inner guide plate.

## **Steps After Installation**

- 1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 2. Connect the negative battery cable.
- 3. Start the engine and check as follows:
  - (1) Engine coolant leakage.
  - (2) Ignition timing. (Refer to page B-8.)
- 4. Recheck the engine coolant levels.

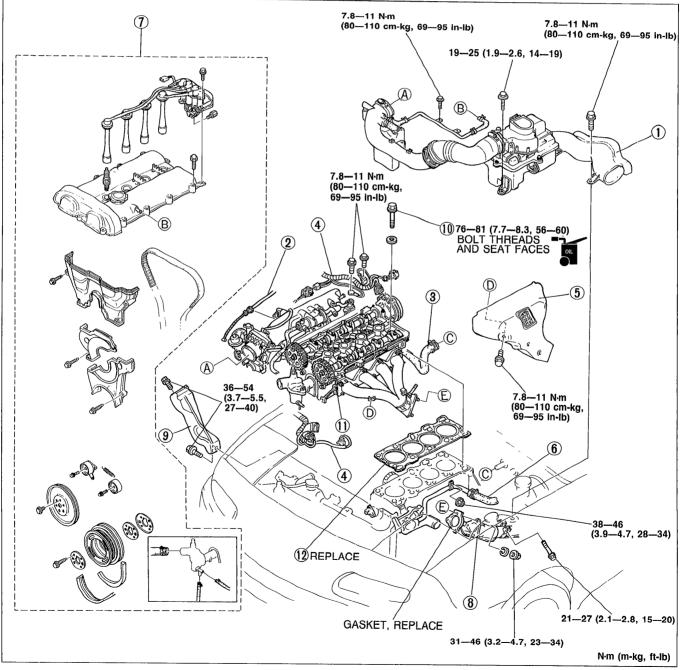
# CYLINDER HEAD GASKET Replacement

## Warning

- Release the fuel pressure. (Refer to page F-101.)
- Keep sparks and open flame away from the fuel area.

## Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.
- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove in the order shown in the figure, referring to Removal Note.
- 4. Install in the reverse order of removal, referring to Installation Note.

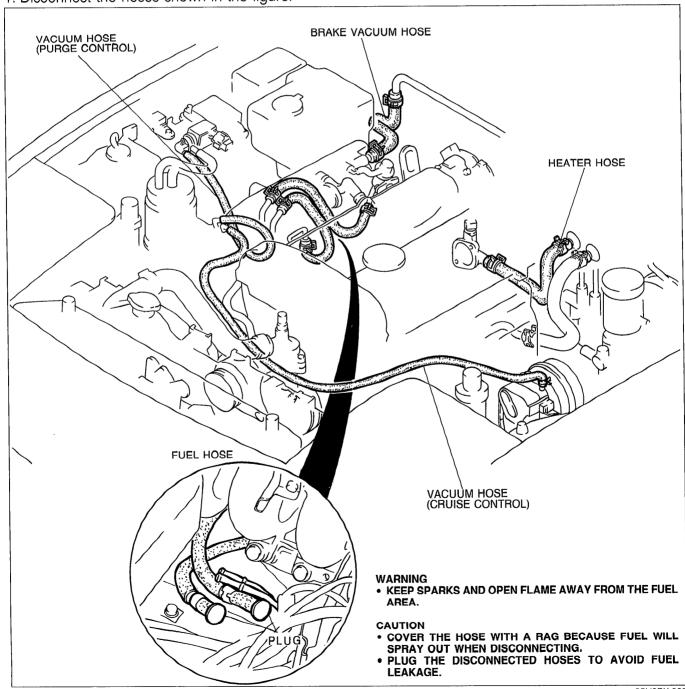


1. Air cleaner assembly	8. Front exhaust pipe
2. Accelerator cable	9. Manifold bracket
Installation Note page B-19	10. Cylinder head bolt
3. Hoses	Removal Note page B-18
Removal / Installation Note page B-17	Installation Note page B-19
4. Harnesses	11. Cylinder head
Removal / Installation Note page B-18	Disassembly page B-40
5. Exhaust manifold insulator	Inspection page B-48
6. Water bypass pipe	Assembly page B-70
Removal Notepage B-18	12. Cylinder head gasket
7. Timing belt	•
Removal / Installation page B-12	
, 5	05LI0BX-038

05U0BX-038

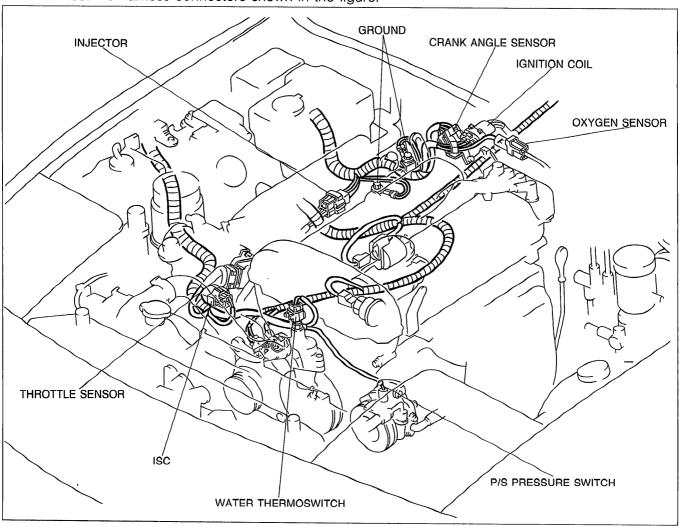
## Removal / Installation note Hoses

1. Disconnect the hoses shown in the figure.

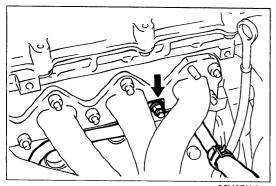


## **Harnesses**

1. Disconnect the harness connectors shown in the figure.



05U0BX-040



Removal note Water bypass pipe

sembly.

# 

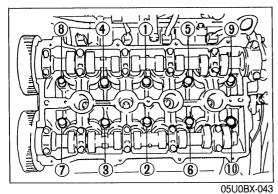
Cylinder head bolt

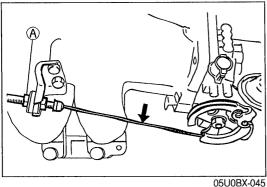
1. Loosen the cylinder head bolts in two or three steps in the order shown in the figure.

Remove the exhaust manifold nut as shown in the figure.
 Remove the water bypass pipe from the cylinder head as-

2. Remove the cylinder head bolts.







Installation note Cylinder head bolt

- 1. Apply clean engine oil to the bolt threads and seat faces.
- 2. Install the cylinder head bolts.
- 3. Tighten the cylinder head bolts in two or three steps in the order shown in the figure.

Tightening torque: 76—81 N·m (7.7—8.3 m-kg, 56—60 ft-lb)

## **Accelerator cable**

- 1. Install the accelerator cable.
- 2. Check the accelerator cable deflection.

  If the deflection is not correct, adjust by turning nut A.

Deflection: 1-3mm (0.04-0.12 in)

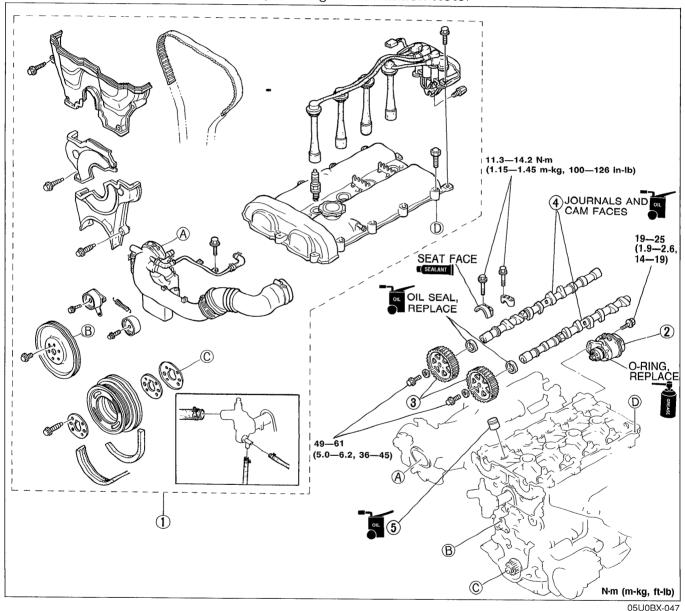
## **Steps After Installation**

- 1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 2. Connect the negative battery cable.
- 3. Start the engine and check as follows:
- (1) Engine oil and engine coolant leakage.
  - (2) Ignition timing, idle speed. (Refer to page B-8.)
  - (3) Operation of emission control system.
- 4. Recheck the engine coolant levels.

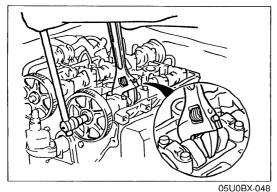
## HLA Removal / Installation

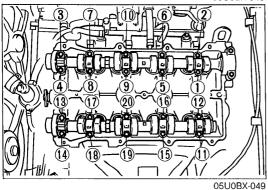
## Caution

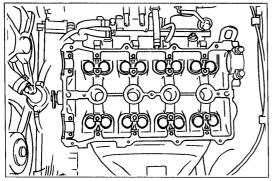
- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.
- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove in the order shown in the figure, referring to Removal Note.
- 4. Install in the reverse order of removal, referring to Installation Note.

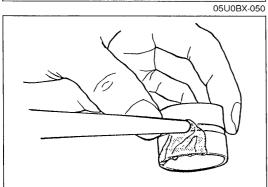


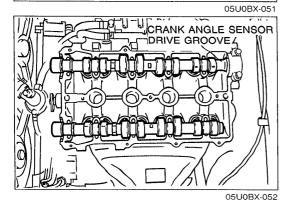
1. Timing belt
Removal / Installation page B-12
2. Crank angle sensor
Installation Note page B-23
3. Camshaft pulley
Removal Note page B-21
Installation Note page B-22











# Removal note Camshaft pulley

- 1. Hold the camshaft with a wrench.
- 2. Remove the camshaft pulley lock bolt.
- 3. Remove the camshaft pulley.

## Camshaft

- 1. Loosen the camshaft cap bolts in two or three steps in the order shown in the figure.
- 2. Remove the camshaft caps.
- 3. Remove the camshaft.
- 4. Remove the camshaft oil seal from the camshaft.

## HLA

## Caution

- Mark the HLA with a felt pen so that they can be reinstalled in the position from which they were removed.
- 1. Remove the HLA from the cylinder head.

## Installation note

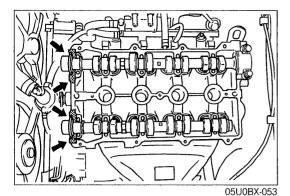
## HLA

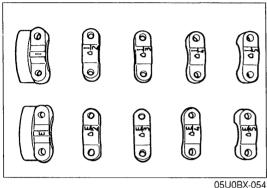
- 1. Apply clean engine oil to the friction surfaces.
- 2. If the HLA are being reused, install them in the position from which they were removed.
- 3. Verify that the HLA move smoothly in their bores.

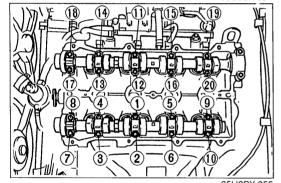
## Camshaft

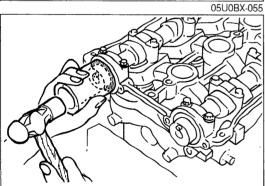
## Note

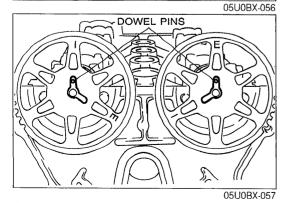
- The intake camshaft is grooved for the crank angle sensor drive.
- 1. Apply clean engine oil to the camshaft journals and bearings.
- 2. Install the camshaft in position.











Caution

- Do not allow any sealant on the camshaft journal surfaces.
- 3. Apply silicone sealant to the shaded areas shown in the figure.
- 4. Install the camshaft caps according to the cap number and arrow mark.

5. Install the camshaft cap bolts and tighten them in two or three steps in the order shown in the figure.

Tightening torque: 11.3—14.2 N·m (1.15—1.45 m-kg, 100—126 in-lb)

- Apply a small amount of clean engine oil to the lip of a new camshaft oil seal.
- 7. Push the oil seal slightly in by hand.

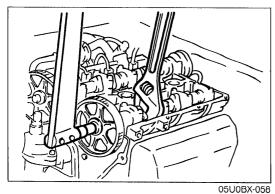
Caution

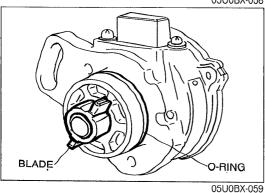
- The oil seal must be tapped in until it is flush with the edge of the camshaft cap.
- 8. Tap the oil seal in evenly with a suitable pipe and a hammer.

Oil seal outer diameter: 48mm (1.89 in)

Camshaft pulley

- 1. Turn the camshafts until the camshaft dowel pins face straight up.
- 2. Install the camshaft pulleys with the I mark (intake side) or the E mark (exhaust side) straight up.





- 3. Install the camshaft pulley lock bolts.
- 4. Hold the camshaft with a wrench.
- 5. Tighten the camshaft pulley lock bolt.

Tightening torque: 49—61 N·m (5.0—6.2 m-kg, 36—45 ft-lb)

## Crank angle sensor

- 1. Apply grease to a new O-ring and the blade.
- 2. Install the crank angle sensor and loosely tighten the installation bolt.
- 3. Connect the crank angle sensor connector.

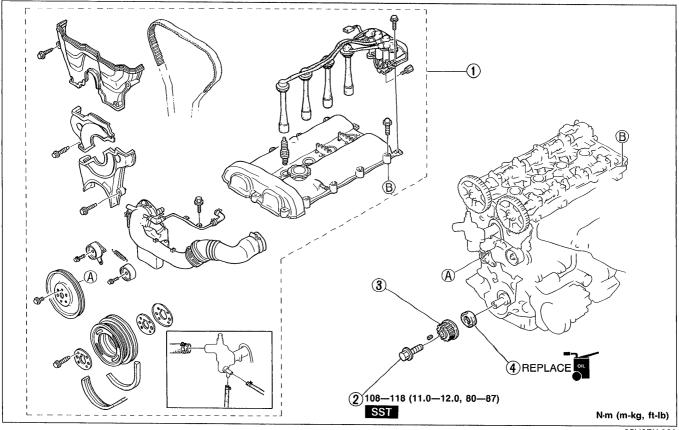
**Steps After Installation** 

- 1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 2. Connect the negative battery cable.
- 3. Start the engine and check as follows:
  - (1) Engine coolant leakage.
  - (2) Ignition timing. (Refer to page B-8.)
- 4. Recheck the engine coolant levels.

# FRONT OIL SEAL Replacement

## Caution

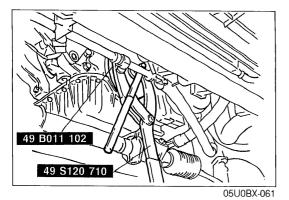
- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.
- 1. Disconnect the negative battery cable.
- 2. Remove the under cover.
- 3. Remove in the order shown in the figure, referring to Removal Note.
- 4. Install in the reverse order of removal, referring to **Installation Note**.



05U0BX-060

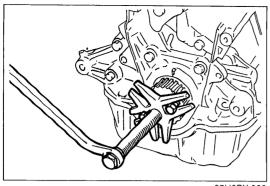
1. Timing belt		
Removal / Installation	page	B-12
2. Pulley lock bolt		
Removal Note	page	B-24
Installation Note	page	B-25

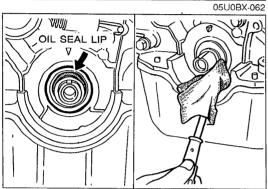
3. Timing belt pulley		
Removal Note	page	B-25
Installation Note	page	B-25
4. Oil seal	, 5	
Removal Note	page	B-25
Installation Note	page	B-25

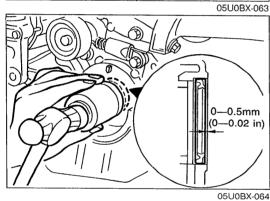


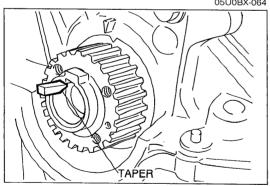
# Removal note Pulley lock bolt

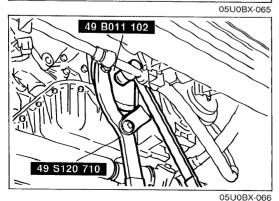
- 1. Hold the timing belt pulley with the SST.
- 2. Connect the SST and loosen the pulley lock bolt.
- 3. Remove the pulley lock bolt.











## Timing belt pulley

## Note

- If necessary, remove the pulley with a steering wheel puller (commercially available).
- 1. Remove the timing belt pulley.
- 2. Remove the pulley Woodruff key.

## Oil seal

- 1. Cut the oil seal lip with a razor knife.
- 2. Remove the oil seal with a screwdriver protected with a rag.

# Installation note Oil seal

- 1. Apply a small amount of clean engine oil to the lip of a new oil seal.
- 2. Push the oil seal slightly in by hand.

## Caution

- The oil seal must be tapped in until it is flush with the edge of the oil pump body.
- 3. Tap the oil seal in evenly with a suitable pipe and a hammer.

## Oil seal outer diameter: 44mm (1.73 in)

## Timing belt pulley

- 1. Install the timing belt pulley.
- 2. Install the pulley Woodruff key with the tapered side toward the oil pump body.

## Pulley lock bolt

- 1. Install the pulley lock bolt.
- 2. Tighten the pulley lock bolt using the two SST.

## Tightening torque:

108—118 N·m (11.0—12.0 m-kg, 80—87 ft-lb)

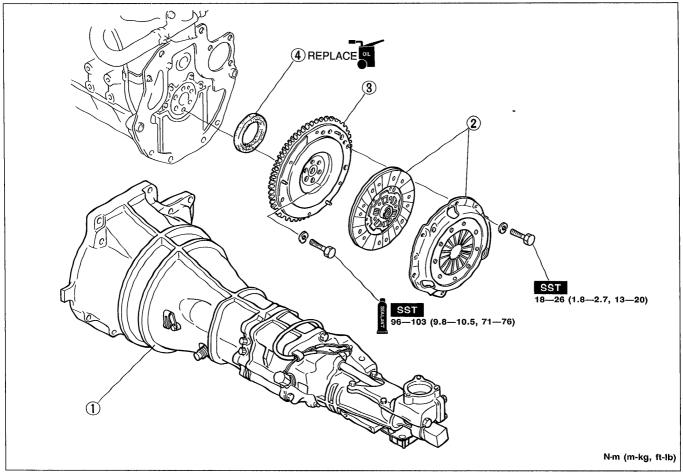
## Steps After Installation

- 1. Install the under cover.
- 2. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 3. Connect the negative battery cable.
- 4. Start the engine and check as follows:
  - (1) Engine coolant leakage.
  - (2) Ignition timing. (Refer to page B-8.)
- 5. Recheck the engine coolant levels.

## **REAR OIL SEAL** Replacement

## Caution

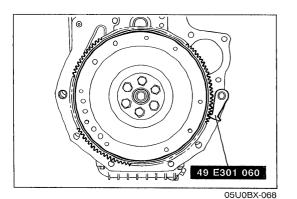
- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure, referring to Removal Note.
- 3. Install in the reverse order of removal, referring to **Installation Note**.



05U0BX-067

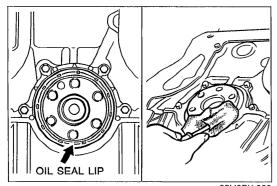
1. Transmission	
Service	page J-10, 45
2. Clutch cover, clutch disc	
Service	page H-14

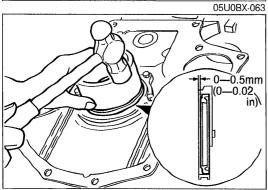
3. Flywheel		
Removal Note	page	B-26
Installation Note		
4. Oil seal		
Removal Note	page	B-27
Installation Note	page	B-27

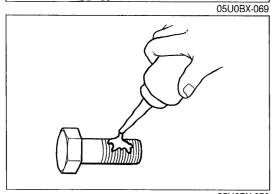


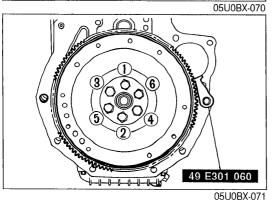
## Removal note **Flywheel**

- 1. Hold the flywheel with the **SST**.
- 2. Remove the flywheel lock bolts.
- 3. Remove the flywheel.









## Oil seal

- 1. Cut the oil seal lip with a razor knife.
- 2. Remove the oil seal with a screwdriver protected with a rag.

## Installation note

## Oil seal

- Apply a small amount of clean engine oil to the lip of a new oil seal.
- 2. Push the oil seal slightly in by hand.

## Caution

- The oil seal must be tapped in until it is flush with the edge of the rear cover.
- 3. Tap the oil seal in evenly with a suitable pipe and a hammer.

## Oil seal outer diameter: 100mm (3.94 in)

## Flywheel

1. Remove the sealant from the flywheel bolt holes in the crankshaft and from the flywheel bolts.

## Caution

- If all the previous sealant cannot be removed from a bolt, replace the bolt.
- Do not apply sealant if a new bolt is used.
- 2. Set the flywheel onto the crankshaft.
- 3. Apply sealant to the flywheel bolts and install them.
- 4. Hold the flywheel with the SST.
- 5. Tighten the bolts in two or three steps in the order shown in the figure.

## Tightening torque:

96—103 Nm (9.8—10.5 m-kg, 71—76 ft-lb)

## **Steps After Installation**

- 1. Connect the negative battery cable.
- 2. Start the engine and perform engine adjustments as necessary.

## **REMOVAL**

## Warning

• Release the fuel pressure. (Refer to page F-101.)

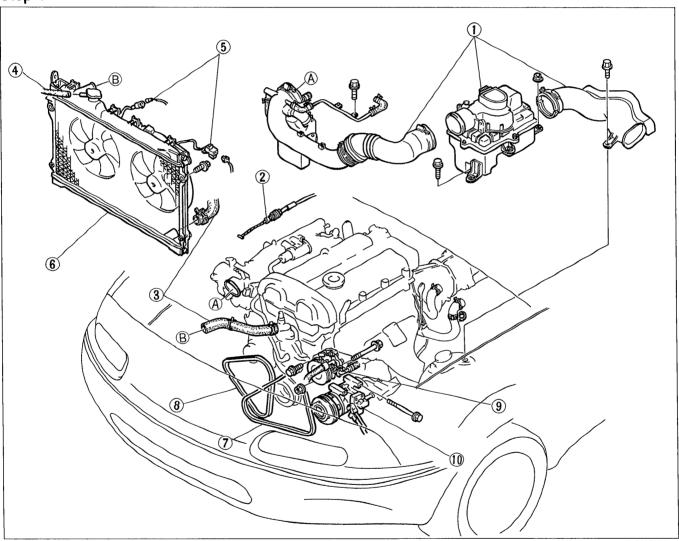
## Caution

• Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

## **PROCEDURE**

- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove the under cover.
- 4. Remove in the order shown in the figure, referring to **Removal Note**.

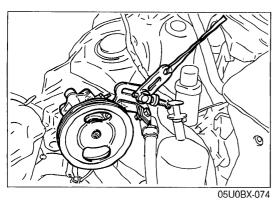
## Step 1

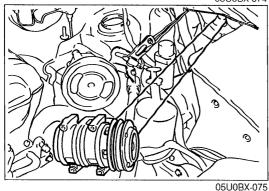


1. Air cleaner assembly	
2. Accelerator cable	
3. Radiator hose	
4. Coolant reservoir hose	
5. Cooling fan connector	
6. Radiator and cooling fan assembly	/
7. P/S and/or A/C drive belt	•
Removal	. page B- 6

8. Alternator drive belt			
Removal	page	В	6
9. P/S oil pump			
Removal Note	page	B	29
10. A/C compressor			
Removal Note	page	B-	29







# Removal note P/S oil pump

## Caution

- Do not damage the hoses.
- 1. Remove the P/S oil pump with the hoses still connected.
- 2. Position the pump away from the engine and affix it with wire.

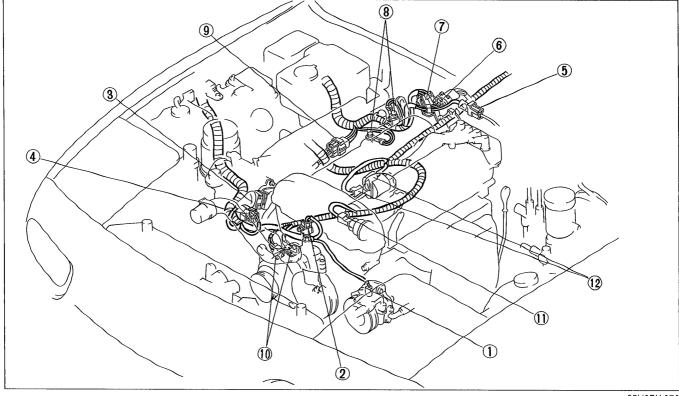
## A/C compressor

## Caution

- Do not damage the hoses.
- 1. Remove the A/C compressor with the hoses still connected.
- 2. Position the compressor away from the engine and affix it with wire.

Step 2

1. Disconnect the harness connectors shown in the figure.

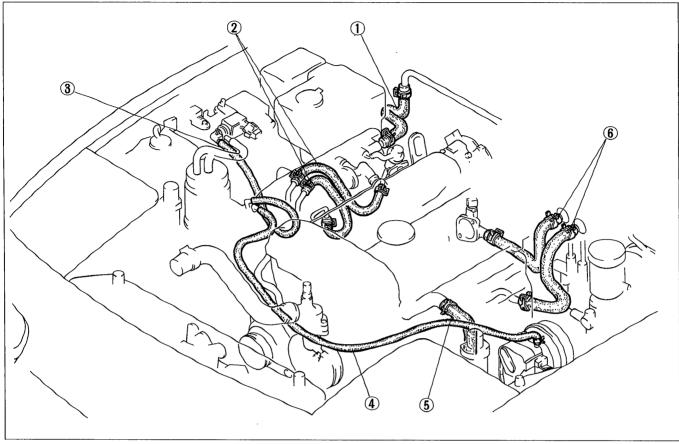


- 1. P/S pressure switch
- 2. Water thermoswitch
- 3. Throttle sensor
- 4. ISC
- 5. Oxygen sensor
- 6. Ignition coil

- 7. Crank angle sensor
- 8. Ground
- 9. Injector
- 10. Alternator
- 11. Oil pressure gauge
- 12. Starter

## Step 3

1. Disconnect the hoses shown in the figure.



05U0BX-077

- 1. Brake vacuum hose
- 2. Fuel hose

Removal Note..... page B-30

3. Vacuum hose (Purge control)

05U0BX-078

4. Vacuum hose (Cruise control)

- 5. Water inlet hose
- 6. Heater hose

## Removal note Fuel hose

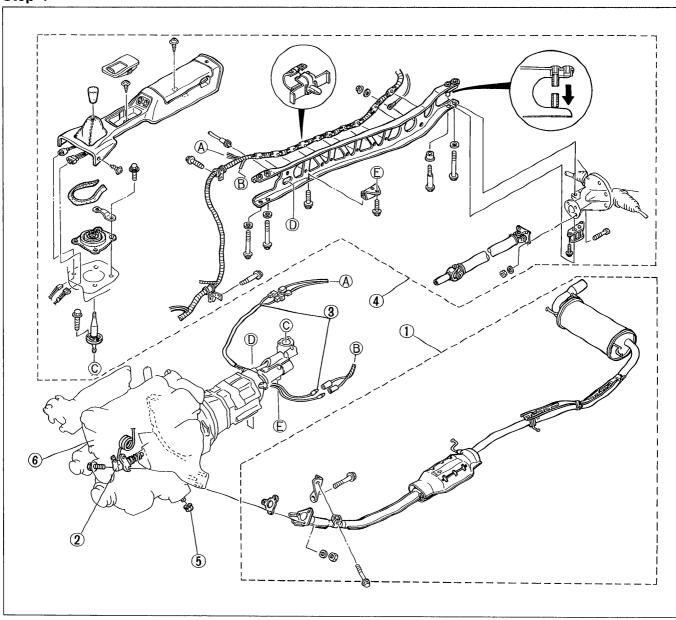
Warning

• Keep sparks and open flame away from the fuel

Caution

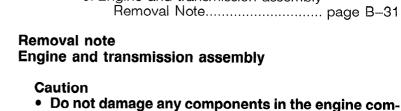
- Cover the hose with a rag because fuel will spray out when disconnecting.
- Plug the disconnected hoses to avoid fuel leakage.
- 1. Disconnect the fuel hoses.

## Step 4

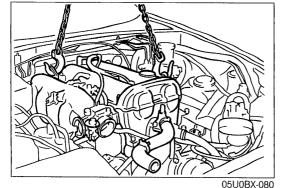


05U0BX-079

- 1. Exhaust pipe
  Service...... page F–115
- 2. Clutch release cylinder
- 3. Transmission harness



5. Engine mount nut



partment.

4. Shift knob, speedometer cable, propeller

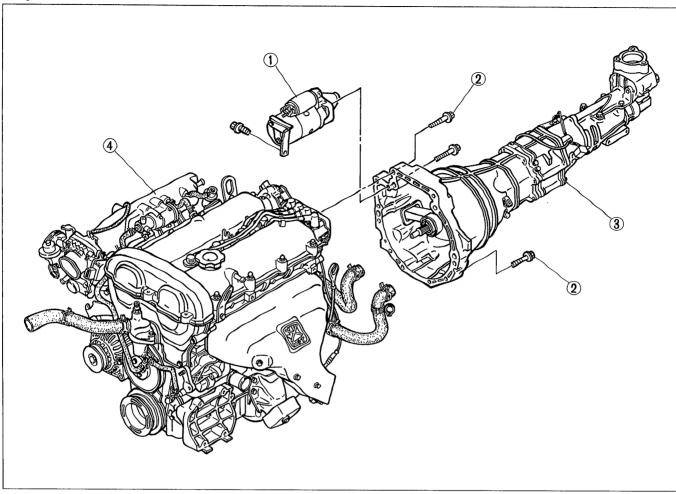
Service ...... page J-10

shaft, and power plant frame

6. Engine and transmission assembly

1. Lift the engine and transmission assembly out as a unit.

Step 5



- Starter
   Transmission mounting bolt

- 3. Transmission4. Engine assembly

# **ENGINE STAND MOUNTING**

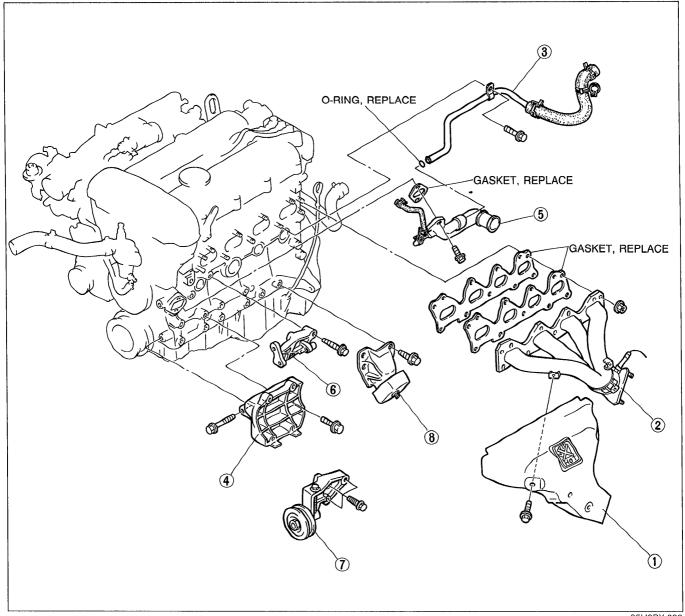
# PREPARATION SST

49 0107 680A Engine stand	For disassembly and assembly of engine	49 L010 1A0 Hanger set, engine stand	For disassembly and assembly of engine
49 L010 101  Plate (Part of 49 L010 1A0)	For disassembly and assembly of engine	49 L010 102 Arms (Part of 49 L010 1A0)	For disassembly and assembly of engine
49 L010 103  Hooks (Part of 49 L010 1A0)	For disassembly and assembly of engine	49 L010 104  Nuts (Part of 49 L010 1A0)	For disassembly and assembly of engine
49 L010 105  Bolts (Part of 49 L010 1A0)	For disassembly and assembly of engine	49 L010 106  Bolts (Part of 49 L010 1A0)	For disassembly and assembly of engine

## **PROCEDURE**

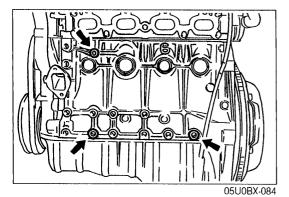
Step 1

1. Remove in the order shown in the figure.



05U0BX-083

- 1. Exhaust manifold insulator
- 2. Exhaust manifold
- 3. Water bypass pipe
- 4. A/C compressor bracket



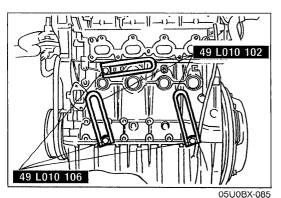
5. Water inlet pipe

- 6. P/S oil pump bracket
- 7. Idler (A/C)
- 8. Left engine mount

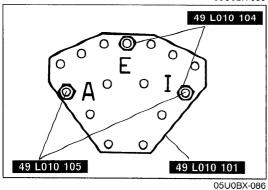
## Step 2

## Caution

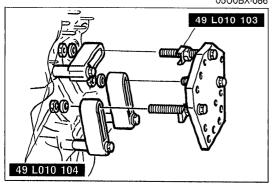
When installing the SST (engine hanger), use the holes shown in the figure.



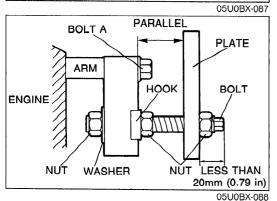
1. Install the **SST (arms)** to the holes as shown in the figure, and loosely tighten the **SST (bolts)**.



2. Assemble the **SST (bolts and plate)** in the specified position.



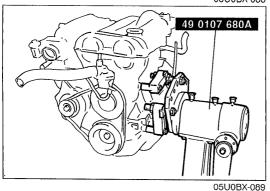
- 3. Assemble the SST (nuts, hooks, and bolts).
- 4. Install the **SST** to the respective arms.



- Note
- Adjust the SST (bolts) so that less than 20mm (0.79 in) of thread is exposed.

Make the SST (plate and arms) parallel by adjusting the SST (bolts and nuts).

5. Tighten the SST (bolts and nuts) to affix the SST firmly.



6. Mount the engine on the SST (engine stand).

## **DISASSEMBLY**

# PREPARATION SST

49 E301 060 Brake, ring gear	For prevention of engine rotation	49 E301 061  Body (Part of 49 E301 060)	For prevention of engine rotation
49 E301 062  Collar (Part of 49 E301 060)	For prevention of engine rotation	49 0636 100A Arm, valve spring lifter	For removal and installation of valves
49 B012 006 Pivot, valve spring lifter	For removal and installation of valves	49 S120 170  Remover, valve seal	For removal of valve seals
49 0221 061A  Remover & installer, piston pin	For removal and installation of piston pins		05U0BX-090

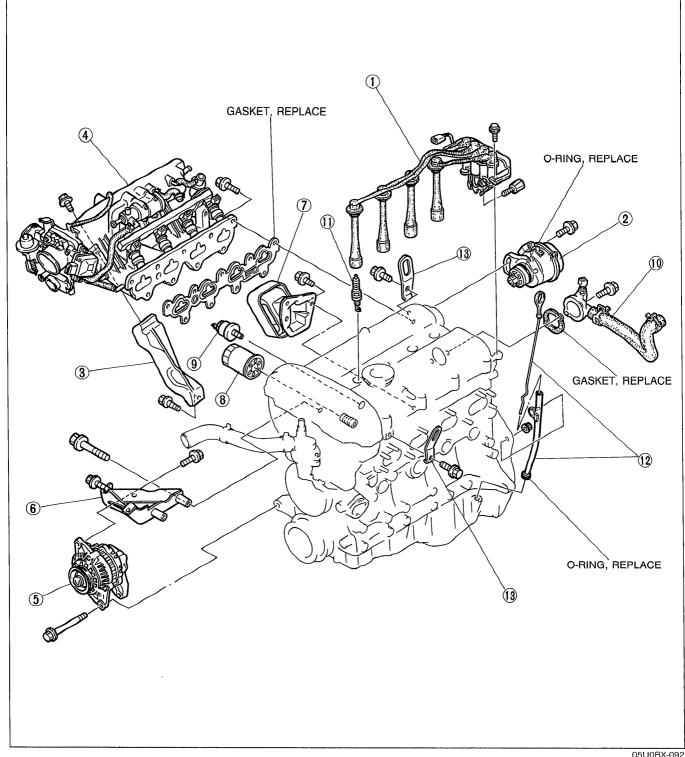
- 1. Code all identical parts (such as piston, piston rings, connecting rods, and valve springs) so that they can be reinstalled in the cylinder from which they were removed.
- 2. Clean the parts with a steam cleaner. Blow off any remaining water with compressed air.

## Note

• During disassembly of any part or system, be sure to study its order of assembly. Also, note any deformation, wear, or damage.

## **AUXILIARY PARTS**

- 1. Drain the engine oil.
- 2. Disassemble in the order shown in the figure.



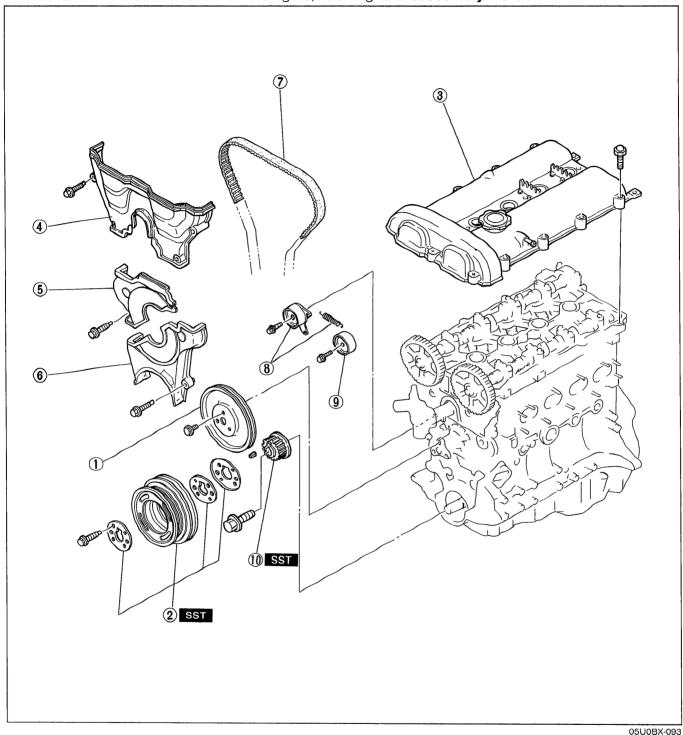
- 1. Ignition coil and high-tension lead
- 2. Crank angle sensor
- 3. Manifold bracket
- 4. Intake manifold assembly
- 5. Alternator
- 6. Alternator bracket
- 7. Right engine mount

- 8. Oil filter
- 9. Oil pressure gauge sender unit10. Water outlet pipe

- 11. Spark plug
  12. Oil level gauge and pipe
- 13. Engine hanger

## **TIMING BELT**

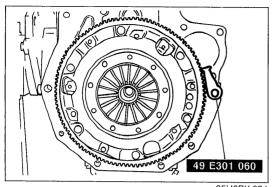
1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.

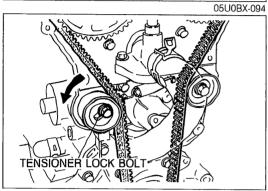


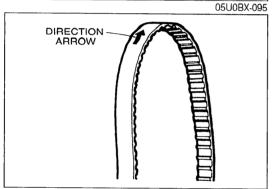
1. Water pump pulley		
2. Crankshaft pulley		
Disassembly Note	page	B-39
3. Cylinder head cover		
4. Timing belt cover, upper		
5. Timing belt cover, middle		
6. Timing belt cover, lower		
7. Timing belt		
Disassembly Note	page	B-39
Inspection		

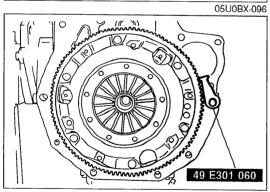
O Tanalandu kanalanan austan	000	02/1000
8. Tensioner, tensioner spring Inspection	page	B-59
9. Idler		
Inspection	page	B-59
10. Timing belt pulley		
Disassembly Note	page	B-39
Inspection	page	B-59
·	. •	

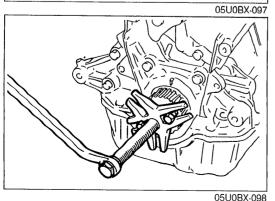












Disassembly Note Crankshaft pulley

- 1. Hold the flywheel with the **SST**.
- 2. Loosen the crankshaft pulley lock bolts.
- 3. Remove the plate, crankshaft pulley, timing belt outer guide plate, and timing belt inner guide plate.

**Timing belt** 

1. Loosen the tensioner lock bolt.

Caution

- To prevent damage to the tensioner, secure it with a rag.
- 2. Temporarily secure the tensioner with the spring fully extended.

Note

- Mark the timing belt rotation for proper reinstallation.
- 3. Remove the timing belt.

Timing belt pulley

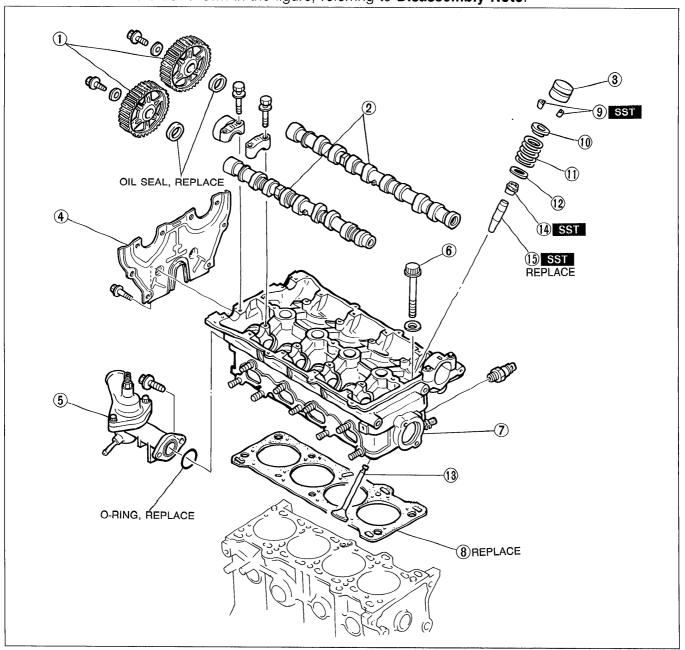
- 1. Hold the flywheel with the SST.
- 2. Loosen the pulley lock bolt.
- 3. Remove the pulley lock bolt.

Note

- If necessary, remove the pulley with a steering wheel puller (commercially available).
- 4. Remove the timing belt pulley.
- 5. Remove the pulley Woodruff key.

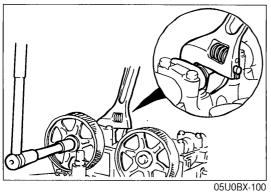
## **CYLINDER HEAD**

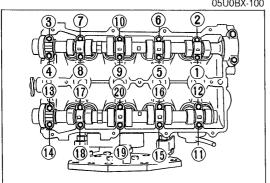
1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.

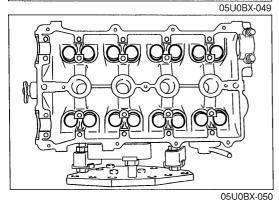


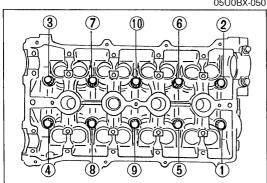
Camshaft pulley     Disassembly Note     Inspection	page page	B-41 B-59
2. Camshaft		
Disassembly Note		
Inspection	page	B-52
3. HLA		
Disassembly Note	page	B-41
Inspection		
4. Seal plate		
5. Thermostat housing		
6. Cylinder head bolt		
Disassembly Note	page	B-41
7. Cylinder head	15 5.90	
Inspection	nage	B-48
	page	J 70

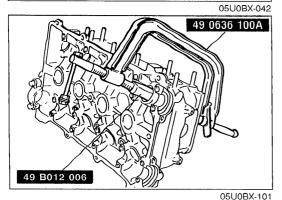
	300	000
8. Cylinder head gasket		
9. Valve keeper		
Disassembly Note pag	jе	B-41
10. Valve spring seat, upper	•	
11. Valve spring		
Inspectionpag	је	B-52
12. Valve spring seat, lower	•	
13. Valve		
Inspectionpag	је	B-49
14. Valve seal	-	
Disassembly Note pag	зе	B-42
Inspect for wear or damage	,	
15. Valve guide		
Inspectionpag	ge	B-49
Replacementpac	-	











Disassembly Note Camshaft pulley

- 1. Hold the camshaft with a wrench.
- 2. Remove the camshaft pulley lock bolt.
- 3. Remove the camshaft pulley.

## Camshaft

- 1. Loosen the camshaft cap bolts in two or three steps in the order shown in the figure.
- 2. Remove the camshaft caps.
- 3. Remove the camshaft.
- 4. Remove the camshaft oil seal from the camshaft.

## HLA

## Caution

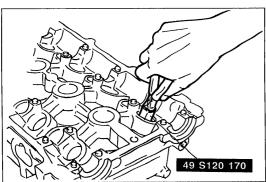
- Mark the HLA with a felt pen so that they can be reinstalled in the position from which they were removed.
- 1. Remove the HLA from the cylinder head.

Cylinder head bolt

- 1. Loosen the cylinder head bolts in two or three steps in the order shown in the figure.
- 2. Remove the cylinder head bolts.

Valve keeper

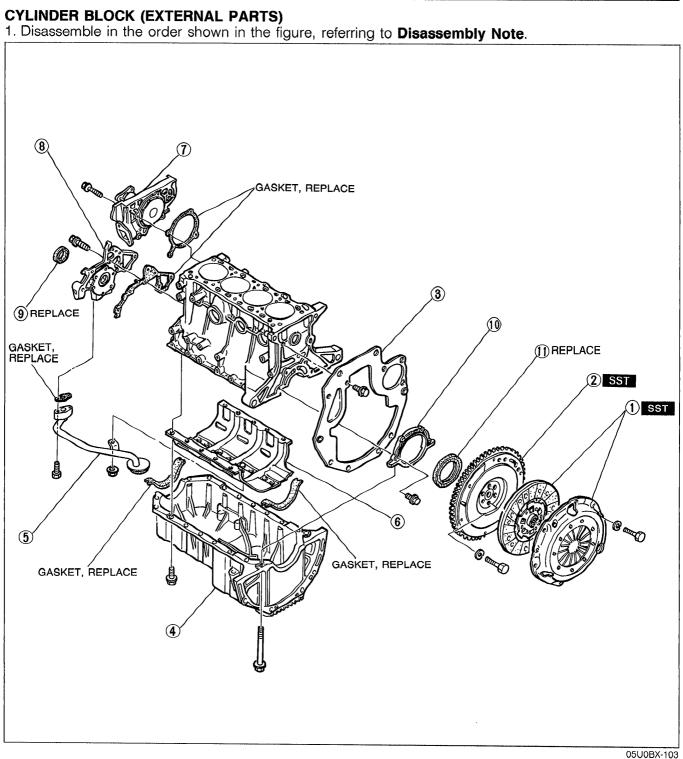
- 1. Set the **SST** against the upper valve spring seat as shown in the figure.
- 2. Remove the valve keepers.



05U0BX-102

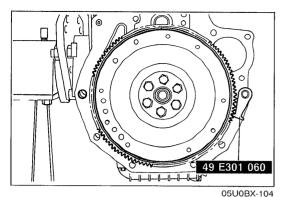
## Valve seal

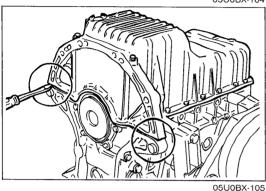
1. Remove the valve seal with the SST.

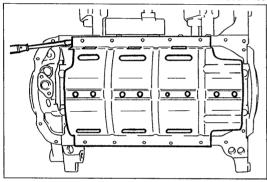


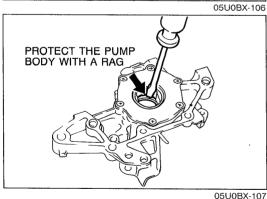
1. Clutch cover, clutch disc
Service page H–14
2. Flywheel
Disassembly Note page B-44
Inspect for wear or damage
3. End plate
4. Oil pan
Disassembly Note page B-44
Inspect for damage
5. Oil strainer

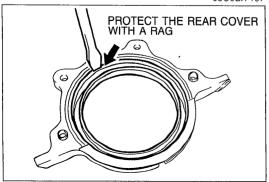
6. Oil pan baffle			
Disassembly	Note	page	B-44
7. Water pump			
Service		page	E- 9
8. Oil pump			
Service		page	D-11
9. Front oil seal		. •	
Disassembly	Note	page	B-44
10. Rear cover		1 0 -	
11. Rear oil seal			
Disassembly	Note	page	B-44











Disassembly Note Flywheel

- 1. Hold the flywheel with the SST.
- 2. Remove the flywheel lock bolts.
- 3. Remove the flywheel.

## Oil pan

1. Remove the oil pan mounting bolts.

## Caution

- Do not force a prying tool between the cylinder block and the oil pan, which may damage the contact surfaces.
- Do not damage or scratch the contact surfaces when removing the old sealant.
- 2. Insert a screwdriver or a suitable tool only at the points shown in the figure.
- 3. Remove the oil pan.

## Oil pan baffle

## Caution

- Do not bend the baffle when prying it loose.
- 1. Insert a screwdriver or a suitable tool between the cylinder block and the baffle to separate them.
- 2. Remove the baffle.

## Front oil seal

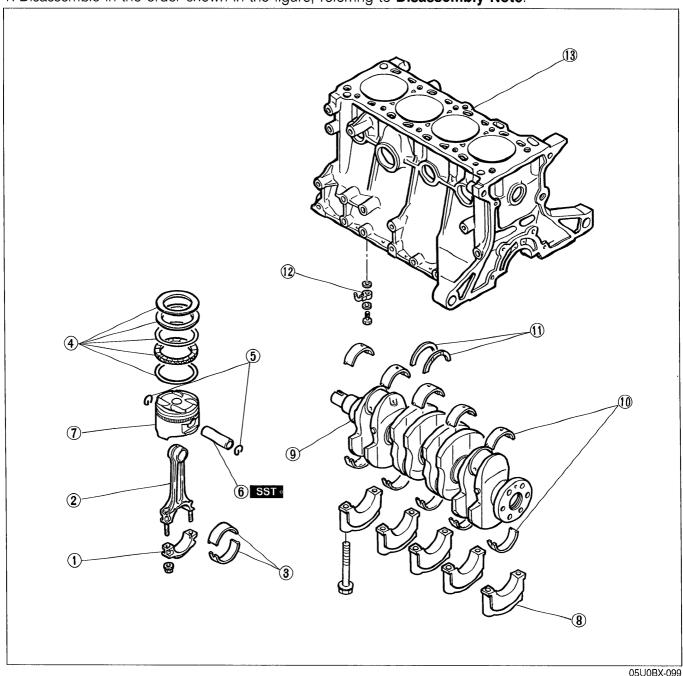
1. Remove the oil seal with a screwdriver protected with a rag.

## Rear oil seal

1. Remove the oil seal with a screwdriver protected with a rag.

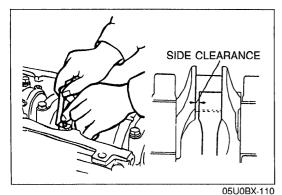
CYLINDER BLOCK (INTERNAL PARTS)

1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.



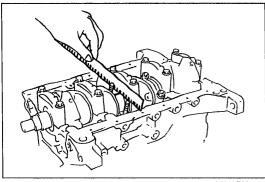
1. Connecting rod cap Disassembly Note	page B-46
2. Connecting rod Disassembly Note Inspection	
3. Connecting rod bearing Inspection	, -
4. Piston ring Disassembly Note	
Inspection	
6. Piston pin Disassembly Note	page B-46
Inspection	

0200BX-088
7. Piston
Inspectionpage B-56
8. Main bearing cap
Disassembly Note page B-47
9. Crankshaft
Disassembly Note page B-47
Inspectionpage B-58
10. Main bearing
Inspectionpage B-58
11. Thrust bearing
12. Oil jet
Inspectionpage B-55
13. Cylinder block
Inspectionpage B-54



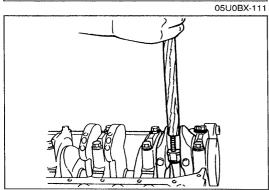
## Disassembly Note Connecting rod cap

1. Before removing the connecting rod caps, measure the connecting rod side clearance. (Refer to page B-65.)



**Connecting rod** 

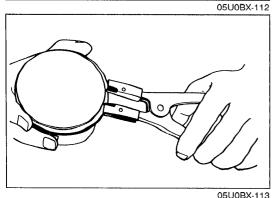
1. Before removing the connecting rods, measure the connecting rod oil clearance. (Refer to page B-65.)



2. Remove the Plastigage from the crankpin journals.

#### Caution

- Do not scratch the crankshaft journal or the cylinder wall.
- 3. Use the handle of a hammer to remove the piston and connecting rod assembly through the top of the cylinder block.



#### Piston ring

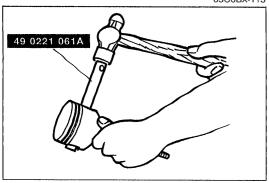
#### Caution

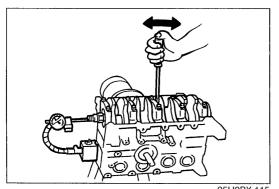
- Do not apply excessive tension, which may cause the rings to snap out.
- 1. Remove the piston rings with a piston ring expander (commercially available).



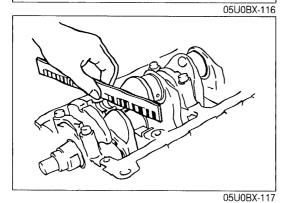
#### Caution

- Mark the connecting rod direction for proper reassembly.
- 1. Remove the piston pin with the **SST**.





05U0BX-115 1 5 9 8 4 2 6 10 7 3



Main bearing cap

1. Before removing the main bearing caps, measure the crankshaft end play. (Refer to page B-64.)

2. Loosen the main bearing cap bolts in two or three steps in the order shown in the figure.

3. Remove the main bearing caps.

Crankshaft

1. Before removing the crankshaft, measure the main bearing oil clearances. (Refer to page B-63.)

#### **INSPECTION / REPAIR**

## PREPARATION SST

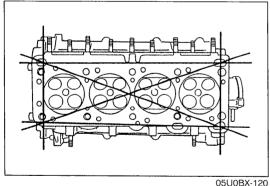
49 B012 005  Remover & installer, valve guide	For removal of valve guide	49 L012 0A0 Installer set, valve seal & valve guide	For installation of valve guide
49 L012 002  Body (Part of 49 L012 0A0)	For installation of valve guide	49 L012 003 Installer (Part of 49 L012 0A0)	For installation of valve guide
49 L012 004  Nut (Part of 49 L012 0A0)	For installation of valve guide		05U0BX-118

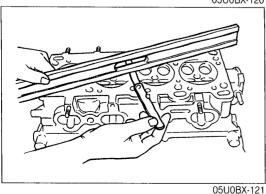
- 1. Clean all parts, being sure to remove all gasket fragments, dirt, oil or grease, carbon, moisture residue, and other foreign materials.
- 2. Inspection and repairs must be performed in the order specified.

#### Caution

 Do not damage the joints or friction surfaces of aluminum alloy components (such as the cylinder head or pistons).

05U0BX-119





#### **CYLINDER HEAD**

- 1. Inspect the cylinder head for damage, cracks, and leakage of water and oil. Replace the cylinder head if necessary.
- 2. Measure the cylinder head distortion in the six directions shown in the figure.

Distortion: 0.15mm (0.006 in) max.

#### Caution

 Before grinding the cylinder head, check the following and repair or replace the cylinder head as necessary.

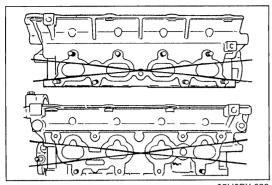
Sinking of valve seats

Damage of manifold contact surface

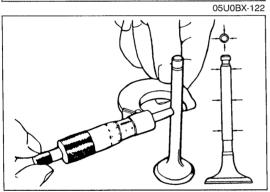
Camshaft oil clearances and end play

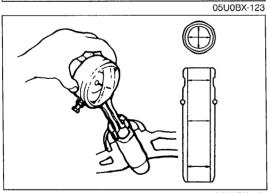
 If the cylinder head distortion exceeds specification, grind the cylinder head surface.
 If the cylinder head height is not within specification, replace it.

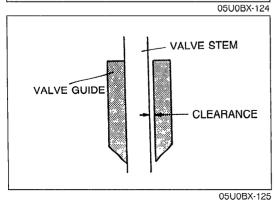
Height: 133.8—134.0mm (5.268—5.276 in) Grinding: 0.20mm (0.008 in) max.



MARGIN THICKNESS ANGLE 45°







4. Measure the manifold contact surface distortion in the four directions shown in the figure.

Distortion: 0.15mm (0.006 in) max.

5. If distortion exceeds specification, grind the surface or replace the cylinder head.

## VALVE MECHANISM Valve and Valve Guide

- 1. Inspect each valve for the following. Replace or resurface the valve if necessary.
  - (1) Damaged or bent stem.
  - (2) Rough or damaged face.
  - (3) Damaged or unevenly worn stem tip.
- 2. Measure the valve head margin thickness of each valve. Replace the valve if necessary.

Margin thickness

IN: 1.0mm (0.039 in) EX: 1.0mm (0.039 in)

3. Measure the length of each valve at the points shown.

#### Length

Standard

IN: 105.29mm (4.1452 in) EX: 105.39mm (4.1492 in)

**Minimum** 

IN: 104.79mm (4.1256 in) EX: 104.89mm (4.1295 in)

4. Measure the stem diameter of each valve.

Diameter

IN: 5.970—5.985mm (0.2350—0.2356 in) EX: 5.965—5.980mm (0.2348—0.2354 in)

5. Measure the inner diameter of each valve guide at the points shown.

Inner diameter

IN: 6.01—6.03mm (0.2366—0.2374 in) EX: 6.01—6.03mm (0.2366—0.2374 in)

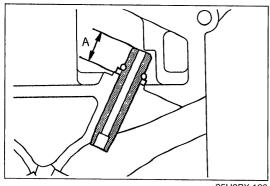
6. Calculate the valve stem to guide clearance. Subtract the outer diameter of the valve stem from the inner diameter of the corresponding valve guide.

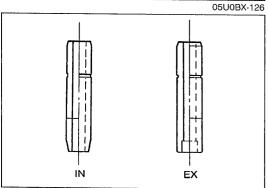
Clearance

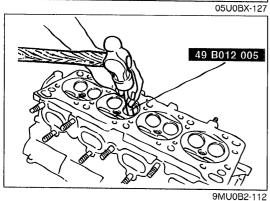
IN: 0.025—0.060mm (0.0010—0.0024 in) EX: 0.030—0.065mm (0.0012—0.0026 in)

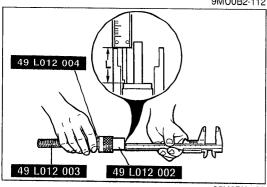
Maximum: 0.20mm (0.008 in)

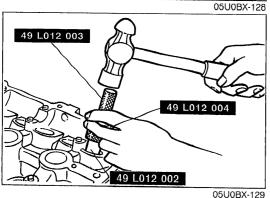
7. If the clearance exceeds specification, replace the valve and/or valve guide.











8. Measure the height A of each valve guide. Replace the valve guide if necessary.

Height: 16.8—17.4mm (0.661—0.685 in)

#### Replacement of valve guide

#### Note

 Although the shapes of the intake and exhaust valve guides are different, use the exhaust valve guide on both sides as a replacement.

#### Removal

1. Remove the valve guide from the side opposite the combustion chamber with the **SST**.

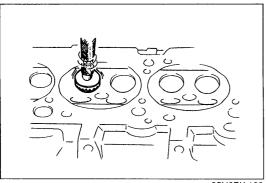
#### Installation

1. Assemble the SST so that depth L is as specified.

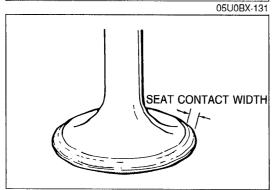
Depth L: 16.8—17.4mm (0.661—0.685 in)

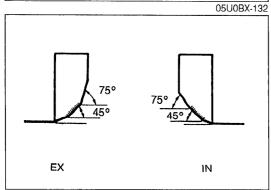
2. Tighten the locknut.

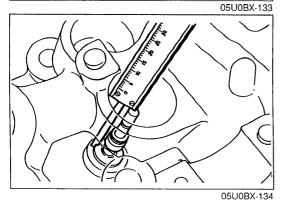
- 3. Tap the valve guide in from the side opposite the combustion chamber until the **SST** contacts the cylinder head.
- 4. Verify that the valve guide height is within specification.
- 5. If not within specification, repeat Steps 1-4.



## 05U0BX-130







Valve Seat

1. Inspect the contact surface of each valve seat and valve face for the following:

(1) Roughness.

(2) Damage.

2. If necessary, resurface the valve seat with a **45°** valve seat cutter and/or resurface the valve face.

3. Apply a thin coat of Prussian blue to the valve face.

4. Inspect the valve seating by pressing the valve against the seat.

(1) If blue does not appear 360° around the valve face, replace the valve.

(2) If blue does not appear 360° around the valve seat, resurface the seat.

5. Measure the seat contact width.

Width: 0.8—1.4mm (0.031—0.055 in)

6. Verify that the valve seating position is at the center of the valve face.

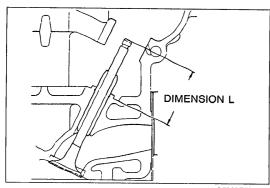
(1) If the seating position is too high, correct the valve seat with a **75°** cutter and a **45°** cutter.

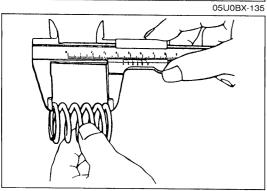
(2) If the seating position is too low, correct the valve seat with a **35° (IN)** or **15° (EX)** cutter and a **45°** cutter.

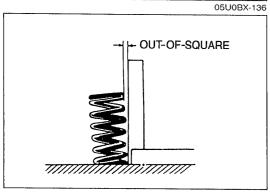
7. Seat the valve to the valve seat with lapping compound.

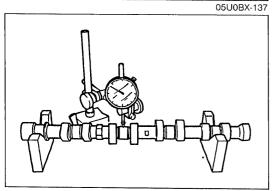
8. Inspect the sinking of the valve seat.

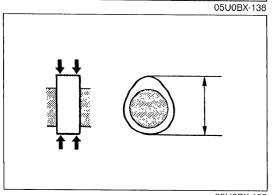
#### **INSPECTION / REPAIR**











05U0BX-139

9. Measure the protruding length (dimension **L**) of the valve stem.

#### **Dimension L: 43.5mm (1.713 in)**

- (1) If L is 43.5—44.0mm (1.713—1.732 in), no correction needed.
- (2) If L is 44.1—45.0mm (1.736—1.772 in), adjust with washer on spring seat area of cylinder head.
- (3) If L is 45.1mm (1.776 in) or more, replace cylinder head.

#### **Valve Spring**

- 1. Inspect each valve spring for cracks or damage.
- 2. Measure the free length and out-of-square. Replace the valve spring if necessary.

#### Free length

**Standard** 

IN: 48.0mm (1.890 in) EX: 48.3mm (1.902 in)

Minimum

IN: 47.0mm (1.850 in) EX: 47.3mm (1.862 in)

#### **Out-of-square**

IN: 1.68mm (0.0661 in) max. EX: 1.69mm (0.0665 in) max.

#### **CAMSHAFT**

- 1. Set the front and rear journals on V-blocks.
- 2. Measure the camshaft runout. Replace the camshaft if necessary.

Runout: 0.03mm (0.0012 in) max.

- 3. Inspect the camshaft for wear or damage. Replace the camshaft if necessary.
- 4. Measure the cam lobe heights at the two points as shown.

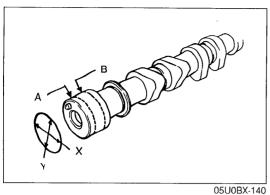
#### Height

Standard

IN: 40.888mm (1.6098 in) EX: 40.889mm (1.6098 in)

**Minimum** 

IN: 40.688mm (1.6019 in) EX: 40.689mm (1.6019 in)



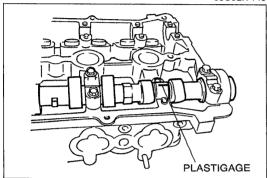
5. Measure the journal diameters in X and Y directions at the two points (A and B) shown.

Diameter:

Caution

clearance.

25.940—25.965mm (1.0213—1.0222 in) Out-of-round: 0.05mm (0.002 in) max.



bearing surface. (2) Set the camshaft onto the cylinder head.

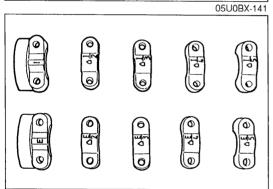
6. Measure the camshaft journal oil clearances.

(3) Position Plastigage atop the journals in the axial direction.

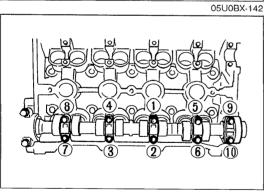
• Do not install the HLA when measuring the oil

(1) Remove all foreign material and oil from the journals and

(4) Install the camshaft caps according to the cap number and arrow mark.



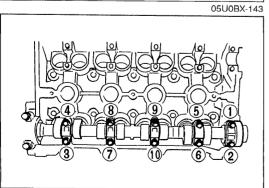
(5) Install the camshaft cap bolts and tighten them in two or three steps in the order shown in the figure.



**Tightening torque:** 

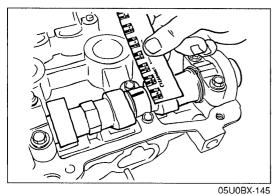
11.3—14.2 N·m (1.15—1.45 m-kg, 100—126 in-lb)

(6) Loosen the camshaft cap bolts in two or three steps in

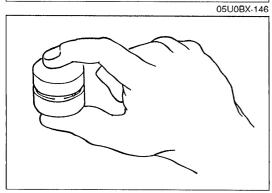


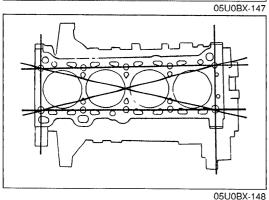
05U0BX-144

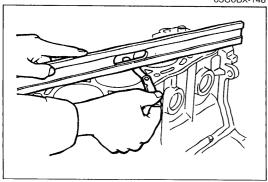
the order shown in the figure. (7) Remove the camshaft caps.



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05U0BX-149

(8) Measure the oil clearances.

#### Oil clearance:

0.035—0.081mm (0.0014—0.0032 in) Maximum: 0.15mm (0.006 in)

- (9) If the oil clearance exceeds specification, replace the cylinder head.
- 7. Measure the camshaft end play. If the end play exceeds specification, replace the camshaft and/or the cylinder head.

End play : 0.07—0.19mm (0.0028—0.0075 in)

Maximum: 0.20mm (0.008 in)

#### HLA

#### Caution

- Do not attempt to repair the HLA.
- 1. Inspect the HLA friction surfaces for wear or damage. Replace the HLA if necessary.
- 2. Hold the bucket body and press the plunger by hand. If the plunger moves, replace the HLA.

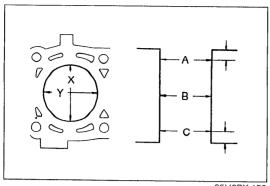
#### CYLINDER BLOCK

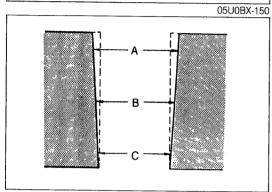
- 1. Inspect the cylinder block for the following. Repair or replace the cylinder block as necessary.
  - (1) Leakage damage.
  - (2) Cracks.
  - (3) Scoring of wall.
- 2. Measure the distortion of the top surface of the cylinder block in the six directions shown in the figure.

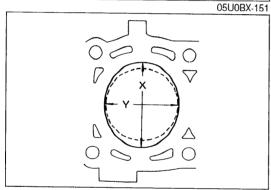
Distortion: 0.15mm (0.006 in) max.

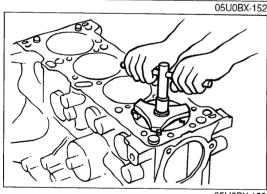
3. If the distortion exceeds specification, repair by grinding or replace the cylinder block.

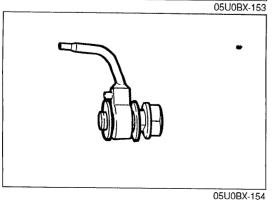
Height: 221.5mm (8.720 in)
Grinding: 0.20mm (0.008 in) max.











mm (in)

levels (A, B, and C) in each cylinder as shown.

#### Cylinder bore

Bore size	Diameter	
Standard	78.006—78.013 (3.0711—3.0714)	
0.25 (0.010) oversize	78.256—78.263 (3.0809—3.0812)	
0.50 (0.020) oversize	78.506—78.513 (3.0908—3.0911)	

4. Measure the cylinder bores in X and Y directions at three

#### Caution

- The boring size should be based on the size of an oversize piston and be the same for all cylinders.
- (1) If the cylinder bore exceeds the maximum, rebore the cylinder to oversize.
- (2) If the difference between measurements A and C exceeds the maximum taper, rebore the cylinder to oversize.

#### Taper: 0.019mm (0.0007 in) max.

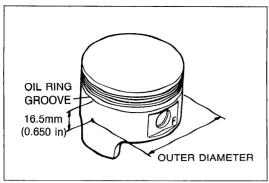
(3) If the difference between measurements X and Y exceeds the maximum out-of-round, rebore the cylinder to oversize.

#### Out-of-round: 0.019mm (0.0007 in) max.

5. If the upper part of a cylinder wall shows uneven wear, remove the ridge with a ridge reamer.

#### OIL JET

- 1. Push the check ball and verify that it moves smoothly.
- 2. Blow through the oil jet and verify that air flows.



05U0BX-155

### PISTON, PISTON RING, AND PISTON PIN Piston

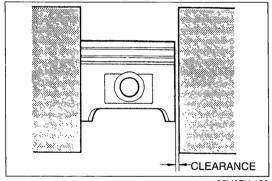
#### Caution

- If the piston is replaced, the piston rings must also be replaced.
- 1. Inspect the outer circumferences of all pistons for seizure or scoring. Replace the piston if necessary.
- Measure the outer diameter of each piston at a right angle (90°) to the piston pin, 16.5mm (0.650 in) below the oil ring land lower edge.

#### Piston diameter

mm (in)

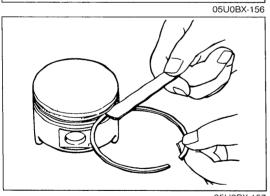
Piston size	Diameter
Standard	77.954—77.974 (3.0690—3.0698)
0.25 (0.010) oversize	78.211—78.217 (3.0792—3.0794)
0.50 (0.020) oversize	78.461—78.467 (3.0890—3.0892)



3. Measure the piston-to-cylinder clearance.

Clearance: 0.039—0.052mm (0.0015—0.0020 in) Maximum: 0.15mm (0.006 in)

4. If the clearance exceeds the maximum, replace the piston or rebore the cylinders to fit oversize pistons.



**Piston and Piston Rings** 

1. Measure the piston ring to ring land clearance around the entire circumference using a new piston ring.

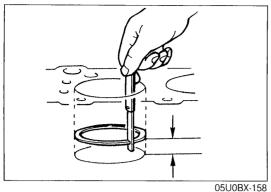
Clearance (Top and Second): 0.03—0.07mm (0.0012—0.0028 in) Maximum: 0.15mm (0.006 in)

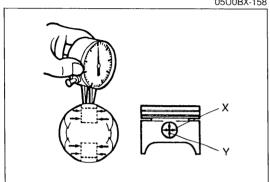


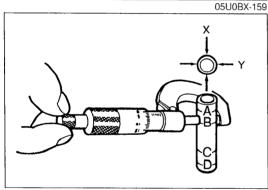
PISTON RING

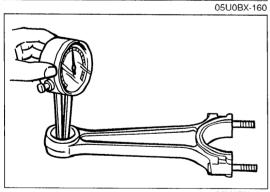
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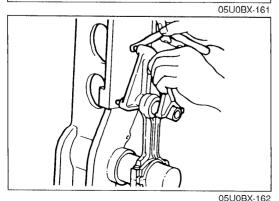
- 2. If the clearance exceeds the maximum, replace the piston.
- 3. Inspect the piston rings for damage, abnormal wear, or breakage. Replace the piston rings if necessary.
- 4. Insert the piston ring into the cylinder by hand and use the piston to push it to the bottom of the ring travel.











5. Measure each piston ring end gap with a feeler gauge. Replace the piston ring if necessary.

End gap

Top: 0.15—0.30mm (0.006—0.012 in) Second: 0.15—0.30mm (0.006—0.012 in) Oil rail: 0.20—0.70mm (0.008—0.028 in)

Maximum: 1.0mm (0.039 in)

#### Piston and Piston Pin

1. Measure each piston pin hole diameter in X and Y directions at four points.

Diameter: 19.988—20.000mm (0.7869—0.7874 in)

2. Measure each piston pin diameter in X and Y directions at four points.

Diameter: 19.987—19.993mm (0.7869—0.7871 in)

3. Calculate the piston pin-to-piston clearance.

Clearance: -0.005-0.013mm (-0.0002-0.0005 in)

4. If the clearance exceeds specification, replace the piston and/or piston-pin.

#### **CONNECTING ROD**

1. Measure each connecting rod bushing inner diameter.

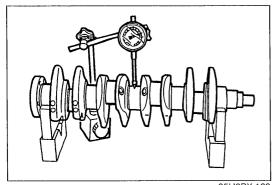
Diameter: 20.003-20.014mm (0.7875-0.7880 in)

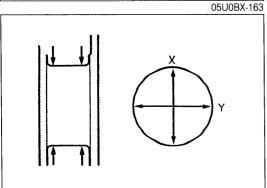
2. Calculate the clearance between the connecting rod bushing and piston pin.

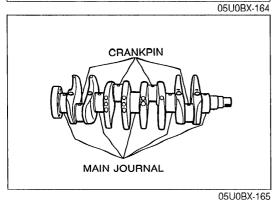
Clearance: 0.010—0.027mm (0.0004—0.0011 in)

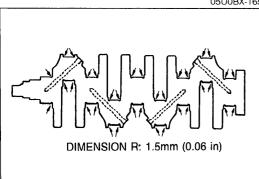
3. Measure each connecting rod for bending. Repair or replace the connecting rod if necessary.

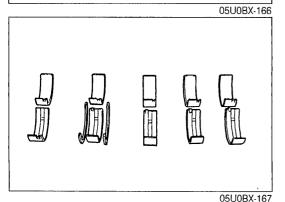
Bending: 0.075mm (0.0030 in) max./50mm (1.97 in)











#### **CRANKSHAFT**

- 1. Check the journals and pins for damage, scoring, and oil hole clogging.
- 2. Set the crankshaft on V-blocks.
- 3. Measure the crankshaft runout at the center journal. Replace the crankshaft if necessary.

Runout: 0.04mm (0.0016 in) max.

4. Measure each journal diameter in X and Y directions at two points.

#### Main journal

Diameter: 49.938—49.956mm (1.9661—1.9668 in) Out-of-round: 0.05mm (0.0020 in) max.

#### Crankpin journal

Diameter: 44.940—44.956mm (1.7693—1.7699 in) Out-of-round: 0.05mm (0.0020 in) max.

#### Caution

- Do not remove the fillet roll area R when grinding.
- 5. If the diameter is less than the minimum, grind the journals to match an undersize bearing.

#### Undersize bearing:

0.25mm (0.010 in), 0.50mm (0.020 in), 0.75mm (0.030 in)

#### Main journal diameter undersize

mm (in)

Bearing size	Journal diameter
0.25 (0.010) undersize	49.704—49.708 (1.9568—1.9570)
0.50 (0.020) undersize	49.454—49.458 (1.9470—1.9472)
0.75 (0.030) undersize	49.204—49.208 (1.9372—1.9373)

#### Crankpin journal diameter undersize

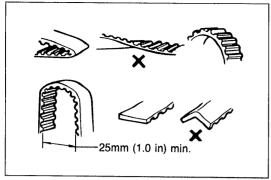
mm (in)

Bearing size	Journal diameter
0.25 (0.010) undersize	44.690—44.706 (1.7594—1.7601)
0.50 (0.020) undersize	44.440—44.456 (1.7496—1.7502)
0.75 (0.030) undersize	44.19044.206 (1.73981.7404)

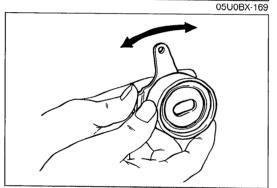
#### **BEARING**

#### Main Bearing and Connecting Rod Bearing

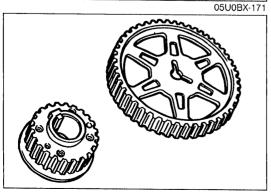
1. Check the main bearings and the connecting rod bearings for peeling, scoring, and other damage.



## DAMAGE, WEAR CRACK



05U0BX-170



05U0BX-172

#### **TIMING BELT**

#### Caution

- Never forcefully twist, turn inside out, or bend the timing belt.
- Do not allow oil or grease on the belt.
- 1. Replace the timing belt if there is any oil or grease on it.
- 2. Check the timing belt for damage, wear, peeling, cracks, and hardening. Replace the timing belt if necessary.

#### TENSIONER, IDLER

#### Caution

- Do not clean the tensioner or idler with cleaning fluids. If necessary, use a soft rag to wipe them clean, and avoid scratching them.
- 1. Check the tensioner and idler for smooth rotation and abnormal noise. Replace the tensioner or idler if necessary.

#### **TENSIONER SPRING**

1. Measure the free length of the tensioner spring. Replace the tensioner spring if necessary.

Free length: 58.8mm (2.315 in)

## PULLEY Timing Belt Pulley, Camshaft Pulley

#### Caution

- Do not clean the pulleys with cleaning fluids. If necessary, use a soft rag to wipe them clean, and avoid scratching them.
- 1. Inspect the pulley teeth for wear, deformation, and other damage. Replace the pulley if necessary.

#### **ASSEMBLY**

#### **PREPARATION SST**

49 0221 061A  Remover & installer, piston pin	For removal and installation of piston pin	49 E301 060 Brake, ring gear	For prevention of engine rotation
49 E301 061  Body (Part of 49 E301 060)	For prevention of engine rotation	49 E301 062  Collar (Part of 49 E301 060)	For prevention of engine rotation
49 SE01 310  Centering tool, clutch disc	For installation of clutch disc	49 L012 0A0 Installer set, valve seal & valve guide	For installation of valve seal
49 L012 001 Installer (Part of 49 L012 0A0)	For installation of valve seal	49 L012 002  Body (Part of 49 L012 0A0)	For installation of valve seal
49 L012 005  Spacer (Part of 49 L012 0A0)	For installation of valve seal	49 0636 100A  Arm, valve spring lifter	For removal and installation of valve
49 B012 006 Pivot, valve spring lifter	For removal and installation of valve		05U0BX-173

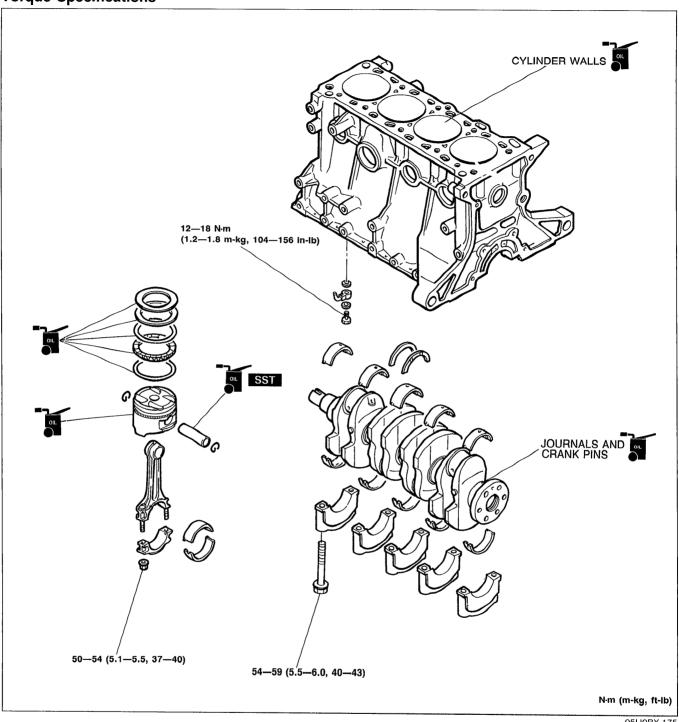
- 1. Clean all parts before reinstallation.
- Apply new engine oil to all sliding and rotating parts.
   Replace plain bearings if they are peeling, burned, or otherwise damaged.
   Tighten all bolts and nuts to the specified torques.

#### Caution

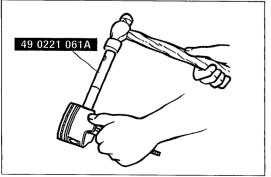
• Do not reuse gaskets or oil seals.

05U0BX-174

#### **CYLINDER BLOCK (INTERNAL PARTS) Torque Specifications**



05U0BX-175

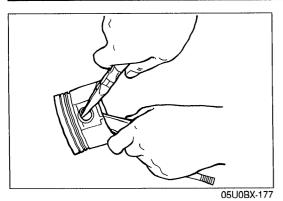


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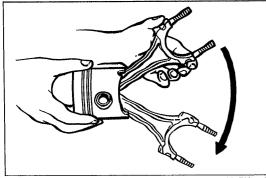
#### **Connecting Rod**

- 1. Install one piston pin clip into the clip groove in the piston.
- 2. Assemble the piston and the connecting rod in the direction from which they were disassembled.
- 3. Apply clean engine oil to the piston pin.
- 4. Install the piston pin from the side opposite the clip.
- 5. Tap the piston pin in with the SST until the pin contacts the

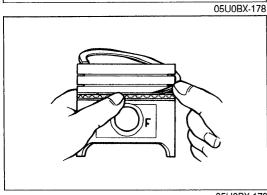
If the pin cannot be installed easily, replace the connecting rod.



6. Install the second clip into the clip groove in the piston.



7. Check the oscillation torque of the connecting rod. If the large end does not drop by its own weight, replace the piston and/or piston pin.

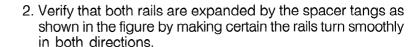


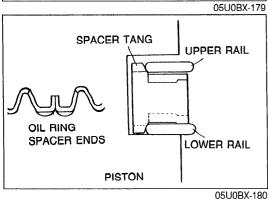
**Piston Ring** 

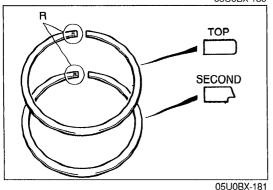
- 1. Install the three-piece oil rings on the pistons.
  - (1) Apply clean engine oil to the oil ring spacer and rails.
  - (2) Install the oil ring spacer with the ends upward.

#### Note

- The upper rail and lower rail are the same.
- The rails may be installed with either face upward.
- (3) Install the upper rail and lower rail.



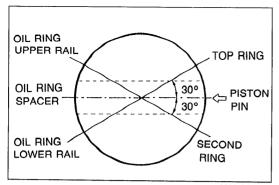




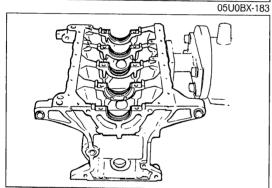
### Caution

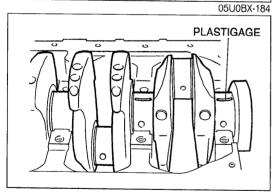
- The rings must be installed with the R marks
- The second ring must be installed with the scraper face downward.
- 3. Apply clean engine oil to the top and second piston rings.
- 4. Install the second ring to the piston; then install the top ring. Use a piston ring expander (commercially available).

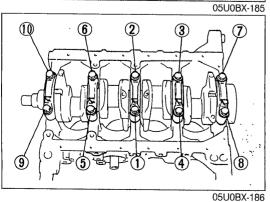
B



05U0BX-182







5. Position the end gaps of the rings as shown in the figure.

#### Oil Jet

1. Install the oil jets.

Tightening torque: 12—18 N·m (1.2—1.8 m-kg, 104—156 in-lb)

#### Crankshaft

1. Before installing the crankshaft, inspect the main bearing oil clearances as follows.

#### Oil clearance inspection

(1) Remove all foreign material and oil from the journals and bearings.

#### Caution

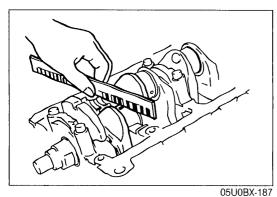
- Install the grooved upper main bearings in the cylinder block.
- Install the thrust bearings with the oil groove facing the crankshaft.
- (2) Install the upper main bearings and thrust bearings.
- (3) Set the crankshaft in the cylinder block.

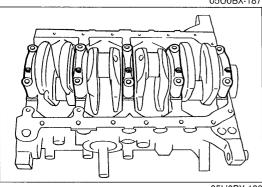
#### Caution

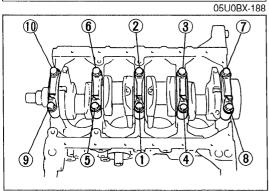
- Do not rotate the crankshaft when measuring the oil clearances.
- (4) Position Plastigage atop the journals in the axial direction.
- (5) Install the lower main bearings and the main bearing caps according to the cap number and ← mark.
- (6) Tighten the main bearing cap bolts in two or three steps in the order shown in the figure.

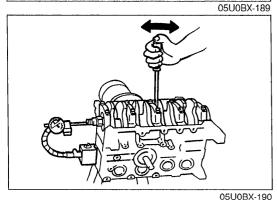
Tightening torque:

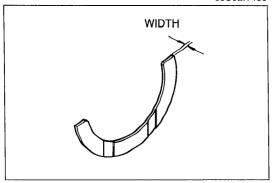
54-59 N·m (5.5-6.0 m-kg, 40-43 ft-lb)











05U0BX-191

- (7) Remove the main bearing caps, and measure the Plastigage at each journal at the widest point for the smallest clearance, and at the narrowest point for the largest clearance.
- (8) If the oil clearance exceeds specification, grind the crankshaft and use undersize main bearings. (Refer to page B–58.)

Oil clearance: 0.018—0.036mm (0.0007—0.0014 in) Maximum: 0.10mm (0.004 in)

- 2. Apply a liberal amount of clean engine oil to the main bearings, thrust bearings and main journals.
- 3. Install the crankshaft and the main bearing caps according to the cap number and ← mark.

4. Tighten the main bearing cap bolts in two or three steps in the order shown in the figure.

Tightening torque: 54—59 N·m (5.5—6.0 m-kg, 40—43 ft-lb)

5. Measure the crankshaft end play.

End play: 0.080—0.282mm (0.0031—0.0111 in) Maximum: 0.30mm (0.012 in)

6. If the end play exceeds the maximum, grind the crankshaft and install an oversize thrust bearing or replace the crankshaft and thrust bearing.

Thrust bearing width Standard:

2.500—2.550mm (0.0984—0.1004 in)

0.25mm (0.010 in) oversize:

2.625—2.675mm (0.1033—0.1053 in)

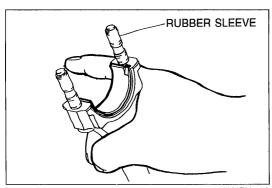
0.50mm (0.020 in) oversize:

2.750—2.800mm (0.1083—0.1102 in)

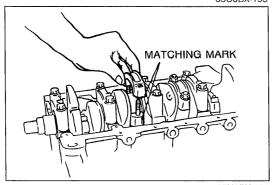
0.75mm (0.030 in) oversize:

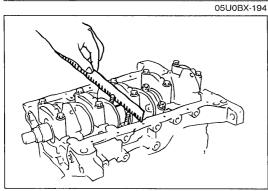
2.875—2.925mm (0.1132—0.1152 in)

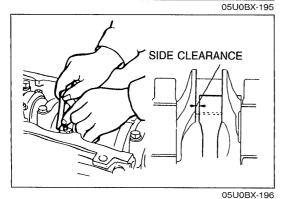
## B



# 05U0BX-192







#### **Piston and Connecting Rod Assembly**

#### Caution

• Protect the connecting rod bolts with rubber sleeves to prevent damage to the crankpin journals.

- 1. Apply a liberal amount of clean engine oil to the cylinder walls, pistons, and piston rings.
- 2. Check the piston rings for correct end gap alignment.
- 3. Insert each piston assembly into the cylinder block with the **F** mark facing the front of the engine. Use a piston ring compressor (commercially available).

#### **Connecting Rod Cap**

1. Measure the connecting rod bearing oil clearances using the same procedure as for the main bearing oil clearance.

#### Caution

 Align the matching marks on the cap and the connecting rod when installing the connecting rod cap.

Tightening torque: 50—54 N·m (5.1—5.5 m-kg, 37—40 ft-lb)

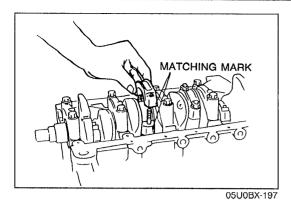
Oil clearance: 0.028—0.068mm (0.0011—0.0027 in) Maximum: 0.10mm (0.004 in)

2. If the oil clearance exceeds the maximum, grind the crankshaft and use undersize bearings. (Refer to page B-58.)

3. Measure the connecting rod side clearances.

Side clearance: 0.110—0.262mm (0.0043—0.0103 in) Maximum: 0.30mm (0.012 in)

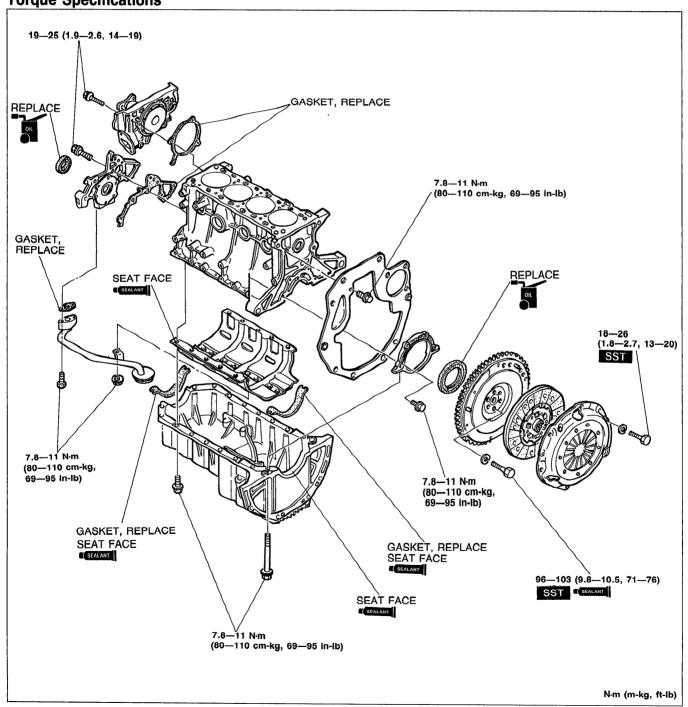
4. If the clearance exceeds the maximum, replace the connecting rod and cap.

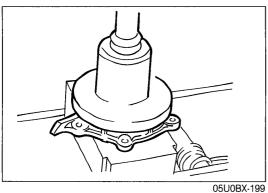


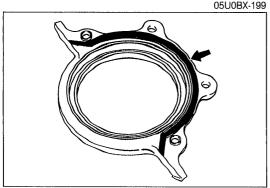
- 5. Apply a liberal amount of clean engine oil to the crankpin journals and connecting rod bearings.
- 6. Install the connecting rod caps with the matching marks aligned.
- 7. Tighten the connecting rod cap nuts in two or three steps.

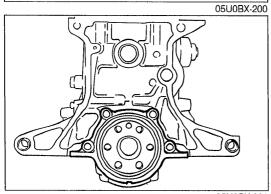
Tightening torque: 50—54 N·m (5.1—5.5 m-kg, 37—40 ft-lb)

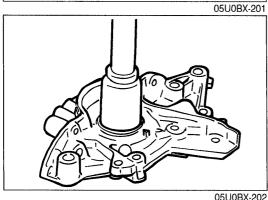
CYLINDER BLOCK (EXTERNAL PARTS)
Torque Specifications

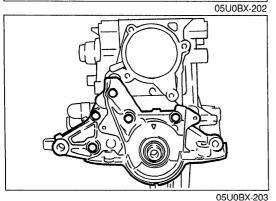












**Rear Cover** 

1. Apply a small amount of clean engine oil to the lip of a new oil seal.

2. Push the oil seal slightly in by hand.

Caution

• The oil seal must be pressed in until it is flush with the edge of the rear cover.

3. Press the oil seal in evenly with a suitable pipe.

Oil seal outer diameter: 100mm (3.94 in)

4. Apply silicone sealant to the shaded area shown in the figure.

5. Install the rear cover.

Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

Oil Pump

1. Apply a small amount of clean engine oil to the lip of a new oil seal.

2. Push the oil seal slightly in by hand.

Caution

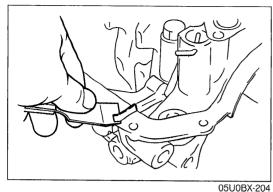
 The oil seal must be pressed in until it is flush with the edge of the oil pump body.

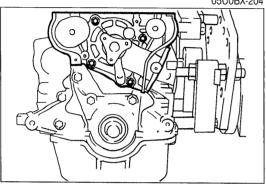
3. Press the oil seal in evenly with a suitable pipe.

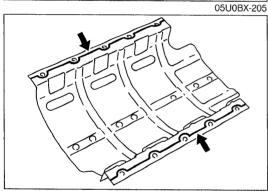
Oil seal outer diameter: 44mm (1.73 in)

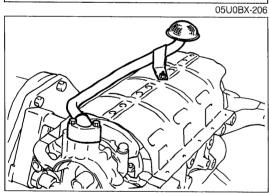
4. Install the oil pump and a new gasket.

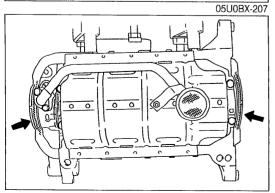
Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)











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#### Caution

- Do not scratch the oil pump.
- 5. Cut away the portion of the gasket that projects from the body toward the oil pan side.

#### **Water Pump**

- 1. Remove all foreign material from the water pump mounting surface.
- 2. Install the water pump and a new gasket.

#### Tightening torque:

19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

#### Oil Pan Baffle

1. Remove all foreign material from the contact surfaces.

#### Caution

- The oil pan must be secured within 30 minutes after the sealant is applied to the baffle.
- 2. Apply a continuous bead of silicone sealant to the baffle along the inside of the bolt holes.
- 3. Install the baffle.

#### Oil Strainer

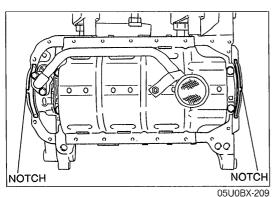
1. Install the oil strainer and a new gasket.

#### Tightening torque:

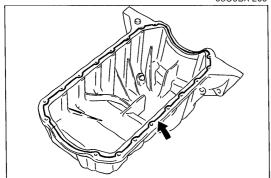
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

#### Oil Pan

- 1. Remove all foreign material from the contact surfaces.
- 2. Apply silicone sealant to the shaded areas shown in the figure.



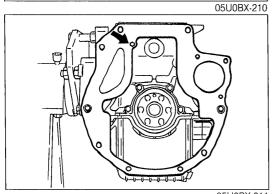
3. Install new gaskets onto the oil pump body and the rear cover with the projections in the notches shown in the figure.



4. Apply a continuous bead of silicone sealant to the oil pan along the inside of the bolt holes and overlap the ends.

5. Install the oil pan.

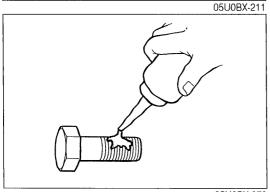
Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)



**End Plate** 

1. Install the end plate.

Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)



Flywheel

1. Remove the sealant from the flywheel bolt holes in the crankshaft and from the flywheel bolts.

Caution

• If all the previous sealant cannot be removed from a bolt, replace the bolt.

Do not apply sealant if a new bolt is used.

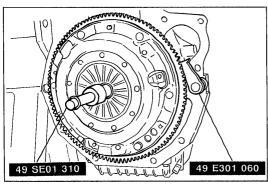
2. Set the flywheel onto the crankshaft.

3. Apply sealant to the flywheel bolts and install them.

4. Hold the flywheel with the **SST**.

5. Tighten the bolts in two or three steps in the order shown.

Tightening torque: 96—103 N·m (9.8—10.5 m-kg, 71—76 ft-lb)



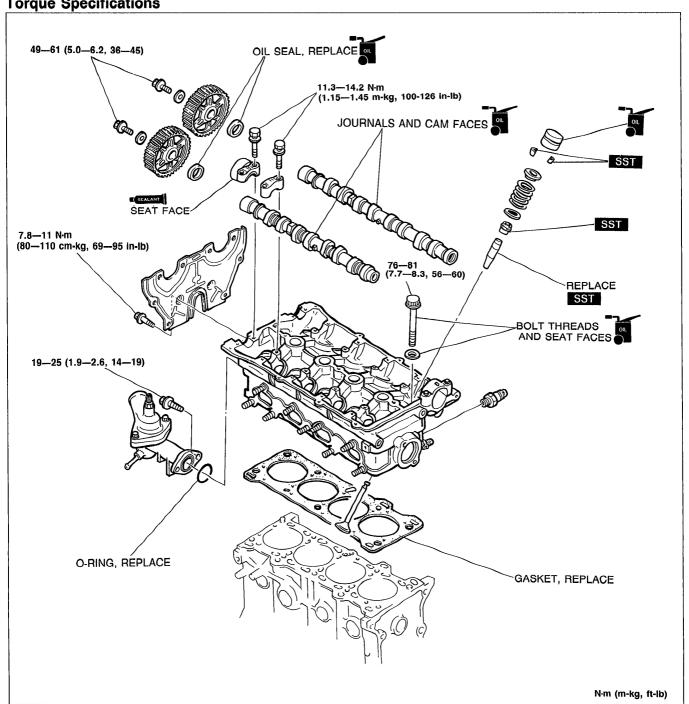
05U0BX-212

#### **Clutch Disc and Clutch Cover**

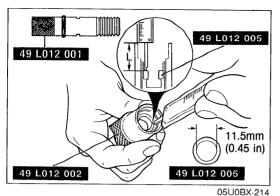
1. Install the clutch disc and clutch cover using the **SST**. (Refer to page H-14.)

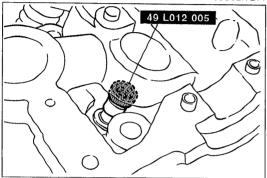
Tightening torque: 18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)

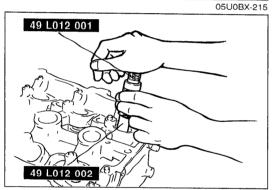
## CYLINDER HEAD Torque Specifications

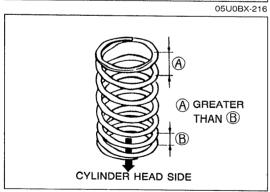


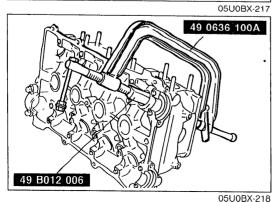












Valve Seal

1. Assemble the **SST** so that depth **L** is as specified.

Depth L: 18.3—18.5mm (0.720—0.728 in)

- 2. Slide the valve seal onto the valve guide.
- 3. Set the **SST** against the valve seal.

Caution

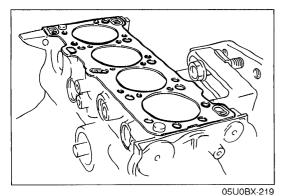
- Do not use a hammer.
- 4. Press the valve seal on until the SST contacts the cylinder head.

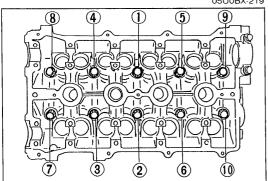
Valve and Valve Spring

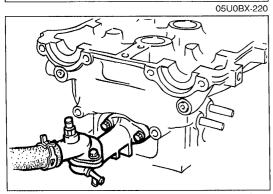
- 1. Install the lower spring seat.
- 2. Install the valve.

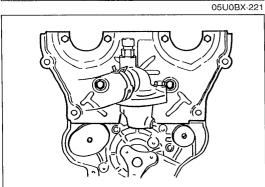
- Install the spring with the closer pitch toward the cylinder head.
- 3. Install the valve spring and the upper spring seat.
- 4. Compress the valve spring with the SST, and install the valve keepers.
- 5. Remove the **SST**.
- 6. Tap the end of the valve stem lightly two or three times with a plastic hammer to verify that the keepers are all fully seated.

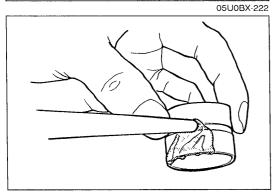
#### **ASSEMBLY**











Cylinder Head Gasket

- 1. Remove all foreign material from the top of the cylinder block.
- 2. Place the new cylinder head gasket in position.

#### **Cylinder Head**

- 1. Install the cylinder head.
- 2. Apply clean engine oil to the bolt threads and seat faces.
- 3. Tighten the cylinder head bolts in two or three steps in the order shown.

## Tightening torque: 76—81 N·m (7.7—8.3 m-kg, 56—60 ft-lb)

#### **Thermostat Housing**

- 1. Remove all foreign material from the thermostat housing mounting surface.
- 2. Install a new O-ring and the thermostat housing.

## Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

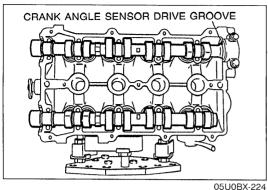
#### **Seal Plate**

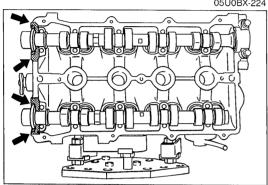
1. Install the seal plate on the cylinder head.

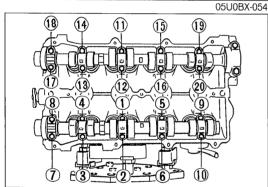
## Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

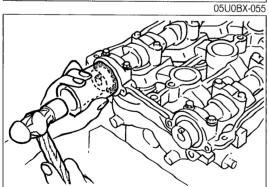
#### HLA

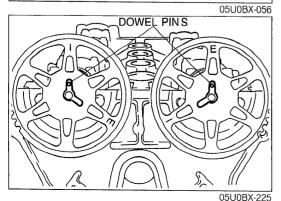
- 1. Apply clean engine oil to the friction surfaces.
- 2. If the HLA are being reused, install them in the position from which they were removed.
- 3. Verify that the HLA move smoothly in their bores.











Camshaft

#### Note

- The intake camshaft is grooved for the crank angle sensor drive.
- 1. Apply clean engine oil to the camshaft journals and bearings.
- 2. Install the camshaft in position.

#### Caution

- Do not allow any sealant on the camshaft journal surfaces.
- 3. Apply silicone sealant to the shaded areas shown in the figure.
- 4. Install the camshaft caps according to the cap number and arrow mark.

5. Install the camshaft cap bolts, and tighten them in two or three steps in the order shown.

**Tightening torque:** 

11.3—14.2 N·m (1.15—1.45 m-kg, 100—126 in-lb)

- 6. Apply a small amount of clean engine oil to the lip of a new camshaft oil seal.
- 7. Push the oil seal slightly in by hand.

#### Caution

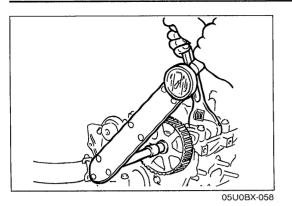
- The oil seal must be tapped in until it is flush with the edge of the camshaft cap.
- 8. Tap the oil seal in evenly with a suitable pipe and a hammer.

Oil seal outer diameter: 48mm (1.89 in)

#### **Camshaft Pulley**

- 1. Turn the camshafts until the camshaft dowel pins face straight up.
- 2. Install the camshaft pulleys with the I mark (intake side) or the E mark (exhaust side) straight up.

#### **ASSEMBLY**

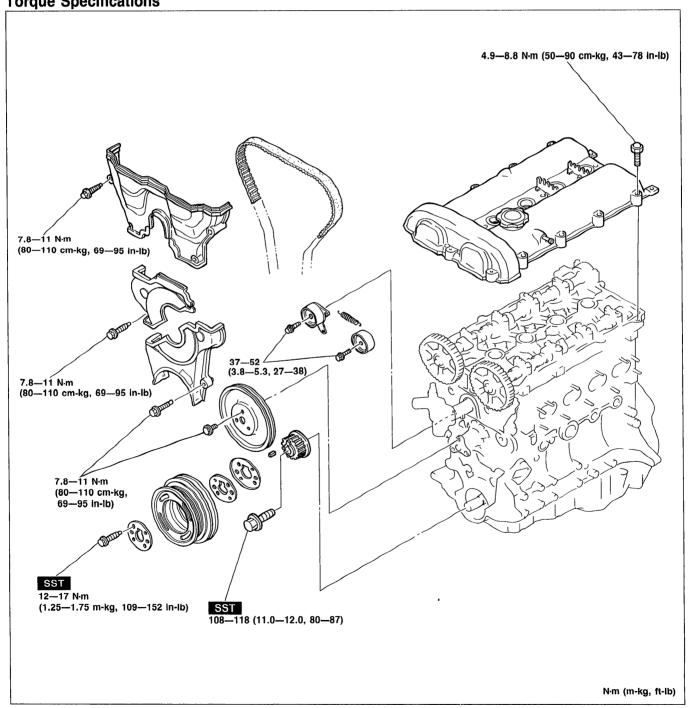


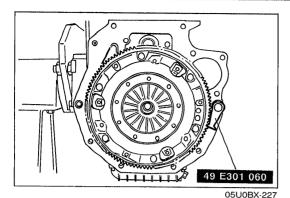
3. Install the camshaft pulley lock bolts.

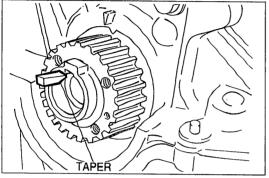
- 4. Hold the camshaft with a wrench.
- 5. Tighten the camshaft pulley lock bolt.

Tightening torque: 49—61 N·m (5.0—6.2 m-kg, 36—45 ft-lb)

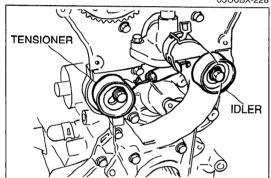
TIMING BELT Torque Specifications



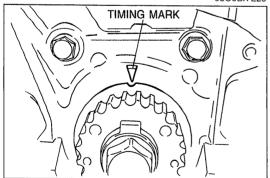




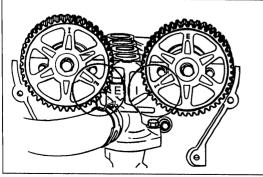
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05U0BX-229



05U0BX-230



05U0BX-029

**Timing Belt Pulley** 

1. Reverse the direction of the **SST** on the flywheel.

2. Install the timing belt pulley.

3. Install the pulley Woodruff key with the tapered side toward the oil pump body.

4. Install the pulley lock bolt.

5. Tighten the pulley lock bolt.

Tightening torque:

108—118 N·m (11.0—12.0 m-kg, 80—87 ft-lb)

Idler

1. Install the idler.

Tightening torque:

37-52 N·m (3.8-5.3 m-kg, 27-38 ft-lb)

**Tensioner and Tensioner Spring** 

1. Install the tensioner and the tensioner spring.

2. Temporarily secure the tensioner with the spring fully extended.

**Timing Belt** 

1. Turn the crankshaft and align the timing belt pulley mark with the timing mark.

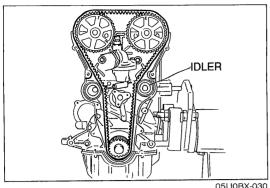
2. Verify that the camshaft pulley marks are aligned with the seal plate marks.

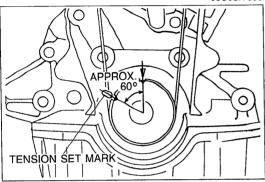
Caution

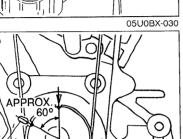
• For intake side, align the E mark.

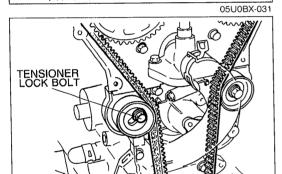
· For exhaust side, align the I mark.

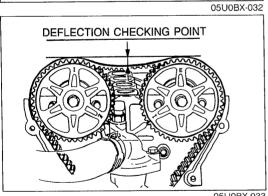
#### **ASSEMBLY**

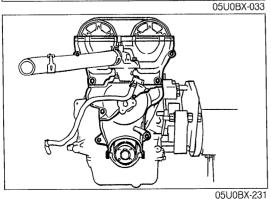












3. Install the timing belt so that there is no looseness at the idler side or between the two camshaft pulleys.

#### Caution

- Do not turn the crankshaft counterclockwise.
- 4. Turn the crankshaft two turns clockwise, and align the timing belt pulley mark with the timing mark.
- 5. Verify that the camshaft pulley marks are aligned with the seal plate marks.

If not aligned, remove the timing belt and repeat from tensioner installation.

6. Turn the crankshaft 1 and 5/6 turn clockwise, and align the timing belt pulley mark with the tension set mark.

- 7. Loosen the tensioner lock bolt to apply tension to the timina belt.
- 8. Tighten the tensioner lock bolt.

Tightening torque: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

- 9. Turn the crankshaft 2 and 1/6 turns clockwise and verify that the timing marks are correctly aligned.
- 10. Measure the timing belt deflection by applying moderate pressure (98 N, 10 kg, 22 lb) midway between the two cam-

If the deflection is not correct, repeat from Step 7 above.

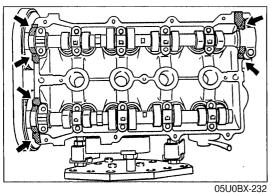
#### **Deflection:**

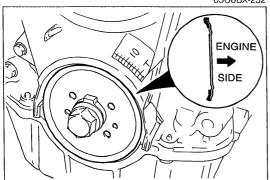
9.0-11.5mm (0.35-0.45 in) at 98 N (10 kg, 22 lb)

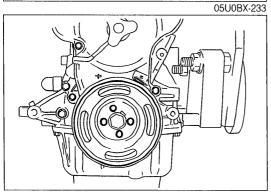
**Timing Belt Cover** 

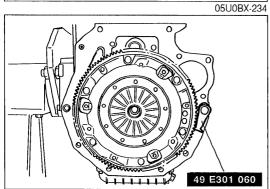
1. Install the lower, middle, and upper covers.

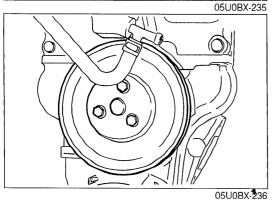
Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)











**Cylinder Head Cover** 

- 1. Apply silicone sealant to the shaded areas shown in the figure.
- 2. Install the cylinder head cover.

**Tightening torque:** 

4.9—8.8 N·m (50—90 cm-kg, 43—78 in-lb)

#### **Crankshaft Pulley**

Caution

- Make sure the timing belt inner guide plate is installed in the proper direction.
- 1. Install the timing belt inner guide plate.
- 2. Install the timing belt outer guide plate.
- 3. Install the crankshaft pulley.
- 4. Install the plate.

5. Tighten the lock bolts with the SST.

**Tightening torque:** 

12—17 N·m (1.25—1.75 m-kg, 109—152 in-lb)

6. Remove the **SST**.

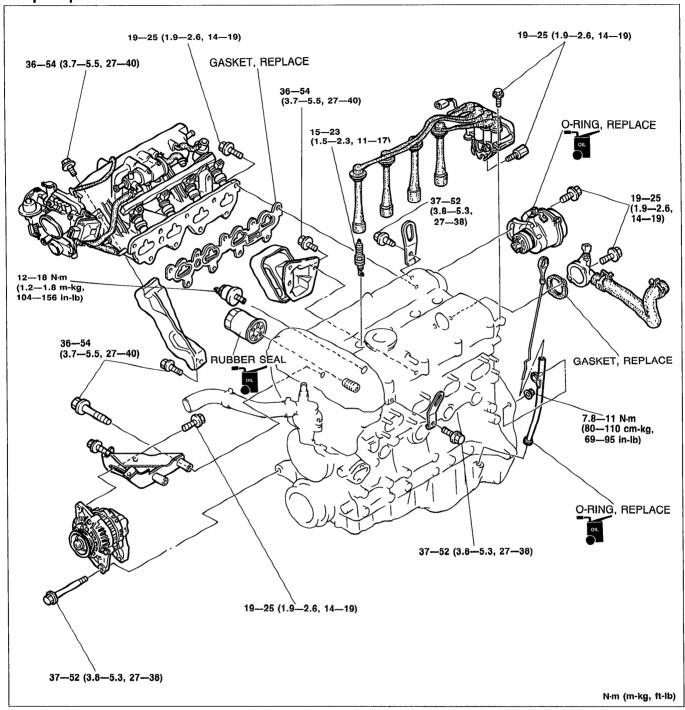
**Water Pump Pulley** 

1. Install the water pump pulley.

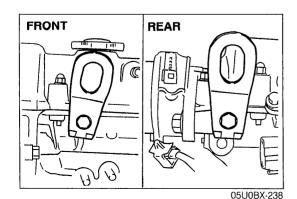
**Tightening torque:** 

7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

## **AUXILIARY PARTS Torque Specifications**



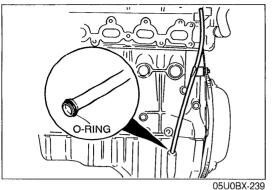
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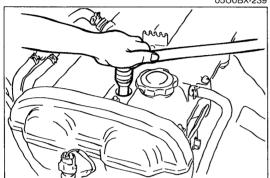


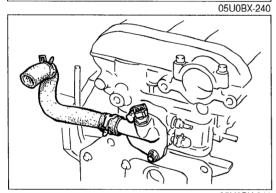
**Engine Hanger** 

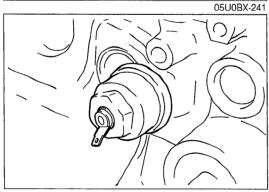
1. Install the front and rear engine hangers.

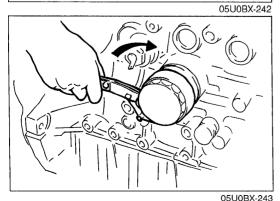
Tightening torque: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)











Oil Level Gauge Pipe

- 1. Apply a small amount of clean engine oil to the new O-ring.
- 2. Push the level gauge pipe into the oil pan.
- 3. Tighten the level gauge pipe bracket nut.

Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

4. Install the level gauge.

Spark Plug

- 1. Apply antiseize compound or molybdenum-based lubricant to the spark plug threads.
- 2. Install the spark plugs.

Tightening torque: 15—23 N·m (1.5—2.3 m-kg, 11—17 ft-lb)

**Water Outlet Pipe** 

- 1. Remove all foreign material from the water outlet pipe mounting surface.
- 2. Install a new gasket and the water outlet pipe.

Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

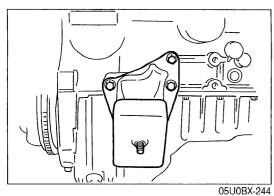
Oil Pressure Gauge Sender Unit

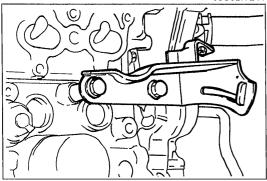
1. Install the oil pressure gauge sender unit.

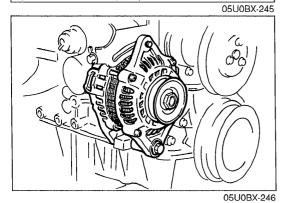
Tightening torque: 12—18 N·m (1.2—1.8 m-kg, 104—156 in-lb)

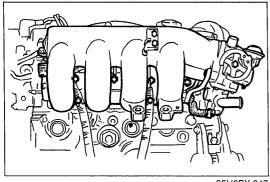
#### Oil Filter

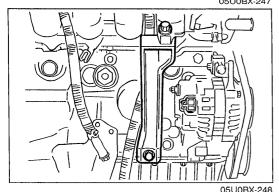
- 1. Remove all foreign material from the oil filter mounting surface.
- 2. Apply a small amount of clean engine oil to the rubber seal of the oil filter.
- 3. Install the oil filter and tighten it by hand until the rubber seal contacts the base.
- 4. Tighten the filter 1 and 1/6 turn with a filter wrench.











**Right Engine Mount** 

1. Install the right engine mount.

Tightening torque: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)

#### **Alternator Bracket**

1. Install the alternator bracket.

Tightening torque: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)

#### **Alternator**

1. Install the alternator and loosely tighten the mounting bolts.

**Intake Manifold Assembly** 

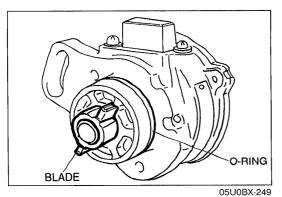
- 1. Remove all foreign material from the intake manifold contact surface.
- 2. Install a new gasket and the intake manifold assembly.

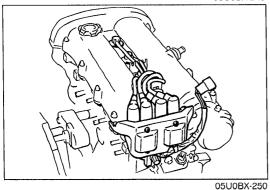
Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

#### **Manifold Bracket**

1. Install the manifold bracket.

Tightening torque: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)





**Crank Angle Sensor** 

 Apply grease to a new O-ring and the blade.
 Install the crank angle sensor and loosely tighten the installation bolt.

Ignition Coil and High-tension Lead

1. Install the ignition coil.

**Tightening torque:** 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

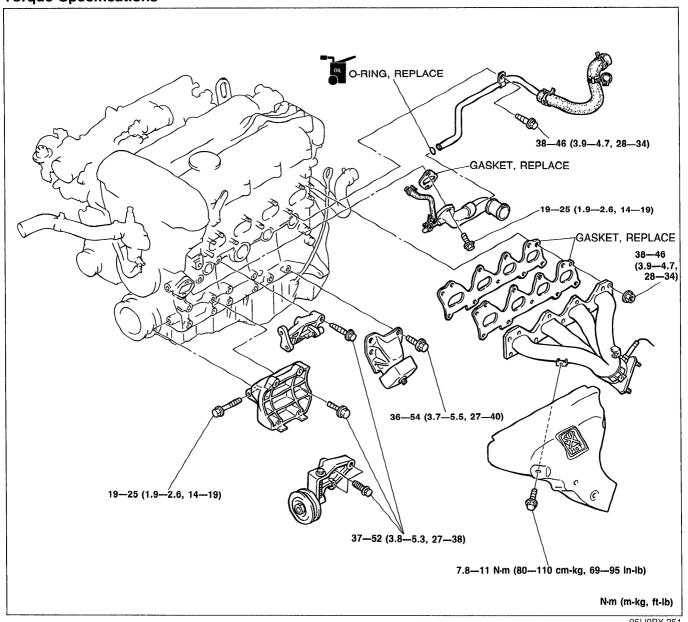
2. Connect the high-tension leads.

# **ENGINE STAND DISMOUNTING**

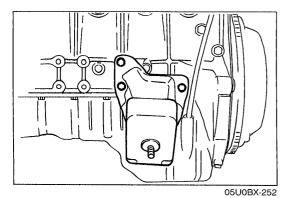
# **PROCEDURE**

- 1. Remove the engine from the **SST (engine stand)**.
- 2. Remove the SST (engine hanger) from the engine.
- 3. Install the parts shown in the figure.

# **Torque Specifications**





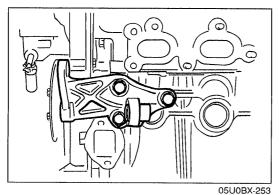


**Left Engine Mount** 

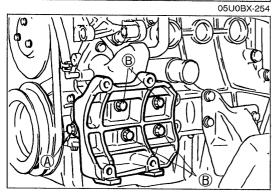
1. Install the left engine mount.

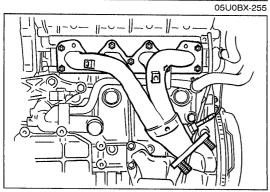
**Tightening torque:** 

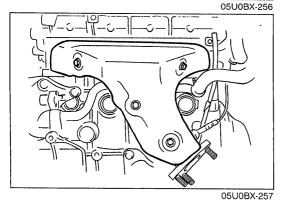
36-54 N·m (3.7-5.5 m-kg, 27-40 ft-lb)



O-RING







P/S Oil Pump Bracket

1. Install the P/S oil pump bracket.

Tightening torque: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

Idler

1. Install the A/C idler.

Tightening torque: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

Water Inlet Pipe and Bypass Pipe

- 1. Remove all foreign material from the water inlet pipe mounting surface.
- 2. Install a new gasket and the water inlet pipe.

Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

- 3. Apply a small amount of engine coolant to the new O-ring.
- 4. Install the water bypass pipe.

A/C Compressor Bracket

1. Install the A/C compressor bracket.

**Tightening torque:** 

A: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)
B: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

**Exhaust Manifold** 

- 1. Remove all foreign material from the exhaust manifold contact surface.
- 2. Install a new gasket and the exhaust manifold.

Tightening torque: 38—46 N·m (3.9—4.7 m-kg, 28—34 ft-lb)

**Exhaust Manifold Insulator** 

1. Install the exhaust manifold insulator.

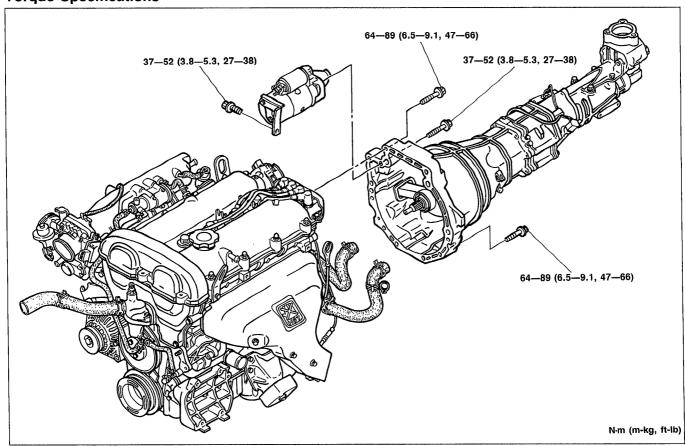
Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

# **INSTALLATION**

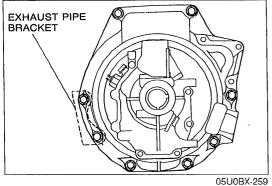
# **PROCEDURE**

1. Tighten all bolts and nuts to the specified torques.

Step 1
Torque Specifications



05U0BX-258



# 05U0BX-260

### **Transmission**

- 1. Join the engine and transmission.
- 2. Install the transmission mounting bolts.

### Caution

- Install the exhaust pipe bracket as shown.
- 3. Tighten the bolts.

Tightening torque: 64—89 N·m (6.5—9.1 m-kg, 47—66 ft-lb)

### Starter

1. Install the starter to the transmission housing.

# Tightening torque: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

2. Install the starter bracket bolt.

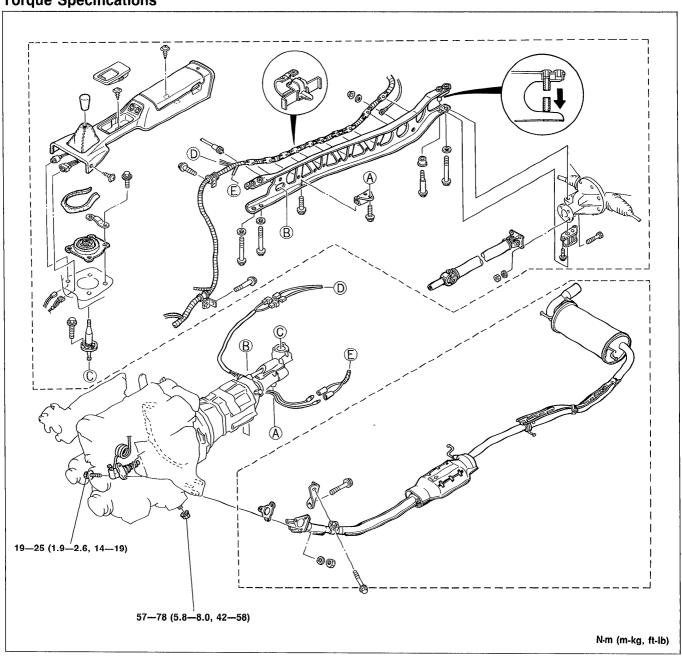
Tightening torque: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

# Step 2

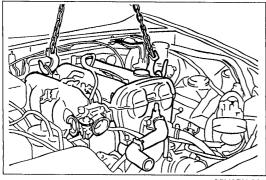
# Warning

• Be sure the vehicle is securely supported on safety stands.

# **Torque Specifications**







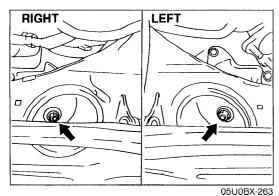
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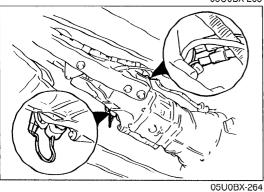
# Engine and transmission assembly

1. Suspend the engine and transmission assembly.

### Caution

- Do not damage any components in the engine compartment.
- 2. Install the engine with the transmission tilting downward.
- 3. Align the engine mounts with the crossmember mounting holes.
- 4. Support the transmission with a transmission jack.
- 5. Install the engine mount nuts and loosely tighten them.





Power plant frame

1. Install the power plant frame. (Refer to page J-45.)

**Engine mount nut** 

1. Tighten the engine mount nuts.

Tightening torque: 57—78 N·m (5.8—8.0 m-kg, 42—58 ft-lb)

Propeller shaft, speedometer cable, and shift knob

1. Install the propeller shaft, speedometer cable, and shift knob. (Refer to page J-45.)

**Transmission harness** 

1. Connect the transmission harness.

Clutch release cylinder

1. Install the clutch release cylinder.

Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

Exhaust pipe

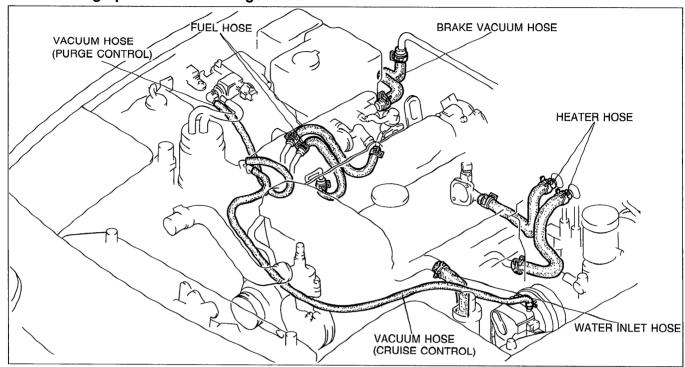
1. Install the exhaust pipe assembly. (Refer to page F-115.)

# Step 3

1. Connect the hoses shown in the figure.

# Caution

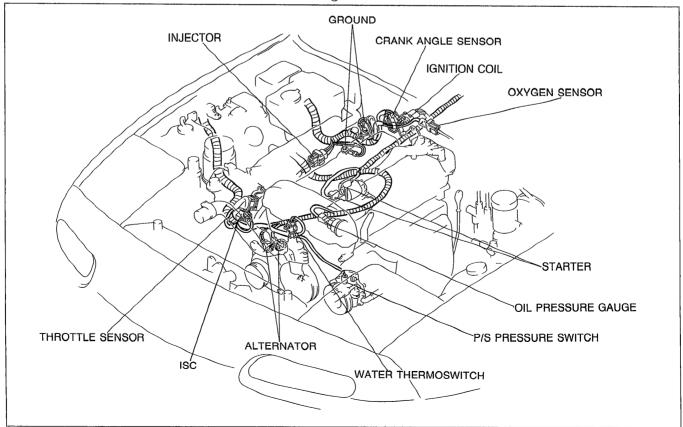
• Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.



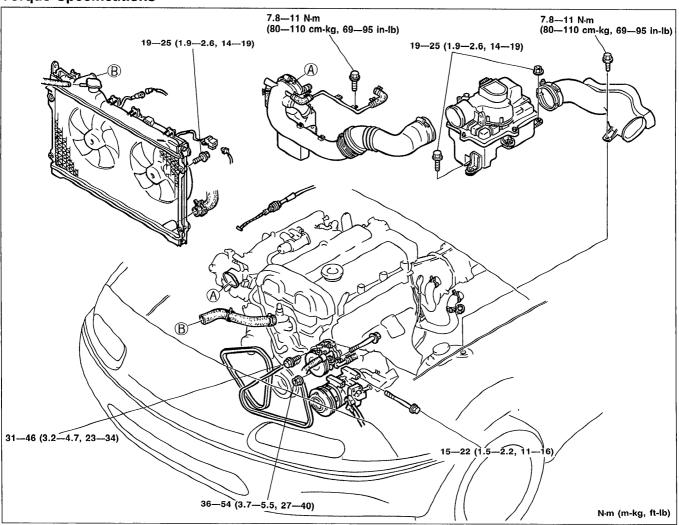
05U0BX-267

Step 4

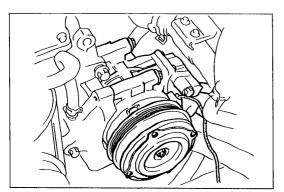
1. Connect the harness connectors shown in the figure.



Step 5 **Torque Specifications** 



05U0BX-269



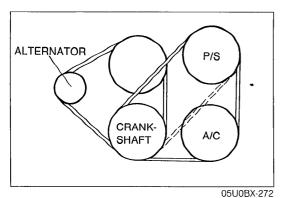
# 05U0BX-270 05U0BX-271

**A/C compressor**1. Install the A/C compressor.

# **Tightening torque:** 15—22 N·m (1.5—2.2 m-kg, 11—16 ft-lb)

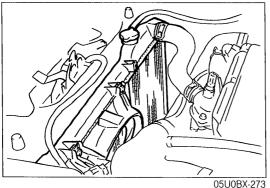
# P/S oil pump

1. Install the P/S oil pump and loosely tighten the mounting bolts.



# **Drive belt**

- 1. Install the alternator drive belt.
- 2. Install the P/S and/or A/C drive belt.
- 3. Adjust the drive belt deflections, and tighten the alternator and P/S mounting bolts and nuts. (Refer to page B-6.)



Radiator and cooling fan assembly

1. Install the radiator and cooling fan assembly.

Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

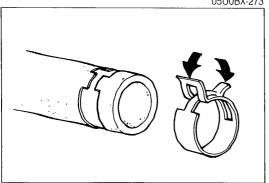
2. Tighten the A/C pipe bracket to the radiator.

Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

3. Connect the upper and lower radiator hoses.



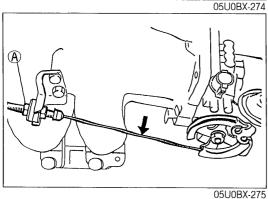
- Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.
- 4. Connect the coolant reservoir hose.
- 5. Connect the cooling fan connector.

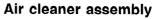


# Accelerator cable

- 1. Install the accelerator cable.
- 2. Adjust the cable deflection by turning nut A.

Deflection: 1—3mm (0.04—0.12 in)





1. Install the air cleaner assembly.

05U0BX-276

Tightening torque 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

# **INSTALLATION**

# **Steps After Installation**

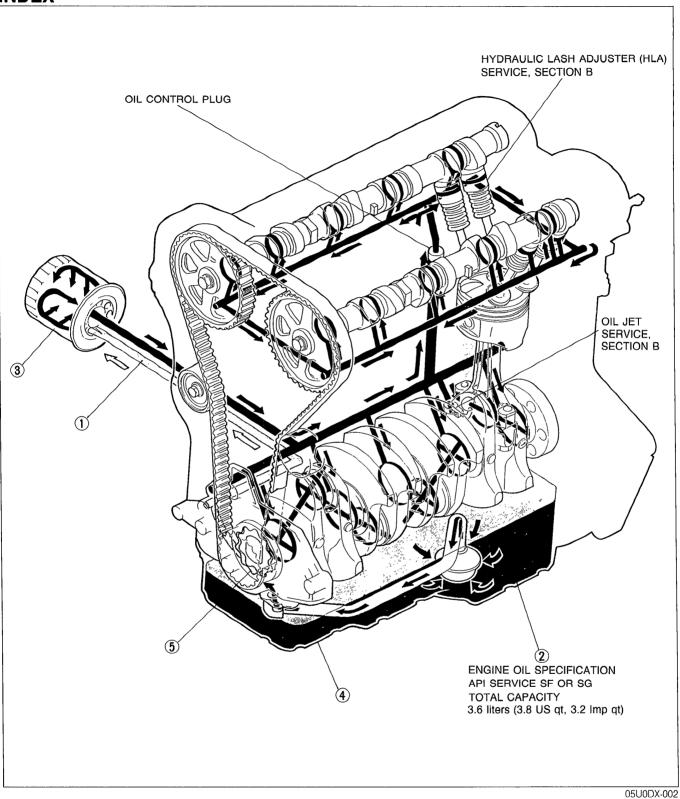
- 1. Install the under cover.
- 2. If the engine oil was drained, fill with the specified amount and type of engine oil. (Refer to page D-5.)
- 3. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 4. If the transmission oil was drained, fill with the specified amount and type of transmission oil. (Refer to page J-8.)
- 5. Connect the negative battery cable.
- 6. Start the engine and check the following.
  - (1) Engine oil, transmission oil, and engine coolant leakage.
  - (2) Ignition timing, idle speed. (Refer to page B-8.)
  - (3) Operation of emission control system.
- 7. Perform a road test.
- 8. Recheck the engine oil and engine coolant levels.

05U0BX-277

# **LUBRICATION SYSTEM**

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DISASSEMBLY / INSPECTION / ASSEMBLY.		

# **INDEX**



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2. Engine oil	Installatior
Inspection page D- 5	5. Oil pump
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3. Oil filter	Disassemb
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	Installation	page	D-	6
5.	Oil pump			
	Removal / Installation	page	D-	9
	Disassembly / Inspection /			
	Assembly	page	D-1	11

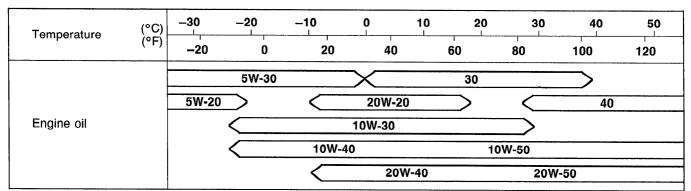
# **OUTLINE**

# **SPECIFICATIONS**

Item Engine		· Engine	B6 DOHC
Lubrication sys	stem		Force-fed type
Oil numn	Туре		Trochoid gear
Oil pump	Relief pressure	kPa (kg/cm², psi)	343—441 (3.5—4.5, 50—64)
Oil filtor	Туре		Full-flow, paper element
Oil filter	Relief pressure difference	ential kPa (kg/cm², psi)	78—118 (0.8—1.2, 11—17)
	Total (dry engine)	liters (US qt, Imp qt)	3.6 (3.8, 3.2)
Oil capacity	Oil pan	liters (US qt, Imp qt)	3.2 (3.4, 2.8)
	Oil filter liter (US qt, Imp qt)		0.17 (0.18, 0.15)
Engine oil			API service SF or SG

05U0DX-003

# **Recommended SAE Viscosity**



Anticipated ambient temperature range before succeeding oil change, °C (°F).

05U0DX-004

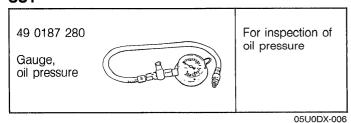
# TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy	Page
Engine hard starting	Improper engine oil Insufficient engine oil	Replace Add oil	D- 5 D- 5
Excessive oil consumption	Oil working up or down Oil leakage	Refer to Section B Repair	
Oil pressure drop	Insufficient oil Oil leakage Worn and/or damaged oil pump gear Replace		D- 5 
Oll pressure gauge (meter) does not operate	Oil pressure drop Malfunction of oil pressure gauge Malfunction of electrical system	As described above Refer to Section T Refer to Section T	

05U0DX-005

# **OIL PRESSURE**

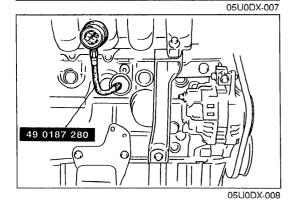
# **PREPARATION** SST





**INSPECTION** 

1. Remove the oil pressure gauge sender unit.



- 2. Screw the SST into the oil pressure gauge sender unit installation hole.
- 3. Warm up the engine to normal operating temperature.
- 4. Run the engine at 1,000 rpm and 3,000 rpm, and note the gauge reading.

Oil pressure:

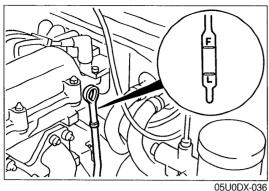
196—294 kPa (2.0—3.0 kg/cm<sup>2</sup>, 28—43 psi)—1,000 rpm 294—392 kPa (3.0—4.0 kg/cm<sup>2</sup>, 43—57 psi)—3,000 rpm

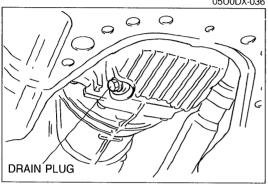
- 5. If the pressure is not as specified, check for the cause and repair. (Refer to Troubleshooting Guide.)
- 6. Remove the **SST** and install the oil pressure gauge sender

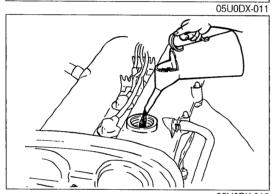
**Tightening torque:** 

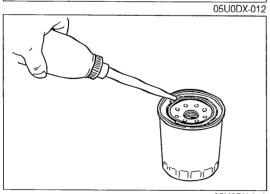
12—18 N·m (1.2—1.8 m-kg, 104—156 in-lb)

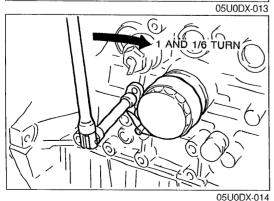
05U0DX-009











# **ENGINE OIL**

# INSPECTION

- 1. Be sure the vehicle is on level ground.
- 2. Warm up the engine to normal operating temperature and stop it.
- 3. Wait for five minutes.
- 4. Remove the oil level gauge and check the oil level and condition.
- 5. Add or replace oil as necessary.

### Note

 The distance between the L and F marks on the level gauge represents 0.8 liter (0.85 US qt, 0.70 lmp qt).

# REPLACEMENT

# Warning

- Be careful when draining; the oil is hot.
- 1. Warm up the engine to normal operating temperature and stop it.
- 2. Remove the oil filler cap and the oil pan drain plug.
- 3. Drain the oil into a suitable container.
- 4. Install a new gasket and the drain plug.

# Tightening torque: 29—41 N·m (3.0—4.2 m-kg, 22—30 ft-lb)

- 5. Refill the engine with the specified type and amount of engine oil.
- 6. Refit the oil filler cap.

# Oil pan capacity: 3.2 liters (3.4 US qt, 2.8 Imp qt)

- 7. Run the engine and check for leaks.
- 8. Check the oil level and add oil if necessary.

# OIL FILTER

# REPLACEMENT

- 1. Remove the oil filter with a suitable wrench.
- 2. Use a clean rag to wipe off the mounting surface on the engine.
- 3. Apply a small amount of clean engine oil to the rubber seal of the new filter.
- 4. Install the oil filter and tighten it by hand until the rubber seal contacts the base.
- 5. Tighten the filter 1 and 1/6 turn with a filter wrench.
- 6. Start the engine and check for leaks.
- 7. Check the oil level and add oil if necessary.

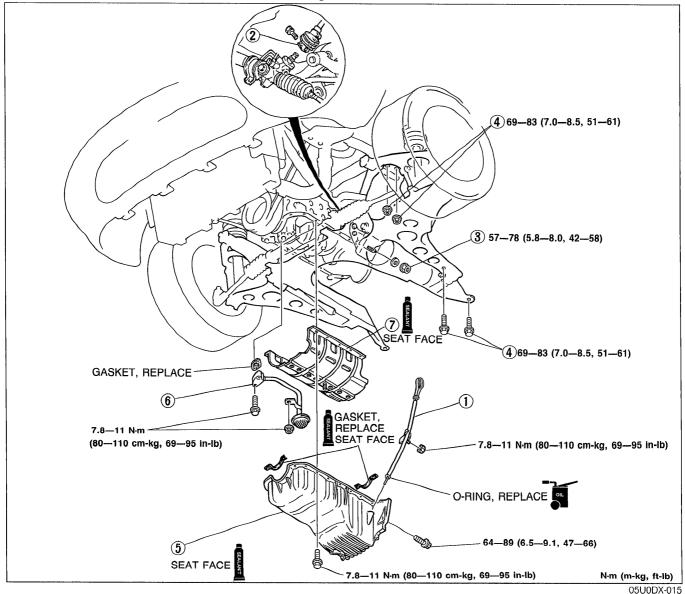
Oil filter capacity: 0.17 liter (0.18 US qt, 0.15 lmp qt)

# OIL PAN

# **REMOVAL / INSPECTION / INSTALLATION**

### Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- 1. Disconnect the negative battery cable.
- 2. Drain the engine oil.
- 3. Remove the under cover.
- 4. Remove in the order shown in the figure, referring to **Removal Note**.
- 5. Install in the reverse order of removal, referring to Installation Note.



1. Oil level gauge and pipe

2. Intermediate shaft

3. Engine mount nut Removal Note ..... page D- 7

4. Crossmember installation bolt and nut

Removal Note ...... page D- 7

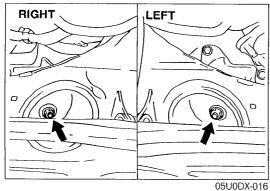
5. Oil pan

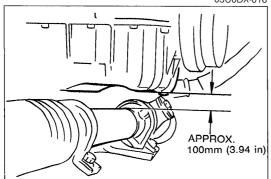
Removal Note ..... page D- 7 Inspect for cracks, deformation, and damage Installation Note...... page D- 8

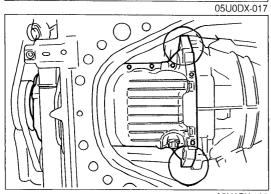
6. Oil strainer

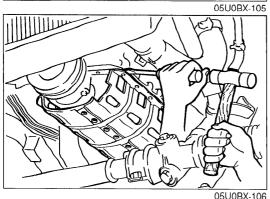
7. Oil pan baffle

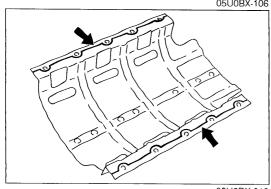
Removal Note ...... page D- 7 Installation Note...... page D- 7











05U0DX-018

# Removal Note Engine mount nut

- 1. Loosen the oil pan mounting bolts.
- 2. Remove the engine mount nuts.
- 3. Lift the engine slightly with a hoist.

# Crossmember installation bolt and nut

- 1. Support the crossmember with a transmission jack.
- 2. Remove the crossmember installation bolts and nuts.

# Caution

• Do not damage the brake hoses, P/S hoses, and A/C hoses when lowering the crossmember.

### Note

- Lower the crossmember after separating the steering intermediate shaft from the pinion shaft.
- 3. Lower the crossmember until the clearance between the oil pan and the steering gear housing exceeds **approx.** 100mm (3.94 in).

# Oil par

1. Remove the oil pan mounting bolts.

# Caution

- Do not force a prying tool between the cylinder block and the oil pan, which may damage the contact surfaces.
- Do not damage or scratch the contact surfaces when removing the old sealant.
- 2. Insert a screwdriver or a suitable tool only at the points shown in the figure.
- 3. Remove the oil pan.

# Oil pan baffle

# Caution

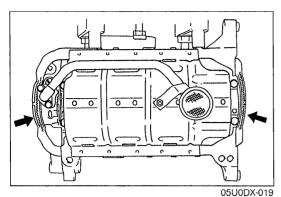
- Do not bend the baffle when prying it loose.
- 1. Insert a screwdriver or other suitable tool between the cylinder block and the baffle to separate them.
- 2. Remove the baffle.

# Installation Note Oil pan baffle

1. Remove all foreign material from the contact surfaces.

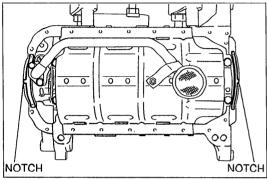
# Caution

- The oil pan must be secured within 30 minutes after the sealant is applied to the baffle.
- 2. Apply a continuous bead of silicone sealant to the baffle along the inside of the bolt holes.
- 3. Install the baffle.

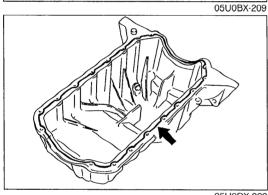


Oil pan

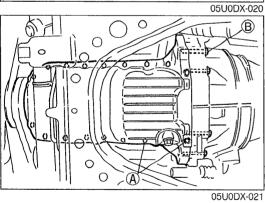
- 1. Remove all foreign material from the contact surfaces.
- 2. Apply silicone sealant to the shaded areas shown in the figure.



3. Install new gaskets onto the oil pump body and the rear cover with the projections in the notches shown in the figure.



4. Apply a continuous bead of silicone sealant to the oil pan along the inside of the bolt holes and overlap the ends.



5. Install the oil pan.

**Tightening torque:** 

A: 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)
B: 64—89 N·m (6.5—9.1 m-kg, 47—66 ft-lb)

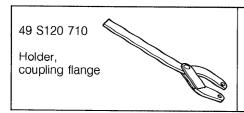
# **Steps After Installation**

- 1. Install the under cover.
- 2. Fill with the specified amount and type of engine oil. (Refer to page D-5.)
- 3. Connect the negative battery cable.
- 4. Start the engine and check for leaks.
- 5. Check the oil level and add oil if necessary.

05U0DX-022

# **OIL PUMP**

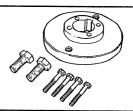
# PREPARATION SST



For removal and installation of timing belt pulley

49 B011 102

Lock tool, crankshaft



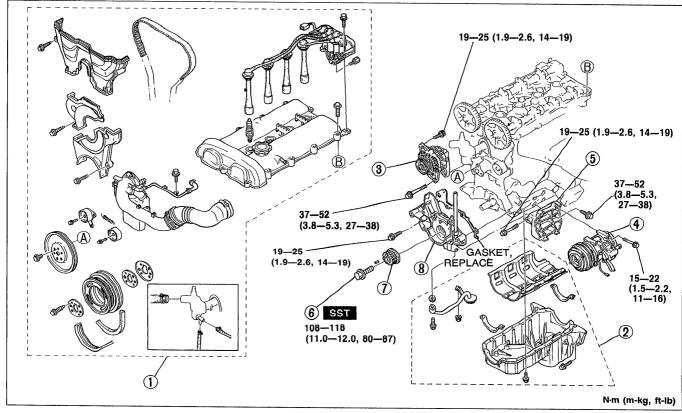
For removal and installation of timing belt pulley

05U0DX-023

# **REMOVAL / INSTALLATION**

### Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- 1. Disconnect the negative battery cable.
- 2. Drain the engine oil.
- 3. Remove in the order shown in the figure, referring to **Removal Note**.
- 4. Install in the reverse order of removal, referring to Installation Note.

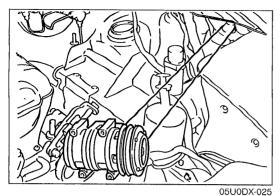


05U0DX-024

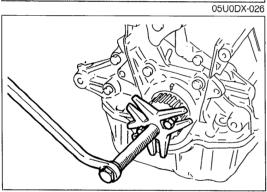
1. Timing belt
Service page B-12
2. Oil pan
Removal / Installation page D- 6
3. Alternator
4. A/C compressor
Removal Note page D-10
5. A/C compressor bracket
•

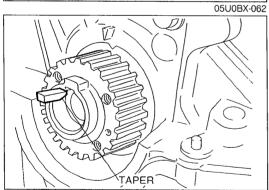
	000000000000000000000000000000000000000
6. Pulley lock bolt	
Removal Note	page D-10
Installation Note	page D-10
7. Timing belt pulley	
Removal Note	page D-10
Installation Note	page D-10
8. Oil pump	
Disassembly / Inspection /	
Assembly	page D-11

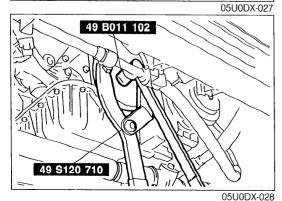
# OIL PUMP



# 49 B011 102 49 S120 710







# Removal Note A/C compressor

### Caution

- Do not damage the hoses.
- 1. Remove the A/C compressor with the hoses still connected.
- 2. Position the compressor away from the engine and affix it with wire.

# **Pulley lock bolt**

- 1. Hold the timing belt pulley with the SST.
- 2. Connect the **SST** and loosen the pulley lock bolt.
- 3. Remove the pulley lock bolt.

# Timing belt pulley

# Note

- If necessary, remove the pulley with a steering wheel puller (commercially available).
- 1. Remove the timing belt pulley.
- 2. Remove the pulley Woodruff key.

# Installation Note Timing belt pulley

- 1. Install the timing belt pulley.
- 2. Install the pulley Woodruff key with the tapered side toward the oil pump body.

# Pulley lock bolt

- 1. Install the pulley lock bolt.
- 2. Tighten the pulley lock bolt using the two SST.

# Tightening torque: 108—118 N·m (11.0—12.0 m-kg, 80—87 ft-lb)

3. Remove the SST.

# D

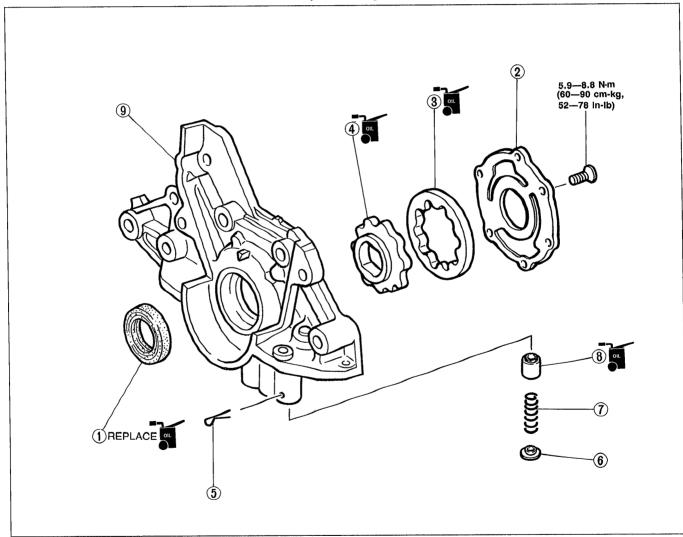
# **Steps After Installation**

- 1. Install the under cover.
- 2. Fill with the specified amount and type of engine oil. (Refer to page D-5.)
- 3. Connect the negative battery cable.
- 4. Start the engine and check for leaks.
- 5. Check the oil level and add oil if necessary.

05U0DX-022

# DISASSEMBLY / INSPECTION / ASSEMBLY

- 1. Disassemble in the order shown in the figure, referring to Disassembly Note.
- 2. Assemble in the reverse order of disassembly, referring to Assembly Note.



05U0DX-029

_	$\sim$	
7	( )(	seal
- 1	$\sim$ 1	Jour

Disassembly Note ...... page D-12 Assembly Note ..... page D-13

2. Pump cover

Inspect for distortion or damage

- 3. Outer rotor
- 4. Inner rotor
- 5. Roll pin

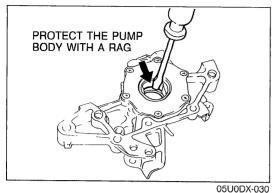
		seat

- 8. Control plunger

Inspect for wear or damage

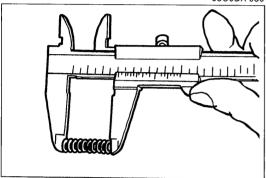
9. Pump body

Inspect for distortion or damage



# Disassembly Note Oil seal

1. Remove the oil seal with a screwdriver protected with a rag.

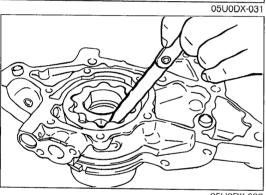


# INSPECTION Pressure Spring

1. Inspect the spring for weakness or breakage.

2. Measure the free length. Replace the spring if necessary.

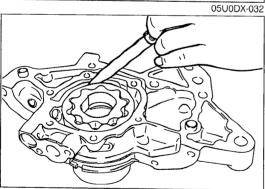
Free length: 45.5mm (1.791 in)



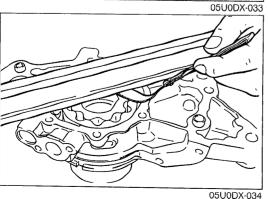
# **Rotor Clearance**

1. Measure the following clearances. Replace the rotor if necessary.

Tooth tip clearance: 0.20mm (0.0079 in) max.



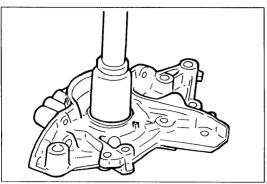
Outer rotor to pump body clearance: 0.22mm (0.0087 in) max.



Side clearance: 0.14mm (0.0055 in) max.

OIL PUMP





05U0DX-035

# Assembly Note

# Oil seal

- 1. Apply a small amount of clean engine oil to the lip of a new oil seal.
- 2. Push the oil seal slightly in by hand.

# Caution

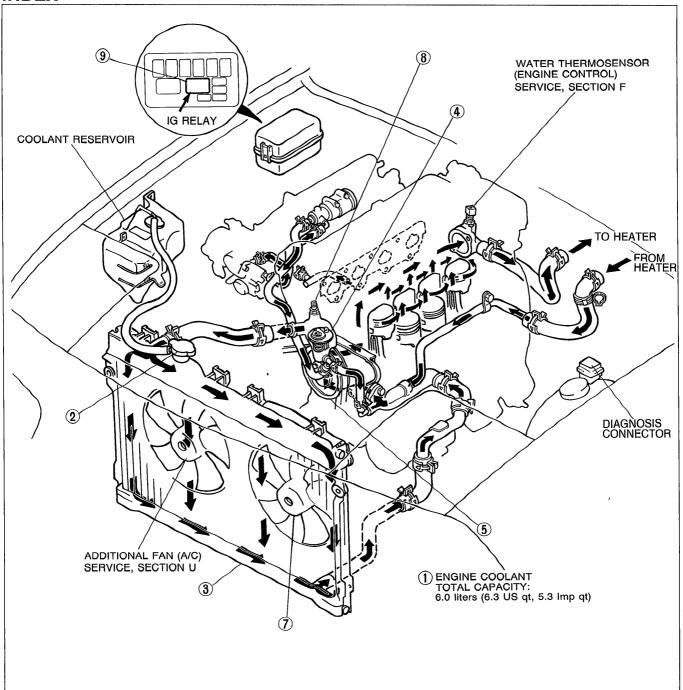
- The oil seal must be pressed in until it is flush with the edge of the oil pump body.
- 3. Press the oil seal in evenly with a suitable pipe.

Oil seal outer diameter: 44mm (1.73 in)

# **COOLING SYSTEM**

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FAN RELAY		
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# **OUTLINE**

# **SPECIFICATIONS**

ltem Engine				B6 DOHC	
Cooling system			Water-cooled, forced circulation		
Coolant capacity	У	liters (US q	t, Imp qt)	6.0 (6.3, 5.3)	
Water pump	Туре			Centrifugal	
	Water seal			Unified mechanical seal	
Thermostat	Туре			Wax, two-stage	
	Opening temperature °C (°F)		°C (°F)	Main: 86.5—89.5 (188—193) Sub : 83.5—86.5 (182—188)	
	Full-open temperature °C (°F)		°C (°F)	100 (212)	
	Full-open lift mm		mm (in)	Main: 8.0 (0.31) min. Sub : 1.5 (0.06) min.	
	Туре			Corrugated fin	
Radiator	Cap valve opening pressure kPa (kg/cm², psi)			74—103 (0.75—1.05, 11—15)	
	Туре			Electric	
Cooling fan	Blade	Outer diameter	mm (in)	320 (12.6)	
		Number		5	
	Motor	Capacity	W-V	70-12	
		Current	Α	5.3—6.5	

05U0EX-003

# TROUBLESHOOTING GUIDE

Problem	Possible Cause	Remedy	Page
Overheating	Coolant level insufficient Coolant leakage Radiator fins clogged Radiator cap malfunction Cooling fan malfunction Thermostat malfunction Water passage clogged Water pump malfunction	Add Repair Clean Replace Replace Replace Clean Replace	E- 5  E- 7 E- 6 E-11 E- 8 E- 5 E- 9
Corrosion	Impurities in coolant	Replace	E- 5

# **ENGINE COOLANT**

# **PREPARATION** SST

49 9200 145

Adapter set. radiator cap tester



For inspection of cooling system pressure

49 9200 146

Adapter A (Part of 49 9200 145)



For inspection of cooling system pressure

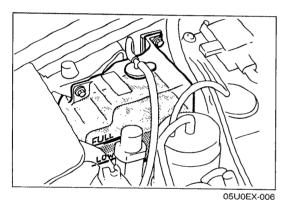
05U0EX-005

### INSPECTION

# Warning

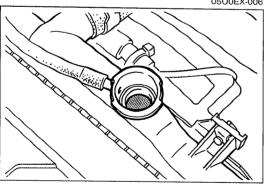
- Never remove the radiator cap while the engine is
- Wrap a thick cloth around the cap when removing it.
- When removing the radiator cap, loosen it slowly to the first stop until the pressure in the radiator is released, and then remove it.

05U0EX-033



**Coolant Level (Engine cold)** 

- 1. Verify that the coolant level is near the radiator filler neck.
- 2. Verify that the coolant level in the coolant reservoir is between the FULL and LOW marks. Add coolant if necessary.

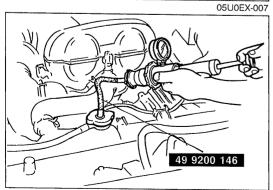


**Coolant Quality** 

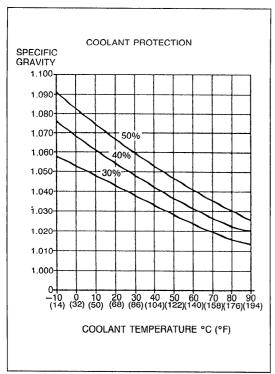
- 1. Verify that there is no buildup of rust or scale around the radiator cap or radiator filler neck.
- 2. Verify that coolant is free of oil. Replace the coolant if necessary.

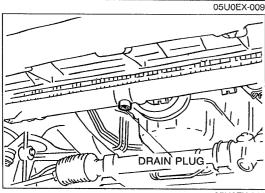


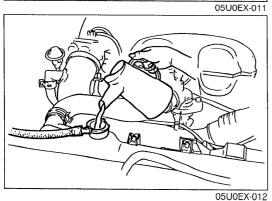
- 1. Connect a radiator tester (commercially available) and the
- SST to the radiator filler neck.
  2. Apply 103 kPa (1.05 kg/cm², 15 psi) pressure to the system.
- 3. Verify that the pressure is held. If not, check for coolant leakage.



E







**Coolant Protection** 

### Caution

- Do not use alcohol- or methanol-based coolant.
- Use only soft (demineralized) water in the coolant mixture.
- 1. Measure the coolant temperature and specific gravity with a thermometer and a hydrometer.
- 2. Determine the coolant protection by referring to the graph shown.

If the coolant protection is not proper, add water or coolant.

# Antifreeze solution mixture percentage

Coolant protection	Volume p	Gravity at	
Coolant protection	Water	Coolant	20°C (68°F)
Above -16°C (3°F)	65	35	1.054
Above -26°C (-15°F)	55	45	1.066
Above -40°C (-40°F)	45	55	1.078

05U0EX-010

### REPLACEMENT

# Warning

- Never open the radiator cap while the engine is hot.
- Wrap a thick cloth around the cap when loosening.
- Use caution when draining hot coolant.

### Caution

- Do not use alcohol- or methanol-based coolant.
- Use only soft (demineralized) water in the coolant mixture.
- 1. Remove the radiator cap and loosen the drain plug.
- 2. Drain the coolant into a suitable container.
- 3. Flush the cooling system with water until all traces of color are gone, then let the system drain completely.
- 4. Install the drain plug.
- 5. Fill with the proper amount and mixture of ethylene glycol-based coolant by referring to the table above.

# Coolant capacity: 6.0 liters (6.3 US qt, 5.3 Imp qt)

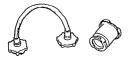
- 6. Run the engine, with the radiator cap removed, until the upper radiator hose is hot.
- 7. With the engine idling, add coolant to the radiator until it reaches the bottom of the filler neck.
- 8. Install the radiator cap.

# RADIATOR CAP

# PREPARATION SST

49 9200 145

Adapter set, radiator cap tester



For inspection of radiator cap valve

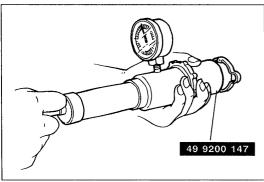
49 9200 147

Adapter B (Part of 49 9200 145)

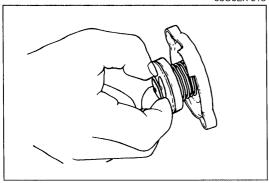


For inspection of radiator cap valve

05U0EX-014



05U0EX-015



05U0EX-013

# INSPECTION Radiator Cap Valve

- 1. Remove foreign material (such as water residue) from between the radiator cap valve and the valve seat.
- 2. Attach the radiator cap to a radiator cap tester (commercially available) with the **SST**. Apply pressure gradually to **74—103 kPa (0.75—1.05 kg/cm². 11—15 psi)**.
- 74—103 kPa (0.75—1.05 kg/cm², 11—15 psi).
  3. Wait about 10 seconds. Verify that the pressure has not decreased.

# **Negative Pressure Valve**

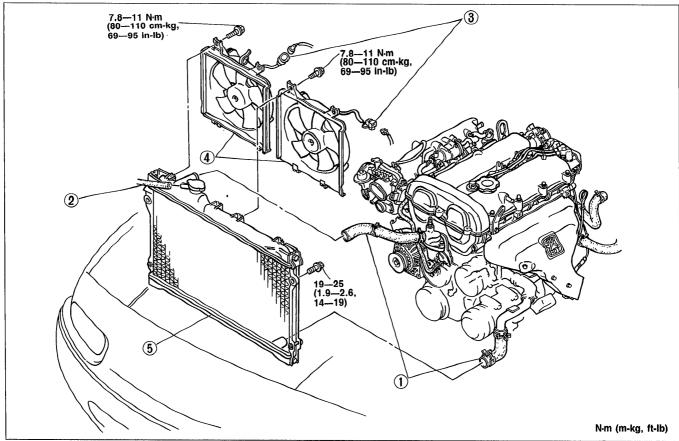
- 1. Pull the negative pressure valve to open it. Verify that it closes completely when released.
- 2. Check for damage on the contact surfaces and for cracked or deformed seal packing.
- 3. Replace the radiator cap if necessary.

# **RADIATOR**

# **REMOVAL / INSPECTION / INSTALLATION**

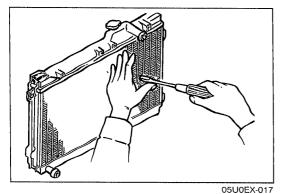
### Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.
- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove the under cover.
- 4. Remove in the order shown in the figure.
- 5. Install in the reverse order of removal.



05U0EX-016

- 1. Radiator hose
- 2. Coolant reservoir hose
- 3. Cooling fan connector



4. Cooling fan and additional fan

5. Radiator

Inspection ...... page E-7

# INSPECTION

Check for the following and repair or replace as necessary.

- 1. Cracks, damage, and water leakage.
- 2. Bent fins (repair with a screwdriver).
- 3. Distorted or bent radiator inlet.

# **Steps After Installation**

- 1. Install the under cover.
- 2. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 3. Connect the negative battery cable.
- 4. Start the engine and check for leaks.

# **THERMOSTAT**

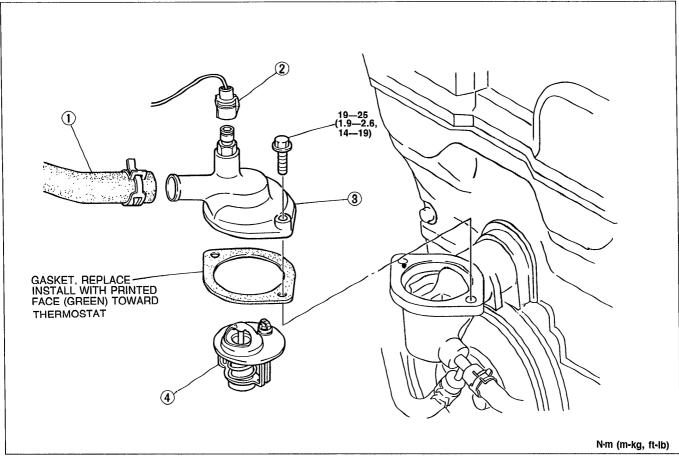
# **REMOVAL / INSPECTION / INSTALLATION**

### Caution

• Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

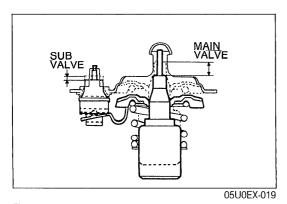
• Position the hose clamp in the original location on the hose, and squeeze the clamp lightly with large pliers to ensure a good fit.

- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove in the order shown in the figure.
- 4. Install in the reverse order of removal.



05U0EX-018

- 1. Radiator hose upper
- 2. Water thermoswitch connector
- 3. Thermostat cover



Initial-opening temperature

Main: 86.5—89.5°C (188—193°F) Sub: 83.5—86.5°C (182—188°F) Full-open temperature: 100°C (212°F)

Full-open lift

Main: 8.0mm (0.31 in) min. Sub: 1.5mm (0.06 in) min.

4. Thermostat

Inspection ...... page E-8

# **INSPECTION**

- 1. Visually check that the thermostat valve is airtight.
- 2. Place the thermostat and a thermometer in water.
- 3. Heat the water and check the following:

# E

# **Steps After Installation**

- 1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 2. Connect the negative battery cable.
- 3. Start the engine and check for leaks.

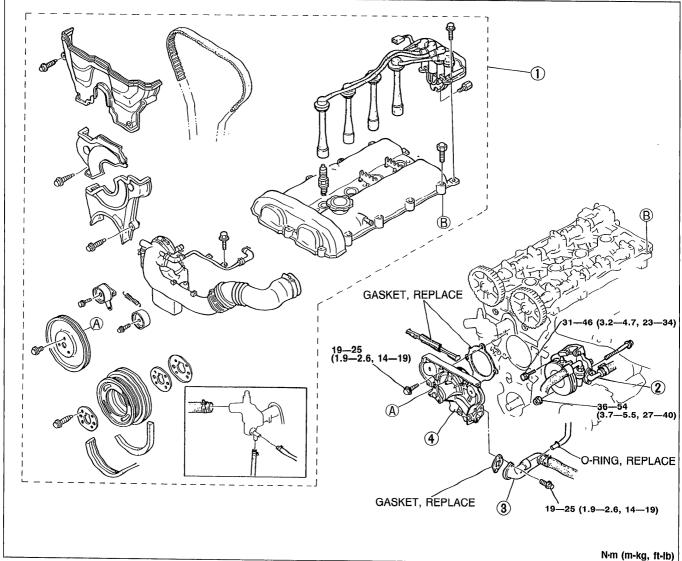
### 05U0EX-020

# **WATER PUMP**

# **REMOVAL / INSTALLATION**

# **Caution**

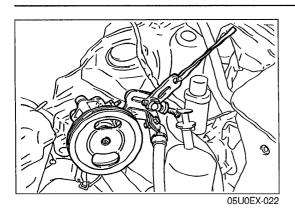
- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- Do not disassemble the water pump. If a problem is found, replace the pump as a unit.
- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove in the order shown in the figure, referring to Removal Note.
- 4. Install in the reverse order of removal.



05U0EX-021

3. Water inlet pipe

- 4. Water pump
  Inspect for cracks, damaged mounting surface, bearing condition, and leakage



# Removal Note P/S oil pump

# Caution

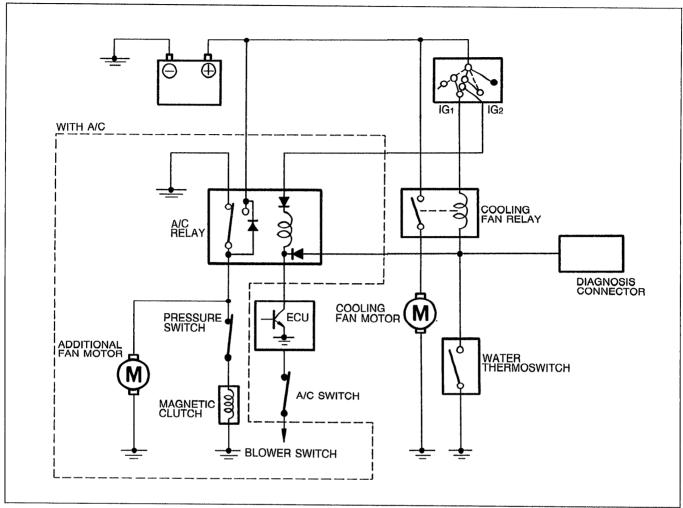
- Do not damage the hoses.
- 1. Remove the P/S oil pump with the hoses still connected.
- 2. Position the pump away from the engine and affix it with wire.

# **Steps After Installation**

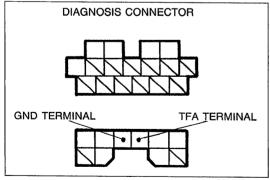
- 1. Fill the radiator with the specified amount and type of engine coolant. (Refer to page E-5.)
- 2. Connect the negative battery cable.
- 3. Start the engine and check for leaks.

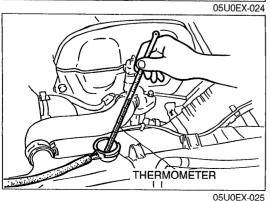
# **ELECTRIC COOLING FAN SYSTEM**

# SYSTEM CIRCUIT



05U0EX-023

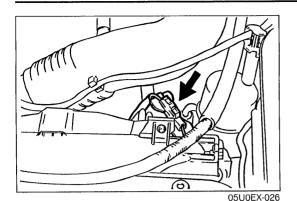




# SYSTEM INSPECTION

- 1. Jump across the fan test (TFA) terminal and the ground (GND) terminal of the diagnosis connector.
- 2. Turn the ignition switch ON and verify that the fan operates. If the fan does not operate, inspect the cooling fan system components and wire harness.
- 3. Remove the radiator cap and place a thermometer in the radiator filler neck.
- 4. Start the engine.
- 5. Verify that the fan operates when the coolant temperature reaches **approx. 97°C (207°F)**. If the fan does not operate, check the water thermoswitch. (Refer to page E-13.)

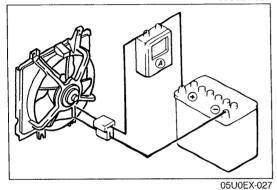
# **FAN MOTOR**



# INSPECTION

**FAN MOTOR** 

- 1. Check that the battery is fully charged.
- 2. Disconnect the fan motor connector.



- 3. Connect the battery and an ammeter to the fan motor connector.
- 4. Verify that current is as specified.

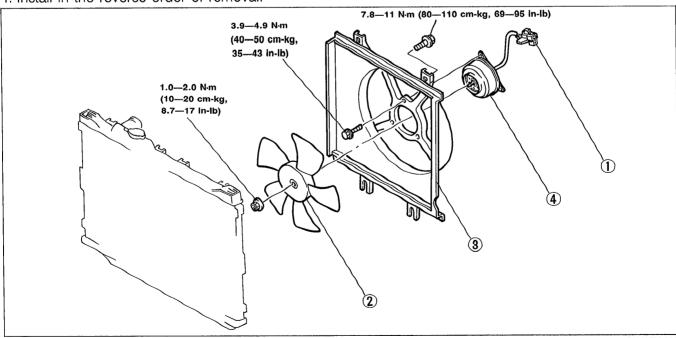
# Current: 5.3-6.5A

5. If current is not within specification and/or the fan does not turn smoothly, replace the fan motor.

### REPLACEMENT

### Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- 1. Disconnect the negative battery cable.
- 2. Drain the engine coolant.
- 3. Remove in the order shown in the figure.
- 4. Install in the reverse order of removal.



- 1. Cooling fan connector
- 2 Cooling fan

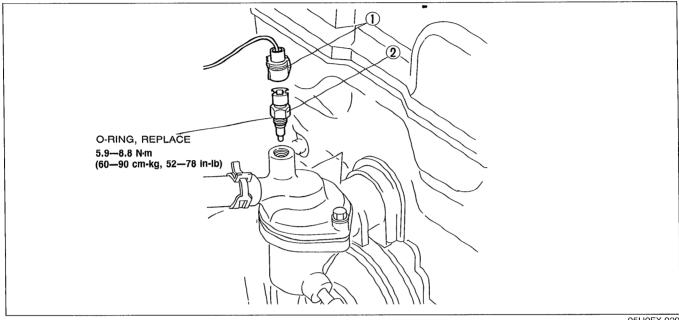
- 3. Radiator cowling
- 4. Fan motor

# WATER THERMOSWITCH

# **REMOVAL / INSPECTION / INSTALLATION**

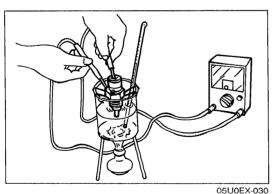
### Caution

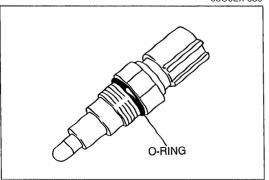
- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal, referring to **Installation Note**.



05U0EX-029

1. Water thermoswitch connector





05U0EX-031

2. Water thermoswitch

Inspection	page E–13
Installation Note	page E-13

# INSPECTION

- 1. Place the switch and a thermometer in water.
- 2. Heat the water gradually and check continuity of the switch with an ohmmeter.

Coolant temperature °C (°F)	Continuity
More than 97 (207)	Yes
Less than 90 (194)	No

3. If not as specified, replace the water thermoswitch.

# **Installation Note** Water thermoswitch

1. Apply a small amount of engine coolant to the new O-ring.

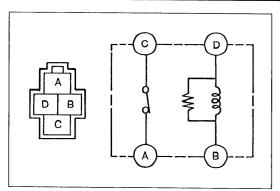
# Caution

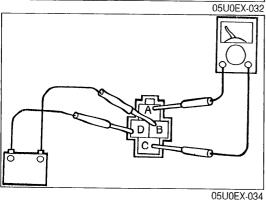
- Do not use an impact wrench for installation.
- 2. Install the water thermoswitch.

**Tightening torque:** 

5.9—8.8 N·m (60—90 cm-kg, 52—78 in-lb)

# **FAN RELAY**





# **FAN RELAY**

# **INSPECTION**

1. Check continuity as shown with an ohmmeter.

Terminal	Continuity
A—C	No
B—D	Yes

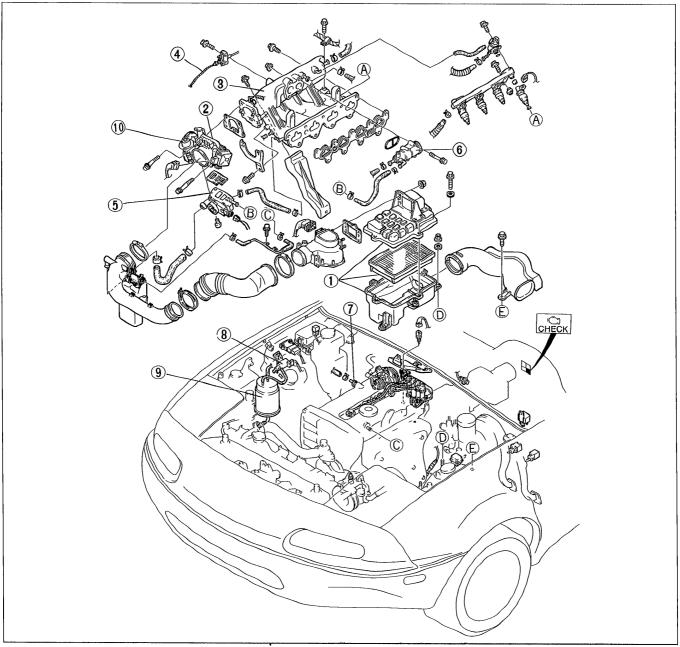
- 2. Apply 12V between terminals B and D. Check for continuity between terminals A and C.3. If not as specified, replace the fan relay.

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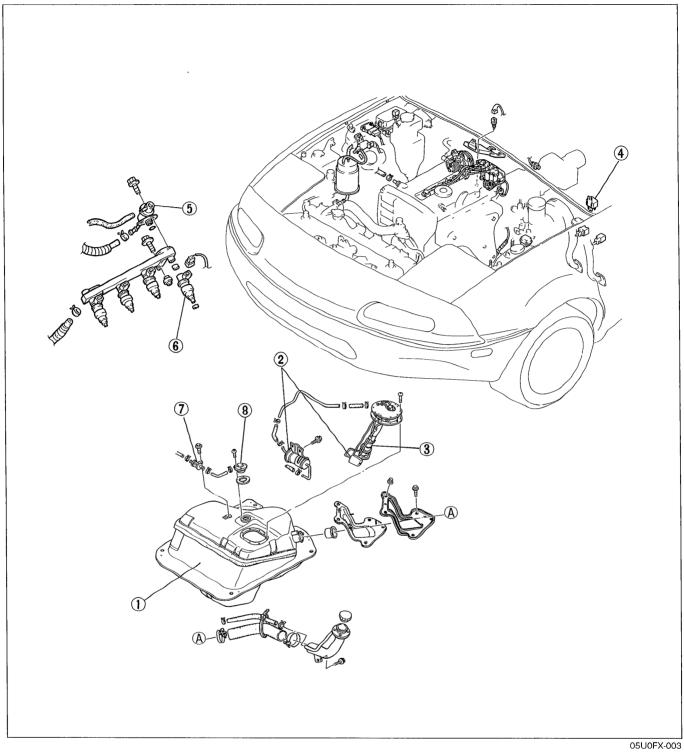
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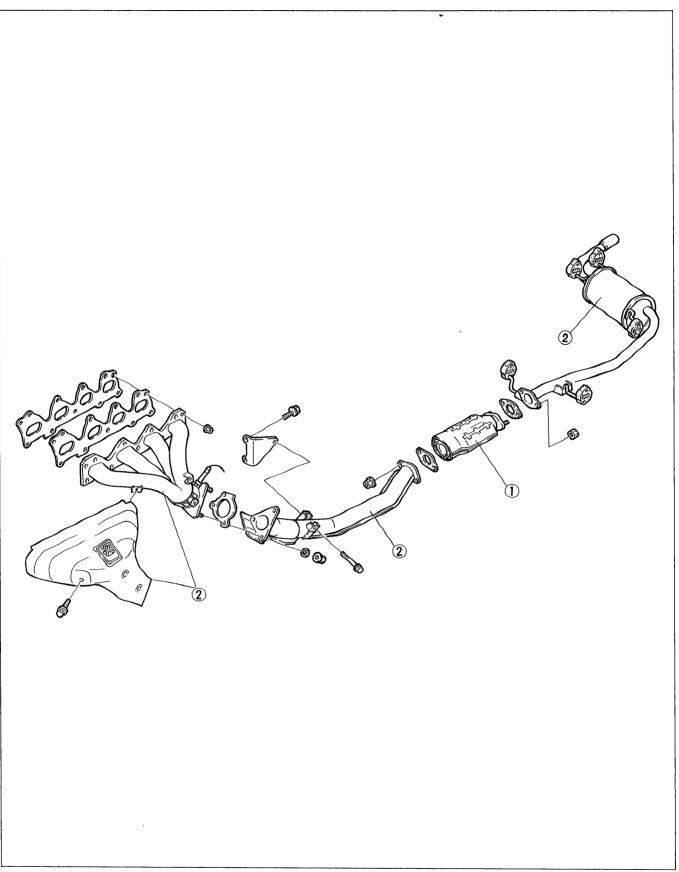
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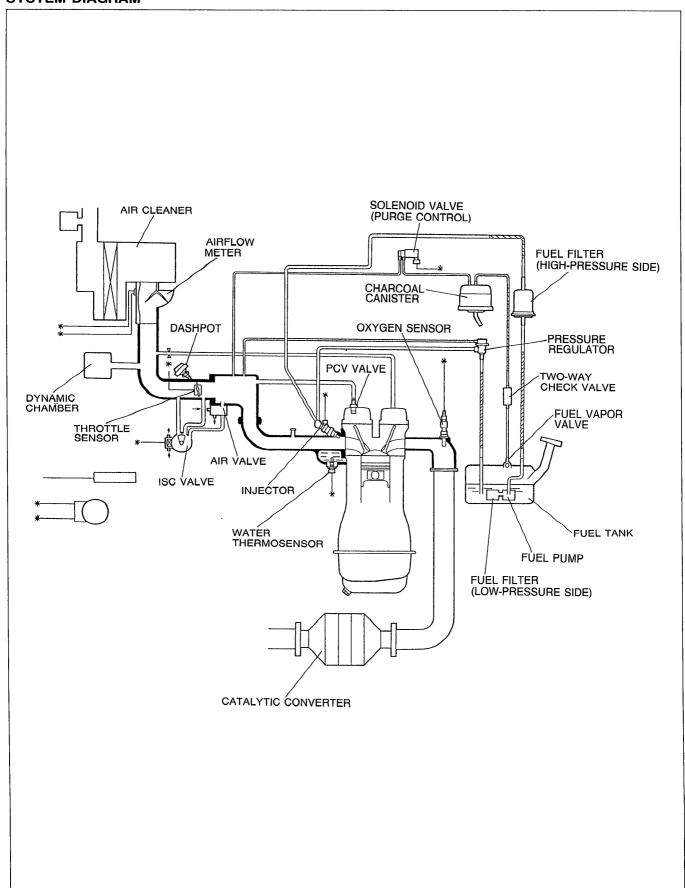
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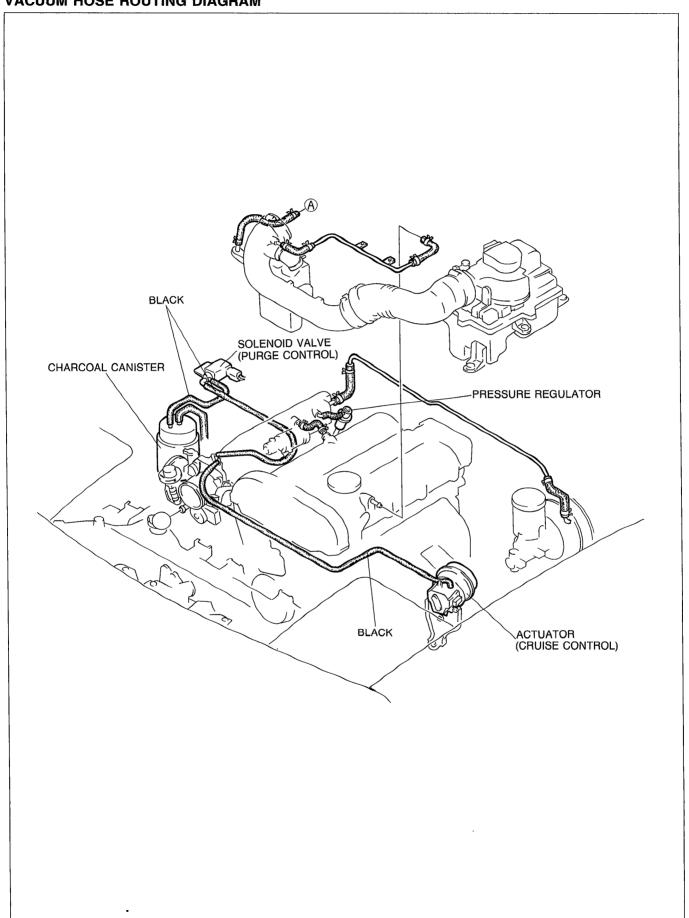
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### **OUTLINE**

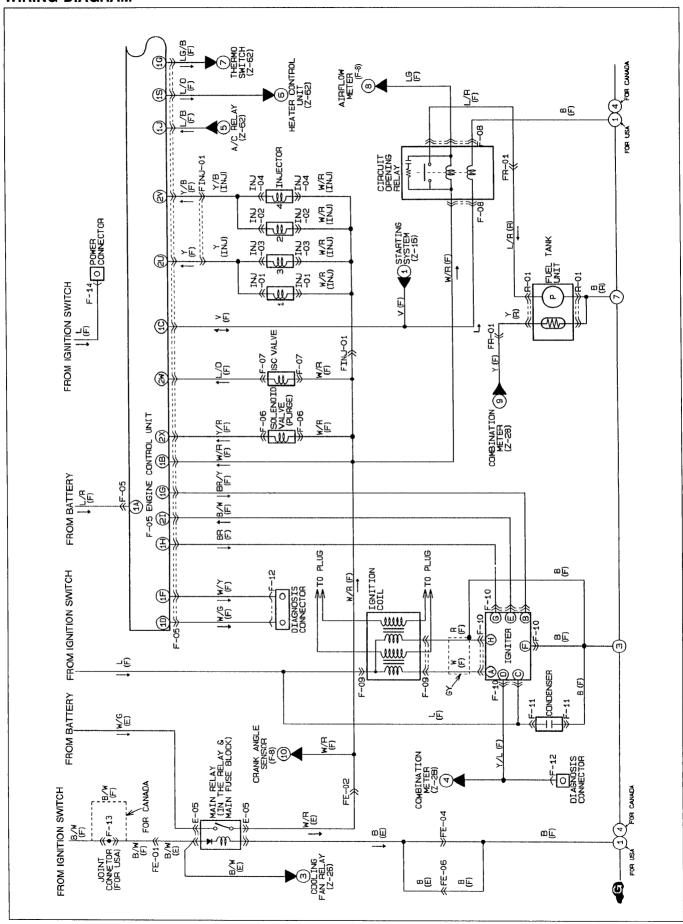
### **SYSTEM DIAGRAM**

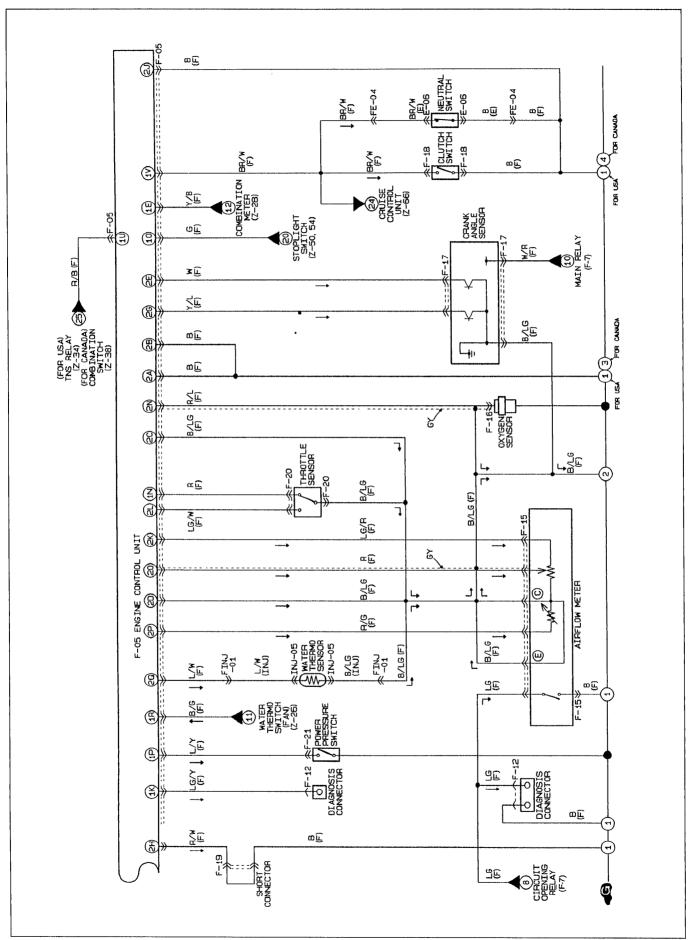


### **VACUUM HOSE ROUTING DIAGRAM**



### **WIRING DIAGRAM**





F

### **SPECIFICATIONS**

	Item		Specification				
Idle speed		rpm	850 ± 50*				
Ignition timing		BTDC	10° ± 1°*				
Throttle body							
Туре			Horizontal draft				
Throat diameter		mm (in)	55 (2.2)				
Fuel pump							
Туре			Impeller (in-tank)				
Output pressure		kPa (kg/cm², psi)	441—589 (4.5—6.0, 64—85)				
Fuel filter							
т	Low-pressure side		Nylon element				
Type	High-pressure side		Paper element				
Pressure regulator	1		r apor diement				
Туре			Diaphragm				
Regulating pressure		kPa (kg/cm², psi)	265—314 (2.7—3.2, 38—46)				
Injector		a (i.grail ; pay ]	200 011 (2.7 0.2, 00 40)				
Туре	1	·	High-ohmic				
Type of drive			Voltage				
Resistance		Ω	12—16 (at 20°C, 68°F)				
ISC valve		42	12—10 (at 20°C, 00°T)				
Solenoid resistance		Ω	11 12 (at 2000 600E)				
Air valve		77	11—13 (at 20°C, 68°F)				
Opening temperature			D-I 4000 (4040E)				
Solenoid valve (Pur			Below 40°C (104°F)				
Solenoid resistance	ge control)	0	00 07 ( 1 0000 0005)				
		Ω	23—27 (at 20°C, 68°F)				
Crank angle sensor							
Type Airflow meter			Optical pickup				
Airtiow meter	1						
	E2↔Vs	Fully closed	200—600				
		Fully open	20—1,000				
	E2↔Vc		200—400				
Resistance Ω	E2↔THAA	-20°C (-4°F)	13,600—18,400				
	(Intake air	20°C (68°F)	2,210—26,900				
	thermosensor)	60°C (140°F)	493—667				
	E1↔FC	Fully closed	00				
		Fully open	0				
Water thermosenso	<u>r</u>						
		-20°C (-4°F)	14.6—17.8				
Resistance	$k\Omega$	20°C (68°F)	2.2—2.7				
		80°C (179°F)	0.29—0.35				
Circuit opening rela	ıy						
		STA—E1	21—43				
Resistance	$\Omega$	B—Fc	109—226				
		В—Гр	∞				
Fuel tank							
Capacity	liters	(US gal, Imp gal)	45 (11.9, 9.9)				
Air cleaner							
Element type			Oil permeated				
Accelerator cable			on pointoutou				
Free play	. , ,	mm (in)	1—3 (0.039—0.118)				
Fuel.		11111 (111)	1 3 (0.003 = 0.110)				
Specification			Unleaded regular (RON 87 or higher)				
	=	switch at SELF TES		05U0FX-			

<sup>\*...</sup> With System Selector (49 B019 9A0) test switch at SELF TEST.

### **OUTLINE**

### **COMPONENT DESCRIPTIONS**

Component	Function	Remark			
Air cleaner	Filters air entering throttle body				
Airflow meter	Detects amount of intake air; sends signal to engine control unit	Intake air thermosensor and fuel pump switch included     Use Vref (5 volt) as power source			
Air valve	When cold, supplies bypass air into dynamic chamber	Engine speed increased to shorten warm-up period     Thermowax type			
Atmospheric pressure sensor	Detects atmospheric pressure; sends signal to engine control unit	Built-in ECU			
Catalytic converter	Reduces HC, CO, and NOx by chemical reaction	Monolith type			
Charcoal canister	Stores gas tank fumes while engine stopped				
Circuit opening relay	Voltage for fuel pump while engine running				
Clutch switch (M/T)	Detects in-gear condition; sends signal to engine control unit	Switch OFF when clutch pedal released			
Diagnosis connector	Concentrated service connector Concentrated terminals are: 1. EGI self-diagnosis terminal 2. Initial set terminal 3. Fuel pump check terminal 4. Cooling fan check terminal	21-pin (Black)			
Crank angle sensor G-signal Ne-signal	Detects No.1 cylinder TDC; sends signal to engine control unit Detects crank angle at 180° intervals; sends signal to control unit				
Dynamic chamber	Interconnects all cylinders				
Engine control unit (ECU)	Detects the following:  1. A/C operation 2. Air/fuel ratio (Oxygen concentration) 3. Atmospheric pressure 4. Braking signal 5. Cranking signal 6. E/L operation  7. Engine coolant temperature 8. Engine speed 9. In-gear condition 10. Intake air amount 11. Intake air temperature 12. No.1 piston TDC 13. P/S operation 14. Initial set signal 15. Throttle valve opening amount	<ol> <li>A/C switch</li> <li>Oxygen sensor</li> <li>Atmospheric pressure sensor</li> <li>Stoplight switch</li> <li>Ignition switch (START position)</li> <li>Cooling fan relay         Light and turn relay         Blower motor switch</li> <li>Water thermosensor</li> <li>Crank angle sensor (Ne-signal)</li> <li>Neutral and clutch switches</li> <li>Airflow meter</li> <li>Intake air thermosensor</li> <li>Crank angle sensor (G-signal)</li> <li>P/S pressure switch</li> <li>Diagnosis connector</li> <li>Throttle sensor (POW signal)</li> <li>Throttle sensor (POW signal)</li> </ol>			
	Controls operation of the following:  1. A/C (Cut off) 2. Fail-safe function 3. Fuel injection system 4. Idle speed control 5. Ignition timing control system 6. Monitor function 7. Purge control system	<ol> <li>A/C relay</li> <li>Self-diagnosis checker and MIL</li> <li>Injector</li> <li>ISC valve</li> <li>Igniter</li> <li>Monitor lamp (Self-diagnosis checker)</li> <li>Solenoid valve (Purge control)</li> </ol>			

OUTLINE

Fuel vapor valve	Prevents fuel from entering canister during vehicle roll over	
Fuel filter	Filters particles from fuel	
Fuel pump	Provides fuel to injectors	Operates while engine running Installed in fuel tank
Igniter	Receives spark signal from engine control unit and generates high voltage in ignition coil Detects high voltage ignition; sends substitute ignition signal to engine control unit	
Ignition switch (START position)	Sends engine cranking signal to engine control unit	
Injector	Injects fuel into intake port	Controlled by signals from engine control unit High-ohmic injector Single port injector nozzle
Intake air thermosensor	Detects intake air temperature; sends signal to engine control unit	Installed in airflow meter
ISC valve	Controls bypass air amount	Controlled by duty signal from engine control unit     Controls idle-up
Solenoid valve (Purge control)	Controls evaporative fumes from canister to intake manifold	Controlled by duty signal from engine control unit
Main relay	Supplies electric current to injectors, engine control unit, etc.	
MIL (Malfunction indicator lamp)	Lamp illuminates when input device mal- functions	(TEN) terminal of diagnosis connector
	Lamp flashes to indicate malfunction code number. of input and output devices	(TEN) terminal of diagnosis connector
Neutral switch	Detects in-gear condition; sends signal to engine control unit	Switch ON when in neutral
Oxygen sensor	Detects oxygen concentration; sends signal to engine control unit	Zirconia ceramic and platinum coating
PCV valve	Controls blowby gas amount introduced into engine	
P/S pressure switch	Detects P/S operation; sends signal to engine control unit	P/S: ON when steering wheel turned
Pressure regulator	Adjusts fuel pressure supplied to injectors	
Resonance chamber	Improves mid range torque characteristics	
Stoplight switch	Detects braking operation (deceleration); sends signal to engine control unit	
Throttle body	Controls intake air quantity	Integrated throttle sensor, ISC valve, and dashpot
Throttle sensor IDL signal	Detects position of the throttle valve fully closed; sends signal to engine control unit	
Throttle sensor POW signal	Detects the throttle valve opening at a preset angle; sends signal to engine control unit	
Two-way check valve	Controls pressure in fuel tank	
Water thermosensor	Detects coolant temperature; sends signal to engine control unit	

### TROUBLESHOOTING GUIDE

## **ENGINE CONTROL OPERATION CHART**Input Devices and Engine Conditions

INPUT DEVICES	APPROXI-	SENSORS										
MATE TI (BASED) 10—16°C		CRANK AND	GLE SENSOR	AIRFLOV	V METER	WATER	OXYGEN	IGF	ATMOS- PHERIC			
ENGINE CONDITIONS	50—60°F AMBIENT)	G-SIGNAL NE-SIGNAL		INTAKE AIR THERMO- SENSOR	POTENTIO- METER	THERMO- SENSOR	SENSOR	SIGNAL	PRESSURE SENSOR			
CRANKING —COLD ENGINE • COLD AIR • COLD COOLANT	ZERO			SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	Î	SIGNAL HAS NO EFFECT ON ECU					
COLD START FAST IDLE  • COLD AIR  • COLD COOLANT	ONE MINUTE				LOW VOLUME AIRFLOW: (3.0V)	COOL TO WARM: MEDIUM VOLTAGE (2.3V and	SENSOR COLD: LOW TO					
COLD DRIVEAWAY —PART THROTTLE • WARM AIR • WARM COOLANT	TWO MINUTES				MODER-	DROPPING)	HIGH VOLTAGE (0-0.8V)					
WARM DRIVEAWAY —PART THROTTLE • WARM AIR • WARM COOLANT	THREE MINUTES	SENDS No.1 CYL-	🗸   SENDS		ATE VOL- UME AIRFLOW- LOW TO MEDIUM VOLTAGE	WARM: MEDIUM VOLTAGE (APPROX. 0.7V AND DROPPING)	SENSOR WARM: HIGH VOLTAGE (ABOVE 0.6V)					
HOT CRUISE  • WARM AIR  • WARM COOLANT	-				(1—3.5V)	-	SENSOR HOT SWITCH- ING FROM	SENDS IGNITION	SENDS VOLTAGE SIGNAL TO ECU			
HOT ACCELERATION —60% THROTTLE		INDER TDC SIG- NAL TO ECU	ENGINE SPEED SIGNAL TO ECU	COOL TO WARM: MEDIUM VOLTAGE (4.3—1.5V)	MODER-			HIGH VOLTAGE (ABOVE 0.6V RICH)	SPARK SIGNAL TO ECU	THAT VARIES WITH AL- TITUDE; VOLTAGE (APPROX.		
-60% THROTTLE					ATE TO STRONG VOLUME AIRFLOW: (0.5—1.5V)		TO LOW VOLTAGE (BELOW. 0.4V LEAN)		(APPROX. 4V)			
HOT ACCELERATION —WIDE OPEN THROTTLE	MORE THAN FOUR MINUTES				(6.6 1.64)	HOT: LOW VOLTAGE (APPROX. 0.4V)	HIGH VOLTAGE (ABOVE 0.6V RICH)					
DECELERATION —CLOSED THROTTLE										LOW VOLT- AGE (BE- LOW 0.4V LEAN)		
HOT CURB IDLE EXTENDED					VOLUME AIRFLOW (3.0V)		SWITCH- ING FROM HIGH TO LOW VOLTAGE (0.4—0.6V)					
HOT ENGINE SHUTDOWN		OFF	OFF	OFF	OFF	OFF	SENSOR HOT: LOW VOLTAGE (0.1V LEAN) UN- TIL SEN- SOR COOLS DOWN	OFF	OFF			

SWITCHES										
THROTTLE SENSOR	A/C	NEUTRAL AND	STOP-	LIGHT LIGHT CONTR		BLOWER COOLING		IGNITION SWITCH	TEST	
IDLE TERMINAL	SWITCH	SWITCHES	SWITCH			SWITCH	SWITCH	START POSITION	TERMINAL	
SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SIGNAL HAS NO EFFECT ON ECU	SENDS SIGNAL TO ECU	SIGNAL HAS NO EFFECT ON ECU	
LOW VOLT- AGE SIGNAL TO ECU (BE- LOW 1.5V)		IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (AP- PROX. 0V)								
HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)	A/C SWITCH ON: SENDS SIGNAL TO ECU (APPROX. OV) A/C SWITCH OFF: NO SIGNAL TO ECU (APPROX. 12V)	DRIVING IN ANY GEAR: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)	NO SIGNAL TO ECU (BELOW 1.5V)	HEAD- LIGHT SWITCH ON: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V) HEAD- LIGHT SWITCH OFF: LOW VOLTAGE SIGNAL TO ECU (BELOW 1.5V)	BLOWER CONTROL SWITCH ON: LOW VOLTAGE SIGNAL TO ECU (APPROX. OV) BLOWER CONTROL SWITCH OFF: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)	COOLING FAN SWITCH ON: LOW VOLTAGE SIGNAL TO ECU (APPROX. OV)  COOLING FAN SWITCH ON: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)	STEER-ING WHEEL TURNED: LOW VOLTAGE SIGNAL TO ECU (APPROX. OV) STEER-ING WHEEL STRAIGHT AHEAD: HIGH VOLTAGE TO ECU (APPROX. 12V)	NO SIGNAL TO ECU (BELOW 1.5V)	TERMINAL NOT GROUND- ED: HIGH VOLTAGE TO ECU (APPROX. 12V)	
LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V)		IN NEU- TRAL: LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V)	BRAKE PEDAL DEPRESS- ED: SENDS SIGNAL TO ECU (APPROX.						LOW VOLT- AGE SIGNAL TO ECU WHEN CON- NECTOR GROUNDED (BELOW 1.5V)	
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
	IDLE TERMINAL  SIGNAL HAS NO EFFECT ON ECU  LOW VOLT-AGE SIGNAL TO ECU (BE-LOW 1.5V)  HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)  LOW VOLTAGE SIGNAL TO ECU (APPROX. 0V)	SENSOR IDLE TERMINAL  SIGNAL HAS NO EFFECT ON ECU  LOW VOLT- AGE SIGNAL TO ECU (BE- LOW 1.5V)  A/C SWITCH ON: ON: ON: SENDS SIGNAL TO ECU (APPROX. 12V)  A/C SWITCH OFF: NO SIGNAL TO ECU (APPROX. 12V)  LOW VOLTAGE SIGNAL TO ECU (APPROX. 12V)  LOW VOLTAGE SIGNAL TO ECU (APPROX. 12V)	SENSOR IDLE TERMINAL  SIGNAL HAS NO EFFECT ON ECU  LOW VOLT- AGE SIGNAL TO ECU (BE- LOW 1.5V)  HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)  A/C SWITCH SIGNAL HAS NO EFFECT ON ECU  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. OV)  DRIVING IN ANY GEAR: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. OV)  IN NAY GEAR: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. OV)  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. 12V)  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. 12V)  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. OV)  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. OV)  IN NEUTRAL: LOW VOLT- AGE SIGNAL TO ECU (APPROX. OV)	SENSOR  IDLE TERMINAL  SIGNAL HAS NO EFFECT ON ECU  LOW VOLT- AGE SIGNAL TO ECU (BE- LOW 1.5V)  A/C SWITCH  NI NEUTRAL AND EFFECT ON ECU  ON ECU  ON ECU  ON ECU  IN NEUTRAL TO ECU (APPROX. 12V)  A/C SWITCH ON: SENDS SIGNAL TO ECU (APPROX. 12V)  DRIVING IN ANY GEAR: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)  A/C SWITCH ON: SENDS SIGNAL TO ECU (APPROX. 12V)  IN NEUTRAL LOW VOLT- AGE SIGNAL TO ECU (APPROX. 12V)  DRIVING IN ANY GEAR: HIGH VOLTAGE SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL DEPRESS- ED: SENDS SIGNAL TO ECU (APPROX. 12V)  IN NEU- TRAL: SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL DEPRESS- ED: SENDS SIGNAL TO ECU (APPROX. 12V)  IN NEU- TRAL: LOW VOLTAGE SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL DEPRESS- ED: SENDS SIGNAL TO ECU (APPROX. 12V)  AVC SWITCH ON: SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL TO ECU (APPROX. 12V)  AVC SWITCH ON: SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL TO ECU (APPROX. 12V)  AVC SWITCH ON: SIGNAL TO ECU (APPROX. 12V)  AVC SWITCH ON: SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL TO ECU (APPROX. 12V)  AVC SWITCH ON: SIGNAL TO ECU (APPROX. 12V)  AVC SIGNAL TO ECU (APPROX. 12V)  AVC SWITCH ON: SIGNAL TO ECU (APPROX. 12V)	SENSOR  IDLE TERMINAL  SIGNAL HAS NO EFFECT ON ECU  LOW VOLT- AGE SIGNAL TO ECU (BE- LOW 1.5V)  A/C SWITCH ON: SIGNAL TO ECU (APPROX. 12V)  LOW VOLTAGE SIGNAL TO ECU (APPROX. 12V)  RESIDS SIGNAL TO ECU (APPROX. 12V)  IN NEU- AC SWITCH OFF: NO SIGNAL TO ECU (APPROX. 12V)  IN NEU- AC SWITCH OFF: NO SIGNAL TO ECU (APPROX. 12V)  IN NEU- AC SWITCH OFF: NO SIGNAL TO ECU (APPROX. 12V)  IN NEU- TRAL: LOW VOLTAGE SIGNAL TO ECU (APPROX. 12V)  IN TEXT TO ECU (APPROX. 12V)  IN T	SENSOR   A/C SWITCH   SWITCH	SENSOR IDLE TERMINAL SIGNAL HAS NO EFFECT ON ECU  LOW VOLTAGE SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL TO ECU (APPROX. 12V)  AVOLTAGE SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL TO ECU (APPROX. 12V)  AVOLTAGE SIGNAL TO ECU (APPROX. 12V)  AVOLTAGE SIGNAL TO ECU (APPROX. 12V)  BRAKE PEDAL TO ECU (APPROX. 12V)  AVOLTAGE SIGNAL TO ECU (APPROX. 12V)  AV	SIGNAL HAS NO EFFECT ON ECU  LOW VOLT-AGE SIGNAL TO ECU (APPROX. 12V)  LOW SOLT AGE SIGNAL TO ECU (APPROX. 12V)  LOW SOLT AGE SIGNAL TO ECU (APPROX. 12V)  LOW VOLTAGE SIGNAL TO ECU (APPROX. 12V)  LOW TO THE SWITCH SWITC	SENSOR   DLE SWITCH   SWITCH	

### **Output Devices and Engine Conditions**

OUTPUT	ABBBA	. ]	INJECTOR						
DEVICES ENGINE CONDITIONS	APPROX MATE TI (BASED 10—16°C 50—60°F AMBIEN	ME ON C or	INJECTION	INJECTION TIMING	ISC VALVE	SOLENOID VALVE (PURGE CONTROL)	A/C RELAY (A/C CUT-OFF)	MAIN RELAY	IGNITER
CRANKING —COLD ENGINE • COLD AIR • COLD COOLANT	ZER	0		ALL CYLINDERS EACH Ne-SIGNAL			OFF (A/C CUT)		
COLD START  -FAST IDLE  • COLD AIR  • COLD COOLANT	ONE MINUT	E	RICH		LARGE AMOUNT OF BYPASS AIR	OFF (PURGE CUT)			
COLD DRIVEAWAY —PART THROTTLE • COLD AIR • COLD COOLANT	TWO MINUT	ES					ON (A/C ON)		
WARM DRIVEAWAY —PART THROTTLE • WARM AIR • WARM COOLANT	THREE		RICH - AND	2-GROUP					
HOT CRUISE  • WARM AIR  • WARM COOLANT			LEAN		SMALL AMOUNT OF BYPASS AIR	OPERATES (DUTY VALUES [PURGE		ON	IGNITION SPARK ADVANCE SIGNAL
HOT ACCELERATION —60% THROTTLE			RICH				GAS AMOUNT] CHANGE)		
HOT ACCELERATIONWIDE OPEN THROTTLE	MORE	-					OFF (A/C CUT)		
DECELERATION —CLOSED THROTTLE	FOUR		FUE	L CUT	LARGE AND SMALL AMOUNT OF BYPASS AIR	OFF (PURGE	ON (A/C ON)		
HOT CURB IDLE —EXTENDED		ı	RICH AND LEAN	2-GROUP	SMALL AMOUT OF BYPASS AIR	CUT)	(7,40 014)		
HOT ENGINE SHUT DOWN	_		DOES N	OT INJECT	OFF	OFF	OFF	OFF	OFF

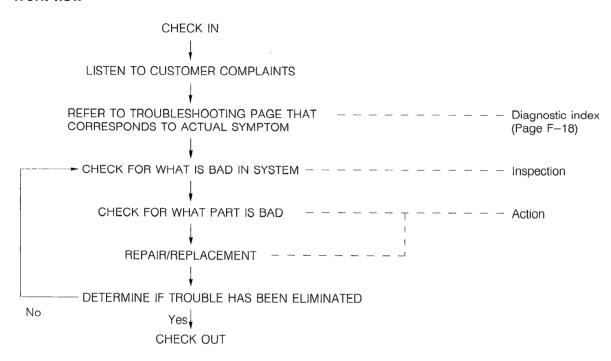
### **RELATIONSHIP CHART**

	Output Devices		Injector		Solenoid Valve (Purge	A/C Relay (A/C	Igniter (Ignition Timing
Input Devices		Fuel Injection Amount	Fuel Injection Timing		Control)	Cut-Off)	Control)
Test Terminal		×	×	0	×	×	0
Ignition Switch (Start	Position)	0	0	0	0	0	0
P/S Pressure Switch		×	×	0	×	×	×
Cooling Fan Switch		×	×	0	×	×	×
Blower Control Switch	1	×	×	0	×	×	×
Headlight Switch		×	×	0	×	×	×
Stoplight Switch		0	×	×	×	×	×
Neutral and Clutch Sv	vitches	0	×	0	0	×	0
A/C Switch		×	×	0	×	0	×
Throttle Sensor	Idle Terminal (IDL)	0	×	0	0	×	0
Throttle Sensor	Power Terminal (POW)	0	×	×	×	0	×
Atmospheric Pressure	Sensor	0	×	0	×	×	×
IGF Signal		0	×	×	×	×	×
Oxygen Sensor		0	×	×	0	×	×
Water Thermosensor		0	×	0	0	×	0
Potentiometer Airflow Meter		0	×	×	0	×	0
All HOW WIELE	Intake Air Thermosensor	0	×	0	0	×	×
Crank Angle Senser	Ne-Signal	0	0	0	0	×	0
Crank Angle Sensor	G-Signal	×	0	×	×	×	0

### USING THIS SECTION Introduction

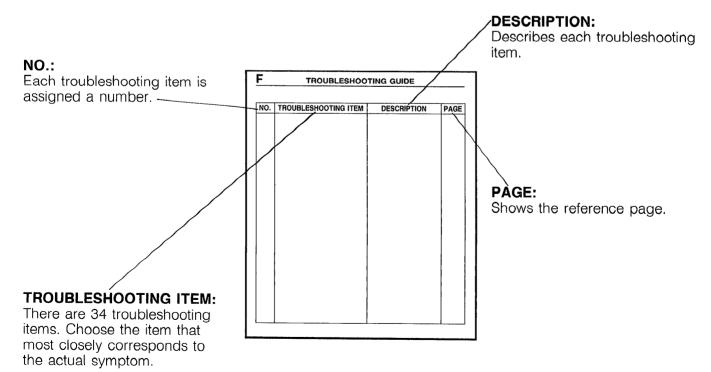
Most of the fuel and emission control system is electrically controlled, often making it difficult to diagnose problems in the system, especially intermittent problems. Before undertaking actual checks, take a few minutes to talk with a customer who approaches with a drivability complaint. The customer is often a good source of information on such problems, especially intermittent ones. Through talks with the customer, one can find out what the symptoms are and under what conditions they occur.

#### Work flow

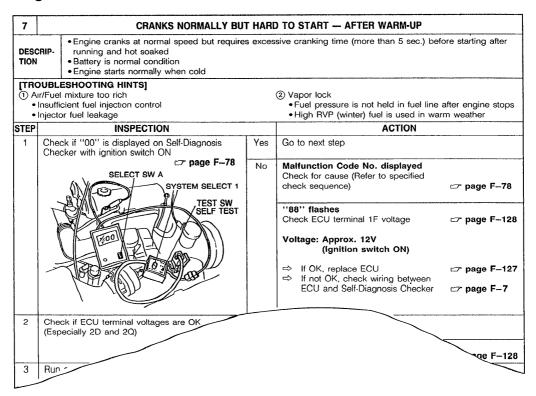


05U0FX-013

### Diagnostic index



### Troubleshooting chart



05U0FX-015

#### **DESCRIPTION:**

Further describes the symptom. Confirm that the chart addresses the actual symptom before beginning troubleshooting.

### TROUBLESHOOTING HINTS:

This describes the possible point of malfunction.

### STEP:

This shows the order of troubleshooting. Proceed with troubleshooting as indicated.

### INSPECTION:

This describes an inspection to quickly determine the malfunction of parts. If a detailed procedure is necessary to perform the INSPECTION, refer to the page shown by the "" mark.

### **ACTION:**

This recommends the appropriate action to take as a result (Yes/No) of the INSPECTION. How to perform the action is described on the reference page shown by the "" mark.

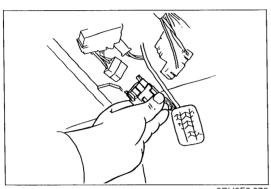
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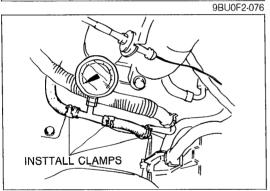
### TROUBLESHOOTING GUIDE

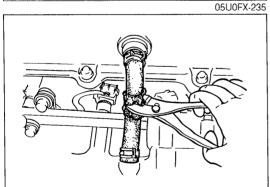
### **DIAGNOSTIC INDEX**

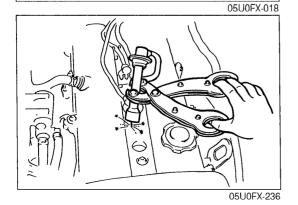
No.	TROUBLESHOOTING ITEM	DESCRIPTION	PAGE
1	Will not crank or cranks slowly	Refer to Engine Electrical System	G- 4
2	Cranks normally but will not start (No combustion)	Engine cranks at normal speed but shows no sign of "firing"	F-20
3	Cranks normally but will not start (Partial combustion) — When engine is cold	Engine cranks at normal speed but shows partial combustion and will not continue to run	F22
4	Cranks normally but will not start (Partial combustion) — After warm-up	Engine cranks at normal speed but shows partial combustion and will not continue to run after running and hot soaked	F-24
5	Cranks normally but hard to start — Always	Engine cranks at normal speed but requires excessive cranking time (more than 5 sec.) before starting	F-26
6	Cranks normally but hard to start  — When engine is cold	Same condition as No.5 when engine is cold Restarts OK after warm-up	F-28
7	7 Cranks normally but hard to start Same condition as No.5 after running and hot soaked Starts normally when cold		F-29
8	Rough idle — Always	Engine vibrates excessively at idle in every condition	F-30
9	Low idle speed/Rough idle — Before warm-up	Engine speed low or engine vibrates excessively at idle during warm-up	F-32
10	Low idle speed/Rough idle — After warm-up	Engine runs normally at idle during warm-up but vibrates excessively after warm-up	F-34
11	High idle speed — After warm-up	Engine idle excessive for operation mode	F-36
12	Low idle speed  — When A/C, P/S, or E/L ON	Engine speed decreases at idle when A/C, P/S, or E/L is ON	F-38
13	Rough idle just after starting	Engine starts normally but vibrates excessively only just after starting	F-39
14	Idle moves up and down .	Engine speed up and down periodically at idle	F-40
15	Engine stalls at idle — Always	Engine starts normally but vibrates excessively and stalls at idle in every condition	F-42
16	Engine stalls at idle — Before warm-up	Engine starts normally but vibrates excessively and stalls at idle before warm-up	F-44
17	Engine stalls at idle — After warm-up	Engine runs normally at idle during warm-up but becomes rough and stalls after warm-up	F-45
18	Engine stalls during start-up	Engine unexpectedly stops running while starting	F-46
19	Engine stalls on deceleration	Engine unexpectedly stops running while decelerating or after deceleration	F-48
20	Engine stalls at idle  — When A/C, P/S, or E/L ON	Engine unexpectedly stops running at idle when A/C, P/S, or E/L is ON	F-50
21	Engine stalls suddenly (Intermittent)	Engine intermittently stops running	F-51
22	Hesitates/Stumbles on acceleration	Flat spot occurs just after accelerator is depressed or mild jerking occurs during acceleration	F-52
23	Surges while cruising	Unexpected, usually repetitive change in engine speed	F-54
24	Lack of power	Performance poor under load Maximum speed reduced	F-56
25	Poor acceleration	Performance poor while accelerating	F-60
26	Runs rough on deceleration/Backfire	Engine runs rough while decelerating and abnormal combustion in exhaust system	F-64
27	Knocking	Abnormal combustion accompanied by audible "pinging" noise	F66
28	Fuel odor	Gasoline odor in cabin	F-68
29	Exhaust sulfur smell	Exhaust gas smells abnormal (rotten egg smell)	F-69
30	High oil consumption	Oil consumption excessive	F69
31	Poor fuel economy	Fuel economy unsatisfactory	F-70

No.	TROUBLESHOOTING ITEM	DESCRIPTION	PAGE
32	MIL always ON	Self-Diagnosis Checker does not indicate Malfunction Code No. but MIL comes on	F-72
33	MIL never ON	Self-Diagnosis Checker indicates Malfunction Code No. of input device but MIL never ON	F-72
34	A/C does not work	Blower fan operates but no cool air discharged	F-73









### **PRECAUTION**

### Fuel Pressure Release and Servicing Fuel System

Fuel in the fuel system remains under high pressure even when the engine is not running.

- a) Before disconnecting any fuel line, release the fuel pressure from the fuel system to reduce the possibility of injury or fire.
  - 1. Start the engine.
  - 2. Disconnect the circuit opening relay connector.
  - 3. After the engine stalls, turn off the ignition switch.
  - 4. Reconnect the circuit opening relay connector.
- b) Use a rag as protection from fuel spray when disconnecting the hoses.
  - Plug the hoses after removal.
- c) When inspecting the fuel system, use a suitable fuel pressure gauge.

### Caution

 Install hose clamps when securing the fuel pressure gauge to the fuel pipe and the fuel main hose to prevent fuel leakage.

### **Pinching Hose**

When pinching an air hose or fuel hose with pliers, wrap the hose with a rag to prevent damage.

### Checking ignition spark

When checking ignition spark condition, hold the high-tension lead with insulated pliers.

F

### TROUBLESHOOTING GUIDE

### SYMPTOM TROUBLESHOOTING

### CRANKS NORMALLY BUT WILL NOT START (NO COMBUSTION) • Engine cranks at normal speed but shows no sign of "firing" **DESCRIP-** Battery in normal condition • Throttle valve not held fully open while cranking TION • Fuel in tank [TROUBLESHOOTING HINTS] Because of no combustion, possibly no fuel is injected to engine or no ignition at all cylinders 3 Low fuel line pressure (1) No spark • Ignition control malfunction 4 Low engine compression • Ignition system component malfunction (2) No fuel injection • Fuel pump does not operate • Injector does not operate STEP **INSPECTION ACTION** Check if strong blue spark is visible at discon-Yes Go to Step 3 nected high-tension lead while cranking engine No Go to Step 2 Check if "00" is displayed on Self-Diagnosis 2 Yes Check ignition system (Refer to Checker with ignition switch ON Troubleshooting "Misfire") ☐ page G-18 ☐ page F-78 SELECT SW A No Malfunction Code No. displayed Check for cause (Refer to specified SYSTEM SELECT 1 check sequence) □ page F-80 TEST SW SELF TEST "88" flashes Check ECU terminal 1F voltage Voltage: Approx. 12V (Ignition switch ON) If OK, replace ECU If not OK, check wiring between ECU and Self-Diagnosis Checker page F-7 3 Connect diagnosis connector terminals F/P and Yes Check if engine starts in this condition GND with jumper wire and check for fuel pump operating sound with ignition switch ON ⇒ If starts, check circuit opening relay 🖙 page F-110 If does not start, go to Step 5 No Go to Step 4

STEP	INSPECTION		ACTION	
4	Check if approx. 12V exists at fuel pump connector (L/R) wire with jumper wire connected (Step 3)	Yes	Check continuity of fuel pump	ເ∽ page F–107
		No	Check circuit opening relay	୍ଦେ page F–110
5	Check for injector operating sound while cranking engine	Yes	Go to Step 7	
		No	Go to Step 6	
6	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON	Yes	Check ECU terminals 2A, 2U and 2V voltages	⇔ page F–129
		No	Check for open circuit in wiring be- tween main relay and injector	⊏ page F− 7
7	Connect diagnosis connector terminals F/P and GND with jumper wire and check for correct fuel	Yes	Go to next step	
	line pressure with ignition switch ON  page F-103  Fuel Line pressure:	No	Low pressure Check fuel line pressure while pinching fuel return hose	
	265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)  GND F/P INSTALL CLAMPS		□⇒ If fuel line pressure quickly increases, check pressure regulator     □⇒ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator     □ If not clogged, check fuel pump maximum pressure	☐ page F-111
8	Check for correct engine compression  page B-10	Yes	Go to next step	
	Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm², 192—135 psi) - 300 rpm	No	Check engine condition  Worn piston, piston rings or cylinder wall  Defective cylinder head gasket  Distorted cylinder head  Improper valve seating  Valve sticking in guide	© page B-10
9	Check if spark plugs are OK WEAR AND CARBON BUILDUP PLUG GAP BURNS	Yes	Go to next step	
	1.0—1.1mm (0.039—0.043 in) DAMAGE AND DETERIORATION	No	Repair, clean, or replace	c page G–20
10	Try known good ECU and check if condition improves   page F-127	-L-,	1	05U0FX-019

### 3 CRANKS NORMALLY BUT WILL NOT START (PARTIAL COMBUSTION) - WHEN ENGINE IS COLD

### DESCRIP-TION

• Engine cranks at normal speed but shows partial combustion and will not continue to run

- Battery in normal condition
- Fuel in tank

### [TROUBLESHOOTING HINTS]

- 1 Air/Fuel mixture too rich
  - Air cleaner element clogged
  - Airflow meter stuck
- 2 Air/Fuel mixture too lean
  - Fuel injection control malfunction (Correction for coolant temperature)
  - Low fuel line pressure

3 Low engine compression

• ,	Air leakage of intake air system			
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	SELECT SW A Page F-78  SYSTEM SELECT 1  SYSTEM SELECT 1	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	హ page F–80
	TEST SW SELF TEST		"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	େ page F–128
			<ul><li>⇒ If OK, replace ECU</li><li>⇒ If not OK, check wiring between</li><li>ECU and Self-Diagnosis Checker</li></ul>	⇔ page F–127 ⇔ page F–7
2	Check if strong blue spark is visible at each disconnected high-tension lead while cranking engine	Yes	Go to next step	
		No	Check ignition system (Refer to Troubleshooting ''Misfire'')	େ page G–18
3	Connect diagnosis connector terminal F/P and GND with jumper wire and check for correct fuel	Yes	Go to next step	
	line pressure with ignition switch ON  page F-103  Fuel line pressure:	No	Low pressure Check fuel line pressure while pinching fuel return hose	
	265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)		<ul> <li>⇒ If fuel line pressure quickly increases, check pressure regulator</li> <li>⇒ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator</li> <li>If not clogged, check fuel pump</li> </ul>	దా page F–111
			maximum pressure  High pressure	☐ page F-108
	GND F/P INSTALL CLAMPS		Check if fuel return hose is clogged or restricted  ⇒ If OK, replace pressure regulator  ⇒ If not OK, repair or replace	□ page F-112
4	Check if ECU terminal voltages are OK (2D, 2O and 2Q)	Yes	Go to next step	
	⊯ page F–129	No	Check for cause (Refer to "Check Point for Each Terminal")	డా page F–132

STEP	INSPECTION		ACTION	
5	Check for air leakage of intake air system	Yes	Repair or replace	
	దా page F–93	No	Go to nest step	**
6	Check if airflow meter vane moves smoothly	Yes	Go to nest step	
		No	Repair or replace	c page F–92
7	Check for correct engine compression	Yes	Go to next step	
	Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm², 192—135 psi) - 300 rpm			
		No	Check engine condition  Worn piston, piston rings or cylinder wall  Defective cylinder head gasket Distorted cylinder head Improper valve seating Valve sticking in guide	c page B−10
8	Check if spark plugs are OK	Yes	Go to next step	
	WEAR AND CARBON BUILDUP			
	PLUG CAP 1.0—1.1mm (0.039—0.043 in)			
	DAMAGE AND DETERIORATION  DAMAGE  DAMAGE	No	Repair, clean, or replace	c page G−20
9	Try known good ECU and check if condition improves   representation page F-127	-1		0511057/ 000

	CRANKS NORMALLY BUT WILL NOT S	TART	(PARTIAL COMBUSTION) — AFTER WARM-UP	
CRIP-	<ul> <li>Engine cranks at normal speed but shows phot soaked</li> <li>Battery in normal condition</li> <li>Engine starts normally when cold</li> </ul>	partial c	ombustion and will not continue to run after runnin	g and
ir/Fuel Fuel ii (Corre	mixture too rich njection control malfunction oction for coolant temperature)	,	<ul> <li>Vapor lock</li> <li>Fuel pressure not held in fuel line after engine</li> <li>High RVP (winter) fuel used in warm weather</li> </ul>	stops
	INSPECTION		ACTION	
Che Che	cker with ignition switch ON	Yes	Go to next step	
	SELECT SW A SYSTEM SELECT	No		e F–80
	<b>1</b> /200		"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	e F–128
			<ul> <li>⇒ If OK, replace ECU</li> <li>⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker</li> <li>□ pag</li> </ul>	je F–127 je F–7
		Yes	Go to next step	
	⇔ page F–129	No	Check for cause (Refer to "Check Point for Each Terminal")	je F–132
		Yes	Go to next step	
line	pressure with ignition switch ON  page F-103	No	Low pressure Check fuel line pressure while pinching fuel return hose	
26	5—314 kPa (2.7—3.2 kg/cm², 38—46 psi)		<ul> <li>If fuel line pressure gradually increases, check fuel line and filter for clogging</li> <li>If not clogged, check fuel pump</li> </ul>	ge F–111 ge F–108
Gr	INSTALL CLAMPS		High pressure Check if fuel return hose is clogged or restricted  ⇒ If OK, replace pressure regulator ⇒ If not OK, repair or replace hose	ge F–112
	Chec Chec Chec Chec Chec Chec Chec Chec	CRIP- Battery in normal condition Engine starts normally when cold  DUBLESHOOTING HINTS]  it/Fuel mixture too rich Fuel injection control malfunction (Correction for coolant temperature) Injector fuel leakage  INSPECTION  Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  page F-78  SELECT SW A  SYSTEM SELECT  TEST SW SELF TEST  Check if ECU terminal voltages are OK (2D and 2O)  page F-129  Connect diagnosis connector terminals F/P and GND with jumper wire and check for correct fuel line pressure with ignition switch ON  page F-103  Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)	DUBLESHOOTING HINTS] ir/Fuel mixture too rich Fuel injection control malfunction (Correction for coolant temperature) injector fuel leakage  INSPECTION Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  Page F-78  SELECT SW A  SYSTEM SELECT TEST SW SELF TEST  Check if ECU terminal voltages are OK (2D and 2Q)  Page F-129  No  Connect diagnosis connector terminals F/P and GND with jumper wire and check for correct fuel line pressure with ignition switch ON  Page F-103  Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)	DUBLESHOTING HINTS]  INTEGER starts normally when cold  DUBLESHOTING HINTS]  INFUEL mixture too rich Fuel injection control malfunction Correction for coolant temperature) Injector fuel leakage  INSPECTION  Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  Page F-78  SELECT SW  SYSTEM SELECT  TEST SW  SELET TEST  Check if ECU terminal voltages are OK (2D and 2O)  Page F-129  Check if ECU terminal voltages are OK (2D and 2O)  Page F-129  Connect diagnosis connector terminals FIP and GND with jumper wire and check for correct fuel line pressure with ignition switch ON  Page F-109  Check if ECU terminal voltages are OK (2D and 2O)  Page F-129  Check if ECU terminal voltages are OK (2D and 2O)  Page F-129  Connect diagnosis connector terminals FIP and GND with jumper wire and check for correct fuel line pressure with ignition switch ON  Page F-103  Fuel line pressure:  265-314 kPa (2.7-3.2 kg/cm², 38-46 psi)  High pressure Check if tuel return hose is clogged or restricted  High pressure Check if tuel return hose is clogged or restricted  High pressure regulator  Page  High pressure Check fuel line after engine  *Very (winter) fuel line pagesure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line susted in warm weather *Fuel pressure not held in fuel line starter engine *Fuel pressure not held in fuel line after engine *Fuel pressure not held in fuel line after engine *Fuel pres

STEP	INSPECTION		ACTION	
4	With condition of step 3, check if fuel line pressure is held after ignition switch is turned OFF page F-102	Yes	Go to Step 6	
	Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.			
	PRESSURE			
		No	Go to Step 5	
	IGNITION 5 MIN. TIME SWITCH OFF			
5	Check if fuel line pressure is held after ignition	Yes	Replace pressure regulator	page F-112
	switch is turned OFF and blocking outlet of pressure regulator	No	Check fuel pump hold pressure	⇔ page F–107
	⇔ page F–111		⇒ If OK, check injector for fuel	
	Fuel line pressure:  More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.		leakage ⇒ If not OK, replace fuel pump	⇔ page F–113 ⇒ page F–108
6	Try known good ECU and check if condition improves	Yes	Replace ECU	
	⇔ page F–127	No	Change fuel to another brand	

5	CRANKS NORMALLY	BUT H	HARD TO START — ALWAYS	
DESC				re starting
① Ai	PUBLESHOOTING HINTS]  r/Fuel mixture too lean  Fuel injection control malfunction  Correction for coolant temperature)  Low fuel line pressure  Air leakage		Air/Fuel mixture too rich     Air cleaner element clogged     Airflow meter stuck     Poor ignition spark	
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	ເສ page F–80
			<b>''88'' flashes</b> Check ECU terminal 1F voltage	c page F–128
	200		Voltage: Approx. 12V (Ignition switch ON)	
			⇒ If OK, replace ECU ⇒ If not OK, check wiring between	⊏ page F–127
	SELECT SW A SYSTEM SELECT 1		ECU and Self-Diagnosis Checker	c page F−7
2	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	c page F–93
3	Check if air cleaner element is clean  □ page F-75	Yes	Go to next step	
		No	Replace air cleaner element	☑ page F–92
4	Check for correct fuel line pressure at idle page F-103  Fuel line pressure:	Yes	Go to next step	
	265—314 kPa (2.7—3.2 kg/cm², 38—46 psi) (Vacuum hose to pressure regulator dis- connected)	No	Low pressure Check fuel line pressure while pinching fuel return hose	
			<ul> <li>⇒ If fuel line pressure quickly increases, check pressure regulator</li> <li>⇒ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator</li> <li>If not clogged, check fuel pump maximum pressure</li> </ul>	□ page F-111 □ page F-108
	INSTALL CLAMPS			

STEP	INSPECTION		ACTION	
5	Check if ECU terminal voltages are OK (2D, 2O and 2Q)	Yes	Go to next step	
	(2D, 2O and 2Q)	No	Check for cause (Refer to "Check Point for Each Terminal")	<i>□</i> page F–132
6	Check if strong blue spark is visible at each disconnected high-tension lead while cranking engine	Yes	Go to next step	
		No	Check ignition system (Refer to Trouble-shooting "Misfire")	౮ page G18
7	Check for injector operating sound at each injector at idle	Yes	Go to Step 9	
		No	Go to Step 8	
8	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON	Yes	Check if injector resistance is OK <b>Resistance: Approx.</b> $14\Omega$	☑ page F-112
			<ul> <li>⇒ If OK, check wiring between injector and ECU</li> <li>⇒ If not OK, replace injector</li> </ul>	ເຼ⊤ page F–7 ເ∵⊤ page F–112
	A STATE OF THE STA	No	Check wiring between main relay and injector	c page F–7
9	Check for correct engine compression	Yes	Go to next step	
	Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm², 192—135 psi) - 300 rpm			
		No	Check engine condition  Worn piston, piston rings or cylinder wall  Defective cylinder head gasket Distorted cylinder head Improper valve seating Valve sticking in guide	c page B–10
10	Check if spark plugs are OK	Yes	Go to next step	
:	PLUG GAP 1.0—1.1mm (0.039—0.043 in)			
	DAMAGE AND DETERIORATION  DAMAGE	No	Repair, clean, or replace	c page G−20
11	Try known good ECU and check if condition improves   page F-127	<b>.</b>	-	
	**************************************			05U0FX-02

### TROUBLESHOOTING GUIDE

#### CRANKS NORMALLY BUT HARD TO START - WHEN ENGINE IS COLD Engine cranks at normal speed but requires excessive cranking time before starting DESCRIP-· Battery in normal condition TION • Restarts OK after warm-up [TROUBLESHOOTING HINTS] 1 Air/Fuel mixture too rich (2) Air/Fuel mixture too lean · Airflow meter stuck • Fuel injection control malfunction • Air cleaner element cloqued (Correction for coolant temperature) • Idle speed control malfunction (3) Poor atomization of fuel • Low RVP (summer) fuel used in cold weather STEP INSPECTION ACTION Check if "00" is displayed on Self-Diagnosis 1 Yes Go to next step Checker with ignition switch ON Nο Malfunction Code No. displayed Check for cause (Refer to specified TEST SW /SELF TEST check sequence) □ page F-80 "88" flashes Check ECU terminal 1F voltage 1,00 Voltage: Approx. 12V (Ignition switch ON) If OK, replace ECU If not OK, check wiring between ECU and Self-Diagnosis Checker □ page F–7 SELECT SW A SYSTEM SELECT 1 Check if ECU terminal voltages are OK 2 Yes Go to next step (1C, 2D, 2O and 2Q) Check for cause (Refer to "Check Point No for Each Terminal") Check if engine starts easily when depressing Check if ISC valve is OK Yes page F–99 accelerator while cranking ⇒ If OK, check air valve □ page F-99 ⇒ If not OK, replace ISC valve page F-99 No Go to next step Check for correct intake manifold vacuum at idle Yes Go to next step Vacuum: More than 450 mmHg (17.7 inHg) No Check for air leakage of intake air system components □ page F-93 Check if air cleanerr element is clean Yes Go to next step ☐ page F-75 No Replace air cleaner element ☐ page F-92 6 Try known good ECU and check if condition Replace ECU Yes improves No Change fuel to another brand

7	CRANKS NORMALLY BU	T HARI	TO START — AFTER WARM-UP	
DESC		s exces	sive cranking time (more than 5 sec.) before	e starting after
① A	DUBLESHOOTING HINTS]  ir/Fuel mixture too rich  Fuel injection control malfunction  Injector fuel leakage		Vapor lock     Fuel pressure not held in fuel line after     High RVP (winter) fuel used in warm with	engine stops eather
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	□ page F-78  TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	☑ page F–80
	12:00		"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	౮ page F–128
	SELECT SW A SYSTEM SELECT 1		⇒ If OK, replace ECU □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ా page F–127 ూ page F–7
2	Check if ECU terminal voltages are OK (2D and 2Q)	Yes	Go to next step	
	⇔ page F–129	No	Check for cause (Refer to "Check Point for Each Terminal")	<i>⊐</i> page F–132
3	Run engine at idle and check if fuel line pressure is held after ignition switch turned OFF	Yes	Go to next step	
	Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.	No	Block outlet of pressure regulator and check if fuel line pressure is held after ignition switch turned OFF	☑ page F–111
			⇒ If not OK, check fuel pump hold	ూ page F–112 హ page F–107
			If fuel pump is OK, check injector	∽ page F–113
	INSTALL CLAMPS			
4	Try known good ECU and check if condition improves	Yes	Replace ECU	
	□ page F–127	No	Change fuel to another brand	
	1	<u> </u>	I	05U0FX-024

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8	ROUG	3H IDLI	E — ALWAYS	
DESC TION	• Engine vibrates excessively at idle in every	condition	on	
① Ai • / • [	PUBLESHOOTING HINTS]  If/Fuel mixture too lean  Air leakage  Fuel injection control malfunction  Low fuel line pressure  ne or more injectors not operating or clogged		<ul><li>③ One or more spark plugs not sparking</li><li>④ Injection timing misadjustment</li><li>⑤ Low engine compression</li></ul>	
STEP	INSPECTION		ACTION	
1	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	⊏ page F–93
2	Check if air cleaner element is clean	Yes	Go to next step	
	□ page F–75	No	Replace air cleaner element	⊏ page F–92
3	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  "88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	దా page F–80 దా page F–128
	SELECT SW A SYSTEM SELECT 1		<ul> <li>⇒ If OK, replace ECU</li> <li>⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker</li> </ul>	c page F–127 c page F–7
4	Check switches for correct operation with Self-	Yes	Go to next step	
	Diagnosis Checker Monitor Lamp and ignition switch ON  page F-89  TEST SW SELF TEST  MONITOR	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON	ా page F–90
	SELECT SW A SYSTEM SELECT 1		Check wiring between ECU terminal 1D and Self-Diagnosis Checker	దా page F–7
5	Check if ECU terminal voltages are OK (2D, 2O and 2Q)	Yes	Go to next step	<del>-</del>
	c page F−129	No	Check for cause (Refer to "Check Point for Each Terminal")	<i>□</i> page F–132

TEP	INSPECTION		ACTION	
6	Check for injector operating sound at idle with sound scope or screwdriver	Yes	Go to Step 8	
		No	Go to Step 7	
7	Check if approx. 12V exists at injector connector (W/R) wire	Yes	Check if injector resistance is OK Resistance: Approx. $14\Omega$	c page F–112
i			<ul> <li>⇒ If OK, check wiring between ECU and injector</li> <li>⇒ If not OK, replace injector</li> </ul>	c page F−7 c page F−112
1		No	Check wiring between ECU and injector	☐ page F-7
8	Disconnect each high-tension lead at idle and check if engine speed decreases equally each time	Yes	Disconnect each injector connector at idle and check if engine speed decreases equally each time   ⇒ If OK, go to Step 10  ⇒ If not OK, check injector for fuel	
1		Ma	leakage	□ page F–113
9	Chook if apark pluse are OK	No	Go to step 9  Check for correct engine compression	r≡ nago D 10
9	Check if spark plugs are OK  WEAR AND CARBON BUILDUP	Yes	Check for correct engine compression  ⇒ If OK, replace injector	□ page B-10 □ page F-112
	PLUG GAP 1.0—1.1mm		⇒ If not OK, check for cause (Refer to Section B)	page B-10
	(0.039—0.043 in) DAMAGE AND DETERIORATION	No	Repair, clear, or replace	☐ page G-20
	DAMAGE			
10	Check for correct ignition timing at idle   page F-75	Yes	Check for correct idle speed  Idle speed: 850 ± 50 rpm	□ page F-76
	Ignition timing: 10° ± 1° BTDC			
	GND TEN		<ul><li>⇒ If OK, go to next step</li><li>⇒ If not OK, adjust idle speed</li></ul>	☐ page F-76
	CONNECT TERMINALS	No	Adjust	ເສ <b>r</b> page F–75
11	Check for correct fuel line pressure at idle	Yes	Go to next step	
	Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—48 psi) (Vacuum hose to pressure regulator disconnected)	No	Low pressure Check fuel line pressure while pinching fuel return hose   ⇒ If fuel line pressure quickly increases, check pressure regulator If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure	c page F–11 c page F–10
12	INSTALL CLAMPS  Try known good ECU and check if condition improves page F-127			100

## ## ## ## ## ## ## ## ## ## ## ## ##	9	LOW IDLE SPEED/ROUGH IDLE — BEFORE WARM-UP				
(2) Low flut lijection amount  A riceaner element clogged  Air cleaner element clogged  Air valve  Correction for coolant temperature  STEP  INSPECTION  TREST SW  Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  Page F-78  TEST SW  SELF TEST  SELECT SW A  SYSTEM SELECT 1  2 Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON  T page F-89  TEST SW  SELF TEST  ACTION  Go to next step  Walfunction Code No. displayed Check for cause (Refer to specified check sequence)  Test SW  SELF TEST  Ves  Go to next step  Wolfigh in switch ON)  If ION, replace ECU  If not ION,		• Engine speed low or engine vibrates excessively at idle during warm-up				
STEP INSPECTION  1 Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  Page F-78 TEST SW SELF TEST  2 Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON  TEST SW SELF TEST  2 Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON  TEST SW SELF TEST  3 Check if ECU terminal voltages are OK (2D. 2O and 2O)  A SYSTEM SELECT 1  3 Check for correct intake manifold vacuum at idle Vacuum: More than 450 mmHg (17.7 inHg)  5 Check if air cleaner element is clean  5 Check if air cleaner element is clean  TEST SW SELF TEST  Yes Go to next step  No Check for cause (Refer to specified check sequence)  Test SW SELF TEST  No Check for cause (Refer to specified check sequence)  Test SW SELF TEST  A SYSTEM SELECT 1  Test SW SELF TEST  SELECT SW A SYSTEM SELECT 1  TEST SW SELF TEST  SELECT SW A SYSTEM SELECT 1  TEST SW SELF TEST  SELECT SW A SYSTEM SELECT 1  TEST SW SELF TEST  No Check for cause (Refer to "Check Point for Each Terminal")  Test SW Test S	① Lo	w intake air amount Airflow meter stuck Air cleaner element clogged dle speed control [Air valve		<ul> <li>Fuel injection control malfunction (Correction for coolant temperature)</li> <li>Poor atomization of fuel</li> </ul>		
Checker with ignition switch ON  Page F-78  TEST SW SELF TEST  "88" 'flashes Check ECU terminal 1F voltage  Page F-89 TEST SW (Ignition switch ON)  Page F-89 TEST SW SELECT 1  2 Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON  Page F-89 TEST SW SELECT SW A  SYSTEM SELECT 1  3 Check if ECU terminal voltages are OK (2D, 2O and 2O)  Check for cause (Refer to specified switch)  Check for cause (Refer to specified switc	STEP	INSPECTION		ACTION		
No   Malfunction Code No. displayed   Check or cause (Refer to specified check sequence)   page F-	1	Check if "00" is displayed on Self-Diagnosis	Yes	Go to next step		
Voltage: Approx. 127    Voltage: Approx. 127   Check witing between ECU and Self-Diagnosis Checker Monitor Lamp and ignition switch ON		page F-78  TEST SW SELF TEST	No	Check for cause (Refer to specified check sequence)  "88" flashes Check ECU terminal 1F voltage	□ page F–80     □ page F–128	
Diagnosis Checker Monitor Lamp and ignition switch ON  page F-89 TEST SW SELF TEST  MONITOR  LAMP TEST SW SELF TEST  MONITOR  LAMP AND TEST SW SELF TEST  MONITOR  LAMP AND TEST SW SELECT 1  A SYSTEM SELECT 1  3 Check if ECU terminal voltages are OK (2D, 2O and 2O)  page F-129  Check for correct intake manifold vacuum at idle Vacuum: More than 450 mmHg (17.7 inHg)  5 Check if air cleaner element is clean  Self-Diagnosis Checker  No Check for cause (Refer to "Check Point for Each Terminal")  Page F-  Yes Go to next step  No Check for air leakage of intake air system components  Temper F-75  Yes Go next step		SELECT SW A SYSTEM SELECT 1		(Ignition switch ON)  ⇒ If OK, replace ECU  ⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker	⇔ page F–127 ⇔ page F–7	
switch ON  page F-89 TEST SW SELF TEST  MONITOR LAMP  AMP  SELECT SW A  SYSTEM SELECT 1  3 Check if ECU terminal voltages are OK (2D, 2O and 2O)  page F-129  Check for cause (Refer to specified check sequence)  Page F-  Yes Go to next step  Check for cause (Refer to "Check Point for Each Terminal")  Page F-  Vacuum: More than 450 mmHg (17.7 inHg)  No Check for air leakage of intake air system components  Yes Go next step  Check if air cleaner element is clean  Yes Go next step  Yes Go next step  No Check for air leakage of intake air system components  Yes Go next step	2		Yes	Go to next step		
Check if ECU terminal voltages are OK (2D, 2O and 2Q)  page F-129  No Check for cause (Refer to "Check Point for Each Terminal")  Page F-  Check for correct intake manifold vacuum at idle  Vacuum: More than 450 mmHg (17.7 inHg)  Check for air leakage of intake air system components  Page F-  Check if air cleaner element is clean  Page F-75  Yes Go to next step  No Check for air leakage of intake air system components  Page F-75		TEST SW SELF TEST  MONITOR 1200  AMP	No	switch Check for cause (Refer to specified check sequence)  Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	□ page F–90 □ page F–7	
Check for cause (Refer to "Check Point for Each Terminal")  Page F-  Check for correct intake manifold vacuum at idle  Vacuum: More than 450 mmHg (17.7 inHg)  Check for air leakage of intake air system components  Page F-  The components  Yes Go to next step  Check for air leakage of intake air system components  Page F-  The components  Yes Go next step  Yes Go next step	3	Check if ECU terminal voltages are OK	Yes			
Check for correct intake manifold vacuum at idle  Vacuum: More than 450 mmHg (17.7 inHg)  Check for air leakage of intake air system components  page F-75  Check if air cleaner element is clean  Yes Go to next step  Check for air leakage of intake air system components  Page F-75			No		<i>□</i> раде F–132	
tem components  page F-  Check if air cleaner element is clean  Yes Go next step	4	Check for correct intake manifold vacuum at idle	Yes	· · · · · · · · · · · · · · · · · · ·		
nage F_75		Vacuum: More than 450 mmHg (17.7 inHg)	No		దా page F–93	
7 nage E-75	5		Yes	Go next step		
No Replace air cleaner element page F-		□ page F–75			□ page F–92	

### TROUBLESHOOTING GUIDE

STEP	INSPECTION		ACTION	
6	Connect System Selector to diagnosis connector and set Test Switch to "SELF TEST" when engine is cold Check if engine speed decreases as engine warms up  page F–98  GND TEN  TEST SW.	Yes	Go to next step  Check air valve	oage F–99
7	With condition of Step 5 check for correct ignition timing at idle after warm-up  page F-75	Yes	Go to next step	
	Ignition timing: 10° ± 1° BTDC	No	Adjust $\square$	page F-75
8	Try known good ECU and check if condition improves	Yes	Replace ECU	page F–127
	<i>□</i> page F–127	No	Change fuel to another brand	

10	LOW IDLE SPEED/F	ROUGH	I IDLE — AFTER WARM-UP	
DESC		but vi	ibrates excessively after warm-up	
① Id ② Ai • /	DUBLESHOOTING HINTS]  le speed control malfunction r/Fuel mixture too lean  Air leakage of intake air system  Low fuel line pressure		<ul> <li>3 Air/Fuel mixture too rich</li> <li>Fuel injection control malfunction (Correction for coolant temperature)</li> <li>4 Poor ignition spark</li> <li>5 Low engine compression</li> </ul>	
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis	Yes	Go to next step	
	Checker with ignition switch ON  page F-78  TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	హ page F–80
			"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	ా page F–128
			⇒ If OK, replace ECU	⇔ page F–127
			⇔ If not OK, check wiring between ECU and Self-Diagnosis Checker	∴ page F–7
	SELECT SW A SYSTEM SELECT 1		LOC and dem-blaghosis offecter	□ page 1 – 7
2	Check switches for correct operation with Self- Diagnosis Checker Monitor Lamp and ignition	Yes	Go to next step	
	switch ON  page F-89  SYSTEM SELECT 1  TEST SW SELF TEST  MONITOR LAMP	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON	దా page F–90
	SELECT SW A		Check wiring between ECU terminal 1D and Self-Diagnosis Checker	దా page F–7
3	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve	Yes	Go to next step	
		No	Replace ISC valve	ದ್ page F–99
4	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)			
		No	Low vacuum Check for air leakage of intake air system components	c page F–93

STEP	INSPECTION		ACTION	
5	Check if ECU terminal voltages are OK	Yes	Go to next step	
	(2D, 2O and 2Q) <i>□</i> page F-128	No	Check for cause (Refer to "Check Point for Each Terminal")	
6	Check for correct ignition timing at idle  page F-75	Yes	Check for correct idle speed  Idle speed: 850 ± 50 rpm	□ page F-76
	Ignition timing: 10° ± 1° BTDC  GND TEN		⇒ If OK, go to next step ⇒ If not OK, adjust idle speed	c page F−76
	CONNECT TERMINALS	No	Adjust	దా page F–75
7	Check for correct fuel line pressure at idle  page F-103	Yes	Go to next step	
	Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi) (Vacuum hose to pressure regulator disconnected)	No	Low pressure Check fuel line pressure while pinching fuel return hose  ⇒ If fuel line pressure quickly in-	~ none E 111
	INSTALL CLAMPS		creases, check pressure regulator  If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator  If not clogged, check fuel pump maximum pressure	□ page F-111 □ page F-108
8	Check if strong blue spark is visible at each dis-	Yes	Go to next step	
	connected high-tension lead while cranking engine	No	Check ignition system (Refer to Troubleshooting "Misfire")	౮ page G–18
9	Check for correct engine compression  page B-10	Yes	Go to next step	
	Engine compression: 1,324—932 kPa (13.5—9.5 kg/cm², 192—135) - 300 rpm	No	Check engine condition  • Worn piston, piston rings or cylinder wall  • Defective cylinder head gasket  • Distorted cylinder head  • Improper valve seating  • Valve sticking in guide	c page B–10
10	Check if spark plugs are OK WEAR AND CARBON BUILDUP	Yes	Go to next step	
11	PLUG GAP 1.0—1.1mm (0.039—0.043 in) DAMAGE AND DETERIORATION DAMAGE	No	Repair, clear, or replace	c page G−20
	Try known good ECU and check if condition improves page F-127	74		

### 11

### HIGH IDLE SPEED — AFTER WARM-UP

[TROUBLESHOOTING HINTS]
Excessive intake air supplied to engine
1) Throttle valve not fully closed
2) Idle speed control malfunction

lle speed control malfunction Air valve not closing			
Incorrect coolant temperature signal			
INSPECTION		ACTION	
Check if throttle valve is fully closed when accelerator released	Yes	Go to Step 3	
	No	Check if throttle linkage is correctly installed and operates freely	c page F–96
		⇒ If OK, go to Step 2 ⇒ If not OK, clean, adjust or replace linkage    Step 2	<i>c</i> <del>−</del> page F–96
Check if dashpot is correctly adjusted	Yes	Check if throttle valve is contaminated	
Dashpot set speed: 2,500 ± 150 rpm			c page F–94
		body	☐ page F-94
	No	Adjust	☐ page F-121
Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  "88" flashes Check ECU terminal 1F voltage	
[200]		Voltage: Approx. 12V (Ignition switch ON)	୍ଦେ page F–127 ଙ page F–7
Check switches for correct operation with Self- Diagnosis Checker Monitor Lamp and ignition	Yes	Go to next step	
switch ON  page F-89  SELECT SW A  SYSTEM SELECT 1		Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)	⊐ page F–90
MONITOR LAMP		Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	⊏ page F7
	Air valve not closing ISC valve stuck incorrect coolant temperature signal  INSPECTION  Check if throttle valve is fully closed when accelerator released  Check if dashpot is correctly adjusted page F–121  Dashpot set speed: 2,500 ± 150 rpm  Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  page F–78  SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST  Check switches for correct operation with Self-Diagnosis Checker Monitor Lamp and ignition switch ON  page F–89  SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST  SELF TEST  MONITOR  SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST	Air valve not closing ISC valve stuck incorrect coolant temperature signal  INSPECTION  Check if throttle valve is fully closed when accelerator released  No  Check if dashpot is correctly adjusted page F–121  Dashpot set speed: 2,500 ± 150 rpm  No  Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  Page F–78  SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST  Wont on Self-Diagnosis Checker Monitor Lamp and ignition switch ON  Page F–89  SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST  MONITOR  No  No  SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST	ACTION  INSPECTION  Check if throttle valve is fully closed when accelerator released  No  Check if throttle valve is fully closed when accelerator released  No  Check if throttle valve is correctly installed and operates freely  If OK, go to Step 2  If I OK, go to Step 2  If contaminated, clean throttle body  If not contaminated, replace throttle body  No  Adjust  Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  Page F-78  SELECT SW A  SYSTEM SELECT 1  TEST SW  Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  Page F-78  SELECT SW A  SYSTEM SELECT 1  TEST SW  Check with general 1F voltage  Voltage: Approx. 12V (Ignition switch ON)  Page F-89  If OK, replace ECU  If not Contaminated, replace throttle body  Check for cause (Refer to specified check sequence)  "88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)  Page F-89  If ont OK, replace ECU  If not OK check wiring between ECU and Self-Diagnosis Checker  Check switches for correct operation with Self-Diagnosis Checker  No  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Lamp always ON Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker  Check wiring between ECU terminal 1D cand Self-Diagnosis Checker

STEP	INSPECTION		ACTION	
5	Connect System Selector to diagnosis connector and set Test Switch to "SELF TEST" when en- gine is cold Check if engine speed decreases as engine warms up	Yes	Go to next step .	
	GND TEN TEST SW.	No	Check air valve	c page F–99
6	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve	Yes	Go to next step	
		No	Check ISC valve	ເສື page F–99
7	Pinch PCV hose with pliers and check if engine speed decreases	Yes	Check PCV valve	☞ page F-117
		No	Go to next step	
8	Check if ECU terminal voltages are OK (2D, 2O and 2Q)	Yes	Try known good ECU	c page F–127
	☐ page F–129	No	Check for cause (Refer to "Check Point for Each Terminal")	□ page F–132

LOW IDLE SPEED	) — WH	IEN A/C, P/S, OR E/L ON	
ESHOOTING HINTS] eed control malfunction			,
INSPECTION		ACTION	
eck if "00" is displayed on Self-Diagnosis	Yes	Go to next step	,,,,,,
page F-78  SYSTEM SELECT 1  TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	c page F–80
		"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	c page F−128
SELECT SW A		<ul> <li>⇒ If OK, replace ECU</li> <li>⇒ If not OK, check wiring between</li> <li>FCU and Self-Diagnosis Checker</li> </ul>	r page F–127 r page F–7
eck switches for correct operation with Self- gnosis Checker Monitor Lamp and ignition	Yes	Go to next step	6-24
⇒ page F–89  SYSTEM SELECT 1  ,TEST SW		Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	ా page F–90 హ page F–7
eck if continuity exists between diagnosis contor terminal TEN and ground  TEN	Yes	Check for short circuit in wiring between diagnosis connector terminal TEN and ground  Go to next step	దా page F–7
connect ISC valve connector at idle and check 'clicking' is heard from ISC valve	Yes	Try known good ECU  Replace ISC valve	□ page F-127 □ page F-99
	Engine speed decreases at idle when A/C, e.A/C, P/S, headlights, blower fan and electrical ESHOOTING HINTS] eed control malfunction is speed feedback control malfunction.  INSPECTION  Ck if "00" is displayed on Self-Diagnosis cker with ignition switch ON  page F-78  SYSTEM SELECT 1  TEST SW SELF TEST  SYSTEM SELECT 1  TEST SW SELF TEST  TEST SW SELF TEST  SYSTEM SELECT 1  TEST SW SELF TEST  SYSTEM SELECT 1  TEST SW SELF TEST  SYSTEM SELECT 1  TEST SW SELF TEST  TEST SW SELF TEST	Engine speed decreases at idle when A/C, P/S, or • A/C, P/S, headlights, blower fan and electric coolin ESHOOTING HINTS] eed control malfunction in speed feedback control malfunction  INSPECTION  Ck if "'00" is displayed on Self-Diagnosis cker with ignition switch ON  Page F-78  No  SYSTEM SELECT 1  TEST SW SELF TEST  No  No  Page F-89  SYSTEM SELECT 1  TEST SW SELF TEST  No  No  No  No  No  No  No  No  No  N	end control malfunction  inspection  insp

13	ROUGH IDL	E JUST	AFTER STARTING	
DESC	• Engine starts normally but vibrates excessive	vely just	after starting	
1 Fu	UBLESHOOTING HINTS]  iel injection control and idle speed control malfuncti  Start signal not input to ECU		② Idle speed misadjustment ③ Ignition timing misadjustment	
STEP	INSPECTION	-	ACTION	
1	Check if "00" is displayed on Self-Diagnosis	Yes	Go to next step	
	Checker with ignition switch ON  page F-78  SYSTEM SELECT 1  TEST SW  SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	దా page F–80
	SELECT SW A		"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)   ⇒ If OK, replace ECU ⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker	r page F–128  r page F–127  r page F–7
2	Check switches for correct operation with Self-	Yes	Go to next step	page 1 -7
	Diagnosis Checker Monitor Lamp and ignition switch ON   page F-89	No	Lamp not ON/OFF with specified	
	SELECT SW A  SYSTEM SELECT 1  TEST SW  SELF TEST		switch Check for cause (Refer to specified check sequence)	c page F–90
	MONITOR 1200		Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	c page F−7
3	Check if ECU terminal 1C voltage is OK  page F-128	Yes	Go to next step	
	Voltage: Approx. 10V (While cranking)	No	Check for cause (Refer to "Check Point for Each Terminal")	
4	Check for correct ignition timing at idle  page F-75  Ignition timing: 10° ± 1° BTDC	Yes	Check for correct idle speed  Idle speed: 850 ± 50 rpm  ⇒ If OK, go to next step ⇒ If not OK, adjust idle speed	page F-76
	CONNECT TERMINALS	No	Adjust	⇔ page F–75
5	Try known good ECU and check if condition improves   representation page F-127		1	05U0FX-0:

14		IDLE M	OVES	UP AND DOWN	
DESC		•Engine speed up and down periodically at	idle		
① Fu	uel cu Air va reach uel inj	ESHOOTING HINTS]  It occurs at idle  alve not closing after warm-up and idle speed es to fuel cut speed ection amount fluctuating contact point inside airflow meter		<ul> <li>③ Air leakage of intake air system</li> <li>④ Poor ignition spark</li> <li>⑤ Air/Fuel mixture too rich</li> <li>• Evaporative emission control system r</li> <li>⑥ Low engine compression</li> </ul>	nalfunction
STEP	ļ	INSPECTION		ACTION	
1	Che Che	ck if "00" is displayed on Self-Diagnosis cker with ignition switch ON	Yes	Go to next step	
		SELECT SW A  SYSTEM SELECT  TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	c page F–80
				"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	⊏ా page F–128
				⇒ If OK, replace ECU     ⇒ If not OK, check wiring between     ECU and Self-Diagnosis Checker	□ page F–127 □ page F–7
2	Che	eck for correct idle speed	Yes	Go to next step	
	Idle	speed: 850 ± 50 rpm  GND TEN  CONNECT TERMINALS			
			No No	Check if idle speed can be adjusted by turning air adjust screw	దా page F–99
3	Che	eck for correct ignition timing at idle    page F-75	Yes	Go to next step	
		ition timing 10° ± 1° BTDC	No	Adjust	ದ್ page F–75

STEP	INSPECTION		ACTION	
4	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Intake manifold vacuum: More than 450 mmHg (17.7 inHg)			
		No	Low vacuum Check for air leakage of intake air system	దా page F–93
5	Check for injector operating sound at idle with	Yes	Go to Step 7	
	sound scope or screwdriver	No	Go to Step 6	
6	Check if approx. 12V exists at injector connector (W/R) wire	Yes	<ul> <li>Check if injector resistance is OK</li> <li>Resistance: Approx. 14Ω</li> <li>⇒ If OK, check wiring between ECU and injector</li> <li>⇒ If not OK, replace injector</li> <li>Check wiring between ECU and injector</li> </ul>	page F-112  page F-7  page F-112  page F-7
7	Disconnect each high-tension lead at idle and check if engine speed decreases equally each time	Yes	Disconnect each injector connector at idle and check if engine speed decreases equally each time  ⇒ If OK, go to Step 9 ⇒ If not OK, check injector for fuel leakage	ເລາ page F–113
0	Check if apark plugg are OK	No	Go to Step 8	
8	Check if spark plugs are OK  WEAR AND CARBON BUILDUP  PLUG GAP 1.0—1.1mm (0.039—0.043 in)	Yes	Check for correct engine compression  ⇒ If OK, replace injector ⇒ If not OK, check for cause (Refer to Section B)	page B-10 page F-112 page B-10
	DAMAGE AND DETERIORATION  DAMAGE	No	Repair, clear, or replace	□ page G-20
9	Check if ECU terminal voltages are OK	Yes	Go to next step	
	(2D, 2Q and 2X)	No	Check for cause (Refer to "Check Point for Each Terminal")	c page F–132
10	Check if vacuum is felt at solenoid valve (purge control) at idle	Yes	Check solenoid valve	c page F–119
		No	Go to next step	
11	Try known good ECU and check if condition improves		7.933.4	05U0FX-03 <sup>-</sup>

15		ENGINE STAL	LS A	T IDLE — ALWAYS	
DESC	•Engine starts normally but vik	orates excessively	y and	stalls at idle in every condition	
① In •  •	DUBLESHOOTING HINTS] accorrect idle speed Idle speed misadjustment Idle speed control malfunction			<ul> <li>② Air/Fuel mixture too rich or lean</li> <li>• Injector clogged or inoperative</li> <li>• Low fuel line pressure</li> <li>• Low intake air amount or air leakage</li> <li>③ Poor ignition spark</li> </ul>	
STEP	INSPECTION			ACTION	
1	Check for correct intake manifold va-	cuum at idle   Y	es	Go to next step	
	Vacuum: More than 450 mmHg (1	7.7 inHg)	No	Check for air leakage of intake air system components	దా page F–93
2	Check if air cleaner element is clean		/es	Go to next step	
	w	nomo E 75	No	Replace air cleaner element	c page F–92
3	Check if "00" is displayed on Self-D Checker with ignition switch ON		res	Go to next step	page 1 - 32
	SELECT SW A	M SELECT 1 TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	దా page F–80
	7,00			"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	ଅଟ page F–128
		W.		⇒ If OK, replace ECU	c page F–127
				⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker	□ page F-7
4	Check switches for correct operation Diagnosis Checker Monitor Lamp ar		Yes	Go to next step	
	SELECT SW A	page F-89  TEM SELECT 1  TEST SW  SELF TEST	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)	౮ page F–90
	MONITOR 1/200 B 1 G 30	SELF TEST		Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	౮ page F–7

STEP	INSPECTION		ACTION
5	Check if ECU terminal voltages are OK	Yes	Go to next step
	(2D, 2O and 2Q) <b>☞ page F–129</b>	No	Check for cause (Refer to "Check Point
		140	for Each Terminal")   page F-132
6	Check if strong blue spark is visible at each disconnected high-tension lead while cranking engine	Yes	Go to next step
		No	Check ignition system (Refer to Troubleshooting "Misfire")   page G-18
7	Check for injector operating sound at each injector at idle	Yes	Go to Step 9
		No	Go to Step 8
8	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON	Yes	Check if injector resistance is OK
!			Resistance: Approx. 14 $\Omega$
			⇒ If OK, check wiring between injector and ECU  The property of the content
		No.	⇒ If not ΦK, replace injector
			injector : page F-7
9	Check if spark plugs are OK WEAR AND CARBON BUILDUP	Yes	Go to next step
	PLUG GAP 1.0—1.1mm (0.039—0.043 in) DAMAGE AND	No	Repair or replace
	DAMAGE AND DETERIORATION  DAMAGE  DAMAGE	INO	Trepail of replace
10	Connect diagnosis connector terminals F/P and GND with jumper wire and check for correct fuel	Yes	Go to next step
	line pressure with ignition switch ON  page F-103	No	Low pressure Check fuel line pressure while pinching fuel return hose
	Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)		<ul> <li>⇒ If fuel line pressure quickly increases, check pressure regulator</li> <li>⇒ If fuel line pressure gradually increases, check for clogging between fuel pump to pressure regulator</li> <li>If not clogged, check for fuel pump maximum pressure</li> </ul> page F-111 page F-108
11	Try known good ECU and check if condition im-	<u></u>	
L	proves		05U0FX-03

16	ENGINE STALLS	AT IDL	LE BEFORE WARM-UP	
DESC	RIP- • Engine starts normally but vibrates excessive	ely and	stalls at idle before warm-up	
[TRC	DUBLESHOOTING HINTS]  ow intake air amount dle speed control malfunction  Air cleaner element clogged  Airflow meter stuck		<ul> <li>② Air/Fuel mixture too lean</li> <li>Air leakage of intake air system</li> <li>③ Poor atomization of fuel</li> <li>Low RVP (summer) fuel used in cold with the cold wit with the cold with the cold with the cold with the cold with th</li></ul>	weather
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  page F-78  SYSTEM SELECT 1  TEST SW SELF TEST	No No	Go to next step  Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	☑ page F–80
	SELF TEST		"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	
2	SELECT SW A  Check switches for correct operation with Self-	Yes	ECU and Self-Diagnosis Checker  Go to next step	□ page F-7
	Diagnosis Checker Monitor Lamp with ignition switch ON  page F—89  SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST  MONITOR LAMP	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	r page F–90  r page F–7
3	Check if ECU terminal voltages are OK (2D, 2O and 2Q)	Yes	Go to next step	
		No	Check for cause (Refer to "Check Point for Each Terminal")	☐ page F-132
4	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	c page F−93

STEP	INSPECTION		ACTION	
5	Check if air cleaner element is clean	Yes	Go to next step	
	⊯ page F–75	No	Replace air cleaner element	⊯ page F–92
6	Disconnect ISC valve connector when engine is cold and note idle speed Check if engine speed decreases after warm-up	Yes	Go to next step  . Check air valve	⇔ page F–99
7	Try known good ECU and check if condition improves	Yes	Replace ECU	
	దా page F–127	No	Change fuel to another brand	

05U0FX-033

ENGINE S	STALLS AT IC	DLE AFTER WARM-UP	
•Engine runs normally at idle during	warm-up but b	pecomes rough and stalls after	warm-up
DUBLESHOOTING HINTS] ir/Fuel mixture too lean Air leakage of intake air system	18/04/1	Low intake air amount     Idle speed control malfund	ation
INSPECTION		ACT	ION
Check if air is leaked from intake air system component	n Yes	Repair or replace	⊯ page F–93
c page F	F-93 No	Go to next step	7/AU-
		Go to next step	
	No	Replace ISC valve	c⊅ page F–99
Go to troubleshooting No.10 "LOW IDLE SPEED/ROUGH IDLE-AFTER WARM-UP"	F 24	L	
	DUBLESHOOTING HINTS]  ir/Fuel mixture too lean Air leakage of intake air system  INSPECTION  Check if air is leaked from intake air system component  page I  Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC Valve  Go to troubleshooting No.10 "LOW IDLE SPEED/ROUGH IDLE-AFTER WARM-UP"	DUBLESHOOTING HINTS] ir/Fuel mixture too lean Air leakage of intake air system  INSPECTION  Check if air is leaked from intake air system component  page F-93  No  Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC Valve  No  Go to troubleshooting No.10 "LOW IDLE	DUBLESHOOTING HINTS]  In/Fuel mixture too lean Air leakage of intake air system  INSPECTION  Check if air is leaked from intake air system component  Page F-93  Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC Valve  Mo Replace ISC valve  No Replace ISC valve  No Replace ISC valve

18	ENGINE ST	ALLS	DURING START-UP	
DESC	• Engine unexpectedly stops running while st	tarting		
① M	DUBLESHOOTING HINTS] isfire occurs when depressing accelerator Air/Fuel mixture too rich or too lean ncorrect ignition timing Weak ignition		<ul> <li>2 Lack of engine torque for start-up</li> <li>Air/Fuel mixture too rich or too lean</li> <li>Low intake air amount</li> <li>Low engine compression</li> </ul>	
STEP	INSPECTION	-	ACTION	
1	Check if brakes are dragging	Yes	Repair	r page P–29
	⊯ page P–29	No	Go to next step	pago: 20
2	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	No	Go to next step	
	SYSTEM SELECT 1 TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  "88" flashes	c page F–78
			Check ECU terminal 1F voltage	□ page F-128
			Voltage: Approx. 12V (Ignition switch ON)	
			⇒ If OK, replace ECU	☐ page F-127
			□ If not OK, check wiring between	
	SELECT SW A		ECU and Self-Diagnosis Checker	r page F–7
3	Check switches for correct operation with Self- Diagnosis Checker Monitor Lamp and ignition	Yes	Go to next step	
1	switch ON	No	Lamp not ON/OFF with specified	
ł	page F–89		switch	
	SYSTEM SELECT 1 TEST SW SELF TEST		Check for cause (Refer to specified check sequence)	ଅଟ page F–90
	MONITOR 1/200 SELECT SW A		Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	c page F−7
4	Disconnect oxygen sensor connector and check if condition improves	Yes	Check oxygen sensor	□ page F–138
		No	Go to next step	
5	Check if ECU terminal voltages are OK  ☐ page F-128	Yes	Go to next step	
		No	Check for cause (Refer to "Check Point for Each Terminal")	□ page F-131

STEP	INSPECTION		ACTION	
6	Check if throttle linkage is correctly installed and operates freely	Yes	Go to next step	
	operates neery	No	Correct, clean, or replace as required any binding or damaged linkage and adjust cable deflection at throttle body	⇔ page F–96
7	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	c page F–93
8	Check if air cleaner element is clean	Yes	Go to next step	
	□ page F–75	No	Replace air cleaner element	େ page F–92
9	Check for correct ignition timing at idle   page F-76	Yes	Check if ignition timing advances when accelerating	
	Ignition timing: 10° ± 1° BTDC  GND TEN		⇒ If advances, go to next step ⇒ If no advance, replace ECU	⊏ page F–127
	CONNECT TERMINALS	No	Adjust	□ page F–76
10	Check for correct fuel line pressure at idle	Yes	Check if fuel line pressure decreases when accelerating quickly	
	Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi) (Vacuum hose to pressure regulator disconnected)		<ul> <li>If decreases, check fuel pump maximum pressure</li> <li>If OK, check fuel line and filter for clogging</li> <li>If no decrease, go to next step</li> </ul>	ເລື page F−108
		No	Low pressure Check for fuel line pressure while pinching fuel return hose  ⇒ If fuel line pressure quickly increases, check pressure regulator ⇒ If fuel line pressure gradually in-	ದ್ page F–11'
			creases, check for clogging be- tween fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure	దా page F–10
	INSTALL CLAMPS		High pressure Check if fuel return line is clogged	
			<ul><li>⇒ If OK, replace pressure regulator</li><li>⇒ If not OK, replace</li></ul>	□ page F-11:
11	Check for correct engine compression	Yes	Go to next step	
	□ page B-10 Engine compression: 1,324-932 kPa (13.5-9.5 kg/cm², 192-135 psi) - 300 rpm	No	Check engine condition  Worn piston, piston rings or cylinder wall  Defective cylinder head gasket Distorted cylinder head	മ്ന page B−10
12	Try known good ECU and check if condition im-		Improper valve seating     Valve sticking in guide	

19		ENGINE ST	TALLS	ON DECELERATION	
DES	CRIP-	• Engine unexpectedly stops running while of	decelera	ating or after deceleration	
Eng	ine spe dle spe	ESHOOTING HINTS] eed drops too much when releasing accelerated control malfunction t control malfunction	or	Engine feedback control malfunction     Idle speed misadjustment	
STEP		INSPECTION	<del></del> -	ACTION	
1	Che	ck if ''00'' is displayed on Self-Diagnosis	Yes	Go to next step	
	Chec	page F-78  SYSTEM SELECT 1  TEST SW  SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  ''88'' flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	ເລື page F–80 ເລື page F–12: ເລື page F–12:
2		ck switches for correct operation with Self-	Yes	ECU and Self-Diagnosis Checker	□ page F–7
-	Diag	nosis Checker Monitor Lamp and ignition	168	Go to next step	
	MONI	SELECT SW A  SYSTEM SELECT 1  TEST SW SELF TEST	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	దా page F–90 దా page F–7
3	Disco if cor	onnect oxygen sensor connector and check andition improves	Yes	Check oxygen sensor	హ page F–138
			No	Go to next step	
4	Chec	k if ECU terminal voltages are OK	Yes	Go to next step	
	(ZU, )	2O, 2U, 2V and 2Q)   page F-129	No	Check for cause (Refer to "Check Point	
				for Each Terminal")	☐ page F-132

STEP	INSPECTION		ACTION	
5	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve	Yes	Go to next step	
		No	Replace ISC valve	దా page F—99
6	Check for correct idle speed	Yes	Go to next step	
	Idlie speed: 850 ± 50 rpm  GND TEN			
	CONNECT TERMINALS	No	Adjust	<i>⇔</i> page F–76
7	Try known good ECU and check if condition improves    □ page F-127			

20	ENGINE STALLS AT	IDLE -	- WHEN A/C, P/S, OR E/L ON	
DESC		when A	VC, P/S, or E/L ON	7.7
① ld	DUBLESHOOTING HINTS] le speed control malfunction No input signal from switch Idle speed misadjustment SC valve stuck			
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	1,
	page F-78  SYSTEM SELECT 1  TEST SW  SELF TEST  SELECT SW A	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  "88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	☐ page F-80 ☐ page F-128 ☐ page F-127
2	Check switches for correct operation with Self-	Yes	ECU and Self-Diagnosis Checker	□ page F-7
	Diagnosis Checker Monitor Lamp and ignition switch ON	res	Go to next step	
	SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST MONITOR LAMP	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	ເສັ page F–89 ເສັ page F–7
3	Check if ECU terminal voltages are OK (1G, 1P, 1U, 2D, 2Q and 2W)	Yes	Go to next step	
	cc page F–128	No	Check for cause (Refer to "Check Point for Each Terminal")	దా page F–131
4	Check for correct idle speed  page F-76  Idle speed: 850 ± 50 rpm  GND TEN	Yes	Go to next step	
	CONNECT TERMINALS	No	Adjust	c page F–76
5	Disconnect ISC valve connector at idle and check if "clicking" is heard from ISC valve	Yes	Go to next step	
		No	Replace ISC valve	മ്⊤ page F–99
6	Try known good ECU and check if condition improves   T page F-127		I	
II				05LI0EX 027

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21		ENGINE STALLS SUDDENLY (INTERMITTENT)					
DESC		<ul><li>Engine intermittently stops running</li><li>Before stalling, engine condition OK</li></ul>					
1 🛈 In	TROUBLESHOOTING HINTS]  ① Intermittently no spark or no fuel injection  • Poor connection in wiring harness						
STEP		INSPECTION		ACTION			
1		ck if ''00'' is displayed on Self-Diagnosis cker with ignition switch ON	Yes	Go to next step			
		<i>c</i> page F–78	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	ເລ− page F–80		
		SYSTEM SELECT 1 TEST SW SELF TEST		Note When checking wiring harness and connectors, tap, move, and wiggle suspect sensor and/or harness to recreate problem			
				"88" flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	c page F–128		
		SELECT SW A		⇒ If OK, replace ECU ⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker	□ page F-127 □ page F-7		
2	(1B,	ck if ECU terminal voltages are OK 2A, 2B and 2C)	Yes	Go to Troubleshooting No.2 "CRANKS NORMALLY BUT WILL NOT START (NO COMBUSTION)"	େ page F–82		
		e en checking voltages, tap, move, and gle harness and connector	No	Check for cause (Refer to "Check Point for Each Terminal)	దా page F−131		

#### 22 HESITATES/STUMBLES ON ACCELERATION DESCRIP-• Flat spot occurs just after accelerator depressed or mild jerking occurs during acceleration TION [TROUBLESHOOTING HINTS] 1 Air/Fuel mixture leaning when depressing accelerator Fuel injection control malfunction (Correction for accelerating condition) · Air leakage of intake air system • Fuel line pressure low Spark advance control malfunction STEP INSPECTION **ACTION** Check if "00" is displayed on Self-Diagnosis Yes Go to next step Checker with ignition switch ON ☐ page F-78 No Malfunction Code No. displayed Check for cause (Refer to specified SYSTEM SELECT 1 check sequence) ☐ page F-80 TEST SW SELF TEST "88" flashes Check ECU terminal 1F voltage **y**,00 Voltage: Approx. 12V (Ignition switch ON) If OK, replace ECU If not OK, check wiring between ECU and Self-Diagnosis Checker ☐ page F-7 SELECT SW A 2 Check switches for correct operation with Self-Yes Go to next step Diagnosis Checker Monitor Lamp and ignition switch ON No Lamp not ON/OFF with specified page F–89 switch SYSTEM SELECT 1 Check for cause (Refer to specified TEST SW SELF TEST check sequence) page F-90 MONITOR LAMP Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker page F-7 3 Disconnect oxygen sensor connector and check Yes Check oxygen sensor if condition improves No Go to next step

Yes

No

Yes

No

Go to next step

Go to next step

for Each Terminal'')

Check for cause (Refer to "Check Point

Correct, clean, or replace as required any binding or damaged linkage and adjust cable deflection at throttle body ☐ page F-96

4

5

operates freely

Check if ECU terminal voltages are OK

Check if throttle linkage is correctly installed and

STEP	INSPECTION		ACTION	
6	Check if air duct and air hoses are correctly	Yes	Go to next step	
	installed   page F-76	No	Repair	☐ page F-92
7	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	c page F–93
8	Check if air cleaner element is clean	Yes	Go to next step	
	<i>□</i> page F–75	No	Replace air cleaner element	☐ page F-92
9	Check for correct ignition timing at idle   page F-75	Yes	Check if ignition timing advances when accelerating	
	Ignition timing: 10° ± 1° BTDC  GND TEN		<ul><li>⇒ If advances, go to next step</li><li>⇒ If no advance, replace ECU</li></ul>	□ page F-127
	CONNECT TERMINALS	No	Adjust	c page F–75
10	Check for correct fuel line pressure at idle   page F-103	Yes	Check if fuel line pressure decreases when accelerating quickly	
	Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi) (Vacuum hose to pressure regulator dis- connected)		<ul> <li>⇒ If decreases, check fuel line and filter for clogging</li> <li>⇒ If no decrease, go to next step</li> </ul>	
		No	Low pressure Check for fuel line pressure while pinching fuel return hose   ⇒ If fuel line pressure quickly increases, check pressure regulator If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure	c page F–111 c page F–108
	INSTALL CLAMPS			
11	Check if exhaust system is restricted  •	Yes	Repair or replace	☐ page F-115
		No	Go to next step	
12	Try known good ECU and check if condition im-	l	J	

23	SUR	IILE CRUISING		
DESC		ch is usu	ally repetitive	
① Ai	DUBLESHOOTING HINTS] ir/Fuel mixture too lean or too rich Fuel injection control malfunction Air leakage of intake air system		<ul> <li>Fuel line pressure low</li> <li>Evaporative emission control malfunct</li> <li>Spark advance control malfunction</li> </ul>	ion
STEP	INSPECTION		ACTION	7
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	system select 1 Test sw Self test	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  "88" flashes Check ECU terminal 1F voltage	c page F–80 c page F–128
	SELECT SW A		Voltage: Approx. 12V (Ignition switch ON)	ా page F–127 ా page F–7
2	Check switches for correct operation with Self- Diagnosis Checker Monitor Lamp and ignition	Yes	Go to next step	
SELECT SW A	SELECT SW A SYSTEM SELECT TEST SW SELF TEST	No 1	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON	c page F–90
	MONITOR LAMP		Check wiring between ECU terminal 1D and Self-Diagnosis Checker	౮ page F–7
3	Disconnect oxygen sensor connector and check if condition improves	Yes	Check oxygen sensor	c page F–138
		No	Go to next step	
4	Check if ECU terminal voltages are OK  page F-128	Yes	Go to next step	
		No	Check for cause (Refer to "Check Point for Each Terminal")	
5	Check if throttle linkage is correctly installed and operates freely	Yes	Go to next step	
		No	Correct, clean, or replace as required any binding or damaged linkage, and adjust cable deflection at throttle body	☐ page F–96

STEP	INSPECTION		ACTION	
6	Check for correct intake manifold vacuum	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	c page F−93
7	Check if air cleaner element is clean	Yes	Go to next step	
	Check for correct innition timing at idla	No	Replace air cleaner element	c page F–92
8	Check for correct ignition timing at idle  page F-75  Ignition timing: 10° ± 1° BTDC  GND TEN	Yes	Check if ignition timing advances when accelerating  ⇒ If advances, go to next step ⇒ If no advance, replace ECU	c page F–127
	CONNECT TERMINALS	No	Adjust	c page F−75
9	Check for correct fuel line pressure at idle page F-103  Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi) (Vacuum hose to pressure regulator disconnected)	Yes	Check if fuel line pressure decreases when accelerating quickly  ⇒ If decreases, check fuel line and filter for clogging ⇒ If no decrease, go to next step	
	INSTALL CLAMPS	No	Low pressure Check for fuel line pressure while pinching fuel return hose    if fuel line pressure quickly increases, check pressure regulator  If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator  If not clogged, check fuel pump maximum pressure	ా page F–111 ా page F–108
10	Check if exhaust system is restricted  page F-115	Yes	Repair or replace	☐ page F-115
		No	Go to next step	
11	Try known good ECU and check if condition improves page F-127			

24		LA	ACK OF	POWER	
DESC		Performance poor under load     Reduced maximum speed			
① Fa	actors Clutch Brake Low t Unred Overlow Thrott	ESHOOTING HINTS] In other than engine malfunction In slipping Indicated the desired transfer of the size of the si	(	<ul> <li>3 Air/Fuel mixture too lean or too rich</li> <li>Fuel line pressure low or high</li> <li>Insufficient fuel injection</li> <li>Poor ignition</li> <li>Low engine compression</li> </ul>	
STEP		INSPECTION		ACTION	
1	• C	ck factors other than engine lutch slipping	Yes	Go to next step	
		ow tire pressure	No	Repair	
2		ck if throttle valve fully opens when depress- accelerator fully	Yes	Go to next step	
			No	Check if accelerator cable is correctly installed	ເຼ≂ page F–96
				<ul> <li>⇒ If OK, check throttle body</li> <li>⇒ If not OK, install accelerator cable correctly</li> </ul>	page F-94
3		eck if "00" is displayed on Self-Diagnosis ecker with ignition switch ON	Yes	Go to next step	
		Page F-78 SYSTEM SELECT 1 TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	c page F–80
				<b>''88'' flashes</b> Check ECU terminal 1F voltage	c page F−128
	"			Voltage: Approx. 12V (Ignition switch ON)	
				<ul> <li>⇒ If OK, replace ECU</li> <li>⇒ If not OK, check wiring between</li> <li>ECU and Self-Diagnosis Checker</li> </ul>	page F-127
4		eck switches for correct operation with Self- gnosis Checker Monitor Lamp and ignition	Yes	Go to next step	
		tch ON	No	Lamp not ON/OFF with specified switch	
		SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST		Check for cause (Refer to specified check sequence)	୍ଦେ page F–90
	MO	NITOR 1700		Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	മ്മൗ page F−7

STEP	INSPECTION		ACTION	WHAT .
5	Check for correct ignition timing at idle  page F-75  Ignition timing: 10° ± 1° BTDC	Yes	Check if ignition timing advances when accelerating  ⇒ If advances, go to next step ⇒ If no advance, check ECU terminal	
	GND TEN		voltages	☐ page F-127
	CONNECT TERMINALS	No	Adjust	దా page F–75
6	Check if spark plugs are OK	Yes	Go to next step	
	WEAR AND CARBON BUILDUP BURNS			
	PLUG GAP 1.0—1.1mm (0.039—0.043 in)			
	DAMAGE AND DETERIORATION	No	Repair, clean, or replace	□ page G-20
	DAMAGE			
7	Check if resistance of high-tension leads are OK	Yes	Go to next step	
	Resistance: 16 kΩ per 1m (3.28 ft)			
		No	Replace	c page G–22
8	Check if resistance of ignition coil is OK   □ page G-21	Yes	Go to next step	
	Resistance (at 20 °C [68 °F]): ① Primary coil $0.78-0.94\Omega$ ② Secondary coil $11.2-15.2 \text{ k}\Omega$			
		No	Replace	☐ page G-21

STEP	INSPECTION		ACTION	
9	Check for correct engine compression  page B-10  Engine compression: 1,324-932 kPa (13.5-9.5 kg/cm², 192-135 psi) - 300 rpm	Yes	Go to next step	
		No	Check engine condition  Worn piston, piston rings or cylinder wall  Defective cylinder head gasket Distorted cylinder head Improper valve seating Valve sticking in guide	c page B−10
10	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Intake manifold vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	c page F–93
11	Check if air cleaner element is clean  page F-75	Yes	Go to next step	
12	Check for injector operating sound at idle	No Yes	Replace air cleaner element  Go to Step 14	☑ page F–92
	·	No	Go to Step 13	
13	Check if approx. 12V exists at injector connector (W/R) wire with ignition switch ON	Yes	Check if injector resistance is OK	c page F–99
	A.		Resistance: Approx. 14Ω	
		a	⇒ If OK, check wiring between ECU	
			⇒ If not OK, check injector for fuel	page F-7
		No	leakage Check wiring between ECU and injector	□ page F-113 □ page F-7
14	Check if ECU terminal voltages are OK (2D, 2O and 2Q)	Yes	Go to next step	
	⇔ page F–129	No	Check for cause (Refer to "Check Point for Each Terminal")	<i>□</i> page F–132
		1		,

STEP	INSPECTION		ACTION	
15	Check for correct fuel line pressure at idle  page F-103  Fuel line pressure:  265-314 kPa (2.7-3.2 kg/cm², 38-46 psi) (Vacuum hose to pressure regulator disconnected)	Yes	Check if fuel line pressure decreases when accelerating quickly  ⇒ If decreases, check fuel pump maximum pressure  If OK, check fuel line and filter for clogging  ⇒ If no decreases, go to next step	ా page F–108
	INSTALL CLAMPS	No	Low pressure Check for fuel line pressure while pinching fuel return hose   ⇒ If fuel line pressure quickly increases, check pressure regulator  If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator  If not clogged, check fuel pump maximum pressure	□ page F-111     □ page F-112     □ page F-108
16	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF  page F-102  Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.  PRESSURE	Yes	High pressure Check if vacuum hose to pressure regulator is damaged or poorly connected  ⇒ If OK, replace pressure regulator ⇒ If not OK, repair or replace hose	దా page F–112
	IGNITION 5 MIN. TIME SWITCH OFF	No	Check injector for fuel leakage	େ page F–113
17	Disconnect each injector connector at idle and check if engine speed decreases equally each time	Yes	Go to next step	
18	Try known good ECU and check if condition im-	No	Replace injector	c page F–112
L	proves page F-127			05U0FX-04

25		POO	R ACC	ELERATION	
DESC		Performance poor while accelerating			
1 Fa	actors Clutch Brake Low ti Unrec Overlo Dw int Thrott	eshooting hints] other than engine malfunction of slipping dragging ire pressure commended tire size baded ake air amount le valve not open fully ged intake air system		<ul> <li>Air/Fuel mixture too lean or too rich</li> <li>Fuel line pressure low or high</li> <li>Insufficient fuel injection</li> <li>Poor ignition</li> <li>Low engine compression</li> </ul>	
STEP	0,099	INSPECTION		ACTION	
1	• Cl • Br • Lo	ck factors other than engine utch slipping rake dragging ow tire pressure  ck factors other than engine cr page H-3 cr page P-27 cr page Q-3	Yes	Go to next step  Repair	
	• Ui	nrecommended tire size  page Q-2	140	Перап	
2		ck if throttle valve fully opens when depress- accelerator fully	Yes	Go to next step	
			No	Check if accelerator cable is correctly installed	☐ page F–96
				<ul> <li>⇒ If OK, check throttle body</li> <li>⇒ If not OK, install accelerator cable correctly</li> </ul>	c page F-94 c page F-96
3	Che Che	ck if ''00'' is displayed on Self-Diagnosis cker with ignition switch ON	Yes	Go to next step	
	,	SYSTEM SELECT 1 TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	େ page F–80
				"88" flashes Check ECU terminal 1F voltage	⊏ page F–128
	\ =			Voltage: Approx. 12V (Ignition switch ON)	
		SELECT SW A		<ul> <li>⇒ If OK, replace ECU</li> <li>⇒ If not OK, check wiring between</li> <li>ECU and Self-Diagnosis Checker</li> </ul>	□ page F-127 □ page F-7
4	Che	ck switches for correct operation with Self-	Yes	Go to next step	
		ch ON	No	Lamp not ON/OFF with specified	***************************************
	7	SELECT SW A SYSTEM SELECT 1 TEST SW SELF TEST		switch Check for cause (Refer to specified check sequence)	c page F−90
	MON	TOR 7200		Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	c page F–7

STEP	INSPECTION		ACTION	
5	Check for correct ignition timing at idle  page F-75  Ignition timing: 10° ± 1° BTDC	Yes	Check if ignition timing advances when accelerating  ⇒ If advances, go to next step ⇒ If no advance, check ECU terminal	
	GND TEN	No	voltages  Adjust	□ page F-127
	CONNECT TERMINALS	NO	Adjust	c page F–75
6	Check if spark plugs are OK	Yes	Go to next step	***
	PLUG GAP 1.0—1.1mm (0.039—0.043 in)			
	DAMAGE AND DETERIORATION  DAMAGE  DAMAGE	No	Repair, clean, or replace	దా page G–20
7	Check if resistance of high-tension leads are OK	Yes	Go to next step	
	Resistance: 16 kΩ per 1m (3.28 ft)			
		No	Replace	□ page G-22
8	Check if resistance of ignition coil is OK  page G-21  Resistance (at 20°C [68°F]):	Yes	Go to next step	
	① Primary coil 0.78—0.94Ω ② Secondary coil 11.2—15.2 kΩ ①			
		No	Replace	దా page G–21

STEP	INSPECTION		ACTION	
9	Check for correct engine compression	Yes	Go to next step	
	c page B–10			
İ	Engine compression: 1,324—932 kPa			
]	(13.5—9.5 kg/cm², 192—135 psi) - 300 rpm		•	
		No	Check engine condition  • Worn piston, piston rings or cylinder	c page B–10
			wall • Defective cylinder head gasket	
			<ul> <li>Distorted cylinder head</li> </ul>	
			<ul><li>Improper valve seating</li><li>Valve sticking in guide</li></ul>	
10	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Intake manifold vacuum:	No	Check for air leakage of intake air sys-	
	More than 450 mmHg (17.7 inHg)		tem components	⊏ page F–93
	11/			
11	Check if air cleaner element is clean	Vaa	0-4	
''	check if all cleaner element is clean	Yes No	Go to next step  Replace air cleaner element	☑ page F–92
12	Check for injector operating sound at idle	Yes	Go to Step 14	□ page r=az
ľ	, , ,	No	Go to Step 13	
13	Check if approx. 12V exists at injector connector	Yes	Check if injector resistance is OK	ເ page F–112
	(W/R) wire with ignition switch ON		Resistance: Approx. 14Ω	
			⇒ If OK, check wiring between ECU	
			and injector	c page F–7
			⇔ If not OK, check injector for fuel leakage	☐ page F-113
		No	Check wiring between ECU and injector	
			,	
14	Check if ECU terminal voltages are OK	Yes	Go to next step	
	(2D, 2O and 2Q) <b>□ page F-129</b>			
		No	Check for cause (Refer to "Check Point for Each Terminal")	
		1	TOT LACH TEHTINAL )	w paye r-132

STEP	INSPECTION		ACTION	
15	Check for correct fuel line pressure at idle page F-103  Fuel line pressure: 265-314 kPa (2.7-3.2 kg/cm², 38-46 psi) (Vacuum hose to pressure regulator disconnected)	Yes	Check if fuel line pressure decreases when accelerating quickly   □ If decreases, check fuel pump maximum pressure If OK, check fuel line and filter for clogging  □ If no decreases, go to next step	େ page F–108
	INSTALL CLAMPS	No	Low pressure Check for fuel line pressure while pinching fuel return hose   □ If fuel line pressure quickly increases, check pressure regulator □ If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator □ If no clogged, check fuel pump maximum pressure	c page F–111 c page F–108
16	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF  page F-102  Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.  PRESSURE	Yes	High pressure Check if vacuum hose to pressure regulator is damaged or poorly con- nected  ⇒ If OK, replace pressure regulator ⇒ If not OK, repair or replace hose	ଅଟ page F–112
	IGNITION 5 MIN. TIME SWITCH OFF	No	Check injector for fuel leakage	⇔ page F–113
17	Disconnect each injector connector at idle and check if engine speed decreases equally each time	Yes	Go to next step	
		No	Replace injector	c page F-112
18	Try known good ECU and check if condition improves			
•				05U0FX-04

26	RUNS ROUGH (	ON DEC	CELERATION/BACKFIRE	
DESC	•Engine runs rough while decelerating and a	abnorma	al combustion occurs in exhaust system	
[TRC	DUBLESHOOTING HINTS]  r/Fuel mixture too rich  Air cleaner element clogged  Fuel injection control malfunction  (Fuel cut control)  Injector fuel leakage  Ignition timing misadjustment			
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	Page F-78  SYSTEM SELECT 1  TEST SW SELF TEST	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	ా page F–80
	DOOD PROPERTY.		"88" flashes Check ECU terminal 1F voltage	⇔ page F–128
			Voltage: Approx. 12V (Ignition switch ON)	•
			<ul><li>⇒ If OK, replace ECU</li><li>⇒ If not OK, check wiring between</li></ul>	□ page F-127
	SELECT SW A		ECU and Self-Diagnosis Checker	□ page F-7
2	Check switches for correct operation with Self- Diagnosis Checker Monitor Lamp with ignition switch ON	Yes	Go to next step	
	₩ page F–89	No	Lamp not ON/OFF with specified switch	
	SYSTEM SELECT 1 TEST SW SELF TEST		Check for cause (Refer to specified check sequence)	☐ page F–90
	MONITOR 1200 SELECT SW A		Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	౮ page F–7
3	Check for correct ignition timing at idle   page F-75	Yes	Go to next step	
	Ignition timing: 10° ± 1° BTDC			
	GND TEN			
	CONNECT	No	Adjust	ເວ <b>r</b> page F–75
-		<u> </u>		

STEP	INSPECTION		ACTION
4	Check if fuel cut operation is OK during deceleration  Fuel cut: Above 1,900 rpm after warm-up	Yes	Go to next step
		No	Try known good ECU
5	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF  page F-102	Yes	Go to next step
	Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.		
	INSTALL CLAMPS	No	Check injector for fuel leakage
6	Check if air cleaner element is clean   page F-75	Yes	Go to next step
		No	Replace
7	Try known good ECU and check if condition improves   page F-127	I	

27		KNO	CKING	
① Ai	DUBLESHOOTING HINTS] ir/Fuel mixture too lean Fuel injection amount incorrect Fuel line pressure decreases while accelerating		Incorrect ignition timing (too advance)     Overheating     Carbon deposits in engine	
STEP	INSPECTION		ACTION	
1	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	SYSTEM SELECT 1 TEST SW /SELF TEST  SELECT SW A	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  ''88'' flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	□ page F–80     □ page F–128     □ page F–127     □ page F–7
2	Check switches for correct operation with Self- Diagnosis Checker Monitor Lamp and ignition	Yes	Go to next step	
	MONITOR LAMP  SELECT SW A  page F-89  SYSTEM SELECT 1  TEST SW SELF TEST	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON Check wiring between ECU terminal 1D and Self-Diagnosis Checker	ເລ page F–90 ເລ page F–7
3	Check if ECU terminal voltages are OK (2D, 2O and 2Q)	Yes	Go to next step	
	దా page F–129	No	Check for cause (Refer to "Check Point for Each Terminal")	<i>□</i> page F–128
4	Check for correct intake manifold vacuum at idle	Yes	Go to next step	
	Vacuum: More than 450 mmHg (17.7 inHg)	No	Check for air leakage of intake air system components	ದ್ page F–93
5	Check if air cleaner element is clean	Yes	Go to next step	
	⊯ page F–75	No	Replace air cleaner element	⊯ page F–92
6	Check for correct engine compression	Yes	Go to next step	
	□ page B-10 Engine compression: 1,324-932 kPa (13.5-9.5 kg/cm², 192-135 psi) - 300 rpm	No	High compression Check engine condition Carbon deposits	ా page B–10

STEP	INSPECTION		ACTION	
7	Check for correct fuel line pressure at idle page F-103  Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi) (Vacuum hose to pressure regulator disconnected)	Yes	Check if fuel line pressure decreases when accelerating quickly	
	INSTALL CLAMPS	No	Low pressure Check for fuel line pressure while pinching fuel return hose  ⇒ If fuel line pressure quickly increases, check pressure regulator If fuel line pressure gradually increases, check for clogging between fuel pump and pressure regulator If not clogged, check fuel pump maximum pressure	ເລື page F–111 ເລື page F–108
8	Check for correct ignition timing at idle  page F-75  Ignition timing: 10° ± 1° BTDC	Yes	Check if ignition timing advances when accelerating	
	GND TEN		⇒ If no advance, replace ECU	c page F–127
	TERMINALS	No	Adjust	c page F–75
9	Check if cooling system is OK	Yes	Go to next step	
		No	Repair or replace  Thermostat  Electric cooling fan  Radiator	□ page E-8 □ page B-11 □ page E-7
10	Try known good ECU and check if condition improves	Yes	Replace ECU	
	<i>□</i> page F–127	No	Change fuel to another brand or use higher octane fuel	

28		FUEL	ODOR	
DESC TION				
① Po	DUBLESHOOTING HINTS]  por connection or damaged fuel system or evapora  harcoal canister overflow due to evaporative emiss	ative emi	ssion control system ol system malfunction	
STEP	INSPECTION		ACTION	
1	Check if fuel leak or damage are visible at fuel system and evaporative emission control system	Yes	Repair or replace	⇔ page F–100
		No	Go to next step	
2	Check if "00" is displayed on Self-Diagnosis Checker with ignition switch ON  page F-78	Yes	Go to next step	, , , , , , , , , , , , , , , , , , ,
	SELECT SW A SYSTEM SELECT TEST SW SELF TEST	No 1	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)	దా page F–80
			"88" flashes Check ECU terminal 1F voltage	ເສ⊤ page F–128
	0	į	Voltage: Approx. 12V (Ignition switch ON)	
			<ul> <li>⇒ If OK, replace ECU</li> <li>⇒ If not OK, check wiring between ECU and Self-Diagnosis Checker</li> </ul>	c page F–127 c page F–7
3	49 H018 9A1  Check if vacuum is felt at solenoid valve (purge control) with engine running and throttle valve opened (Neutral switch connector disconnected)	Yes	Go to Step 5	
		No	Check for solenoid valve operating sound in this condition	
			<ul> <li>⇒ If OK, check vacuum hoses for clogging</li> <li>⇒ If not OK, go to next step</li> </ul>	c page F−6
4	Apply 12V and ground to solenoid valve (purge control) and check if air flows through valve	Yes	Check ECU terminal 2X voltage	⇔ page F–130
		No	Replace solenoid valve	c page F–119
5	Try known good ECU	,		

29	EXHAUST SULFER SMELL		
DESC TION	SCRIP-  • Exhaust gas smells abnormal (Rotten egg smell)  ON		
	[TROUBLESHOOTING HINTS] High sulfer content fuel used		
STEP	INSPECTION	ACTION	
1	Change fuel to another brand		

05U0FX-046

30	HIGH	OIL C	ONSUMPTION	
(1) P	<b>DUBLESHOOTING HINTS]</b> CV system malfunction ngine malfunction (Oil working up, working down, o	r leakac	ge)	
STEP	INSPECTION		ACTION	-
1	Check if PCV hose, ventilation hose or their attaching nipples are separated, damaged,	Yes	Repair or replace	☐ page F-117
	clogged, or restricted   page F-117	No	Go to next step	
2	Check if air pressure or oil is present at ventilation hose	Yes	Go to next step	
	AIR PRESSURE OR OIL	No	Check engine condition    Oil leakage    Worn valve seal    Worn valve stem    Worn valve guide	ూ page B–3
3	Check if vacuum is felt at PCV valve at idle page F-117	Yes	Check engine condition  • Worn piston ring groove  • Stuck piston ring  • Worn piston or cylinder	ా page B–3
		No	Replace PCV valve	⊐ page F–117

#### 31

### **POOR FUEL ECONOMY**

### [TROUBLESHOOTING HINTS]

While fuel consumption is drastically increased during city driving, short-run operation, stop and go driving, extended winter warm-up periods, etc., as opposed to "trip" mileage, an attempt should be made to determine these factors when confronted with "poor mileage" conditions. However, since the operator is not always at fault, the following is offered.

- 1) Operator depressing accelerator more than usual due to low engine power
  - Poor ignition
  - Low intake air amount
  - Electric spark advance control malfunction
  - Clutch slipping

- ③ Alcohol blended fuel used④ High vehicle load
- - Low tire pressure
  - Unrecommended tire used
  - Brake dragging
- (5) Fuel cut control malfunction

	Cluten slipping Exhaust component restricted		(5) Fuel cut control malfunction	
	ir/Fuel mixture too rich		(6) High idle speed (Refer to page F-36)	
	High fuel line pressure		(Holor to page 1 - do)	
STEP	INSPECTION		ACTION	
1	Check factors other than engine	Yes	Go to next step	
	<ul> <li>Low tire pressure</li> <li>□ page Q-3</li> <li>Unrecommended tire used</li> <li>□ page Q-2</li> </ul>		To to how dop	
	<ul> <li>Clutch slipping</li> <li>Brake dragging</li> <li>Exhaust component resticted</li> </ul> ¬ page H-3         ¬ page P-27           ¬ page F-115	No	Repair	
2	Check if air hoses are connected correctly   page F-93	Yes	Go to next step	
		No	Repair	□ page F–93
3	Check if air cleaner element is clean	Yes	Go to next step	
		No	Replace	c page F–75
4	Check if ''00'' is displayed on Self-Diagnosis Checker with ignition switch ON	Yes	Go to next step	
	SYSTEM SELECT 1 TEST SW SELF TEST  SELECT SW A	No	Malfunction Code No. displayed Check for cause (Refer to specified check sequence)  ''88'' flashes Check ECU terminal 1F voltage  Voltage: Approx. 12V (Ignition switch ON)	□ page F–80 □ page F–128 □ page F–127 □ page F–7
5	Check switches for correct operation with Self- Diagnosis Checker Monitor Lamp and ignition switch ON	Yes	Go to next step	
	MONITOR LAMP  SELECT SW A  SELE	No	Lamp not ON/OFF with specified switch Check for cause (Refer to specified check sequence)  Lamp always ON Check wiring between ECU terminal 1F and Self-Diagnosis Checker	⇔ page F–90

STEP	INSPECTION		· ACTION
6	Check if ECU terminal voltages are OK (2D, 2N, 2O, 2P, 2Q, 2U and 2V)	Yes	Go to next step
	c page F–129	No	Check for cause (Refer to "Check Point for Each Terminal")   page F-132
7	Check if fuel cut operation is OK during deceleration	Yes	Go to next step
	Fuel cut: Above 1,900 rpm after warm-up	No	Try known good ECU
8	Check for correct ignition timing at idle   page F-75	Yes	Go to next step
	Ignition timing: 10° ± 1° BTDC		
	GND TEN		
		No	Adjust $rac{}{rac}}{rac}}}} } } } } } } } } } } } } } } } } }$
	CONNECT TERMINALS		
9	Check for correct fuel line pressure at idle   page F-111	Yes	Go to next step
	Fuel line pressure: 216—265 kPa (2.2—2.7 kg/cm²; 31—38 psi)	i	
		No	High pressure Check if vacuum hose to pressure regulator is damaged or poorly con- nected
	INSTALL CLAMPS		<ul> <li>⇒ If OK, replace pressure regulator</li> <li>⇒ If not OK, repair or replace hose</li> </ul>
10	Run engine several minutes at idle and check if fuel line pressure is held after ignition switch turned OFF	Yes	Go to next step
	page F-102		
	Fuel line pressure: More than 147 kPa (1.5 kg/cm², 21 psi) for 5 min.		
	PRESSURE		
		No	Check injector for fuel leakage   page F-113
	MINIMUM		
	IGNITION 5 MIN. SWITCH OFF		
11	Change fuel to another brand		

32	MIL ALWAYS ON			
DESC	Self-Diagnosis Checker does not indicate Malfunction Code No. but MIL always ON			
[TROUBLESHOOTING HINTS]  • Short circuit in wiring harness • ECU malfunction				
STEP	INSPECTION		ACTION	
1	Disconnect (Y/B) wire from ECU and check if MIL goes off  Y/B	Yes	Replace ECU	c page F–127
		No	Check for short circuit in wiring be- tween combination meter and ECU	c page F–8
05U0FX-049				

33 MIL NEVER ON **DESCRIP-**• Self-Diagnosis Checker indicates Malfunction code No. of input device but MIL never ON TION Other indicator and warning lamps OK [TROUBLESHOOTING HINTS] Bulb burned out Open circuit in wiring harness • ECU malfunction STEP INSPECTION **ACTION** Ground (Y/B) wire at ECU with jumper wire and Yes Check connection condition of ECU check if MIL comes on connector ☐ page F-127 ☐ page F-127 ⇒ If OK, replace ECU ⇒ If not OK, repair ECU connector Y/B No Check if bulb is OK ⇒ If OK, repair (Y/B) wire between ECU and combination meter ☐ page F-8 ⇒ If not OK, replace bulb page T-33

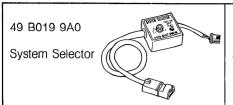
A/C DOES NOT WORK

34

DES		P- ●Blower fan operates but cool air not expelled							
• O • A/ • A/ • M • E(	<ul> <li>[TROUBLESHOOTING HINTS]</li> <li>Open or short circuit in wiring harness</li> <li>A/C relay malfunction</li> <li>A/C switch malfunction</li> <li>Magnetic clutch malfunction</li> <li>ECU malfunction</li> </ul>								
STE	INSPECTION		ACTION						
1	Ground (L/B) wire at A/C relay with jumpe and check if condenser fan operates when tion switch turned ON	r wire Yes	Go to next step						
		No	Go to A/C system Troubleshooting	⊯ page U-4					
2	Ground (L/B) wire at ECU with jumper wir check if condenser fan operates when ign switch turned ON	e and Yes ition	Go to next step						
		No No	Repair (L/B) wire between ECU and A/C relay	c page F–7					
3	Check if A/C switch is OK	<b>U–25</b> Yes	Try known good ECU	౮ page F–127					
		No	Check A/C switch and wiring	c page U–25					

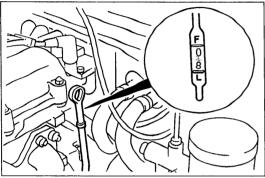
### **ENGINE TUNE-UP**

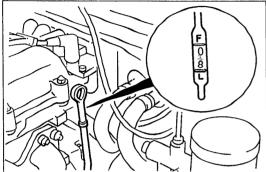
### **PREPARATION** SST

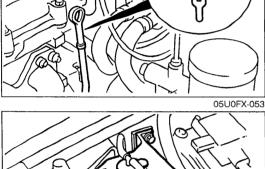


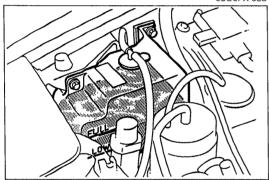
For inspection of ignition timing and idle speed.

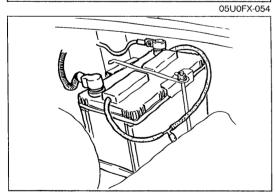
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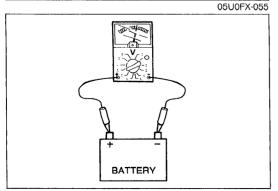












### **BASIC INSPECTION Engine Oil**

- 1. Be sure the vehicle is on level ground.
- 2. Warm up the engine to normal operating temperature and stop it.
- 3. Wait for five minutes.
- 4. Remove the oil level gauge and check the oil level and con-
- 5. Add or replace oil if necessary.

### Note

• The distance between the L and F marks on the level gauge represents 0.8 liter (0.85 US gt, 0.70 lmp gt).

### **Coolant Level (Cold engine)**

### Warning

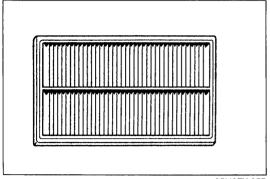
- Never remove the radiator cap while the radiator and engine are hot.
- Wrap a thick cloth around the cap while carefully removing it.
- 1. Verify that the coolant level is at the bottom of the radiator filler neck.
- 2. Verify that the level in the coolant reservoir is between the FULL and LOW marks. Add coolant if necessary.

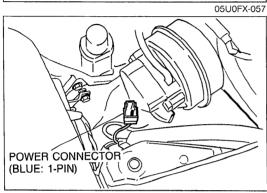
### **Battery**

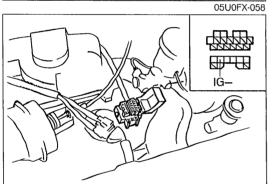
- 1. Check for loose or corroded terminals and connections.
- 2. Clean and tighten the connections as necessary.

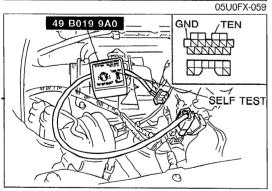
3. Measure the battery voltage. If the voltage is 12.6V or less, recharge the battery. (Refer to Section G.)

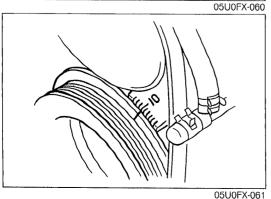
F











**Air Cleaner Element** 

### Caution

• Do not clean the air cleaner element with compressed air.

Visually check the air cleaner element for excessive dirt, damage, or oil. Replace if necessary.

# ADJUSTMENT Preparation

- 1. Check the condition of the engine (spark plugs, leaks in hoses, etc.).
- 2. Make sure all accessories are OFF.
- 3. Warm up the engine to normal operating temperature.

### Note

 When using an externally powered timing light and/or tachometer connect it to the power connector (Blue: 1-pin).

### Warning

- Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.
- 4. Connect a timing light and tachometer to the diagnosis connector terminal IG—.

### **Ignition Timing**

#### Caution

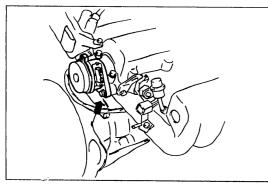
- Be extremely careful when making connections to the diagnosis connector as a mistaken connection will cause a malfunction.
- 1. Connect the **SST** and set the TEST SW to "SELF TEST" or connect diagnosis connector terminals TEN and GND with a jumper wire.
- 2. Check the idle speed, and set it to specification if necessary. (Refer to page F-76.)

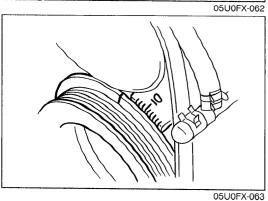
Idle speed:  $850 \pm 50 \text{ rpm}$ 

3. Verify that the timing mark (Yellow) on the crankshaft pulley and the timing belt cover are aligned.

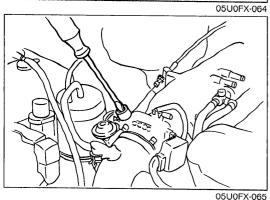
Ignition timing: 10° ± 1° BTDC (at idle)

### **ENGINE TUNE-UP**





49 B019 9A0 GND TEN
TEST SW.



- 4. If the marks are not aligned, loosen the crank angle sensor lock bolt, and turn the crank angle sensor to make the adiustment.
- 5. Tighten the crank angle sensor lock bolt to the specified torque.

# Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

- 6. After adjusting the ignition timing, disconnect the **SST** or jumper wire from the diagnosis connector.
- 7. Increase the engine speed and verify that the ignition timing advances.

### Idle Speed

1. Connect the **SST** and set the TEST SW to "SELF TEST" or connect diagnosis connector terminals TEN and GND with a jumper wire.

2. Verify that the idle speed is within specification.

# Idle speed: $850 \pm 50 \text{ rpm}$

- 3. If the idle speed is not within specification, remove the blind cap from the air adjusting screw and adjust it.
- 4. After adjusting the idle speed, install the blind cap and disconnect the **SST** or jumper wire from the diagnosis connector.

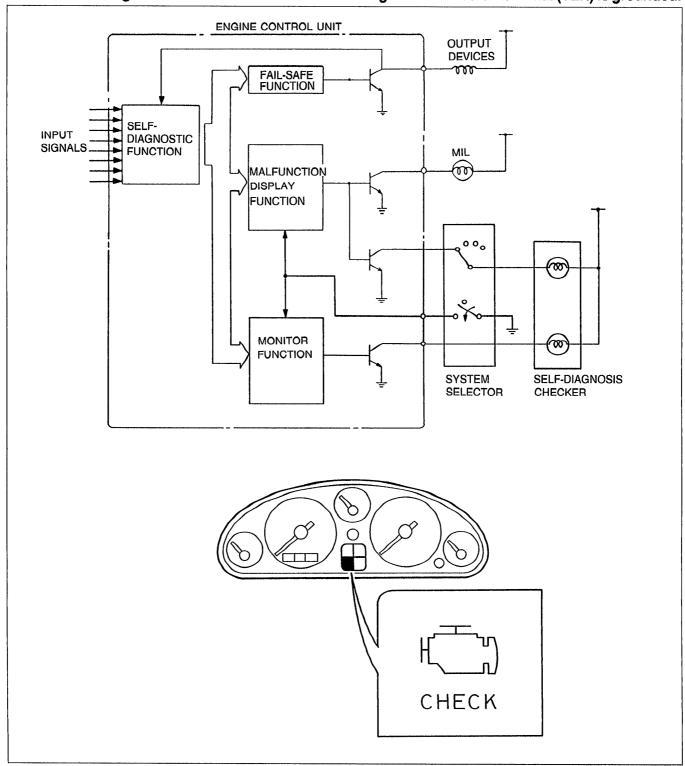
### **SELF-DIAGNOSIS FUNCTION**

### **DESCRIPTION**

When troubles occur in the main input devices or output devices, check for the cause using the **SST**. Failures of each input and output device are indicated and retrieved from the engine control unit as malfunction code numbers.

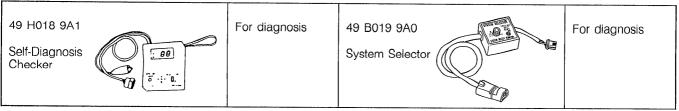
### Note

- The engine control unit constantly checks for malfunction of the input devices.
- But, the engine control unit checks for malfunction of output devices only in a 3 second period after the ignition switch is turned ON and the diagnosis connector terminal (TEN) is grounded.

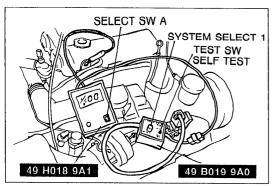


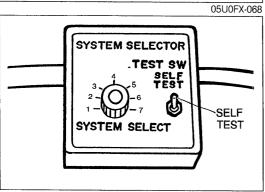
### **SELF-DIAGNOSIS FUNCTION**

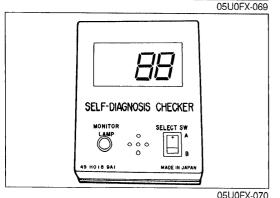
# PREPARATION SST











### **MALFUNCTION CODE NUMBER**

### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

### Inspection procedure

- 1. Connect the **SSTs** to the diagnosis connector and a ground.
- 2. Set the select switch to position A.
- 3. Set the System Selector to position 1 and SELF TEST as shown.

- 4. Turn the ignition switch ON.
- 5. Verify that **88** flashes on the digital display and that the buzzer sounds for **3 sec.** after turning the ignition switch ON.
- 6. If **88** does not flash, check the main relay, (Refer to page F–139.) power supply circuit, and check connector wiring.
- 7. If **88** flashes and the buzzer continues for more than **20 sec.**, check for a short circuit between the engine control unit terminal 1F and the diagnosis connector. Replace the engine control unit if necessary and perform Steps 3 and 4 again.
- 8. Note any code numbers and check for the causes by referring to the check sequences shown on pages F–81 to F–87. Repair as necessary.

#### Note

 Cancel the code numbers by performing the afterrepair procedure following repairs. (Refer to page F–88.)

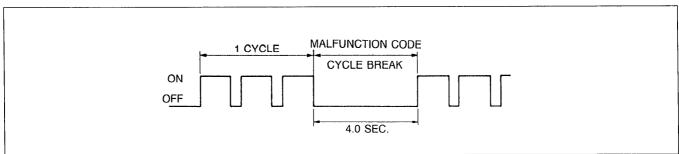
### **Principle of Code Cycle**

Malfunction codes are determined as shown below.

05U0FX-071

### 1. Code cycle break

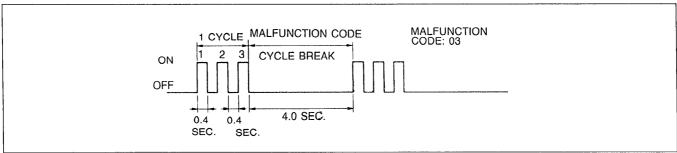
The time between malfunction code cycles is 4.0 seconds (the time the lamp is off).



05U0FX-072

### 2. Second digit of malfunction code (ones position)

The digit in the ones position of the malfunction code represents the number of times the buzzer sounds 0.4 second during one cycle.

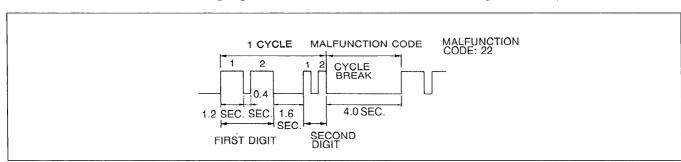


05U0FX-073

### 3. First digit of malfunction code (tens position)

The digit in the tens position of the malfunction code represents the number of times the buzzer is on 1.2 seconds during one cycle.

It should also be noted that the light goes off for 1.6 seconds between the long and short pulses of the buzzer.



### **Code Numbers**

	Malfunction display			
Code No.	Pattern of output signal (Self-Diagnosis Checker)	Sensor or subsystem	Self-diagnosis	Fail-safe
01	ON OFF	Ignition pulse	No IGf-signal	_
02	ON OFF	Ne-signal	No Ne-signal	_
03	ON MOFF	G-signal	No G-signal	_
08	ON MANUEL	Airflow meter	Open or short circuit	Basic fuel injection amount fixed as for two driving modes (1) Idle switch: ON (2) Idle switch: OFF
09	ON JUMP JUMP	Water thermosensor	Open or short circuit	Maintains constant 20°(68°F) command
10	ON OFF	Intake air thermosensor (Airflow meter)	Open or short circuit	Maintains constant 20°C (68°F) command
14	ON OFF	Atmospheric pressure sensor	Open or short circuit	Maintains constant command of sea level pressure
15	ON OFF	Oxygen sensor	Sensor output continues less than 0.45V 180 sec. after engine exceeds 1,500 rpm	Cancels engine feedback operation
17	ON OFF	Feedback system	Sensor output continues unchanged 20 sec. after engine exceeds 1,500 rpm	Cancels engine feedback operation
26	ON OFF	Solenoid valve (Purge control)		. –
34	ON MANAGEMENT	ISC valve	_	

05U0FX-075

### Caution

• If there is more than one failure present, the lowest number malfunction code is displayed first, the remaining codes are displayed in order.

 After repairing all failures, turn off the ignition switch, disconnect the negative battery cable, and depress the brake pedal for 5 seconds to erase the memory of a malfunction code from the engine control unit.

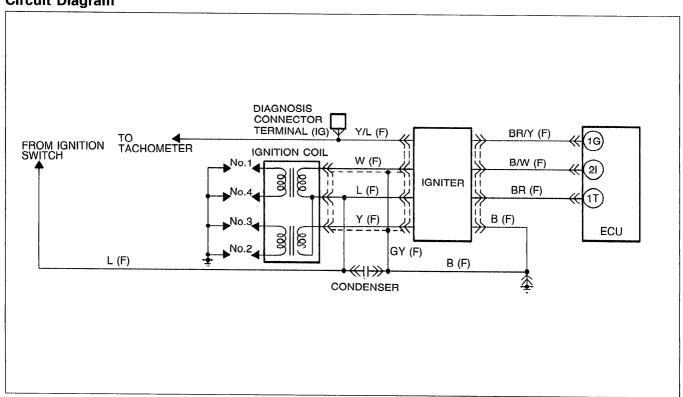
# **Troubleshooting**

If a malfunction code number is shown on the **SST**, check for the cause by using the chart related to the code number shown.

CODE	NO.01 IGf-SIGNAL			
STEP	INSPEC	CTION		ACTION
1	Are there any poor connection	ons at ignition coil connec-	Yes	Repair or replace connector
	tors and igniter connectors?		No	Go to next step
2	Does tachometer operates?		Yes	Go to next step
			No	Check for open circuit in wiring from igniter to ECU terminal 2I
3	Is resistance of ignition coil C		Yes	Go to next step
	Resistance: Primary $0.78-0.94\Omega$ Secondary $11.2-15.2 \text{ k}\Omega$		No	Replace ignition coil (Refer to page G-21)
4	Is there continuity between ig	s there continuity between ignition coil and igniter?		Go to next step
	Ignition coil	Igniter		
	A (W)	A (W)	No	Check for open circuit in wiring from ignition coil
	B (Y)	H (Y)		to igniter
5	Is ignition coil terminal wire (I	gnition coil terminal wire (L) voltage OK?		Go to next step
	(Refer to page G-21)		No	Check for open circuit in wiring from ignition coil to ignition switch
6	Is igniter terminal-wire (L) vol	age OK?	Yes	Go to next step
	(Refer to page G-22)		No	Check for open circuit in wiring from igniter to ignition switch
7	Is there continuity between ig	niter and ground?	Yes	Go to next step
			No	Check for open circuit in wiring from igniter to ground
8	Check igniter (Refer to page	G-22)	Yes	Replace ECU (Refer to page F-127)
			No	Replace igniter (Refer to page G-22)

05U0FX-076

# Circuit Diagram



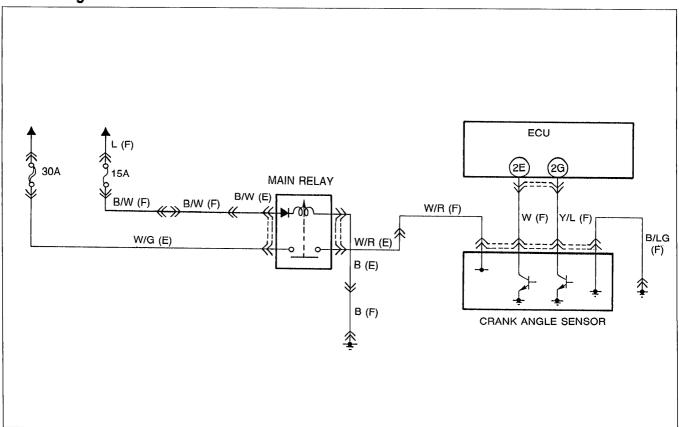
# **SELF-DIAGNOSIS FUNCTION**

CODE	NO.02 Ne-SIGNAL		*
STEP	INSPECTION		ACTION
1	Are there any poor connections in crank angle sensor		Repair or replace connector
	circuit?	No	Go to next step
2	Is Code No.03 present at same time?	Yes	Go to next step
		No	Go to Step 5
3	Is there continuity between crank angle sensor terminal-	Yes	Go to next step
	wire (B/LG) and ground?		Check for open circuit in wiring from crank agnle sensor to ground
4	wire (W/R)?		Go to next step
,			Check for open circuit in wiring from crank angle sensor to main relay
5	Is there continuity between crank angle sensor and ECU?	Yes	Go to next step
	Crank angle sensor ECU	No	Check for open circuit in wiring from crank angle
!	C (W) 2E		sensor to ECU
6	Is there approx. 5V at ECU terminal 2E? (With crank an-	Yes	Go to next step
	gle sensor connector disconnected)		Replace ECU (Refer to page F-127)
7	Is there approx. 5V at crank angle sensor terminal-wire (W)? (At harness-side connector with connector discon-	Yes	Replace crank angle sensor (Refer to page F-134)
	nected)	No	Check for short circuit in wiring from crank angle sensor to ECU

05U0FX-078

CODE	NO.03 G-SIGNAL		
STEP	INSPECTION		ACTION
1	Are there any poor connections in crank angle sensor		Repair or replace connector
	circuit?	No	Go to next step
2	Is Code No.02 also present?	Yes	Go to next step
		No	Go to Step 5
3	Is there continuity between crank angle sensor terminal-	Yes	Go to next step
	wire (B/LG) and ground?		Check for open circuit in wiring from crank angle sensor to ground
4	Is there battery voltage at crank angle sensor terminal-		Go to next step
	wire (W/R)?	No	Check for open circuit in wiring from crank angle sensor to main relay
5	Is there continuity between crank angle sensor and ECU?  Crank angle sensor ECU		Go to next step
			Check for open circuit in wiring from crank angl
	D (Y/L) 2G		sensor to ECU
6	Is there approx. 5V at ECU terminal 2E? (With crank an-	Yes	Go to next step
	gle sensor connector disconnected)	No	Replace ECU (Refer to page F-127)
7	Is there approx. 5V at crank angle sensor terminal-wire (Y/L)? (At harness-side connector with connector discon-		Replace crank angle sensor (Refer to page F-134)
	nected)	No	Check for short circuit in wiring from crank angle sensor to ECU

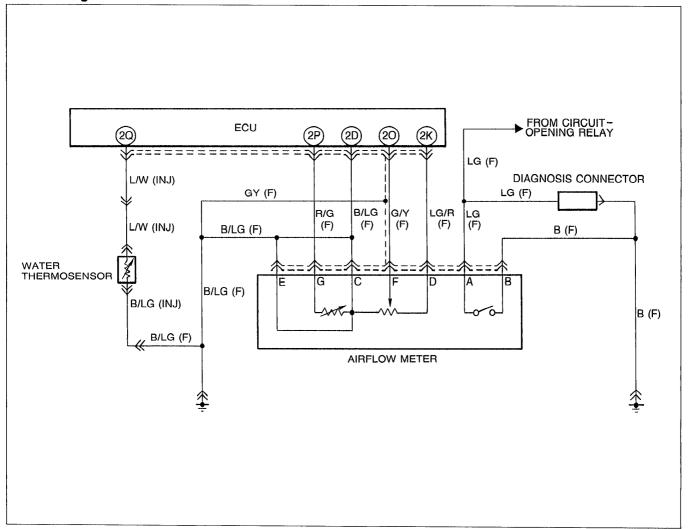
# **Circuit Diagram**



CODE	NO.08 AIRFLOW ME	TER				
STEP	INSPECTION			ACTION		
1	Are there any poor connections in airflow meter circuit?		Yes	Repair or replace connector		
				No	Go to next step	
2	ls Code No.10 prese	nt at same time?		Yes	Check for open circuit in wiring from airflow meter terminal-wire (B/LG) to ground	
				No	Go to next step	
3	Is resistance of airflov	f airflow meter OK?		Yes	Go to next step	
	Airflow meter D (LG/R)—F (G/Y) D (LG/R)—C (B/LG)	Fully closed Ω 200—600 200-			Replace airflow meter (Refer to page F-135)	
4	Is there continuity bet	tween airflow met	er connector and	Yes	Go to next step	
	ECU?			No	Check for open circuit in wiring from airflow me-	
	Airflow meter		ECU		ter to ECU	
	D (LG/R)		2K			
	F (G/Y)	F (G/Y) 20				
	A FOUL : 1 00 100 100		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Darlan FOLL (D. ( )		
5	Are ECU terminals 20 (Refer to page F-129		S UK?	Yes	Replace ECU (Refer to page F-127)	
	(neier to page F-128	<sup>7</sup> )		No	Check for short circuit in wiring from airflow meter to ECU	

05U0FX-081

# **Circuit Diagram**



STEP	INSPEC	TION	ACTION		
1	Are there any poor connection	ns in water thermosensor	Yes	Repair or replace connector	
	circuit?		No	Go to next step	
2	Is there continuity between w	ater thermosensor and	Yes	Go to next step	
	ECU?		No	Check for open circuit in wiring from water ther	
,	Water thermosensor	ECU		mosensor to ECU	
	A (L/W) 2Q B (B/LG) 2D				
3	Is resistance of water thermosensor OK?			Go to next step	
	Coolant temp. Resistance		No	Replace water thermosensor	
	-20°C ( -4°F)	14.6—17.8 kΩ		(Refer to page F-139)	
	20°C ( 68°F)	2.2—2.7 kΩ			
	80°C (176°F) 290—350Ω				
4	Is same Code No. present aft	er performing after-repair	Yes	Go to next step	
	procedure? (Refer to page F-88)		No	Water thermosensor and circuit OK	
5	Are ECU terminals 2Q and 2I	O voltages OK?	Yes	Replace ECU (Refer to page F-127)	
	(Refer to page F-129)		No	Check for short circuit in wiring from water thermosensor to ECU	

05U0FX-083

STEP	DE NO.10 INTAKE AIR THERMOSENSOR (IN AIRFLOW MEDITED INSPECTION		ACTION			
1	Are there any poor connections in intake air thermosen-			ake air thermoson	Yes	
	sor circuit?		710 117 1110	and an inermoseri-	No	Repair or replace connector
2	Is there continuity	between in	take air	thermosensor (in	Yes	Go to next step  Go to next step
	airflow meter) and	ECU?			No	Check for open circuit in wiring from intake air
	Intake air therm	osensor		ECU		thermosensor (in airflow meter) to ECU
	C (B/LG)	,		2D		
	G (R/G) 2P					
3	Is resistance of intake air thermosensor (in airflow meter) OK?			or (in airflow meter)	Yes	Go to next step
					No	Replace airflow meter (Refer to page F-135)
	Terminal	Temperature		Resistance		, , , , , , , , , , , , , , , , , , , ,
	C (B/RG) -20°C (		-4°F)	13.6—18.4 kΩ		
	-G (R/G)	20°C (		2.21—2.69 kΩ		
	60°C (140°F) 493—667Ω			493—667Ω		
4	Is same Code No.	present af	ter perfo	rming after-repair	Yes	Go to next step
	procedure? (Refer to page F-88)		No	Intake air thermosensor and circuit OK		
5	Are engine control	l unit termin	nals 2P a	and 2D voltages	Yes	Replace ECU (Refer to page F-127)
	OK? (Refer to pag	ie F–129)			No	Check for short circuit in wiring from intake air thermosensor to ECU

05U0FX-084

CODE NO.14 ATMOSPHERIC PRESSURE SENSOR	
Replace ECU (Refer to page F-127)	 

# **SELF-DIAGNOSIS FUNCTION**

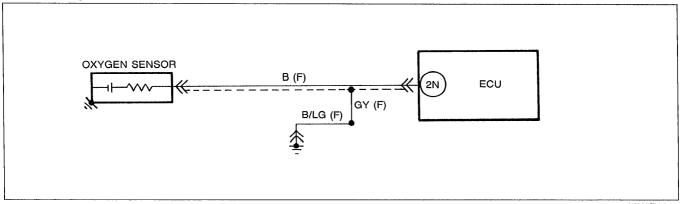
CODE	NO.15 OXYGEN SENSOR		994 1994 1994		
Note • If Code Nos.15 and 17 are both present, first perform the checking procedure for Code No.17					
STEP	INSPECTION		ACTION		
1	Are there any poor connections in oxygen sensor	Yes	Repair or replace connector		
	circuit?	No	Go to next step		
2	Is oxygen sensor output voltage OK? (Refer to page F-138)	Yes	Go to next step		
		No	Replace oxygen sensor (Refer to page F-138)		
3	Is there continuity between oxygen sensor and ECU terminal 2N?	Yes	Go to next step		
minal 2		No	Check for open circuit in wiring from oxygen sensor to ECU		
4	Is ECU terminal 2N voltage OK?	Yes	Go to next step		
		No	Check for short circuit in wiring from oxygen sensor to ECU		
5	Is sensitivity of oxygen sensor OK?	Yes	Replace ECU (Refer to page F-127)		
	(Refer to page F-138)	No	Replace oxygen sensor (Refer to page F-138)		

05U0FX-086

CODE	NO.17 FEEDBACK SYSTEM		
STEP	INSPECTION		ACTION
_ 1	Warm up engine and run it at 2,500-3,000 rpm for 3 mir	٦.	
2	Does monitor lamp of Self-Diagnosis Checker illuminate	Yes	Go to next step
	at idle?	No	Check for air leak in vacuum hoses or emission components Check for contaminated oxygen sensor Check for insufficient fuel injection
3	3 Are spark plugs clean?		Go to next step
			Clean or replace spark plugs
4	4 Is oxygen sensor voltage OK? (Refer to page F-138)		Go to next_step
			Replace oxygen sensor (Refer to page F-138)
5	Is same Code No. present after performing after-repair procedure? (Refer to page F-88)		Go to next step
			Check for short circuit in wiring from oxygen sensor to ECU terminal 2N
6	Is there continuity between oxygen sensor and ECU ter-	Yes	Go to next step
	minal 2N?		Check for open circuit in wiring from oxygen sensor to ECU
7	Is ECU terminal 2N voltage OK? (Refer to page F-127)	Yes	Replace ECU (Refer to page F-127)
		No	Check for short circuit in wiring from oxygen sensor to ECU

05U0FX-087

# **Circuit Diagram**



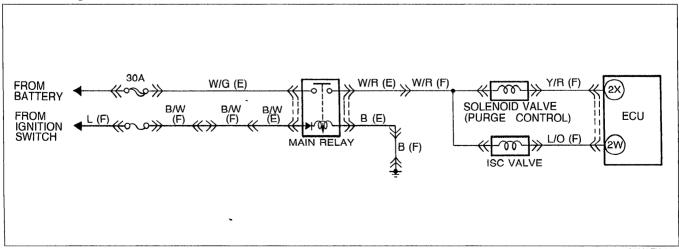
CODE	NO.26 SOLENOID VALVE (PURGE CONTROL)		
STEP	INSPECTION		ACTION
1	Are there any poor connections in solenoid valve	Yes	Repair or replace connector
	circuit?	No	Go to next step
2	Is resistance of solenoid valve OK?	Yes	Go to next step
i	Resistance: 25 ± 2Ω	No	Replace solenoid valve (Refer to page F-119)
3	Is there battery voltage at terminal wire (W/R) of sole-	Yes	Go to next step
	noid valve circuit?		Check for open circuit in wiring from solenoid valve to main relay
4	Is there continuity between solenoid valve and ECU?  Solenoid valve ECU  B (Y/R) 2X		Go to next step
			Check for open circuit in wiring from solenoid valve to ECU
5	Is ECU terminal (2X) voltage OK? (Refer to page F-130)		Replace ECU (Refer to page F-127)
		No	Check for short circuit in wiring from solenoid valve to ECU

05U0FX-089

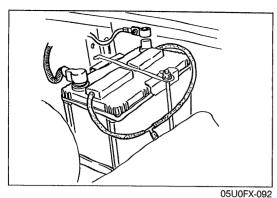
CODE NO.34 ISC VALVE					
STEP	INSPECTION		ACTION		
1	Are there any poor connections in ISC valve circuit?		Repair or replace connector		
			Go to next step		
2	Is resistance of ISC valve OK?		Go to next step		
	Resistance: 12 $\pm$ 1 $\Omega$	No	Replace ISC valve (Refer to page F-99)		
3	Is there battery voltage at terminal-wire (W/R) of ISC valve circuit?		Go to next step		
			Check for open circuit in wiring from ISC valve to main relay		
4	Is there continuity between ISC valve and ECU?		Go to next step		
	ISC valve ECU B (L/O) 2W	No	Check for open circuit in wiring from ISC valve to ECU		
5	Is ECU terminal 2W voltage OK? (Refer to page F-130)		Replace ECU (Refer to page F-127)		
			Check for short circuit in wiring from ISC valve to ECU		

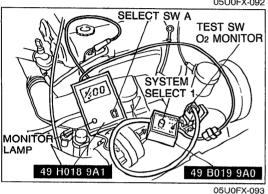
05U0FX-090

# Circuit Diagram



# **SELF-DIAGNOSIS FUNCTION**



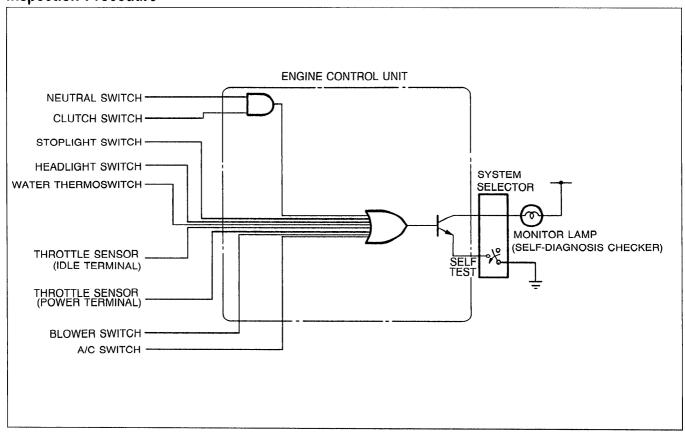


After-repair Procedure

 Cancel the memory of malfunctions by disconnecting the negative battery cable and depressing the brake pedal for at least five seconds. Reconnect the negative battery cable.

- 2. Connect the **SSTs** to the diagnosis connector as shown.
- 3. Turn the ignition switch ON, but do not start the engine for six seconds.
- 4. Start and warm up the engine, then run it at 2,000 rpm for three minutes.
- 5. Verify that no code numbers are displayed.

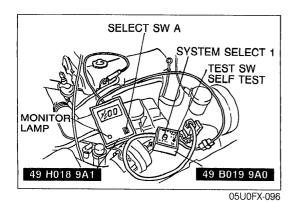
# SWITCH MONITOR FUNCTION Inspection Procedure



05U0FX-094

Switch	Self-Diagnosis Checker (Monitor lamp)			
Switch	Light ON	Light OFF	- Remark	
Clutch switch	Pedal released	Pedal depressed	In gear	
Neutral switch	In gear	Neutral	Clutch pedal released	
Idle terminal	Pedal depressed (not fully)	Pedal released		
Pow. terminal	Pedal depressed (not fully)	Pedal fully depressed	_	
Stoplight switch	Pedal depressed	Pedal released		
Headlight switch	ON	OFF	-	
Blower switch	ON	OFF	Blower motor position: "medium" "high" or "super high" position	
A/C switch	ON	OFF	Fan speed control: Low position	
Water thermoswitch	Fan operating	Fan not operating		

05U0FX-095



- 1. Connect the **SSTs** to the diagnosis connector as shown.
- 2. Turn the ignition switch ON. Check if the monitor lamp illuminates when each switch is made to function as described below.

### Caution

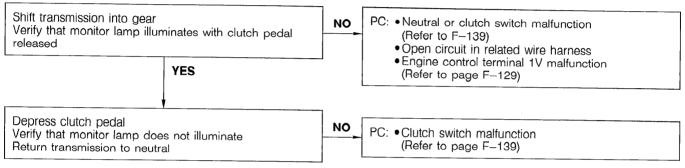
- If either of the switches remain activated, the monitor lamp will be illuminated.
- Do not start the engine.

### **Procedure**

Set conditions to deactivate each switch Check each switch and related wire harness All accessories OFF ◆Clutch and Neutral switch :Refer to page F-139 NO Transmission in neutral • Idle switch :Refer to page F-136 • All pedals released · Pow switch :Refer to page F-136 Verify that monitor lamp does not illuminate Stoplight switch :Refer to Section T Headlight switch :Refer to Section T YES Blower switch :Refer to Section T A/C switch :Refer to Section U Check each switch as described Water thermoswitch :Refer to Section E

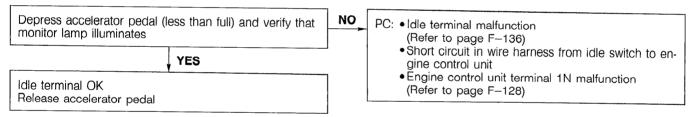
05U0FX-097

### **Neutral and Clutch switches**



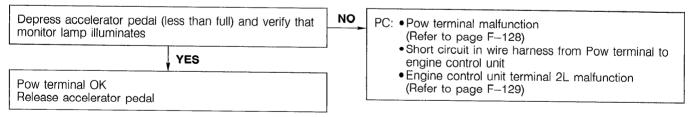
05U0FX-098

### **Idle terminal**



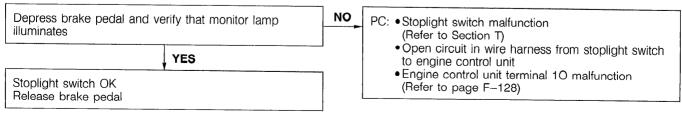
05U0FX-099

#### Pow terminal



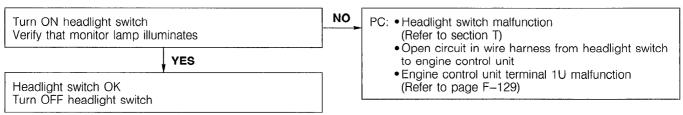
05U0FX-100

### Stoplight switch



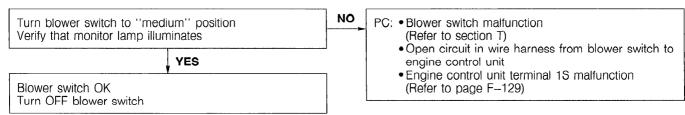
### **SELF-DIAGNOSIS FUNCTION**

### Headlight switch



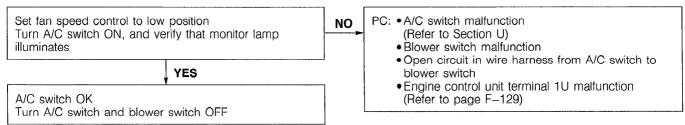
05U0FX-102

### **Blower switch**



05U0FX-103

#### A/C switch

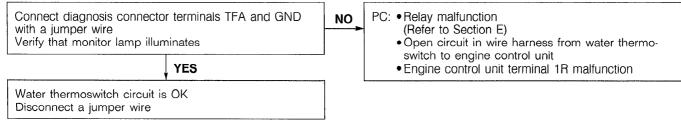


05U0FX-104

### Water thermoswitch circuit (not included in switch inspection)

### Warning

• The cooling fan operates when the diagnosis connector terminals TFA and GND are connected a jumper wire. Use caution.



### **INTAKE AIR SYSTEM**

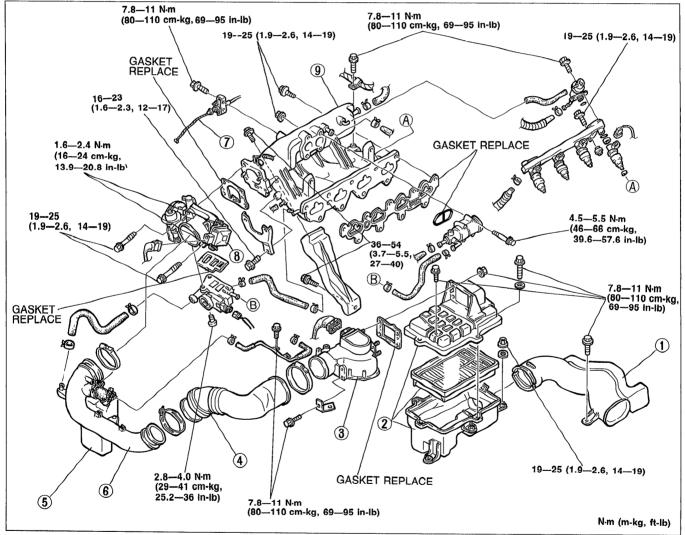
# COMPONENTS Removal / Inspection / Installation

### Warning

• Before removing the intake manifold, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)

### Note

- Before disconnecting the water hoses, drain the engine coolant.
- Use new gaskets during reassembly.
- 1. Remove in the order shown in the figure.
- 2. Check the components for damage and repair or replace as necessary.
- 3. Install in the reverse order of removal.



05U0FX-105

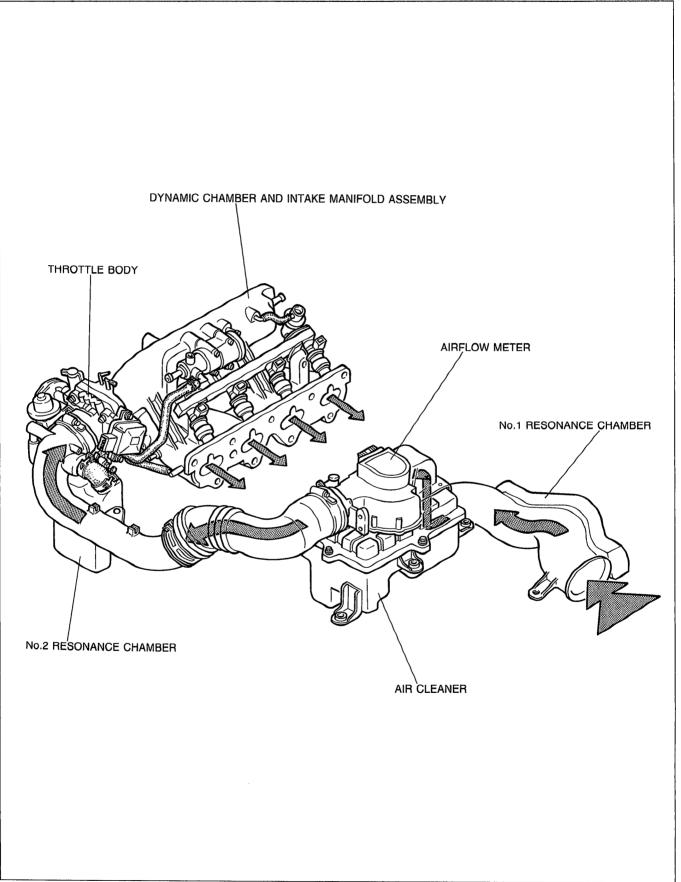
1. Air duct
2. Air cleaner
Inspection page F-73
3. Airflow meter
Inspection / Replacement page F-92
4. Air hose
5. Resonance chamber

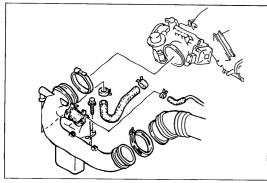
7. Accelerator pedal/cable
Inspection / Replacement page F-96
8. Throttle body
Removal / Inspection /
Installation page F-94
9. Intake manifold
Removal / Installation page F-95

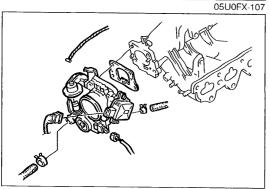
6. Air pipe

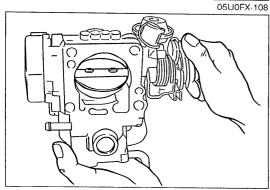
# **SYSTEM OPERATION**

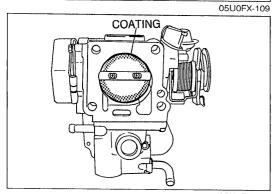
Inspection of Air Leakage
Check for possible air leakage at the points shown and repair or replace as necessary.

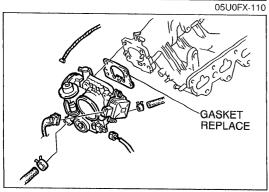












THROTTLE BODY

#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

#### Removal

- 1. Remove the negative battery terminal.
- 2. Remove the air pipe.
- 3. Remove the accelerator cable from the throttle lever.

#### Note

- Before disconnecting the water hoses, drain the engine coolant.
- 4. Disconnect the water hoses.
- 5. Disconnect the connectors for the ISC valve and the throttle sensor.
- 6. Remove the throttle body.

### Inspection

- 1. Verify that the throttle valve is fully closed.
- 2. Verify that the throttle valve moves smoothly when the throttle lever is moved from fully closed to fully open.
- 3. Replace the throttle body if necessary.

### Caution

• Do not remove the thin seal coating from the throttle valve or bore.

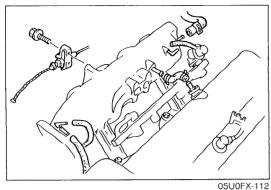
### Installation

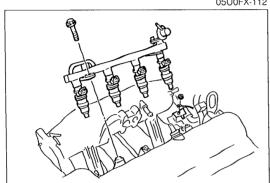
Install in the reverse order of removal.

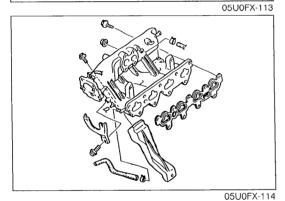
### Note

Use a new mounting gasket.

# Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)







# INTAKE MANIFOLD Removal

### Warning

- Before removal, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- 1. Remove the throttle body. (Refer to page F-94.)
- 2. Remove the air valve
- 3. Disconnect the vacuum hoses.
- 4. Remove the accelerator cable.
- 5. Disconnect the fuel hoses.
- 6. Disconnect the connectors from the injectors.
- 7. Remove the delivery pipe and injectors.
- 8. Remove the injector harness.

- 8. Remove the intake marifold bracket.
- 9. Remove the intake manifold.

### Installation

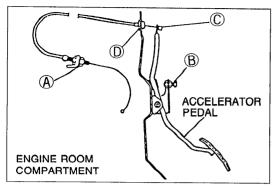
Install in the reverse order of removal.

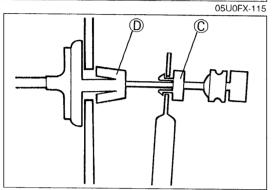
### Note

• Use a new mounting gasket.

### **Tightening torque:**

Intake manifold and delivery pipe 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb) Injector harness and bracket 7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)





05U0FX-116

# ACCELERATOR PEDAL AND CABLE Accelerator Cable Inspection

 Check deflection of the cable. If deflection exceeds 1—3mm (0.039—0.118 in), adjust it by turning nut A.

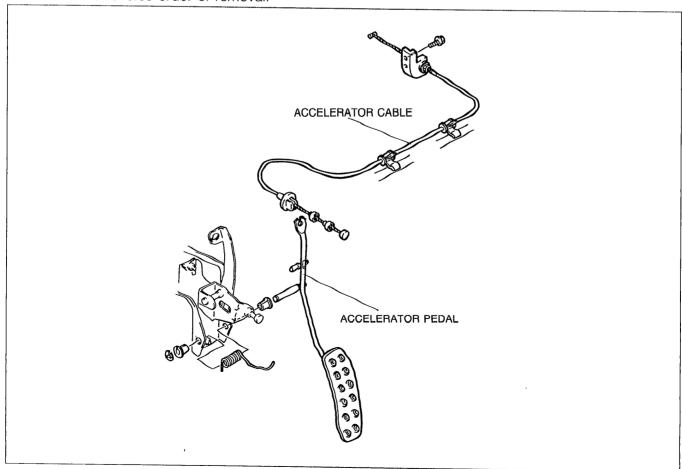
2. Depress the accelerator pedal to the floor and verify that the throttle valve opens fully. Adjust with bolt B if necessary.

### Replacement

- 1. Remove the accelerator cable from the throttle lever.
- 2. Loosen the throttle adjustment nuts and remove the cable from the bracket.
- 3. Compress the tabs of stay C and remove the accelerator cable from the pedal arm.
- 4. Compress the tabs of stay D and push the cable through the firewall.
- 5. Remove the accelerator cable.
- 6. Install in the reverse order of removal.
- 7. Adjust deflection of the cable after installation. (Refer to above.)

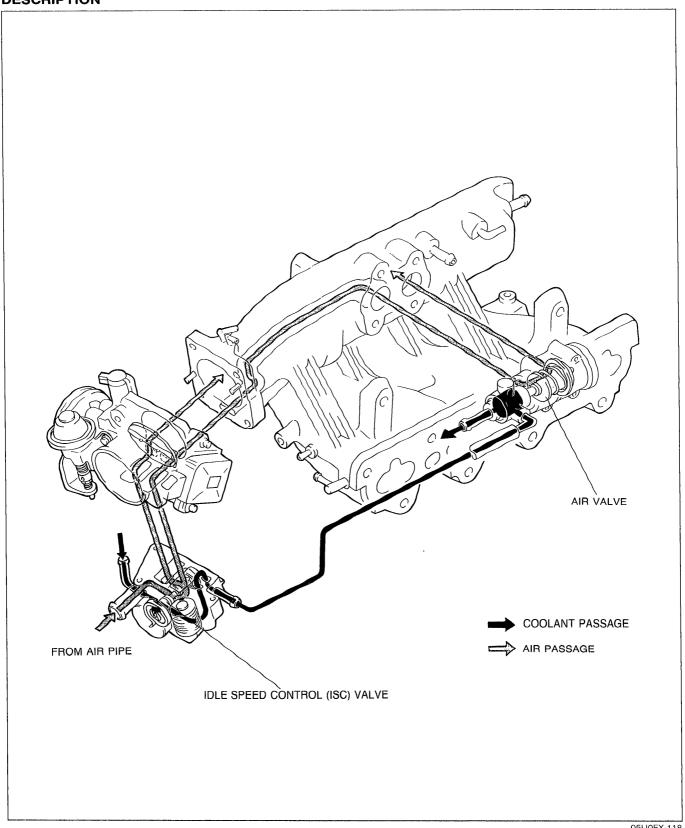
# Accelerator Pedal Replacement

- 1. Disconnect the accelerator cable.
- 2. Remove the accelerator pedal as shown in the figure.
- 3. Install in the reverse order of removal.



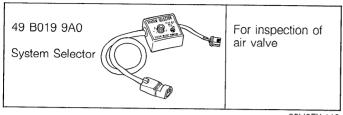
# IDLE SPEED CONTROL (ISC) SYSTEM

### **DESCRIPTION**

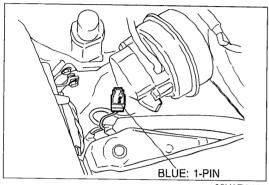


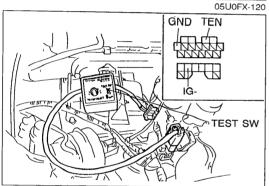
To improve idle smoothness, the ISC system controls the intake air amount by regulating amount of the bypass air that passes through the throttle valve. This system consists of the air valve that functions only when the engine is cold, the ISC valve that works throughout the entire engine speed range, and the control system.

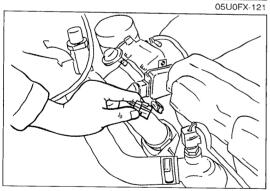
# PREPARATION SST

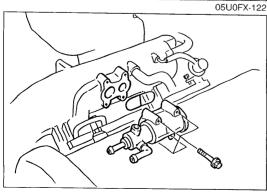


05U0FX-119









05U0FX-123

# SYSTEM OPERATION Air Valve

—Perform this inspection when the engine is cold. (Engine coolant temperature below 20°C [68°F].)

### Note

When using an externally powered tachometer connect it to the power connector (Blue: 1-pin).

### Warning

- Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.
- 1. Connect a tachometer to the diagnosis connector terminal IG-.

### Caution

- Be extremely careful when making connections to the diagnosis connector as a mistaken connection will cause a malfunction.
- 2. Connect the **SST** and set the TEST SW to "SELF TEST" or connect diagnosis connector terminals TEN and GND with a jumper wire.
- 3. Verify that the engine speed gradually decreases as the engine warms up.
- 4. Remove the **SST** or the jumper wire.

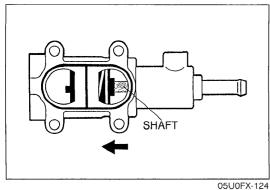
### ISC Valve

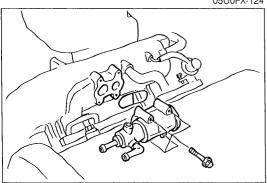
- 1. Warm up the engine to the normal operating temperautre and run it at idle.
- Disconnect the ISC valve connector (Black: 2-pin) and verify that the valve clicks and the engine speed increases to approx. 1,200 rpm.
- 3. Reconnect the ISC valve connector.

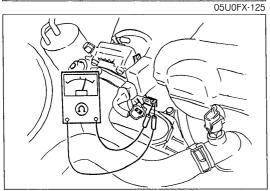
# AIR VALVE Removal

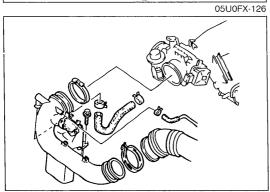
### Note

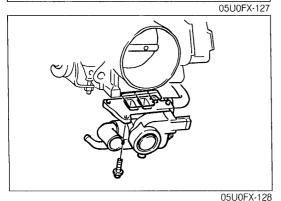
- Before disconnecting the water hoses, drain the engine coolant.
- 1. Disconnect the water hoses.
- 2. Remove the air valve from the intake manifold.











### Inspection

- 1. Cool the air valve to 0°C (31°F).
- 2. Mark the shaft.
- 3. Warm the air valve with a hot air gun and verify that the shaft moves in the direction of arrow.
- 4. Replace the air valve if necessary.

### Installation

### Note

• Install a new gasket.

Install in the reverse order of removal.

# Tightening torque: 4.9—7.8 N·m (50—80 cm-kg, 43—69 in-lb)

# ISC VALVE Inspection

- 1. Disconnect the ISC valve connector.
- 2. Connect an ohmmeter between the terminals of the ISC valve and measure the resistance.

### Resistance (at 20°C [68°F]): 12 $\pm$ 1 $\Omega$

3. If not as specified, replace the ISC valve.

### Replacement

- 1. Disconnect the ISC valve connector.
- 2. Remove the air pipe.

#### Note

- Before disconnecting the water hose, drain the engine coolant.
- 3. Disconnect the water hose and the air hose.
- 4. Remove the ISC valve.

#### Note

- Install a new gasket.
- 5. Install in the reverse order of removal.

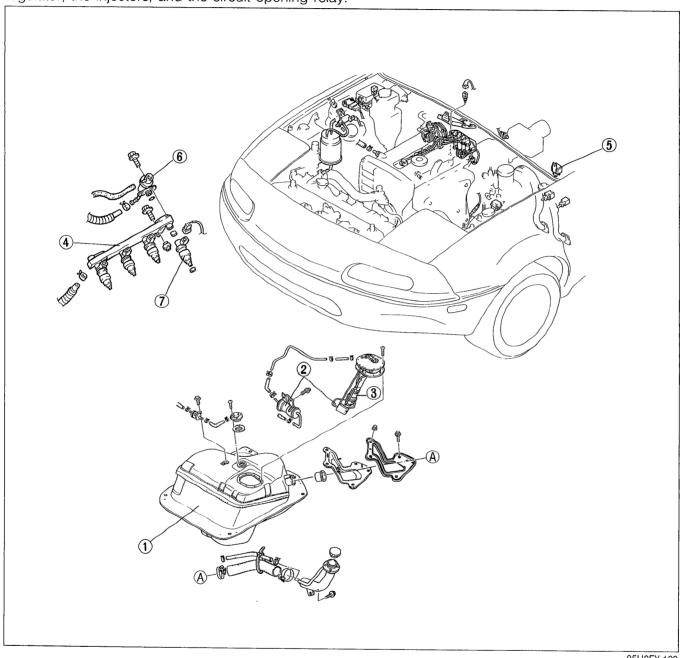
# Tightening torque:

2.8—4.0 N·m (29—41 cm-kg, 25—35 in-lb)

# **FUEL SYSTEM**

### **DESCRIPTION**

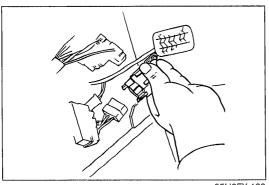
This system supplies the necessary fuel for combustion at a constant pressure to the fuel injectors. Fuel is metered and injected into the intake manifold according to the injection control signals from the engine control unit. The system consists of the fuel tank, the fuel pump, the fuel filters, the delivery pipe, the pressure regulator, the injectors, and the circuit opening relay.

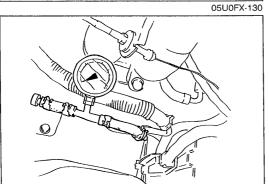


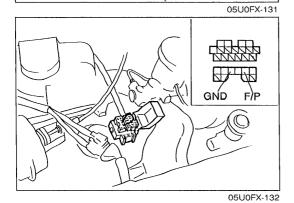
1. Fuel tank		
Removal / Inspection /		
Installation	page	F-104
2. Fuel filter		
Replacement	page	F-106
3. Fuel pump		
Inspection	page	F-107
Replacement	page	F-108
4. Delivery pipe		

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5. Circuit opening relay	
Inspection	page F-110
Replacement	. page F-110
6. Pressure regulator	
Inspection	. page F-111
Replacement	page F-111
7. Injector	. 0
Inspection	page F-112
Removal	page F-112
Installation	page F-113

FUEL SYSTEM







### **PRECAUTION**

### Fuel Pressure Release and Servicing Fuel System

Fuel in the fuel system remains under high pressure even when the engine is not running.

- a) Before disconnecting any fuel line, release the fuel pressure from the fuel system to reduce the possibility of injury or fire.
  - 1. Start the engine.
  - 2. Disconnect the circuit opening relay connector.
  - 3. After the engine stalls, turn off the ignition switch.
  - 4. Reconnect the circuit opening relay connector.
- b) Use a rag as protection from fuel spray when disconnecting the hoses.
- c) Plug the hoses after removal.
- d) When inspecting the fuel system, use a suitable fuel pressure gauge.

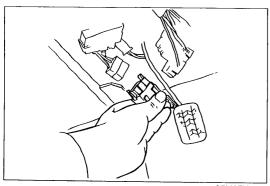
### Caution

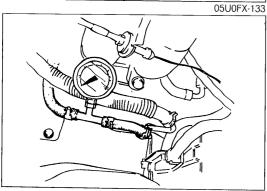
 Install hose clamps when securing the fuel pressure gauge to the fuel pipe and the fuel main hose to prevent fuel leakage.

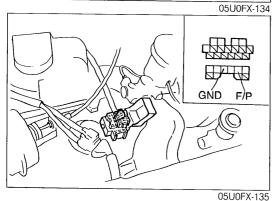
### **Priming Fuel System**

After releasing the fuel system pressure for repairs or inspection, the system must be primed to avoid excessive cranking when first starting the engine. Follow the steps below.

- 1. Connect diagnosis connector terminals F/P and GND with a jumper wire.
- 2. Turn the ignition switch ON for **approx. 10 sec.** and check for fuel leaks.
- 3. Turn the ignition switch OFF and remove the jumper wire.







### SYSTEM OPERATION

#### Caution

 Obtain the code number and deactivate the antitheft system before disconnecting the battery. (Refer to page T-113.)

# **Fuel Pressure Hold Inspection**

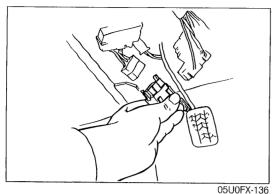
### Warning

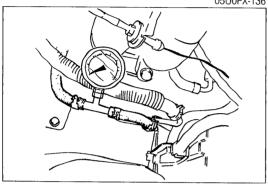
- Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- 1. Disconnect the negative battery terminal.
- 2. Install a fuel pressure gauge between the fuel pipe and the fuel main hose. (Install clamps as shown.)
- 3. Connect the negative battery terminal.
- 4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
- 5. Turn the ignition switch ON for **10 sec.** to operate the fuel pump.
- 6. Turn the ignition switch OFF and disconnect the jumper wire.
- 7. Observe the fuel pressure after 5 min.

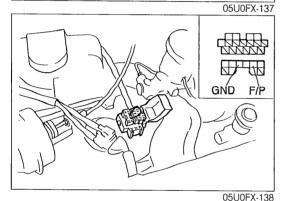
### Fuel pressure: More than 147 kPa (1.5 kg/cm<sup>2</sup>, 21 psi)

- 8. If not as specified, perform the following inspections.
  - Fuel pump hold pressure (Refer to page F-107.)
  - Pressure regulator hold pressure (Refer to page F-111.)
  - Injector fuel leakage. (Refer to page F-113.)

F







### **Fuel Line Pressure Inspection**

Warning

 Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)

- 1. Disconnect the negative battery terminal.
- 2. Install a fuel pressure gauge between the fuel pipe and the fuel main hose. (Install clamps as shown.)
- 3. Connect the negative battery terminal.

- 4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
- 5. Turn the ignition switch ON.
- 6. Measure the fuel line pressure.

Fuel line pressure: 265—314 kPa (2.7—3.2 kg/cm², 38—46 psi)

Pressure low — Check fuel pump maximum pressure. (Refer to page F-108.) If as specified, fuel line or fuel filter might be clogged or res-

tricted.

Pressure high — Replace the pressure regulator.

(Refer to page F-111.)

### **FUEL TANK**

#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

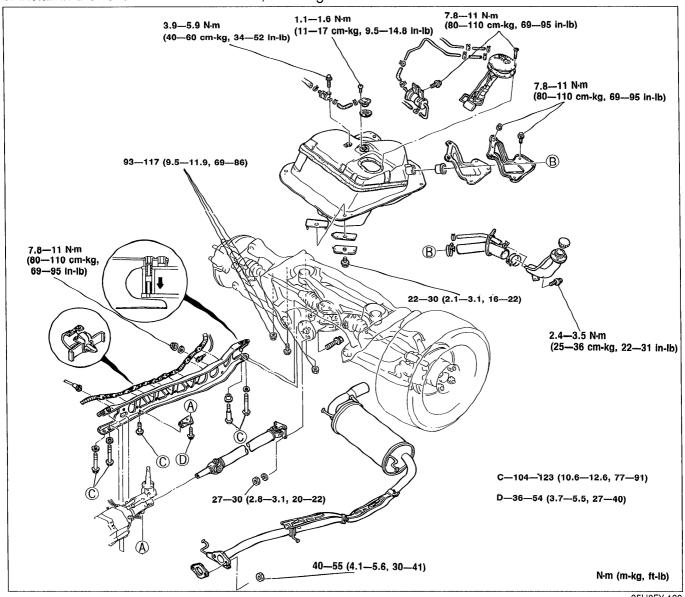
### Removal / Inspection / Installation

### Warning

- Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- When removing the fuel tank, keep sparks, cigarettes, and open flames away from the tank.
- Before repairing the fuel tank, clean it thoroughly with steam to remove all explosive gas.

#### Note

- Drain the fuel from the fuel tank before removing the tank.
- 1. Disconnect the negative battery terminal.
- 2. Remove the main silenser. (Refer to page F–115.)
- 3. Remove the power plant frame. (Refer to page J-11.)
- 4. Remove in the order shown in the figure, referring to **Removal Note**.
- 5. Install in the reverse order of removal, referring to Installation Note.

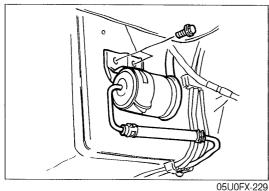


F

1. Fuel filler hoses
2. Fuel hoses
3. Evaporative hoses
4. Fuel pump connector
5. Fuel filter bolts
Removal Notepage F-105
6. Brake pipe joint
Removal Note page F-105

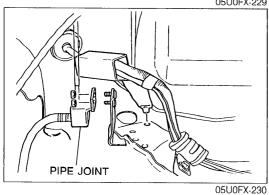
7. Battery cable	
Removal Note	. page F-105
8. Rear crossmember assembly	
Removal Note	. page F-105
9. Fuel tank unit	
10. Tow-way check valve	
11. Fuel vapor valve	
12. Fuel tank	

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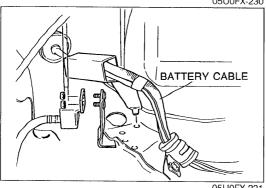
# Removal note Fuel filter bolts

- 1. Remove the fuel filter cover.
- 2. Remove the fuel filter bolts.
- 3. Remove the fuel filter with the fuel hoses still connected.



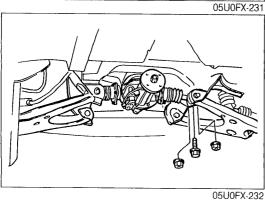
### Brake pipe joint

- 1. Remove the brake pipe joint nuts.
- 2. Remove the brake pipe joint with the brake pipe and brake hose still connected.



### **Battery cable**

1. Remove the battery cable clamp as shown in the figure.



Rear crossmember assembly

- 1. Support the rear crossmember assembly with a transmission jack.
- 2. Remove the rear crossmember mounting bolts and nuts.

#### Caution

- Do not damage the brake hose, brake pipe, or fuel hoses.
- 3. Lower the rear crossmember assembly.

#### Installation note

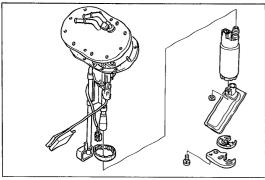
### Fuel hoses and fuel filler hoses

- Push the ends of the main fuel hose, fuel return hose, and evaporation hose onto the fuel tank fittings at least 25mm (1.0 in).
- Push the fuel filler hose onto the fuel tank pipe and filler pipe at least 35mm (1.4 in).

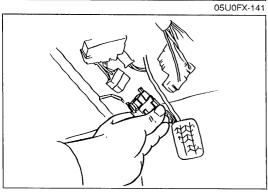
### Power plant frame

• Install the power plant frame referring to the installation procedure on page J-46.

05U0FX-140



FUEL FILTER
Replacement
Low-pressure side (In-tank filter)
(Refer to page F-109.)

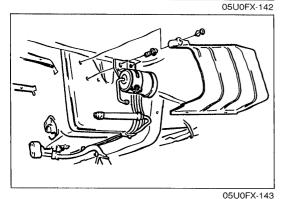


### High-pressure side

The fuel filter must be replaced at the intervals outlined in the maintenance schedule.

Warning

- Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- When replacing fuel system components, keep sparks, cigarettes, and open flames away from the fuel.



- 1. Raise the rear of the vehicle and support it with safety stands.
- 2. Remove the fuel filter protector.
- 3. Disconnect the fuel hoses from the fuel filter.
- 4. Remove the fuel filter and bracket.

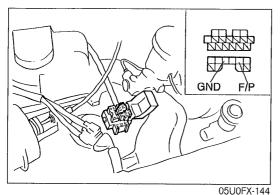
#### Note

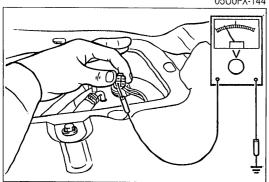
- When installing the filter, push the fuel hoses fully onto the fuel filter.
- 5. Install in the reverse order of removal.

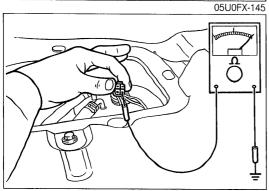
### **Tightening torque:**

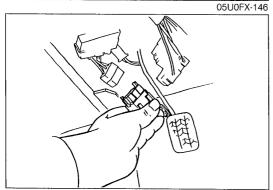
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

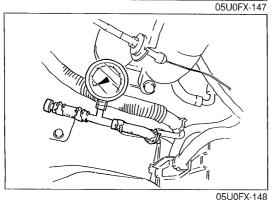
F











### **FUEL PUMP**

### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

### Inspection

### Fuel pump operation

- 1. Connect the diagnosis connector terminals F/P and GND with a jumper wire.
- 2. Remove the fuel filler cap.
- 3. Turn the ignition switch ON.
- 4. Listen for operational sound of the fuel pump at the filler inlet.
- 5. Install the fuel filler cap.
- 6. If no sound was heard, measure the voltage between the fuel pump connector wire to ground.

### Voltage: 12V

- 7. If not correct, check the circuit opening relay and its circuits. (Refer to page F-109.)
- 8. If the voltage is normal, check for continuity between fuel pump connector (B) and a ground.
- 9. If there is continuity, replace the fuel pump.
- 10. If no continuity, repair the ground circuit.

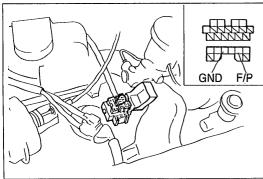
### Hold pressure

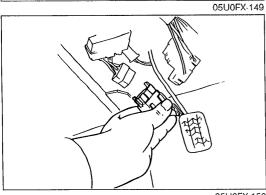
Perform this inspection if the fuel pressure hold inspection is not as specified. (Refer to page F–102.)

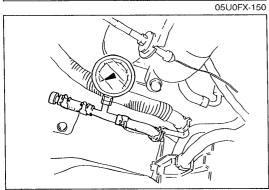
### Warning

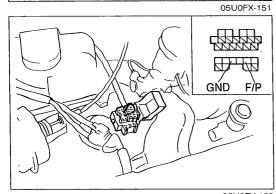
• Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)

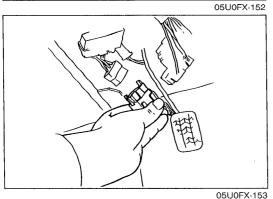
- 1. Disconnect the negative battery terminal.
- 2. Connect a fuel pressure gauge to the fuel main pipe and plug the outlet of the fuel pressure gauge as shown. (Install clamps as shown.)
- 3. Connect the negative battery terminal.











4. Connect diagnosis connector terminals F/P and GND with a jumper wire.

5. Turn the ignition switch ON **for 10 sec.** to operate the fuel pump.

6. Turn the ignition switch OFF and disconnect the jumper wire.

7. Observe the fuel pressure after 5 min..

# Fuel pressure: More than 343 kPa (3.5 kg/cm<sup>2</sup>, 50 psi)

8. If not as specified, replace the fuel pump.

### Fuel pump maximum pressure

### Warning

• Before performing the following operation, relase the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)

1. Disconnect the negative battery terminal.

2. Connect a fuel pressure gauge to the fuel main pipe and plug the outlet of the fuel pressure gauge as shown. (Install clamps as shown.)

3. Connect the negative battery terminal.

- 4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
- 5. Turn the ignition switch ON to operate the fuel pump.
- 6. Measure the pump maximum pressure.

### Fuel pump maximum pressure: 441—589 kPa (4.6—6.0 kg/cm², 64—85 psi)

- 7. Turn the ignition switch OFF and disconnect the jumper wire.
- 8. If not as specified, replace the fuel pump.

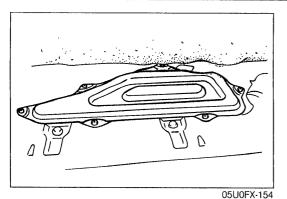
### Replacement

#### Warning

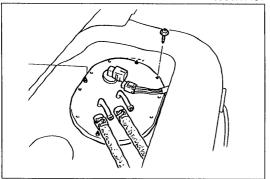
 Before performing the following procedures, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)

 When replacing the fuel system parts, keep sparks, cigarettes, and open flames away from the fuel.

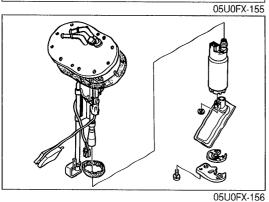
F



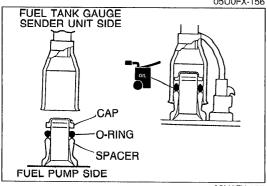
- 1. Remove the rear package trim.
- 2. Remove the service hole cover.



- 4. Remove the fuel pump cover.
- 5. Disconnect the fuel pump connector.
- 6. Disconnect the fuel hoses.
- 7. Remove the fuel pump and fuel tank gauge sender unit assembly.

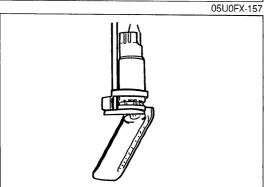


- 8. Remove the fuel pump.
- 9. Install in the reverse order of removal, referring to **Installation Note**.



#### Installation note O-ring set

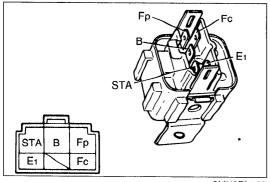
- 1. Use a new O-ring set. (O-ring, cap, and spacer)
- 2. Apply oil or fuel to the O-ring set before installing.
- 3. To confirm sealing of the O-ring, after assembling the fuel pump and fuel tank gauge sender unit, blow air through the fuel main pipe and verify that no air flows. If air flows the check ball may be stuck. Shake the fuel pump 2 or 3 times and recheck.

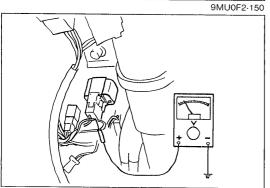


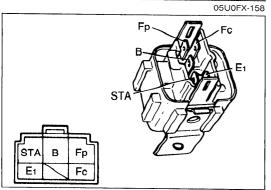
05U0FX-233

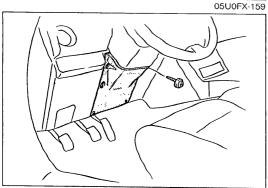
Fuel pump

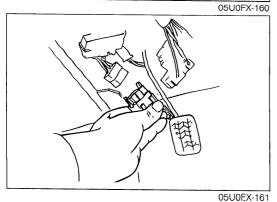
1. After installing the fuel pump to the bracket, pull down the fuel pump down so that it is tight against the bracket.











CIRCUIT OPENING RELAY Inspection

**Switching operation** 

Apply 12V and a ground to the terminals below and check the circuit opening relay operation as described.

12V	Grounded	Correct result	
STA	E1	B-Fp: Continuity	
В	Fc	Fp: Battery voltage	

If not as specified, replace the circuit opening relay.

#### Relay circuit

Measure voltage between the terminals and a ground with a voltmeter.

Terminal Condition	Fр	Fc	В	STA	E1
Ignition switch: ON	OV	12V	12V	OV	OV
Ignition switch: START	12V	OV	12V	12V	OV
At idle	12V	OV	12V	OV	OV

If not as specified, check the related wiring harness.

#### Resistance

Measure resistance between the terminals with an ohmmeter.

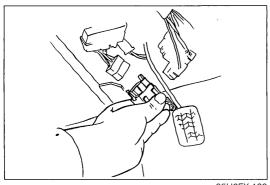
Between terminals	Resistance (Ω)		
STA-E1	21—43		
B-Fc	109—226		
B-Fp	∞		

If not as specified, replace the circuit opening relay.

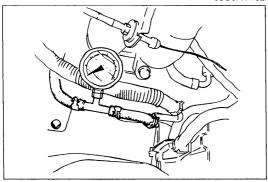
#### Replacement

1. Remove the undercover.

- 2. Remove the circuit opening relay.
- 3. Install in the reverse order of removal.



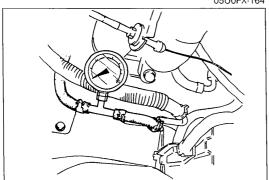
05U0FX-162



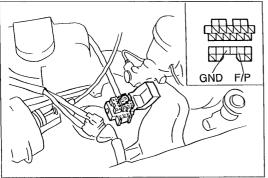
05LI0EX-163



05U0FX-164



05U0FX-165



05U0FX-166

#### PRESSURE REGULATOR

#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

#### Inspection Fuel line pressure

#### Warning

- Before performing the following operation, relase the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- 1. Disconnect the negative battery terminal.
- 2. Connect a fuel pressure gauge between the fuel main pipe and the fuel main hose. (Install clamps as shown.)
- 3. Connect the negative battery terminal.
- 4. Start the engine and run it at idle.
- 5. Measure the fuel line pressure.

#### Fuel line pressure: 216—265 kPa (2.2—2.7 kg/cm<sup>2</sup>, 31—38 psi)

#### Hold pressure

Perform this inspection if the fuel pressure hold inspection is not as specified. (Refer to page F-102.)

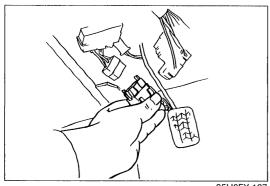
#### Warning

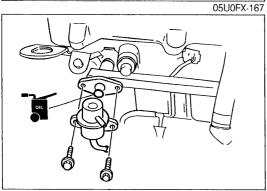
- Before performing the following operation, relase the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- 1. Disconnect the negative battery terminal.
- 2. Install a fuel pressure gauge between the fuel pipe and the fuel main hose. (Install clamps as shown.)
- 3. Connect the negative battery terminal.

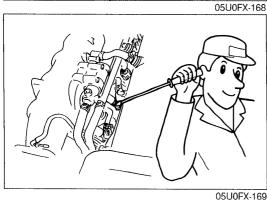
- 4. Connect diagnosis connector terminals F/P and GND with a jumper wire.
- 5. Turn the ignition switch ON for 10 sec. to operate the fuel pump.
- 6. Turn the ignition switch OFF and disconnect the jumper wire.
- 7. Block the outlet of the pressure regulator.
- 8. Observe the fuel pressure for 5 min.

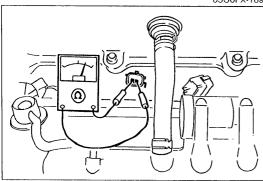
#### Fuel pressure: More than 147 kPa (1.5 kg/cm<sup>2</sup>, 21 psi)

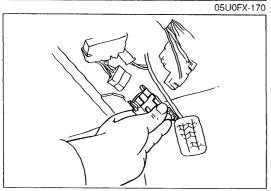
9. If pressure is as specified, replace the pressure regulator.











05U0FX-171

#### Replacement

#### Warning

- Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- When replacing fuel system components, keep sparks, cigarettes, and open flames away from the fuel.
- 1. Disconnect the vacuum hose.
- 2. Disconnect the fuel return hose.
- 3. Remove the pressure regulator.

#### **Tightening torque:**

7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

- 4. Use new O-ring.
- 5. Install in the reverse order of removal.

#### **INJECTOR**

#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

## Inspection Operation check

- 1. Warm up the engine and run it at idle.
- 2. Listen for operational sound of the injector with a screwdriver or a sound scope.
- 3. If no sound is heard, measure injector resistance.
- 4. If the injector resistance is OK, check wiring to the injector and engine control unit terminals 2A, 2U, and 2V voltages. (Refer to page F–130.)

#### Injector resistance

- 1. Disconnect the injector harness.
- 2. Measure resistance of the injector with an ohmmeter.

#### Resistance: $12-16\Omega$

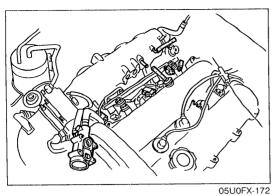
3. If not as specified, replace the injector.

#### Removal

#### Warning

- Before performing the following operation, release the fuel pressure from the fuel system to reduce the possibility of injury or fire. (Refer to page F-101.)
- When servicing the fuel system parts, keep sparks, cigarettes, and open flames away from the fuel.

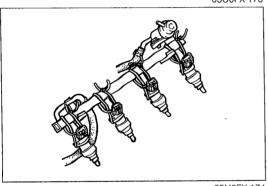
F



GROMMET INSULATOR

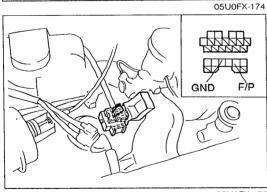
- 1. Disconnect the negative battery terminal.
- 2. Remove the air valve. (Refer to page F-98.)
- 3. Remove the PCV hose.
- 4. Disconnect the vacuum hose.
- 5. Disconnect the injector connectors.

- 6. Remove the delivery pipe and the pressure regulator.
- 7. Remove the grommets, injectors, and insulators.

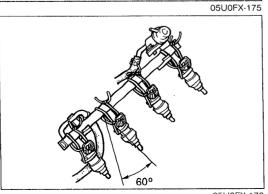


#### Inspection Fuel leakage test

- 1. Remove the air valve.
- 2. Firmly affix the injectors to the delivery pipe with wire.
- 3. Disconnect the injector connectors.
- 4. Remove the delivery pipe and injectors together with the fuel hoses connected.



5. Connect diagnosis connector terminals (F/P) and (GND) with a jumper wire.

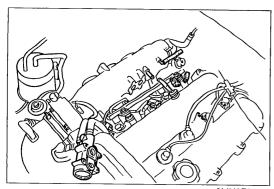


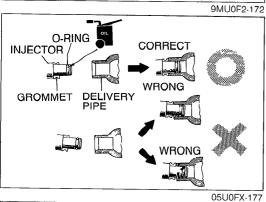
- 6. Turn the ignition switch ON.
- 7. Tilt the injectors **approx. 60 degrees** and verify that no fuel leaks from the injector nozzles.
- 8. If fuel leaks from an injector, replace it.

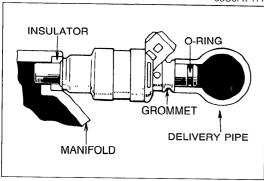
#### Note

- After 1 minute a drop of fuel from the injector is acceptable.
- 9. Turn the ignition switch OFF and remove the jumper wire.

#### **FUEL SYSTEM**







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#### Installation

Install in the reverse order of removal, referring to **Installation Note**.

Tightening torque:
Delivery pipe
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

#### Installation note

- 1. Use new injector O-rings.
- 2. Apply a small amount of clean engine oil to the O-rings before installing.

- 3. Use new injector insulators.
- 4. Install the injectors and new injector insulators.

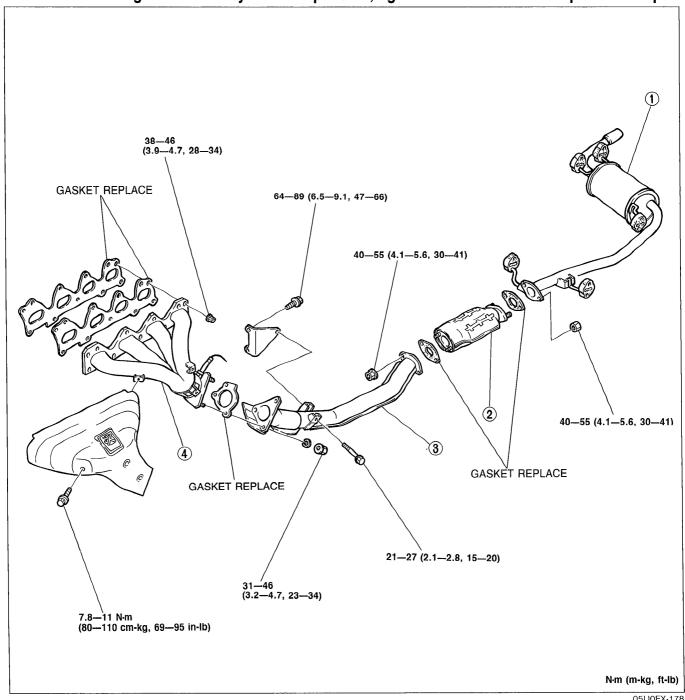
#### **EXHAUST SYSTEM**

#### **COMPONENTS**

#### Removal / Inspection / Installation

- 1. Remove in the sequence shown in the figure.
- 2. Check all components for damage, deterioration, and restriction and repair or replace as necessary.
- 3. Install in the reverse order of removal.

• When installing the exhaust system components, tighten all fasteners to the specified torque.



05U0FX-178

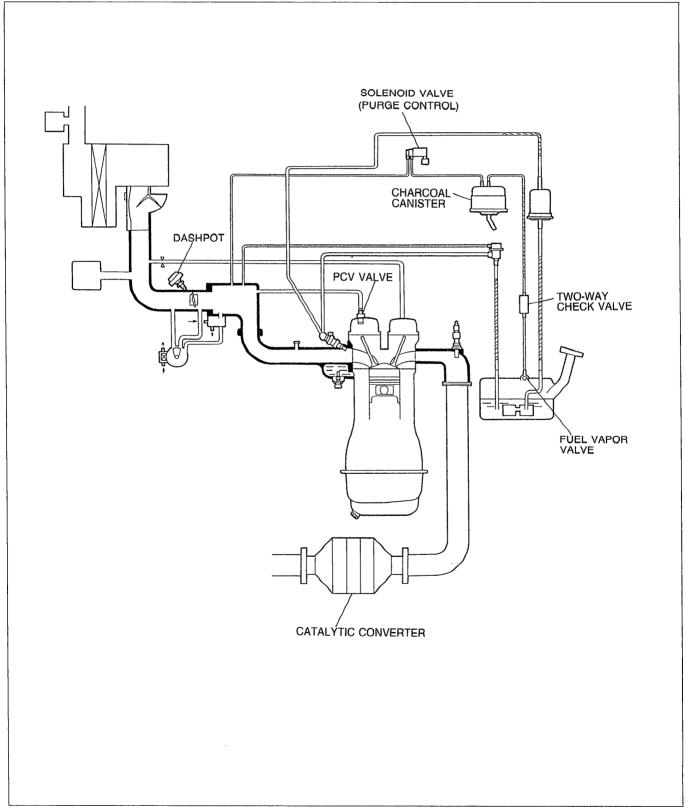
- 1. Main silencer Inspect for deterioration and restriction
- 2. Catalytic converter Inspect page F-122
- 3. Front exhaust pipe Inspect for deterioration and restriction
- 4. Exhaust manifold Inspect for damage

### **OUTLINE OF EMISSION CONTROL SYSTEM**

#### STRUCTURAL VIEW

The following systems are employed to reduce CO, HC, and NOx emissions. 1. Positive crankcase ventilation (PCV) system.

- 2. Evaporative emission control system.
- 3. Catalytic converter.
- 4. Deceleration control system.



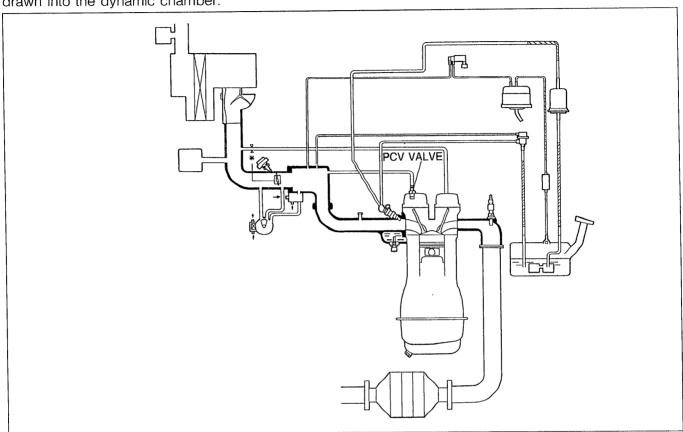
## POSITIVE CRANKCASE VENTILATION (PCV) SYSTEM

#### DESCRIPTION

The PCV valve is operated by the intake manifold vacuum.

When the engine is running at idle the PCV valve is opened slightly and a small amount of blowby gas is drawn into the dynamic chamber to be burned.

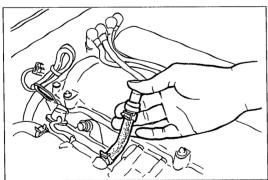
At higher engine speeds the PCV valve is opened further, allowing a larger amount of blowby gas to be drawn into the dynamic chamber.



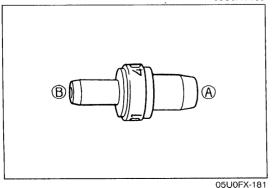
**PCV VALVE** Inspection

and run it at idle.

9MU0F2-182







from the cylinder head cover. 3. Block the PCV valve opening. 4. Verify that vacuum is felt.

5. Remove the PCV valve. 6. Blow through the valve from port A and verify that air comes out of port B.

1. Warm up the engine to the normal operating temperature

2. Disconnect the PCV valve together with the ventilation hose

- 7. Blow through the valve from port B and verify that no air comes out of port A.

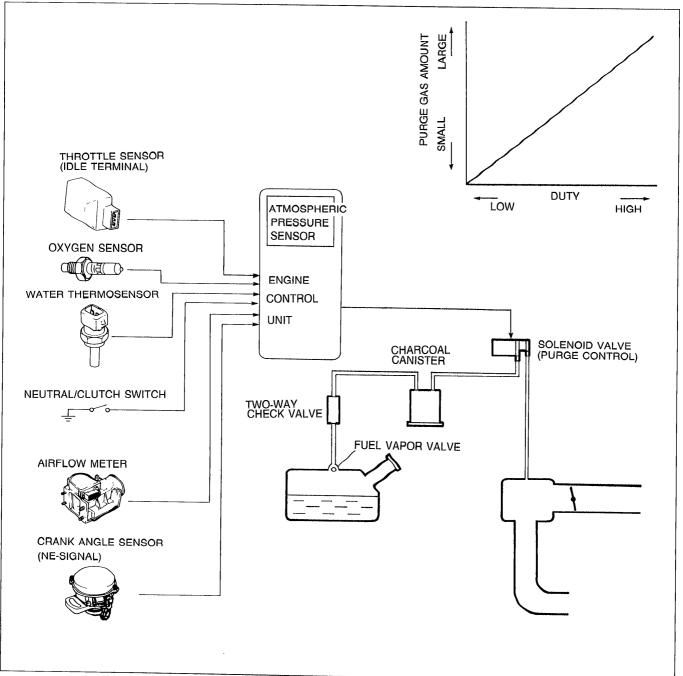
8. Replace the PCV valve if necessary.

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## **EVAPORATIVE EMISSION CONTROL SYSTEM**

#### **DESCRIPTION**

The evaporative emission control system consists of the fuel vapor valve, the two-way check valve, the charcoal canister, the solenoid valve (purge control), the engine control unit, and the input devices. The amount of evaporative fumes introduced into the engine and burned is controlled by the solenoid valve in relation to the engine's operating conditions. To maintain the best engine performance, the solenoid valve is controlled by the engine control unit.



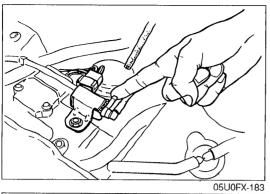
Operation

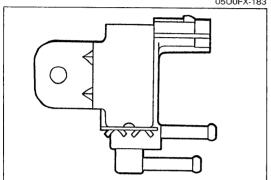
The solenoid valve (purge control) is controlled by duty signals from the engine control unit to perform purging of the charcoal canister. Purging is done when these conditions are met:

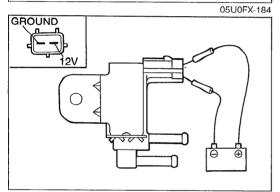
05U0FX-182

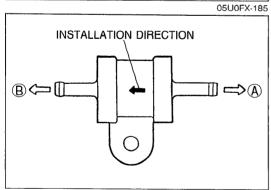
- (1) After warm-up.
- (2) Driving in gear.
- (3) Accelerator pedal depressed (idle switch OFF).
- (4) Oxygen sensor functioning normally.

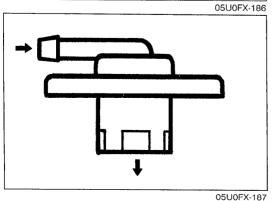












## SOLENOID VALVE (PURGE CONTROL) On-vehicle Inspection

- 1. Warm up the engine to normal operating temperature.
- 2. Run the engine at idle.
- 3. Disconnect the vacuum hose from the solenoid valve and verify that no vacuum is felt at the solenoid valve.
- 4. If not as specified, check the solenoid valve.

#### Inspection

- 1. Disconnect the vacuum hoses from the solenoid valve.
- 2. Verify that no air flows through the valve.

- 3. Disconnect the solenoid valve connector and connect **12V** and a ground to the terminals of the solenoid valve.
- 4. Verify that the air flows through the valve.
- 5. If not as specified, replace the solenoid valve.

## TWO-WAY CHECK VALVE Inspection

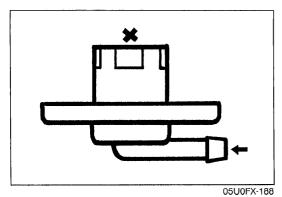
- 1. Remove the valve.
- 2. Check the operation of the valve with a vacuum pump.

Apply approx. 37 mmHg (1.46 inHg) vacuum at port A	Airflow
Apply approx. 44 mmHg (1.73 inHg) vacuum at port B	Airflow

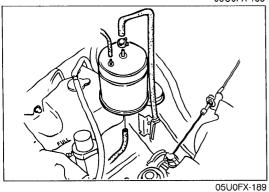
## FUEL VAPOR VALVE Inspection

- 1. Remove the valve.
- 2. Blow through the valve and verify that air flows in the direction shown.

#### **EVAPORATIVE EMISSION CONTROL SYSTEM**



- no air flows. 4. Replace the valve if necessary.



#### **CHARCOAL CANISTER** Inspection

Visually check for damage and replace the charcoal canister if necessary.

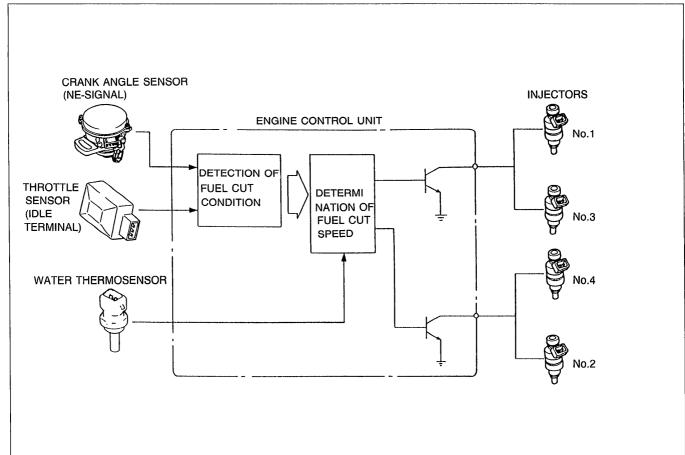
3. Turn the valve over and blow through the valve. Verify that

#### **DECELERATION CONTROL SYSTEM**

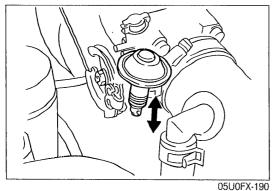
#### DESCRIPTION

The deceleration control system consists of the fuel cut operation and the dashpot.

- 1. Dashpot: To prevent the throttle valves from suddenly closing.
- 2. Fuel cut: To improve the fuel economy and to prevent engine bucking during deceleration.

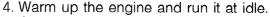






#### **DASHPOT** Inspection

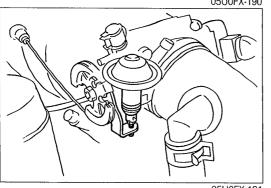
- 1. Open the throttle valve fully. Push the dashpot rod with a finger and verify that it goes into the dashpot slowly.
- 2. Release the rod and check that it comes out quickly.
- 3. Replace the dashpot if necessary.



- 5. Connect a tachometer to the engine, and increase the engine speed to 4,000 rpm.
- 6. Slowly decrease the engine speed and check that the lever touches the dashpot rod as specified.

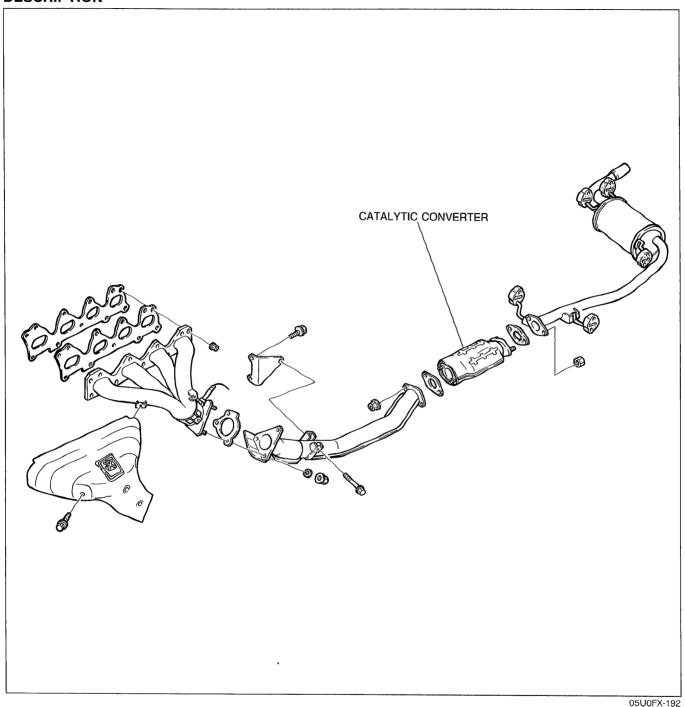


7. If not as specified, loosen the locknut and turn the dashpot to adjust.



#### **CATALYTIC CONVERTER SYSTEM**

#### **DESCRIPTION**



#### **CATALYTIC CONVERTER**

#### Inspection

Check the catalytic converter for deterioration or restriction. Check for damage to the insulation covers welded to the catalytic converter. Replace the catalytic converter if necessary.

• If the insulation cover touches the catalytic converter housing, excessive heat at the floor of the vehicle will occur.

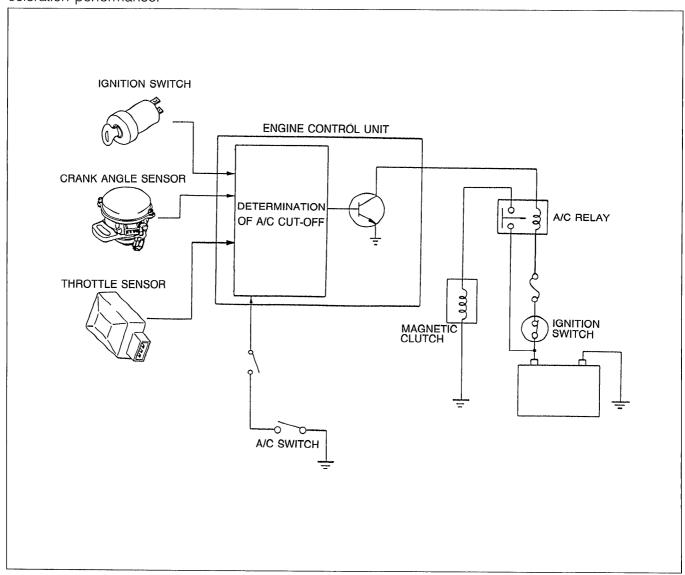
#### Replacement

Refer to page F-115.

## A/C CUT-OFF CONTROL SYSTEM

#### **DESCRIPTION**

An A/C cut-off system is used to improve idle smoothness after just starting the engine and to improve acceleration performance.



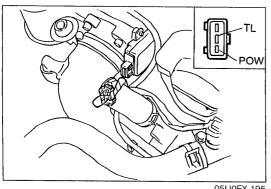
05U0FX-194

#### After Engine Has Been Started

The A/C is cut-off for 2 sec. just after the engine is started.

#### **Acceleration**

The A/C is cut-off upon wide-open-throttle acceleration for approx. 16 sec..



05U0FX-195

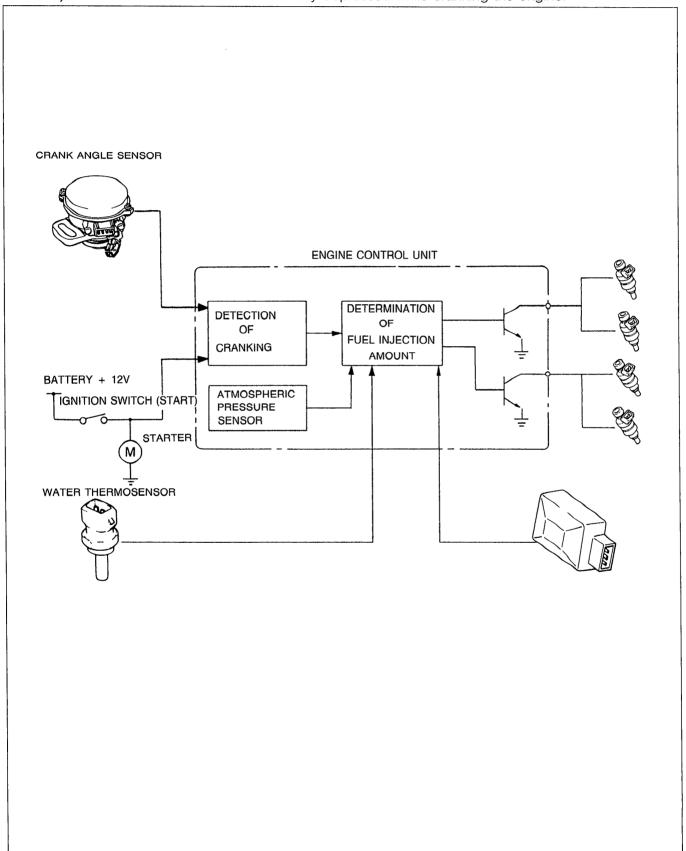
#### **System Operation**

- 1 Start the engine.
- 2. Turn the blower switch and A/C switch ON.
- 3. Disconnect the throttle sensor connector.
- 4. Connect the throttle sensor connector terminals TL and POW with a jumper wire and verify that the condenser fan stops for approx. 16 sec.
- 5. If not correct, check engine control unit terminals 1Q and 2L voltages. (Refer to page F-129.)

#### **DECHOKE CONTROL SYSTEM**

#### **DESCRIPTION**

To clean out excess fuel in cylinders, as in the case of engine flooding, when the engine is cold, no fuel will be injected when the accelerator is held fully depressed while cranking the engine.

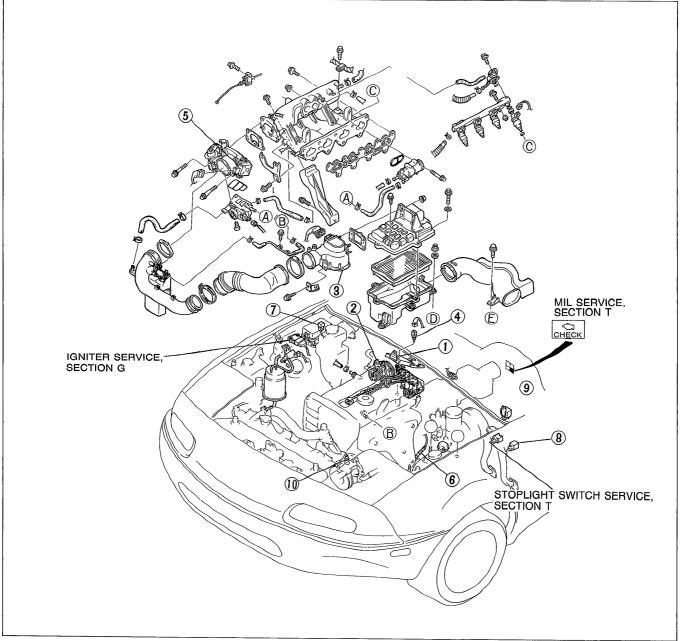


### **CONTROL SYSTEM**

# PREPARATION SST

49 9200 162 Engine Signal Monitor	For inspection of engine control unit	49 G018 903 Adapter harness	For inspection of engine control unit
49 H018 9A1  Self-Diagnosis Checker	For inspection of oxygen sensor	49 B019 9A0 System Selector	For inspection of oxygen sensor
49 9200 165 Throttle Sensor Checker	For inspection of oxygen sensor	49 9200 166 Adapter harness	For inspection of oxygen sensor
49 G018 904  Sheet  Sheet  48 G018 904  Sheet  48 G018 904  5 G018 904  6 G018 904  6 G018 904  6 G018 904  6 G018 904	For inspection of engine control unit		05U0FX-197

#### STRUCTURAL VIEW



05U0FX-198

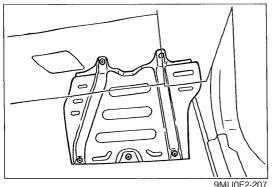
1.	Engine control unit		
	Inspection	page	F-127
2.	Crank angle sensor		
	Removal	page	F-134
	Inspection	page	F-134
	Installation	page	F-134
3.	Airflow meter		
	Inspection	page	F-135
4.	Water thermosensor		
	Removal	page	F-136
	Inspection	page	F-136
	Installation	page	F-136
5.	Throttle sensor	, 0	
	Inspection	page	F-136
	Adjustment	page	F-137
	Replacement	page	F-137

6. Oxygen sensor			
Inspection	page	F-1	38
Replacement	page	F-1	39
7. Main relay (Fuel injector relay)			
Inspection	page	F-1	39
8. Clutch switch			
Inspection	page	F1	39
Replacement	page	F-1	39
9. Neutral switch			
Inspection	page	F-1	40
Replacement	page	F-1	40
10. Power steering pressure switch			
Inspection	page	F-1	40
Replacement	page	F-1	40
	_		

Inspection

**ENGINE CONTROL UNIT** 

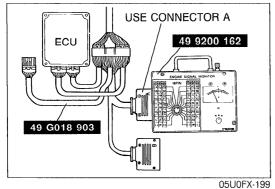
2. Remove the protector cover.



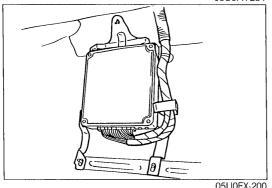
# 9MU0F2-207

3. Connect the **Engine Signal Monitor** between the engine control unit and the wiring harness using the Adapter as shown.

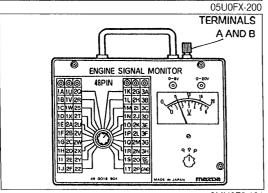
1. Lift up the floormat in front of the passenger's seat.



- 49 G018 904 ENGINE SIGNAL MONITOR **©** 05U0FX-234
- 4. Place the SST (Sheet) on the SST.
- 5. Measure the voltage at each terminal. (Refer to pages  $F_{-128}$  to  $F_{-130}$ .)



5. If any engine control unit terminal voltage is incorrect, check the input or output device and related wiring. If they are normal, replace the engine control unit. (Refer to pages F-131 to F-133.)



#### Caution

Never apply voltage to SST terminals A and B.

Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
1A			Battery	Constant	Approx. 12V	For backup
1B	0		Main relay	Ignition switch OFF	Approx. 0V	
				Ignition switch ON	Approx. 12V	
1C	0		Ignition switch	While cranking	Approx. 10V	
			(Start position)	Ignition switch ON	Approx. 0V	
1D		0	Self-Diagnosis Checker (Monitor Iamp)	Test switch at "SELF-TEST"  Lamp illuminated for 3 sec. after ignition switch OFF→ON	Approx. 5V	With Self-Diagnosis Checker and System Selector
				Lamp not illuminated after 3 sec.	Approx. 12V	
				Test switch at "O2 MONITOR" at idle Monitor lamp illuminated	Approx. 5V	
4 [*			<b>NA</b> 16	Test switch at "O2 MONITOR" at idle Monitor lamp not illuminated	Approx. 12V	
1Ē		0	Malfunction indicator lamp	Lamp illuminated for 3 sec. after ignition switch OFF→ON	Below 2.5V	With System Selector test
				Lamp not illuminated after 3 sec.	Approx. 12V	switch at "SELF-TEST"
				Lamp illuminated	Below 2.5V	SELF-IESI
1F		0	C-14 D:	Lamp not illuminated	Approx. 12V	
			Self-Diagnosis Checker (Code number)	Buzzer sound for 3 sec. after ignition switch OFF→ON	Below 2.5V	With Self- Diagnosis Checker and
				Buzzer not sounded after 3 sec.	Approx. 12V	System Selector • With System
				Buzzer sounded	Below 2.5V	Selector test switch at
				Buzzer not sounded	Approx. 12V	"SELF-TEST"
1G		0	Igniter	Ignition switch ON	Approx. 0V	
1H			1	Idle	Approx. 0.2V	
1171		0	Igniter	Ignition switch ON	Approx. 0V	
11				Idle	Approx. 0.2V	
1J		0	A/C relay	Logition outlets ON		
10			A/C relay	Ignition switch ON  A/C switch ON at idle	Approx. 12V	
İ				A/C switch OFF at idle	Below 2.5V	
1K	0		Diagnosis	System Selector test switch at	Approx. 12V	
			connector	"O₂ MONITOR"	Approx. 12V	
41			***	System Selector test switch at "SELF-TEST"	Approx. 0V	
1L 1M		_				
1N	0		Throttle sensor	A cooleyeden a colol ad		
117			(Idle point)	Accelerator pedal released	Approx. 0V	Ignition switch
10	0	<del></del>	Stoplight switch	Accelerator pedal depressed  Brake pedal released	Approx. 12V	ON
			Orobiidiir awiicii	Brake pedal released  Brake pedal depressed	0V	
1P	0		P/S pressure	Ignition switch ON	Approx. 12V	
1P			switch	P/S ON (at idle)	Approx. 12V	
1	1 1				0V	
				L P/S OFF (at idle)	Approx 101/	
1Q	0		A/C switch	P/S OFF (at idle) A/C switch ON (Ignition switch ON)	Approx. 12V Below 2.5V	Blower motor ON

1R 1S 1T 1U 1V	0	_	Blower control switch  Headlight switch  Neutral or clutch	Fan operating (Engine coolant temperature over 97°C (207°F) or diagnosis connector terminal TFA grounded)  Fan not operating (Idle)  Blower control switch at mid, high or super high position  Blower control switch OFF or low  —  Headlights ON (Tail, parking, low beam/high beam)  Headlights OFF	Approx. 0V Approx. 12V Approx. 12V Approx. 12V	Ignition switch ON
1T 1U	0		switch  — Headlight switch	Blower control switch at mid, high or super high position Blower control switch OFF or low  Headlights ON (Tail, parking, low beam/ high beam) Headlights OFF	Approx. 0V Approx. 12V Approx. 12V	
1T 1U	0		switch  — Headlight switch	super high position  Blower control switch OFF or low  Headlights ON (Tail, parking, low beam/ high beam)  Headlights OFF	Approx. 12V Approx. 12V	
1U	0	_	Ü	Headlights ON (Tail, parking, low beam/high beam) Headlights OFF	Approx. 12V	
1U	0	_	Ü	high beam)  Headlights OFF	' '	
1V	0		Ü	high beam)  Headlights OFF	' '	
			Neutral or clutch			1
			Neutral or clutch		ov	
2A		1	switch	Neutral position or clutch pedal depressed	Approx. 0V	
2A				Other conditions	Approx. 12V	L
		_	Ground (Injector)	Constant	0V	
2B		_	Ground (Output)	Constant	OV	
2C			Ground (CPU)	Constant	0V	
2D		T —	Ground (Input)	Constant	0V	
2E	0		Crank angle sensor (Ne-signal)	Ignition switch ON	Approx. 0V or 5V	
1				Idle	Approx. 2V	
2F	_					
2G	0		Crank angle sensor (G-sgnal)	Ignition switch ON	Approx. 0V or 5V	
				Idle	Approx. 1.5V	
2H O Ground		Ground	California spec.	OV		
			Open	Federal and Canada spec.	Approx. 2V	
21	0		Igniter	Ignition switch ON	Below 0.5V	
				Idle	Approx. 1V	]
2J	0		Ground	Constant	OV	
2K		0	Airflow meter	Constant	4.5-5.5V	
2L	0		Throttle sensor	Accelerator pedal released	Approx. 5V	
		1	(Power terminal)	Accelerator pedal fully depressed	Approx. 0V	1
2M		_	_			_
2N	0		Oxygen sensor	Ignition switch ON	0V	
				Idle (Cold engine)	OV	
				Idle (After warm-up)	0—1V	
				Increase engine speed (After warm-up)	0.5—1V	
		1		Deceleration	0-0.4V	
20	0		Airflow meter	Ignition switch ON	Approx. 3.8V	
				Idle	Approx. 3.3V	
2P	0		Airflow sensor (Intake air thermosensor)	At 20°C (68°F)	Approx. 2.5V	
2Q	0		Water	Engine coolant temperature 20°C (68°F)	Approx. 2.5V	
,		İ	thermosensor	After warm up	Approx. 0.4V	

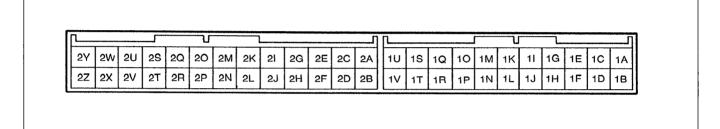
F

#### **CONTROL SYSTEM**

Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
2S	_		<del>-</del>	_	_	_
2T					-	
2U		0	Injector (Nos.1, 3)	Ignition switch ON	Approx. 12V	* Engine Signal
			(Nos.2, 4)	Idle	Approx. 12V*	Monitor: Green
2V		0		Deceleration from 3,000 rpm to 1,900 rpm (After warm up)	Approx. 12V	and red lights flash
2W		0	ISC valve	Ignition switch ON	Approx. 7V	
				Idle	Approx. 9V	
2X	_	0	Solenoid valve	Ignition switch ON	Approx. 12V	
			(Purge control)	Idle	Approx. 12V	
2Y		_	<del>-</del>	<del>-</del>		-
2Z	_	_		<del>-</del>	_	

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#### **Terminal location**



CONTROL SYSTEM

## F

#### **Check Point for Each Terminal**

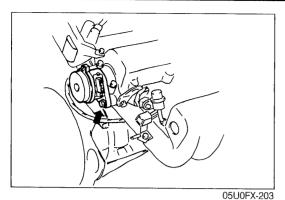
1 /		1	
1A	Battery	Always approx. 0V (Battery OK)	ROOM 10A fuse burned     Open circuit in wiring from ROOM 10A fuse to ECU terminal 1A
1B	Main relay	Always approx. 0V	<ul> <li>Main relay malfunction (Refer to page F–139)</li> <li>Open circuit in wiring from main relay to ECU terminal 1B</li> </ul>
1C	Ignition switch (Start position)	Always approx. 0V (Starter turns)	Open circuit in wiring from starter interlock switch to ECU terminal 1C
1D	Self-Diagnosis Checker (Monitor lamp)	Always approx. 0V	<ul> <li>Main relay malfunction (Refer to page F-139)</li> <li>Open circuit in wiring from main relay to diagnosis connector terminal +B</li> <li>Open or short circuit in wiring from diagnosis connector terminal MEN to ECU terminal 1D</li> </ul>
		Always approx. 12V	Poor connection at ECU connector     ECU malfunction
		Always approx. 5V	ECU malfunction
1E	Malfunction indicator lamp (MIL)	Always below 2.5V (MIL always ON)	<ul> <li>Short circuit in wiring from combination meter to ECU terminal 1E</li> <li>ECU malfunction</li> </ul>
		Always below 2.5V (MIL never ON)	Open circuit in wiring from combination meter to ECU terminal 1E
		Always approx. 12V	Poor connection at ECU connector     ECU malfunction
1F	Self-Diagnosis Checker (Code No.)	Always below 2.5V (No display on Self-Diagnosis Checker)	<ul> <li>Main relay malfunction (Refer to page F-139)</li> <li>Open circuit in wiring from main relay to diagnosis connector terminal +B</li> </ul>
		Always below 2.5V ("88" is displayed and buzzer sounds continuously)	Open or short circuit in wiring from diagnosis connector terminal FEN to ECU terminal 1F
		Always approx. 12V	Poor connection at ECU connector     ECU malfunction
1G 1H	Igniter	Always approx. 0V	Refer to Code No.01 troubleshooting (Refer to page F-81)
1J	A/C relay	Always below 2.5V (A/C does not operate)	<ul> <li>A/C relay malfunction (Refer to page U-39)</li> <li>Open circuit in wiring from main relay to A/C relay</li> <li>Open circuit in wiring from A/C relay to ECU terminal 1J</li> </ul>
		Always below 2.5V (A/C switch OFF but A/C operates)	Short circuit in wiring from A/C relay to ECU terminal     1J     ECU malfuction
		Always approx. 12V	A/C switch malfunction (Refer to page U-25)     Poor connection at ECU connector     ECU malfunction
1K	Diagnosis connector (Terminal TEN)	Always approx. 0V	Short circuit in wiring from ECU terminal 1K to diagnosis connector terminal TEN
		Always approx. 12V	Open circuit in wiring from ECU terminal 1K to diag nosis connector terminal TEN     Open circuit in wiring from diagnosis connector terminal GND to ground
1N	Throttle sensor (Idle terminal)	Always approx. 0V	<ul> <li>Throttle sensor misadjustment (Refer to page F-136</li> <li>Short circuit in wiring from ECU terminal 1N to throt tle sensor</li> <li>ECU malfunction</li> </ul>
		Always approx. 12V	<ul> <li>Throttle sensor misadjustment (Refer to page F-136</li> <li>Open circuit in wiring from ECU terminal 1N to thro tle sensor</li> <li>Open circuit in wiring from throttle sensor to ground</li> </ul>

Terminal	Connection to	Abnormal voltage	Possible cause
1P	P/S pressure switch	Always approx. 0V	<ul> <li>P/S pressure switch malfunction (Refer to page F–140)</li> <li>Short circuit in wiring from ECU terminal 1P to P/S pressure switch</li> <li>ECU malfunction</li> </ul>
		Always approx. 12V	<ul> <li>P/S pressure switch malfunction (Refer to page F-140)</li> <li>Open circuit in wiring from ECU terminal 1P to P/S pressure switch</li> <li>Open circuit in wiring from P/S pressure switch to ground</li> </ul>
1Q	A/C switch	Always approx. 0V (with blower switch ON)	<ul> <li>A/C switch malfunction (Refer to page U-25)</li> <li>Short circuit in wiring from ECU terminal 1Q to A/C switch</li> <li>Poor connection at ECU connector</li> <li>ECU malfunction</li> </ul>
		Always approx. 12V (with blower switch ON) (Blower fan OK)	<ul> <li>A/C switch malfunction (Refer to page U-25)</li> <li>Open circuit in wiring from ECU terminal 1Q to A/C switch</li> <li>Open circuit in wiring from A/C switch to blower control switch</li> </ul>
1R	Fan switch	Always approx. 0V (Cooling fan OK)	Open or short circuit in wiring from electric cooling fan relay to ECU terminal 1R     ECU malfunction
15	Blower control switch	Always approx. 0V (Blower fan OK)	<ul> <li>Short circuit in wiring from blower control switch to ECU terminal 1S</li> <li>Poor connection at ECU connector</li> <li>ECU malfunction</li> </ul>
		Always approx. 12V (Blower fan OK)	Open circuit in wiring from blower control switch to ECU terminal 1S
1U	Headlight switch	Always approx. 0V (Headlights OK)	Open or short circuit in wiring from headlight relay to ECU terminal 1U
1V	Neutral switch Clutch switch	Always approx. 0V	<ul> <li>Neutral switch malfunction (Refer to page F-140)</li> <li>Clutch switch malfunction (Refer to page F-139)</li> <li>Short circuit in wiring from ECU terminal 1V to neutral or clutch switch</li> <li>Poor connection at ECU connector</li> <li>ECU malfunction</li> <li>Open circuit in wiring from ECU terminal 1V to neutral and clutch switches</li> </ul>
2A 2B 2C 2D	Ground	More than 0V	Poor contact at ground terminal     Open circuit in wiring from ECU to ground
2E	Crank angle sensor (Ne-signal)	Always approx. 0V or approx. 5V	Refer to Code No.02 troubleshooting (Refer to page F-82)
2G	Crank angle sensor (G-signal)	Always approx. 0V or approx. 5V	Refer to Code No.03 troubleshooting (Refer to page F–82)
2H	Ground (California)	Approx. 5V	Open circuit in wiring from ECU terminal 2H to ground
	(Federal and Canada)	Approx. 0V	Short circuit in wiring from ECU terminal 2H to ground
21	Igniter	Always Approx. 0V	Refer to Code No.01 troubleshooting (Refer to page F–81)
2J	Ground	Approx. 5V	Open circuit in wiring from ECU terminal 2J to ground

### **CONTROL SYSTEM**

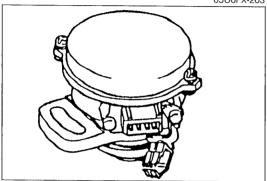
Terminal	Connection to	Abnormal voltage	Possible cause
2K	Airflow meter	Always approx. 0V	Short circuit in wiring from ECU terminal 2K to airflow meter     Poor connection at ECU connector     ECU malfunction
		Below 4.5V or above 5.5V	ECU malfunction
2L	Throttle sensor (Power terminal)	Always approx. 0V	<ul> <li>Throttle sensor malfunction (Refer to page F–136)</li> <li>Short circuit in wiring from ECU terminal 2L to throttle sensor</li> <li>Poor connection at ECU connector</li> <li>ECU malfunction</li> </ul>
		Always approx. 5V	<ul> <li>Throttle sensor misadjustment (Refer to page F-136)</li> <li>Open circuit in wiring from ECU terminal 2L to throt- tle sensor</li> <li>Open circuit in wiring from throttle sensor to ground</li> </ul>
2N	Oxygen sensor	0V after warm-up	Refer to Code No.15 troubleshooting (Refer to page F-86)
		Always approx. 1V after warm-up	<ul> <li>Refer to Code No.17 troubleshooting (Refer to page F–86)</li> </ul>
20	Airflow meter	Always approx. 0V or approx. 5V	Refer to Code No.08 troubleshooting (Refer to page F-84)
2P	Airflow meter (Intake air thermosensor)	Always approx. 0V or approx. 5V	<ul> <li>Refer to Code No.10 troubleshooting (Refer to page F–85)</li> </ul>
			<ul> <li>Intake air thermosensor malfunction (Refer to page F-135)</li> </ul>
2Q	Water thermosensor	Always approx. 0V or approx. 5V	<ul> <li>Refer to Code No.09 troubleshooting (Refer to page F–85)</li> </ul>
			Water thermosensor malfunction (Refer to page F-136)
2U 2V	Injector	Always approx. 0V	Main relay malfunction     (Refer to page F-139)     Open or short circuit in wiring from injector to ECU terminal 2U or 2V
		Always approx. 12V	ECU malfnotion
2W	ISC valve	Always approx. 0V or approx. 12V	Refer to Code No.34 troubleshooting (Refer to page F-87)
			ISC valve malfunction (Refer to page F-99)
2X	Solenoid valve (Purge control)	Always approx. 0V or approx. 12V	Refer to Code No.26 troubleshooting (Refer to page F-87)
			Solenoid valve (Purge control) malfunction (Refer to page F-119)

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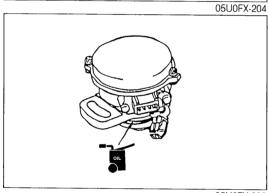
## CRANK ANGLE SENSOR Removal

- 1. Disconnect the crank angle sensor connector
- 2. Remove the crank angle sensor.



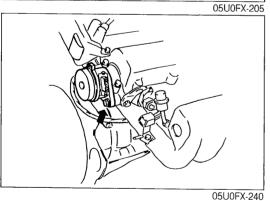
#### Inspection

- 1. Visually check the crank angle sensor for damage.
- 2. Replace if necessary.



#### Installation

1. Apply grease to the new O-ring and the blade.

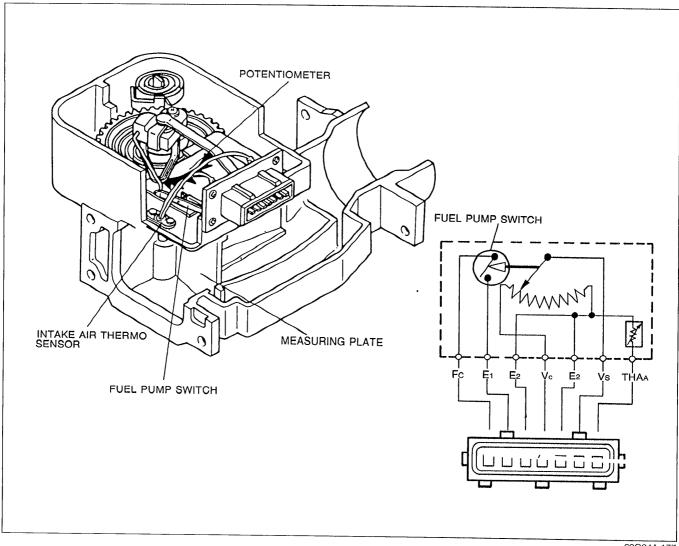


2. Install the crank angle sensor.

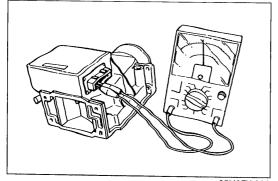
# Tightening torque: 19—27 N·m (1.9—2.6 m-kg, 14—20 ft-lb)

- 3. Connect the crank angle sensor connector.
- 4. Adjust the ignition timing. (Refer to page F-75.)

#### **AIRFLOW METER**



69G04A-177



#### Inspection

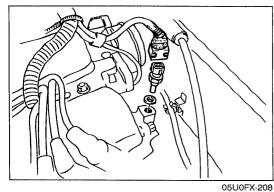
- 1. Remove the airflow meter. (Refer to page F-92.)
  2. Check the airflow meter body for cracks.
- 3. Verify that the measuring plate moves smoothly.
- 4. Disconnect the connector from the airflow meter.
- 5. Move the measuring plate and check for resistance between the terminals with an ohmmeter.

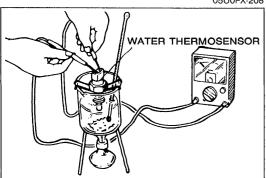
05U0FX-206

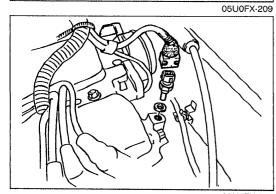
Terminal	Resistance (Ω)		
	Fully closed	Fully open	
E2↔Vs	200-600	20-1,000	
E2↔Vc	200-	-400	
E2↔THAA (Intake air thermosensor)	-20°C ( -4°F) 20°C ( 68°F) 60°C (140°F)	13,600—18,400 2,210— 2,690 493— 667	
E1↔Fc	∞	0	

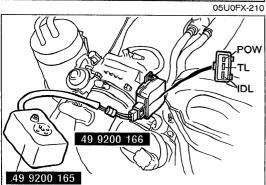
6. Connect the airflow meter connector after checking.

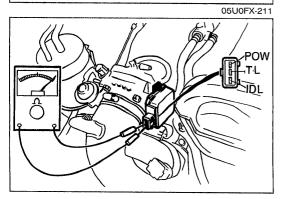
05U0FX-207











## WATER THERMOSENSOR Removal

- 1. Remove the ignition coil assembly. (Refer to page G-21.)
- 2. Disconnect the water thermosensor connector.
- 3. Remove the water thermosensor.

#### Inspection

- 1. Place the sensor in water with a thermometer and heat the water gradually.
- 2. Measure resistance of the sensor with an ohmmeter.

Coolant	Resistance kΩ
−20°C ( −4°F)	14.6 —17.8
20°C ( 68°F)	2.2 — 2.7
80°C (176°F)	0.29— 0.35

3. If not as specified, replace the water thermosensor.

#### Installation

1. Install the water thermosensor and a new washer.

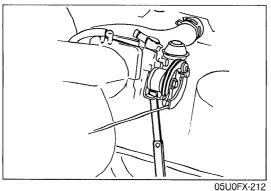
## Tightening torque: 25—29 N·m (2.5—3.0 m-kg, 18—22 ft-lb)

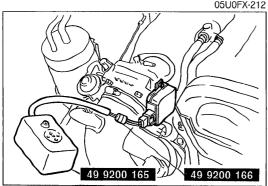
- 2. Connect the water thermosensor connector.
- 3. Install the ignition coil assembly. (Refer to page G-21.)

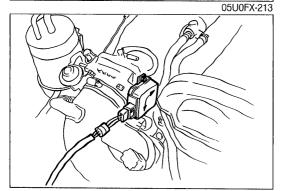
## THROTTLE SENSOR Inspection

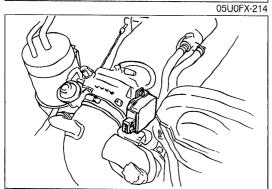
- 1. Disconnect the connector from the throttle sensor.
- 2. Connect the (SSTs) or an ohmmeter to the throttle sensor.

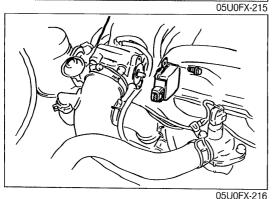
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- 3. Insert a feeler gauge between the throttle stop screw and the stop lever.
- 4. Note the operation of the buzzer or the continuity between terminals.

Feeler gauge	Buzzer	Continuity between terminals		
reeler gauge	Buzzei	IDL↔TL	POW↔TL	
0.4mm (0.016 in)	Yes	Yes	No	
0.7mm (0.027 in)	No	No	No	
Wide-open throttle	Yes	No	Yes	

#### **Adjustment**

- 1. Disconnect the connector from the throttle sensor and connect the **SSTs**.
- 2. Insert a **0.4mm (0.016 in)** feeler gauge between the throttle stop screw and the stop lever.

- 3. Loosen the two attaching screws.
- 4. Rotate the throttle sensor clockwise **approx. 30 degrees**, then rotate it back counterclockwise until the buzzer sounds.
- 5. Replace the feeler gauge with a **0.7mm (0.027 in)** gauge.
- 6. Verify that the buzzer does not sound.
- 7. If it sounds, repeat Steps 3 through 6.
- 8. Tighten the two attaching screws.

#### Note

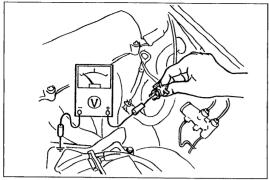
- Do not move the throttle sensor from the set position when tightening the screws.
- 9. Open the throttle valve fully a few times.
- 10. Recheck the adjustment of the throttle sensor.

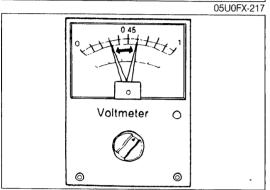
#### Replacement

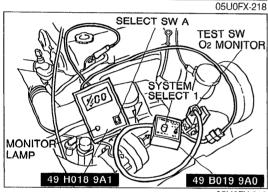
- 1. Disconnect the throttle sensor connector.
- 2. Remove the throttle sensor mounting screws.
- 3. Remove the throttle sensor.
- 4. Install in the reverse order of removal.

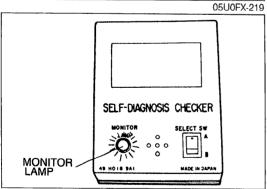
#### **Tightening torque:**

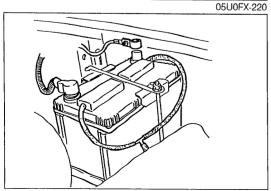
1.6—2.4 Nm (16—24 cm-kg, 13.9—20.8 in-lb)











#### **OXYGEN SENSOR**

#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

#### **Inspection of Terminal Voltage**

- 1. Warm up the engine and run it at idle.
- 2. Disconnect the oxygen sensor connector.
- 3. Connect a voltmeter between the oxygen sensor and a ground.
- 4. Run the engine at 3,000 rpm until the voltmeter indicates approx. 0.55V.
- Increase and decrease the engine speed suddenly several times. Verify that when the speed is increased the meter reads 0.5V—1.0V, and when the speed is decreased it reads 0V—0.4V.
- 6. If not as specified, replace the oxygen sensor.

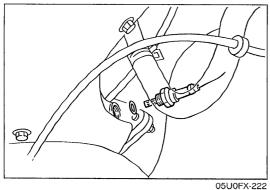
#### Inspection of Sensitivity

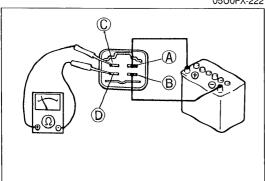
- 1. Warm up the engine to normal operating temperature.
- 2. Connect the **SST** to the diagnosis connector.
- 3. Set the SST as shown.

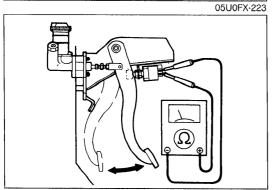
4. Increase the engine speed to **between 2,000 and 3,000 rpm**, and verify that the moniter lamp flashes for **10 sec.**. If not as specified, replace the oxygen sensor. (Refer to page F-139.)

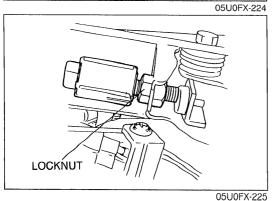
#### Monitor lamp: Flashes more than 8 times/10 seconds

- 5. Turn the ignition switch OFF.
- Disconnect the negative battery terminal and depress the brake pedal for at least 5 sec. to eliminate the malfunction code that was created during inspection from the control unit memory.









#### Replacement

- 1. Disconnect the oxygen sensor connector.
- 2. Remove the oxygen sensor.
- 3. Install in the reverse order of removal.

#### **Tightening torque:**

29—49 N·m (3—5 m-kg, 22—36 ft-lb)

## MAIN RELAY (FUEL INJECTOR RELAY) Inspection

- 1. Verify that the main relay clicks when turning the ignition switch OFF → ON.
- 2. Apply **12V** to terminal A and ground terminal B of the main relay.
- 3. Use an ohmmeter to check continuity of the terminals as shown.

Terminals	12V not applied	12V applied
C—D	No continuity	Continuity

4. If not as specified, replace the main relay.

#### **CLUTCH SWITCH**

#### Inspection

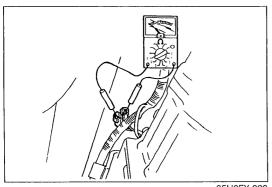
- 1. Disconnect the clutch switch connector.
- 2. Connect an ohmmeter to the switch.
- 3. Check continuity of the switch.

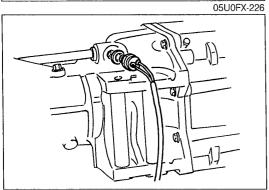
Pedal	Continuity
Depressed	Yes
Released	No

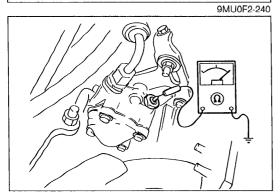
4. If not as specified, replace the clutch switch.

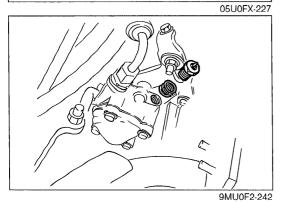
#### Replacement

- 1. Disconnect the clutch switch connector.
- 2. Loosen the locknut.
- 3. Remove the clutch switch.
- 4. Install in the reverse order of removal.
- 5. Adjust the pedal height. (Refer to page H-5.)









## NEUTRAL SWITCH Inspection

- 1. Disconnect the neutral switch connector.
- 2. Connect an ohmmeter to the switch.
- 3. Check continuity of the switch.

Transmission	Continuity
Neutral	Yes
Other ranges	No

4. If not as specified, replace the neutral switch.

#### Replacement

Replace the neutral switch as shown in the figure.

## POWER STEERING PRESSURE SWITCH Inspection

- 1. Disconnect the P/S pressure switch connector.
- 2. Connect an ohmmeter to the switch.
- 3. Start the engine and let it idle. Check continuity of the switch while turning the steering wheel.

P/S	Continuity
Turning	Yes
Not turning	No

4. If not as specified, replace the P/S pressure switch.

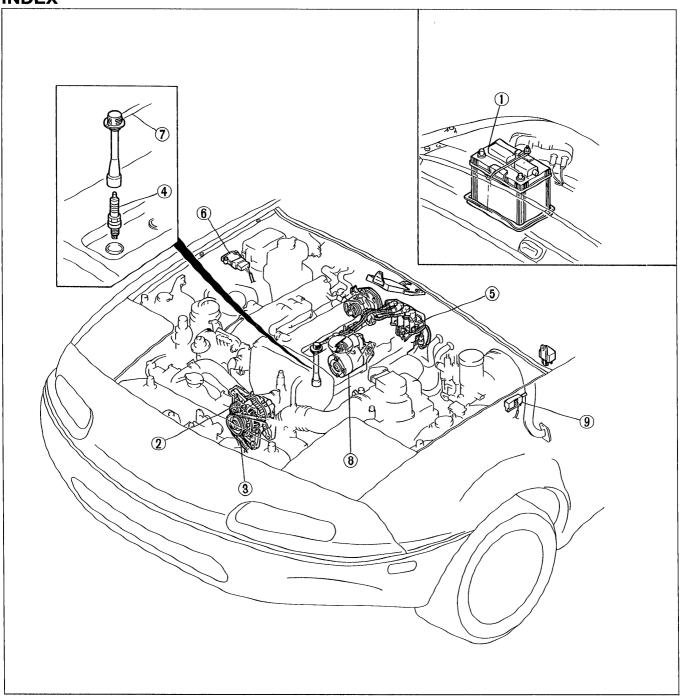
#### Replacement

Replace the P/S pressure switch as shown in the figure.

## **ENGINE ELECTRICAL SYSTEM**

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05U0GX-002

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9.	Starter interlock switch
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### **OUTLINE**

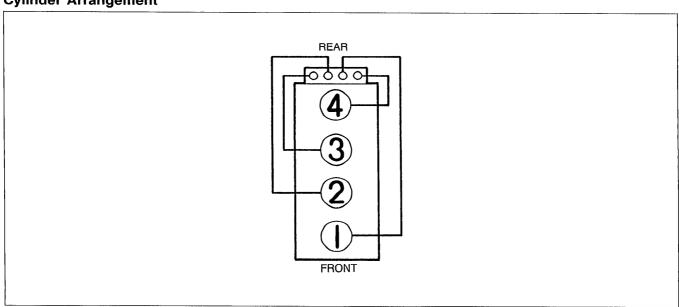
#### **SPECIFICATIONS**

Item		Engine	B6 DOHC
	Voltage		12, Negative ground
Battery	Type and capacity	(5-hour rate)	S46A24L(S) (32 Ah) Maintenance-free
Dark current*1		mA	20.0
	Type		A.C.
	Output	V, A	12, 60
	Regulator type		Transistorized (built-in IC regulator)
Alternator	Regulated voltage		14.1—14.7
Alternator	Brush length	Standard	21.5 (0.85)
	mm (in)	Minimum	8 (0.31)
	Drive belt tension	New	8—9 (0.31—0.35)
	mm (in)	Used	9—10 (0.35—0.39)
	Туре		Conventional
Starter	Output	V-kW	12-0.95
Startor	Brush length	Standard	17.0 (0.67)
	mm (in)	Minimum	11.5 (0.45)
Ignition system	Spark advance control		Electronic spark advance (ESA)
,			Engine control unit controls spark advance
Ignition timing BT		BTDC	10° ± 1° *2
	Туре		Molded
Ignition coil	Primary coil winding	kΩ	0.78—0.94
· · · · · · · · · · · · · · · · · · ·	Secondary coil windin	g kΩ	11.2—15.2 <sub>.</sub>
Spark plug	Туре		NGK : BKR5E-11 BKR6E-11 BKR7E-11 Nippon Denso : K16PR-U11 K20PR-U11 K22PR-U11
	Plug gap	mm (in)	1.0—1.1 (0.039—0.043)
	Firing order		1—3—4—2

<sup>\*1</sup> Dark current is the constant flow of current while the ignition switch is OFF (i.e. engine control unit, audio, etc.)
\*2 With System Selector (49 B019 9A0) test switch at SELF TEST.

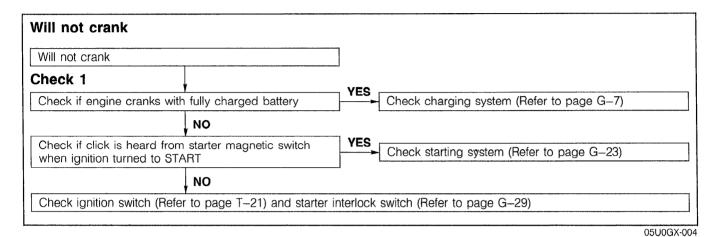
05U0GX-003

#### **Cylinder Arrangement**

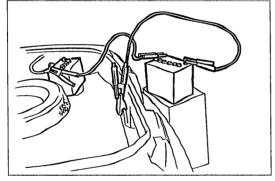


#### TROUBLESHOOTING GUIDE

Problem	Page
Will not crank	G-4
Cranks slowly	G-4
Discharged battery	G-5
Misfire	G-5

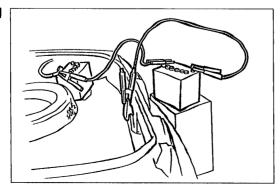


Check 1



Cranks slowly		
Cranks slowly		
Check 1		VEO
Check if engine cranks with fully charged battery		YES Check charging system (Refer to page G-7)
	NO	
Check starting system (Refer to page G-23)		
		05U0GX-005

Check 1



TROUBLESHOOTING GUIDE

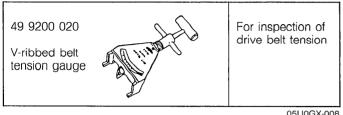
G

Discharged battery	
Discharged battery	Check charging system (Refer to page G-7)
	05U0GX-006
Misfire	
Misfire	Check ignition system (Refer to page G-18)
	05U0GX-007

G-5

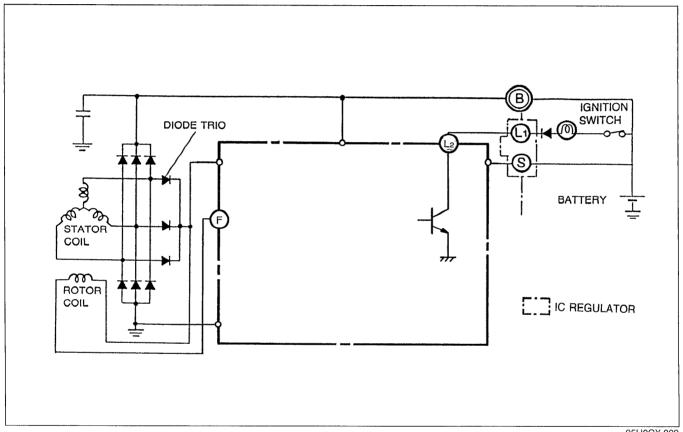
# **CHARGING SYSTEM**

# **PREPARATION** SST

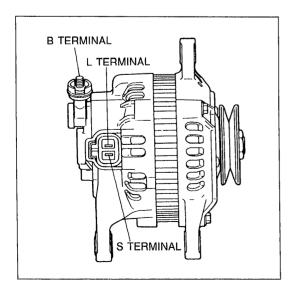


05U0GX-008

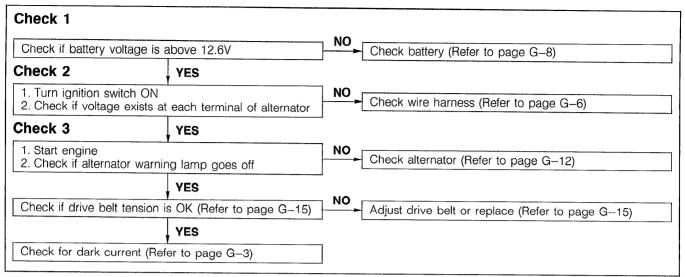
# **CIRCUIT DIAGRAM**



05U0GX-009

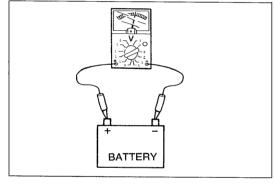


#### **TROUBLESHOOTING**



05U0GX-010

## Check 1

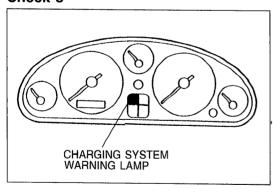


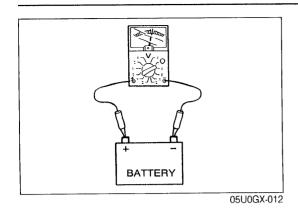
## Check 2

Ignition switch	OFF	ON	ON (Idle)
В	Approx. 12V	Approx. 12V	Approx. 14V
L	Approx. 0V	Approx. 1V	Approx. 14V
S	Approx. 12V	Approx. 12V	Approx. 14V

05U0GX-011

## Check 3





**BATTERY** 

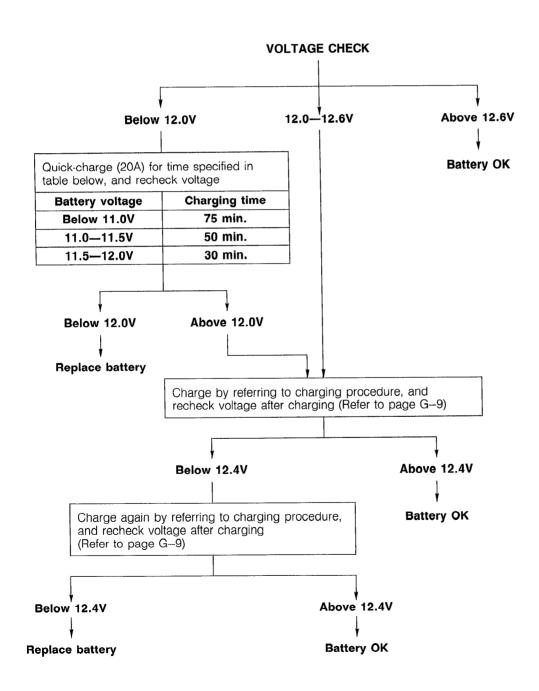
#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

# Inspection

## Warning

- The negative battery cable must be removed first and installed last.
- 1. Disconnect the battery cables from the battery.
- 2. Connect a voltmeter to the battery.



05U0GX-013

#### Terminal and cable

- 1. Clean and tighten the battery terminals and cables.
- 2. Coat the terminals with grease.
- 3. Inspect for corroded or frayed battery cables.
- 4. Check the rubber protector on the positive terminal for proper coverage.

05U0GX-014

# Recharging

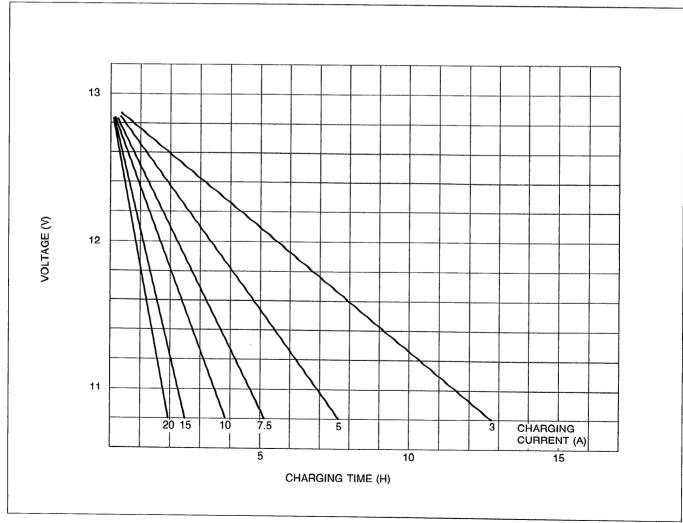
Battery	Slow charge (A)	Quick charge (A)
S46A24L(S)	Under 3	Max. 20

Warning

- Before performing maintenance or recharging the battery, turn off all accessories and stop the engine.
- The negative battery cable must be removed first and installed last.

#### Caution

- Do not removed vent caps.
   Follow carefully the instructions of the battery charger to prevent overcharging.
- 1. Remove the battery cover.
- 2. Disconnect the battery cables from the battery.
- 3. Measure and record the voltage between the battery terminals.
- 4. Decide the charging current and charging time by referring to the figure below.
- 5. Charge the battery.

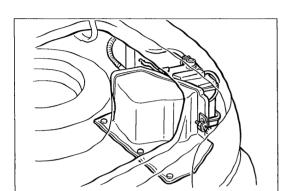


#### Replacement

#### Note

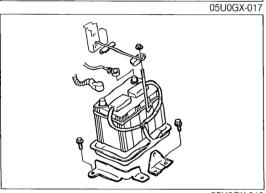
The factory-installed battery in the MX-5 Miata cannot be purchased over the counter. When replacing the battery, replace it with a Mazda genuine battery (with vent manifold) or equivalent and use a Mazda genuine battery replacement kit (battery tray, battery clamp, and clamp bolt; Part number NAY1 56 020A) or equivalent.

05U0GX-016



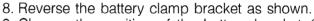
Battery replacement using the Mazda genuine battery replacement kit is as follows.

1. Remove the battery cover.

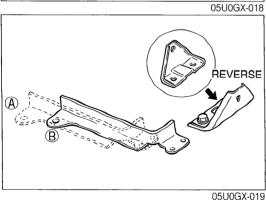


# Warning

- The negative battery cable must be removed first and installed last.
- 2. Disconnect the battery cables from the battery.
- 3. Remove the battery clamp.
- 4. Remove the battery.
- 5. Disconnect the battery vent hoses.
- 6. Remove the battery tray.
- 7. Remove the battery bracket.

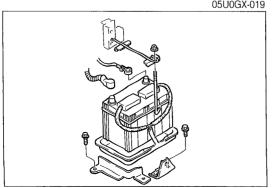


9. Change the position of the battery bracket (A) to (B) as shown.

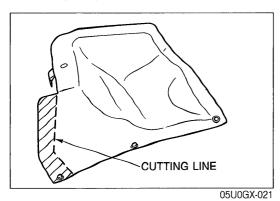


# Warning

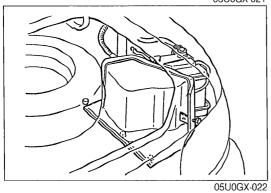
- Install the battery vent hoses correctly to reduce the possibility of injury or fire.
- 10. Install the new battery using the battery replacment kit (Part number NAY1 56 020A).



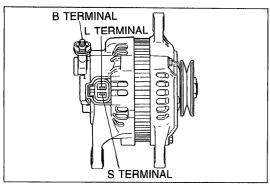
05U0GX-020



11. Trim off the shadded area of the battery cover as shown for proper fitting to new battery.



12. Install the battery cover as shown.

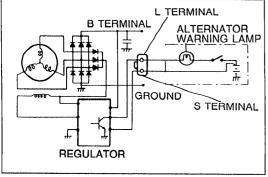


05U0GX-023

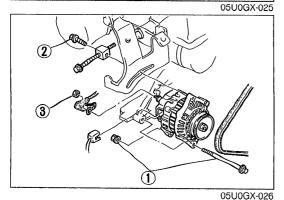
## **ALTERNATOR**

#### Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)
- Be sure the battery connections are not reversed because this will damage the rectifier.
- Do not use high-voltage testers such as a megger because they will damage the rectifier.
- Remember that battery voltage is always applied to the alternator B terminal.
- Do not ground the L terminal while the engine is running.
- Do not start the engine while the connector is disconnected from the L and S terminals.



# 05U0GX-024



# **SELF-DIAGNOSIS SYSTEM**

The alternator has a self-diagnostic function to warn of problems in the charging system.

If any of the following problems arise, the alternator warning lamp illuminates.

- 1. S circuit open.
- 2. No voltage output.
- 3. Field circuit open.
- 4. B circuit open.
- 5. Voltage output too high.

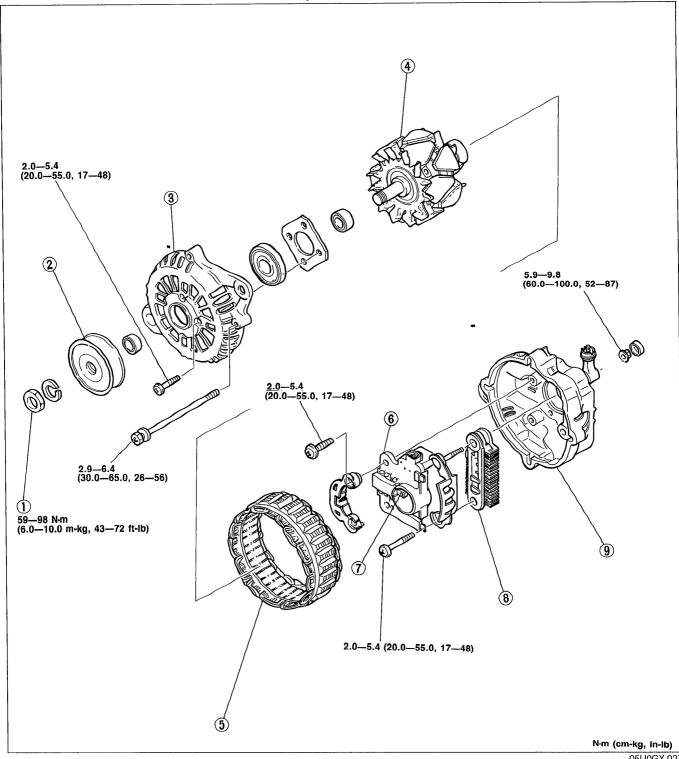
# **Removal / Installation**

- 1. Disconnect the negative battery cable.
- 2. Disconnect the P/S pressure switch connector.
- 3. Disconnect the water thermoswitch connector.
- 4. Disconnect the ISC valve connector.
- 5. Remove the air pipe.
- 6. Disconnect the wire and connector from the alternator.
- 7. Remove the alternator bolts and nut.
- 8. Remove the alternator.
- 10. Install in the reverse order of removal.

Tightening torque
Bolt, Nut (1):
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)
Bolt (2):
19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)
Nut (3):
9.8—15 N·m (100—150 cm-kg, 87—130 in-lb)

G-12

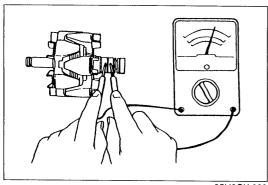
- **Disassembly / Assembly**1. Disassemble in the order shown in the figure.
  2. Assemble in the reverse order of disassembly.

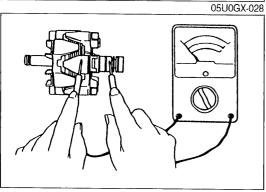


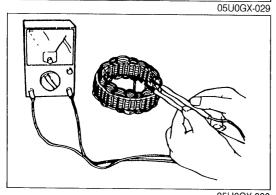
05U0GX-027

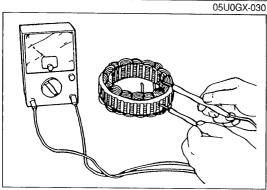
1.	Pulley nut	
2.	Pulley	
3.	Front cover	
4.	Rotor	
	Inspection	page G-14
5.	Stator	
	Inspection	page G-14
	·	, -

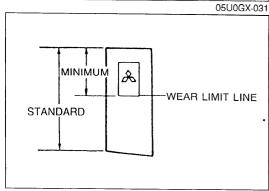
	0000071021
6. Brush holder assembly	
Inspection	page G-15
7. Brush	
Inspection	page G-14
8. Rectifier	
Inspection	page G-15
9. Rear cover	











Inspection

Rotor

Winding damage
 Check the resistance between the slip rings with an ohmmeter.

Specification:  $3.5-4.5\Omega/20$ °C (68°F)

(2) If it is not within specification, replace the rotor.

2. Ground of field coil

- (1) Check for continuity between each slip ring and the core with an ohmmeter.
- (2) Replace the rotor if there is continuity.
- 3. Slip ring surface

  If the slip ring surface is rough, use fine sandpaper to repair it.

**Stator** 

1. Wiring damage

- (1) Check for continuity between the stator coil leads with an ohmmeter.
- (2) Replace the stator if there is no continuity.

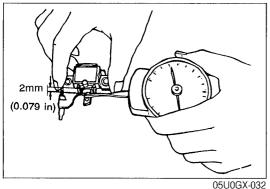
2. Ground of stator coil

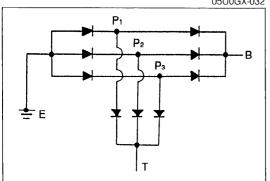
- (1) Check for no continuity between the stator coil leads and the core with an ohmmeter.
- (2) Replace the stator if there is continuity.

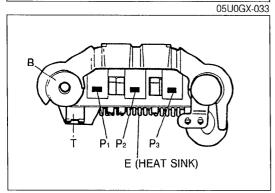
**Brush** 

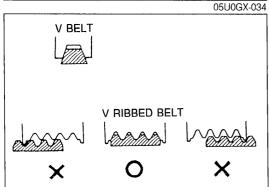
If the brushes are worn almost to or beyond the limit, replace them.

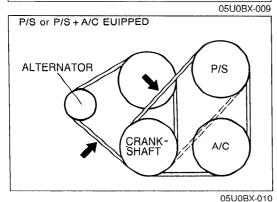
Standard: 21.5mm (0.846 in) Minimum: 8.0mm (0.315 in)











**Brush Spring** 

1. Measure the force of the brush spring with a spring pressure gauge.

2. Replace the spring if necessary.

Standard force:

3.1—4.3 N (320—440 g, 11.3—15.5 oz) Minimum: 1.6—2.4 N (160—240 g, 5.6—8.5 oz)

#### Note

• Read the spring pressure gauge at a brush tip projection of 2mm (0.079 in).

#### Rectifier

1. Check for continuity of the diodes with an ohmmeter.

Negative (Black)	Positive (Red)	Continuity
E	P1, P2, P3	Yes
В		No
T		No
P1, P2, P3	Е	No
	В	Yes
	Т	Yes

2. Replace the rectifier if necessary.

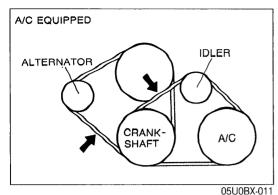
# DRIVE BELT Inspection

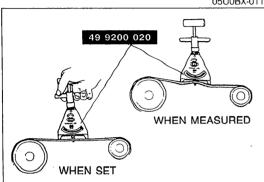
- 1. Remove the air intake pipe.
- 2. Check the drive belts for wear, cracks, or fraying. Replace if necessary.
- 3. Verify that the drive belts are correctly mounted on the pulleys.
- 4. Check the drive belt deflection by applying moderate pressure **(98 N, 10 kg, 22 lb)** midway between the pulleys as shown in the figure. Adjust if necessary.

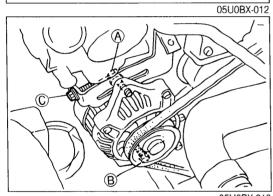
#### **Deflection**

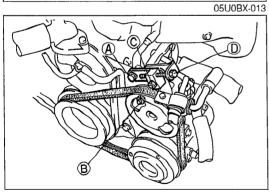
mm (in)

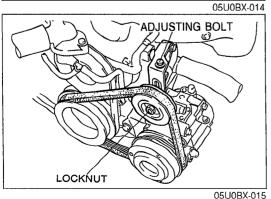
Drive belt	New	Used
Alternator	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
P/S, P/S + A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)
A/C	8.0—9.0 (0.31—0.35)	9.0—10.0 (0.35—0.39)











5. Check the drive belt tension with a tension gauge.

#### Note

• Belt tension can be measured between any pulleys.

#### **Tension**

N (kg, lb)

Drive belt	New	Used
Alternator 491—589 (50—60, 110—132)		422—491 (43—50, 95—110)
P/S, P/S + A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)
A/C	491—589 (50—60, 110—132)	422—491 (43—50, 95—110)

6. Install the air intake pipe.

# **Adjustment**

#### Caution

- If a new belt is used, adjust the belt deflection at the midpoint of new belt specification.
- (1) Alternator belt If necessary, loosen the alternator bolts (A) and (B) and adjust the belt deflection by turning the adjusting bolt (C).

**Tightening torque** 

A: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

**B**: 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

(2) P/S belt, P/S + A/C belt If necessary, loosen the P/S oil pump bolts (A) and (B) and nut (C), and adjust the belt deflection by turning the adjusting bolt (D).

**Tightening torque** 

A: 31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)
B: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)

©: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

(3) A/C belt

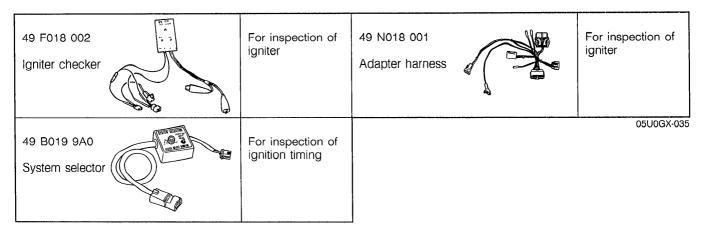
If necessary, loosen the locknut and adjust the belt deflection by turning the adjusting bolt.

**Tightening torque:** 

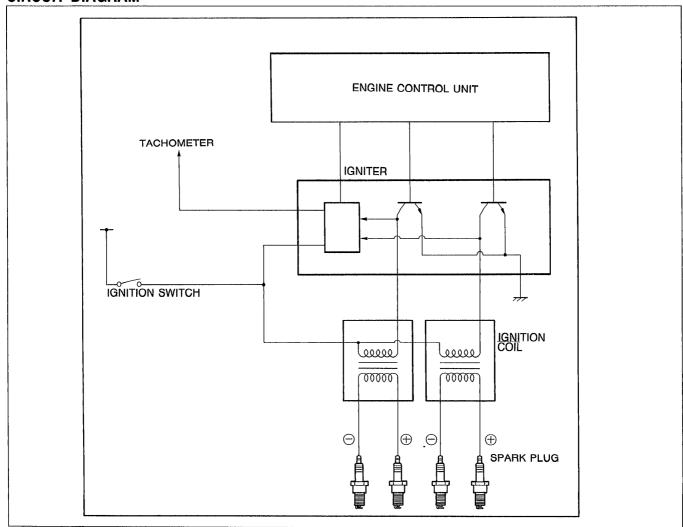
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

# **IGNITION SYSTEM**

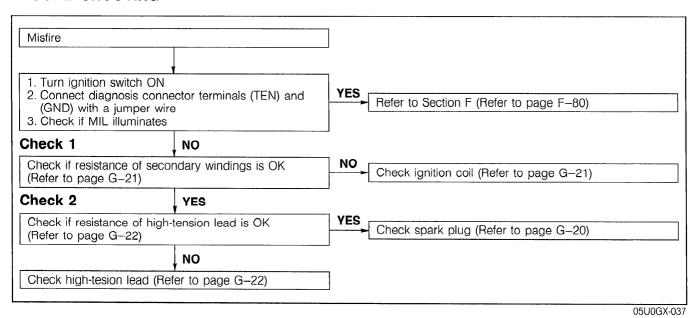
# PREPARATION SST



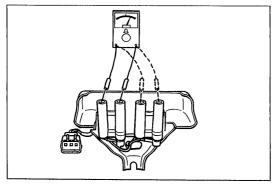
# **CIRCUIT DIAGRAM**



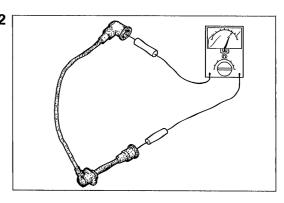
#### **TROUBLESHOOTING**

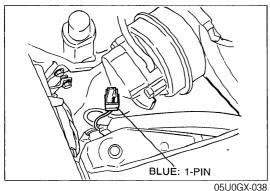


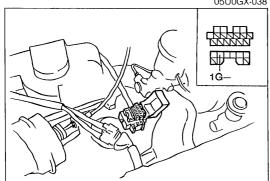


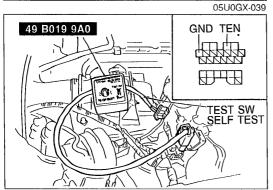


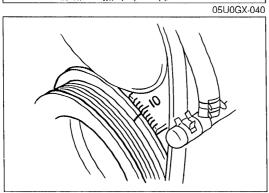
Check 2

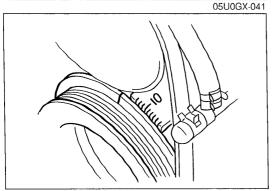












05U0GX-042

#### **IGNITION TIMING**

- 1. Check the condition of the engine (spark plugs, leaks in hoses, etc.).
- 2. Verify that all accessories are OFF.
- 3. Warm up the engine to the normal operating temperature.

#### Note

 When using an externally powered timing light and/ or tachometer connect it to the power connector (Blue: 1-pin).

#### Warning

- Do not ground the power connector terminal (Blue: 1-pin); the wiper 20A fuse will be burned.
- 4. Connect a timing light and tachometer to the diagnosis connector terminal (IG-).

#### Caution

- Be extremely careful when making connections to the diagnosis connector as a mistaken connection will cause a malfunction.
- 5. Connect the **SST** and set TEST SW to "SELF TEST" or connect diagnosis connector terminals (TEN) and (GND) with a jumper wire.
- 6. Check the idle speed, and set it to specification if necessary.

Idle speed:  $850 \pm 50 \text{ rpm}$ 

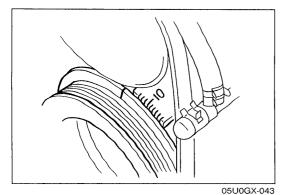
7. Check if the timing mark (Yellow) on the crankshaft pulley and the timing belt cover are aligned.

Ignition timing:  $10^{\circ} \pm 1^{\circ}$  BTDC (at idle)

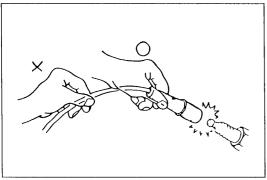
- 8. If the marks are not aligned, loosen the crank angle sensor lock bolt, and turn the crank angle sensor to make the adjustment.
- 9. Tighten the crank angle sensor lock bolt to the specified torque.

Tightening torque: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

10. After adjusting the ignition timing, disconnect the jumper wire or **SST** from the diagnosis connector.



11. Increase the engine speed and verify that the ignition timing advances.

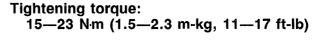


# SPARK PLUG

#### Removal / Installaion

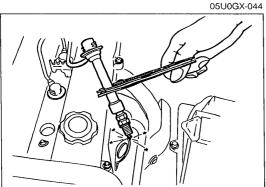
Note the following points:

- 1. When the high-tension lead is to be pulled off, be sure to pull on the boot, not the wire.
- 2. Apply anti-seize compound or molybdenum-based lubricant to the spark plug threads before installing.
- 3. Tighten the spark plugs to the specified torque.

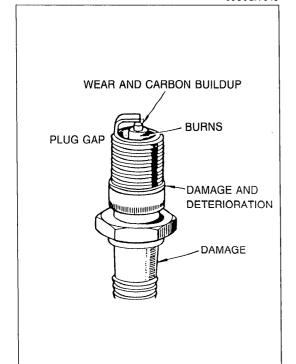




- 1. Disconnect the high-tension lead from the spark plug.
- 2. Connect a new spark plug to the high-tension lead.
- 3. Hold with insulated pliers approx. 5—10mm (0.20—0.39 in) from a ground.
- 4. Crank the engine and verify that a strong blue spark is visible.



05U0GX-045



Inspection

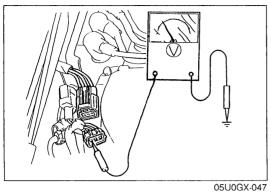
Check the following and replace the spark plugs as necessary.

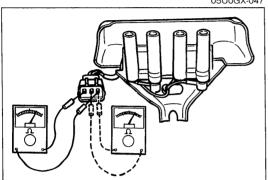
- 1. Damaged insulation.
- 2. Worn electrodes.
- 3. Carbon deposits.

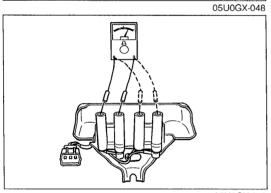
  If cleaning is necessary, use a plug cleaner or a wire brush.

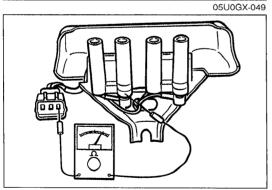
  Wipe upper insulator.
- 4. Damaged gasket.

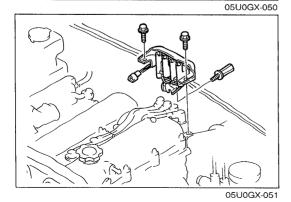
Plug gap: 1.0—1.1mm (0.039—0.043 in)











# IGNITION COIL

Inspection

1. Disconnect the ignition coil connector.

2. Check for voltage at the positive (+) terminal of the ignition coil connector with the ignition switch in the ON position.

Voltage: Approx. 12V

3. If there is no voltage check the main fuse, ignition switch, and wire harness.

Primary coil winding

Measure resistance of the primary coil winding of each coil with an ohmmeter.

If not within specification, replace the coil.

Primary coil winding resistance (at 20°C [68°F]): 0.78—0.94 $\Omega$ 

Secondary coil winding

Measure resistance of the secondary coil winding of each coil with an ohmmeter.

If not within specification, replace the coil.

Secondary coil winding resistance (at 20°C [68°F]): 11.2—15.2  $k\Omega$ 

#### Installation of Case

Use a **500V megger** tester to measure the insulation resistance between the primary terminal and the coil case.

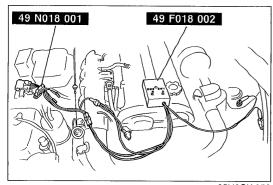
Resistance : 10 M $\Omega$  min.

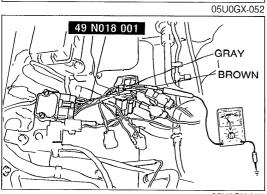
Replacement

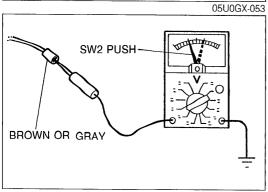
- 1. Disconnect the high tension-leads and ignition coil connector.
- 2. Remove the installaition bolts and the ignition coil.
- 3. Install in the reverse order of removal.

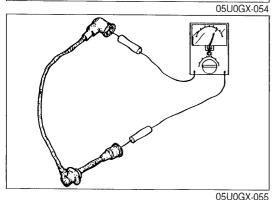
**Tightening torque:** 

19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)









## **IGNITER** Inspection

1. Disconnect the igniter connector.

## Warning

- Do not ground the power connector terminal (Blue: 1-pin), the wiper 20A fuse will be burned.
- 2. Connect the **SST** between the igniter and igniter connector as shown.
- 3. Connect the SST to the power connector (Blue: 1-pin).
- 4. Connect a voltmeter between the SST (brown wire) and a ground.
- 5. Turn the ignition switch ON.
- 6. Verify that there is **approx. 12V** at the terminal. If not as specified, check related wiring.

#### Caution

- Do not activate the SW2 switch for more than 1 sec.
- 7. Push the **SW2** switch on the **SST** while observing the ohmmeter.
- 8. Verify that the voltmeter indicates approx. 8V.
- 9. If not as specified, replace the igniter.
- 10. Disconnect the voltmeter from the brown wire and connect it to the SST gray wire.
- 11. Repeat Steps 5 through 9.

# HIGH-TENSION LEAD

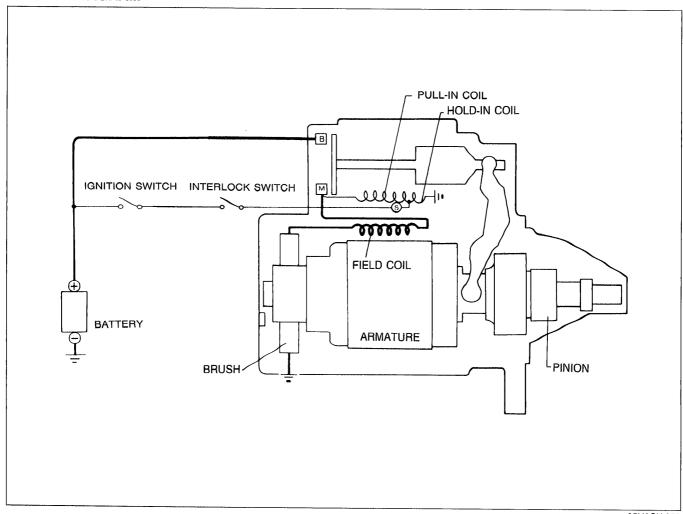
Inspection

Use an ohmmeter to measure the resistance of each lead.

Resistance: 16 k $\Omega$  per 1 m (3.28 ft)

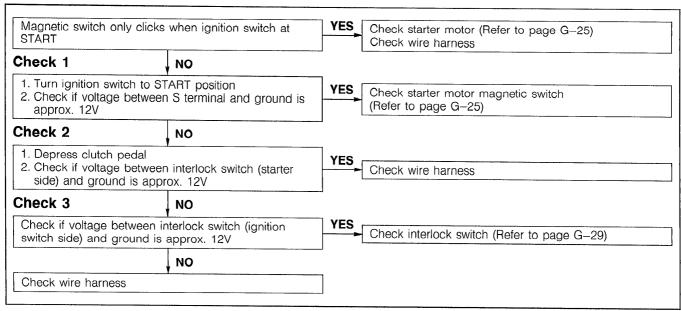
# STARTING SYSTEM

## **CIRCUIT DIAGRAM**

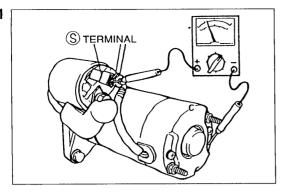


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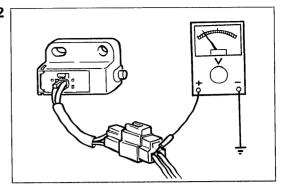
# **TROUBLESHOOTING**



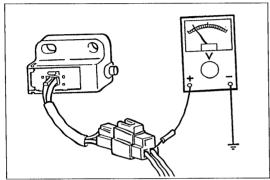
#### Check 1



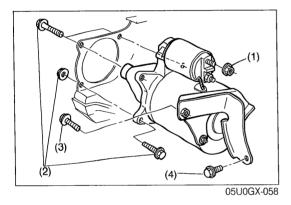
#### Check 2



#### Check 3



#### **STARTER**



# Caution

 Obtain the code number and deactivate the autio anti-theft system before disconnecting the battery. (Refer to page T-113.)

#### Removal / Installation

- 1. Disconnect the negative battery cable.
- 2. Disconnect the wiring from the starter.
- 3. Remove the starter bracket.
- 4. Raise the front of the vehicle and support it with safety stands.
- 5. Remove the bolts and the starter.
- 6. Install in the reverse order of removal.

#### **Tightening torque:**

Nut (1)

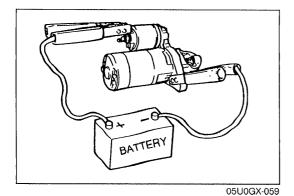
10-12 N·m (105-120 cm-kg, 91-104 in-lb)

Bolt, Nut (2)

37—52 Nm (3.8—5.3 m-kg, 27—38 ft-lb)

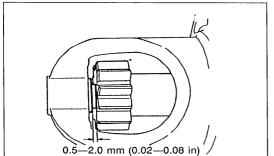
Bolt (3) 16-23 N·m (1.6-2.3 m-kg, 5.0-7.2 ft-lb)

Bolt (4) 37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)



# Performance Inspection Pull-out test

Verify that the pinion is pulled out with 12V connected to the S terminal and the starter body grounded.

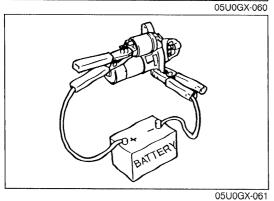


# Pinion gap check

Measure the pinion gap while the pinion is pulled out.

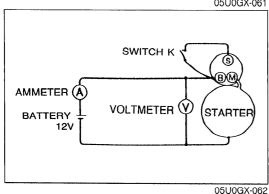
Specification: 0.5—2.0mm (0.02—0.08 in)

Adjust the pinion gap with an adjustment washer (between drive housing front cover and magnetic switch) if it is not within specification.



#### Return test

- 1. Disconnect the motor wire from the M terminal.
- 2. Connect 12V to the M terminal and ground to the body.
- 3. Pull out the overrunning clutch with a screwdriver. Verify that it returns to its original position when released.



#### No-load test

1. After adjusting the pinion gap, form a test circuit with a voltmeter and an ammeter.

#### Note

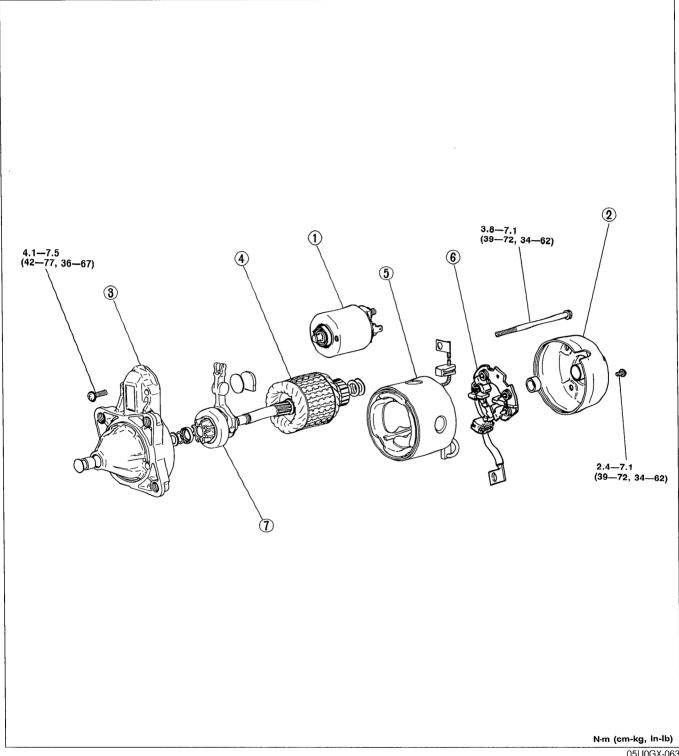
- Use heavy gauge wires and tighten each terminal fully.
- 2. Close switch K to run the starter.
- 3. Check for the following:

Starter type	kW	0.95	
Voltage	V	11.5	
Current	А	Max. 60	
Gear shaft speed	rpm	Min. 6,600	

4. If not as specified, check for the cause by referring to Inspection.

# Disassembly / Assembly

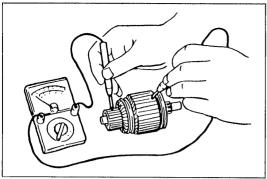
- Disassembly / Assembly
   Disassemble in the order shown in the figure.
   Inspect and repair or replace parts as necessary.
   Assemble in the reverse order of diassembly.



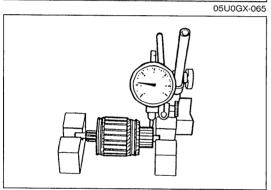
05เ	J0G	X-(	)63

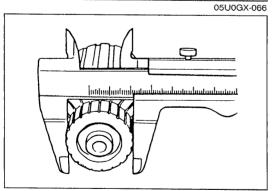
Magnetic switch		
Inspection	page	G-28
2. Rear housing		
3. Front cover		
4. Armature		
Inspection	page	G-27

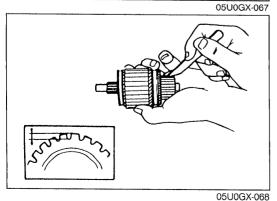
5. Yoke assembly	
Inspection page G-2	28
6. Brush holder assembly	
Inspection page G-2	28
7. Drive pinion	



# 05U0GX-064







Inspection Armature

1. Ground of armature coil Check for no continuity between the commutator and the core with an ohmmeter. Check the entire circum ferance of the commutator. Replace the armature if there is continuity.

2. Insulation of armature coil
Check for no continuity between the commutator and the shaft with an ohmmeter. Check the entire circum ferance of the commutator. Replace the armature if there is continuity.

3. Runout of commutator

(1) Place the armature on V blocks, and measure the runout with a dial gauge.

(2) Repair with a lathe if the runout is small or replace the armature if necessary.

Runout: 0.03mm (0.001 in)

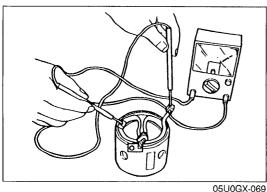
4. Outer diameter of commutator Replace the armature if the outer diameter of the commutator is at the grind limit or less.

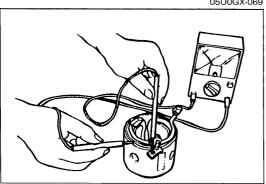
5. Roughness of commutator surface
If the commutator surface is dirty, wipe it with a cloth; if it is rough, repair it with a lathe or fine sandpaper.

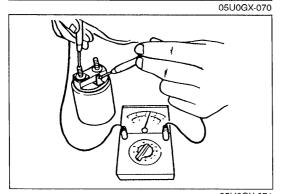
Grind limit: 30.8mm (1.21 in)

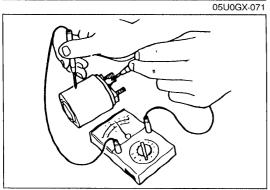
6. Segment groove depth
If the depth of the molding between segments is at the depth
limit or less, undercut the grooves to the standard depth.

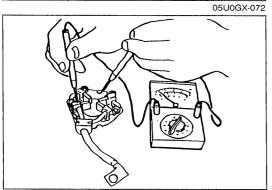
Standard depth: 0.5—0.8mm (0.020—0.031 in) Depth limit: 0.2mm (0.008 in)











Yoke assembly

- 1. Wiring damage of field coil
  - (1) Check for continuity between the connector and the brushes with an ohmmeter.
  - (2) Replace the yoke assembly if there is no continuity.

- 2. Ground of field coil
  - (1) Check for no continuity between the connector and the yoke with an ohmmeter.
  - (2) Repair or replace the yoke assembly if there is continuity.
- 3. Installation of field coil

Replace the yoke assembly if the field coil is loose.

# **Magnetic Switch**

Wiring damage (S terminal — M terminal)
 Check for continuity between terminal S and terminal M with an ohmmeter. Replace the magnetic switch if there is no continuity.

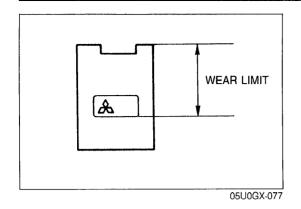
2. Wiring damage (S terminal — body)

Check for continuity between terminal S and the body with an ohmmeter.

Replace the magnetic switch if there is no continuity.

# Brush and Brush Holder Insulation of brush holder

Check for no continuity between each insulated brush and the plate with an ohmmeter. Replace the brush holder if there is continuity.

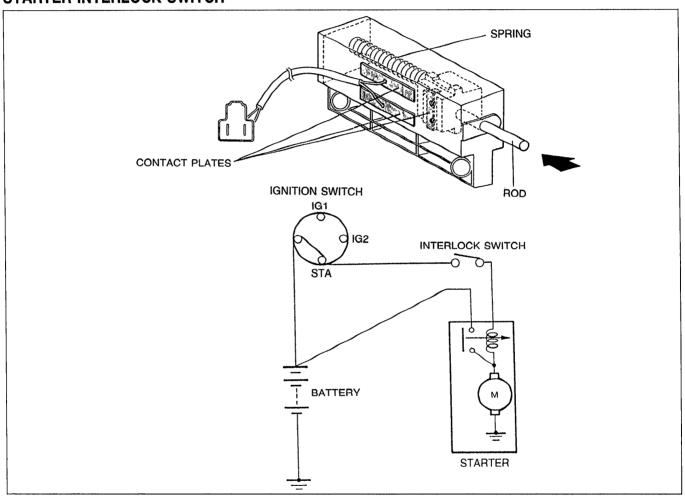


#### Brush

If the brushes are worn beyond the wear limit or if the wear is near the limit, replace the brushes.

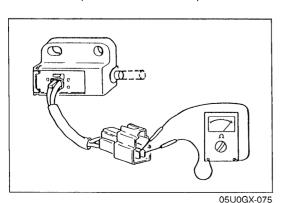
Standard: 17mm (0.67 in) Wear limit: 11.5mm (0.45 in)

#### STARTER INTERLOCK SWITCH



05U0GX-074

The clutch pedal must be depressed during starting for battery power to be supplied to the starter.



# Inspection

- 1. Disconnect the interlock switch connector.
- 2. Check continuity of the switch with an ohmmeter.

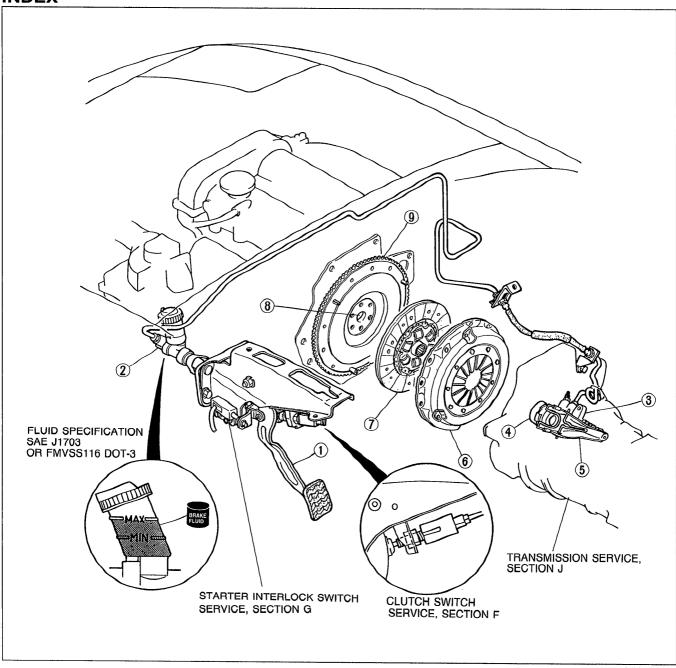
Pedal	Continuity
Depressed	Yes
Released	No

4. If not as specified, replace the interlock switch.

# **CLUTCH**

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# **OUTLINE**

# **SPECIFICATIONS**

	Engine/Tra	Insmission Model	B6 DOHC	
Item			M5M-D	
Clutch control			Hydraulic	
Clutch cover	Туре		Diaphragm spring	
——————————————————————————————————————	Set load	N (kg, lb)	4,022 (410, 902)	
	Outer diar	neter mm (in)	200 (7.87)	
	Inner diameter mm (in)		130 (5.12)	
Clutch disc	Thickness	Pressure plate side mm (in)	3.5 (0.14)	
		Flywheel side mm (in)	3.5 (0.14)	
	Type		Suspended	
Clutch pedal	Pedal ratio	)	6.13	
	Full stroke	mm (in)	120 (4.72)	
	Height	mm (in)	175—185 (6.89—7.28)	
Master cylinder inner diameter mm (in)		mm (in)	15.87 (0.625)	
Release cylinder inner diameter mm (in)		mm (in)	19.05 (0.750)	
Clutch fluid			SAE J1703 or FMVSS116 DOT-3	

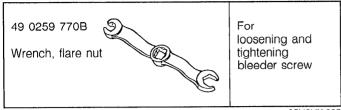
05U0HX-003

# TROUBLESHOOTING GUIDE

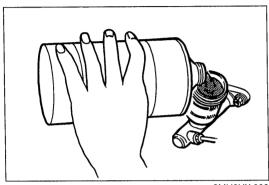
Problem	Possible Cause	Action	Page
Slipping	Clutch disc facing worn excessively Clutch disc facing surface hardened or oil on surface Pressure plate damaged Diaphragm spring damaged or weak Insufficient clutch pedal play Clutch pedal sticking Flywheel damaged	Replace Repair or replace Repair or replace Replace Adjust Repair or replace Repair or replace	H-14 H-14 H-14 H- 5 H- 6 H-14
Faulty disengagement	Excessive runout or damaged clutch disc Clutch disc splines rusted or worn Oil on facing Diaphragm spring weak Excessive clutch pedal play Insufficient clutch fluid Leakage of clutch fluid	Replace Remove rust or replace Repair or replace Replace Adjust Add fluid Locate and repair or replace	H-14 H-14  H-14 H- 5 H- 2
Clutch vibrates when accelerating	Oil on facing Torsion rubbers weak Clutch disc facing hardened or damaged Clutch disc facing rivets loose Pressure plate damaged or excessive runout Flywheel surface hardened or damaged Loose or worn engine mount	Repair or replace Replace Repair or replace Replace Replace Replace Repair or replace Tighten or replace	H-14 H-14 H-14 H-14 H-14 H-14
Clutch pedal sticking	Pedal shaft not properly lubricated	Lubricate or replace	H- 6
Abnormal noise	Clutch release bearing damaged Poor lubrication of release bearing sleeve Torsion spring weak Excessive crankshat end play Pilot bearing worn or damaged Worn pivot points of release fork	Replace Lubricate or replace Replace Repair Replace Repair or replace	H-14 H-14 H-14 Refer to Section B H-14 H-14

# **CLUTCH FLUID**

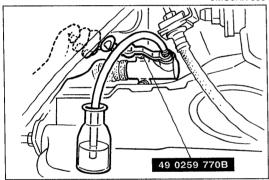
#### **PREPARATION**



05U0HX-005



9MU0HX-006



9MU0HX-007

#### REPLACEMENT

#### Note

• The fluid in the reserve tank must be maintained at the 3/4 level or higher during replacement.

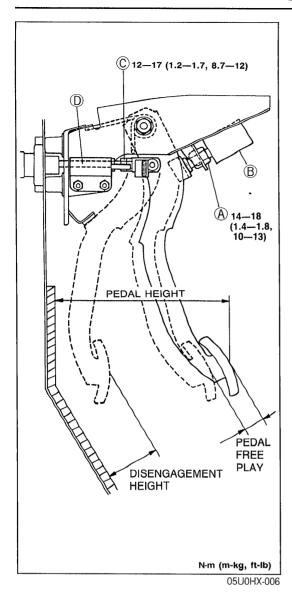
#### Caution

- Be careful not to spill clutch fluid on a painted surface. If this should happen, wash it off immediately.
- Do not mix different brands of clutch fluid.
- Do not reuse the clutch fluid which was drained out.
- 1. Draw the fluid from the reserve tank with a suction pump.
- 2. Remove the bleeder cap from the clutch release cylinder and attach a vinyl hose to the bleeder plug.
- 3. Place the other end of the vinyl hose in a container.
- 4. Slowly pump the clutch pedal several times.
- 5. With the clutch pedal depressed, loosen the bleeder screw with the **SST** to let fluid escape. Close the bleeder screw with the **SST**.
- 6. Repeat Steps 4 and 5 until only clean fluid is seen.
- 7. Tighten the bleeder screw.

# Tightening torque:

5.9—8.8 Nm (60—90 cm-kg, 52—78 in-lb)

- 8. Add fluid to the MAX mark.
- 9. Check for correct clutch operation.



## **CLUTCH PEDAL**

# ADJUSTMENT Clutch Pedal Height Inspection

Measure the distance from the upper surface of the pedal pad to the carpet.

Pedal height: 175—185mm (6.89—7.28 in) (With carpet)

If necessary, adjust the pedal height.

# **Adjustment**

- 1. Loosen locknut (A) and turn clutch switch (B) until the height is correct.
- 2. Tighten locknut (A).

# Tightening torque: 14—18 N·m (1.4—1.8 m-kg, 10—13 ft-lb)

3. After adjustment, inspect the pedal free play.

# Clutch Pedal Free Play Inspection

Depress the clutch pedal by hand until clutch resistance is felt.

Pedal free play: 0.6—3.1mm (0.02—0.12 in) Total pedal free play: 5—13mm (0.20—0.51 in)

If necessary, adjust the pedal free play.

#### Adjustment

- 1. Loosen locknut ©and turn push rod Duntil pedal free play is correct.
- 2. Verify that the disengagement height as measured from the upper surface of the pedal to the carpet is correct when the pedal is fully depressed.

Minimum disengagement height: 68mm (2.68 in) (With carpet)

3. Tighten locknut (C).

Tightening torque: 12—17 N·m (1.2—1.7 m-kg, 8.7—12 ft-lb)

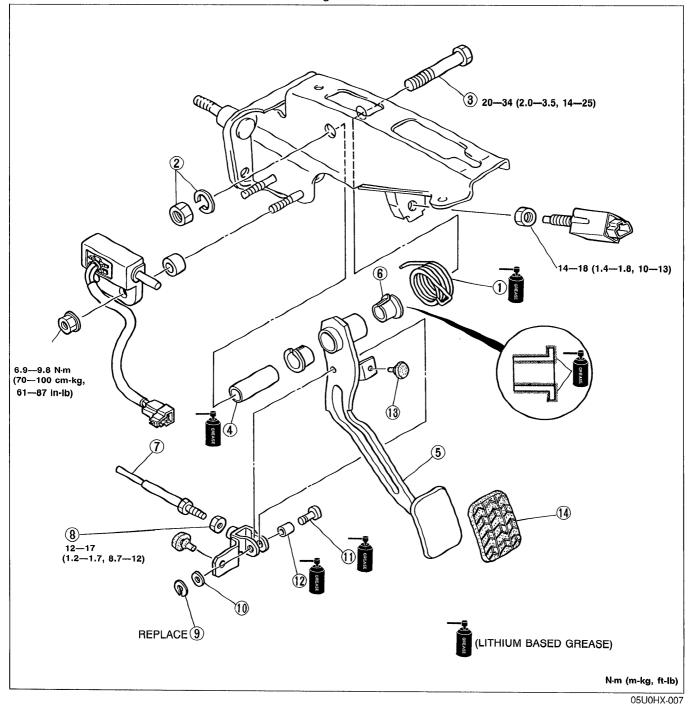
4. After adjustment, inspect the pedal height.

## **REMOVAL / INSPECTION / INSTALLATION**

- 1. Remove in the order shown in the figure, referring to **Removal Note**.
- 2. Inspect all parts and repair or replace as necessary.

# Note

- Apply lithium based grease to the bushings and pin when installing.
- 3. Install in the reverse order of removal, referring to Installation Note.



1. Spring

Removal Note... page H-7 Installation Note. page H-7

- 2. Nut and lock washer
- 3. Bolt
- 4. Spacer

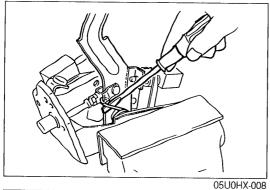
- 5. Clutch pedal
- 6. Bushings
- 7. Push rod

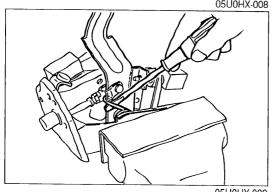
Inspect for damage and bending

8. Nut

- 9. Clip
- 10. Wave washer
- 11. Pin
- 12. Spacer
- 13. Stop
- 14. Pedal pad







# Removal Note Spring

#### Note

- Use pads in the vise to prevent damaging the clutch master cylinder bracket.
- 1. Place the clutch pedal assembly in the vise.
- 2. Pry the spring off the clutch pedal as shown in the figure.

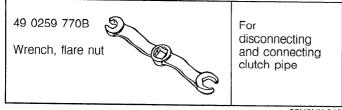
# Installation Note Spring

#### Note

- Use pads in the vise to prevent damaging the clutch master cylinder bracket.
- 1. Place the clutch pedal assembly in the vise.
- 2. Pry the spring on the clutch pedal as shown in the figure.
- 3. Adjust the clutch pedal height and free play after installation. (Refer to page H-5.)

# **CLUTCH MASTER CYLINDER**

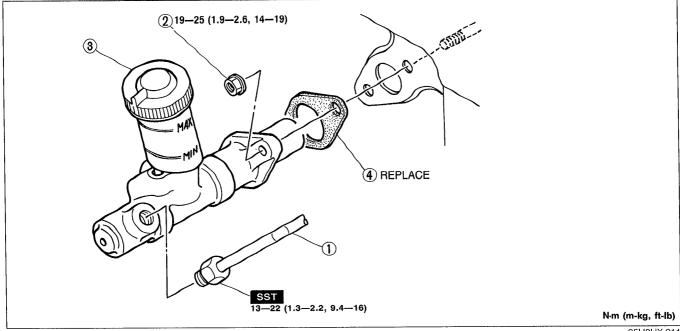
# PREPARATION SST



#### **REMOVAL / INSTALLATION**

#### Caution

- Clutch fluid will damage painted surfaces. Be sure to use a container or rags to collect it. If fluid does get on a painted surface, wipe it off immediately with a rag.
- 1. Remove in the order shown in the figure, referring to **Removal Note**.
- 2. Install in the reverse order of removal, referring to **Installation Note**.



05U0HX-011

- Clutch pipe
   Removal Note.. page H– 8

   Installation Note page H– 8
- 2. Nut

3. Clutch master cylinder

Check for fluid leakage from cylinder bore

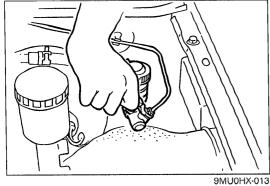
Overhaul..... page H-10

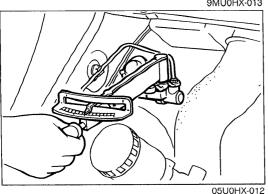
Air bleeding .... page H- 9



Disconnect the clutch pipe with the SST.

4. Gasket





Installation Note Clutch pipe

Tighten the clutch

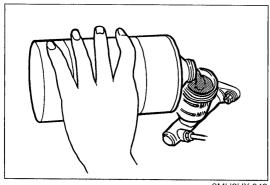
Tighten the clutch pipe with the **SST**.

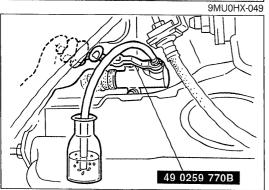
Tightening torque: 13—22 N·m (1.3—2.2 m-kg, 9.4—16 ft-lb)

Air Bleeding

After installation, bleed the clutch system. (Refer to page H-9.)

Inspection and Adjustment Clutch pedal height and free play (Refer to page H-5.)





97U0HX-010

## AIR BLEEDING

The clutch hydraulic system must be bled to remove air introduced whenever a hydraulic line is disconnected.

#### Note

 The fluid in the reserve tank must be maintained at the 3/4 level or higher during air bleeding.

#### Caution

- Clutch fluid will damage a painted surface. If fluid does get on a painted surface, wipe it off immediately.
- Do not mix different brands of clutch fluid.
- Do not reuse the clutch fluid which was drained out.
- 1. Remove the bleeder cap from the clutch release cylinder and attach a vinyl hose to the bleeder plug.
- 2. Insert the other end of the vinyl hose in a clear container.
- 3. Slowly pump the clutch pedal several times.
- 4. While depressing the pedal, loosen the bleeder screw with the SST to let fluid and air escape. Close the bleeder screw with the SST.
- Repeat Steps 3 and 4 until no air bubbles are seen in the fluid.
- 6. Tighten the bleeder screw.

# Tightening torque:

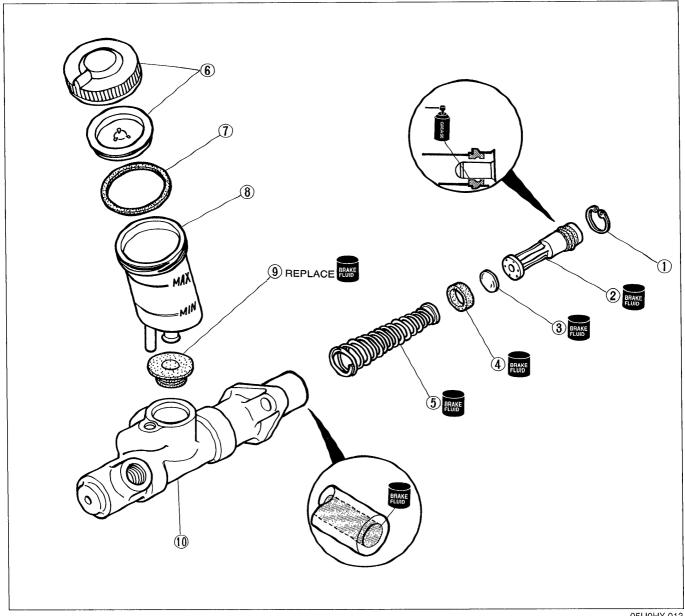
5.9—8.8 N·m (60—90 cm-kg, 52—78 in-lb)

- 7. Check for correct clutch operation.
- 8. Verify that there is no fluid leakage.

## **OVERHAUL**

#### Caution

- Clean the disassembled parts in solvent and blow through all ports and passages with compressed air.
- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of disassembly, referring to Assembly Note.



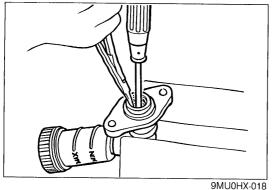
05U0HX-013

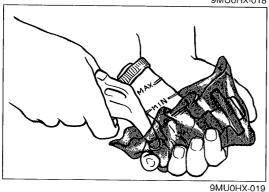
1. Snap ring
Disassembly Note page H-11
Assembly Notepage H-11
2. Piston and secondary cup assembly
Disassembly Notepage H-11
Inspect for wear, scoring, and cracks
Assembly Note page H-11
3. Spacer

4. Primary cup

Inspect for wear and cracks

- 5. Return spring
- 6. Tank cap baffle
- 7. Packing
- 8. Reserve tank
- 9. Bushing
- 10. Master cylinder body Inspect cylinder bore for scoring and corrosion





# Disassembly Note Snap ring

#### Note

• Do not damage the push rod contact surface of the piston.

Press down on the piston and remove the snap ring with snapring pliers.

# Piston and secondary cup assembly

#### Caution

 Hold a rag over the master cylinder to prevent the piston and secondary cup assembly from jumping out.

Remove the piston and secondary cup assembly, spacer, and primary cup by applying compressed air through the clutch pipe installation hole.

# **Assembly Note**

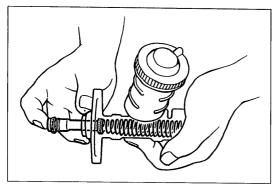
#### Caution

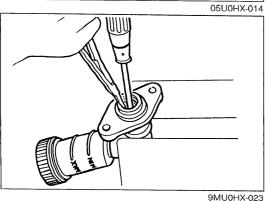
- Before assembly, make sure all parts are completely clean.
- Do not mix different brands of clutch fluid.
- Do not reuse the clutch fluid which was drained out.
- Apply the specified clutch fluid to the piston and secondary cup assembly, spacer, primary cup, and cylinder bore before assembly.
- Replace parts with new ones whenever specified to do so.

9MU0HX-021

# Piston and secondary cup assembly

Install the spring, primary cup, spacer, and piston and secondary cup assembly, noting the proper direction of the parts. (Refer to page H-10.)





# Snap ring

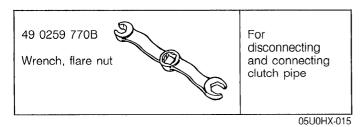
#### Note

Do not damage the push rod contact surface of the piston.

While pressing the piston, install the snap ring.

#### **CLUTCH RELEASE CYLINDER**

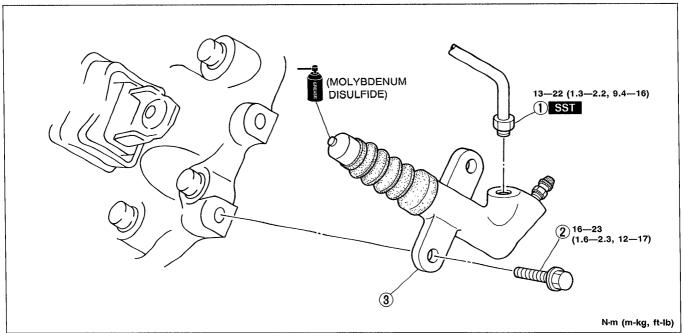
#### **PREPARATION** SST



#### **REMOVAL / INSTALLATION**

#### Caution

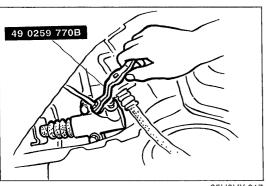
- Clutch fluid will damage painted surfaces. Be sure to use a container or rags to collect it. If fluid does get on a painted surface, wipe it off immediately with a rag.
- 1. Remove in the order shown in the figure, referring to **Removal Note**.
- 2. Install in the reverse order of removal, referring to **Installation Note**.



05U0HX-016

1. Clutch pipe		
Removal Note	page	H-12
Installation Note	page	H - 13
2. Bolt		

**Removal Note** 



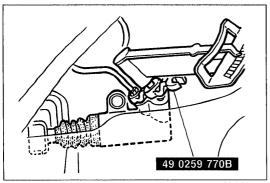
Clutch pipe

• After disconnecting the clutch pipe, plug it to prevent fluid leakage.

Remove boot and check for fluid leakage Overhaul...... page H-13

Disconnect the clutch pipe with the SST.

3. Clutch release cylinder



05U0HX-018

### **Installation Note** Clutch pipe

Tighten the clutch pipe with the **SST**.

#### **Tightening torque:**

13-22 N·m (1.3-2.2 m-kg, 9.4-16 ft-lb)

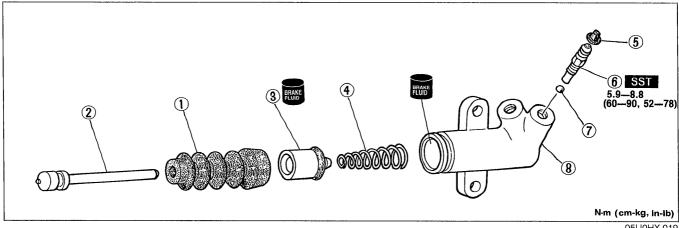
#### Air Bleeding

After installation, bleed the clutch system. (Refer to page H-9.)

#### **OVERHAUL**

#### Caution

- Clean the disassembled parts in solvent and blow through all ports and passages with compressed air.
- Before assembly, make sure all parts are completely clean.
- Apply the specified clutch fluid to the piston and cup assembly and cylinder bore before assembly.
- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of disassembly.



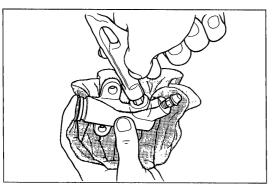
05U0HX-019

- 1. Boot
- 2. Push rod
- 3. Piston and cup assembly Disassembly

Note..... page H-13 Inspect for wear, scoring, and cracks

- 4. Spring
- 5. Bleeder cap
- 6. Bleeder screw
- 7. Steel ball

8. Release cylinder body Inspect cylinder bore for scoring and corrosion



05U0HX-020

### **Disassembly Note** Piston and cup assembly

#### Caution

 Hold a rag over the release cylinder to prevent the piston and cup assembly from jumping out.

Remove the piston and cup assembly by applying compressed air through the clutch pipe installation hole.

## **CLUTCH UNIT**

#### **PREPARATION** SST

49 E301 060  Brake, ring gear	For holding ring gear	49 E301 061  Body (Part of 49 E301 060)	For holding ring gear
49 E301 062  Collar (Part of 49 E301 060)	For holding ring gear	49 SE01 310  Clutch disc centering tool	For removal and installation of clutch disc
49 1285 071 Puller, bearing	For removal of pilot bearing	49 1285 073 Chuck (Part of 49 1285 073)	For removal of pilot bearing

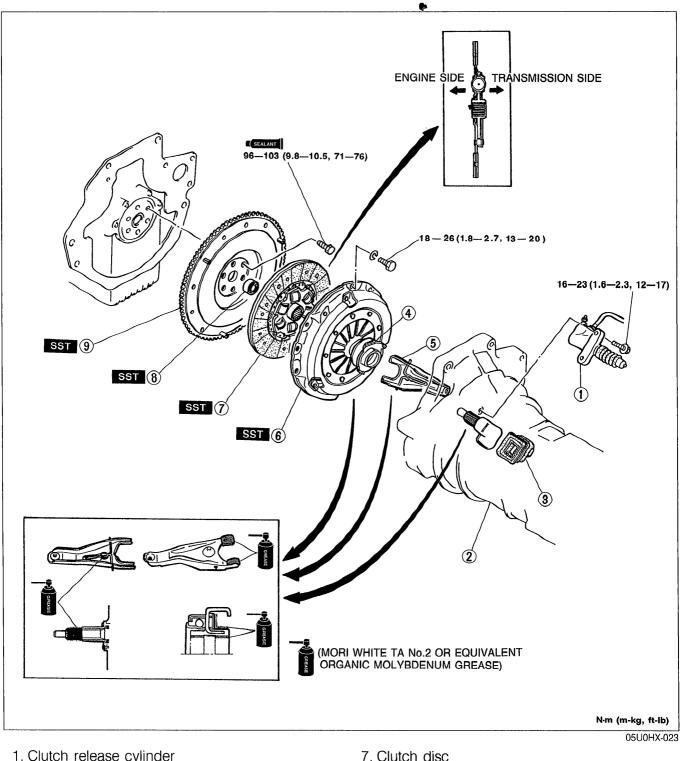
05U0HX-021

#### **REMOVAL / INSTALLATION**

- Remove the clutch release cylinder with the clutch pipe connected.
  Do not remove the pilot bearing if not necessary.

- Remove in the order shown in the figure, referring to Removal Note.
   Install in the reverse order of removal, referring to Installation Note.

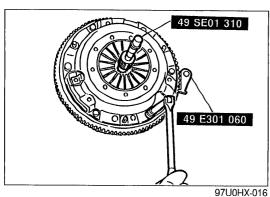
05U0HX-022



Clutch release cylinder     Transmission
Service Section J
3. Boot
4. Release bearing
Inspection page H-17
5. Release fork
6. Clutch cover
Removal Note page H-16
Inspection page H-17
Installation Note page H-17

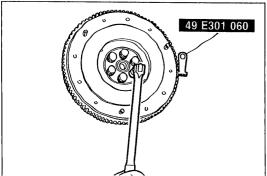
	030	011111023
7. Clutch disc		
Removal Note		
Inspection	page	H-17
Installation Note	page	H-17
8. Pilot bearing		
Inspection	page	H-18
Removal Note		
Installation Note	page	H-16
9. Flywheel		
Removal Note	page	H-16
Inspection	page	H-18
Installation Note		

#### **CLUTCH UNIT**



# Removal Note Clutch cover and disc

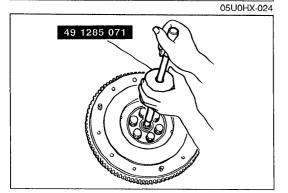
- 1. Install the SST.
- 2. Loosen each bolt one turn at a time in a crisscross pattern until spring tension is released. Then remove the clutch cover and disc.



#### **Flywheel**

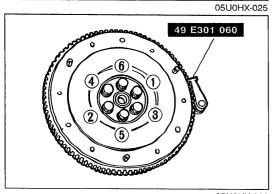
#### Note

- After removing the flywheel, inspect for oil leakage past the crankshaft rear oil seal.
   If necessary, replace the oil seal.
   (Refer to Section B.)
- 1. Hold the flywheel with the SST.
- 2. Remove the flywheel.



## Pilot bearing

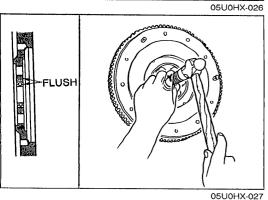
Remove the pilot bearing with the SST, if necessary.



## Installation Note Flywheel

- 1. Wipe the bolts clean, and apply sealant to the bolt threads.
- 2. Install the flywheel and SST.
- 3. Tighten the bolts in the pattern shown.

Tightening torque: 96—103 N·m (9.8—10.5 m-kg, 71—76 ft-lb)



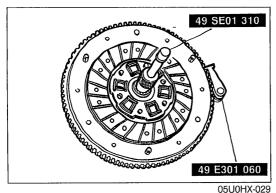
#### Pilot bearing

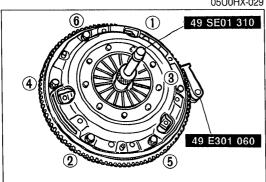
#### Note

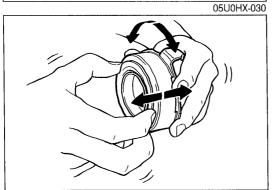
• Install the pilot bearing flush with the flywheel.

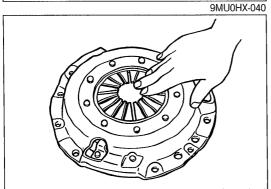
Install the new bearing with a suitable pipe.

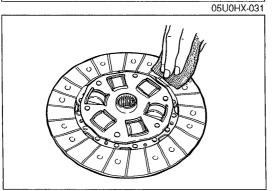












05U0HX-032

#### Clutch disc

- 1. Clean the clutch disc splines and main drive gear splines, and apply Mori White TA No.2 or equivalent organic molybdeum grease.
- 2. Hold the clutch disc in position with the SST.

#### Clutch cover

- 1. Install the SST.
- 2. Align the dowel holes with the flywheel dowels.
- 3. Tighten the bolts evenly and gradually in the pattern shown.

## Tightening torque:

18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)

#### RELEASE BEARING

#### INSPECTION

#### Note

 The clutch release bearing is a sealed bearing and must not be washed in solvent.

Turn the bearing while applying force in the axial direction. If the bearing sticks or has excessive resistance, replace it.

#### **CLUTCH COVER**

#### INSPECTION

#### Note

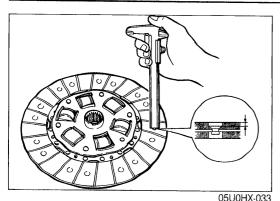
- Minor scoring or burning should be removed with emery paper.
- 1. Inspect the contact surface of the clutch disc for scoring, cracks, and burning, repair or replace as necessary.
- 2. Inspect the contact surface of the clutch release bearing for wear and cracks.
- 3. If there is wear or cracks, replace the clutch cover.

#### **CLUTCH DISC**

#### **INSPECTION**

#### Note

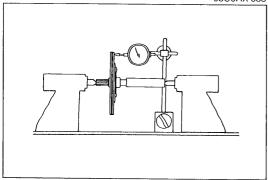
- Use sandpaper if the trouble is minor.
- 1. Inspect the lining surface for burning and oil contamination. Replace the clutch disc if it is badly burned or oil soaked.
- 2. Inspect for loose facing rivets or torsion rubbers. Replace the clutch disc if any are loose.



3. Measure the thickness of the lining at a rivet head on both sides with vernier calipers.

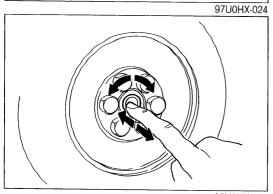
Replace the clutch disc if less than minimum.

Minimum thickness: 0.3mm (0.012 in)



4. Measure the clutch disc runout with a dial indicator. Replace the clutch disc if runout is excessive.

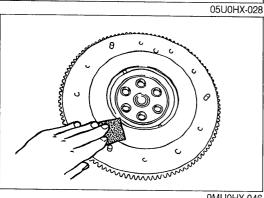
Maximum runout: 0.7mm (0.028 in)



#### PILOT BEARING

#### INSPECTION

Turn the bearing while applying force in the axial direction. If the bearing sticks or has excessive resistance, replace it.



## FLYWHEEL

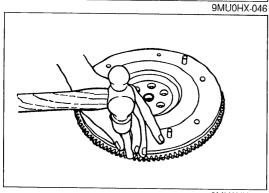
#### INSPECTION

#### Note

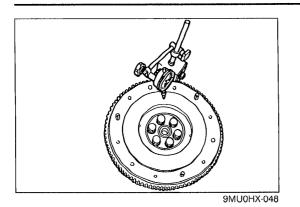
- Minor scoring or burning should be removed with emery paper.
- 1. Inspect the contact surface of the clutch disc for scoring, cracks, or burning, repair or replace as necessary.

#### Note

- The beveled side of the ring gear must face the engine side.
- 2. Inspect the ring gear teeth for wear or damage. If necessary, replace the ring gear as follows:
  - (1) Heat the ring gear with a blowtorch. Tap around the gear to remove it from the flywheel.
  - (2) Heat the new ring gear to 250—300°C (480—570°F); then fit it onto the flywheel.



9MU0HX-047



3. Measure the flywheel runout with a dial indicator. Replace the flywheel if runout is excessive.

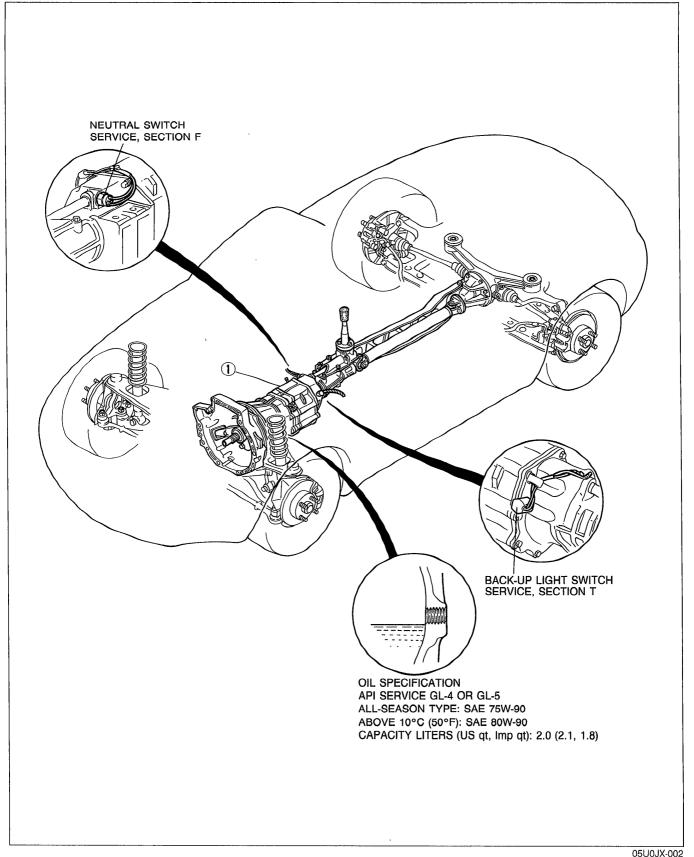
Maximum runout: 0.2mm (0.008 in)

# **MANUAL TRANSMISSION**

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05U0JX-001

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Removal page J-10	Assembly page J-26
Disassemblypage J-13	Installationpage J-45

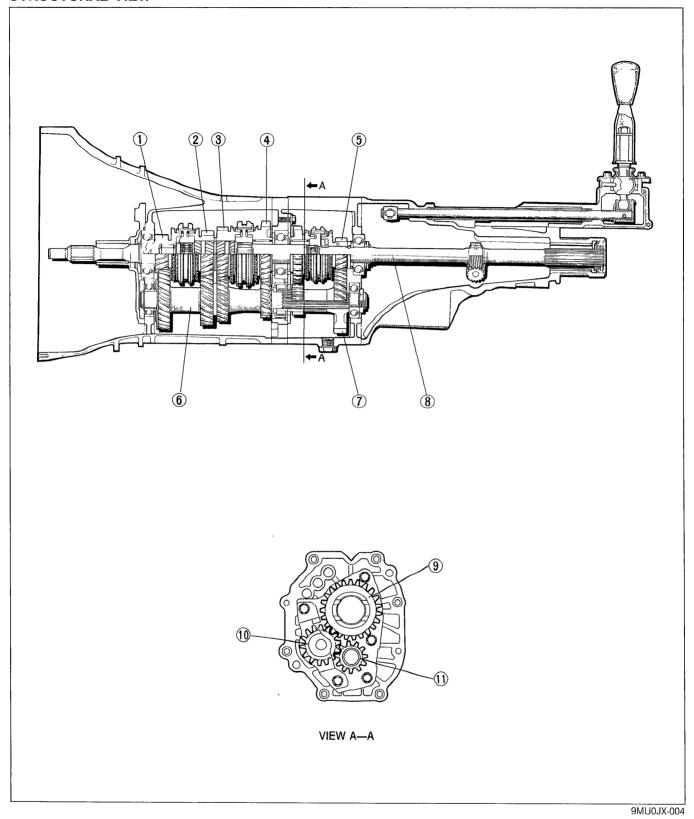
## **OUTLINE**

## **SPECIFICATIONS**

Item Transmission model		Transmission model	M-type	
Synchronizatio	n mechanism		Forward: Synchromesh Reverse: Synchromesh	
Shift type			5-speed, floor shift	
Shift pattern			① ③ ⑤	
	1st		3.136	
	2nd		1.888	
Gear ratio	3rd		1.330	
Geal Tallo	4th		1.000	
	5th		0.814	
	Reverse		3.758	
	Grade		API service GL-4 or GL-5	
Oil	Vicesit	All-season	SAE 75W-90	
Oil	Viscosity	Above 10°C (50°F)	SAE 80W-90	
	Capacity	liters (US qts, Imp qts)	2.0 (2.1, 1.8)	

05U0JX-003

### STRUCTURAL VIEW



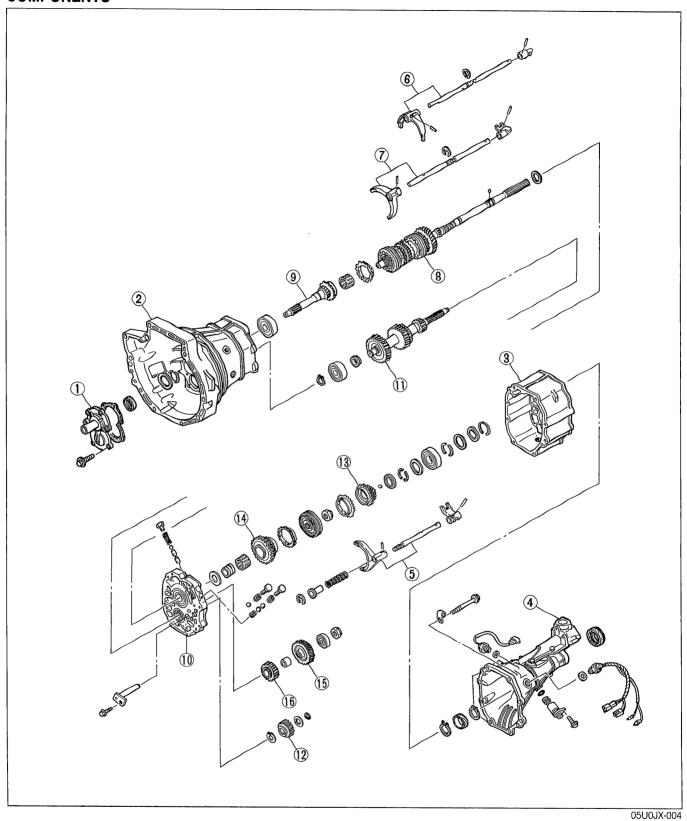
- 1. Main drive gear (4th gear)
- 2. 3rd gear 3. 2nd gear 4. 1st gear

- 5. 5th gear6. Countershaft

- 7. Counter 5th gear 8. Mainshaft

- 9. Reverse gear 10. Reverse idler gear
- 11. Counter reverse gear

#### **COMPONENTS**



- 1. Front cover
- 2. Transmission case
- 3. Intermediate housing
- 4. Extension housing
- 5. Shift fork and rod (5th/Reverse)
- 6. Shift fork and rod (1st/2nd)
  7. Shift fork and rod (3rd/4th)
  8. Mainshaft gear assembly
  9. Main drive gear

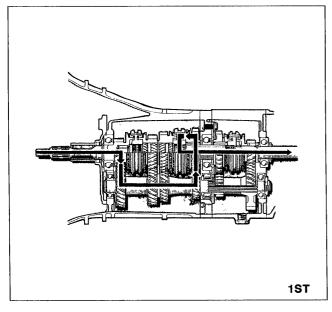
- 10. Bearing housing
- 11. Countershaft

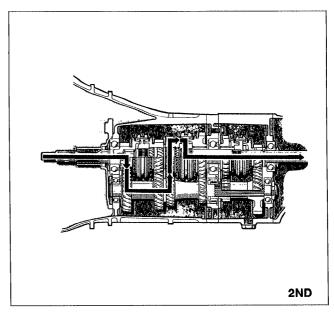
- 12. Reverse idler gear13. 5th gear

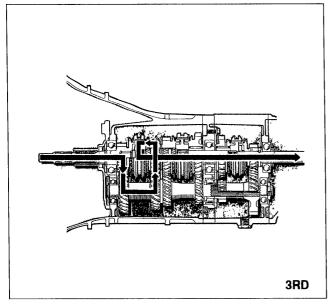
- 14. Reverse gear15. Counter 5th gear
- 16. Counter reverse gear

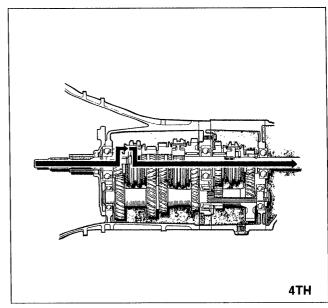
## **OUTLINE**

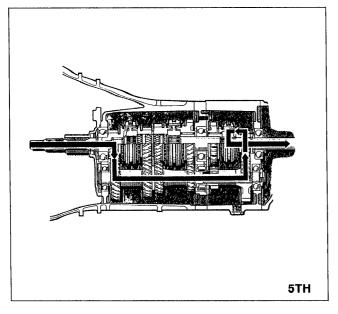
## **POWERFLOW**

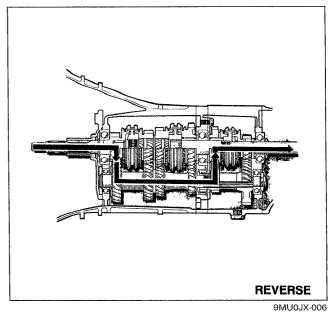








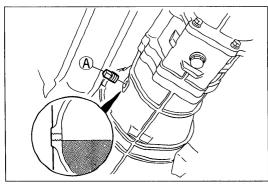


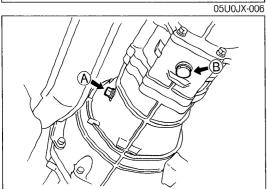


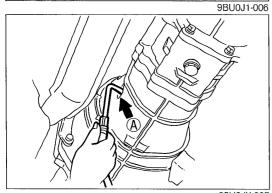
## TROUBLESHOOTING GUIDE

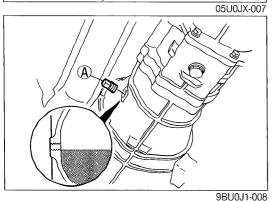
Problem	Possible Cause	Action	Page
Abnormal noise	Insufficient oil Deterioration of oil quality	Add oil Replace with specified oil	J 8 J 8
	Worn bearing Worn contact surface of countershaft gear Worn contact surface of gears Excessive gear backlash Damaged gear teeth	Replace Replace Replace Replace Replace	J-24 J-23 J-23 - J-23
Difficult to shift	Insufficient oil Deterioration of oil quality  Worn synchronizer ring Worn synchronizer cone of gear Poor contact of synchronizer ring and gear cone Excessive longitudinal play of gears Worn bearing Improper disengagement of clutch	Add oil Replace with specified oil Replace Replace Replace Replace Replace Replace Replace Replace Refer to Section H	J- 8 J- 8 J-24 J-24 J-24 J-23 J-24
Jumps out of gear	Weak detent ball spring Worn shift fork Worn clutch hub Worn clutch hub sleeve Worn gears Excessive gear backlash Worn bearing	Replace Replace Replace Replace Replace Replace Replace Replace	J-25 J-24 J-23 J-23 J-23  J-24
Vibration	Incorrect installation of or loose power plant frame	Correct or tighten	J-45

05U0JX-005









### TRANSMISSION OIL

#### **INSPECTION**

1. Remove check plug (A).

2. Verify that the oil is at the bottom of the check plug hole. If it is low, add the specified oil from check plug (A).

3. Wipe clean and apply sealant to the plug threads before installing.

#### **Tightening torque:**

(A): 25—39 N·m (2.5—4.0 m-kg, 18—29 ft-lb)

#### REPLACEMENT

#### Note

- 1. Remove the plugs (A and B with washer).
- 2. Drain the oil into a suitable container.
- 3. Wipe all plugs clean.
- 4. Apply sealant to plug thread (A).
- 5. Install the drain plug ((B) with new washer).

#### **Tightening torque:**

B: 39—59 N·m (4.0—6.0 m-kg, 29—43 ft-lb)

6. Add the specified oil from check plug (A) port until the level reaches the bottom of check plug hole.

#### Specified oil:

API service GL-4 or GL-5 All-season: SAE 75W-90

Above 10°C (50°F): SAE 80W-90

7. Install plug (A).

#### Tightening torque:

A: 25—39 N·m (2.5—4.0 m-kg, 18—29 ft-lb)

## PREPARATION SST

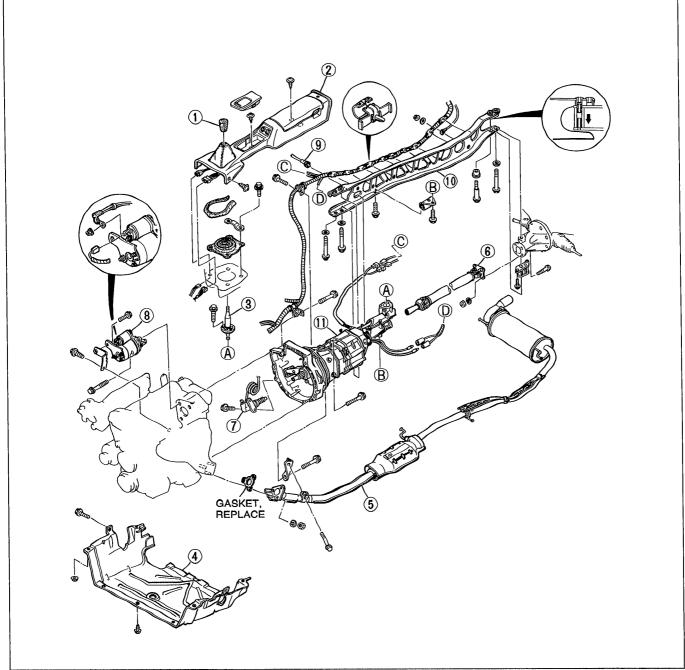
49 0839 425C Puller set, bearing	For removal of bearing	49 0500 330 Installer, transmission bearing	For installation of bearing
49 0636 145 Puller, fan pulley boss	For removal of clutch hub assembly	49 0259 440 Holder, mainshaft	For holding mainshaft
49 0862 350  Guide, shift fork	For installation of interlock pin	49 1243 465A Wrench, mainshaft locknut	For removal of locknut
49 H017 101 Hook	For removal of bearing	49 0710 520 Puller, bearing	For removal of bearing
49 0305 430 Pusher, main drive shaft	For removal of transmission case	49 0180 321A Installer, bearing	For installation of bearing
49 0187 451A  Guide, interlock pin	For installation of spring and ball	49 F401 330B Installer set, bearing	For installation of bearing
49 F401 331 Body (Part of 49 F401 330B)	For installation of clutch hub assembly	49 B025 0A0 Installer, oil seal	For installation of dust seal
49 G030 797  Handle (Part of 49 B025 0A0)	For installation of oil seal	49 B025 001  Body (Part of 49 B025 0A0)	For installation of oil seal

05U0JX-008

#### **REMOVAL**

#### Caution

- Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-111.)
- 1. Disconnect the negative battery cable.
- 2. Raise the vehicle and support it with safety stands.
- 3. Drain the transmission oil into a suitable container.
- 4. Remove in the order shown in the figure, referring to Removal Note.



05U0JX-009

- 1. Shift lever knob
- 2. Rear console
- 3. Shift lever
- 4. Undercover

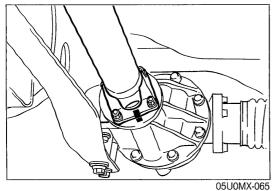
- 5. Exhaust pipe
- 6. Propeller shaft
  Removal Note... page J-11
- 7. Clutch release cylinder
- 8. Starter

- 9. Speedometer cable
- 10. Power plant frame (PPF)

Removal Note... page J-11

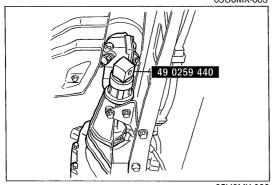
11. Transmission

Removal Note... page J-12

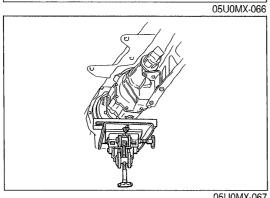


Removal note Propeller shaft

1. Before removing the propeller shaft, mark the flanges for correct installation.



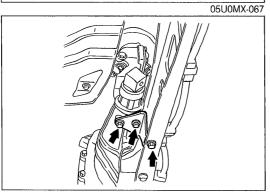
2. When the propeller shaft is removed from the extension housing, immediately install the **SST** to prevent oil leakage.



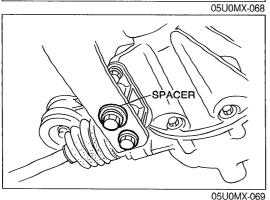
Power plant frame (PPF)

1. Disconnect the wire harness from the PPF.

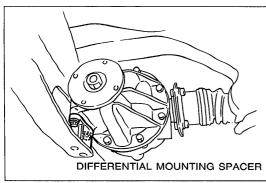
2. Support the transmission with a jack.



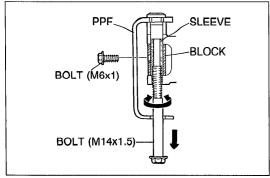
3. Remove the power plant frame bracket.



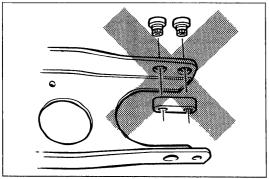
4. Remove the differential-side bolts, and pry out the spacer.



05U0MX-125



05U0MX-070



05U0MX-071

6. Turn a bolt (M14x1.5) into the sleeve.

5. Remove the differential mounting spacer.

- 7. Twist and pull the bolt downward.
- 8. Install a bolt (M6x1) into the hole in the block to hold the sleeve, and remove the long bolt (M14x1.5).
- 9. Remove the bolt (M6x1).

### Caution

- Do not remove the spacers shown in the figure from the PPF.
- If they are removed, repalce the PPF as an assembly.
- 10. Remove the transmission-side bolts, and remove the PPF.

#### **Transmission**

#### Caution

• Do not violently shake the transmission, the crank angle sensor may be damaged.

05U0JX-010

## DISASSEMBLY Precaution

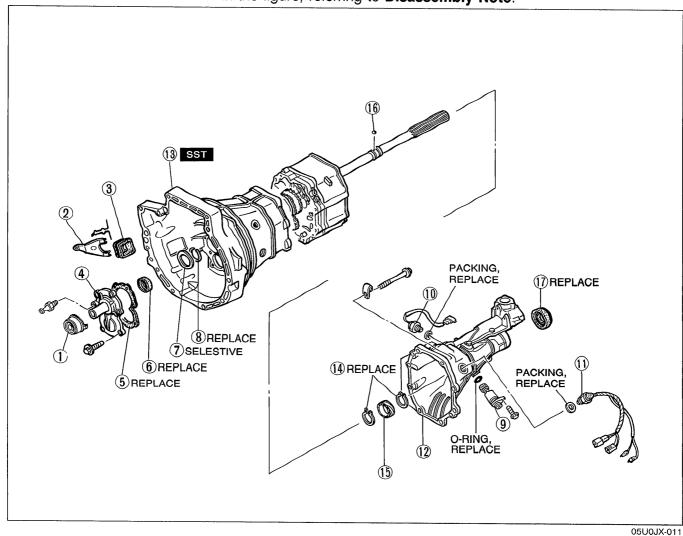
- 1. Clean the transmission exterior thoroughly with a steam cleaner or cleaning solvent before disassembly.
- 2. Clean the removed parts (except sealed bearings) and all sealing surfaces with cleaning solvent, and dry with compressed air.
  - Clean out all holes and passages with a compressed air, and check that there are no obstructions.
- 3. Wear eye protection when using compressed air to clean components.

#### **Housing Components**

#### Note

• Do not remove the front and rear oil seals if not necessary.

Disassemble in the order shown in the figure, referring to Disassembly Note.



- 1. Release bearing
- 2. Release fork
- 3. Boot
- 4. Front cover
- 5. Gasket
- 6. Oil seal (front)
  Inspect for damage of oil seal lip. If necessary, replace it.
- 7. Adjustment shim

- 8. Snap ring
- 9. Speedometer driven gear
- 10. Neutral switch
- 11. Back-up light switch
- 12. Extension housing Disassembly Note

..... page J–14

Disassembly .... page J-22

13. Transmission case

Disassembly Note

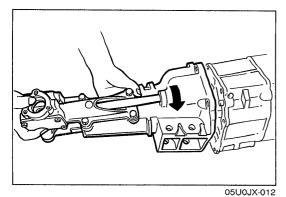
..... page J-14

- 14. Snap rings
- 15. Speedometer drive gear
- 16. Steel ball
- 17. Oil seal (rear)

Inspect for damage of oil seal lip

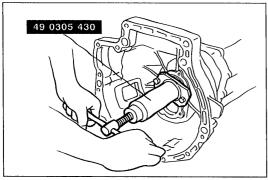
If necessary, replace it. Replace (on-vehicle)

..... page J-14



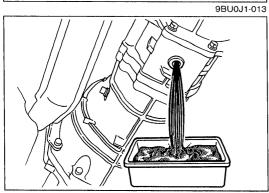
## Disassembly note **Extension housing**

Turn the extension housing to remove it.



#### **Transmission case**

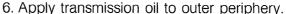
Remove the transmission case from the intermediate housing and gear assembly with the SST.



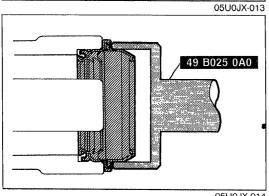
## On-vehicle replacement Oil seal (rear)

#### Caution

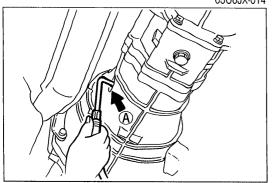
- Do not damage the mainshaft splines.
- 1. Raise the vehicle and support it with safety stands.
- 2. Drain the transmission oil into a suitable container.
- 3. Remove the exhaust pipe.
- 4. Remove the propeller shaft. (Refer to Section L.)
- 5. Remove the oil seal from the extension housing.



7. Install a new oil seal with the SST.



05U0JX-014



8. Install the propeller shaft. (Refer to Section L.)

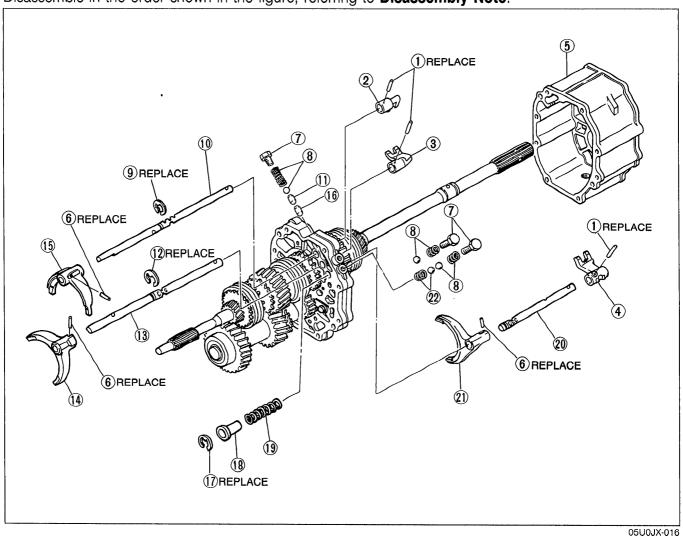
9. Install the exhaust pipe.

10. Add the specified oil from check plug (A) port until the level reaches the bottom of the check plug hole. (Refer to page J-8.)

05U0JX-015

#### **Shift Fork and Shift Rod Parts**

Disassemble in the order shown in the figure, referring to **Disassembly Note**.



1. Roll pin

2. 1st/2nd shift rod end

3. 3rd/4th shift rod end

4. 5th/Reverse shift rod end

5. Intermediate housing Inspection...... page J-25 14. 3rd/4th shift fork

6. Roll pin

7. Cap plug

8. Spring and ball

Inspection...... page J-25 16. Interlock pin

9. Clip

10. 1st/2nd shift rod

11. Interlock pin

12. Clip

13. 3rd/4th shift rod

Inspection ....... page J-24 20. 5th/Reverse shift rod

15. 1st/2nd shift fork

Clip

Inspection...... page J-24

Disassembly note

17. Clip

Disassembly Note

..... page J-15

18. Spacer

19. Spring

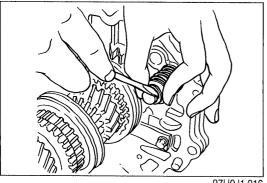
Inspection...... page J-25

21. 5th/Reverse shift fork

Inspection..... page J-24

22. Spring and ball

Inspection...... page J-25



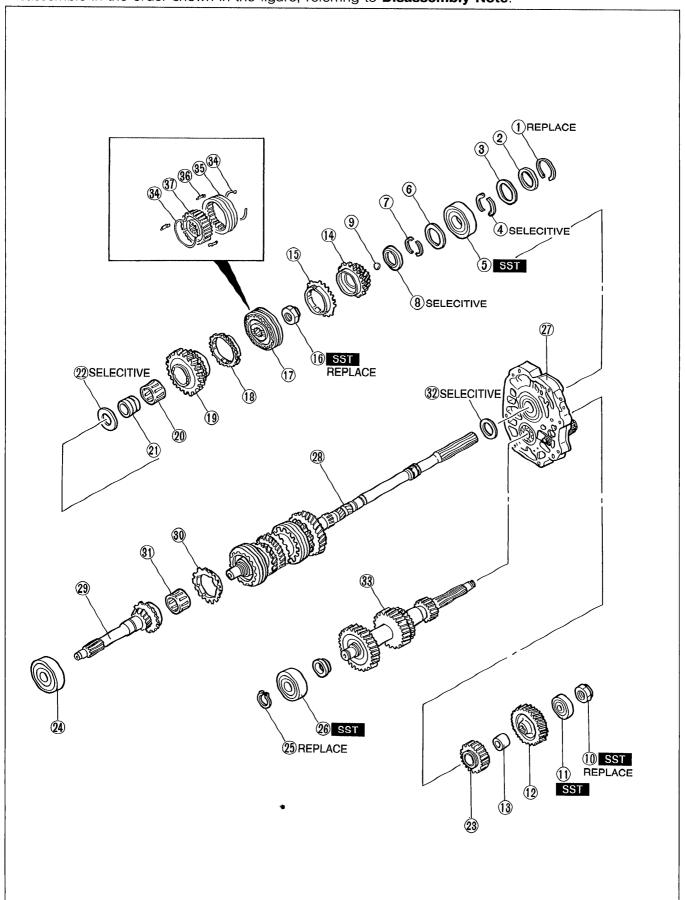
## Caution

 Hold the spacer and spring to prevent it from jumping out.

Remove the clip, spacer, and spring from the 5th/Reverse shift rod.

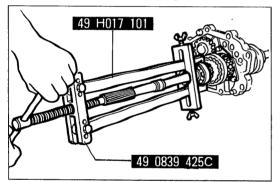
## **Mainshaft and Countershaft Parts**

Disassemble in the order shown in the figure, referring to **Disassembly Note**.



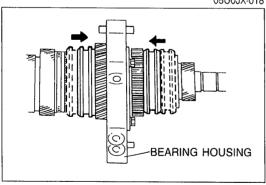
4. C-washer 5. Mainshaft rear bearing Disassembly Note Di			
	<ol> <li>Washer</li> <li>Retaining ring</li> <li>C-washer</li> <li>Mainshaft rear bearing         Disassembly Note</li></ol>	Inspection page J-24  16. Locknut (Mainshaft)     Disassembly Note	Disassembly Note
ロンロモロロロ ログロピ コーノン	Inspection page J-23	25. Shap ring	05U0J

.....page J-18 ection..... page J-24 g housing assembly issembly Note .....page J-18 ssembly ..... page J-20 aft gear assembly lrive gear ection...... page J-23 onizer ring (4th) ection..... page J-24 bearing ection...... page J-24 ershaft ection...... page J-23 onizer key spring hub sleeve onizer key hub 05U0JX-017

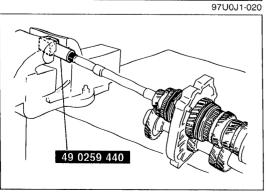


Disassembly note Mainshaft rear bearing

Remove the mainshaft rear bearing with the SST.



05U0JX-018



**Locknut (Countershaft)** 

1. Shift the clutch hub sleeves to first gear and reverse gear to put the gears in the double-engaged condition.

#### Caution

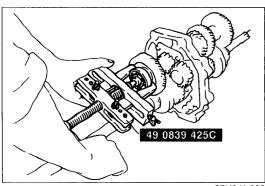
- Do not reuse the locknut.
- Do not damage the countershaft.
- 2. Use a suitable tool to uncrimp the tabs of the locknut.

#### Note

- Use pads in the vise to prevent damaging the SST.
- 3. Connect the **SST** to the mainshaft and tighten it securely in a vise.
- 4. Remove the locknut.

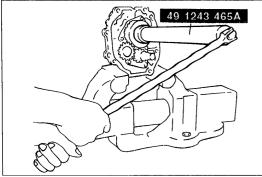
Countershaft rear bearing

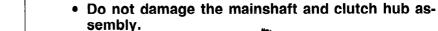
Locknut (Mainshaft)

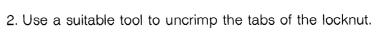




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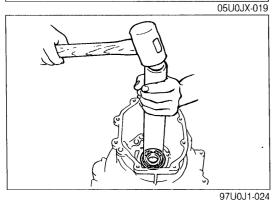






1. Shift the clutch hub sleeves to first gear and reverse gear to put the gears in the double-engaged condition.

Remove the countershaft rear bearing with the SST.



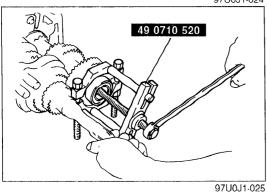
Caution

- Use pads in the vise to prevent damaging the bearing housing.
- 3. Secure the bearing housing in a vise.
- 4. Remove the locknut with the SST.

Do not reuse the locknut.

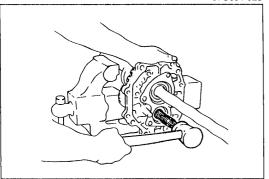
Main drive gear bearing

Remove the main drive gear bearing with a suitable pipe.



Countershaft front bearing

Remove the countershaft front bearing with the SST.

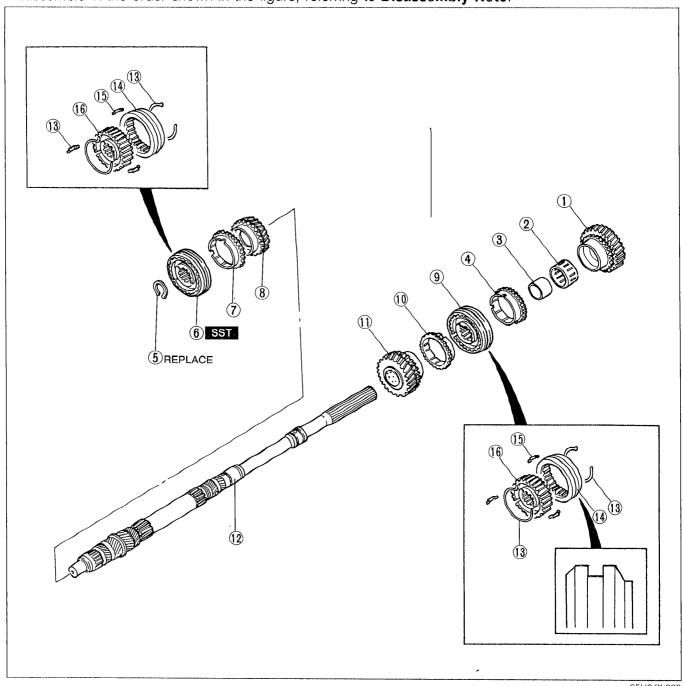


Bearing housing assembly

Remove the bearing housing by lightly tapping the countershaft with a copper hammer.

### **Mainshaft Parts**

Disassemble in the order shown in the figure, referring to **Disassembly Note**.



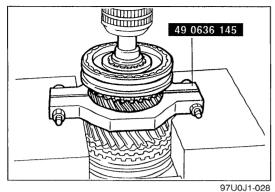
05U0JX-020

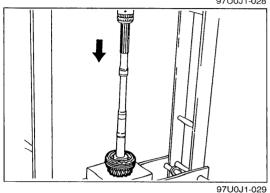
1.1st gear
Inspection page J-23
2. Needle bearing
Inspection page J-24
3. Inner race
4. Synchronizer ring (1st)
Inspection page J-24
5. Snap ring
6. Clutch hub assembly
(3rd/4th)
Disassembly Note
page J-20
Inspection page J-23

7. Synchronizer ring (3rd)
Inspection page J-24
8. 3rd gear
Inspection page J-23
9. Clutch hub assembly
(1st/2nd)
Disassembly Note
page J-20
Inspection page J-23
10. Synchronizer ring (2nd)
Inspection page J-24
11. 2nd gear
Inspection page J-23

12. Mainshaft
Inspection page J-23
13. Synchronizer key spring
14. Clutch hub sleeve
15. Synchronizer key
16. Clutch hub

Disassembly note





111 0010011

Clutch hub assembly (3rd/4th)
1. Position the SST between 2nd and 3rd gears.

#### Caution

- Hold the mainshaft with one hand so that it does not fall.
- 2. Press the mainshaft out of the clutch hub assembly (3rd/4th) and 3rd gear.

### Clutch hub assembly (1st/2nd)

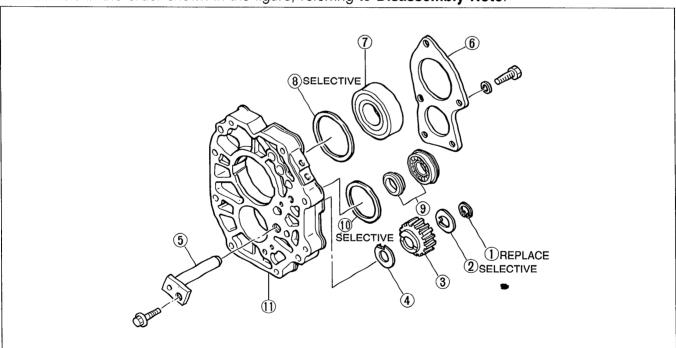
#### Caution

 Hold the mainshaft with one hand so that it does not fall.

Press the mainshaft out of the clutch hub assembly (1st/2nd) and 2nd gear.

**Bearing Housing Parts** 

Disassemble in the order shown in the figure, referring to Disassembly Note.



05U0JX-021

- 1. Snap ring
- 2. Adjustment washer
- 3. Reverse idler gear Inspection...... page J-24
- 4. Thrust washer

5. Reverse idler gear shaft Disassembly Note

..... page J-21 Inspection ...... page J-24

6. Bearing cover

7. Mainshaft front bearing Disassembly Note

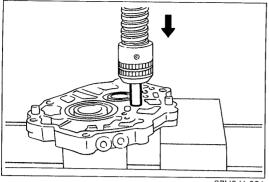
..... page J-21 Inspection ...... page J-24

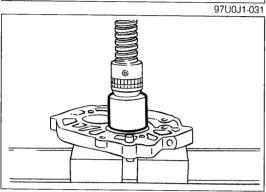
- 8. Adjustment shim
- 9. Countershaft center bearing Disassembly Note

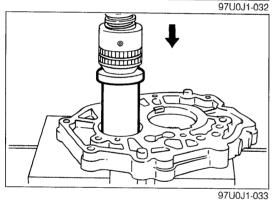
.....page J-21 Inspection ...... page J-24

- 10. Adjustment shim
- 11. Bearing housing

J







## Disassembly note Reverse idler gear shaft

#### Caution

• Support the reverse idler gear shaft with one hand so that it does not fall.

Press the reverse idler gear shaft out of the bearing housing.

## Mainshaft front bearing

#### Caution

• Support the mainshaft front bearing with one hand so that it does not fall.

Remove the mainshaft front bearing with a suitable pipe.

## Countershaft center bearing

#### Caution

• Support the countershaft center bearing with one hand so that it does not fall.

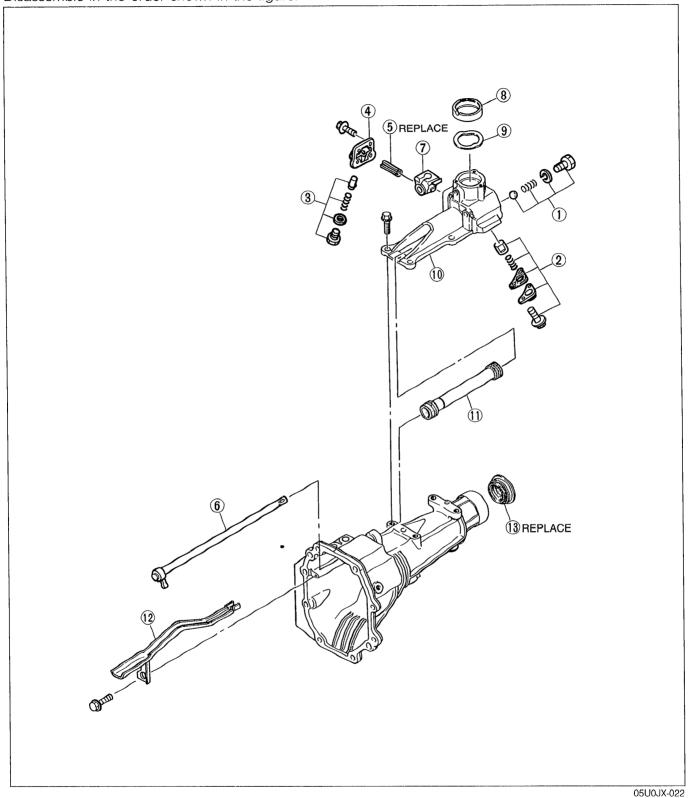
#### Note

• If countershaft center bearing is replaced, replace the spacer also.

Remove the countershaft center bearing with a suitable pipe.

## **Extension Housing Parts**

Disassemble in the order shown in the figure.



- 1. Steel ball, spring, and spring cap
- 2. Select-lock spindle, spring, and spring cap
- 3. Plug, spring, and pushpin
- 4. Blind cover

- 5. Roll pin
- 6. Control lever
- 7. Control lever end
- 8. Change bushing
- 9. Wave washer

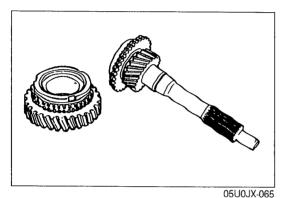
- 10. Change control case
- 11. Rod cover
- 12. Oil passage
- 13. Oil seal

Do not remove if not necessary

#### INSPECTION

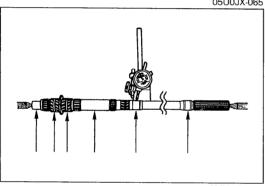
Inspect all parts and repair or replace as necessary.

05U0JX-023



#### Each gear and main drive gear

- 1. Inspect the synchronizer cones for wear.
- 2. Inspect the individual gear teeth for wear and cracks.
- 3. Inspect the synchronizer ring matching teeth for damage and wear.
- 4. Inspect the main drive gear splines for damage and wear.



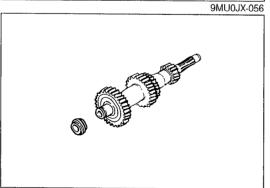
#### Mainshaft

1. Measure the mainshaft runout.

**Maximum runout: 0.03mm (0.0012 in)** 

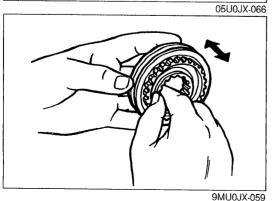
- 2. Inspect splines for damage or wear.
- 3. Measure the clearance between mainshaft and gear (or bush).

Maximum clearance: 0.15mm (0.006 in)



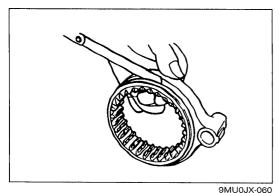
#### Countershaft

- 1. Inspect the gear teeth for wear and cracks.
- 2. Inspect the splines for damage and wear.



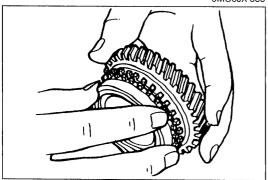
Clutch hub assembly

- 1. Inspect the clutch hub sleeve and hub operation.
- 2. Inspect the individual gear teeth for damge, wear, and cracks.
- 3. Inspect the synchronizer key for damage, wear, and cracks.



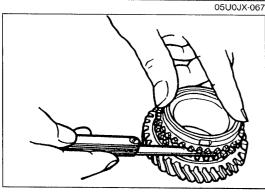
4. Measure the clearance between hub sleeve and shift fork.

Standard clearance: 0.2—0.3mm (0.008—0.012 in) Maximum: 0.5mm (0.020 in)



Synchronizer ring

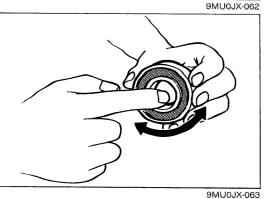
- 1. Inspect the individual synchronizer ring teeth for wear and cracks.
- 2. Inspect the taper surface for wear and cracks.



#### Note

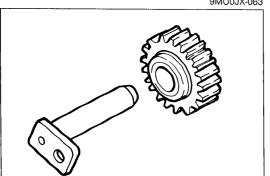
- Set the synchronizer ring squarely in the gear; then measure around the circumference.
- 3. Measure the clearance the between synchronizer ring and flank surface of gear.

Standard clearance: 1.5mm (0.059 in) Minimum: 0.8mm (0.031 in)



#### Bearing

Inspect for damage and rough rotation.



05U0JX-068

Reverse idler gear and shaft

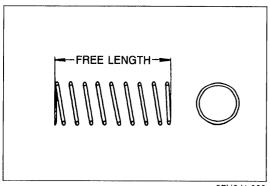
- 1. Inspect the gear teeth for wear and cracks.
- 2. Measure the clearance between the reverse idler gear bushing and shaft.

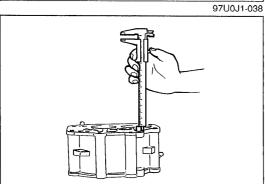
Standard clearance:

0.02—0.05mm (0.0008—0.0020 in)

Maximum: 0.15mm (0.006 in)

J





97U0J1-039

**Springs** 

Measure the free length of the springs.

Standard free length
Shift rod (5th/Reverse) spring: 75mm (2.953 in)
Detent ball spring (1st/2nd, 3rd/4th):
22.5mm (0.886 in)

Detent ball spring (5th/Reverse): 17.0mm (0.669 in)

Intermediate housing

Measure the intermediate housing pin height.

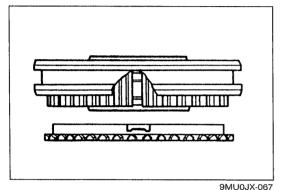
Standard height: 9.0—10.0mm (0.354—0.394 in)

#### **ASSEMBLY**

#### Precaution

- 1. All O-rings and gasket must be replaced with the new ones included in the overhaul kit.
- 2. Before assembly, make sure all parts are completely clean.
- 3. Assemble the parts within 10 minutes after applying sealant. Allow all sealant to cure at least 30 minutes after assembly before filling the transmission with transmission oil.

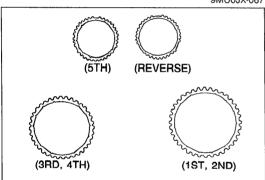
05U0JX-024



#### Clutch hub

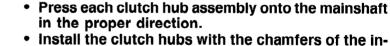
#### Caution

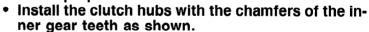
Align the synchronizer ring grooves with the clutch hub keys during installation.

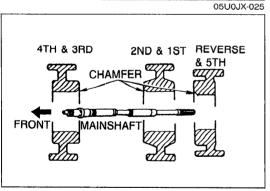


### Note

- The synchronizer rings all have the same basic shape. Carefully note these distinguishing features:
  - a) 5th and Reverse synchronizer rings are the smallest.
  - b) Reverse has 2 notches in the teeth.
  - c) 4th and 3rd are the next larger and are exactly the
  - d) 2nd and 1st are the biggest and are exactly the same.



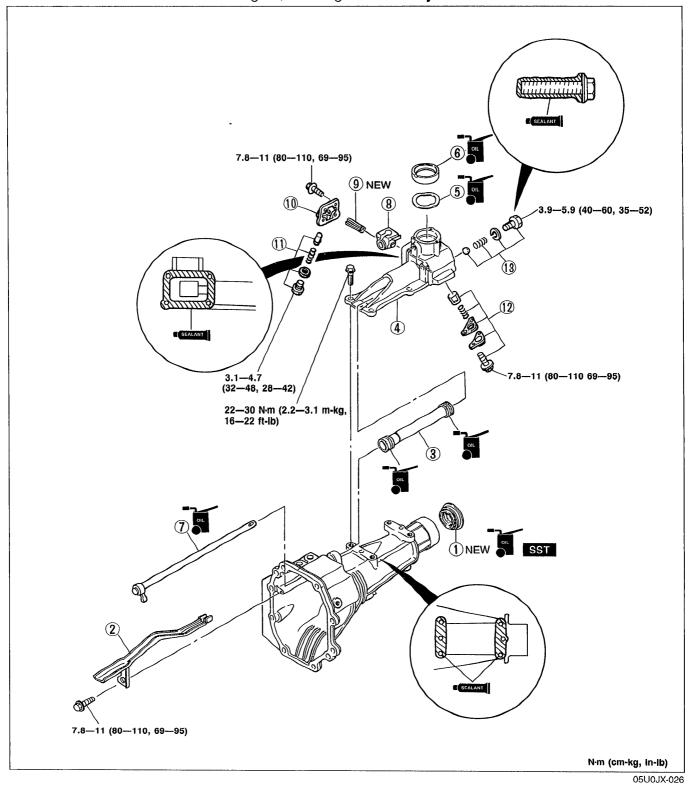




97U0J1-041

#### **Extension Housing Parts**

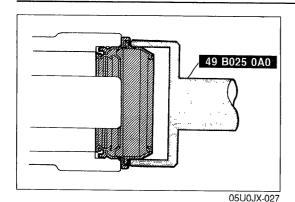
Assemble in the order shown in the figure, referring to **Assembly Note**.



- 1. Oil seal
  - Assembly Note, page J-28
- 2. Oil passage
- 3. Rod cover
  - Assembly Note. page J-28
- 4. Change control case
- 5. Wave washer
- 6. Change bushing
- 7. Control lever
- 8. Control lever end
- 9. Roll pin
- 10. Blind cover
- 11. Plug, spring, and pushpin
- 12. Select-lock spindle, spring, and spring cap

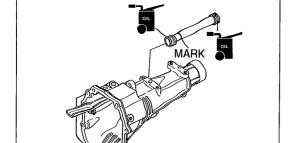
Assembly Note page J-28

Assembly Note page J-28 13. Steel ball, spring, and spring cap



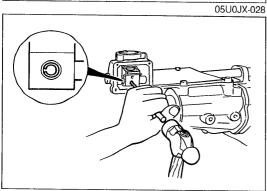
# Assembly note Oil seal

- 1. Apply transmission oil to outer periphery.
- 2. Install a new oil seal with the SST.



#### Rod cover

- 1. Apply transmission oil to rubbers on the rod cover.
- 2. Install the rod cover with the mark facing forward.

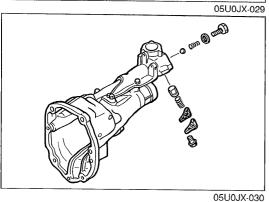


### Roll pin

#### Caution

• Install the roll pin with the seam facing as shown in the figure.

Install a new roll pin into the control lever end.



Select-lock spindle, spring, and spring cap

1. Install the select-lock spindle, spring, and spring cap.

## **Tightening torque:**

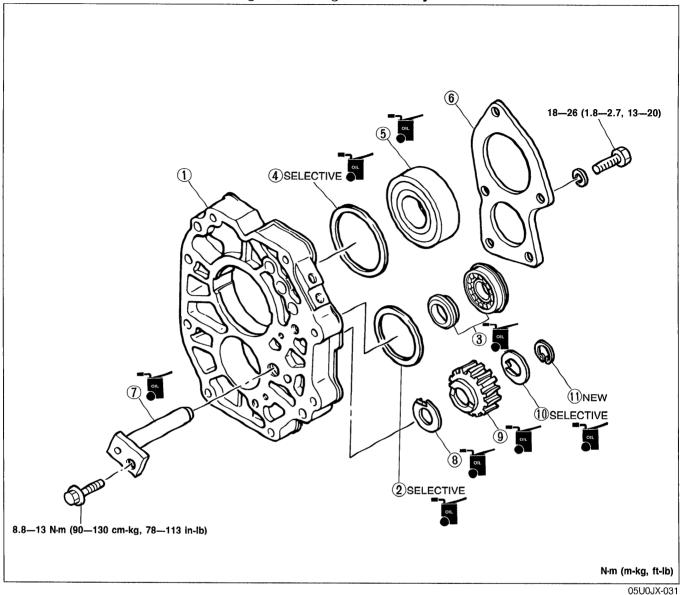
7.8—11 N·m (80—110 cm-kg, 69—95 in-lb)

#### Note

- If the select-lock spindle is not pushed down, the ball will not correctly engage the select-lock spindle.
- 2. Push the select-lock spindle down by pushing on the control rod.

### **Bearing Housing Parts**

Assemble in the order shown in the figure, referring to **Assembly Note**.



- 1. Bearing housing
- 2. Adjustment shim

Assembly Note, page J-30

- 3. Countershaft center bearing Assembly Note, page J-29
- 4. Adjustment shim

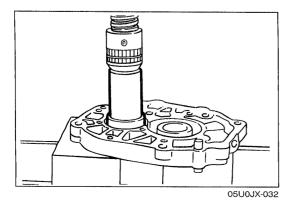
Assembly Note, page J-30

- 5. Mainshaft front bearing Assembly Note, page J-30
- 6. Bearing cover
- 7. Reverse idler gear shaft Assembly Note, page J-30
- 8. Thrust washer
- 9. Reverse idler gear

10. Adjustment washer

Assembly Note, page J-30

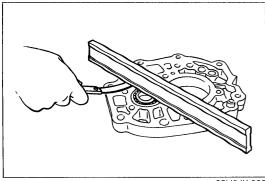
11. Snap ring

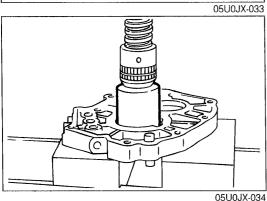


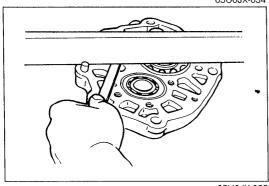
### Assembly note Countershaft center bearing

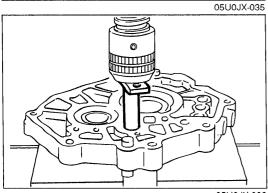
Press the countershaft center bearing into the bearing housing with a suitable pipe.

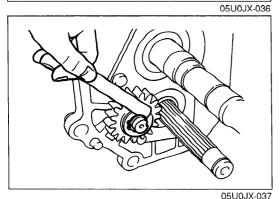
### **TRANSMISSION**











### Adjustment shim

Measure the clearance between the countershaft center bearing and the bearing housing.

If not within specification, adjust the clearance by installing the correct adjustment shim(s).

Standard clearance: 0—0.1mm (0—0.004 in) Adjustment shim: 0.1mm (0.004 in), 0.3mm (0.012 in)

### Mainshaft front bearing

Press the mainshaft front bearing into the bearing housing with a suitable pipe.

### **Adjustment shim**

Measure the clearance between the mainshaft front bearing and the bearing housing.

If not within specification, adjust the clearance by installing the correct adjustment shim(s).

Standard clearance: 0—0.1mm (0—0.004 in) Adjustment shim: 0.1mm (0.004 in), 0.15mm (0.006 in), 0.3mm (0.012 in)

### Reverse idler gear shaft

Press the reverse idler gear into the bearing housing.

Tightening torque: 7.8—11 N·m (80—110 cm-kg, 69—95 in)

### Adjustment washer

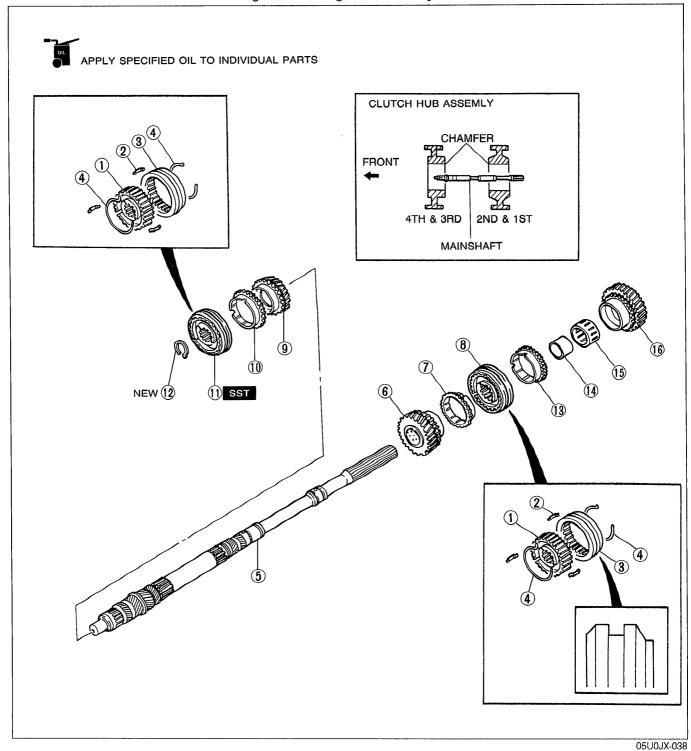
Measure the clearance between the adjustment washer and snap ring.

If not within specification, adjust the clearance by installing the correct adjustment washer.

Maximum clearance: 0.1mm (0.004 in)
Adjustment washer:
2.6mm (0.102 in), 2.8mm (0.110 in), 3.0mm (0.118 in)

### **Mainshaft Parts**

Assemble in the order shown in the figure, referring to **Assembly Note**.



1. Clutch hub

2. Synchronizer key

- 3. Clutch hub sleeve
- 4. Synchronizer key spring
- 5. Mainshaft
- 6. 2nd gear

Assembly Note page J-32 11. Clutch hub assembly

7. Synchronizer ring

8. Clutch hub assembly (1st/2nd)

Assembly Note page J-32 13. Synchronizer ring

9. 3rd gear

Assembly Note. page J-32

- 10. Synchronizer ring (3rd)
- (3rd/4th)

Assembly Note page J-32

- 12. Snap ring
  - Assembly Note. page J-32
- 14. Inner race

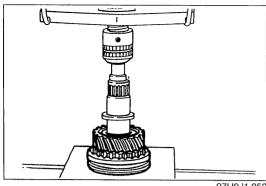
Assembly Note. page J-32

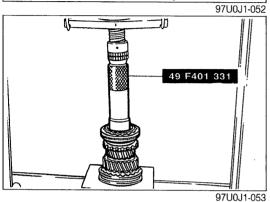
15. Needle bearing

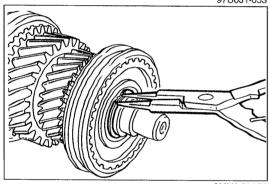
Assembly Note. page J-32

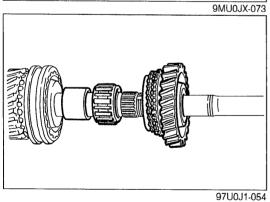
16. 1st gear

Assembly Note, page J-32









Assembly note Clutch hub assembly

1. Set the 2nd gear and the 1st/2nd clutch hub assembly on the mainshaft, then press in the mainshaft.

2. Set the 3rd gear and 3rd/4th clutch hub assembly on the mainshaft, then press on the 3rd/4th clutch hub assembly with the **SST**.

3. Install a new snap ring on the front of the mainshaft.

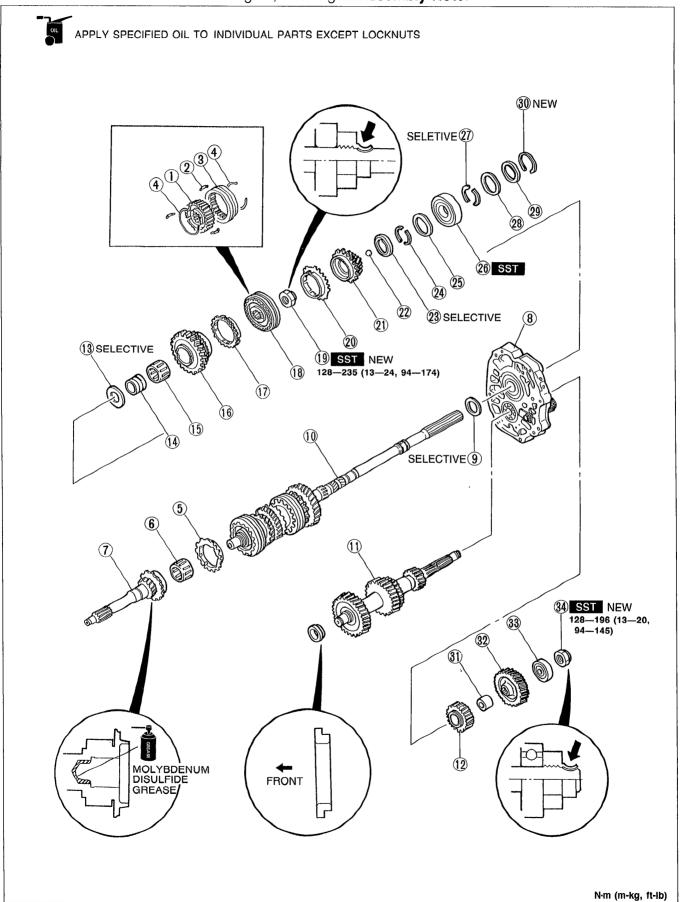
4. Install the inner race, needle bearing, and 1st gear.

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### **Mainshaft and Countershaft Parts**

Assemble in the order shown in the figure, referring to **Assembly Note**.



- 1. Clutch hub
- 2. Synchronizer key
- 3. Clutch hub sleeve
- 4. Synchronizer key spring
- 5. Synchronizer ring (4th)
- 6. Needle bearing
- 7. Main drive gear
- 8. Bearing housing assembly
- 9. Washer
- 10. Mainshaft gear assembly Assembly Note, page J-35
- 11. Countershaft

Assembly Note page J-35

- 12. Counter reverse gear
- 13. Washer
- 14. Inner race

- 15. Needle bearing
- 16. Reverse gear
- 17. Synchronizer ring (Reverse)
- 18. Clutch hub assembly
- 19. Locknut (Mainshaft)

Assembly Note page J-35

- 20. Synchronizer ring (5th)
- 21.5th gear
- 22. Steel ball
- 23. Thrust lock washer

Assembly Note, page J-36 32. Counter 5th gear

24. C-washer

Assembly Note. page J-36

25. Retaining ring

Assembly Note, page J-36

26. Mainshaft rear bearing

Assembly Note, page J-36

27, C-washer

Assembly Note, page J-36

28. Retaining ring

Assembly Note, page J-36

29. Washer

Assembly Note, page J-36

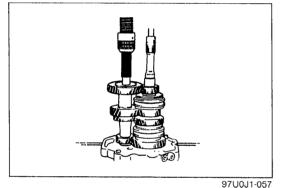
- 30. Snap ring
- 31. Spacer
- 33. Countershaft rear bearing

Assembly Note page J-36

34. Locknut (Countershaft)

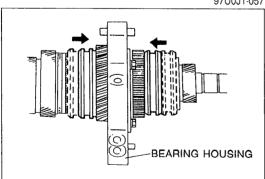
Assembly Note, page J-37

05U0JX-039



### Assembly note Mainshaft and countershaft

- 1. Place the mainshaft gear assembly and the countershaft on the bearing housing.
- 2. Use a suitable bar to press in the countershaft.



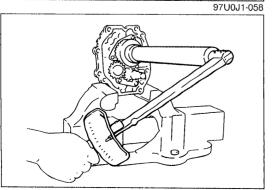
### **Locknut (Mainshaft)**

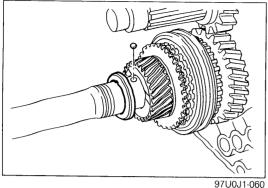
- Use pads in the vise to prevent damaging the bearing housing.
- 1. Secure the bearing housing in a vise.
- 2. Slide the clutch hub sleeves onto 1st and reverse gears to lock the mainshaft.

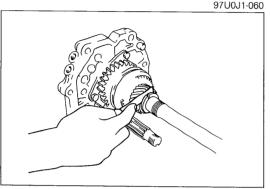


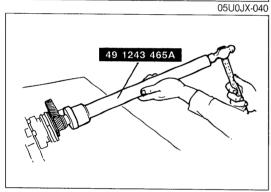
### **Tightening torque:** 128—235 N·m (13—24 m-kg, 94—174 ft-lb)

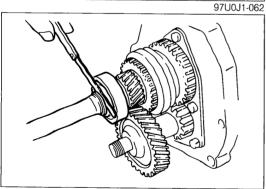
4. Use a chisel to stake the locknut.

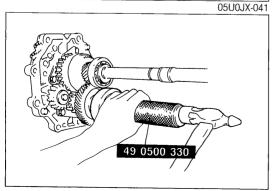












### Thrust lock washer

1. Insert the steel ball and the thrust lock washer for 5th gear.

#### Caution

- Use only 3.0mm (0.118 in) C-washers, otherwise; it may not be possible to install the rear C-washers.
- The two C-washers must be the same thickness, or bearing failure will result.
- 2. Install the C-washers and hold them with the retaining ring.
- Measure the clearance between the thrust lock washer and C-washers (5th gear end play).
   If the end play is not within specification, adjust the clearance by installing the correct thrust lock washer.

Standard play: 0.1—0.3mm (0.004— 0.012 in) Thrust lock washer thickness: 6.2mm (0.244 in), 6.4mm (0.252 in), 6.5mm (0.256 in), 6.6mm (0.260 in)

### Mainshaft rear bearing

1. Drive on the mainshaft rear bearing with the **SST**. Install the C-washers, retaining ring, and washer. Secure them with a new snap ring.

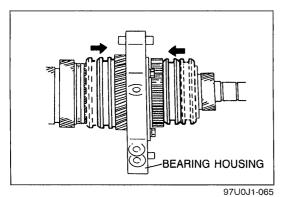
#### Caution

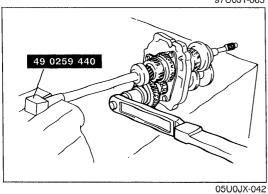
- Verify there is no clearance between the mainshaft rear bearing and the C-washers.
- 2. Measure the clearance between the C-washers and washer. If end play is not within specification, adjust the clearance by installing the proper C-washers.

Standard play: 0—0.1mm (0—0.004 in) C-washer thickness: 2.9mm (0.114 in), 3.0mm (0.118 in), 3.1mm (0.122 in), 3.2mm (0.126 in)

Countershaft rear bearing

Drive the countershaft rear bearing onto the countershaft with the **SST**.





**Locknut (Countershaft)** 

1. Shift the clutch hub sleeves to 1st gear and reverse gear to put the gears in a double-engaged condition.

### **Note**

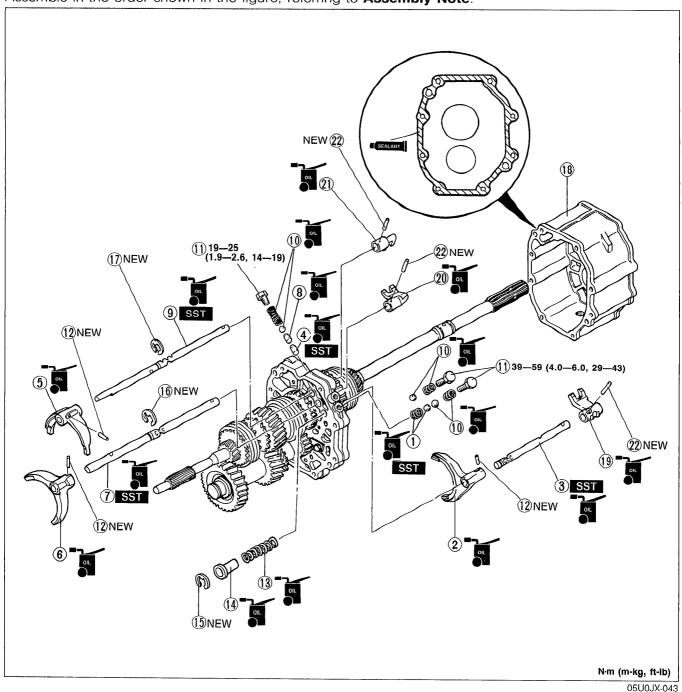
- Use pads in the vise to prevent damaging the SST.
- 2. Connect the **SST** to the mainshaft and tighten it securely in a vise.
- 3. Tighten a new locknut.

Tightening torque: 128—196 N·m (13—20 m-kg, 94—145 ft-lb)

4. Use a chisel to stake the locknut.

Shift Fork and Shift Rod Parts

Assemble in the order shown in the figure, referring to **Assembly Note**.



1. Spring and ball

Assembly Note, page J-39

2. 5th/Reverse shift fork

Assembly Note, page J-39

3. 5th/Reverse shift rod

Assembly Note. page J-39 10. Ball and spring

4. Interlock pin

Assembly Note page J-39 12 Roll pin

5. 1st/2nd shift fork

6. 3rd/4th shift fork

Assembly Note. page J-40 14. Spacer

7. 3rd/4th shift rod

Assembly Note, page J-40

8. Interlock pin

Assembly Note. page J-40

9. 1st/2nd shift rod

11. Cap plug

Assembly Note. page J-40 13. Spring

Assembly Note. page J-40 21. 1st/2nd shift rod end

Assembly Note, page J-40

15. Clip

Assembly Note, page J-40

16. Clip

Assembly Note. page J-40

17. Clip

Assembly Note, page J-40

18. Intermediate housing

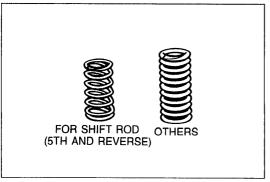
Assembly Note, page J-41

Assembly Note page J-40 19.5th/Reverse shift rod end

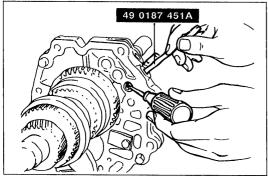
20. 3rd/4th shift rod end

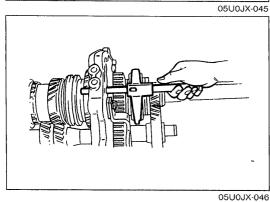
22. Roll pin

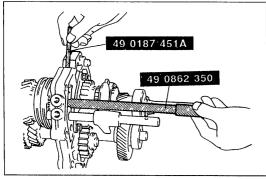
Assembly Note, page J-41



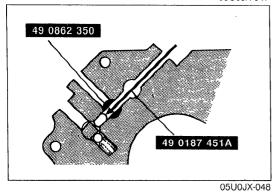
### 05U0JX-044







05U0JX-047



Assembly note Spring and ball

### Note

- There are 2 types of springs; be sure to install them correctly.
- 1. Insert the spring and ball (5th/Reverse) into the bearing housing.
- 2. Press the spring and ball (5th/Reverse) with a screwdriver and the SST to install the shift rod.

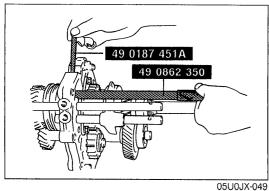
### Shift fork and rod

Install the 5th/Reverse shift fork and 5th/Reverse shift rod into the bearing housing.

### Interlock pin

1. Position the interlock pin into the bearing housing with the SST.

2. Verify that the interlock pin is correctly installed.





### Caution

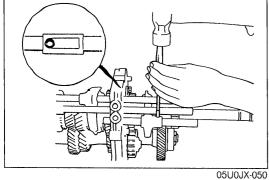
 Install the roll pin with the seam facing as shown in the figure.

1. Set the 1st/2nd shift fork onto the 1st/2nd clutch hub as-

2. Install the 3rd/4th shift fork and 3rd/4th shift rod, and install the interlock pin into the bearing housing as in Step 4.

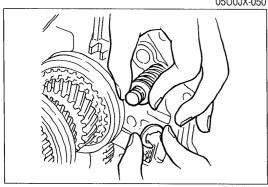
Install a new roll pin into each shift fork.

Shift fork and rod, interlock pin

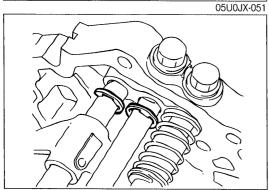


Spring, spacer, clip

1. Slide the spring and spacer onto the 5th/Reverse shift rod. While pressing the spacer, install a new clip.

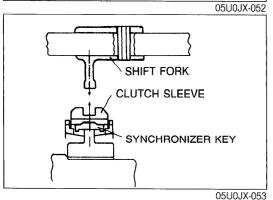


2. Install new clips to the 3rd/4th shift rod and 1st/2nd shift rod.



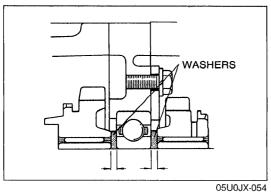
3. Verify that the centers of the shift fork and clutch hub sleeve are aligned properly.

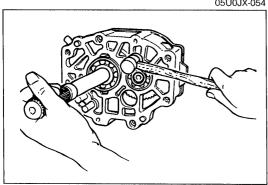
If they are not, select the proper washer for between 1st gear and the mainshaft front bearing, and between reverse gear and the mainshaft front bearing.

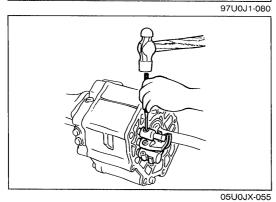


**TRANSMISSION** 

# J







### **Caution**

- The total thickness of the front and rear washers should be 5.9—6.0mm (0.2323—0.2362 in).
- 4. The following washer thicknesses are available.

2.2mm (0.0866 in)	3.2mm (0.1260 in)
2.7mm (0.1063 in)	3.7mm (0.1457 in)
3.0mm (0.1181 in)	

### Intermediate housing

- 1. Apply sealant to the contacting surfaces of the intermediate housing and bearing housing.
- 2. Mount the intermediate housing to the bearing housing by tapping it lightly with a plastic hammer.

### Roll pin

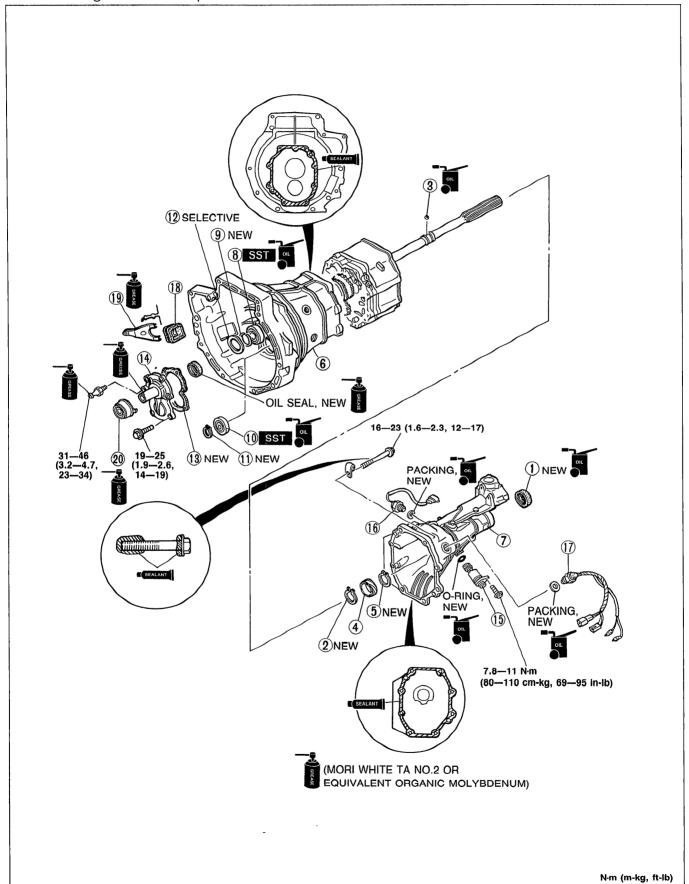
### Caution

• Install the roll pin with the seam facing forward.

Install a new roll pin into each shift rod end.

### **Housing Components**

- 1. Assemble in the order shown in the figure, referring to **Assembly Note**.
- 2. Check the gearshift lever operation.



- 1. Oil seal
  - Assembly Note. page J-43
- 2. Snap ring
- 3. Steel ball
- 4. Speedometer drive gear
- 5. Snap ring
- 6. Transmission case
- 7. Extension housing

Assembly Note, page J-43 13. Gasket

- 8. Main drive gear bearing
- 9. Snap ring
- 10. Countershaft front bearing Assembly Note, page J-43 18. Boot
- 11. Snap ring
- 12. Adjustment shim

Assembly Note, page J-44 20. Release bearing

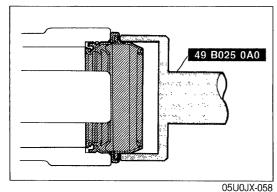
- 14. Front cover
- Assembly Note. page J-43 15. Speedometer driven gear
  - 16. Neutral switch
  - 17. Back-up light switch

  - 19. Release fork

Assembly Note. page J-44

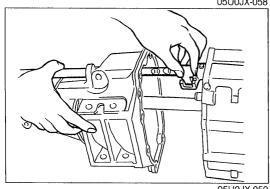
Assembly Note, page J-44

05U0JX-057



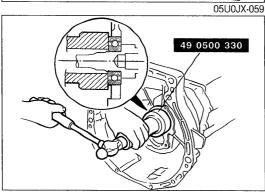
### Assembly note Oil seal

- 1. Apply transmission oil to outer periphery.
- 2. Install a new oil seal with the SST.



# **Extension housing**

- 1. Apply sealant to the contact surfaces of the bearing housing and transmission case.
- 2. Align the inner shift lever and shift rod end groove, and install the extension housing.
- 3. Apply sealant to the bolt threads, and install the bolts.

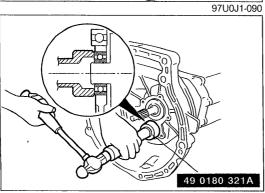


# Tightening torque:

16—23 N·m (1.6—2.3 m-kg, 12—17 ft-lb)

### Main drive gear bearing

Drive on the main drive gear bearing with the SST, and secure it with a new snap ring.

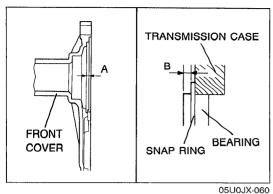


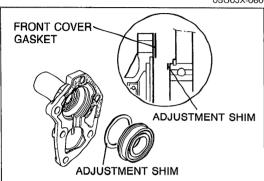
97U0J1-091

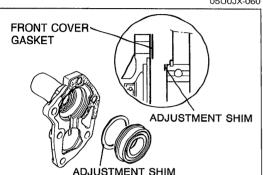
Countershaft front bearing

Drive on the countershaft front bearing with the SST, and secure it with a new snap ring.

### **TRANSMISSION**



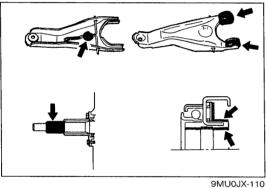






After measuring dimensions (A) and (B) shown in the figure, use an adjustment shim(s), as specified below, of the thickness corresponding to the value of (A) minus (B), so that bearing end play will be within specification.

Bearing end play: 0-0.1mm (0-0.004 in) Adjustment shim thickness: 0.10mm (0.004 in), 0.15mm (0.006 in), 0.30mm (0.012 in)

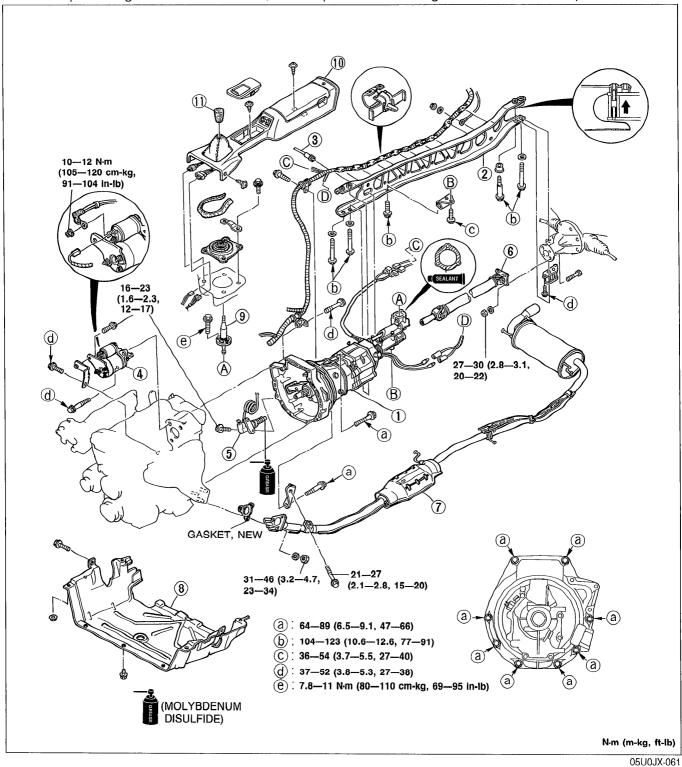


### Release fork

- 1. Apply Mori white TA No.2 or equivalent organic molybdenum grease to the shaded areas of the release bearing and
- 2. Install the release bearing and release fork.

### **INSTALLATION**

- 1. Raise the vehicle and support it with safety stands.
- 2. Install in the order shown in the figure, referring to Installation Note.
- 3. Add the specified amount of the specified transmission oil. (Refer to page J-8.)
- 4. Warm up the engine and transmission, and inspect for oil leakage and transmission operation.



1. Transmission Installation Note page J-46

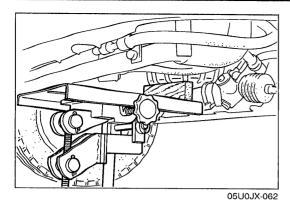
2. Power plant frame (PPF) Installation Note page J-46

- 3. Speedometer cable
- 4. Starter
- 5. Clutch release cylinder
- 6. Propeller shaft Installation Note page J-47 10. Rear console
- 7. Exhaust pipe

- 8. Undercover
- 9. Shift lever

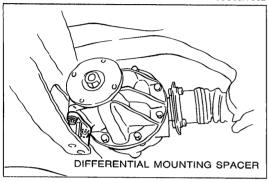
Installation Note page J-47

- 11. Shift lever knob



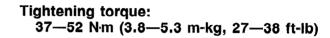
### Installation note Transmission

Tilt the engine by pushing up on the front of oil pan with a wooden block and a jack for easy installation of the transmission

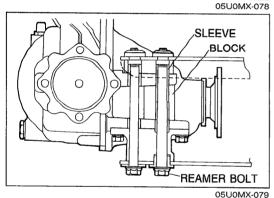


Power plant frame (PPF)

1. Install the differential mounting spacer.



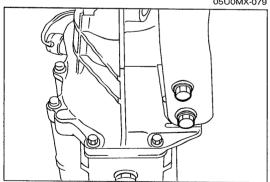
- 2. Support the transmission with a jack so that it is level.
- 3. Position the PPF and snugly tighten the transmission-side bolts by hand.



4. Verify that the sleeve is installed into the block.

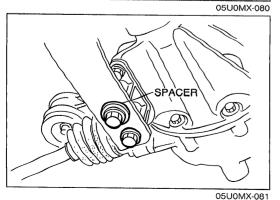
#### Note

- The reamer bolt is installed in the forward hole.
- 5. Install the spacer and bolts, then snugly tighten them.



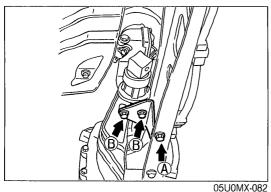
- 6. Snugly install the power plant frame bracket.
- 7. Tighten the transmission-side bolts.

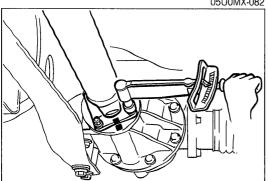
Tightening torque: 104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)

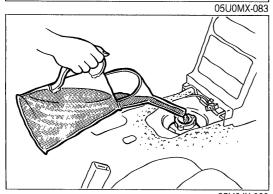


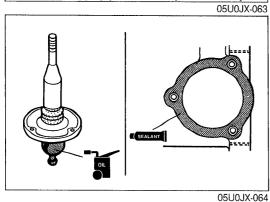
8. Tighten the differential-side bolts.

Tightening torque: 104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)









9. Install the power plant frame bracket.

**Tightening torque:** 

- A 104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)
- **B** 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
- 10. Remove the jack, and connect the wire harness.

### Propeller shaft

Align the marks, and install the propeller shaft.

**Tightening torque:** 

27—30 N·m (2.8—3.1 m-kg, 20—22 ft-lb)

### Shift lever

#### Note

- Add the specified oil whenever the extension housing has been removed or the transmission has been overhauled.
- 1. Pour the specified amount of oil into the change control case.

Specified oil:

Grade: API service GL-4 or GL-5

All season: SAE 75W-90

Above 10°C (50°F): SAE 80W-90

Specified amount: 80-95 cc (4.9-5.8 cu in)

- 2. Apply oil to the shift lever as shown.
- 3. Apply sealant to the contact surfaces of the boot panel and change control case.

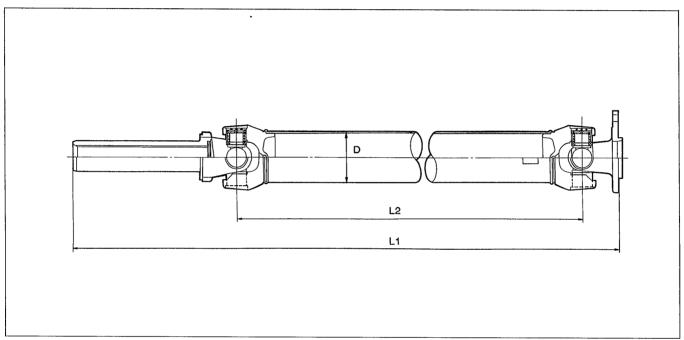
# **PROPELLER SHAFT**

OUTLINE	. L-	2
SPECIFICATIONS	. L-	2
TROUBLESHOOTING GUIDE		
PROPELLER SHAFT	. L-	2
PREPARATION	. L–	2
REMOVAL / INSPECTION / INSTALLATION .		
0	SLINLY.	<u>ΛΛ </u>

## **OUTLINE**

### **SPECIFICATIONS**

	Engine/Transmission M	odel	B6 DOHC	
Item			M5M-D	
Longth	mm (in)	L1	1,049 (41.30)	
Length	mm (in)	L2	864 (34.02)	
Outer diameter	mm (in)	D	57 ( 2.24)	



05U0LX-002

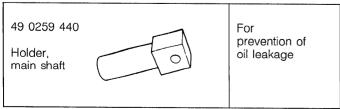
# TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page
Vibration	Worn universal joint Bent propeller shaft Worn slip yoke splines Runout of propeller shaft Unbalanced propeller shaft	Replace Replace Replace Replace Replace	L-3 L-3 L-3 L-3 L-3
Abnormal noise	Worn or damaged universal joint Worn slip yoke splines	Replace Replace	L-3 L-3

05U0LX-003

# **PROPELLER SHAFT**

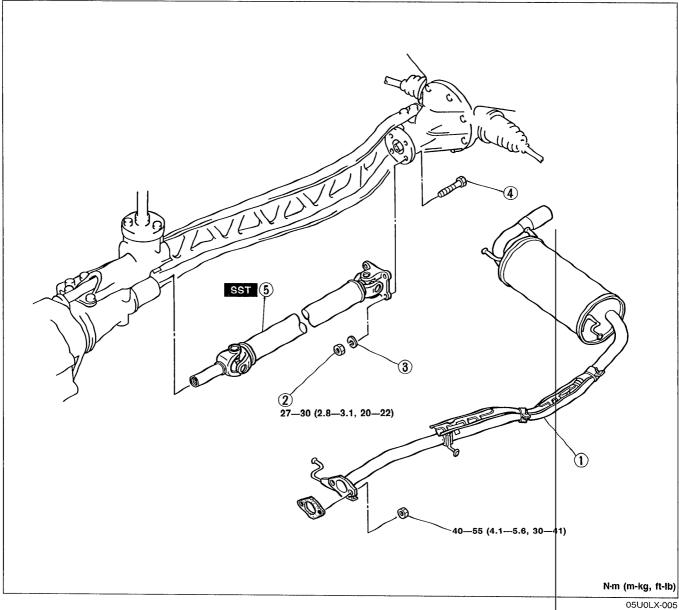
# PREPARATION SST



05U0LX-004

### **REMOVAL / INSPECTION / INSTALLATION**

- 1. Remove in the order shown in the figure, referring to **Removal Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Install in the reverse order of removal, referring to **Installation Note**.



1. Exhaust pipe

2. Nut

3. Lock washer

4. Bolt

5. Propeller shaft

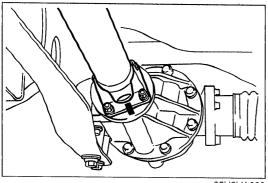
Removal Note .. page L- 3

Inspection...... page L- 4

Installation Note page L- 4

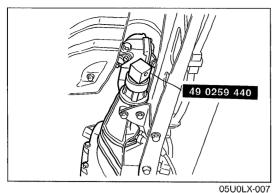


1. Before removing the propeller shaft, mark the flanges for correct installation.

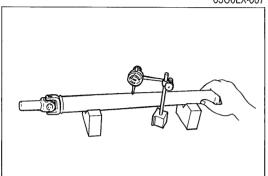


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### **PROPELLER SHAFT**



2. When the propeller shaft is removed from the extension housing, immediately install the **SST** to prevent oil leakage.

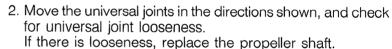


# INSPECTION Propeller shaft

#### Note

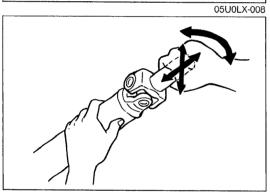
- Clean the propeller shaft (except universal joints) thoroughly with a steam cleaner or cleaning solvent before inspection.
- 1. Measure the propeller shaft runout with a dial indicator. Replace the propeller shaft if runout is excessive.

### Maximum runout: 0.4mm (0.016 in)



3. Check operation of the universal joint.

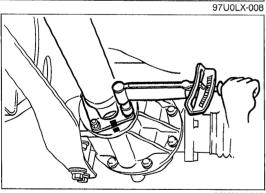
If the universal joint has excessive resistance, replace the propeller shaft.

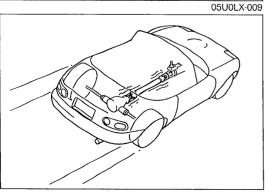


### **Installation Note**

1. Align the marks, and install the propeller shaft.

Tightening torque: 27—30 N·m (2.8—3.1 m-kg, 20—22 ft-lb)



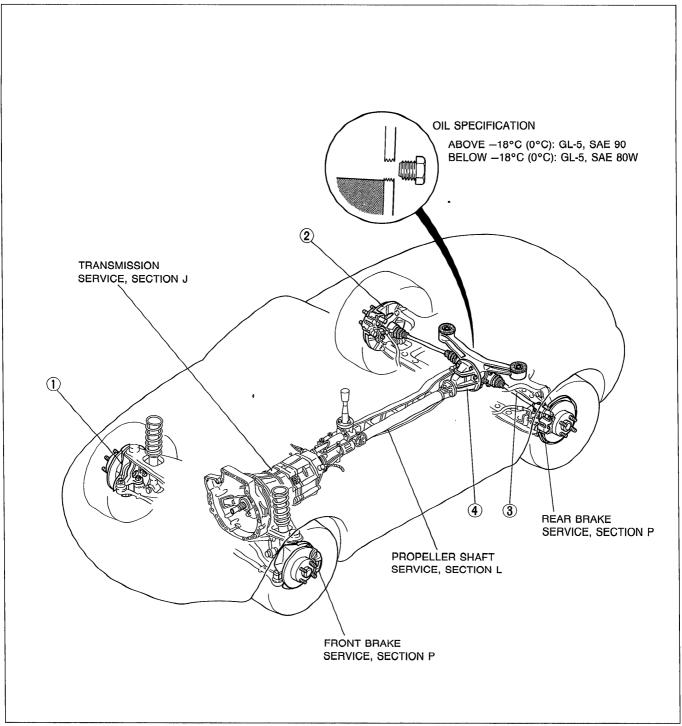


 Check that there is no abnormal noise or vibration when driving the vehicle.
 If noise or vibration occurs from the propeller shaft, replace the propeller shaft.

# FRONT AND REAR AXLES

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# **OUTLINE**

### **SPECIFICATIONS**

Engine/Transmission Model		Engine/Transmission Model	B6 D	ОНС
Item			M5N	1-D
-	Туре		Double-w	rishbone
Front axle	Bearing		Angular ba	all bearing
	Maximu	m wheel bearing play mm (in)	0.05 (0	0.002)
	Туре		Double-w	rishbone
Rear axle	Bearing		Angular ba	all bearing
	Maximu	ım wheel bearing play mm (in)	0.05 (0.002)	
	Туре		Standard	Viscous L.S.D.
	Reduction gear		Hypoid gear	
	Reduction ratio		4.300	
	Differen	itial gear	Straight-bevel gear	
Differential	Ring ge	ear size	162.16	(6.384)
		Grade	API serv	ce GL-5
	Oil	Viscosity	Above –18°C Below –18°C	(0°F): SAE 90 (0°F): SAE 80W
		Capacity liter (US qt, Imp qt)	0.65 (0.6	9, 0.57)
Driveshaft	Туре		Constant velocity (	double offset) joint
Drivesnatt	Length	mm (in)	659.3 (25.957)	

Viscous L.S.D.: Viscous Limited Slip Differential

05U0MX-003

# TROUBLESHOOTING GUIDE

### FRONT AXLE

Problem	Possible Cause	Action	Page
Steering wheel vibration	Worn or damaged wheel bearing	Replace	M- 5
Pulls or one-sided braking	Worn or damaged wheel bearing	Replace	M- 5

05U0MX-004

### **REAR AXLE**

Problem	Possible Cause	Action	Page
Abnormal noise	Bent driveshaft	Replace	M-16
	Worn or damaged wheel bearing	Replace	M-12
	Worn driveshaft spline	Replace	M-16

### **TROUBLESHOOTING GUIDE**

### **REAR AXLE (Cont'd)**

Problem	Possible Cause	Action	Page
Body ''rolls''	Worn or deteriorated upper arm bushing	Replace	M-12, Section R
Body leans	Weak upper arm bushing	Replace	M-12, Section R
Abnormal noise from suspension system	Worn or deteriorated upper arm bushing	Replace	M-12, Section R

### **DIFFERENTIAL, STANDARD**

Problem	Possible Cause	Action	Page
Abnormal noise	Insufficient differential oil Incorrect differential oil Improperly adjusted ring gear backlash Poor contact of ring gear teeth Worn or damaged side bearing Worn or damaged ring gear Worn or damaged drive pinion bearing Worn or damaged pinion and side gear Seized side gear and case Worn side gear spline Worn pinion shaft Worn thrust washer Improperly adjusted side gear backlash Improperly adjusted drive pinion gear preload	Add oil Replace Adjust Adjust Replace Replace Replace Replace Replace Replace Replace Replace Replace Adjust Adjust	M-24 M-24 M-40 M-41 M-32 M-32 M-32 M-32 M-32 M-32 M-32 M-32
Heat buildup	Insufficient differential oil Insufficient gear backlash Excessive bearing preload	Add oil Adjust Adjust	M-24 M-40 M-38,40
Oil leakage	Excessive differential oil Loose differential carrier Worn or damaged oil seal	Remove oil Tighten or repair Replace	M-24 M-42 M-32
No differential operation	Misassembled	Repair	M-32

05U0MX-006

## DIFFERENTIAL, VISCOUS LIMITED SLIP

Problem	Possible Cause	Action	Page	
Abnormal noise	Insufficient differential oil Incorrect differential oil Improperly adjusted ring gear backlash Poor contact of ring gear teeth Worn or damaged viscous limited slip differential oil seal Worn or damaged ring gear Worn or damaged drive pinion bearing	Add oil Replace Adjust Adjust Replace Replace Replace	M-24 M-24 M-40 M-41 M-24,32 M-32 M-32	
Heat buildup	Insufficient differential oil Excessive bearing preload	Add oil Adjust	M-24 M-38,40	
Oil leakage	Excessive differential oil Loose differential carrier Worn or damaged oil seal	Remove oil M-24 Tighten or repair M-44 Replace M-24,		
No differential operation	Misassembled	Repair	M-32	

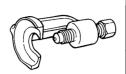
05U0MX-007

### FRONT AXLE

### **PREPARATION SST**

49 0118 850C

Puller, ball joint



For disconnection of tie-rod end and upper arm ball ioint

49 0727 575

Puller, ball joint

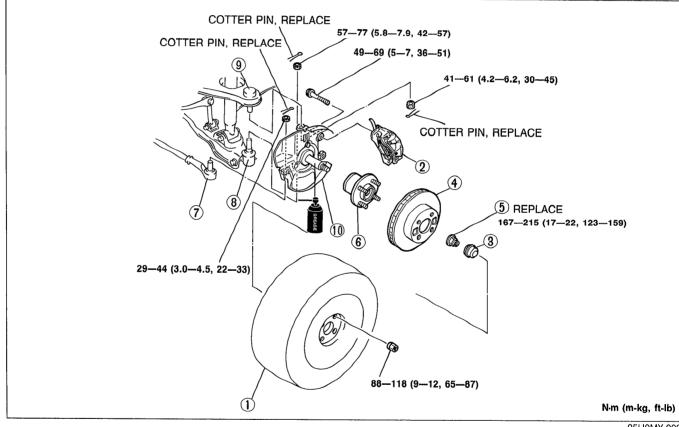


For disconnection of lower arm ball ioint

05U0MX-008

### WHEEL HUB, STEERING KNUCKLE Inspection / Removal / Installation

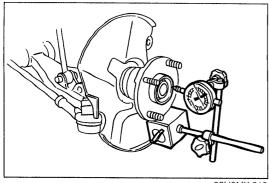
- 1. Inspect wheel bearing play, referring to **Inspection**.
- 2. Remove in the order shown in the figure, referring to Removal Note.
- 3. Inspect all parts and repair or replace as necessary.
- 4. Install in the reverse order of removal, referring to **Installation Note**.



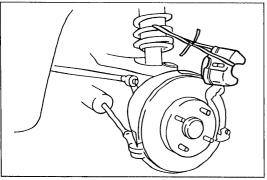
05U0MX-009

1. Front wheel
2. Brake caliper assembly
Removal Notepage M-6
3. Hub cap
4. Disc plate
5. Locknut
Installation Notepage M-7
6. Front wheel hub assembly
Inspect for cracks and damage
Disassembly / Inspection /
Assembly page M-8

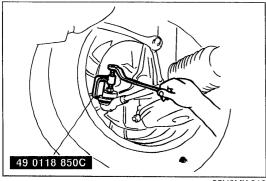
7. Tie-rod end Removal Note page M-6 Service Section N
8. Lower arm
Removal Note page M-6
Service Section R
9. Upper arm
Removal Note page M-6
Service Section R
10. Dust cover and knuckle spindle
Inspect dust cover for damage and distortion Inspect knuckle spindle for cracks and damage



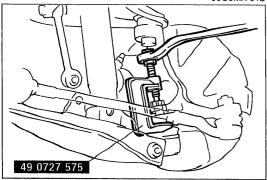
05U0MX-010



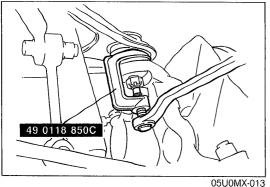
05U0MX-011



05U0MX-012



9MU0MX-010



Inspection

Wheel bearing play

- 1. Remove the wheel, brake caliper assembly, and disc plate, referring to **Removal note** below.
- 2. Position a dial indicator against the wheel hub. Push and pull the wheel hub by hand in the axial direction and measure the wheel bearing play.

If the bearing play exceeds specification, check and adjust the locknut torque or replace the wheel hub assembly if necessary.

Maximum wheel bearing play: 0.05mm (0.002 in)

### Removal note Brake caliper assembly

### Note

• For easier installation, do not depress the brake pedal after removing the brake caliper assembly.

Suspend the brake caliper assembly with a rope.

### Tie-rod end

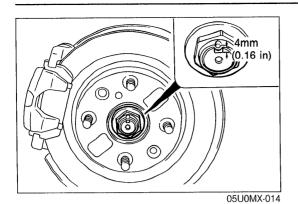
Loosen the nut and disconnect the tie-rod end with the SST.

#### Lower arm

Loosen the nut and disconnect the lower arm with the SST.

### **Upper arm**

Loosen the nut and disconnect the upper arm with the SST.

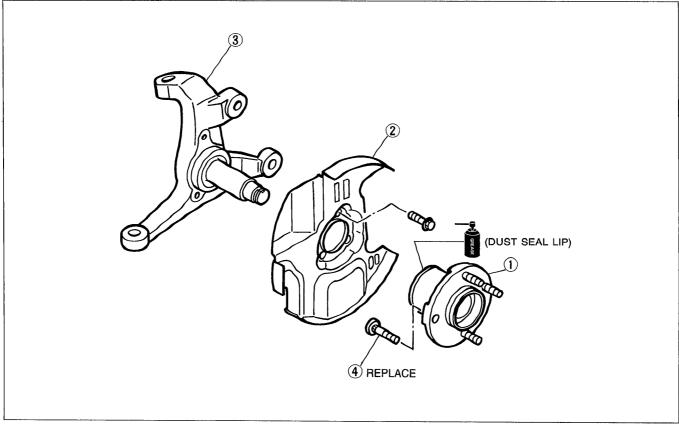


Installation note
Locknut
Install a new locknut and stake it.

Tightening torque: 167—216 N·m (17—22 m-kg, 123—159 ft-lb)

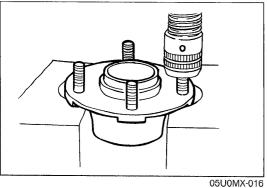
### **Disassembly / Inspection / Assembly**

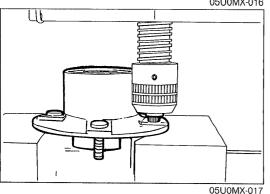
- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.



05U0MX-015

- 1. Front wheel hub assembly
- 2. Dust cover
- 3. Knuckle spindle





4. Hub bolt

Disassembly Note...... page M-8 Assembly Note...... page M-8

# Disassembly note Hub bolts

### Caution

- · Do not remove the hub bolts if not necessary.
- Do not reuse the removed hub bolts.

Remove the hub bolts with a press.

# Assembly note Hub bolts

Install the new hub bolts with a press.

# **REAR AXLE**

# PREPARATION SST

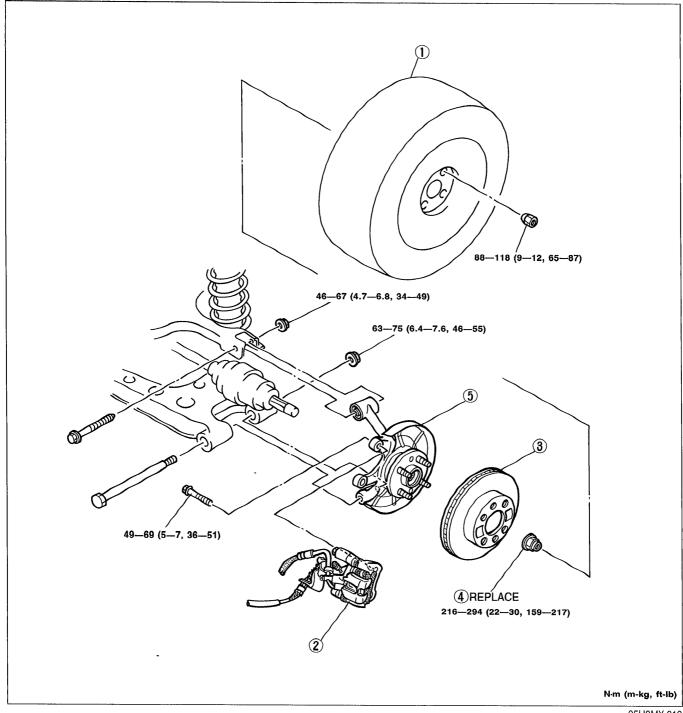
49 F026 103 Puller, wheel hub		For disassembly and assembly of rear axle	49 B026 1A0 Puller, wheel hub	For disassembly and assembly of wheel hub
49 G033 102  Handle (Part of 49 B026 1A0)		For removal and installation of rear wheel hub	49 G030 727 Attachment A (Part of 49 B026 1A0)	For removal and installation of rear wheel hub
49 G030 795 Installer, oil seal		For installation of oil seal	49 G030 797  Handle (Part of 49 G030 795)	For removal and installation of wheel bearing
49 0636 145 Puller, fan pulley boss		For removal of wheel bearing	49 G033 107 Installer, dust cover	For installation of dust cover
49 F027 0A1 Installer set, bearing	990	For installation of bearing	49 F027 005 Attachment 62 (Part of 49 F027 0A1)	For assembly of rear axle
49 F027 007  Attachment 72 (Part of 49 F027 0A1)		For assembly of rear axle	49 F027 009  Attachment 68 & 77 (Part of 49 F027 0A1)	For assembly of rear axle
49 V001 795		For		05U0MX-018
Installer, oil seal		installation of oil seal		

### **DISC BRAKE TYPE**

### Inspection / Removal / Installation

1. Inspect wheel bearing play, referring to Inspection.

- 2. Remove in the order shown in the figure, referring to **Removal Note**.
- 3. Inspect all parts and repair or replace as necessary.
- 4. Install in the reverse order of removal, referring to Installation Note.
- 5. After installation, adjust the rear wheel alignment. (Refer to Section R.)



05U0MX-019

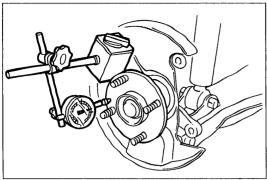
- 1. Rear wheel
- 2. Brake caliper assembly

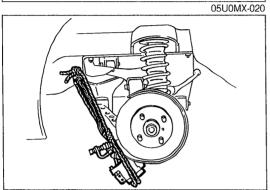
Removal Note.....page M-11

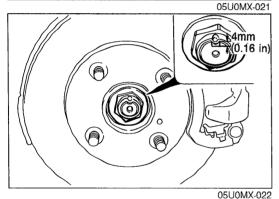
- 3. Disc plate
- 4. Locknut

Installation Note...... page M-11

5. Knuckle, wheel hub, and dust cover Inspect knuckle for cracks and damage Inspect wheel hub for cracks and damage Inspect dust cover for damage and distortion Disassembly / Inspection / Assembly ...... page M-12







Inspection
Wheel bearing play

1. Remove the wheel, brake caliper assembly, and disc plate, referring to **Removal note** below.

2. Position a dial indicator against the wheel hub. Push and pull the wheel hub by hand in the axial direction and measure the wheel bearing play.

If the bearing play exceeds specification, check and adjust the locknut torque or replace the wheel bearing if necessary.

Maximum wheel bearing play: 0.05mm (0.002 in)

Removal note Brake caliper assembly

Note

• For easier installation, do not depress the brake pedal after removing the brake caliper assembly.

Suspend the brake caliper assembly with a rope.

Installation note Locknut

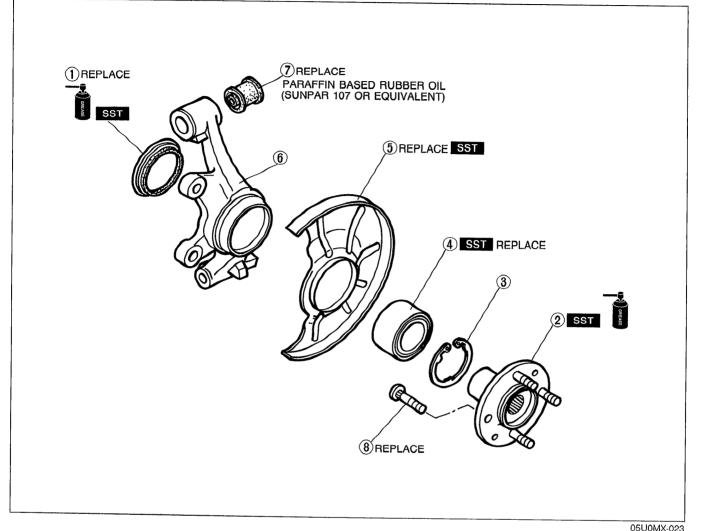
Install a new locknut and stake it.

Tightening torque: 216—294 N·m (22—30 m-kg, 159—217 ft-lb)

### **REAR AXLE**

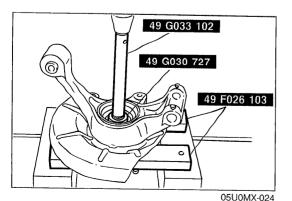
## Disassembly / Inspection / Assembly

- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.



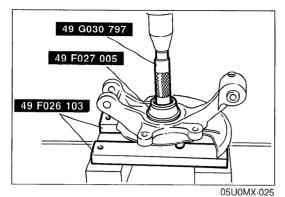
1.	Oil seal		
	Assembly Note	page	M-15
2.	Rear wheel hub assembly		
	Disassembly Note	page	M-12
	Assembly Note	page	M-15
3.	Retaining ring	. 0	
4.	Wheel bearing		
	Disassembly Note	page	M-13
	Assembly Note	page	M-14

0000WA-023
5. Dust cover Disassembly Note page M-13 Assembly Note page M-14 6. Knuckle
7. Bushing
8. Hub bolt
Disassembly Notepage M-14 Assembly Notepage M-14



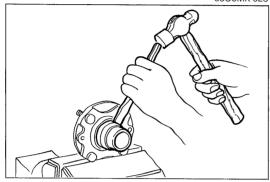
Disassembly note Rear wheel hub assembly

Press out the rear wheel hub assembly with the SST.



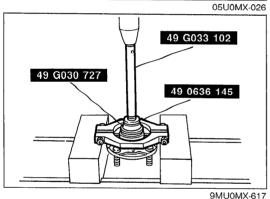
### Wheel bearing

Press out the wheel bearing with the SST.

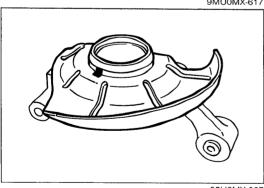


### Note

- If the bearing inner race remains on the rear wheel hub assembly, remove as follows.
- 1. Move the bearing inner race away from the rear wheel hub assembly with a chisel.



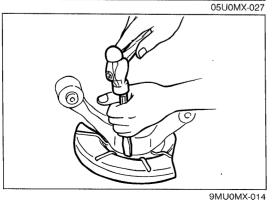
2. Press the bearing inner race off the wheel hub with the SST.



### **Dust cover**

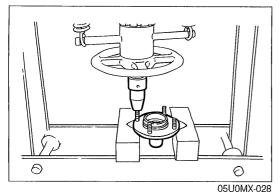
### Caution

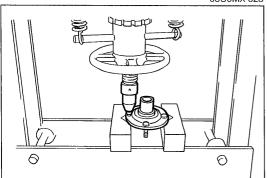
- Do not remove the dust cover if not necessary.
- Do not reuse the removed dust cover.
- 1. Mark the dust cover and knuckle for proper reassembly.

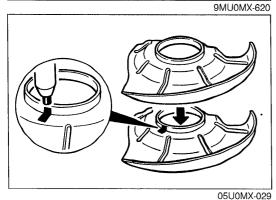


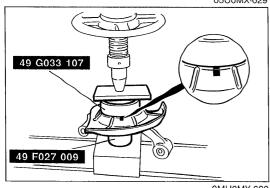
2. Remove the dust cover with a chisel.

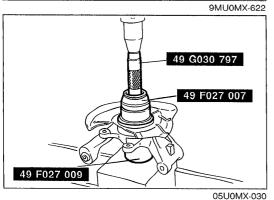
#### **REAR AXLE**











## **Hub bolt**

#### Caution

- Do not remove the hub bolts if not necessary.
  Do not reuse the removed hub bolts.

Press out the hub bolts.

#### Assembly note **Hub bolt**

Press in new hub bolts.

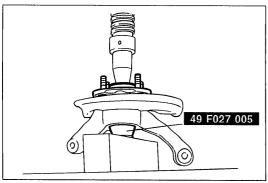
#### **Dust cover**

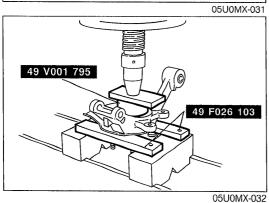
1. Mark the new dust cover as the removed one.

- 2. Align the marks of the new dust cover and the knuckle. 3. Install the new dust cover with the **SST**.

#### Wheel bearing

Press the new wheel bearing into the knuckle with the SST.





- Rear wheel hub assembly
  1. Apply grease to the wheel bearing inner race.
  2. Press the rear wheel hub assembly in with the SST.

#### Oil seal

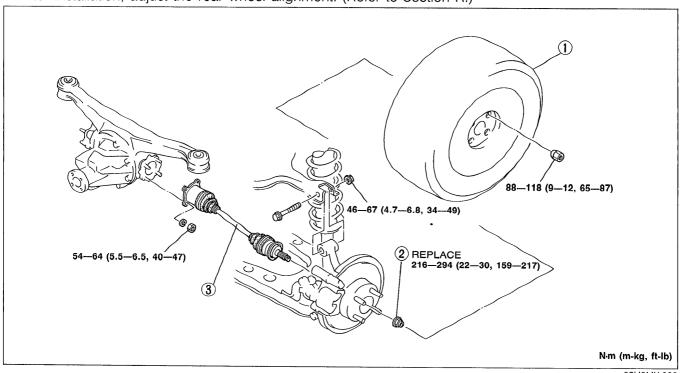
- Apply grease to the new oil seal lip.
   Install the new oil seal with the SST.

#### DRIVESHAFT

#### **DOUBLE OFFSET JOINT**

#### Inspection / Removal / Installation

- 1. Inspect the driveshaft, referring to Inspection.
- 2. Remove in the order shown in the figure, referring to **Removal Note**.
- 3. Install in the reverse order of removal, referring to **Installation Note**.
- 4. After installation, adjust the rear wheel alignment. (Refer to Section R.)



05U0MX-033

1. Rear wheel

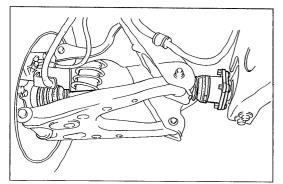
2. Locknut

Installation Note ...... page M-17

3 Driveshaft

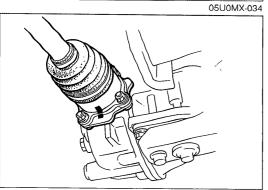
Removal Note..... page M-16

Overhaul ..... page M-18



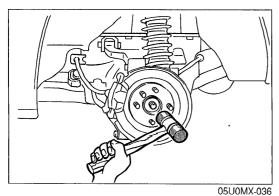
#### Inspection **Driveshaft**

- 1. Check the dust boot on the driveshaft for cracks, damage, leaking grease, and a loose boot band.
- 2. Check the driveshaft for bending, cracks, and wear of joints or splines.
- 3. Repair or replace the driveshaft if necessary.



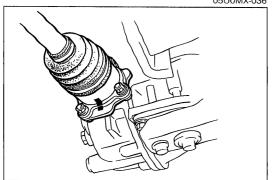
#### Removal note Driveshaft

Before removing the driveshaft, mark the driveshaft and output shaft for proper installation.



#### Note

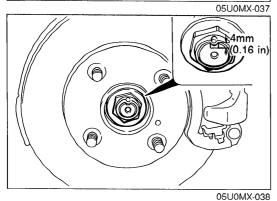
• If the driveshaft is stuck to the wheel hub, install a used locknut so that it is flush with the end of the shaft, and tap the nut with a plastic hammer.



# Installation note Driveshaft

Align the marks and install the driveshaft.

Tightening torque: 54—64 N·m (5.5—6.5 m-kg, 40—47 ft-lb)



#### Locknut

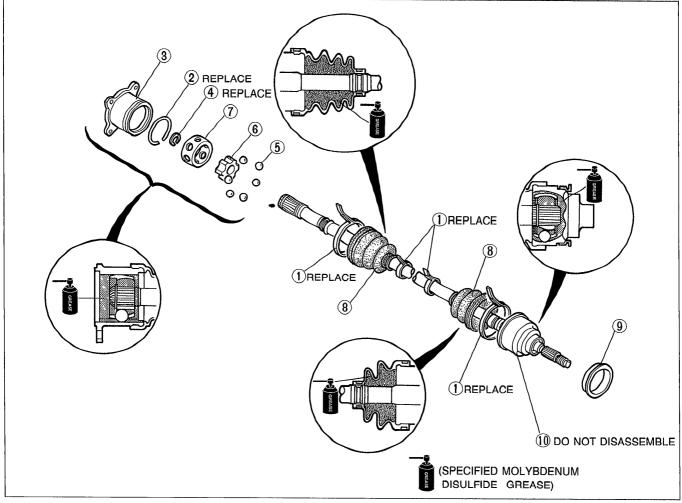
Install a new locknut and stake it.

Tightening torque: 216—294 N·m (22—30 m-kg, 159—217 ft-lb)

#### **Overhaul**

#### Caution

- Secure the joint in a vise with protective material (such as copper plates) on the vise jaws.
- Be careful that dust or other foreign material does not enter the joint while the work is being performed.
- Do not disassemble the wheel-side ball joint.
- Do not wash the joint unless it is being disassembled.
- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.



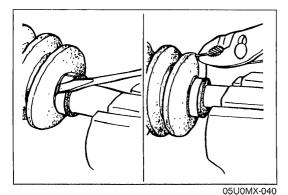
05U0MX-039

1. Boot bands
Disassembly Note page M-19
Assembly Note page M-21
2. Clip
Disassembly Note page M-19
3. Outer ring
Inspect inside bore for wear, corrosion, and
scoring
4. Snap ring
Disassembly Note page M-19
5. Balls
Disassembly Note page M-19
Assembly Note page M-20

6. Inner ring		
Disassembly NoteAssembly Note	page page	M-19 M-20
7. Cage		
Disassembly Note	page	M-19
Assembly Note		
8. Boots		
Disassembly Note	page	M-20
Assembly Note	page	M-20
9. Dust cover		
10. Shaft and ball joint assembly		
Inspect splines for damage and	wear	

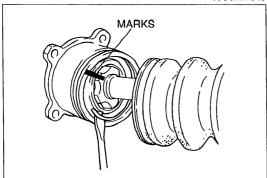
Inspect wheel-side joint for excessive play

and rough rotation



# Disassembly note Boot bands

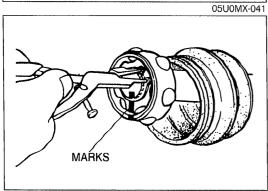
To remove the boot bands, pry up the locking clip with a screwdriver, then raise the end of the band.



#### Clip

#### Note

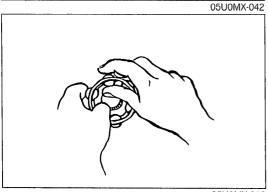
- Mark with paint; do not use a punch.
- 1. Mark the driveshaft and outer ring for proper reassembly.
- 2. Remove the clip.



#### Snap ring

#### Note

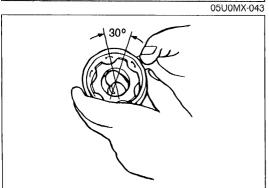
- Mark with paint; do not use a punch.
- 1. Mark the driveshaft end and inner ring.
- 2. Remove the snap ring with snap ring pliers.



#### Cage, inner ring, and balls

Disassemble in the following order:

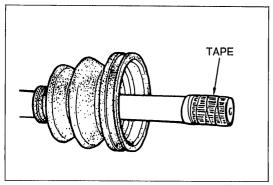
1. Insert a screwdriver between the inner ring and cage to remove the balls.



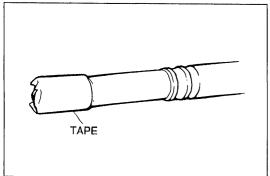
05U0MX-044

#### Note

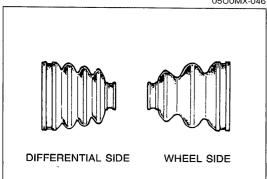
- Mark with paint; do not use a punch.
- 2. Mark the inner ring and cage.
- 3. Turn the cage approximately 30°, then pull it away from the inner ring.



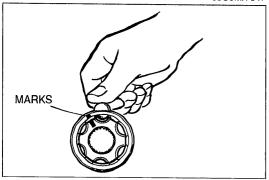




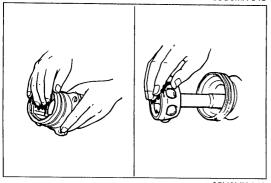
05U0MX-046



05U0MX-047



05U0MX-048



05U0MX-049

#### **Boots**

- 1. Wrap the shaft splines with tape.
- 2. Remove the boot.

# Assembly note Boots

Before putting the boot onto the shaft, wrap the shaft splines with tape.

#### Note

 The shape of the ball-joint boots at the wheel side and the differential side differ; be careful not to install them incorrectly.

Outer diameter of large boot end Diffrential side: 87.4mm (3.441 in) Wheel side : 90.8mm (3.575 in)

#### Cage, inner ring, and balls

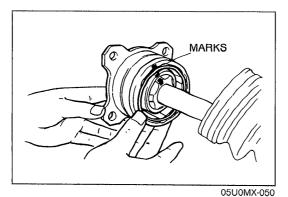
1. Align the marks and install the balls to the inner ring.

#### Caution

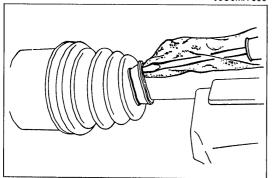
- Do not use any other than the specified grease.
- 2. Apply the specified grease **(molybdenum disulfide)** to the joints and boots.

**Total quantity** 

Diffrential side: 75—95 g (2.65—3.35 oz) Wheel side : 55—75 g (1.94—2.65 oz)



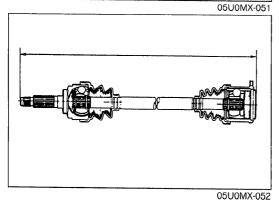
3. Align the marks, then install a new clip.



#### **Boot bands**

#### Caution

- Be sure the boot is not dented or twisted.
- Carefully lift up the small end of the boot to release any trapped air.
- 1. Set the boots onto the rings.



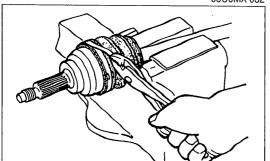
2. Measure the driveshaft length.

Standard length:659.7—669.7mm (25.972—26.366 in)

If not within specification, return to Step 1.

#### Note

• Standard length (On-vehicle): 659.3mm (25.957 in)



#### Note

05U0MX-053

- Always use a new band.
- The band should be folded in the direction opposite the forward revolving direction of the driveshaft.
- 3. Fold the band back by pulling on the end of it with pliers.
- 4. Lock the end of the band by bending the locking clips.

## **DIFFERENTIAL**

# PREPARATION SST

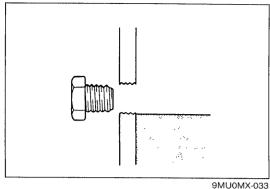
49 0107 680A Engine stand	For disassembly and assembly of differential	49 M005 561 Hanger, differential carrier	For disassembly and assembly of differential
49 0636 145 Puller, fan pulley boss	For removal of bearing inner race (side bearing)	49 N034 213 Installer, rubber bushing	For installation of differential mounting rubber
49 G030 795 Installer, oil seal	For installation of oil seal	49 G030 797 Handle (Part of 49 G030 795)	For installation of bearing outer race
49 B001 795 Installer, oil seal	For installation of oil seal (output shaft)	49 H033 101 Remover, bearing	For installation of bearing outer race (front bearing)
49 F027 0A1 Installer set, bearing	For installation of bearing	49 F027 005  Attachment φ62 (Part of 49 F027 0A1)	For installation of bearing outer race (rear bearing)
49 F027 0A0  Gauge set, pinion height adjustment	For adjustment of pinion height	49 0727 570  Gauge body, pinion height (Part of 49 F027 0A0)	For adjustment of pinion height
49 8531 565 Pinion model	For adjustment of pinion height	49 8531 567 Collar A (Part of 49 8531 565)	For adjustment of pinion height
49 H027 001 Collar	For adjustment of pinion height	49 N027 001 Gauge block	For adjustment of pinion height

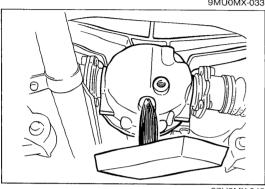
## **DIFFERENTIAL**

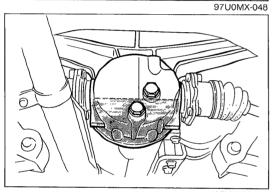


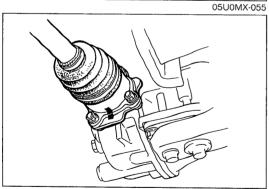
49 D017 2A1 Installer set, bearing	For installation of bearing	49 F401 336B  Attachment B (Part of 49 D017 2A1)	For installation of bearing inner race (rear bearing)
49 F401 331  Body (Part of 49 D017 2A1)	For installation of bearing inner race (rear bearing)	49 F401 337A  Attachment C (Part of 49 D017 2A1)	For installation of bearing inner race (side bearing)
49 S120 710  Holder, coupling flange	For removal and installation of companion flange	49 0839 425C Puller set, bearing	For removal and installation of companion flange
49 U027 003 Installer, oil seal	For installation of oil seal (companion flange)	49 0259 720  Wrench, differential side bearing adjusting nut	For adjustment of drive pinion and ring gear backlash

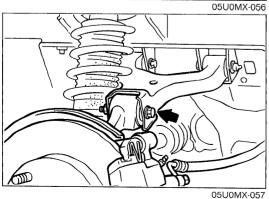
05U0MX-054











DIFFERENTIAL OIL Inspection

1. Remove the filler plug.

2. Verify that the oil is at the bottom of the filler plug hole. If it is low, add the specified oil.

.3. Install the filler plug.

Tightening torque: 39—54 N·m (4.0—5.5 m-kg, 29—40 ft-lb)

Replacement

1. Remove the filler and drain plugs.

2. Drain the differential oil into a suitable container.

3. Wipe the plugs clean.

4. Install the drain plug and washer.

Tightening torque: 39—54 N·m (4.0—5.5 m-kg, 29—40 ft-lb)

5. Add the specified oil from the filler plug until the level reaches the bottom of the plug hole.

Specified oil

Type:

Above -18°C (0°F): API GL-5, SAE 90 Below -18°C (0°F): API GL-5, SAE 80W Capacity: 0.65 liter (0.69 US qt, 0.57 Imp qt)

6. Install the filler plug.

Tightening torque: 39—54 N·m (4.0—5.5 m-kg, 29—40 ft-lb)

OIL SEAL (OUTPUT SHAFT)
Replacement

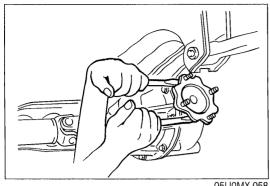
1. Jack up the vehicle and support it with safety stands.

2. Drain the differential gear oil.

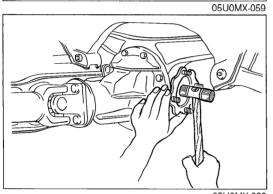
Note

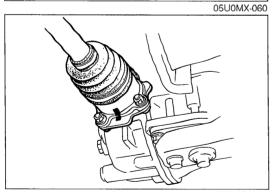
 Mark the driveshaft and output shaft flanges for proper reassembly.

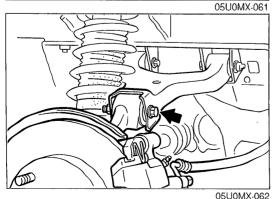
3. Remove the upper arm installation bolt and nut.



05U0MX-058 49 B001 795







4. Separate the driveshaft from the differential and suspend it.

#### Note

- Use caution during the removal operation, because the shaft may suddenly drop.
- 5. Remove the output shaft with two pry bars as shown in the figure.
- 6. Remove the oil seal.
- 7. Apply lithium-based grease to the new oil seal lip and install it with the **SST**.

8. Install the new clips.

#### Caution

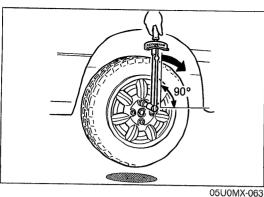
- With viscous L.S.D., the right output shaft is longer than the left shaft.
- 9. Install the output shaft into the side gears by lightly tapping with a plastic hammer.
- 10. Verify that the output shaft is hooked into the side gears by pulling it by hand.
- 11. Align the marks and install the driveshaft.

Tightening torque: 54—64 N·m (5.5—6.5 m-kg, 40—47 ft-lb)

12. Install the upper arm installation bolt and nut.

Tightening torque: 46—67 N·m (4.7—6.8 m-kg, 34—49 ft-lb)

- 13. Add the specified oil.
- 14. Adjust the rear wheel alignment. (Refer to Section R.)



### **OPERATION INSPECTION Viscous Limited Slip Differential**

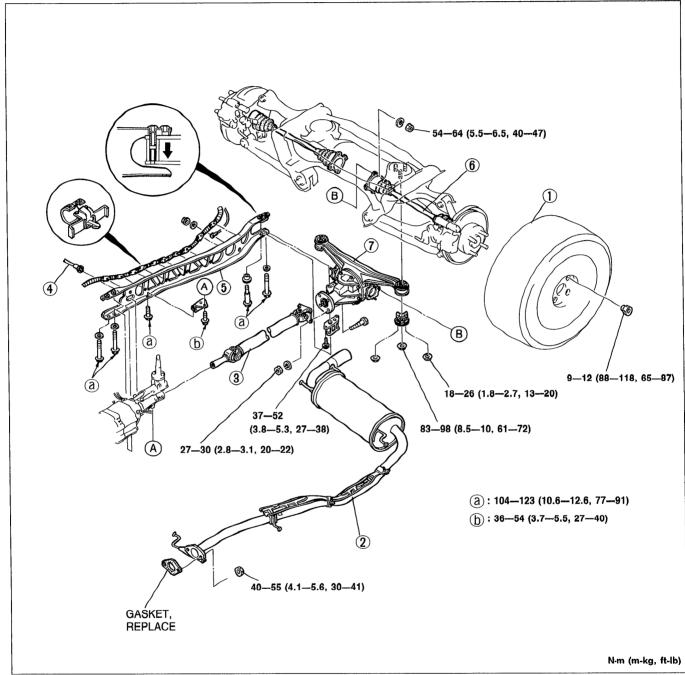
- 1. Turn off the engine and shift the transmission into reverse.
- 2. Block the front wheels with wheel chocks.
- 3. Jack up the rear wheels and support the vehicle with safety stands.
- 4. Release the parking brake.
- 5. Using a torque wrench on a wheel lug nut, measure the time it takes to turn the wheel 90° while applying the specified torque.

Specified torque: 15 N·m (1.5 m-kg, 11 ft-lb) Specified time: 4.0 sec. min.

6. If not as specified, replace the viscous limited slip differential and fill the differential with new specified oil. (Refer to pages M-24, 32.)

# DIFFERENTIAL, STANDARD; DIFFERENTIAL, VISCOUS LIMITED SLIP (VISCOUS L.S.D.) Removal / Installation

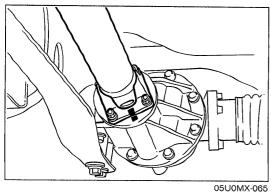
- 1. Drain the differential oil.
- 2. Remove in the order shown in the figure, referring to **Removal Note**.
- 3. Install in the reverse order of removal, referring to **Installation Note**.
- 4. Add the specified oil to the specified level.



05U0MX-064

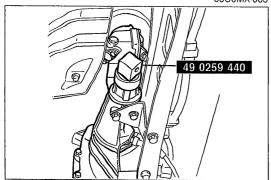
<ol> <li>Rear wheel</li> <li>Exhaust pipe</li> <li>Propeller shaft</li> </ol>	
Removal Notepage M-28 Installation Notepage M-31	
4. Speedometer cable	
5. Power plant frame (PPF)	
Removal Notepage M-28 Installation Notepage M-30	

6. Driveshaft Removal Note	page	M-29
7. Differential		
Removal Note	page	M-29
Installation Note		
Overhaul		

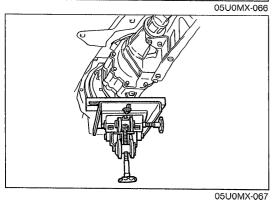


# Removal note Propeller shaft

1. Before removing the propeller shaft, mark the flanges for correct installation.

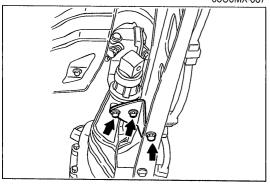


2. When the propeller shaft is removed from the extension housing, immediately install the **SST** to prevent oil leakage.

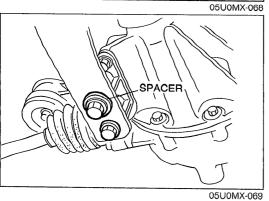


Power plant frame (PPF)

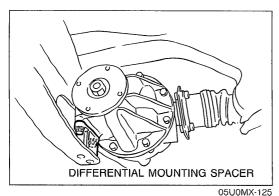
- 1. Disconnect the wire harness from the PPF.
- 2. Support the transmission with a jack.



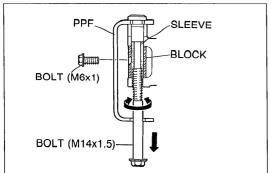
3. Remove the power plant frame bracket.



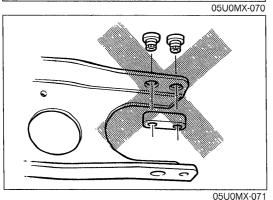
4. Remove the differential-side bolts, and pry out the spacer.



5. Remove the differential mounting spacer.

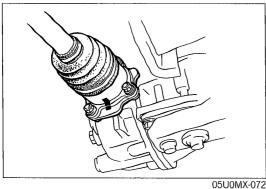


- 6. Turn a bolt (M14x1.5) into the sleeve.
- 7. Twist and pull the bolt downward.
- 8. Install a bolt (M6x1) into the hole in the block to hold the sleeve, and remove the long bolt (M14x1.5).
- 9. Remove the bolt (M6x1).



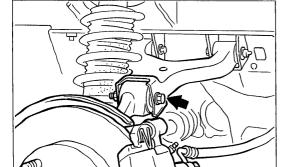
#### Caution

- Do not remove the spacers shown in the figure from the PPF.
- If they are removed, repalce the PPF as an assembly.
- 10. Remove the transmission-side bolts, and remove the PPF.



#### **Driveshaft**

Mark the driveshaft and output shaft for proper installation.



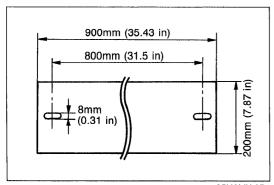
#### Differential

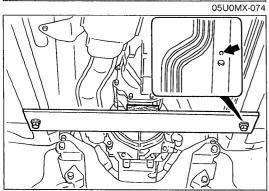
- 1. Support the differential with a jack.
- 2. Down and move it forward.

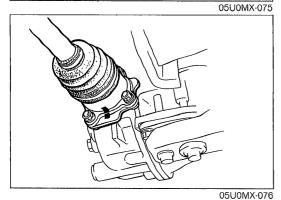
#### Note

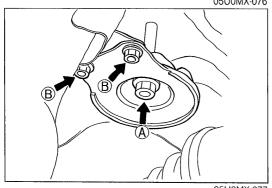
05U0MX-073

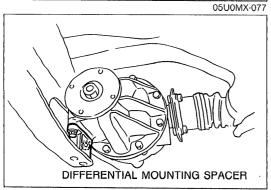
- If it is difficult to separate the driveshaft from the output shaft, remove one side upper arm installation bolt and nut.
- 3. Separate the driveshaft from the output shaft.











Note

- After removing the differential, support the transmission as follows to prevent damaging the fire wall, crank angle sensor, and engine mount.
- 1. Prepare a steel plate as shown in the figure, a wooden block, bolts (8x1.25mm), and washers.
- 2. Install the parts as shown in the figure.

Installation note Differential

1. Connect the driveshaft to the output shaft with the marks aligned.

2. Install the differential.

**Tightening torque:** 

(A) 83—98 N·m (8.5—10 m-kg, 61—72 ft-lb)

**B** 18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)

Caution

 Adjust the rear wheel alignment after installation, if the upper arm installation bolt and nut are removed. (Refer to Section R.)

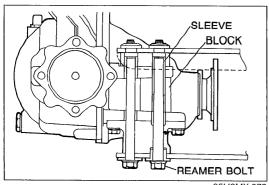
Power plant frame (PPF)

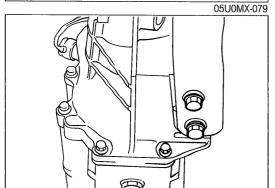
1. Install the differential mounting spacer.

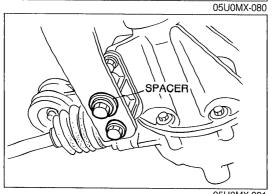
Tightening torque:

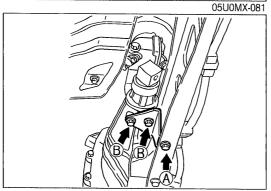
37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

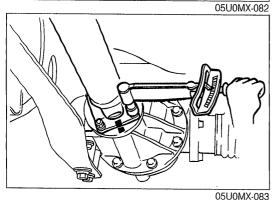
- 2. Support the transmission with a jack so that it is level.
- 3. Position the PPF and snugly tighten the transmission-side bolts by hand.











4. Verify that the sleeve is installed into the block.

#### Note

- The reamer bolt is installed in the forward hole.
- 5. Install the spacer and bolts and snugly tighten them.
- 6. Snugly install the power plant frame bracket.
- 7. Tighten the transmission-side bolts.

Tightening torque: 104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)

8. Tighten the differential-side bolts.

Tightening torque: 104—123 N·m (10.6—12.6 m-kg, 77—91 ft-lb)

9. Install the power plant frame bracket.

Tightening torque:

- A 104—123 Nm (10.6—12.6 m-kg, 77—91 ft-lb)
- B 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
- 10. Remove the jack, and connect the wire harness.

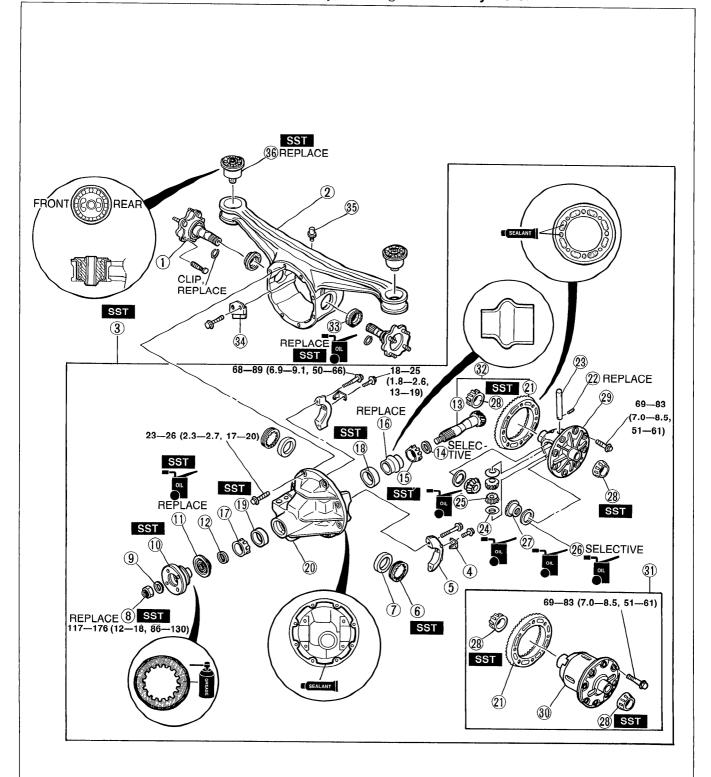
#### Propeller shaft

- 1. Remove the SST.
- 2. Align the marks, and install the propeller shaft.

Tightening torque: 27—30 N·m (2.8—3.1 m-kg, 20—22 ft-lb)

#### **Overhaul**

- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of disassembly, referring to Assembly Note.

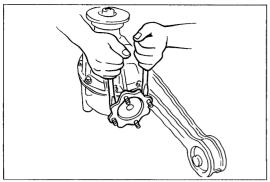


1	Output shafts		
٠.	Disassembly Note	2000	N 21
	Assembly Note	page	M 42
2	Differential case	paye	IVI-43
۷.			N4 O4
	Disassembly Note		
2	Assembly Note	page	IVI-42
٥.	Differential gear assembly		
4	Disassembly Note	page	M-34
4.	Lock plates		
_	Assembly Note	page	M-42
5.	Bearing caps		
	Disassembly Note	page	M-34
_	Assembly Note	page	M-42
6.	Adjusting nuts		
	Disassembly Note		
	Assembly Note	page	M - 40
7.	Bearing outer races (Side bearing)		
8.	Locknut (Companion flange)		
	Disassembly Note	page	M - 34
	Assembly Note	page	M38
	Washer		
10.	Companion flange		
	Disassembly Note		M-34
	Inspect splines for wear and dar	nage	
	Assembly Note	page	M-38
11.	Oil seal (Companion flange)		
	Assembly Note	page	M-38
12.	Washer		
13.	Drive pinion		
	Disassembly Note	page	M - 35
	Inspect splines for wear and dar		
	Inspect individual gear teeth for	wear	and
	cracks		
14.	Spacer		
	Assembly Note	page	M-36
15.	Bearing inner race (Front bearing)	19 -	
	Inspect for damage and rough	rotatio	n
16.	Collapsible spacer	o cano	• •
	Bearing inner race (Rear bearing)		
		nage	M-35
	Inspect for damage and rough	rotatio	n .vi
	Assembly Note		

18. Bearing outer race (Rear bearing)		14.05
Disassembly Note		
19. Bearing outer race (Front bearing) Disassembly Note	page	M-35
Assembly Note20. Differential carrier	page	M–36
21. Ring gear		
Inspect individual gear teeth for cracks		
Assembly Note22. Roll pin (Standard)		
Disassembly NoteAssembly Note	page page	M-35 M-40
23. Pinion shaft (Standard) 24. Thrust washers (Standard)		
25. Pinion gears (Standard)		
Inspect individual gear teeth for cracks	wear	and
26. Thrust washers (Standard)		
Assembly Note	nage	M-40
27. Side gears (Standard)	page	
Inspect individual gear teeth for cracks	wear	and
28. Bearing inner races (Side bearing)		
Disassembly Note	page	M-35
Inspect for damage and rough r	otatio	n Maran
Assembly Note29. Gear case (Standard)	page	IVI-40
30. Gear case (Viscous L.S.D.)		
31. Viscous L.S.D.		
32. Final gear set		
33. Oil seal (Output shaft)		
On-vehicle replacement	page	M-24
Assembly Note	page	M-36
34. Baffle		
<ul><li>35. Breather</li><li>36. Differential mounting rubber</li></ul>		
Disassembly Note	nage	M36
Assembly Note		

05U0MX-085

#### **DIFFERENTIAL**



Disassembly note Output shafts

Remove the output shafts with two pry bars as shown in the figure.

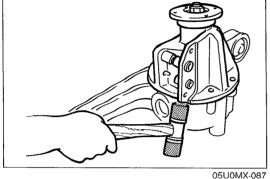


#### Differential case

## Caution

• Do not strike the aluminum alloy differential case.

Strike the differential carrier with a copper hammer to separate it from the case.



Differential gear assembly

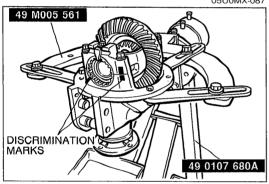
Mount the differential gear assembly on the SST.



Mark one bearing cap and the carrier.



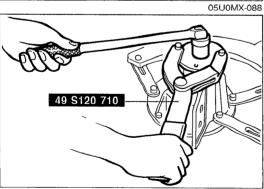
Mark one adjusting nuts and the carrier.



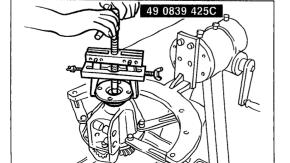
88

Locknut (Companion flange)

Hold the companion flange with the **SST** and remove the locknut.



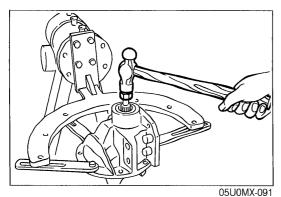
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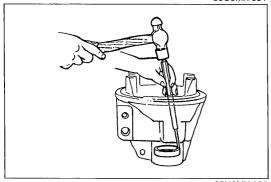
Companion flange

Pull the companion flange off with the SST.



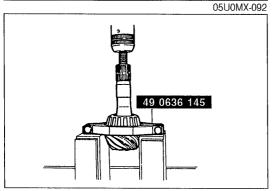
## Drive pinion

Push out the drive pinion by attaching a miscellaneous locknut to the drive pinion, and tapping it with a copper hammer.



#### Bearing outer races (Front, and rear bearing)

Remove the bearing outer races using the two grooves in the carrier and alternately tapping the sides of the races.

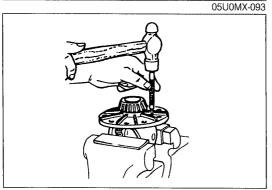


#### Bearing inner race (Rear bearing)

#### Note

 Support the drive pinion by hand so that it will not fall.

Remove the bearing inner race (rear bearing) with the SST.

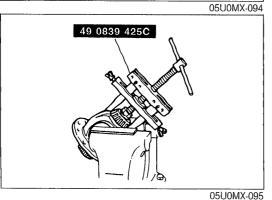


#### Roll pin

#### Note

- Use protective plates in the vise.
- Tap out toward the ring gear side.

Secure the gear case in a vise and remove the roll pin.

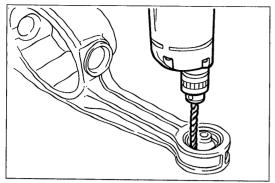


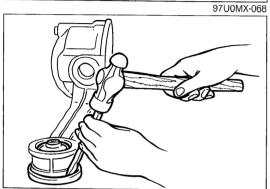
#### Bearing inner races (Side bearing)

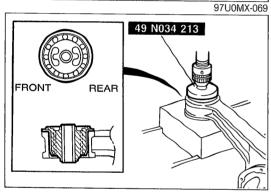
#### Note

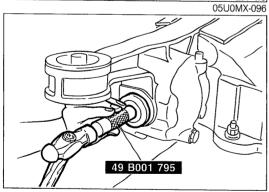
- Use protective plates in the vise.
- Identify the bearings so that they can later be reinstalled in the same position.

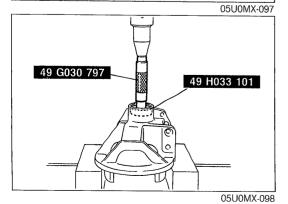
Remove the bearing inner races (side bearing) from the gear case with the **SST**.











#### Differential mounting rubber

1. Drill holes around the differential mounting rubber.

#### Note

- Use a new mounting rubber when reassembling.
- 2. Hit the edge of the differential mounting rubber to remove it.

# Assembly note Differential mounting rubber

#### Note

• Install the mounting rubber with the voids facing fore and aft.

Press in the new differential mounting rubber with the SST.

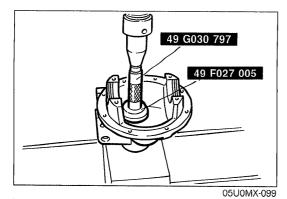
Press force: 2,000 kg (2 tons)

#### Oil seal (Output shaft)

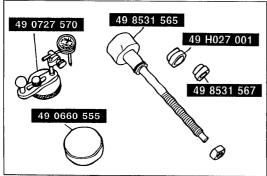
Apply lithium based grease to the new oil seal lip and install it with the **SST**.

#### Adjustment of pinion height

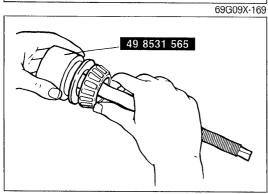
1. Install the bearing outer race (front bearing) with the SST.



2. Install the bearing outer race (rear bearing) with the SST.

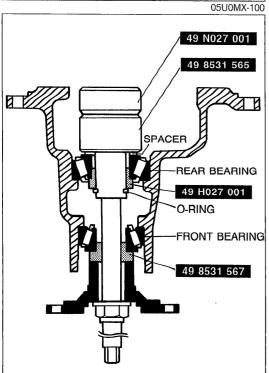


3. Adjust the drive pinion height as follows with the SST.



Note

- Use the spacer that was removed.
- 4. Install the spacer and bearing inner race (rear bearing) onto the **SST**.



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#### Note

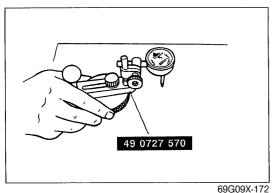
- Use the same spacer and nut removed during disassembly.
- 5. Assemble the spacer, bearing inner race (rear bearing), and **SST**.

Secure the **SST** with the O-ring. Install this assembly in the carrier.

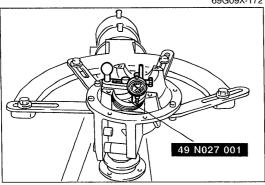
Install the bearing inner race (front bearing), the **SST**, companion flange, washer, and nut.

6. Tighten the nut just enough so that the companion flange can still be turned by hand.

#### **DIFFERENTIAL**

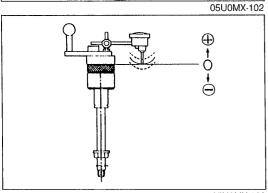


7. Place the **SST** on the surface plate and set the dial indicator to "Zero".



8. Place the **SST** atop the drive pinion model. Set the gauge body atop the gauge block.

9. Place the feeler of the dial indicator so that it contacts where the bearing inner race (side bearing) is installed in the carrier. Measure the lowest position on the left and right sides of the carrier.



10. Add the two (left and right) values obtained in Step 9 and divide the total by 2.

Specification: 0mm (0 in)

05U0MX-103

Thickness	Mark	Thickness
3.08mm	29	3.29mm
(0.1213 in)	00	(0.1295 in)
3.11mm   (0.1004 in)	32	`3.32mm´ (0.1307 in)
	35	3.35mm
		(0.1319 in)
`3.17mm´	38	`3.38mm ′
		(0.1331 in)
	41	3.41mm
(0.1260 ln)	111	(0.1343 in) 3.44mm
	44	(0.1354 in)
3.26mm	47	3.47mm
(0.1283 in)	1	(0.1366 in)
	3.08mm (0.1213 in) 3.11mm (0.1224 in) 3.14mm (0.1224 in) 3.17mm (0.1248 in) 3.20mm (0.1260 in) 3.23mm (0.1271 in) 3.26mm	3.08mm 29 (0.1213 in) 3.11mm 32 (0.1224 in) 3.14mm 35 (0.1224 in) 3.17mm 38 (0.1224 in) 3.20mm 41 (0.1260 in) 3.23mm 44 (0.1271 in) 3.26mm 47

#### Note

- Spacers are available in increments of 0.03mm. Select the spacer thickness that is closest to that necessary.
- 11. If not within specification, adjust the pinion height by selection of a spacer.

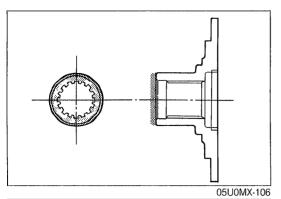
Adjustment of drive pinion preload

# 05U0MX-104 49 F401 331 49 F401 336B

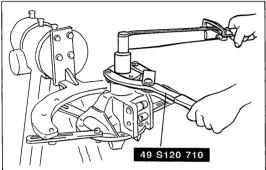
## Note

1. Install the spacer.

- Press on until the force required suddenly increases.
- Install the spacer selected for the pinion height adjustment, being careful that the installation direction is correct.
- 2. Press the bearing inner race (rear bearing) on with the **SST**.



3. Apply a light coat of grease to the end face of the companion flange.

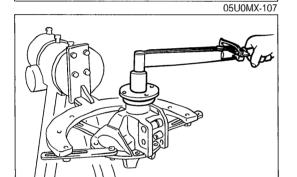


- 4. Install a new collapsible spacer.
- 5. Install the drive pinion assembly.

#### Note

- Do not install the oil seal.
- 6. Install the companion flange, and tighten the locknut with the SST.

Tightening torque: 118 N·m (12 m-kg, 87 ft-lb)

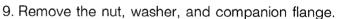


- 7. Turn the companion flange several turns by hand to seat the bearing.
- 8. Measure the drive pinion preload. Adjust the preload by tightening the locknut and record the tightening torque.

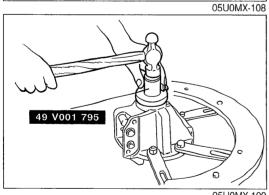
Preload:

0.3-0.7 N·m (3-7 cm-kg, 2.6-6.1 in-lb)

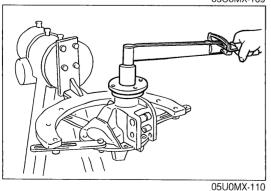
Tightening torque: 118—177 N·m (12—18 m-kg, 87—130 ft-lb)



10. Tap a new oil seal into the differential carrier with the **SST**.

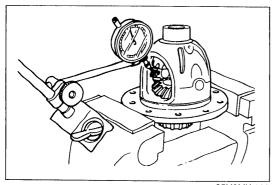


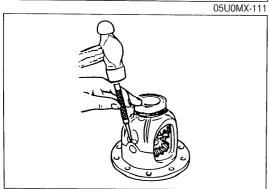
05U0MX-109

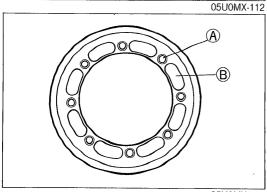


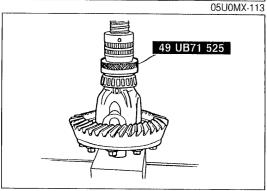
11. Install the companion flange and washer, and tighten the locknut to the tightening torque recoreded in Step 8.

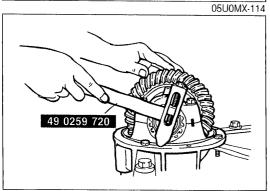
#### **DIFFERENTIAL**











05U0MX-115

#### Adjustment of backlash

1. Check the backlash of the side gears and pinion gears. Adjust by inserting the proper thickness thrust washer at both sides. (Standard)

If not within specification, replace the differential gear as an assembly. (Viscous L.S.D.)

Standard backlash: 0-0.1mm (0-0.004 in)

#### Thrust washer thickness:

Identification mark	Thickness
0	1.95—2.00mm (0.0768—0.0787 in)
1	2.05—2.10mm (0.0807—0.0827 in)
2	2.15—2.20mm (0.0846—0.0866 in)

2. Install the knock pin to secure the pinion shaft. Stake the pin with a punch to prevent it from coming out of the case.

## Adjustment of drive pinion and ring gear backlash

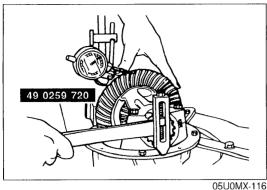
#### Note

- Apply approx. 0.04 cc (0.0024 cu in) of threadlocking compound at each point.
- 1. Apply thread-locking compound to the bolt threads (A) and point (B) of the gear back face.
- 2. Install the ring gear onto the gear case.

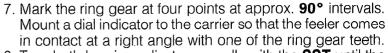
# Tightening torque: 69—83 N·m (7.0—8.5 m-kg, 51—61 ft-lb)

3. Press the bearing inner races (side bearing) on with the **SST**.

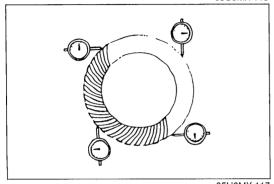
- 4. Install the differential gear assembly in the carrier.
- 5. Note the identification marks on the adjusting nuts, and install them on their respective sides.
- 6. Install the differential bearing caps, making sure that the identification mark on the cap corresponds with the one on the carrier with the **SST**.



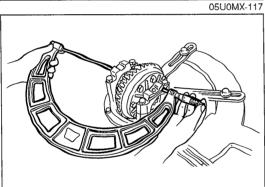




8. Turn both bearing adjusters equally with the SST until the backlash is 0.09-0.11mm (0.0035-0.0043 in).

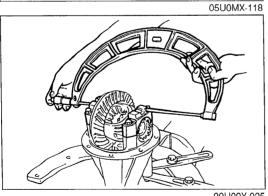


9. Check the backlash at the three other marked points, and make sure the maximum backlash is less than 0.07mm (0.0028 in).

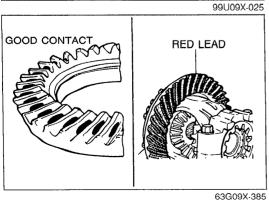


#### Note

- When adjusting the differential bearing preload, be careful not to affect the backlash of the drive pinion and ring gear.
- 10. Tighten the adjusting nuts equally until the distance between the pilot sections on the bearing caps is 150.20 +8.72 mm  $(5.913 \pm 0.028 in)$

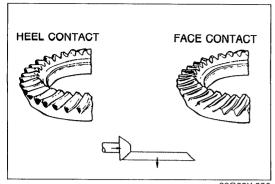


- Inspection and adjustment of teeth contact
- 1. Coat both surfaces of 6—8 teeth of the ring gear with a thin coat of red lead.
- 2. While moving the ring gear back and forth by hand, rotate the drive pinion several times and check the tooth contact.
- 3. If the tooth contact is good, wipe off the red lead.
- 4. If it is not good, adjust the pinion height, and then adjust the backlash.

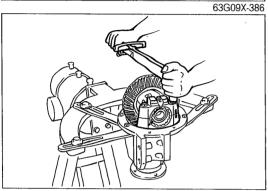


(1) Toe and flank contact Replace the spacer with a thinner one to move the drive pinion outward.

#### **DIFFERENTIAL**



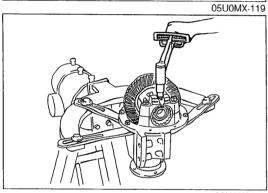
(2) Heel and face contact
Replace the spacer with a thicker one to bring the drive pinion in.



Bearing caps

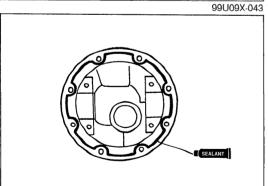
1. Tighten the bearing cap bolts.

Tightening torque: 68—89 Nm (6.9—9.1 m-kg, 50—66 ft-lb)



2. Install the lock plates on the bearing caps.

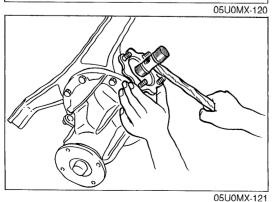
Tightening torque: 18—25 N·m (1.8—2.6 m-kg, 13—19 ft-lb)



Differential case

- 1. Apply sealant to the housing face.
- 2. Tighten the bolts.

Tightening torque: 23—26 N·m (2.3—2.7 m-kg, 10—20 ft-lb)



#### **Output shaft**

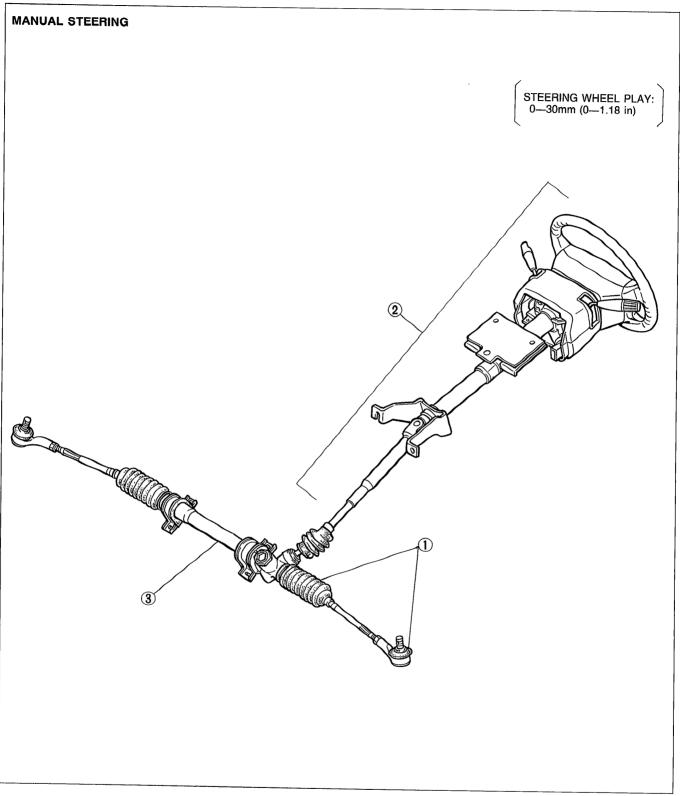
#### Caution

- With viscous L.S.D., the right output shaft is longer than the left shaft.
- 1. Install a new clip.
- 2. Install the output shafts into the side gears by lightly tapping them with a plastic hammer.
- 3. Verify that the output shafts are hooked into the side gears by pulling them by hand.

# **STEERING SYSTEM**

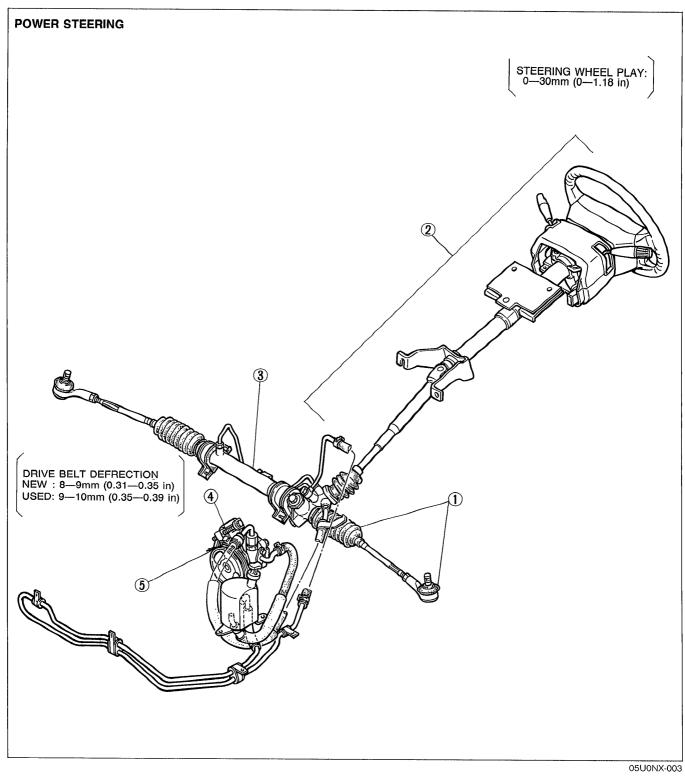
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## OUTLINE

## **SPECIFICATIONS**

Îtem		Туре	Manual steering	Power steering
0: 1 1	Outer diameter	mm (in)	370 (14.6)	
Steering wheel	Lock-to-lock	turns	3.36	2.8
0	Shaft		Collapsible, non-tilt	
Steering shaft and joint	Joint		2-cross joint	
	Power assist			Engine speed sensing
	Gear		Rack-and-pinion	
0: 1	Gear ratio		∞ (infinite)	
Steering gear	Rack stroke	mm (in)	121.	0 (4.76)
	Power steering fluid			ATF DEXRON II or M-III
	Fluid capacity liters (U	JS qt, Imp qt)		0.8 (0.85, 0.70)

05U0NX-004

## **MANUAL STEERING**

# PREPARATION SST

05LIONX-005
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05U0NX-00

## TROUBLESHOOTING GUIDE

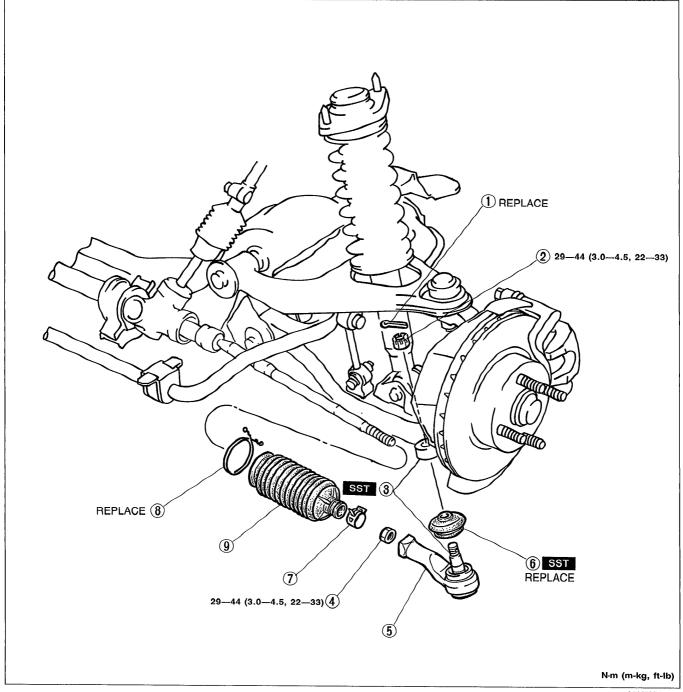
Problem	Possible Cause	Action	Page/Section
Steering heavy	Poor lubrication, foreign material, or abnormal wear of steering ball joint Stuck or damaged lower arm ball joints Improper steering pinion preload Damaged steering gear Malfunction of steering shaft joint Improperly adjusted wheel alignment Malfunctioning steering gear Incorrect tire pressure	Lubricate or replace  Replace Replace gear Replace Replace Adjust Replace Adjust	N-12 Section R N-12 N-12 N-9 Section R N-12 Section Q
Steering wheel pulls to one side	Incorrect tire pressure Unevenly worn tires Weak front spring Worn or damaged stabilizer and/or suspension arm bushings Dragging brake Loose lower arm Improperly adjusted wheel alignment	Adjust Replace Replace Repair Tighten Adjust	Section Q Section Q Section R Section R Section P Section R Section R
General instability while driving	Incorrect tire pressure Damaged or unbalanced wheel Worn or damaged steering joints Improper steering pinion preload Weak front coil spring Worn or damaged stabilizer and/or suspension arm bushings Malfunctioning shock absorber Improperly adjusted wheel alignment	Adjust Adjust or replace Replace Replace gear Replace Replace Replace Adjust	Section Q Section Q N-9 N-12 Section R Section R Section R
Shake (Steering wheel vibrates up/down)	Excessive tire and/or wheel runout Loose lug nuts Unbalanced wheel(s) Cracked or worn engine mount rubber Cracked or worn transmission mount rubber	Replace Tighten Adjust or replace Replace Replace	Section C Section C Section C Section B Section J
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mount rubber Loose steering gear mounting bolts Stuck or damaged steering ball joint Excessive tire and/or wheel runout Loose lug nuts Unbalanced wheel(s) Incorrect tire pressure Unevenly worn tires Malfunction of shock absorber Loose shock absorber mounting bolts Stuck or damaged lower arm ball joint Cracked or worn suspension bushings Damaged or worn front wheel bearing Improperly adjusted front wheel alignment	Replace Tighten Replace Replace Tighten Adjust or replace Adjust Replace Replace Tighten Replace Replace Replace Replace Replace Replace Adjust	N-12 N-14 Section C Section C Section C Section C Section G Section R Section R Section R Section R Section R Section R Section R Section R Section R
Excessive steering wheel play	Worn steering gear Worn or damaged steering joints Worn or damaged suspension arm bushings Loose steering gear mounting bolts Worn linkage or tie-rod ball joint	Replace Replace Replace Tighten Replace	N-12 N- 9 Section F N-12 N-12
Poor steering wheel return	Incorrect tire pressure Stuck or damaged steering joints Improperly adjusted front wheel alignment Improper steering pinion preload Ball joint not operating smoothly Steering shaft contacting something	Adjust Replace Adjust Replace gear Replace Repair	Section C N-9 Section F N-12 N-14 N-9
Abnormal noise from steering system	Loose steering gear Malfunctioning steering gear Obstruction near steering column Loose steering linkage Worn steering joints	Tighten Replace Repair or replace Tighten or replace Replace	N-12 N-12 N-12 N-12 N- 9

05U0NX-006

#### **BOOT**

#### Replacement

- 1. Loosen the wheel lug nuts.
- 2. Jack up the front of the vehicle and support it with safety stands.
- 3. Remove the wheel.
- 4. Remove in the order shown in the figure, referring to **Removal Note**.
- 5. Install in the reverse order of removal, referring to **Installation Note**.
- 6. After installation, check the steering angle and toe-in and adjust if necessary. (Refer to Section R.)



05U0NX-007

- 1. Cotter pin
- 2. Nut
- 3. Tie-rod end / Steering knuckle

Removal Note ...... page N- 7

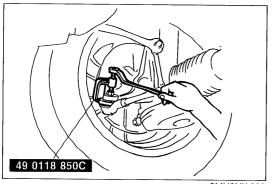
4. Locknut

Removal Note ...... page N- 7

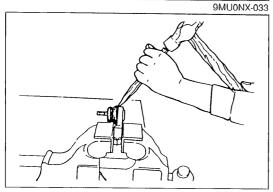
- 5. Tie-rod end
- 6. Tie-rod end boot

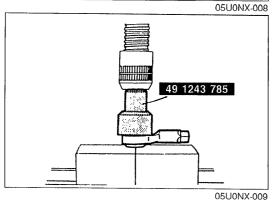
Removal / Installation Note...... page N- 7

- 7. Boot clamp
- 8. Boot wire
- 9. Steering gear boot



# 9MU0NX-032





# Removal note Tie-rod end

- 1) Loosen the tie-rod nut.
- 2) With the nut protecting the tie-rod end stud, separate the tie-rod end from the steering knuckle with the **SST**.

#### Locknut

Before loosening the locknut from the tie-rod end, make a mark for reference when tightening.

#### Tie-rod end boot

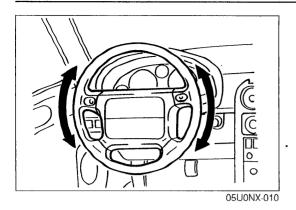
#### Caution

• Do not scar the part where the boot is attached to the tie-rod end.

Secure the tie-rod end in a vise. Place a chisel against the boot and hold it at the angle shown. Remove the boot by tapping it with a hammer.

# Installation note Tie-rod end boot

Put a small amount of grease (lithium base) into the new boot and set it onto the tie-rod end. Press the boot onto the tie-rod end with the **SST** and a press.



# STEERING WHEEL AND COLUMN

# Caution

• Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

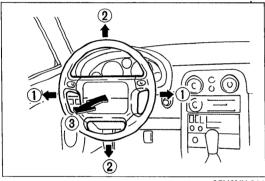
# On-vehicle Inspection Steering wheel play

With the wheels in the straight-ahead position, gently turn the steering wheel to the left and right and verify that the play is within specification.

Play: 0-30mm (0-1.18 in)

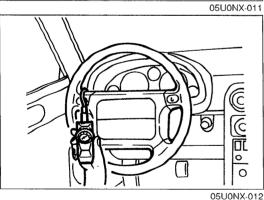
#### Note

 If the play exceeds specification, either the steering joints are worn or the backlash of the steering gear is excessive.



Looseness or play of steering wheel

Move the steering wheel in directions ①, ②, and ③ to check for column bearing wear, steering shaft joint play, steering wheel looseness, and column looseness.



# Steering wheel effort

- 1. Jack up the front of the vehicle.
- 2. Turn the steering wheel fully to the left and right at least 5 times.
- 3. Move the steering wheel to put the wheels in the straight-ahead position.
- 4. Attach a pull scale to the outermost point of the steering wheel spoke.

Then, starting with the wheels in the straight-ahead position, measure the effort required to turn the steering wheel to the left and to the right.

# Steering wheel effort:

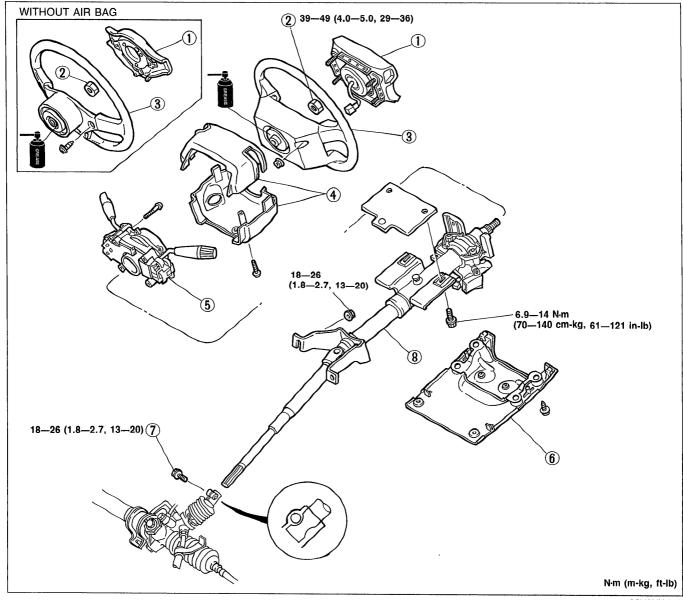
4.9—29.4 N (0.5—3.0 kg, 1.1—6.6 lb) [during one turn of steering wheel]

5. If not within specification, check the following: rotation starting torque of pinion, rotation torque of each ball joint, and steering joints.

# Removal / Installation

#### Caution

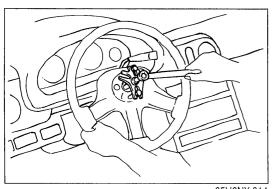
- Do not remove the steering wheel of air bag equipped models (U.S. spec.) if not necessary.
- Adjust the clockspring connector after installing the combination switch. (U.S. spec.) (Refer to Section T.)
- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure, referring to **Removal Note**.
- 3. Install in the reverse order of removal.
- 4. Tighten all necessary nuts and bolts to the specified torque.
- 5. After installation, check if the horn sounds. If the horn does not sound, remove the air bag module and connect the module connectors. (Refer to Section T.)



05U0NX-013

Air bag module     Removal / Installation Section T
1. Horn pad (without air bag)
2. Locknut
3. Steering wheel
Removal Note page N-10
4. Column cover

5. Combination switch	
Removal / Installation Section T	
6. Lower panel	
7. Intermediate shaft bolt	
8. Steering shaft	
Disassembly / Inspection /	
Assembly page N-10	



# Removal note Steering wheel

# Caution

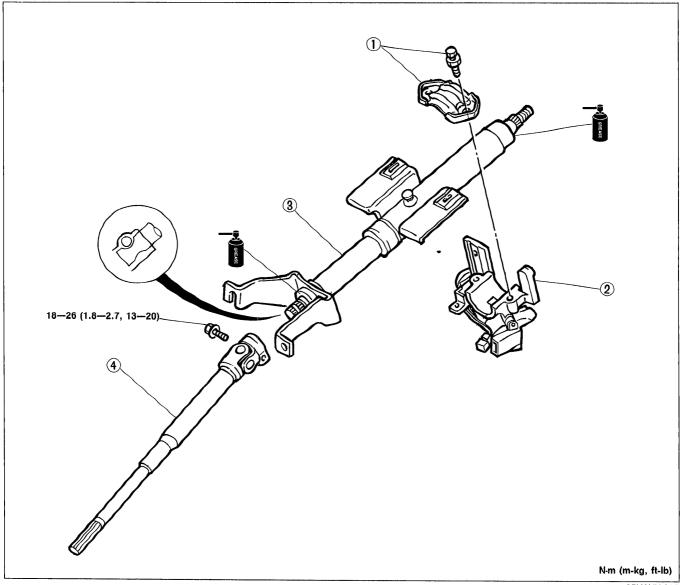
- Do not remove the steering wheels of models with air bag systems if not necessary.
- Do not try to remove the steering wheel by hitting the shaft with a hammer. The column will collapse.

Remove the steering wheel with a suitable puller.

05U0NX-014

Disassembly / Assembly / Inspection

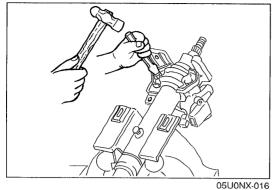
- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Assemble in the reverse order of disassembly, referring to **Assembly Note**.

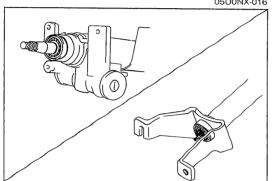


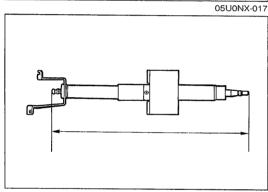
05U0NX-015

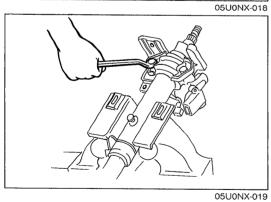
- 2. Steering lock assembly

- 3. Steering shaft Inspection...... page N-11
- 4. Intermediate shaft
  Inspect universal joint for looseness, abnormal noise, and sticking









Disassembly note

Steering lock mounting bolts and bracket
Use a chisel to make a groove in the heads of the steering lock mounting bolts. Remove the bolts with a screwdriver. Remove the steering lock assembly.

Inspection

Check for the following and replace the column assembly if necessary.

Steering shaft

1. Column bearing damage.

2. Steering shaft length.

Length:  $583.3 \pm 1.5$ mm (22.96  $\pm 0.06$  in)

Assembly note

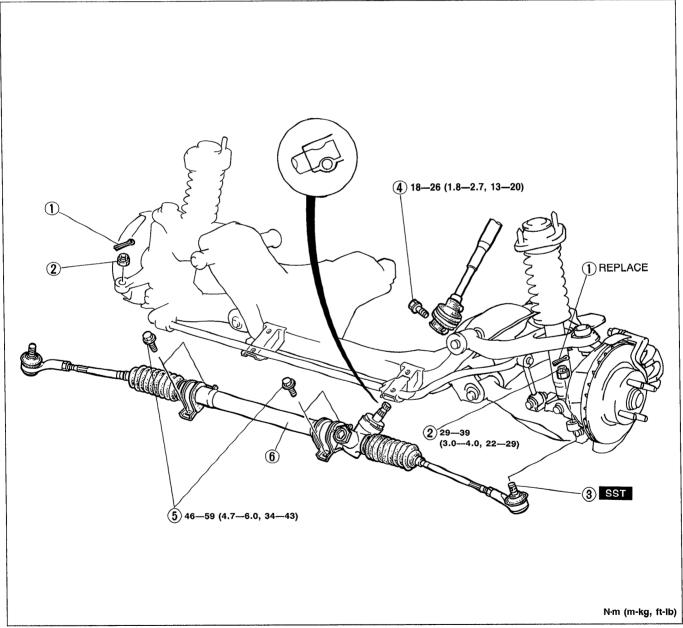
Steering lock mounting bolts and bracket

Install the steering lock assembly on the jacket. Install the new steering lock mounting bolts. Tighten the bolts until the heads break off.

# STEERING GEAR AND LINKAGE Removal / Installation

#### Caution

- Disconnect/connect the pinion shaft from/to the intermediate shaft with the wheels in the straight-ahead position, and do not turn the steering wheel while the steering gear is removed. If not done correctly, adjust the clockspring connector. (U.S. spec.) (Refer to Section T.)
- 1. Loosen the wheel lug nuts.
- 2. Jack up the front of the vehicle and support it with safety stands.
- 3. Remove the wheel.
- 4. Remove the undercover.
- 5. Remove in the order shown in the figure, referring to **Removal Note**.
- 6. Install in the reverse order of removal.



05U0NX-020

- 1. Cotter pin
- 2. Locknut
- 3. Tie-rod end

Removal Note ...... page N-7

- 4. Intermediate shaft bolt
- 5. Mounting bracket bolt
- 6. Steering gear and linkage

# **ENGINE SPEED SENSING POWER STEERING**

# PREPARATION SST

49 0118 850C Puller, ball joint	For removal of tie-rod end	49 1243 785 Installer, boot	For installation of tie-rod end boot
49 1232 670A  Gauge set, power company steering	For inspection of power steering fluid pressure	49 1232 672  Gauge (Part of 49 1232 670A)	For inspection of power steering fluid pressure
49 1232 673  Valve body (Part of 49 1232 670A)	For inspection of power steering fluid pressure	49 H002 671  Adapter, power steering gauge	For inspection of power steering fluid pressure
49 B032 302  Adapter, power steering gauge	For inspection of power steering fluid pressure	49 9200 020 Tension gauge, V-ribbed belt	For inspection of drive belt tension

05U0NX-021

# TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page/Section
Steering feels heavy	Poor lubrication, foreign material, or abnormal wear of steering ball joint	Lubricate or replace	N-19
	Stuck or damaged lower arm ball joints	Replace	Section R
	Improper steering pinion preload	Replace gear	N-19
	Damaged steering gear	Replace	N-19
	Malfunctioning steering shaft joint	Replace	N- 9
	Improperly adjusted wheel alignment	Adjust	Section R
	Malfunctioning steering gear	Replace	N-19
	Incorrect tire pressure	Adjust	Section Q
	Loose or damaged oil pump drive belt	Adjust or replace	N-22
	Low fluid level or air in fluid	Add fluid or bleed air	N-15,16
	Leakage of fluid	Repair or replace	
	Insufficient oil pump pressure	Replace	N-21
Steering wheel pulls	Incorrect tire pressure	Adjust	Section Q
to one side	Unevenly worn tires	Replace	Section Q
	Weak front spring	Replace	Section R
	Worn or damaged stabilizer and/or upper or lower arm bushing	Replace	Section R
	Dragging brake	Repair	Section P
	Loose lower arm	Tighten or replace	Section R
	Improperly adjusted wheel alignment	Adjust	Section R

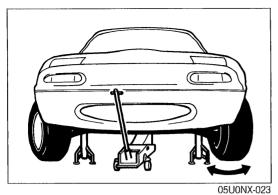
# **ENGINE SPEED SENSING POWER STEERING**

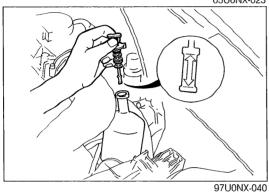
# TROUBLESHOOTING GUIDE (Cont'd)

Problem	Possible Cause	Action	Page/Section
General instability while driving	Incorrect tire pressure Damaged or unbalanced wheel Worn or damaged steering joint(s) Improper steering pinion preload Weak front coil spring Worn or damaged stabilizer and/or upper or lower arm bushing Malfunctioning shock absorber Improperly adjusted wheel alignment	Adjust Adjust or replace Replace Replace gear Replace Replace Replace Adjust	Section Q Section Q N- 9 N-19 Section R Section R Section R Section R
Shake (Steering wheel vibrates up/down)	Excessive tire and/or wheel runout Loose lug nuts Unbalanced wheel(s) Cracked or worn engine mount rubber Cracked or worn transmission mount rubber	Replace Tighten Adjust or replace Replace Replace	Section Q Section Q Section Q Section B Section J
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mount rubber Loose steering gear mounting bolts Stuck or damaged steering ball joint Excessive tire and/or wheel runout Loose lug nuts Unbalanced wheel(s) Incorrect tire pressure Unevenly worn tires Malfunctioning shock absorber Loose shock absorber mounting bolts Stuck or damaged lower arm ball joint Cracked or worn suspension bushings Damaged or worn front wheel bearing Improperly adjusted front wheel alignment	Replace Tighten Replace Replace Tighten Adjust or replace Adjust Replace Replace Tighten Replace Replace Replace Replace Adjust	N-19 N-19 N-19 Section Q Section Q Section Q Section Q Section R Section R Section R Section R Section R Section R Section R
Excessive steering wheel play	Worn steering gear Worn or damaged steering joints Worn or damaged lower arm bushing Loose steering gear mounting bolts Worn linkage or tie-rod ball joint	Replace Replace Replace Tighten Replace	N-19 N- 9 Section R N-19 N-19
Poor steering wheel return	Incorrect tire pressure Stuck or damaged steering joints Improperly adjusted front wheel alignment Improper steering pinion preload Ball joint not operating smoothly Steering shaft contacting something	Adjust Replace Adjust Replace gear Replace Repair	Section Q N-9 Section R N-19 N-19 N-9
Abnormal noise from steering system	Loose oil pump Loose steering gear Loose oil pump bracket Drive belt loose/tight Air in system Malfunctioning steering gear Malfunctioning oil pump Obstruction near steering column or pressure hose Loose steering linkage Worn steering joints	Tighten Tighten Tighten Adjust Bleed air Replace Replace Repair or replace Tighten or replace Replace	N-21 N-19 Section B N-22 N-15 N-19 N-21 N- 9 N-19 N- 9

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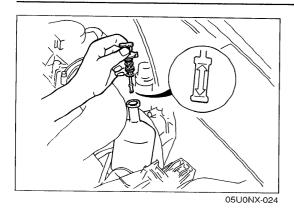
# **ENGINE SPEED SENSING POWER STEERING**





# AIR BLEEDING

- 1. Check the fluid level. (Refer to page N-16.)
- 2. Turn the steering wheel fully to the left and right several times with the engine not running.
- 3. Recheck the fluid level. If it has dropped, add fluid.
- 4. Repeat Steps 2 and 3 until the fluid level stabilizes.
- 5. Start the engine and let it idle.
- 6. Turn the steering wheel fully to the left and right several times.
- 7. Verify that the fluid is not foamy and that the fluid level has not dropped.
- 8. Add fluid if necessary and repeat Steps 6 and 7.



Inspection
Fluid level
Check the power steering

**POWER STEERING FLUID** 

Check the power steering fluid level. Add fluid to the specified level, if necessary.

# Caution

• Use only the specified power steering fluid.

# Fluid specification: ATF DEXRON-II or M-III

# Fluid leakage

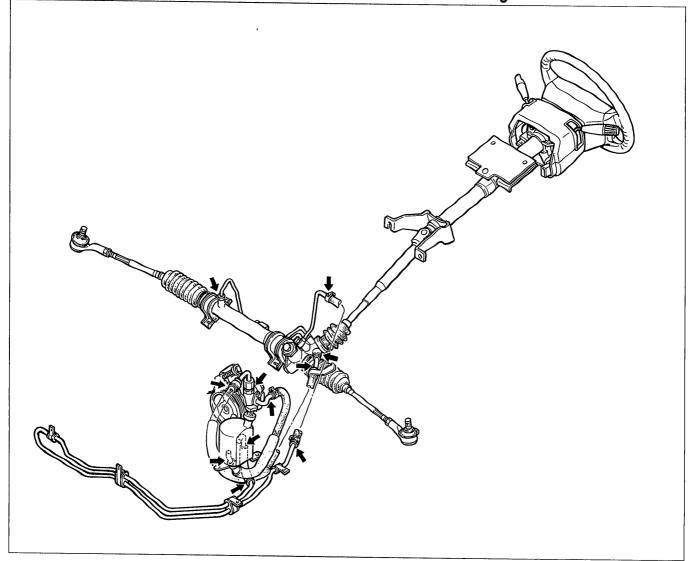
# Caution

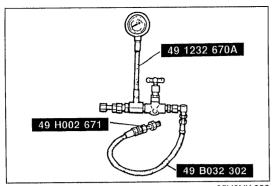
 To prevent damage to the steering system, do not keep the steering wheel in the fully turned position for more than 15 seconds.

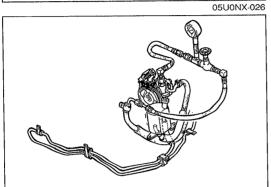
Start the engine and let it idle. Turn the steering wheel fully to the left and right to apply fluid pressure. Check for fluid leakage.

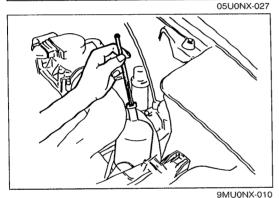
# Note

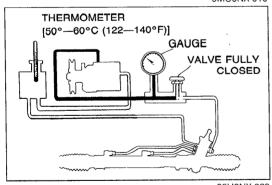
• The points where fluid leakage may occur are indicated in the figure.

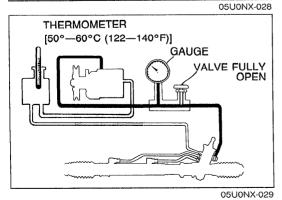












Fluid pressure

1. Assemble the **SST** as shown in the figure.

Tightening torque: 39—49 N·m (4.0—5.0 m-kg, 29—36 ft-lb)

Note

- Before disconnecting the hose, make marks at the connections for proper reinstallation.
- 2. Disconnect the high-pressure hose from the oil pump. Attach the **SST**.
- 3. Bleed the air from the system. (Refer to page N-15.)

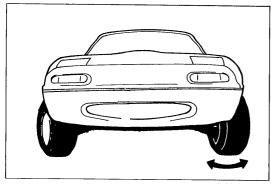
4. Open the gauge valve fully. Start the engine and turn the steering wheel fully left and right to raise the fluid temperature to 50—60°C (122—140°F).

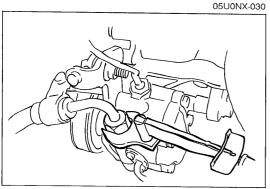
Caution

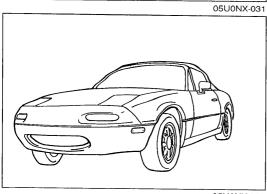
- If the valve is left closed for more than 15 seconds, the fluid temperature will increase excessively and adversely affect the oil pump.
- 5. Close the gauge valve completely. Increase the engine speed to **1,000—1,500 rpm** and measure the fluid pressure generated by the oil pump. If the pressure is not within specification, replace the oil pump assembly.

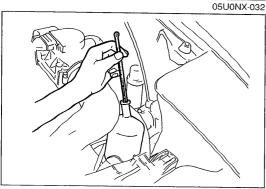
Oil pump fluid pressure: 7,603—8,339 kPa (77.5—85.0 kg/cm², 1,102—1,209 psi)

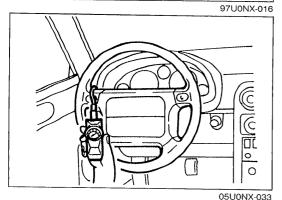
6. Open the gauge valve fully and increase the engine speed to **1,000—1,500 rpm**.











Caution

- If the steering wheel is kept in the fully turned position for more than 15 seconds, the fluid temperature will rise excessively and adversely affect the oil pump.
- 7. Turn the steering wheel fully to the left and right and measure the fluid pressure generated by the gear housing. If the pressure is not within specification, replace the gear housing assembly.

Gear housing fluid pressure: 7,603—8,339 kPa (77.5—85.0 kg/cm<sup>2</sup>, 1,102—1,209 psi)

8. Remove the gauge set. Install and tighten the high-pressure hose to the specified torque.

Tightening torque: 31—47 N·m (3.2—4.8 m-kg, 23—35 ft-lb)

9. Bleed the air from the system. (Refer to page N-15.)

# STEERING WHEEL AND COLUMN

# Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

On-vehicle Inspection Steering wheel effort

- 1. With the vehicle on a hard, level surface, put the wheels in the straight-ahead position.
- 2. Start the engine and warm the power steering fluid to 50—60°C (122—140°F).

3. With the engine running at idle, attach a pull scale to the outermost point of the steering wheel spoke.

Then, starting with the wheels in the straight-ahead position, measure the effort required to turn the steering wheel to the left and to the right.

# Steering wheel effort: 23.5—35.3 N (2.4—3.6 kg, 5.3—8.0 lb) [during one turn of the steering wheel]

4. If not within specification, check the following: fluid level, air in system, fluid leakage at hose or connections, function of oil pump and gear box, and tire pressure.

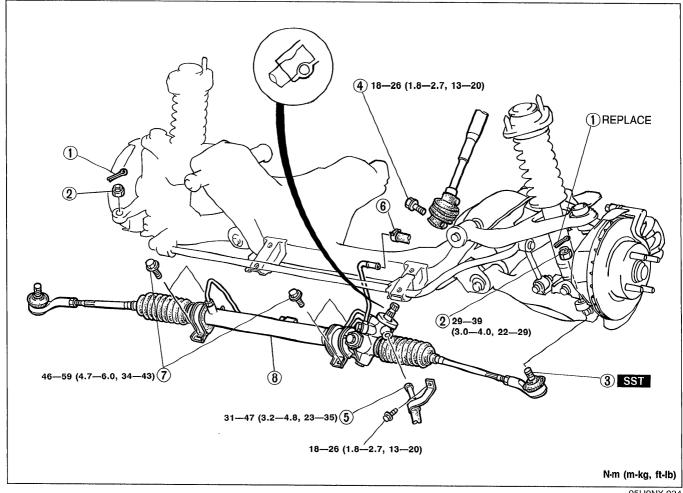
# STEERING GEAR AND LINKAGE **Removal / Installation**

#### Caution

- Disconnect/connect the pinion shaft from/to the intermediate shaft with the wheels in the straight-ahead position, and do not turn the steering wheel while the steering gear is removed. If not done correctly, adjust the clockspring connector. (U.S. spec.) (Refer to Section T.)
- 1. Loosen the wheel lug nuts.
- 2. Jack up the front of the vehicle and support it with safety stands.
- 3. Remove the wheels.
- 4. Remove in the order shown in the figure, referring to **Removal Note**.

#### Note

- Use a container or rags to collect the power steering fluid when disconnecting the pressure pipe and return hose.
- 5. Install in the reverse order of removal, referring to **Installation Note**.
- 6. Tighten all necessary bolts and nuts to the specified torque.
- 7. After installation:
  - (1) Check for fluid leakage. (Refer to page N-16.)
  - (2) Bleed air from the system. (Refer to page N-15.)



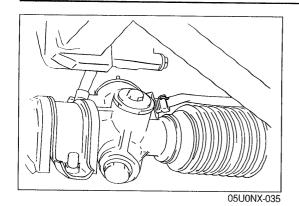
05U0NX-034

- 1. Cotter pin
- 2. Nut
- 3. Tie-rod end

Removal Note ...... page N- 7

4. Bolt

- 5. Pressure pipe Removal Note ...... page N-20
- 6. Return hose
- 7. Mounting bracket bolt
- 8. Steering gear and linkage



Removal note

Pressure pipe
Before removing the pressure pipe, make marks for reference during installation.

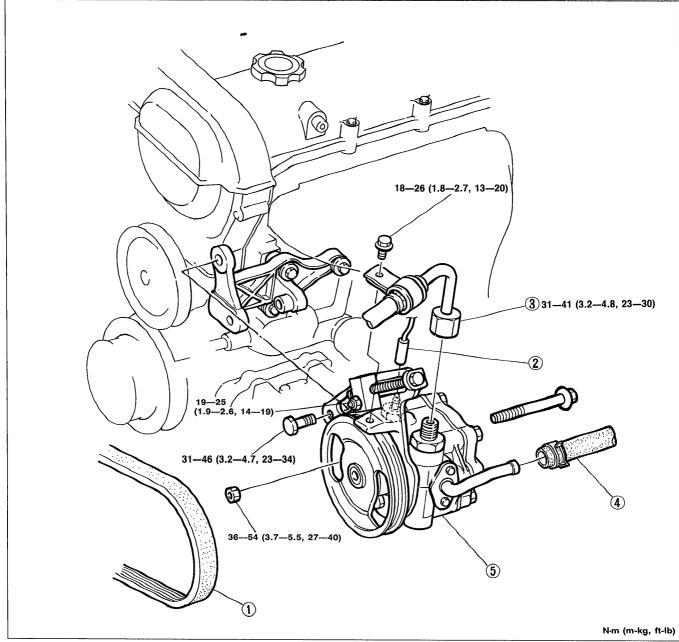
# **POWER STEERING OIL PUMP**

# Removal / Installation

1. Remove in the order shown in the figure, referring to **Removal Note**.

#### Note

- Use a container or rags to collect the power steering fluid when disconnecting the pressure pipe and return hose.
- 2. Install in the reverse order of removal, referring to Installation Note.
- 3. After installation:
  - (1) Check connections for fluid leakage. (Refer to page N-16.)
  - (2) Bleed air from system. (Refer to page N-15.)

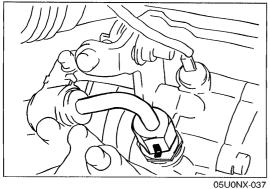


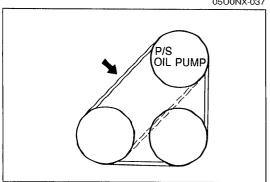
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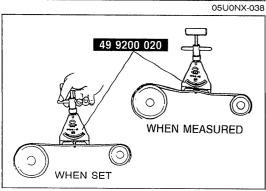
1. Drive belt	
Inspection page N-22	2
Adjustment page N-22	2
Replacement page N-22	2
2. Power steering pressure switch connector	

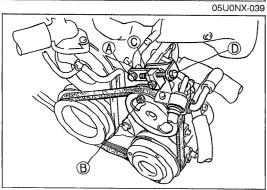
3. Pressure pipe		
Removal Note	page	N-22
4. Return hose		

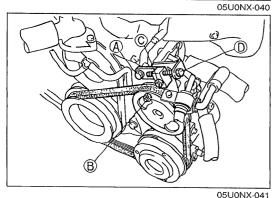
5. Oil pump assembly











Removal note Pressure pipe

Mark the pressure pipe for reference during installation before loosening.

# DRIVE BELT Inspection

- 1. Check the drive belt for wear, cracks, and fraying. Replace if necessary.
- Check the drive belt deflection by applying mode rate pressure (98 N, 10 kg, 22 lb) midway between the pulleys. Adjust if necessary.

Deflection (Depressed at 98 N [10 kg, 22 lb])

New: 8—9mm (0.31—0.35 in) Used: 9—10mm (0.35—0.39 in)

**Tension** 

New: 491—589 N (50—60 kg, 110—132 lb) Used: 422—491 N (43—50 kg, 95—110 lb)

Note

Belt tension can be measured between any pulleys.

Adjustment

1 Loosen P/S oil pump bolt (A) and nuts (B) and (C). Adjust the belt deflection by turning the adjusting bolt (D).

Tightening torque:

(A): 31—46 N/m (3.2—4.7 m-kg, 23—34 ft-lb)

B: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)

©: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

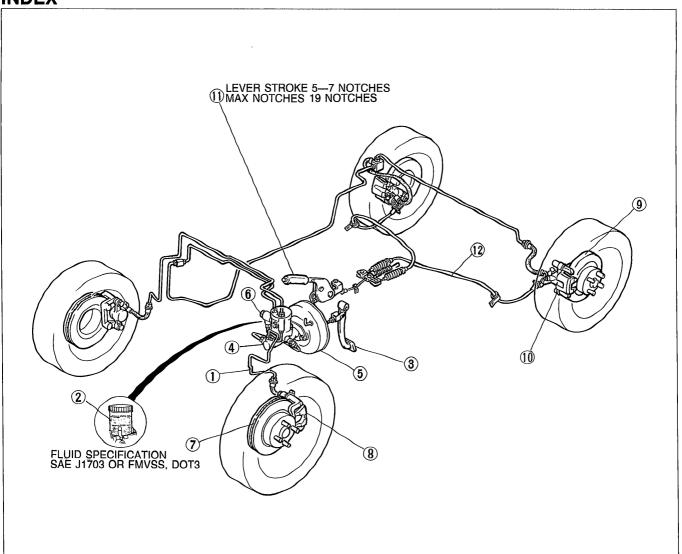
Replacement

- 1. Lossen bolt (A), nuts (B) and (C), and adjusting bolt (D).
- 2. Remove and replace the drive belt.
- 3. Adjust the deflection (tension). (Refer to above.)

# **BRAKING SYSTEM**

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# **OUTLINE**

# **SPECIFICATIONS**

	Item	Specifications
	Туре	Suspended
Brake pedal	Pedal level ratio	4.1 : 1
	Maximum stroke mm (in)	133 (5.24)
Master cylinder	Туре	Tandem (with level sensor)
iviasiei cylilidei	Bore mm (in)	22.22 (0.875)
	Туре	Disc (ventilated)
	Cylinder bore mm (in)	51.1 (2.01)
Front disc brake	Pad dimensions mm² x mm (area x thickness) (in² x in)	3,700 × 9.5 (5.73 × 0.37)
	Disc plate dimension mm (in) (effective diameter x thickness)	235 x 18 (9.25 x 0.71)
	Туре	Disc (solid)
	Cylinder bore mm (in)	31.75 (1.25)
Rear disc brake	Pad dimensions mm² x mm (area x thickness) (in² x in)	2,600 × 8.0 (4.03 × 0.31)
	Disc plate dimensions mm (in) (effective diameter x thickness)	231 × 9 (9.09 × 0.35)
Power brake unit	Туре	Vacuum multiplier
Tower brake drift	Size mm (in)	214 (8)
Braking force control device	Туре	Proportioning bypass valve (PBV)
Brake fluid		SAE J1703 or FMVSS 116, DOT-3
Parking brake	Туре	Mechanical, two rear brakes
r aining blane	Operation system	Hand lever

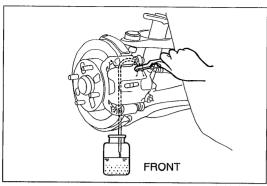
# **BRAKE SYSTEM**

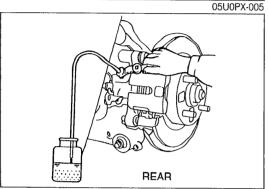
# PREPARATION SST

49 0259 770B Wrench, flare nut	For removal and installation brake pipes	49 F043 001 Adjust gauge	For adjustment of push rod clearance
49 0221 600C Expand tool, disc brake	For installation of disc pads	49 0208 701A  Boot air out tool	For removal of piston seal

# TROUBLESHOOTING GUIDE

Problem	Possible cause	Action	Page
Poor braking	Leakage of brake fluid Air in lines Worn pad Brake fluid, grease, oil, or water on pad Hardening of pad surface or poor contact Malfunction of disc brake piston Malfunction of master cylinder Malfunction of power brake unit Malfunction of check valve (vacuum hose) Damaged vacuum hose Deterioration of flexible hose Malfunction of proportioning bypass valve (PBV)	Repair Air bleed Replace Clean or replace Grind or replace Replace Repair or replace Repair or replace Repair or replace Repair or replace Replace Replace Replace Replace	P- 6 P-18,22 P-18,22 P-18,22 P-19,23 P-10 P-15 P-15 P-15 P-16
Brakes pull to one side	Worn pad Brake fluid, grease, oil, or water on pad Hardening of pad surface or poor contact Abnormal wear, distortion, or eccentricity of disc Malfunction of automatic adjuster in rear brake Looseness or deformation of dust cover mounting bolt Malfunction of disc brake piston Worn or improperly adjusted wheel bearing preload Improper adjustment of wheel alignment Unequal tire air pressure	Replace Clean or replace Grind or replace Repair or replace Repair Tighten or replace Repair or replace Repair or replace Replace or adjust Adjust Adjust	P-18,22 P-18,22 P-18,22 Section M Section M P-19,23 Section M Section R Section Q
Brakes do not release	No brake pedal play Improper adjustment of push rod clearance Clogged master cylinder return port Pad not returning properly Improper return of malfunction of brake caliper piston Excessive runout of disc plate Improper adjustment of wheel bearing preload	Adjust Adjust Clean Repair Replace Replace Adjust or replace	P- 8 P-11  P-21,25 Section M Section M
Pedal goes too far (Too much pedal stroke)	Air in system because of insufficient brake fluid Improper adjustment of pedal play Worn pad Air in lines	Add fluid and bleed air Adjust Replace Bleed air	P- 6 P- 8 P-18,22 P- 6
Abnormal noise or vibration during braking	Worn pad Deterioration of pads Brakes do not release Foreign material or scratches on disc plate contact surface Looseness of caliper mounting bolt(s) Damage or deviation of disc contact surface Poor contact of pads Insufficient grease on sliding parts	Replace Grind or replace Repair Clean Tighten Replace Repair or replace Apply grease	P-18,22 P-18,22 



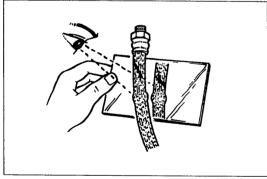


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# **AIR BLEEDING**

# Caution

- The fluid in the reservoir must be maintained at the 3/4 level or higher during air bleeding.
- Do not spill brake fluid onto painted surfaces.
- 1. Jack up the vehicle and support it with safety stands.
- Remove the bleeder cap and attach a vinyl tube to the bleeder screw.
- Place the other end of the vinyl tube in a clear container and keep the tube end immersed in brake fluid during air bleeding.
- 4. Pump the brake pedal several times.
- 5. While the brake pedal is depressed, loosen the bleeder screw to let fluid and air escape.
- 6. Repeat Steps 4 and 5 until there are no air bubbles in the fluid.
- 7. Check for correct brake operation.
- 8. Check that there is no fluid leakage. Be sure to clean away any spilled fluid with rags.
- 9. After bleeding the air, add brake fluid to the specified level in the reservoir.



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05U0PX-008

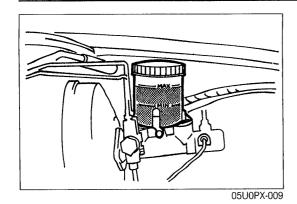
# BRAKE HYDRAULIC LINE Inspection

Check the following and replace parts as necessary.

- 1. Cracks, damage, and corrosion of the brake hose
- 2. Damage to the brake hose threads
- 3. Scars, cracks, and swelling of the flexible hose
- 4. All lines for fluid leakage

# Removal / Installation

- 1. When disconnecting the flexible hose and brake line, remove the clip after loosening the flare nut.
- 2. When connecting the flexible hose, do not tighten it too tight or twist it.
- 3. Check that the hose does not contact other parts when the vehicle bounces or when the steering wheel is turned all the way to the left or right.
- 4. Bleed the air from the brake system.



# BRAKE FLUID Inspection

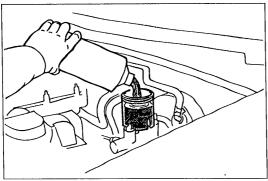
Check the fluid level in the reservoir. It should be between MAX and MIN.

If the fluid level is extremely low, check the brake system for leaks.

# Fluid specification: SAE J1703 or FMVSS 116, DOT-3

# Caution

- The fluid in the reservoir must be maintained at 3/4 level or higher during bleeding.
- Do not allow the brake fluid to get on painted surfaces.



# PEDAL HEIGHT PLAY PEDAL TO FLOOR CLEA RANCE

# Replacement

- 1. Remove the brake fluid from the reservoir with a suction pump.
- 2. Fill the reservoir with clean brake fluid.
- 3. Attach a vinyl tube to the bleeder screw and place the other end of the tube in a clear container.
- 4. Pump out the old brake fluid by loosening the bleeder screws one by one and pumping the brake pedal until only clean fluid is expelled.
- 5. Fill the reservoir to the specified level.

# BRAKE PEDAL On-vehicle Inspection Pedal height

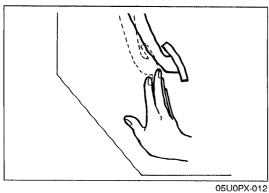
Check that the distance from the center of the upper surface of the pedal pad to the carpet is as specified.

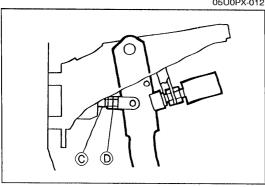
# Pedal height: 171—181mm (6.93—7.13 in) (With carpet)

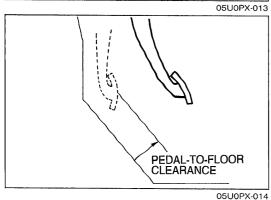
# Adjustment

- 1. Disconnect the stoplight switch connector.
- 2. Loosen locknut (B) and turn switch (A) until it does not contact the pedal.
- 3. Loosen locknut (D) and turn rod (C) to adjust the height.
- 4. Adjust the pedal free play and tighten operating rod locknut (D).
- 5. Turn the stoplight switch until it contacts the pedal; then turn an additional 1/2 turn. Tighten the locknut.

# **BRAKE SYSTEM**







Pedal play

- 1. Depress the pedal a few times to eliminate the vacuum in the system.
- 2. Lightly depress the pedal by hand until resistance is felt, and check the free play.

Free play: 4—7mm (0.16—0.28 in)

Adjustment

- 1. Loosen locknuts (1) and turn rod (2) to adjust the free play.
- 2. Tighten locknuts (D).

Pedal-to-floor clearance

Check that the distance from the floor panel to the center of the upper surface of the pedal pad is as specified when the pedal is depressed with a force of **589 N** (**60 kg**, **132 lb**).

Pedal-to-floor clearance: 95mm (3.74 in) (Without carpet)

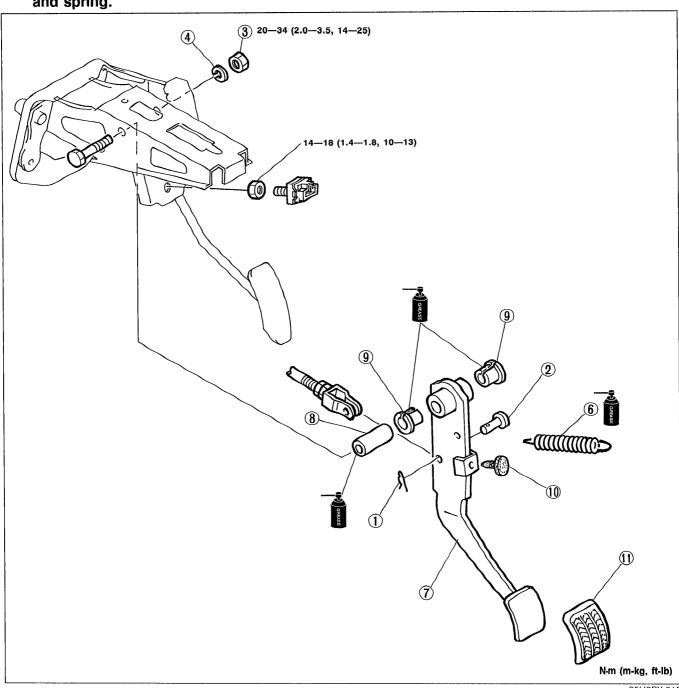
If the distance is less than specified, inspect for air in the brake system.

# Removal / Inspection / Installation

- Remove in the order shown in the figure.
   Inspect all parts and repair or replace as necessary.
- 3. Install in the reverse order of removal.
- 4. After installation, check and adjust the pedal height and free play if necessary.

# Caution

• Apply grease to the inner surface of the bushing and to the contact surfaces of the clevis pin and spring.



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- 1. Spring clip
- 2. Clevis pin
- 3. Nut
- 4. Spring washer
- 5. Bolt

- 6. Return spring Inspect for weakness and damage
- 7. Brake pedal Inspect for bending
- 8. Guide pipe

- 9. Bushing
  - Inspect for wear
- 10. Stopper rubber Inspect for wear
- 11. Pedal pad

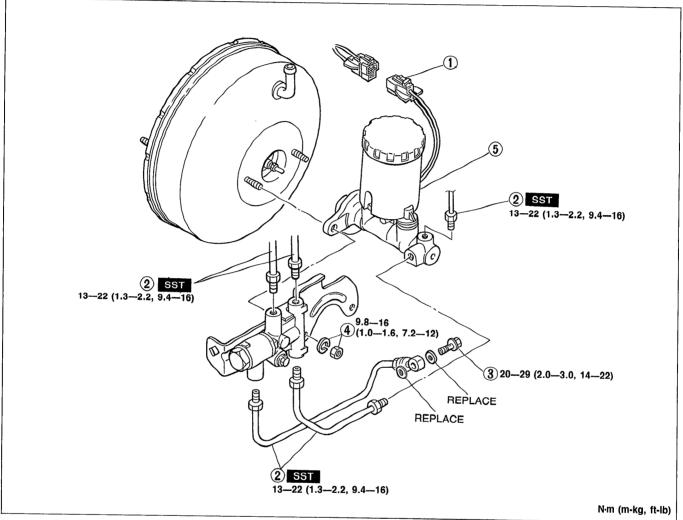
Inspect for wear and damage

# **MASTER CYLINDER** Removal / Installation

- 1. Remove in the order shown in the figure, referring to **Removal Note**.
- 2. Install in the reverse order of removal, referring to Installation Note.
- 3. After installation, add brake fluid, bleed air, and check for fluid leakage.

# Caution

• Brake fluid will damage painted surfaces. If it does get on a painted surface, wipe it off immediately.



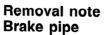
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- 1. Fluid level sensor connector
- 2. Brake pipe

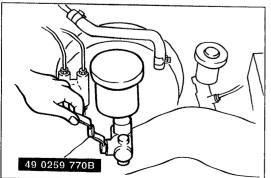
Removal note..... below

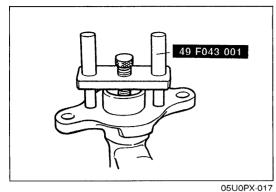
3. Connector bolts

- 4. Nut and washer
- 5. Reservoir and master cylinder Disassembly / Assembly / Inspection ...... page P-12

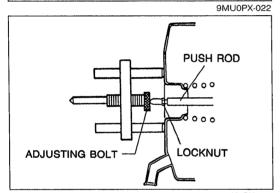


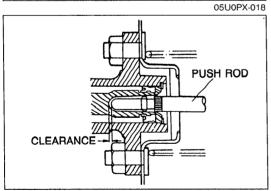
Disconnect/connect the brake pipe from/to the master cylinder with the SST.

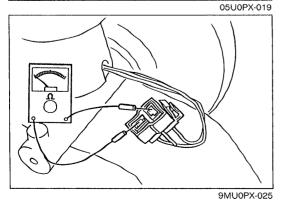




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# Installation note Push rod clearance

Measure the clearance between the push rod of the power brake unit and the piston of the master cylinder.

- 1. Place the **SST** atop the master cylinder. Turn the adjustment bolt until it bottoms in the piston.
- 2. Apply **500 mmHg (19.7 inHg)** vacuum to the power brake unit with a vacuum pump.
- 3. Invert the adjustment gauge used in Step 1, and place it on the power brake unit.

4. Measure the clearance between the end of the adjustment bolt and the push rod of the power brake unit. If it is not **0mm (0 in)**, loosen the push rod locknut and turn the push rod to make the adjustment.

# Reference

By making the above adjustment, the clearance between the push rod and piston (after installation of the brake master cylinder and the power brake unit) will be as shown in the table below.

	Clearance
When vacuum applied to unit is	0.1—0.3mm
approx. 500 mmHg (19.7 inHg)	(0.004—0.012 in)

# Inspection

Fluid level sensor

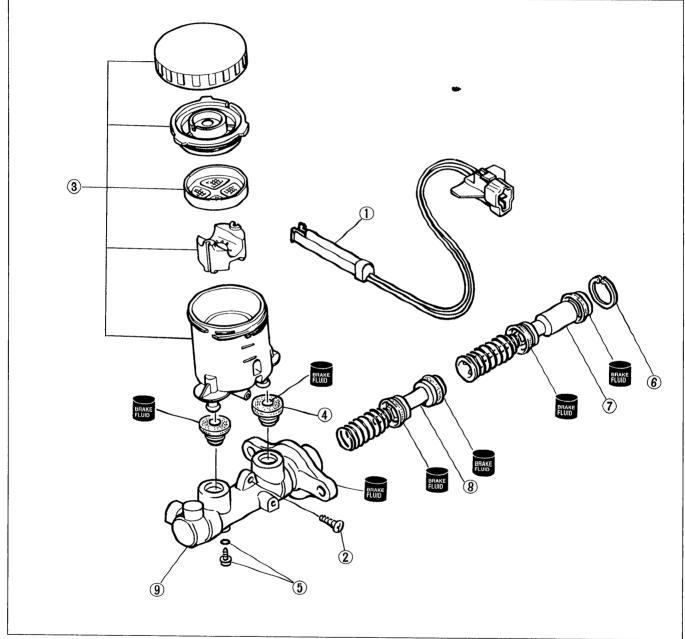
- 1. Disconnect the sensor connector.
- 2. Connect an ohmmeter to the connector.
- 3. Starting with the fluid level above the MIN mark on the reservoir, verify that there is no continuity.
- 4. Remove the brake fluid and verify continuity when the level is below the MIN mark.
- 5. Replace the sensor if necessary.

# Disassembly / Assembly / Inspection

- 1. After removing the brake fluid, disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of removal, referring to Assembly Note.

#### Caution

- Secure the master cylinder flange in a vise when necessary.
- Replace the piston assembly if necessary.
- Do not let foreign material enter the cylinder, and do not scratch the inside of the cylinder or the outer surface of the piston.



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- 1. Fluid level sensor
- 2. Screw
- 3. Reservoir assembly Inspect for damage and deformation
- 4. Bushings
- 5. Stopper screw and O-ring
- 6. Snap ring

7. Primary piston assembly

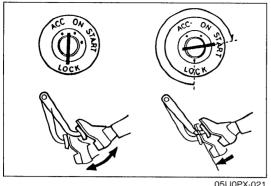
Inspect for abnormal wear, rust, and damage

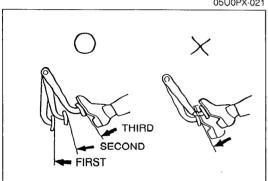
8. Secondary piston assembly

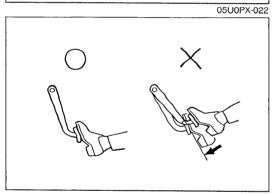
Inspect for abnormal wear, rust, and damage

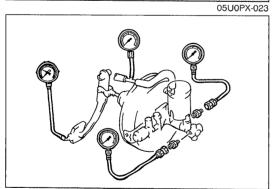
9. Cylinder

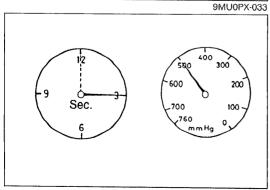
Inspect for abnormal wear, rust, and damage











POWER BRAKE UNIT Quick Inspection, On-vehicle Power brake unit function check (Simple method) Step 1

1. With the engine stopped, depress the pedal a few times.

2. With the pedal depressed, start the engine.

3. If immediately after the engine starts the pedal moves down slightly, the unit is operating.

# Step 2

1. Start the engine and let it run 1 or 2 minutes.

2. Stop the engine.

3. Depress the pedal with the usual force.

4. If the first pedal stroke is long and becomes shorter with subsequent strokes, the unit is operating.

5. If a problem is found, inspect for damage or improper connection of the check valve or vacuum hose. Repair if necessary, and inspect it once again.

# Step 3

1. Start the engine.

2. Depress the pedal with the usual force.

3. Stop the engine with the pedal depressed.

4. Hold the pedal down for about 30 seconds.

5. If the pedal height does not change, the unit is operating.

6. If there is a problem, check for damage or improper connection of the check valve or vacuum hose. Repair if necessary, and check once again.

If the nature of the problem is still not clear after following the 3 steps above, follow the more detailed check described in "Method using tester," below.

# (Method using tester)

Connect a pressure gauge, vacuum gauge, and pedal depression force gauge as shown in the figure. After bleeding the air from the pressure gauge, conduct the test as described in the 3 steps below.

# **Note**

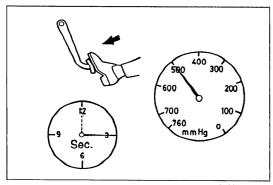
• Use commercially available gauges and pedal depression force gauge.

# a) Checking for vacuum loss Unloaded condition

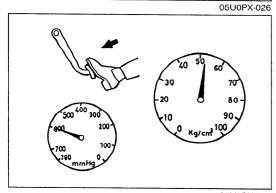
1. Start the engine.

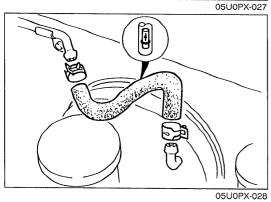
2. Stop the engine when the vacuum gauge indicates **500** mmHg (19.7 inHg).

 Observe the vacuum gauge for 15 seconds. If the gauge indicates 475—500 mmHg (18.7—19.7 inHg), the unit is operating.



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# Loaded condition

- 1. Start the engine.
- 2. Depress the brake pedal with a force of 196 N (20 kg, 44 lb).
- 3. With the brake pedal depressed, stop the engine when the vacuum gauge indicates **500 mmHg (19.7 inHg)**.
- Observe the vacuum gauge for 15 seconds. If the gauge indicates 475—500 mmHg (18.7—19.7 inHg), the unit is operating.

b) Checking for hydraulic pressure

1. If with the engine stopped (vacuum 0 mmHg [0 inHg]) the fluid pressure is within specification, the unit is operating.

Pedal force	Fluid pressure
196 N (20 kg, 44 lb)	1,079—1,177 kPa (11—12 kg/cm², 156—171 psi)

2. Start the engine. Depress the brake pedal when the vacuum reaches **500 mmHg (19.7 inHg)**. If the fluid pressure is within specification, the unit is operating.

Pedal force	Fluid pressure
196 N (20 kg, 44 lb)	5,199—5,494 kPa (53—56 kg/cm², 754—796 psi)

# Inspection of check valve

#### Note

The check valve is pressed into the vacuum hose.
 There is an arrow on the hose to indicate direction of hose installation.

#### Inspection

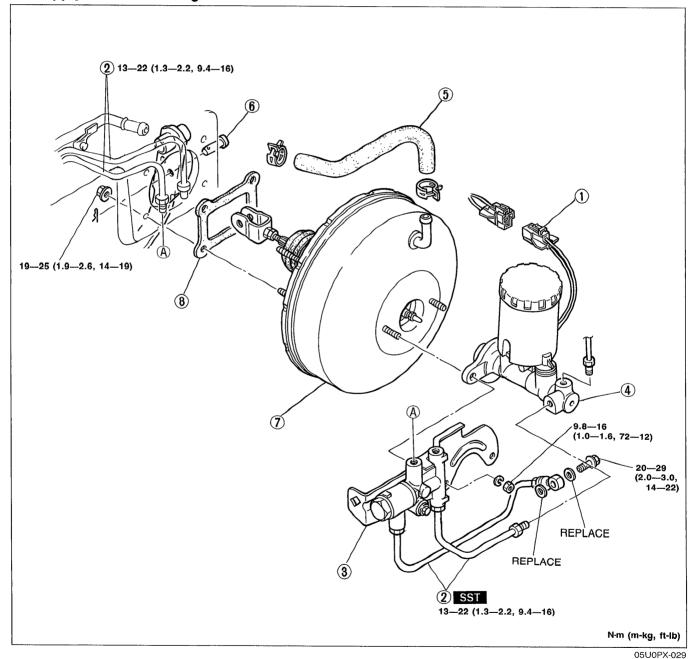
- 1. Disconnect the vacuum hose from the engine.
- 2. Apply suction and pressure to the hose from the engine side. Verify that air flows only toward the engine. If the air passes in both directions or not at all, replace the vacuum hose (along with the check valve).

# Removal / Installation

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.
- 3. Take the following steps after installation:
  - (1) Check and adjust the push rod and piston clearance. (Refer to page P-11.)
  - (2) Add fluid and bleed the air. (Refer to page P-6.)
  - (3) Check all parts for fluid leakage.
  - (4) Make an on-vehicle check of the unit. (Refer to page P-13.)
  - (5) Check that the vacuum hose does not contact other parts.

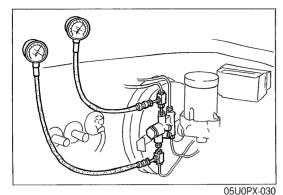
#### Caution

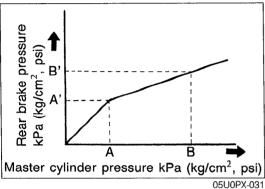
- Apply grease to the clevis pin.
- Apply sealant to the gasket contact surface.



- 1. Fluid level sensor connector
- 2. Brake pipe
- 3. Proportioning valve
- 4. Master cylinder

- 5. Vacuum hose with check valve
- 6. Clevis pin
- 7. Power brake unit
- 8. Gasket





# PROPORTIONING BYPASS VALVE Inspection

- 1. Connect two pressure gauges [9,810 kPa (100 kg/cm², 1,422 psi)] to the pipes.
- 2. Measure the fluid pressure from the master cylinder and to the rear brake.

# **Specification**

Fluid pressure kPa (kg/cm², psi)				
А	A'	В	B'	
2,943 (30, 427)	2,943 ± 196 (30 ± 2, 427 ± 28)	6,867 (70, 995)	4,120 ± 294 (42 ± 3, 597 ± 43)	

#### Caution

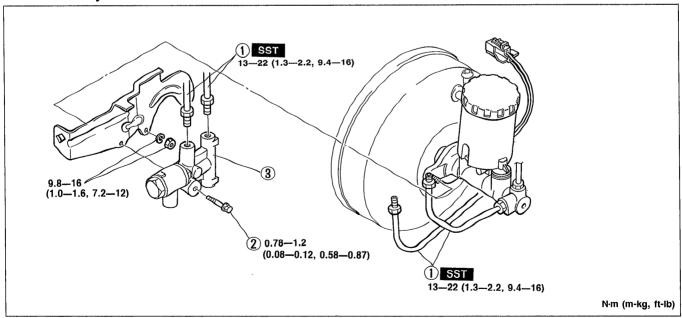
- If not as specified, replace the valve assembly.
- After inspection:
   Add brake fluid and bleed the air.
   (Refer to page P-6.)
   Check the brake lines for fluid leakage.

# Replacement

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.
- 3. After installation:
  - (1) Add brake fluid and bleed the air. (Refer to page P-6.)
  - (2) Check the brake lines for fluid leakage.

## Caution

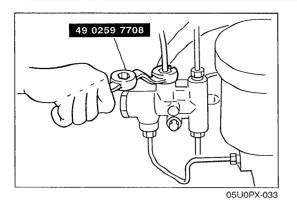
• Brake fluid will damage painted surfaces. If it does get on a painted surface, wipe it off immediately.



05U0PX-032

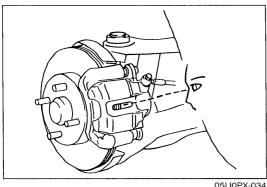
1. Brake pipe
Removal.....

- 2. Bolt
- 3. Proportioning bypass valve



**Removal / Installation Note** 

Brake pipe
Disconnect/connect the brake pipes with the SST.



05U0PX-034

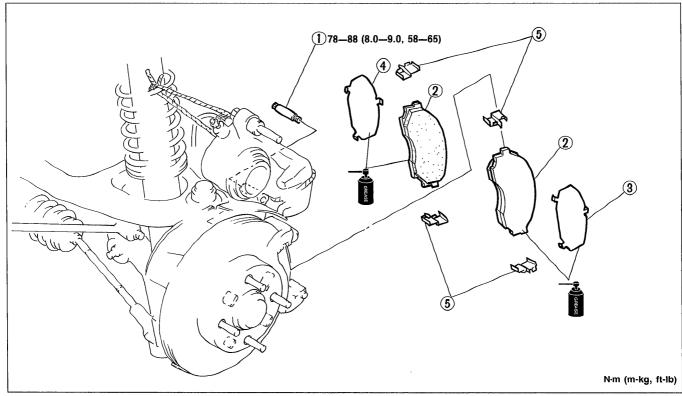
# FRONT BRAKE (DISC) **Quick Inspection, On-vehicle** Disc pad

- 1. Jack up the front of the vehicle and support it with safety stands.
- 2. Remove the wheels.
- 3. Sight through the caliper inspection hole and verify the remaining thickness of the pad.

Thickness: 1.0mm (0.04 in) min.

# Replacement Disc pad

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal, referring to Installation Note.



05U0PX-035

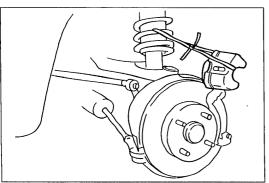
- 1. Lock bolt

Removal.....page P-18

2. Disc pad

Installation...... page P-19

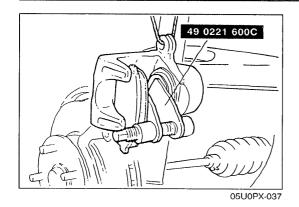
- 3. Outer shim
- 4. Inner shim
- 5. Guide plate



05U0PX-036

# Removal Lock bolt

- 1. Remove the lower lock bolt.
- 2. Rotate the caliper upward and support it with a piece of rope.

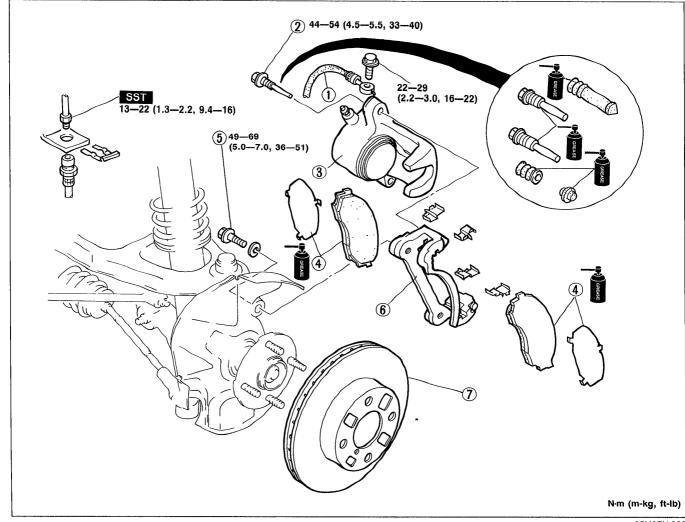


# Installation Disc pad

- 1. Push the piston inward with the SST.
- 2. Install the new pads in the mounting support.

# Removal / Installation Caliper

- 1. Jack up the front of the vehicle and support it with safety stands.
- 2. Remove the wheels; then remove components in the order shown in the figure.
- 3. Install in the reverse order of removal.
- 4. Tighten all nuts and bolts to the specified torques, referring to the figure.

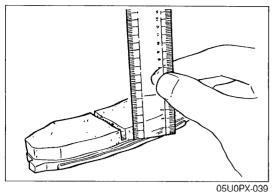


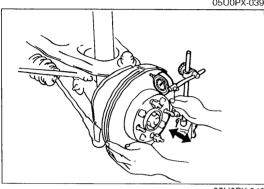
05U0PX-038

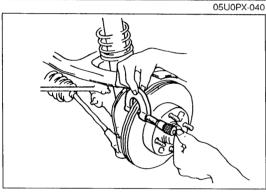
- 1. Brake hose
- 2. Lock bolt
- 3. Brake caliper assembly Disassembly / Assembly ...... page P-21
- 5. Bolt
- 6. Mounting support
- 7. Disc plate

Inspection ..... page P-20

# **BRAKE SYSTEM**







05U0PX-041

# Inspection

Check the following and repair or replace parts as necessary.

- **Disc pad**1. Oil or grease on facing.
- 2. Abnormal wear or cracks.
- 3. Deterioration or damage by heat.
- 4. Remaining lining thickness.

Thickness: 1.0mm (0.04 in) min.

# Disc plate

1. Runout.

Runout: 0.1mm (0.004 in) max.

#### Caution

- There must be no wheel bearing looseness.
- The measurement must be taken at the outer edge of the disc plate surface.
- 2. Wear and damage.

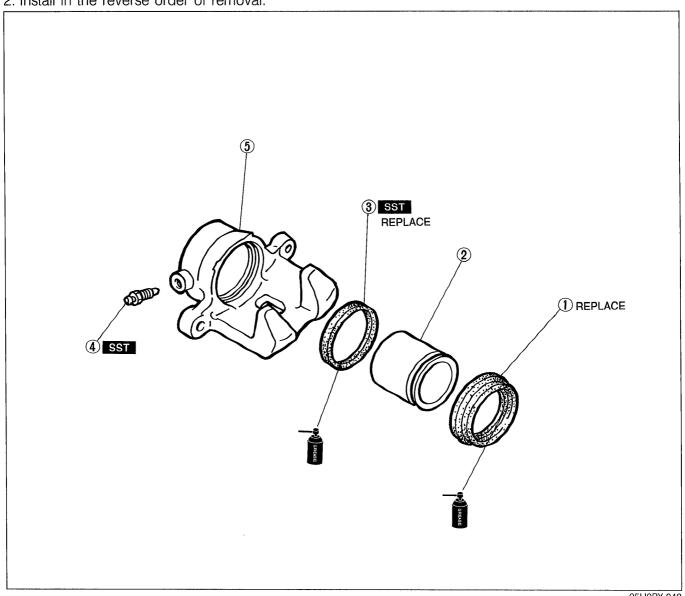
# **Thickness**

**Standard: 18mm (0.71 in)** Minimum: 16mm (0.63 in)

# **CALIPER**

# Disassembly / Inspection / Assembly

- 1. Disassemble in the order shown in the figure, referring to Disassembly Note.
- 2. Install in the reverse order of removal.



05U0PX-042

- 1. Dust seal
  - Inspect for damage and poor sealing
- 2. Piston

Inspect for wear and rust

Disassembly ...... page P-21

- 3. Piston seal
- 4. Bleeder screw
- 5. Caliper body Inspect for damage and cracks

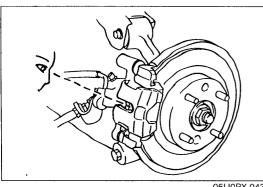


# Caution

 Blow the compressed air slowly to prevent the piston from popping out.

Disassembly note

Place a piece of wood in the caliper; then blow compressed air through the hole to force the piston out of the caliper.



05U0PX-043

#### **REAR BRAKE (DISC) Quick Inspection, On-vehicle** Disc pad

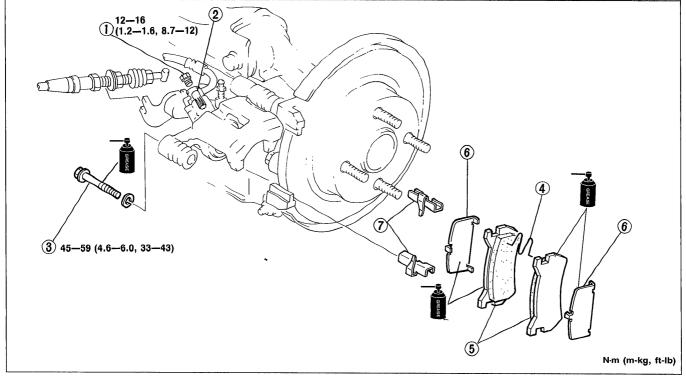
- 1. Jack up the rear of the vehicle and support it with safety stands.
- 2. Remove the wheels.
- 3. Sight through the caliper inspection hole and verify the remaining thickness of the pad.

Thickness: 1.0mm (0.04 in) min.

### Replacement

#### Disc pad

- 1. Remove in the order shown in the figure, referring to **Removal Note**.
- 2. Install in the reverse order of removal, referring to **Installation Note**.



05U0PX-044

- 1. Plug 2. Manual adjustment gear Removal ..... below Installation......page P-23 3. Lock bolt
- RETRACTING BRAKE PADS

05U0PX-045

7. Guide plate

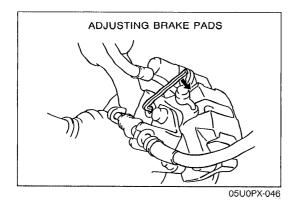
Manual adjustment gear

4. M-spring

5. Disc pad

Turn the manual adjustment gear counterclockwise with an Allen wrench to pull the brake caliper piston back.

Inspection ...... page P-24

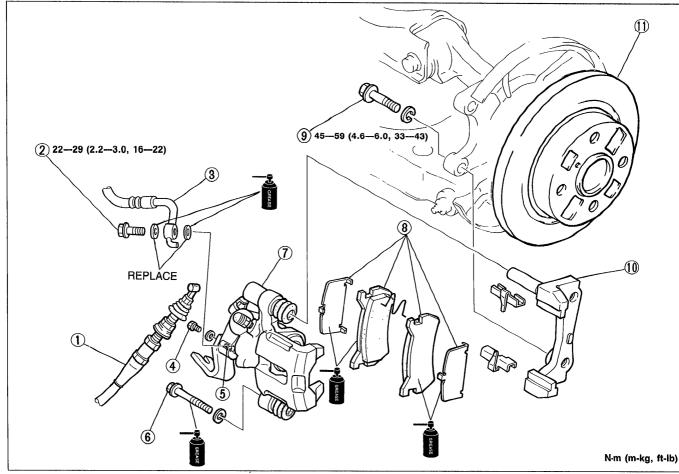


#### Installation note Manual adjustment

- 1. Turn the manual adjustment gear clockwise until the brake pads just touch the disc plate.
- 2. Return the manual adjustment gear counterclockwise 1/3 turn.

# Removal / Installation Caliper

- 1. Jack up the rear of the vehicle and support it with safety stands.
- 2. Remove the wheels; then remove components in the order shown in the figure.
- 3. Install in the reverse order of removal.
- 4. Tighten all nuts and bolts to the specified torques, referring to the figure.

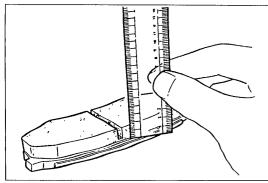


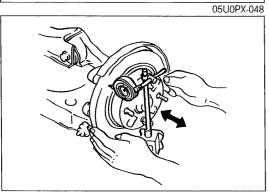
05U0PX-047

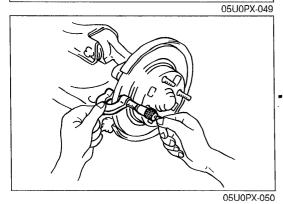
1. Parking cable
Removal / Inspection / Installation page P-29
2. Connecting bolt
3. Brake hose
4. Plug
5. Manual adjustment gear
Removalpage P-22
Installationpage P-23
6. Lock bolt

7. Caliper		
Disassembly / Assembly	page	P-25
8. Disc pad assembly		
Replacement	page	P-22
Inspection	page	P-24
9. Bolt		
10. Mounting support		
11. Disc plate		
Inspection	page	P-24

#### **BRAKE SYSTEM**







Inspection

Check the following and repair or replace parts as necessary.

Disc pad

1. Oil or grease on facing.

2. Abnormal wear or cracks.

3. Deterioration or damage by heat.

4. Remaining lining thickness.

Thickness: 1.0mm (0.04 in) min.

Disc plate

1. Runout.

Runout: 0.1mm (0.004 in) max.

Caution

There must be no wheel bearing looseness.

• The measurement must be taken at the outer edge of the disc plate surface.

2. Wear or damage.

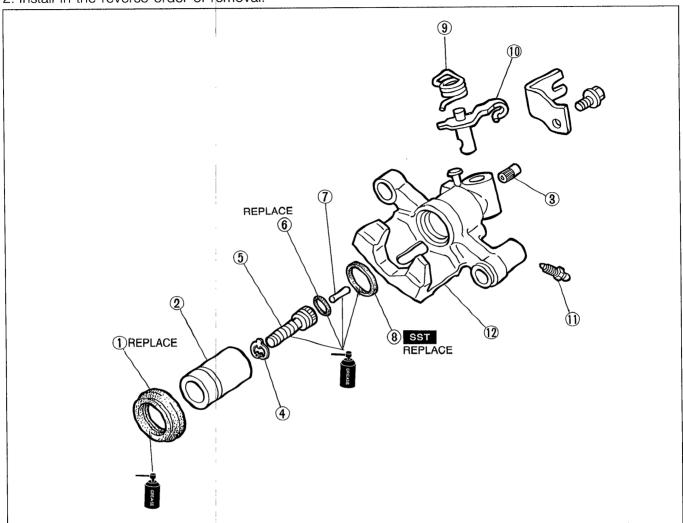
**Thickness** 

Standard: 9.0mm (0.35 in) Minimum: 7.0mm (0.28 in)

#### **CALIPER**

#### Disassembly / Inspection / Assembly

- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Install in the reverse order of removal.

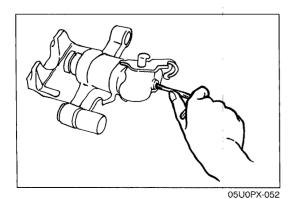


05U0PX-051

- 1. Dust seal
  - Inspect for damage and poor sealing
- 2. Piston
  - Disassembly below
  - Assembly ...... page P-26 Inspect for wear and rust .
- 3. Manual adjustment gear
- 4. Snap ring
- 5. Adjusting bolt

- 6. O-ring
- 7. Connecting link
- 8. Piston seal
- 9. Spring
- 10. Operating lever
- 11. Cap and bleeder screw
- 12. Caliper body

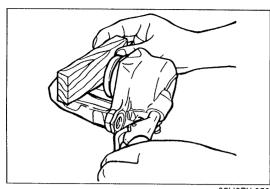
Inspect for damage and cracks

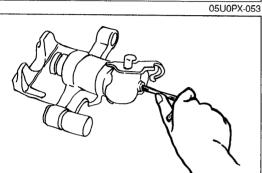


### Disassembly note

1. Turn the adjustment gear clockwise with an Allen wrench to remove the piston from it. (Turn the adjustment gear until it turns easily.)

#### **BRAKE SYSTEM**





2. Place a piece of wood in the caliper; then blow compressed air through the hole to force the piston out of the caliper.

#### Caution

Blow the compressed air slowly to prevent the piston from popping out.

# Assembly Piston

05U0PX-054

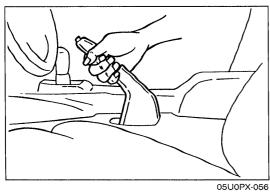
Insert the piston into the caliper and turn the adjustment gear counterclockwise with an Allen wrench to pull the piston in fully. (Turn the adjustment gear until it stops.)

#### **PARKING BRAKE SYSTEM**

#### TROUBLESHOOTING GUIDE

Problem	Possible cause	Action	Page
Brakes do not release	Improper return of parking brake cable or improper adjustment	Repair or adjust	P-29
Parking brake does not hold well	Excessive lever stroke Brake cable stuck or damaged Brake fluid or oil on pads Hardening of pad surfaces or poor contact	Adjust Repair or replace Clean or replace Grind or replace	P-27 P-29 P-18,22 P-18,22

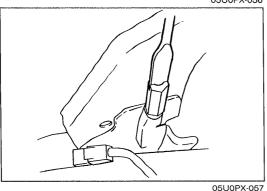
05U0PX-055



# PARKING BRAKE LEVER Inspection

- 1. Depress the brake pedal several times.
- 2. Verify that the stroke is within specification when the parking brake lever is pulled with a force of **98 N (10 kg, 22 lb)**.

Stroke: 5-7 notches



Adjustment

- 1. Jack up the rear of the vehicle until the wheels are free to turn and support it with stands.
- 2. Depress the brake pedal several times.
- 3. Turn the adjusting nut to adjust the lever stroke.
- 4. Check that the parking brake warning light illuminates when the brake lever is pulled one notch.

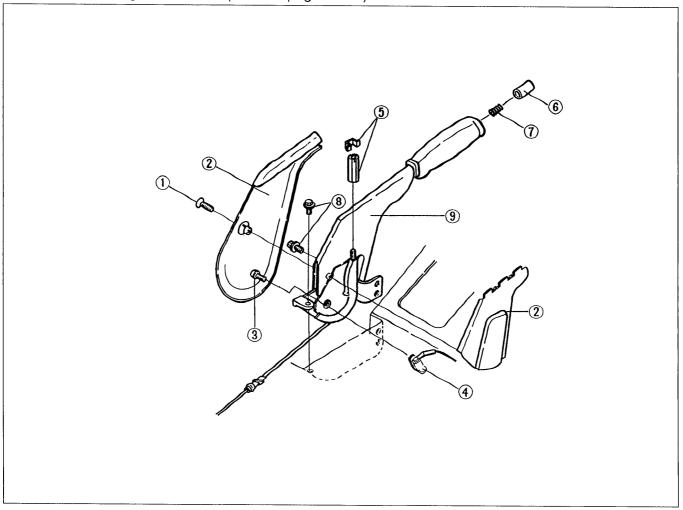
#### Caution

- Verify that the brakes do not drag.
- 5. Lower the vehicle.

#### Removal / Inspection / Installation

- 1. Block the wheels firmly.
- 2. Release the parking brake.
- 3. Remove in the order shown in the figure.
- 4. Inspect all parts and repair or replace as necessary.
- 5. Install in the reverse order of removal, referring to Installation Note.
- 6. After installation:

Adjust the parking lever stroke. (Refer to page P-27.)



05U0PX-058

- 1. Screw
- 2. Cover
- 3. Bolt
- 4. Parking brake switch Installation..... page P-28

5. Adjusting nut and clip

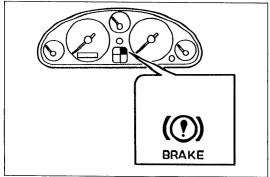
6. Cap

7. Spring Inspect for weakness

- 8. Bolt
- 9. Parking brake lever Inspect for damage and cracks

Installation note Parking brake switch

- 1. Install the parking brake switch so that it contacts the parking brake lever when the lever is fully released.
- 2. Turn the ignition switch ON, and check that the parking brake warning lamp illuminates with the lever pulled one notch.

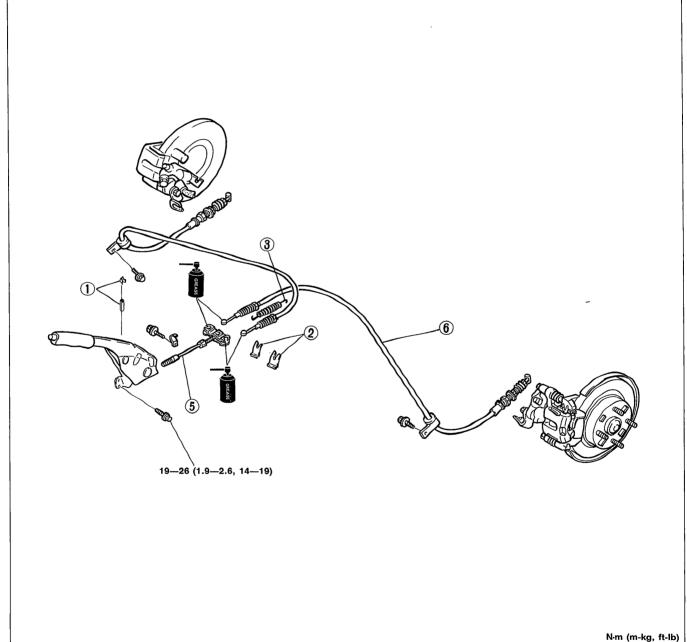


9MU0PX-110

#### **PARKING BRAKE CABLE**

#### Removal / Inspection / Installation

- 1. Block the wheels firmly.
- 2. Release the parking brake.
- 3. Remove the parking brake lever.
- 4. Jack up the vehicle and support it with safety stands.
- 5. Remove the parking brake cable in the order shown in the figure.
- 6. Install in the reverse order of removal.
- 7. After installation:
  - (1) Adjust the parking brake lever stroke.
  - (2) Depress the brake pedal a few times.
  - (3) Verify that the rear brakes do not drag while the wheels are rotated by hand.



05U0PX-059

- 1. Adjusting nut and clip
- 2. Clip
- 3. Spring

Inspect for weakness

4. Front cable Inspect for damage5. Rear cable

Inspect for damage

# **WHEELS AND TIRES**

OUTLINE	Q-	2
SPECIFICATIONS		
TROUBLESHOOTING GUIDE	Q-	2
WHEELS AND TIRES	Q-	3
SPECIAL NOTES ABOUT WHEELS		
AND TIRES	Q	3
NOTES REGARDING TIRE REPLACEMENT.		
INSPECTION / ADJUSTMENT	Q-	3
REMOVAL / INSTALLATION	Q-	4
TIRE ROTATION		
WHEEL BALANCE ADJUSTMENT		
05	LINOV	001

### **OUTLINE**

### **SPECIFICATIONS**

Item		Туре	Standard	Temporary spare
	Size		14 x 5 1/2-JJ	14 × 4T
\	Offset	mm (in)	45 (1.77)	
Wheels	Pitch circle diameter	mm (in)	100	(3.94)
	Material		Aluminum Alloy	Steel
Tivoo	Size		185/60R14 82H	T115/70D14
Tires	Air pressure	kPa (kgf/cm², psi)	177 (1.8, 26)	412 (4.2, 60)

05U0QX-002

### TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action	Page	
Excessive or ir- regular tire wear	Refer to page Q- 4 for details.			
Premature tire wear	Incorrect tire pressure	Adjust	Q- 3	
Tire squeal	Incorrect tire pressure Tire deterioration	Adjust Replace	Q- 3 -	
Road noise or body vibration	Insufficient tire pressure Unbalanced wheel(s) Deformed wheel(s) or tire(s) Irregular tire wear	Adjust Adjust Repair or replace Replace	Q- 3 Q- 5 	
Shake (Steering wheel vibrates up/down)	Excessive tire and wheel runout Loose lug nuts Unbalanced wheel(s) Cracked or worn engine mount rubber Cracked or worn transmission mount rubber	Replace Tighten Adjust or replace Replace Replace	Q- 4 Q- 5 Sections B1,B2 Sections K1,K2	
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mount rubber Loose steering gear mounting bolts Stuck or damaged steering ball joint Excessive tire and wheel runout Loose lug nuts Unbalanced wheel(s) Insufficient tire pressure Unevenly worn tires Malfunction of shock absorber Loose shock absorber mounting bolts Struck or damaged lower arm ball joint Cracked or worn suspension bushings Damaged or worn front wheel bearing Impropery adjusted front wheel alignment	Replace Tighten Replace Replace Replace Tighten Adjust or replace Adjust Replace Replace Tighten Replace Replace Replace Replace Replace Adjust	Section N Section N Section N Section N  — Q— 4 Q— 5 Q— 3 — Section R Section R Section R Section R Section R Section R	
Uneven (one-sided) braking	Unequal tire pressures	Adjust .	Q- 3	
Steering wheel doesn't return properly or pulls to either left or right	Incorrect tire pressure Irregular tire wear (left/right) Unequal tire pressures Different types or brands of tires mixed (left/right) Loose lug nuts	Adjust Replace Adjust Replace Tighten	Q- 3 	
General driving instability	Unequal tire pressures Damaged or unbalanced wheel(s) Loose lug nuts	Adjust Replace or adjust Tighten	Q- 3 Q- 5 Q- 4	
Excessive steering wheel play	Loose lug nuts	Tighten	Q- 4	

#### WHEELS AND TIRES

#### SPECIAL NOTES ABOUT WHEELS AND TIRES

1. Do not use wheels or tires other than the specified types.

2. Aluminum wheels are easily scratched. When washing them, use a soft cloth, never a wire brush. If the vehicle is steam cleaned, do not allow boiling water to contact the wheels.

3. If alkaline compounds (such as saltwater or road salts) get on aluminum wheels, wash them as soon as possible to prevent damage. Use only a neutral detergent.

9MU0QX-004

#### NOTES REGARDING TIRE REPLACEMENT

Note the following points when tires are to be removed from or mounted onto the wheels.

1. Be careful not to damage the tire bead, the rim bead, or the edge of the rim.

2. Apply a soapy solution to the tire bead and the edge of the rim.

3. Use a wire brush, sandpaper, or cloth to clean and remove all rust and dirt from the rim edge and the rim bead. For aluminum wheels, use only a cloth for this purpose; never use a wire brush or sandpaper.

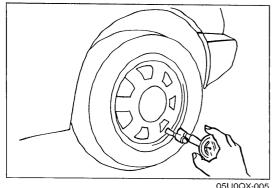
4. Remove pebbles, glass, nails, and other foreign items embedded in the tire tread.

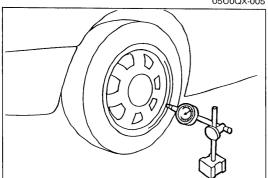
5. Be sure the air valve is installed correctly.

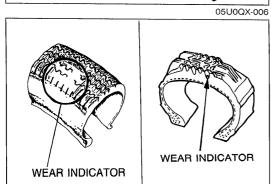
6. After mounting a tire onto a wheel, inflate it to 250—300 kPa (2.55—3.06 kg/cm², 35.55—42.66 psi). Verify that the bead is seated correctly onto the rim and that there are no air leaks. Then reduce the pressure to the specified level.

7. If a tire iron is used to change a tire on an aluminum wheel, be sure to use a piece of rubber between the iron lever and the wheel to avoid damage to the wheel. Work should be done on a rubber mat, not on a hard or rough surface.

05U0QX-004







**INSPECTION / ADJUSTMENT** 

Check the following and adjust or replace as necessary.

1. Air pressure.

Check the air pressure of all tires, including the spare tire, with an air pressure gauge.

Air pressure:

Standard tires 177 kPa (1.8 kgf/cm<sup>2</sup>, 26 psi) Temporary spare tires 412 kPa (4.2 kgf/cm<sup>2</sup>, 60 psi)

#### Caution

- The air pressure must be measured when the tire is cold.
- 2. Wheel runout.

Set the probe of a dial indicator against the wheel, and turn the wheel one full revolution.

Wheel runout: Horizontal 2.0mm (0.079 in) max. Vertical 1.5mm (0.059 in) max.

3. Tire wear.

#### **Specifications**

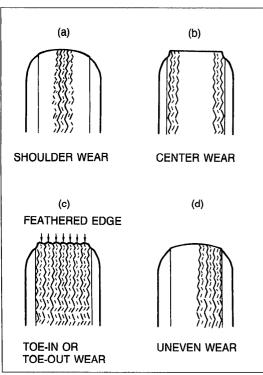
Remaining tread

Ordinary tires: 1.6mm (0.063 in) min.

(Tire should be replaced if wear indicators are exposed.)

Snow tires: 50% of tread

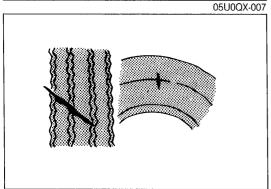
(Tire should be replaced if wear indicators are exposed.)



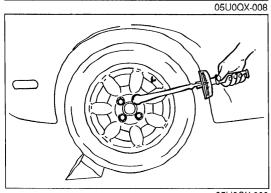


Abnormal tire wear patterns shown in the illustration can occur. Refer to the chart for the possible causes and actions.

	Possible cause	Action
(a)	Underinflation (both sides worn) Incorrect camber (one side worn) Hard cornering Lack of rotation	Measure and adjust pressure     Repair or replace suspension parts     Reduce speed     Rotate tires
(b)	Overinflation    Lack of rotation	Measure and adjust pressure     Rotate tires
(c)	Incorrect toe-in	Adjust toe-in
(d)	Incorrect camber or caster     Malfunctioning suspension     Unbalanced wheel     Out-of-round brake drum or disc     Other mechanical conditions     Lack of rotation	Repair or replace suspension parts     Repair or replace     Balance or replace     Correct or replace     Correct or replace     Rotate tires



- 4. Cracks, damage, and foreign matter (such as metal pieces, nails, and stones) in the tire and cracks, deformation, and damage to the wheel.
- 5. Loose wheel lug nut(s).
- 6. Air leaking from valve stem.



#### **REMOVAL / INSTALLATION**

Tighten the lug nuts to the specified torque in a crisscross fashion.

Tightening torque: 88—118 N·m (9—12 m-kg, 65—87 ft-lb)

#### Caution

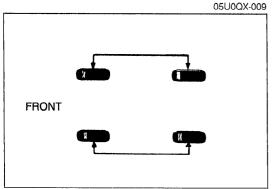
- The wheel-to-hub contact surfaces must be clean.
- Never apply oil to the nuts, bolts, or wheels, which cause looseness or seizure of the lug nuts.

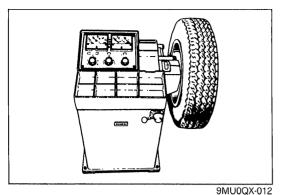
#### TIRE ROTATION

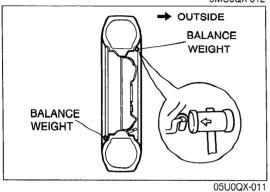
To prolong tire life and assure uniform tire wear, rotate the tires every 6,000 km (3,750 miles), sooner if irregular wear develops.

#### Caution

- Do not include "TEMPORARY USE ONLY" spare tire in rotation.
- After rotating the tires, adjust each tire to the specified air pressure. (Refer to page Q-3.)







#### WHEEL BALANCE ADJUSTMENT

If a wheel becomes unbalanced or if a tire is replaced or repaired, the wheel must be rebalanced to within specification.

Maximum unbalance (at rim edge): 10 g (0.35 oz)

#### Caution

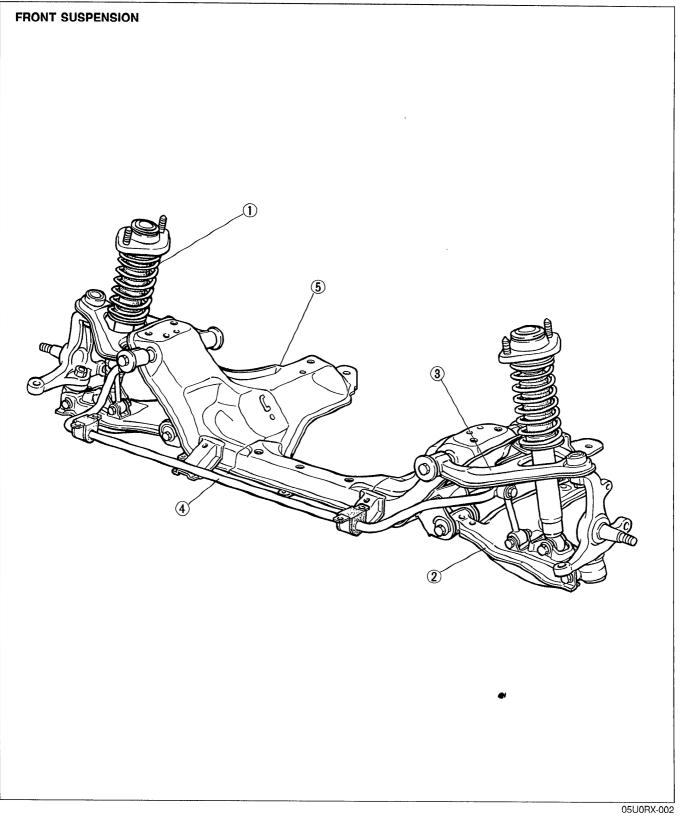
- Do not use more than two balance weights on the inner or outer side of the wheel. if the total weight exceeds 100 g (3.5 oz), rebalance after moving the tire around on the rim.
- Attach the balance weights tightly so that they do not protrude more than 3mm (0.12 in) beyond the wheel edge.
- Select suitable balance weights for aluminum alloy wheels.

# **SUSPENSION**

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### **INDEX**



3. Upper arm

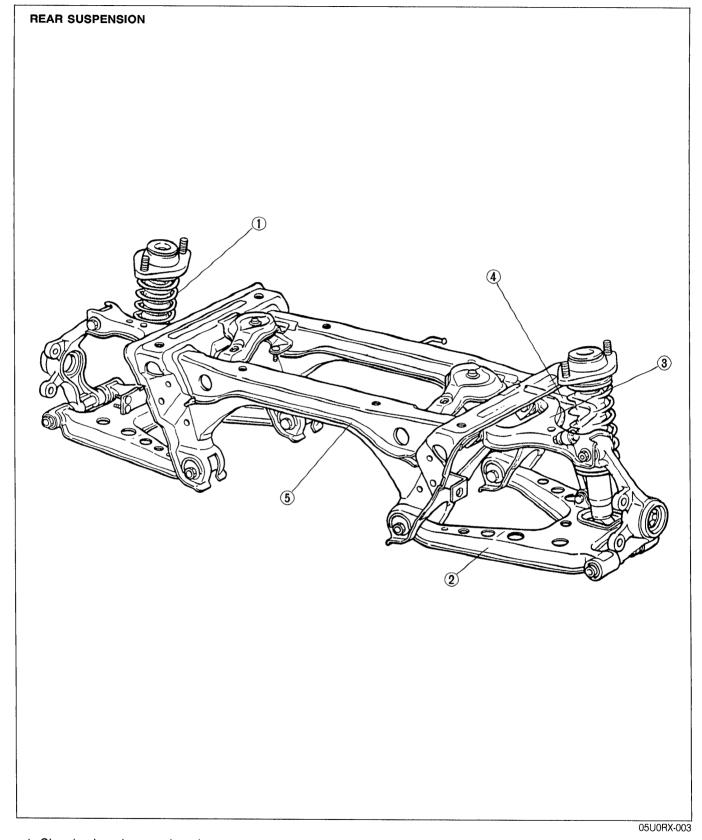
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<ol> <li>Shock absorber and spring</li> </ol>	
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2. Lower arm	1
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3. Upper arm Removal / Inspection / Installation page R-24

4. Stabilizer

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5. Crossmember

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### **OUTLINE**

#### **SPECIFICATIONS Front Suspension**

ltem			Specifications	
Suspension type			Double-wishbone	
Stabilizer	Туре		Torsion bar	
Stabilizer	Diameter	mm (in)	19 (0.75)	
Shock absorber			Cylindrical double acting, low-pressure-gas charged	
	Identification mark co	olor	Red	
	Wire diameter		10.8 (0.43)	
Coil spring	Coil inner diameter		83 (3.27)	
	Free length mm (in)		282.5 (11.12)	
	Coil number		5.91	
	Total toe-in	mm (in)	3 ± 3 (0.12 ± 0.12)	
		degree	0°18' ± 18'	
	Maximum steering	Inner	37° 23' ± 2°	
Front wheel alignment (Unladed* <sup>1</sup> )	angle	Outer	32° 32′ ± 2°	
	Camber angle		0°24 ± 45'*²	
	Caster angle		4°30′ ± 45′	
	Kingpin angle		11°20'	

05U0RX-004

### **Rear Suspension**

Item		Specifications	
Suspension type			Double-wishbone
Stabilizer	Туре		Torsion bar
	Diameter	mm (in)	12 (0.47)
Shock absorber			Cylindrical double acting, low-pressure-gas charged
	Identification mark color		Blue
Coil springs	Wire diameter	mm (in)	10.1 (0.40)
	Coil inner diameter	mm (in)	83 (3.27)
	Free length	mm (in)	339.5 (13.37)
	Coil number		7.68
	Total too in	mm (in)	3 ± 3 (0.12 ± 0.12)
Rear wheel alignment (Unladed*1)	Total toe-in	degree	. 0°18' ± 18'
,	Camber angle		−0°43′ ± 30′

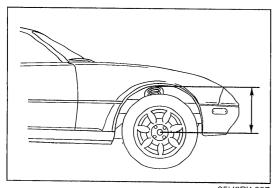
05U0RX-005

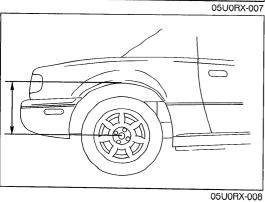
<sup>\*1</sup> Fuel tank full; radiator coolant and engine oil at specified levels; spare tire, jack, and tools in designated positions.
\*2 Difference between left and right must not exceed 1°.

### TROUBLESHOOTING GUIDE

Problem	Possible cause	Action	Page
General instability	Weak coil spring Malfunction of shock absorber Worn or damaged stabilizer and/or suspension arm bushings  Worn or damaged upper or lower arm ball joint Improperly adjusted wheel alignment	Replace Replace Replace Replace Adjust	R-13 R-12,22 R-16,18,19 23,24,25 Section M R-15,17 R- 6
Body "rolls"	Weak stabilizer Worn or damaged stabilizer and/or suspension arm bushings	Replace Replace	R-19,25 R-16,18,19 23,24,25 Section M
"Heavy" steering wheel operation	Insufficiently lubricated or stuck upper arm lower arm ball joint Improperly adjusted wheel alignment	Replace	R-15,17
Steering wheel pulls to one side	Weak coil spring Worn or damaged stabilizer and/or suspension arm bushings Deformed upper or lower arm or knuckle  Loose upper or lower arm bushing	Adjust  Replace Replace  Replace  Replace	R- 6 R-13 R-16,18,19 23,24,25 R-15,17 Section M R-16,18
Excessive steering wheel play	Worn or damaged upper or lower arm bushing Worn or damaged upper or lower arm ball joint	Replace Replace	R-16,18 R-15,17
Body leans	Weak coil spring Weak stabilizer and/or suspension arm bushings	Replace Replace	R-13 R-16,18,19 23,24,25 Section M
Abnormal noise from suspension system	Loose mounting component Poorly lubricated or worn upper or lower arm ball joint Malfunction of shock absorber Worn or damaged stabilizer and/or suspension arm bushings	Tighten Replace Replace Replace	R-15,17 R-12,22 R-16,18,19 23,24,25 Section M
Shake (Steering wheel vibrates up/down)	Excessive tire or wheel runout Loose lug nuts Unbalanced wheel(s) Cracked or worn engine mounting rubber Cracked or worn transmission mounting rubber	Replace Tighten Adjust or replace Replace Replace	Section Q Section Q Section B Section J
Shimmy (Steering wheel vibrates left/right)	Cracked or worn steering gear mounting rubber Loose steering gear mounting bolts Stuck or damaged steering ball joint Excessive tire or wheel runout Loose lug nuts Unbalanced wheel(s) Insufficient tire pressure Unevenly worn tires Malfunction of shock absorber Loose shock absorber mounting bolts Stuck or damaged upper or lower arm ball joint Cracked or worn suspension bushings Damaged or worn front wheel bearing Improperly adjusted front wheel alignment	Replace Tighten Replace Replace Tighten Adjust or replace Adjust Replace Replace Tighten Replace Replace Replace Replace Replace Replace Replace Replace Adjust	Section N Section N Section N  Section Q Section Q Section Q Section Q R-12,22 R-12,22 R-15,17 R-16,18,19 Section M R-6

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#### WHEEL ALIGNMENT

#### **PRE-INSPECTION**

- 1. Check the tire inflations, and adjust to the recommended pressure if necessary.
- 2. Inspect the front wheel bearing paly and correct if necessary.
- 3. Inspect the wheel and tire runouts.
- 4. Inspect the ball joints and steering linkage for excessive looseness.
- 5. The vehicle must be on level ground and carry no luggage or passengers.
- 6. Measure the height from the center of the wheel to the fender brim. The difference between left and right must be not exceed 10mm (0.31 in), and the difference between front and rear must be 20mm  $\pm$  10mm (0.62  $\pm$  0.31 in).

#### Caution

- The proper caster and camber angle vary depending on the vehicle height. Refer to the following and to page R-9 for the specifications.
- Inspection and adjustment of wheel alignment must be done with the vehicle unladed\*1.

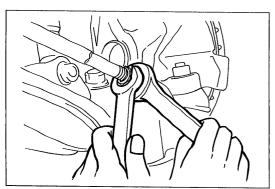
### FRONT WHEEL ALIGNMENT Specifications (Unladed\*1)

ltem			Specifications
Total toe-in		mm (in)	$3 \pm 3 (0.12 \pm 0.12)$
	w	degree	0°18' ±18'
Maximum steering angle		Inner	37°23′ ± 2°
		Outer	32°32′ ± 2°
Kingpin angle			11°20′
	Height from center of wheel to fender brim mm (in)	328—337 (12.9—13.3)	$-0^{\circ}20' \pm 45'^{*2}$
_		338—347 (13.3—13.7)	$0^{\circ}03' \pm 45'^{*2}$
Camber angle		348—357 (13.7—14.1)	$0^{\circ}24' \pm 45'^{*2}$
		358—367 (14.1—14.4)	0°44′ ± 45′*²
		368—377 (14.4—14.8)	$1^{\circ}02' \pm 45'^{*2}$
	Links to	328—337 (12.9—13.3)	5°16′ ± 45′
_	Height from center of wheel	338-347 (13.3-13.7)	5°02' ± 45'
Caster angle	to fender brim	348357 (13.714.1)	4°49' ± 45'
	mm (in)	358-367 (14.1-14.4)	4°35′ ± 45′
		368—377 (14.4—14.8)	4°21' ± 45'

05U0RX-009

\*1 Fuel tank full; radiator coolant and engine oil at specified levels; spare tire, jack, and tools in designated positions.

\*2 Difference between left and right must not exceed 1°.



05U0RX-010

#### **Adjustment**

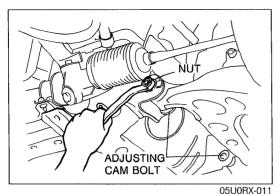
#### Maximum steering angle

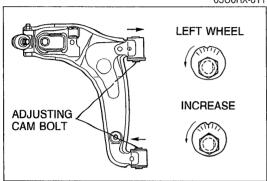
- 1. Remove the steering gear boot clamp.
- 2. Loosen the tie-rod locknut.
- 3. Turn the tie-rod to provide the correct maximum steering angle.
- 4. After adjustment, tighten the locknut to the specified torque.

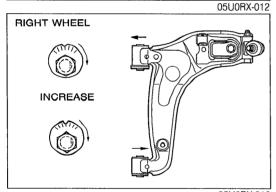
### Tightening torque:

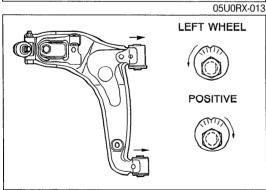
34—39 Nm (3.5—4.0 m-kg, 25—29 ft-lb)

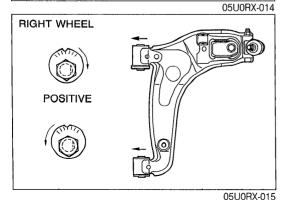
- 5. Adjust the toe-in. (Refer to page R-8.)
- 6. Verify that the boot is not twisted, and install the boot clamp.











Cater

Cater is adjusted by turning the front and/or rear adjusting cambolt at the lower arm.

#### Caution

- Adjust the caster before adjusting the camber.
- 1. Loosen the front and/or rear cam nut.
- 2. Turn the front and/or rear adjusting cam bolt to provide the correct caster angle.

Caster	Left wheel		Right wheel	
Caster	Front cam	Rear cam	Front cam	Rear cam
Increase	Counter- clockwise	Counter- clockwise	Clockwise	Clockwise
Decrease	Clockwise	Clockwise	Counter- clockwise	Counter- clockwise

#### Note

- Turning the front cam one graduation on the scale changes the caster angle about 22' and the camber about 25'. Turning the rear cam one graduation changes the caster angle about 22' and the camber about 2'.
- 3. Adjust the camber and the toe-in.

#### Camber

Camber is adjusted by turning the front and rear adjusting cambolts at the lower arm.

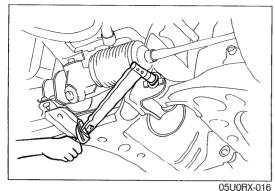
#### Caution

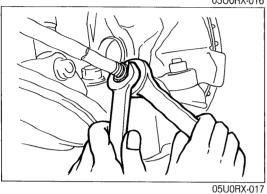
- Adjust the camber after adjusting the caster.
- 1. Loosen the front and rear cam nuts.
- 2. Turn the front and rear adjusting cam bolts the same amount in the opposite direction to provide the correct camber angle.

ſ	Caster	Left wheel		Right wheel	
l	Caster	Front cam	Rear cam	Front cam	Rear cam
	Positive	Counter- clockwise	Clockwise	Clockwise	Counter- clockwise
	Negative	Clockwise	Counter- clockwise	Counter- clockwise	Clockwise

#### Note

• Turning the front cam one graduation changes the camber about 25' and the caster about 22'. Turning the rear cam one graduation changes the camber about 2' and the caster about 22'.





#### Note

- If the cam cannot be turned far enough to make the adjustment, begin again at adjustment of the caster using the other cam.
- 3. Tighten the nuts.

# Tightening torque: 73—95 N·m (7.4—9.7 m-kg, 54—70 ft-lb)

4. Adjust the toe-in.

#### Toe-in

- 1. Remove the steering gear boot clamp.
- 2. Loosen the left and right tie-rod locknuts, and turn the tie-rods by the same amount.

#### Caution

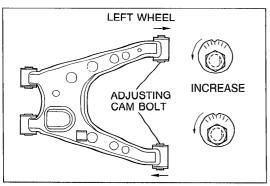
- The left and right tie-rods are both right threaded.
   To increase the toe-in, turn the right tie-rod toward the front of the vehicle, and turn the left tie-rod by the same amount toward the rear.
- One turn of the tie-rod (one side) changes the toein by about 7mm (0.28 in).
- Adjust the toe-in after adjusting the steering angle.
- 3. Tighten the tie-rod locknuts to the specified torque.

4. Verify that the boot is not twisted, and install the boot clamp.

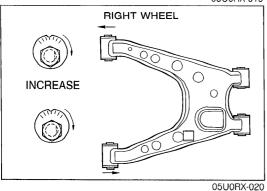
# REAR WHEEL ALIGNMENT Specifications (Unladed\*)

ltem			Specifications	
Total toe-in		mm (in)	$3 \pm 3 (0.12 \pm 0.12)$	
		degree	0°18' ±18'	
	Height from center of wheel to fender brim mm (in)	346—355 (13.6—14.0)	-1°08' ± 30'	
			356—365 (14.0—14.4)	$-0^{\circ}54' \pm 30'$
Camber angle		366—375 (14.4—14.8)	-0°43' ± 30'	
		376—385 (14.8—15.2)	$-0^{\circ}35' \pm 30'$	
		386—395 (15.2—15.6)	-0°30' ± 30'	

<sup>\*</sup> Fuel tank full; radiator coolant and engine oil at specified levels; spare tire, jack, and tools in designated positions. 05U0RX-018







Toe-in

Toe-in is adjusted by turning the front and/or rear adjusting cam bolt at the lower arm.

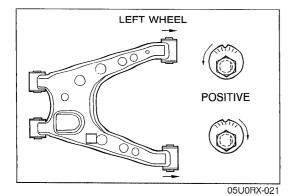
#### Caution

- Adjust the toe-in before adjusting the camber.
- 1. Loosen the front and/or rear cam nut.
- 2. Turn the front and/or rear adjusting cam bolt to provide the correct toe-in.

Toe-in	Left wheel		Right wheel	
106-111	Front cam	Rear cam	Front cam	Rear cam
Increase	Counter- clockwise	Counter- clockwise	Clockwise	Clockwise
Decrease	Clockwise	Clockwise	Counter- clockwise	Counter- clockwise

#### Note

- Turning the front cam one graduation changes the toe-in about 2.8mm (0.11 in) and the camber about 15'. Turning the rear cam one graduation changes the toe-in about 2.8mm (0.11 in) and the camber about 6'.
- 3. Adjust the camber.



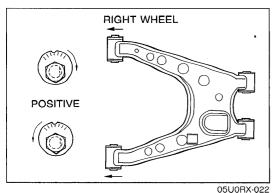
#### Camber

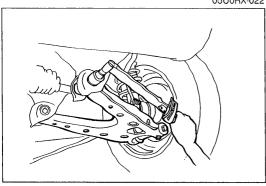
Camber is adjusted by turning the front and rear cams at the lower arm.

#### Caution

- Adjust the camber after adjusting the toe-in.
- 1. Loosen the front and rear cam nuts.
- 2. Turn the front and rear adjusting cam bolts the same amount in the opposite direction to provide the correct camber angle.

#### WHEEL ALIGNMENT





Camber	Left wheel		Right wheel	
Camber	Front cam	Rear cam	Front cam	Rear cam
Positive	Counter- clockwise	Clockwise	Clockwise	Counter- clockwise
Negative	Clockwise	Counter- clockwise	Counter- clockwise	Clockwise

#### **Note**

- Turning the front cam one graduation changes the camber about 15' and the toe-in about 2.8mm (0.11 in). Turning the rear cam one graduation changes the camber about 6' and the toe-in about 2.8mm (0.11 in).
- If the cam cannot be turned far enough to make the adjustment, begin again at adjustment of the toe-in using the other cam.
- 3. Tighten the nuts.

Tightening torque: 73—95 N·m (7.4—9.7 m-kg, 54—70 ft-lb)

### FRONT SUSPENSION (DOUBLE-WISHBONE)

# PREPARATION SST

49 0727 575 Puller, socket joint	For removal of lower arm ball joint	49 0118 850C Puller, ball joint	For removal of upper arm ball joint
49 0180 510B  Attachment, steering worm bearing preload measuring	For inspection of upper arm ball joint	49 H028 301 Installer, dust boot	For installation of front lower arm boot
49 G034 1A0  Compressor, coil spring	For removal and installation of coil spring	49 G034 101  Body (Part of 49 G034 1A0)	For removal and installation of coil spring
49 G034 102  Screw (Part of 49 G030 1A0)	For removal and installation of coil spring	49 G034 103 Arm (Part of 49 G030 1A0)	For removal and installation of coil spring

05U0RX-023

#### SHOCK ABSORBER AND SPRING

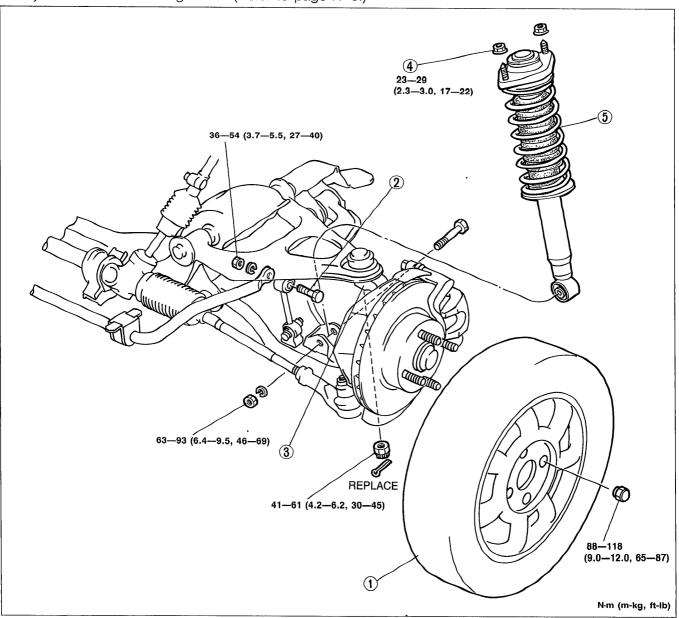
#### Removal / Installation

- 1. Jack up the front of the vehicle and support it with safety stands.
- 2. Remove the undercover.
- 3. Remove in the order shown in the figure, referring to **Removal Note**.
- 4. Inspect all parts and repair or replace as necessary.
- 5. Install in the reverse order of removal.
- 6. Tighten all nuts and bolts to the specified torques, referring to the figure.

#### Note

 Loosely tighten the shock absorber, upper arm, stabilizer control link, and stabilizer bracket bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.

7. Adjust the front wheel alignment. (Refer to page R-6.)



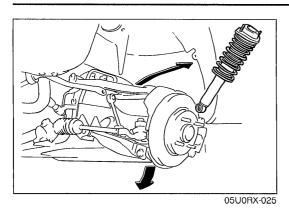
05U0RX-024

- 1. Wheel and tire
- 2. Stabilizer control link bolt
- 3. Upper arm ball joint

Removal Note..... page R-17

- 4. Mounting plate nut
- 5. Shock absorber and spring

Disassembly / Assembly ...... page R-13



# Removal note Shock absorber and spring

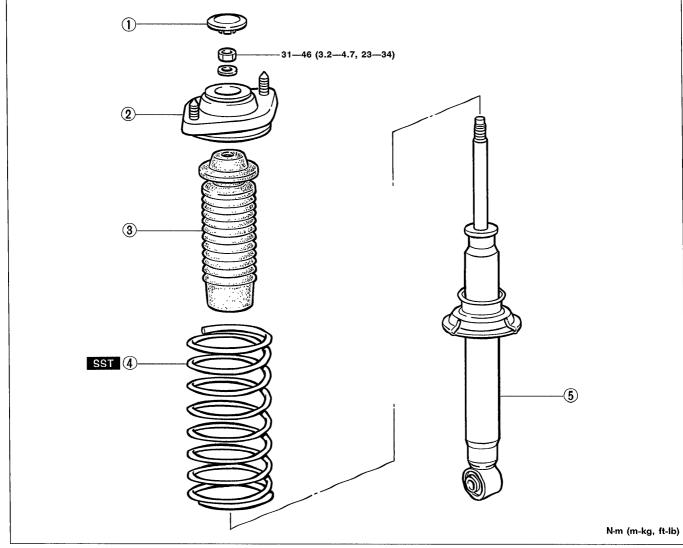
- 1. Loosen the lower arm bolts.
- 2. Lower the lower arm to remove the shock absorber.

#### Caution

Do not lower the arm excessively, which may damage the brake hose.

#### Disassembly / Inspection / Assembly

- 1. Disassemble in the order shown in the figure, referring to **Disassembly Note**.
- 2. Inspect all parts and repair or replace as necessary.
- 3. Assemble in the reverse order of disassembly, referring to **Assembly Note**.
- 4. Tighten all nuts and bolts to the specified torques, referring to the figure.



05U0RX-026

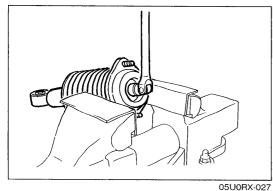
- 1. Cap
- 2. Mounting plate
- 3. Bound stopper Inspect for damage

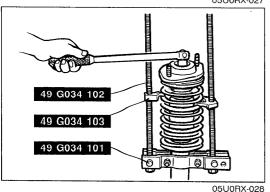
4.	Coil	spring	ļ
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Disassembly Note ...... page R-14 Assembly Note ..... page R-14

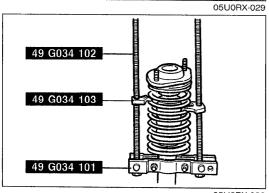
5. Shock absorber

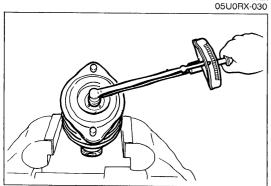
Inspect for oil leakage and abnormal noise





# BOUND STOPPER SHOCK ABSORBER





05U0RX-031

## Disassembly note Coil spring

1. Loosen the piston rod upper nut several turns, but do not remove the nut.

#### Caution

- Do not remove the nut.
- Use copper or aluminum plates in the jaws of the vise.
- 2. Assemble the SST.
- 3. Compress the coil spring with the **SST**, and remove the upper nut.
- 4. Remove the coil spring.

# Assembly note Coil spring and bound stopper

- 1. Set the shock absorber in a vise.
- 2. Install the bound stopper on the shock absorber as shown.

- 3. Install the compressed coil spring (compressed with **SST**).
- 4. Install the mounting plate.

- 5. Remove the SST.
- 6. Secure the mounting plate in a vise.

#### Caution

- Use copper or aluminum plates in the jaws of the vise.
- 7. Tighten the piston rod upper nut.

#### Tightening torque:

31-46 N·m (3.2-4.7 m-kg, 23-34 ft-lb)



#### LOWER ARM

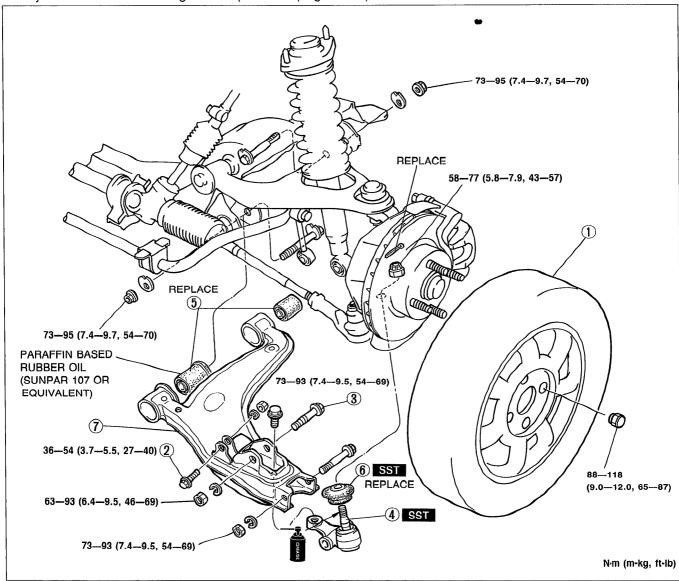
#### Removal / Inspection / Installation

- 1. Jack up the front of the vehicle and support it with safety stands.
- 2. Remove the undercover.
- 3. Remove in the order shown in the figure, referring to **Removal Note**.
- 4. Inspect all parts and repair or replace as necessary.
- 5. Install in the reverse order of removal, referring to **Installation Note**.
- 6. Tighten all nuts and bolts to the specified torques, referring to the figure.

#### Note

• Loosely tighten the lower arm, shock absorber, and stabilizer control link bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.

7. Adjust the front wheel alignment. (Refer to page R-6.)



05U0RX-032

- 1. Wheel and tire
- 2. Stabilizer control link bolt
- 3. Shock absorber bolt
- 4. Lower arm ball joint
  Removal Note...... page R-16
  Inspection....... page R-16

Lower arm bushing (front and rear) Inspect for deterioration and wear

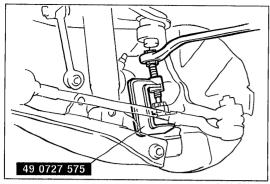
6. Ball joint dust boot

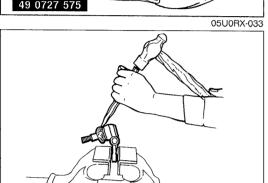
Removal Note...... page R-16 Installation Note...... page R-16

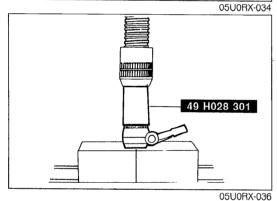
7. Lower arm

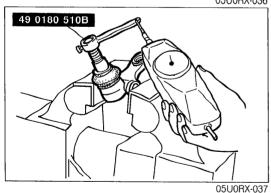
Inspect for damage and cracks

### FRONT SUSPENSION (DOUBLE-WISHBONE)









# Removal note Lower arm ball joint

Separate the ball joint from the knuckle with the SST.

#### **Ball joint dust boot**

Remove the dust boot with a chisel.

#### Caution

• Do not damage the ball joint stud.

# Installation note Ball joint dust boot

- 1. Liberally coat the inside of the new dust boot with grease.
- 2. Press the dust boot onto the ball joint with the SST.

#### Inspection Lower arm ball joint Ball joint rotation torque

- 1. Shake the ball joint stud 5 times.
- 2. Connect the **SST** to the ball stud, and measure the rotation torque with a pull scale.

#### Rotation torque:

0.5—1.5 Nm (5—15 cm-kg, 4.3—13 in-lb)

#### Pull scale reading:

4.9—14.7 N (0.5—1.5 kg, 1.7—3.3 lb)

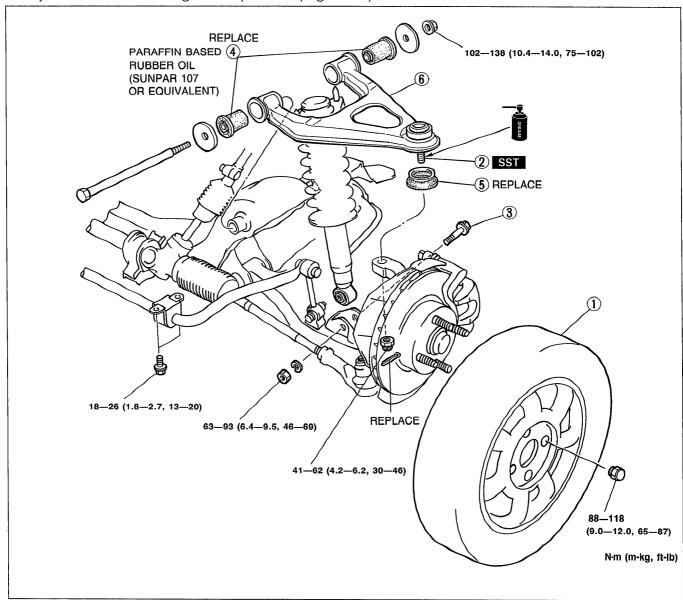
#### **UPPER ARM**

#### Removal / Inspection / Installation

- 1. Jack up the front of the vehicle and support it with safety stands.
- 2. Remove the undercover.
- 3. Remove in the order shown in the figure, referring to Removal Note.
- 4. Inspect all parts and repair or replace as necessary.
- 5. Install in the reverse order of removal, referring to **Installation Note**.
- 6. Tighten all nuts and bolts to the specified torques, referring the figure.

#### **Note**

- Loosely tighten the upper arm and shock absorber bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.
- 7. Adjust the front wheel alignment. (Refer to page R-6.)

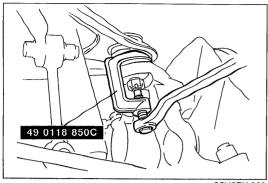


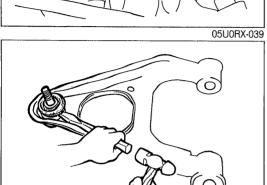
05U0RX-038

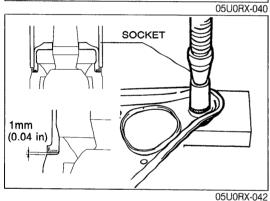
- 1. Wheel and tire
- 2. Upper arm ball joint Removal Note...... page R-18
- 3. Shock absorber bolt
- 4. Upper arm bushing (front and rear)
  Inspect for deterioration and damage
- 5. Ball joint dust boot

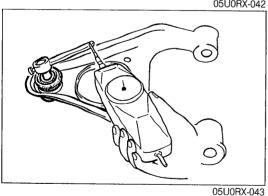
6. Upper arm

Inspect for damage and cracks









## Removal note Upper arm ball joint

Separate the upper arm ball joint from the knuckle with the **SST**.

#### Ball joint dust boot

Remove the dust boot with a chisel.

#### Caution

• Do not damage the ball joint stud.

### Installation note Ball joint dust boot

1. Press the dust boot on with a **30mm (1 1/8 in)** socket until the dust boot contacts the seat.

#### Caution

- Install the dust boot squarely and do not press excessively; the inner metal ring will be deformed if not done correctly.
- 2. Verify that the clearance between the boot and the seat is less than 1mm (0.04 in).
- 3. Shake the ball joint stud several times to make sure there is no grease leakage.

# Inspection Upper arm ball joint Ball joint rotation torque

- 1. Shake the ball joint stud 5 times.
- 2. Connect the **SST** to the ball stud, and measure the rotation torque with a pull scale.

#### **Rotation torque:**

0.4-1.2 Nm (4-12 cm-kg, 3.5-10.0 in-lb)

#### Pull scale reading:

3.9—11.8 N (0.4—1.2 kg, 2.9—8.8 lb)



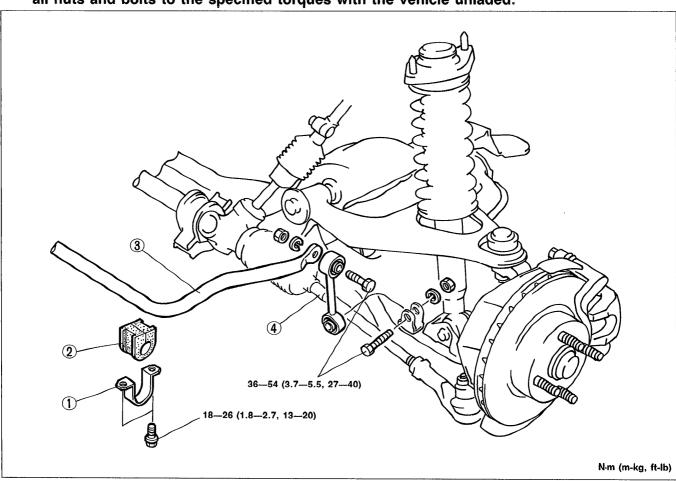
#### **STABILIZER**

#### Removal / Inspection / Installation

- 1. Jack up the front of the vehicle and support it with safety stands.
- 2. Remove the undercover.
- 3. Remove in the order shown in the figure.
- 4. Inspect all parts and repair or replace as necessary.
- 5. Install in the reverse order of removal, referring to **installation Note**.
- 6. Tighten all nuts and bolts to the specified torques, referring to the figure.

#### Note

• Loosely tighten the stabilizer control link and bracket bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.



05U0RX-044

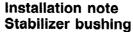
- 1. Stabilizer bracket
- 2. Stabilizer bushing

Inspect for deterioration and wear Installation Note ...... below

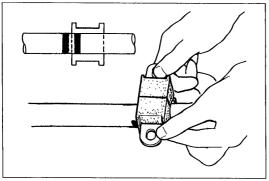
3. Stabilizer

Inspect for bending and damage

4. Stabilizer control link Inspect for bending and damage



Align the bushing with the installation mark on the stabilizer.



### FRONT SUSPENSION (DOUBLE-WISHBONE)

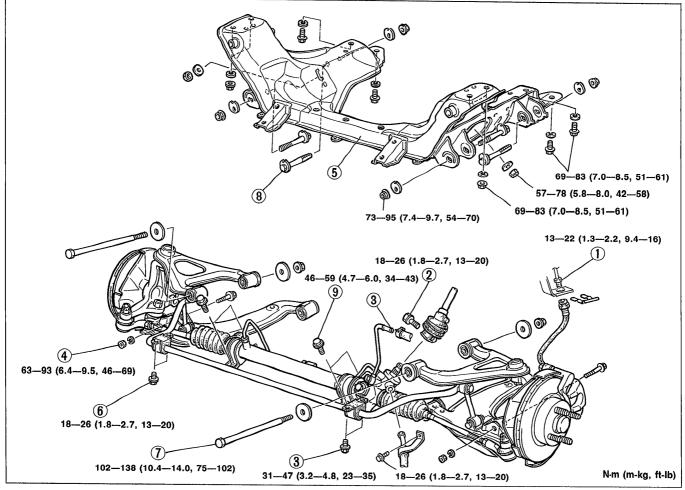
#### **CROSSMEMBER**

#### Removal / Inspection / Installation

- 1. Jack up the vehicle.
- 2. Remove the wheels and the undercover.
- 3. Support the engine with a hoist.
- 4. Remove in the order shown in the figure.
- 5. Inspect all parts and repair or replace as necessary.

#### Note

- Use a container or rags to collect the power steering fluid when disconnecting the power steering pipes.
- Lower the crossmember and other suspension parts as an assembly, and then separate the parts.
- Loosely tighten the stabilizer bracket, upper arm, and lower arm bolts when assembling before installation. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.
- 6. Install in the reverse order of removal.
- 7. Adjust the front wheel alignment. (Refer to page R-6.)
- 8. Bleed the air from the brake system. (Refer to Section P.)



05U0RX-046

1. Brake pipe
Removal / Installation Section P
2. Pinion shaft bolt
Removal / Installation Section N
3. Power steering pipe
Removal / Installation Section N
4. Shock absorber bolt

- 5. Front crossmember assembly Inspect for damage
- 6. Stabilizer bracket
- 7. Upper arm bolt
- 8. Lower arm bolt
- 9. Steering gear bracket bolt

### REAR SUSPENSION (DOUBLE-WISHBONE)

# PREPARATION SST

49 G030 1A0  Compressor, coil spring	For removal and installation of coil spring	49 G030 101  Body (Part of 49 G030 1A0)	For removal and installation of coil spring
49 G030 102  Screw (Part of 49 G030 1A0)	For removal and installation of coil spring	49 G030 103  Arm (Part of 49 G030 1A0).	For removal and installation of coil spring

05U0RX-047

#### SHOCK ABSORBER AND SPRING

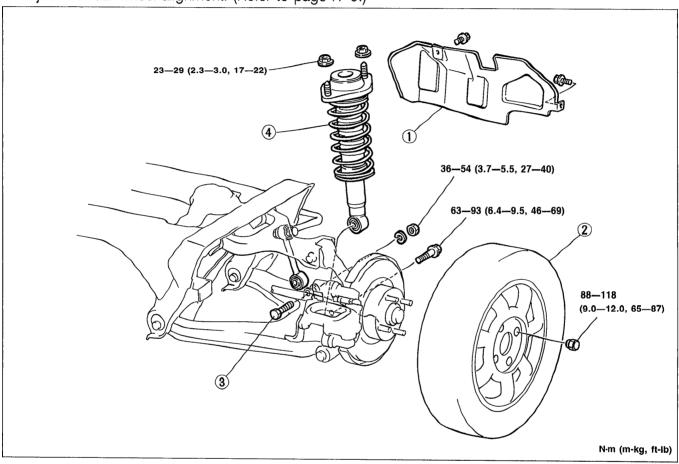
#### Removal / Installation

- 1. Jack up the front of the vehicle and support it with safety stands.
- 2. Remove in the order shown in the figure, referring to **Removal Note**.
- 3. Inspect all parts and repair or replace as necessary.
- 4. Install in the reverse order of removal.
- 5. Tighten all nuts and bolts to the specified torques, referring to the figure.

#### Note

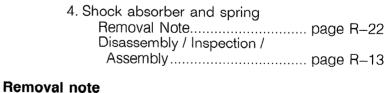
• Loosely tighten the stabilizer control link bolt. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.

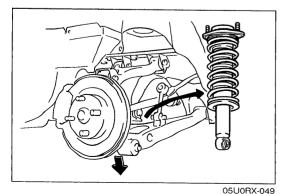
6. Adjust the rear wheel alignment. (Refer to page R-9.)



05U0RX-048

- 1. Filler pipe protector (left side)
- 2. Wheel and tire
- 3. Stabilizer control link bolt





 Do not lower the arms excessively, which may damage the brake hose.

Caution

Shock absorber and spring

sorber and spring.

1. Loosen the upper and lower arm bolts.

2. Lower the upper and lower arms to remove the shock ab-

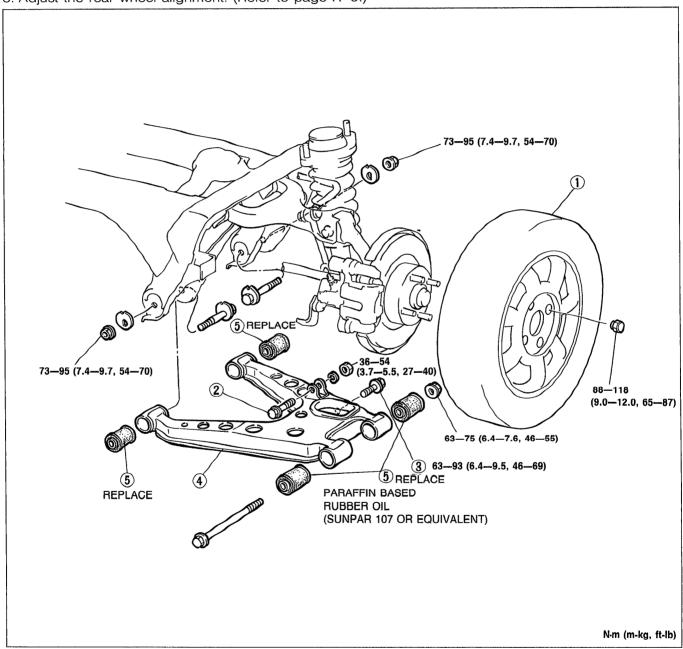
#### **LOWER ARM**

#### Removal / Inspection / Installation

- 1. Jack up the rear of the vehicle and support it with safety stands.
- 2. Remove in the order shown in the figure, referring to **Removal Note**.
- 3. Inspect all parts and repair or replace as necessary.
- 4. Install in the reverse order of removal.

#### Note

- Loosely tighten the lower arm, shock absorber, and stabilizer control link bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.
- 5. Adjust the rear wheel alignment. (Refer to page R-9.)



05U0RX-050

- 1. Wheel and tire
- 2. Stabilizer control link bolt
- 3. Shock absorber bolt
- 4. Lower arm

Inspect for damage and cracks

5. Lower arm bushing (crossmember side and knuckle side) Inspect for deterioration and wear

### **UPPER ARM**

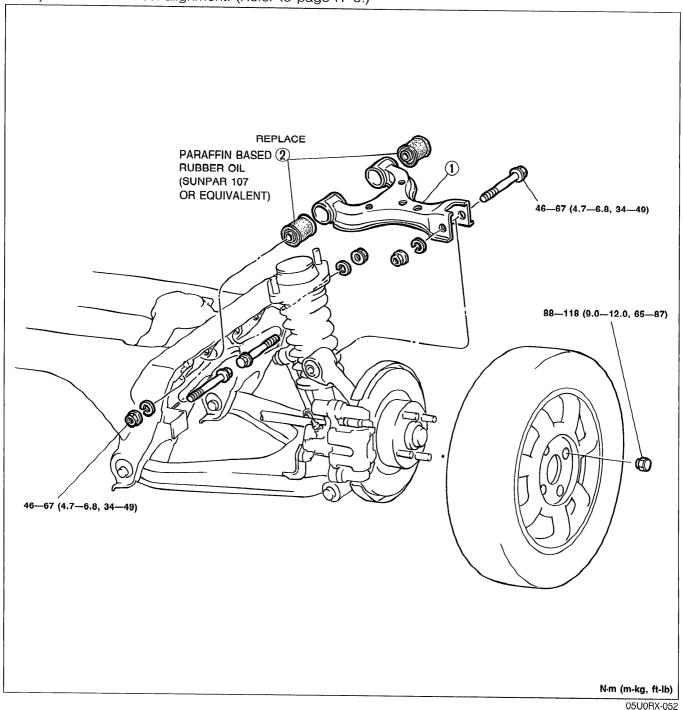
### Removal / Inspection / Installation

- 1. Jack up the rear of the vehicle and support it with safety stands.
- 2. Remove in the order shown in the figure, referring to **Removal Note**.
- 3. Inspect all parts and repair or replace as necessary.
- 4. Install in the reverse of removal.

### Note

• Loosely tighten the upper arm bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.

5. Adjust the rear wheel alignment. (Refer to page R-9.)



1. Upper arm Inspect for damage and cracks

2. Upper arm bushing Inspect for deterioration and wear



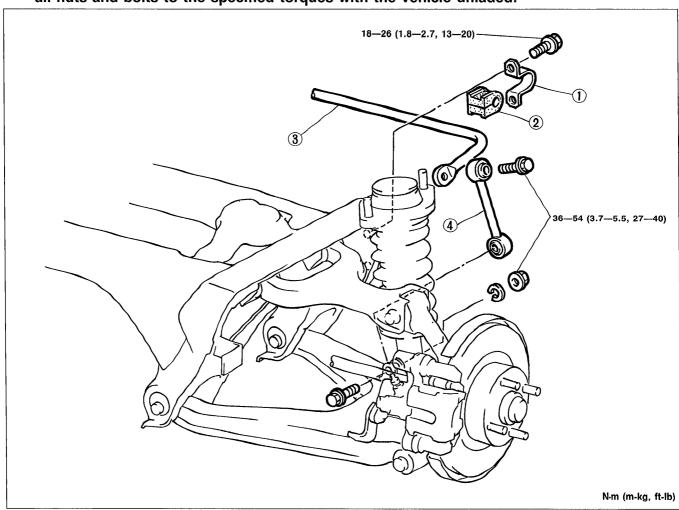
### **STABILIZER**

### Removal / Inspection / Installation

- 1. Jack up the rear of the vehicle and support it with safety stands.
- 2. Remove in the order shown in the figure.
- 3. Inspect all parts and repair or replace as necessary.
- 4. Install in the reverse order of removal, referring to Installation Note.

### Note

• Loosely tighten the stabilizer bracket and control link bolts. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.



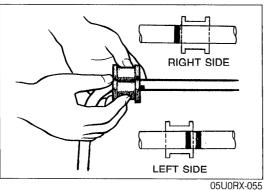
05U0RX-054

- 1. Stabilizer bracket
- 2. Stabilizer bushing

Inspect for deterioration and wear Installation Note ..... below



- 3. Stabilizer Inspect for bending and damage
- 4. Control link Inspect for bending and damage



Installation note Stabilizer bushing

Align the bushing with the installation mark on the stabilizer.

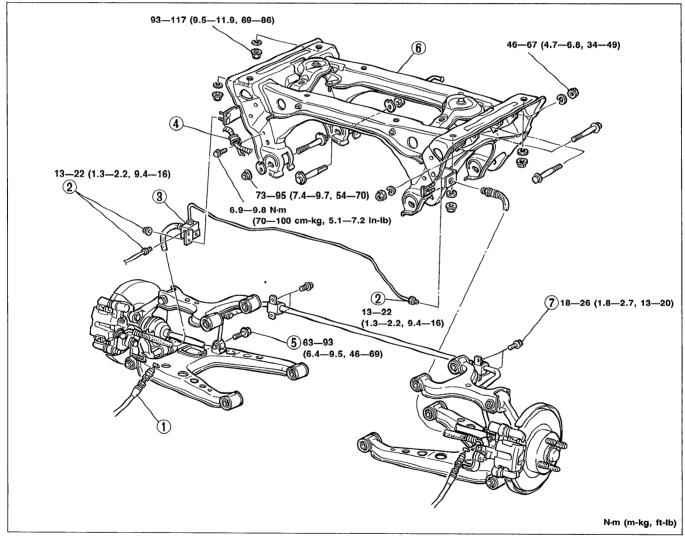
### **CROSSMEMBER**

### Removal / Inspection / Installation

- 1. Jack up the vehicle and support it with safety stands.
- 2. Remove the wheels and tires.
- 3. Remove the differential and the power plant frame. (Refer to Section M.)
- 4. Remove in the order shown in the figure.

### Note

- Lower the crossmember and other suspension parts as an assembly, and then separate the parts.
- Loosely tighten the stabilizer bracket, upper arm, and lower arm bolts when assembling before installation. Lower the vehicle and tighten all nuts and bolts to the specified torques with the vehicle unladed.
- 5. Inspect parts and repair or replace as necessary.
- 6. Install in the reverse order of removal.
- 7. Adjust the rear wheel alignment. (Refer to page R-9.)
- 8. Bleed the air from the brake system. (Refer to Section P.)



05U0RX-056

1. Parking brake cable

Removal / Installation..... Section P

2. Brake pipe

Removal / Installation..... Section P

- 3. Brake pipe joint
- 4. Battery cable bracket

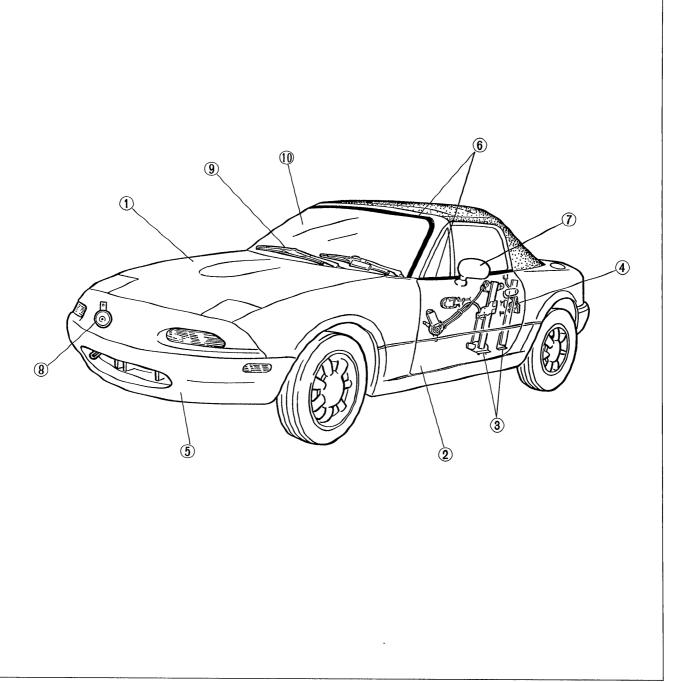
- 5. Shock absorber bolt
- 6. Rear crossmember assembly Inspect for damage
- 7. Stabilizer bracket
- 8. Upper arm bolt
- 9. Lower arm bolt

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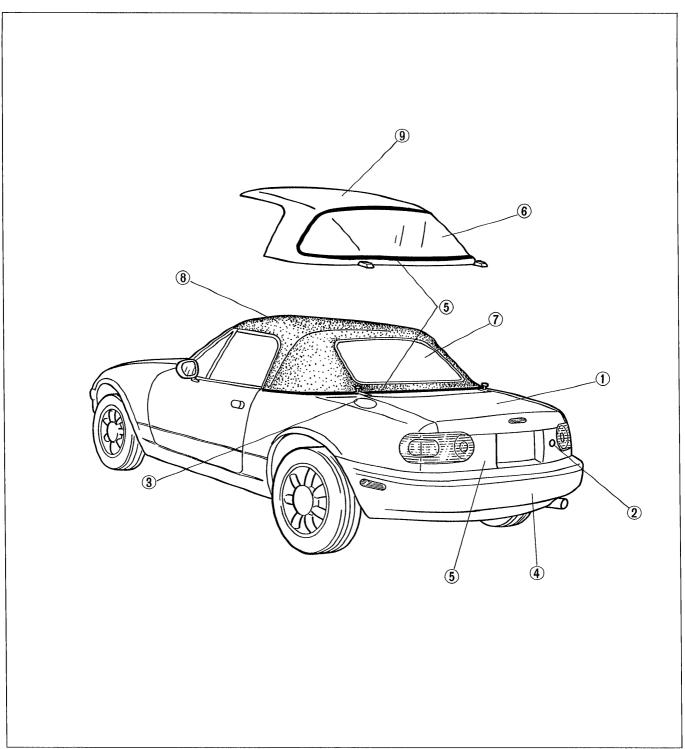
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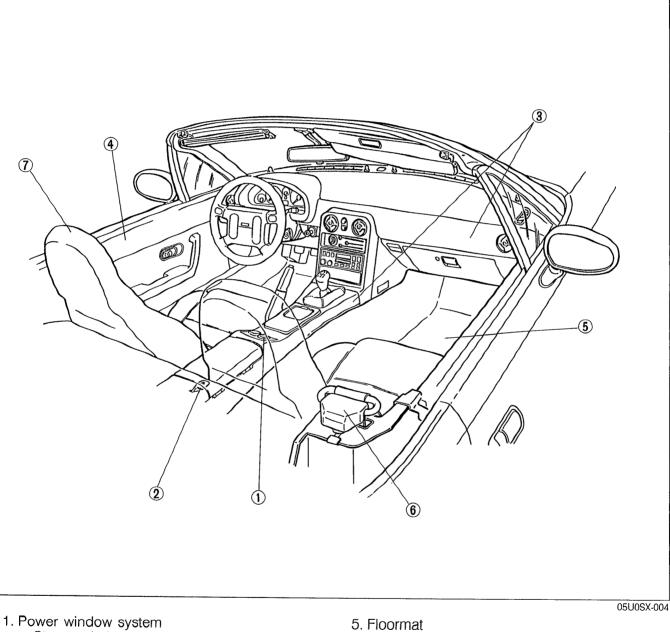
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6. Seat belt

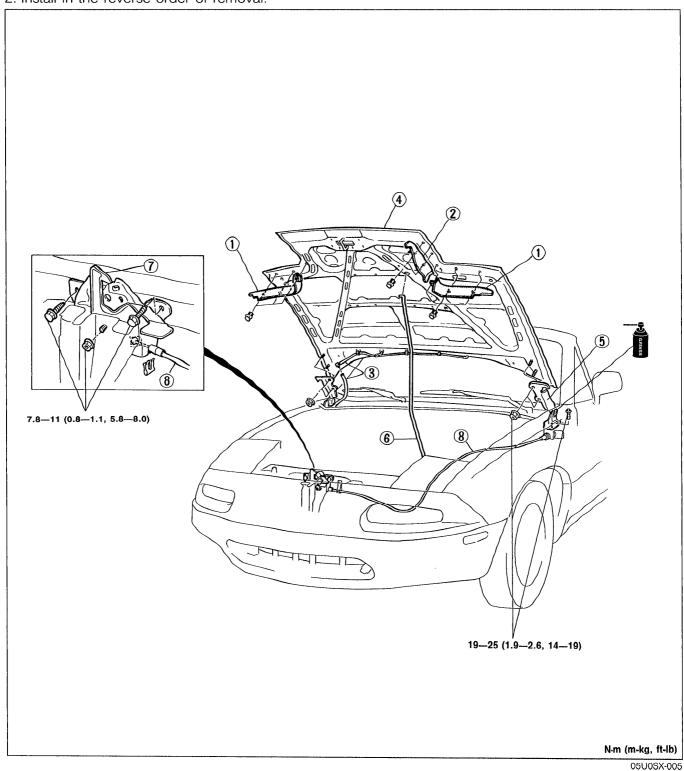
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### HOOD

### **COMPONENTS**

### **Removal / Installation**

- Remove in the order shown in the figure.
   Install in the reverse order of removal.



1. Headlight seal

2. Side headlight seal

3. Washer pipe

4. Hood

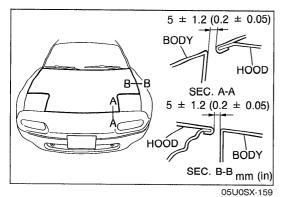
Adjustment ...... page S- 6 5. Hinge

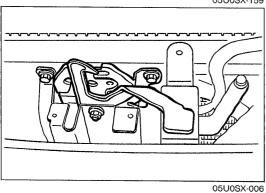
6. Hood stay

7. Hood lock

Adjustment ...... page S- 6

8. Release wire





### Adjustment Hood

Adjust the hood laterally and vertically by loosening the hood-to-hinge mounting bolts and repositioning the hood.

### **Hood lock**

Adjust the hood lock after the hood has been aligned. Loosen the hood lock mounting bolts and nut, and align the lock with the striker on the hood.

### **DOOR**

### **COMPONENTS**

### Caution

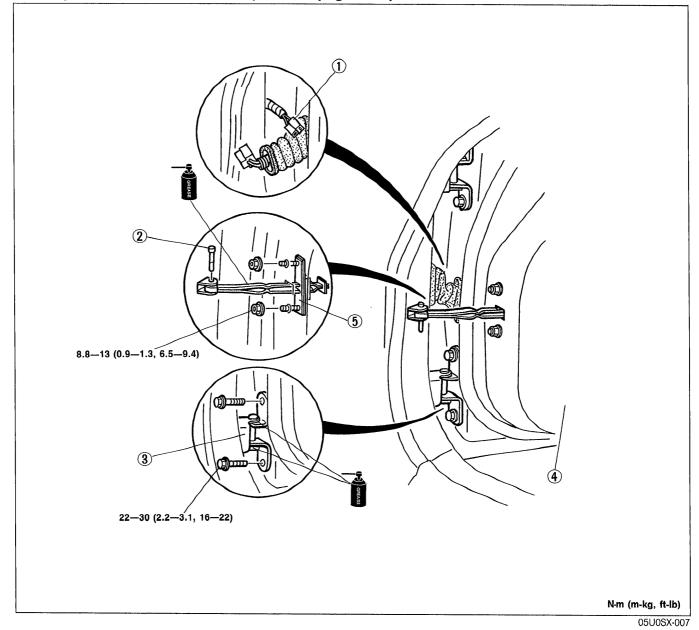
• Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)

### **Removal / Installation**

- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal.

### Note

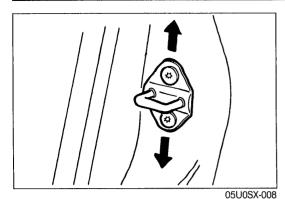
- Remove the trim and door screen for removal of the door checker. (Refer to page S-9.)
- Adjust the door lock striker. (Refer to page S-8.)

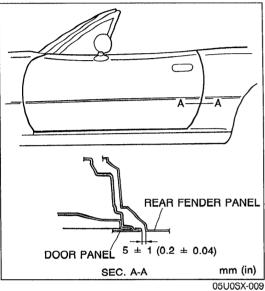


- 1. Harness connector
- 2. Checker pin
- 3. Hinge

Adjustment..... page S-8

5. Checker





### Adjustment Door lock striker

- 1. Verify that the door can be closed easily and whether there is any looseness. If there is a problem, loosen the striker mounting screws and adjust by moving the striker vertically.
- 2. Verify the rear offset of the door to the body. If there is a problem, adjust by moving the door lock striker vertically.

Tightening torque: 18—26 N·m (1.8—2.7 m-kg, 13—20 ft-lb)

### Door

Loosen the hinge bolts and adjust as shown in the figure. Tighten the bolts to the specified torque.

Tightening torque: 22—30 N·m (2.2—3.1 m-kg, 16—22 ft-lb)

### WINDOW REGULATOR, GLASS, AND GUIDE

### **COMPONENTS**

### Caution

· Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)

### Removal / Installation

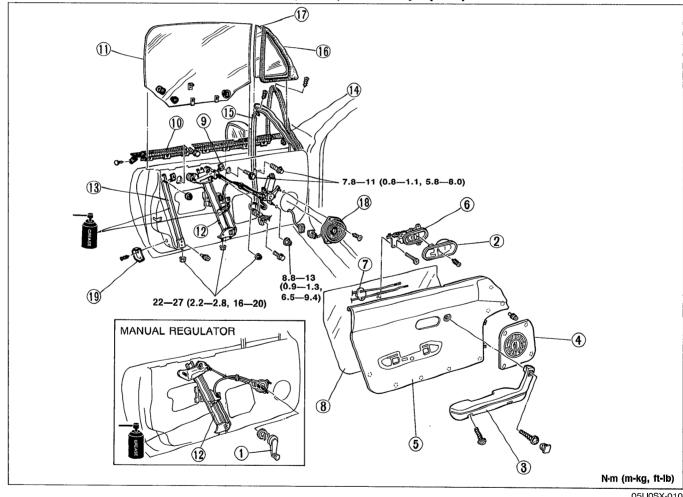
- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal.

### Caution

· Remove the door screen carefully so that it may be reused.

### Note

• Raise the door glass about 190mm (7.5 in) from fully-open position.



05U0SX-010

- 1. Regulator handle
  - Removal Note .. page S-10 Installation Note page S-10
- 2. Inner handle cover
- 3. Arm rest
- 4. Speaker grille

Removal Note.. page S-55 11. Door glass

5. Door trim

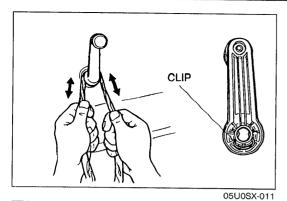
Removal Note page S-55 12. Window regulator

- 6. Inner handle
- 7. Sealing pad
- 8. Door screen
- 9. Upper stop
- 10. Front beltline molding

Removal Note.. page S-28 18. Speaker (If necessary)

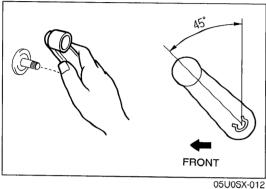
Adjustment ..... page S-10

- 13. Glass guide
- 14. Door weatherstrip
- 15. Division channel
- 16. Weatherstrip
- 17. Quarter glass
- 19. Dovetail (If necessary)



# Removal Note Regulator handle

Remove the regulator handle clip with a rag, as shown.



# Installation Note Regulator handle

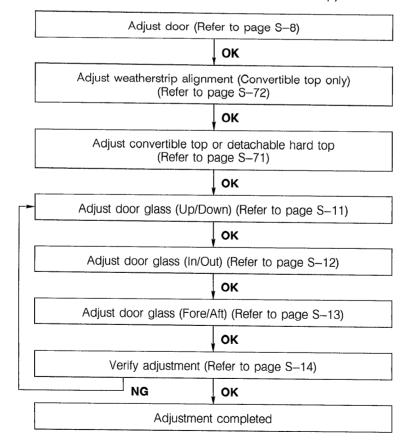
Install the regulator handle as shown.

### **Note**

With door glass at fully-closed position.

Adjustment Door glass

Adjustment of the door glass (convertible top and detachable hard top) is made as follows:



### 1. Vertical adjustment of door glass

Adjustment procedure

Remove the weatherstrip, and check alignment with the door glass in the fully-closed position.

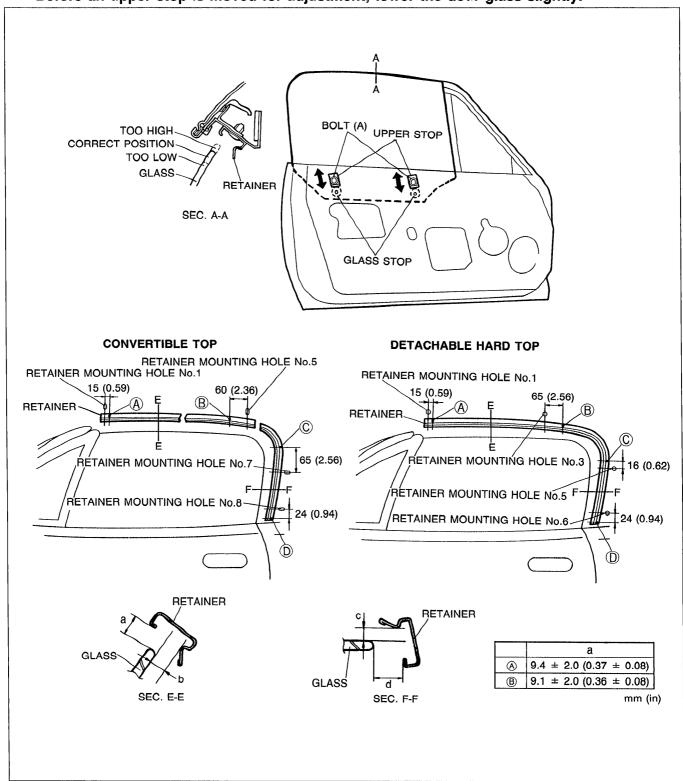
(1) Loosen upper stop installation bolts (A).

(2) Adjust by moving the upper stop up or down so that the upper edge of the door glass is in the correct position, and then tighten bolts (A).

### Note

• When the door glass is raised, both glass stop must contact the upper stop simultaneously.

• Before an upper stop is moved for adjustment, lower the door glass slightly.



### 2. Inboard/Outboard adjustment of door glass

Adjustment procedure

Remove the weatherstrip, and check alignment with the door glass in the fully-closed position.

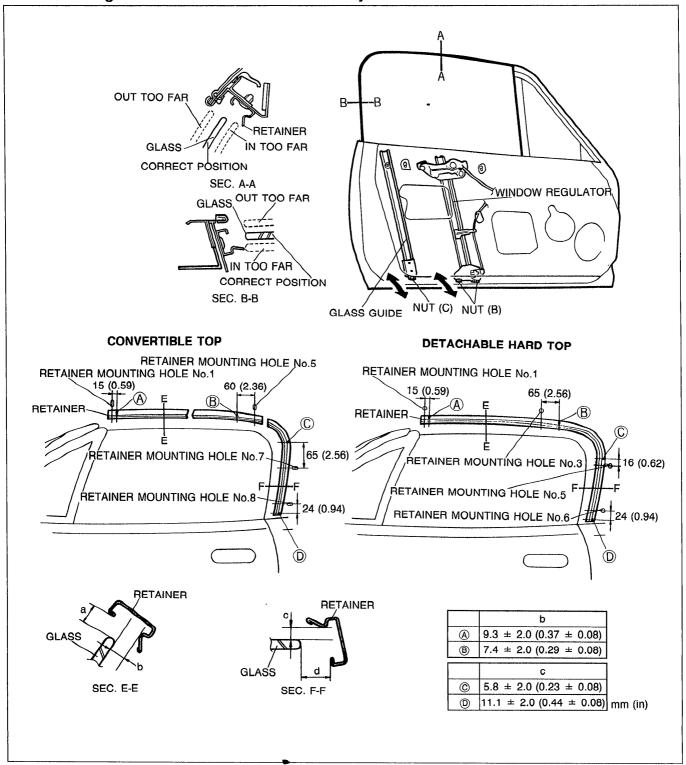
(1) Loosen window regulator installation nuts (B) and glass guide installation nut (C).

(2) Adjust by moving the window regulator and the glass guide inward or outward so that the upper and side edges of the door glass are in the correct position, and then tighten nuts (B) and (C).

#### Note

• The window regulator and the glass guide should be tightened in approximately the same position in the slotted adjustment holes.

• The door glass must raise and lower smoothly with the door closed.



### 3. Fore and aft adjustment of side edge of door glass

Adjustment procedure

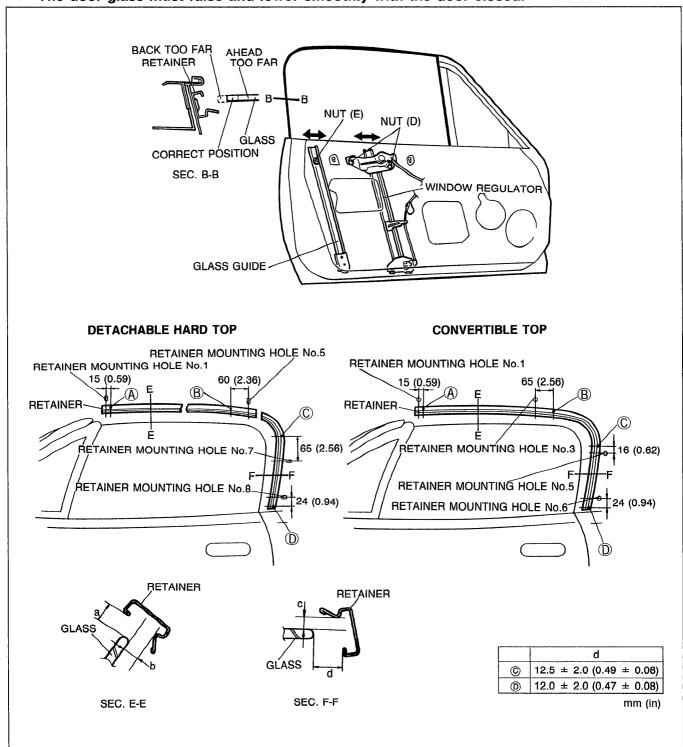
Remove the weatherstrip, and check alignment with the door glass in the fully-closed position.

(1) Loosen window regulator installation nuts (D) and glass guide installation nut (E).

(2) Adjust by moving the window regulator and the glass guide fore or aft equally so that the side edge of the door glass is in the correct position, and then tighten the nuts (D) and (E).

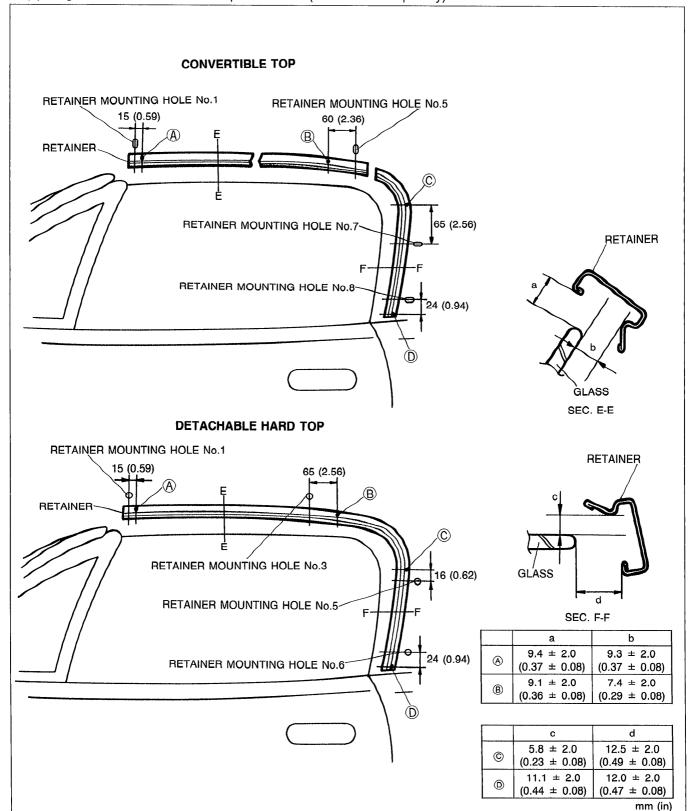
### Note

- The window regulator and glass guide should be tightened in approximately the same position in the slotted adjustment holes.
- The door glass must raise and lower smoothly with the door closed.



### After completion of adjustment, verify the points below

- 1. Verify the following with the weatherstrip removed.
  - (1) When the door glass is raised, the glass stop contact the upper stop simultaneously.
  - (2) The door glass is in the correct position when fully closed.
- 2. Verify the following with the weatherstrip installed.
  - (1) The door glass raises and lowers smoothly with the door closed.
  - (2) Alignment of the weatherstrip is correct (Convertible top only).



### **DOOR LOCK AND OPENER**

### **COMPONENTS**

#### Caution

• Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)

### Removal / Installation

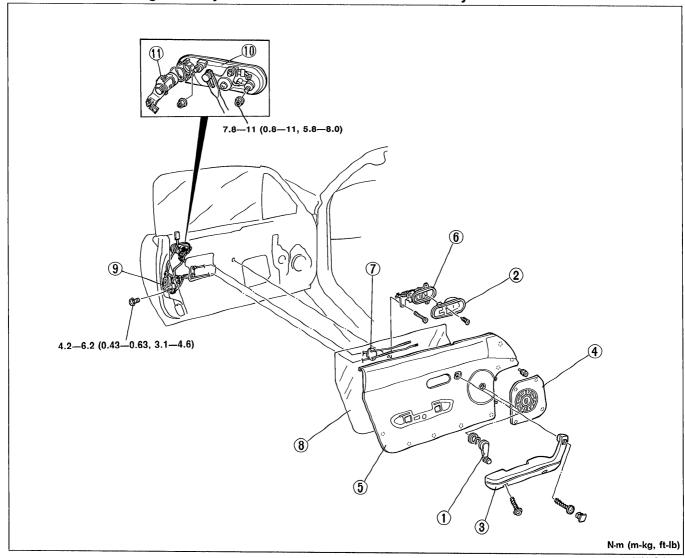
- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal.

### Caution

Remove the door screen carefully so that it may be reused.

#### Note

Raise the door glass fully to remove the door lock assembly.



- 1. Regulator handle Removal Note.. page S-10 Installation Note page S-10
- 2. Inner handle cover
- 3. Armrest

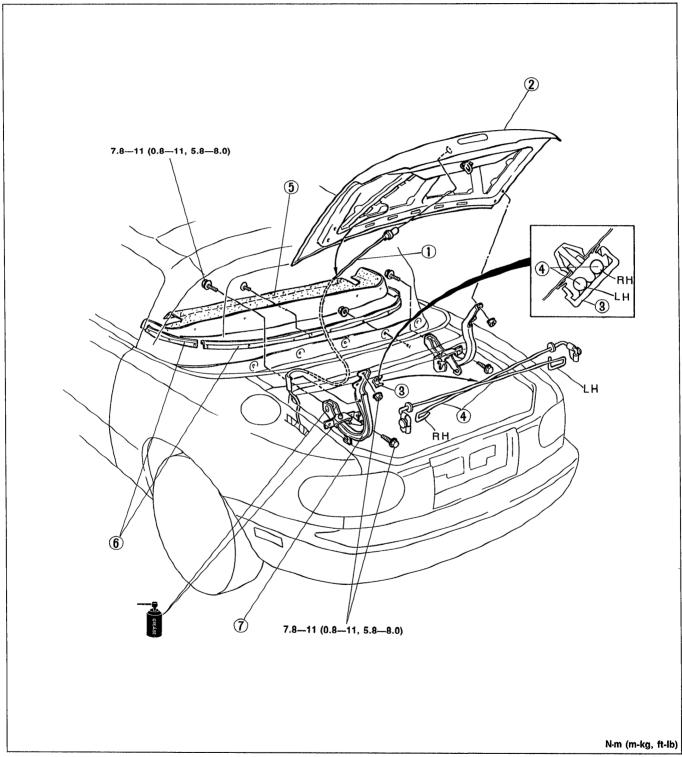
- 4. Speaker grille Removal Note .. page S-55
- 5. Door trim
  - Removal Note.. page S-55 10. Outer handle
- 6. Inner handle

- 7. Sealing pad
- 8. Door screen
- 9. Door lock assembly
- 11. Key cylinder

### **TRUNK LID**

### **COMPONENTS Removal / Installation**

- Remove in the order shown in the figure.
   Install in the reverse order of removal.



05U0SX-019

- 1. Wire harness
- 2. Trunk lid

Adjustment ...... page S-17

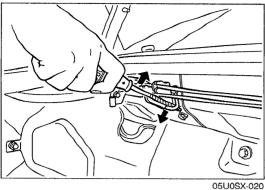
3. Rod holder

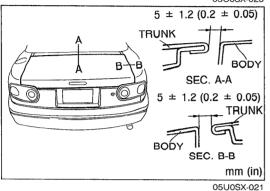
4. Balance spring

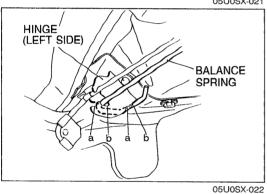
Removal Note .. page S-17 Adjustment ...... page S-17

5. Rear package trim

- 6. Set plate
- 7. Hinge







Removal Note Balance spring

- 1. Lift the balance spring with a protected screwdriver.
- 2. Remove the balance spring.

Warning

Use care when removing the balance spring; personal injury could result.

Adjustment Trunk lid

Loosen the trunk lid mounting nuts and adjust as shown.

**Balance spring** 

Slide the balance spring to the desired position as described below with a protected screwdriver.

Tension	Set position Hinge	а	b
Standard	Left side		0
Otaridard	Right side	0	
Ingrasas	Left side	0	
Increase	Right side	0	
Decrease	Left side		0
Decrease	Right side		0

O: Indicated position

Warning

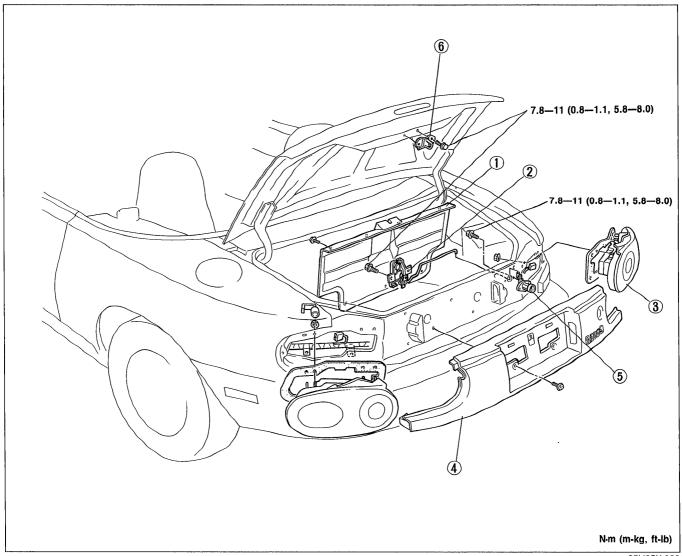
• Use care when moving the balance spring; personal injury could result.

### TRUNK LID LOCK AND OPENER

### **COMPONENTS**

### **Removal / Installation**

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.

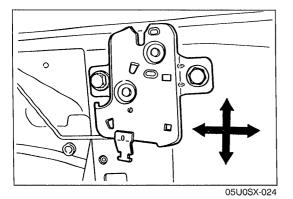


05U0SX-023

1. Trunk end trim
2. Trunk lid lock assembly
Adjustment below
3. Rear combination light
Removal Section T

4. Rear finisher	
Removal Note	page S-28
5. Kev cylinder	

6. Striker

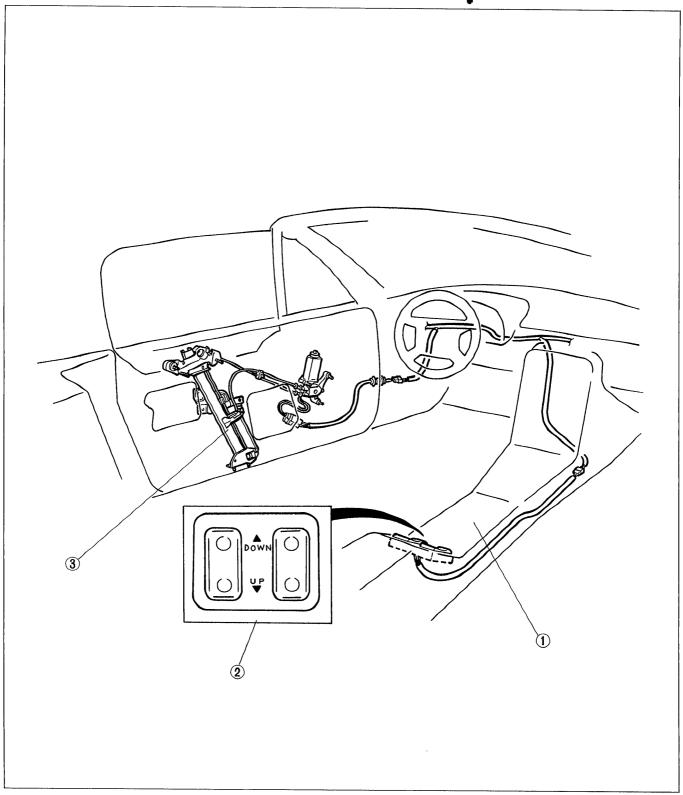


### Adjustment Trunk lid lock assembly

Verify that the trunk lid can be closed easily and whether there is any looseness. If necessary, loosen the lock assembly mounting bolts and adjust the lock assembly.

## **POWER WINDOW SYSTEM**

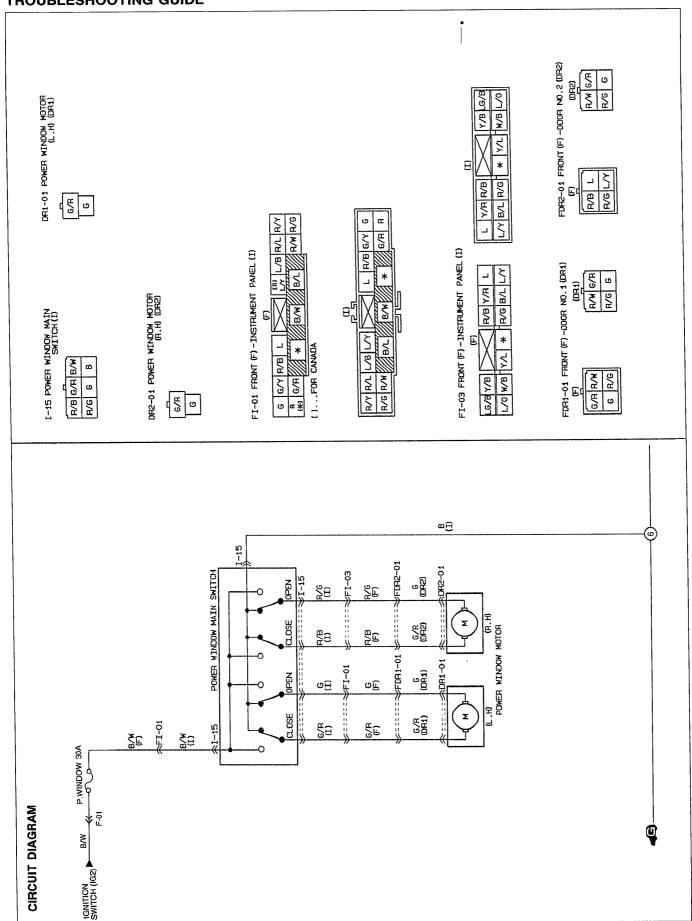
### STRUCTURAL VIEW

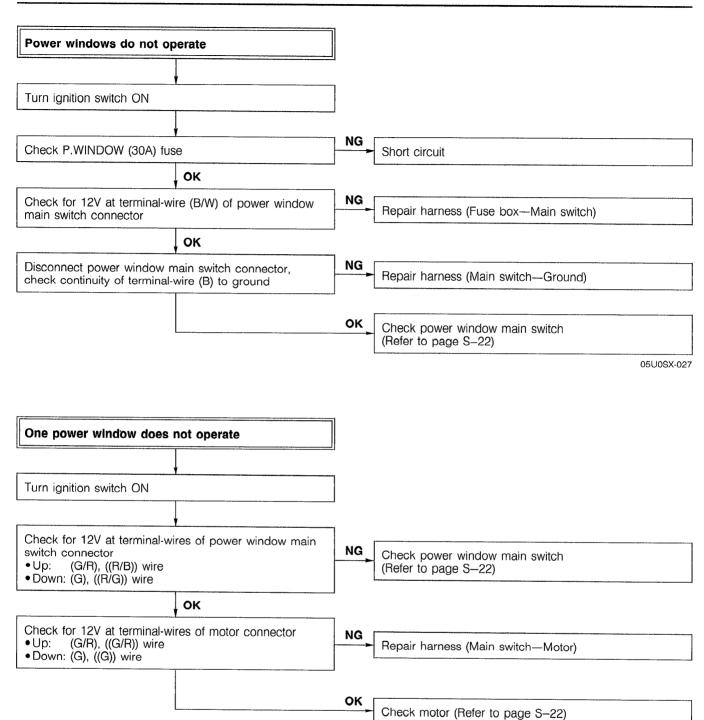


1. Rear console		
Removal / Installation	page	S-50
2. Power window main switch	1 3	
Removal / Installation	page	S-50
Inspection		

3.	Power	window	regulator			
	Rem	ioval / In:	stallation	 page	S-	ç

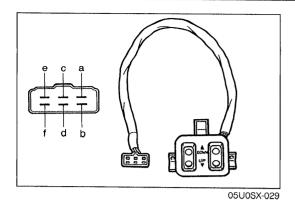
### TROUBLESHOOTING GUIDE





((

)): Passenger side



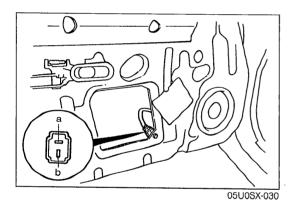
POWER WINDOW MAIN SWITCH Inspection

1. Check for continuity between terminals of the switch with an ohmmeter.

Switch		Drive	r side		Р	assen	ger sic	de
Terminal Position	а	b	С	d	а	b	е	f
UP	<u></u>	0	-0	-0	0-	0-	0	-0
OFF		0-	-0-	-0		0-	-0-	-0
DOWN	0-	0-	-0	0	0	0	-0	-0

O-O: Indicates continuity

2. If not as specified, replace the switch.



# POWER WINDOW MOTOR Inspection

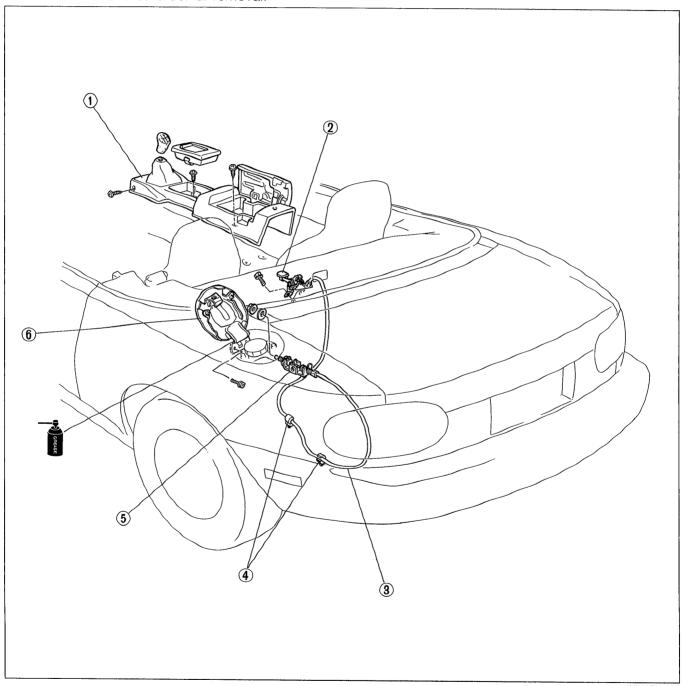
- 1. Connect 12V to terminal a and ground terminal b of the motor connector. Verify that the motor operates.
- 2. Reverse the above connections and check for reverse operation of the motor.
- 3. If not as specified, replace the motor.

### **FUEL FILLER LID OPENER**

# COMPONENTS Removal / Installation

### Note

- Remove the rear console for removal of the opener lever.
- Remove the rear end mat, rear package trim and bulkhead panel for removal of the cable.
- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.



05U0SX-031

1. Rear console

Removal / Installation ...... page S-50

- 2. Opener lever
- 3. Opener cable

- 4. Clip
- 5. Filler lid opener
- 6. Filler lid

### FRONT BUMPER

### **COMPONENTS**

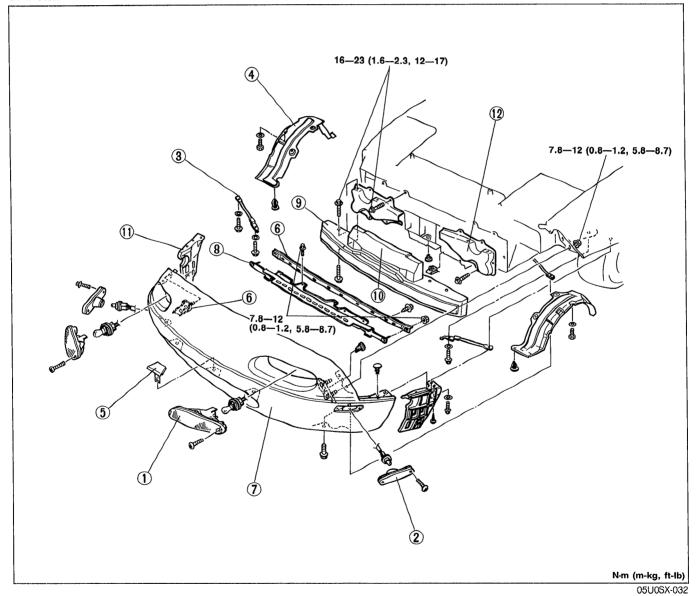
### Caution

• Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)

### Removal / Installation

### Note

- · Raise the headlights.
- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal.



1. Front combination light

Removal..... Section T

2. Front side marker light

Removal ..... Section T

3. Fender bracket

4. Mud guard

5. Grille cover

6. Set plate

7. Front fascia

8. Retainer

9. Bumper reinforcement

10. Spacer

11. Front bumper retainer

12. Front bumper bracket

### **REAR BUMPER**

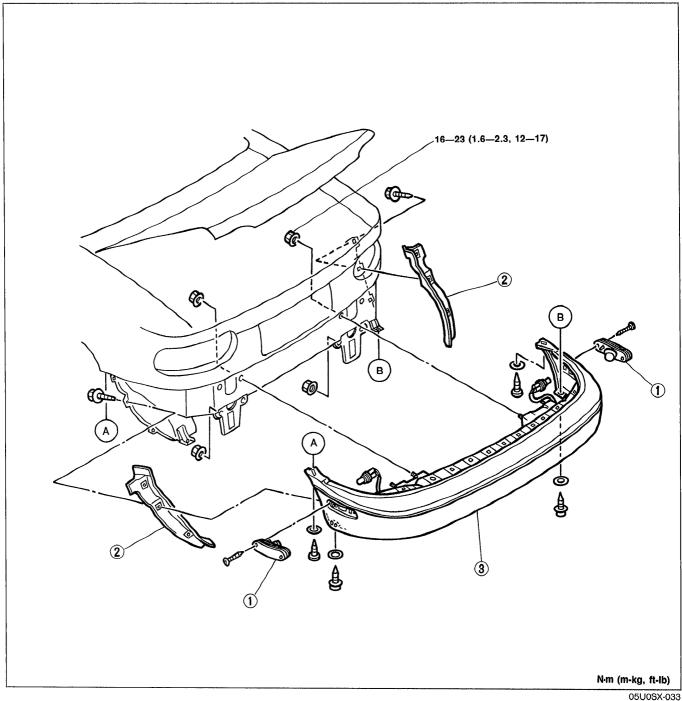
### **COMPONENTS**

### Caution

• Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)

### **Removal / Installation**

- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.3. Install in the reverse order of removal.

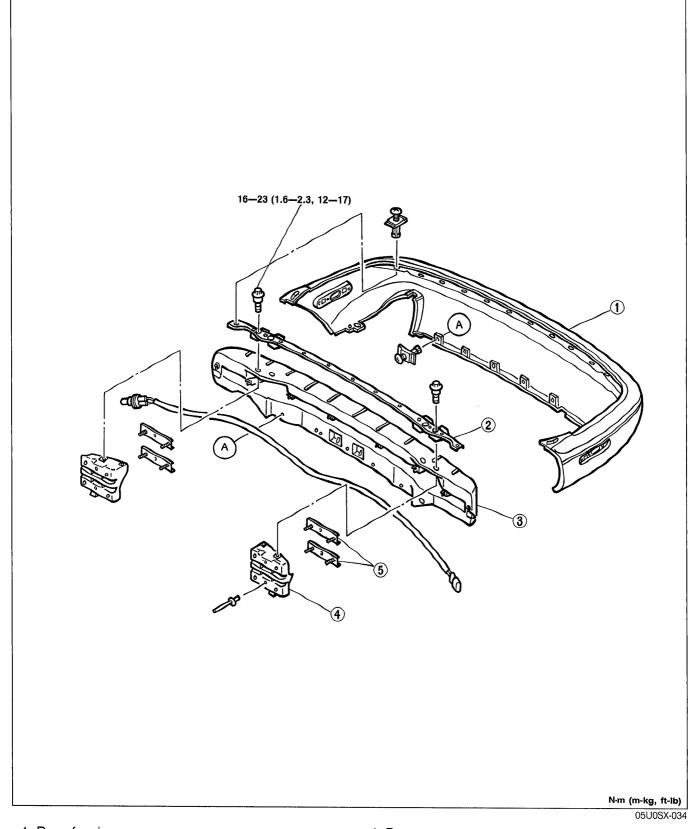


1. Rear side marker light

Removal..... Section T

- 2. Splash shield
- 3. Rear bumper

- **Disassembly / Assembly**1. Disassemble in the order shown in the figure.
  2. Assemble in the reverse order of disassembly.



1. Rear fascia

2. Retainer

3. Bumper reinforcement

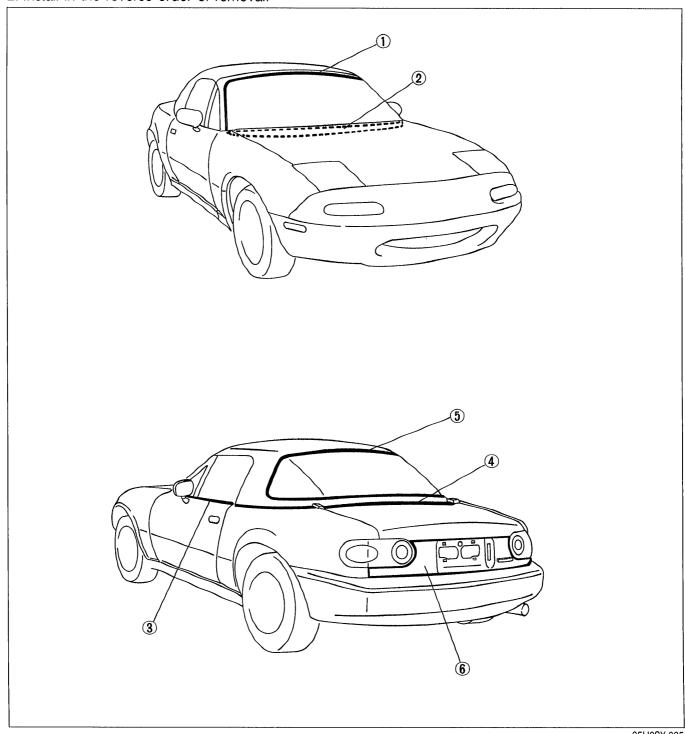
- 4. Bumper stay5. Set plate

### **MOLDING AND GARNISH**

### **COMPONENTS**

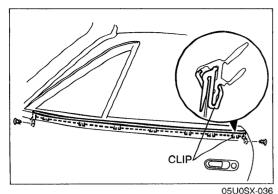
### Removal / Installation

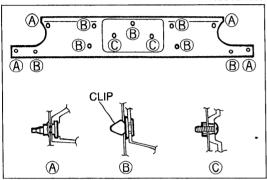
- 1. Remove the parts as shown.
- 2. Install in the reverse order of removal.

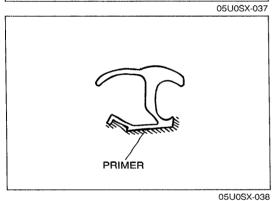


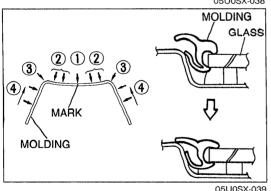
1. Windshield molding		
Installation Note	page	S-28
2. Cowl grille		
Removal	page	S-35
3. Front beltline molding		
Removal Note	page	S-28

4. Beltline molding	
Removal Note	page S-28
5. Rear window molding (Detachable	hard top)
Installation Note	page S-29
6. Rear finisher	
Removal Note	page S-28









### **Removal Note**

### Front beltline molding

- 1. Remove the door mirror. (Refer to page S-30.)
- 2. Remove the front beltline molding.

### Caution

• Do not damage the body.

### Note

• The clips are where shown in the figure.

### Rear finisher

- 1. Remove the rear combination light. (Refer to Section T.)
- 2. Remove the rear finisher.

#### Note

• The clips are where shown in the figure.

### Beltline molding

Remove the convertible top for removal of the beltline molding. (Refer to page S-61.)

# Installation Note Windshield molding

- 1. Remove the windshield. (Refer to page S-38.)
- 2. Install the windshield. (Refer to page S-38.)
- 3. Apply primer with a brush to the bonding area of the new upper molding, and allow it to dry for **approx. 30 minutes**.

#### Caution

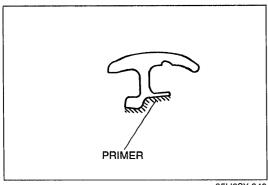
 Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the skin, remove it immediately.

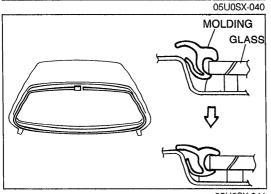
### Caution

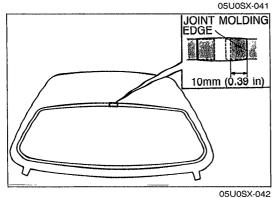
- Lower the convertible top to prevent the glass from being pushed out by air pressure if a door is closed.
- 4. Align the center mark in the molding with the glass mark (1).
- 5. Install the upper portions of the molding into the body (2).
- 6. Push the corner of the molding into the body (3).
- 7. Push the side portions of the molding into the body, beginning from the bottom (4).
- 8. Check for water leaks. If a leak is found, wipe the water off well and repeat the installation.

### Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr







### Rear window molding (Detachable hard top)

- 1. Remove the rear window glass. (Refer to page S-42.)
- 2. Install the rear window glass. (Refer to page S-42.)
- 3. Apply primer with a brush to the bonding area of the new rear window molding, and allow it to dry for **approx. 30 minutes**.

### Caution

- Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the hand, remove it immediately.
- 4. Install the rear window molding to the glass, as shown.

5. If the molding is too long, cut the excess molding **10mm (0.39 in)** inside the joint molding edge.

### Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr

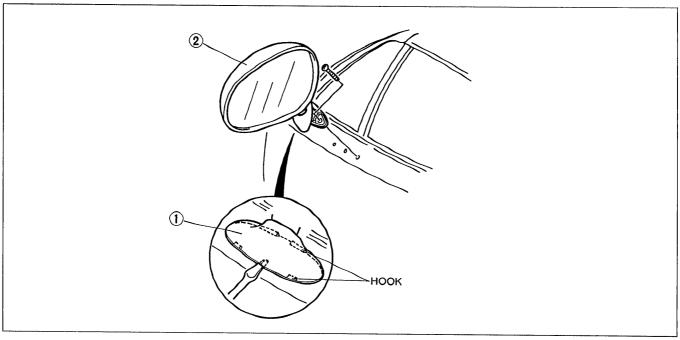
6. Check for water leaks. If a leak is found, wipe the water off well and repeat the installation.

### **DOOR MIRROR**

### **COMPONENTS**

### **Removal / Installation**

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.



05U0SX-044

1. Mirror cover

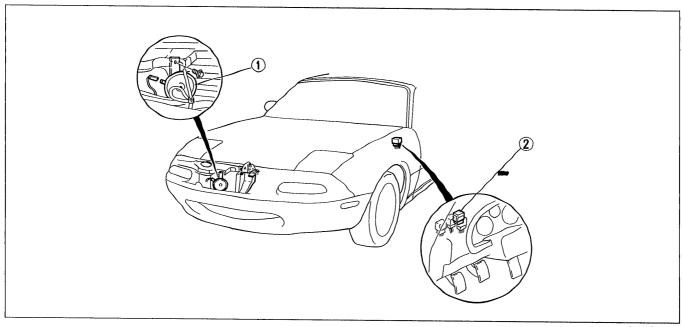
### 2. Rearview mirror

### **HORN**

### **COMPONENTS**

### Removal / Installation

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.



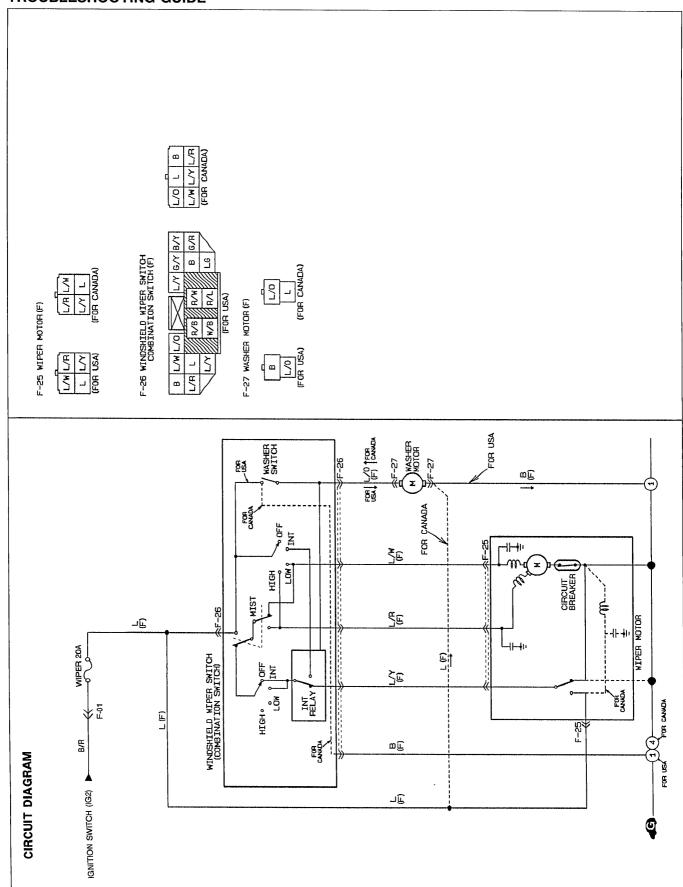
05U0SX-045

1. Horn

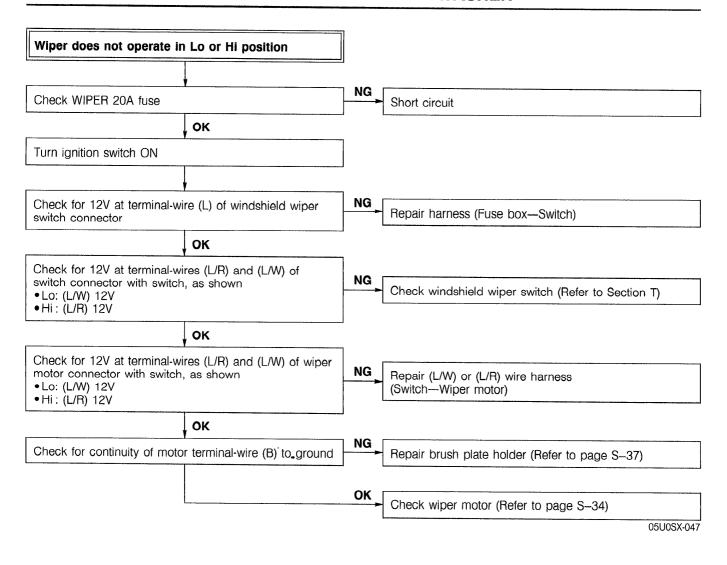
2. Horn relay Inspection ...... Section T

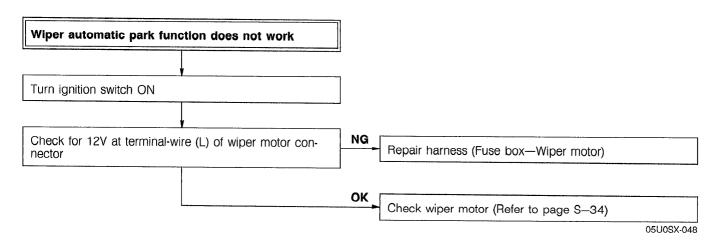
### WINDSHIELD WIPER AND WASHER

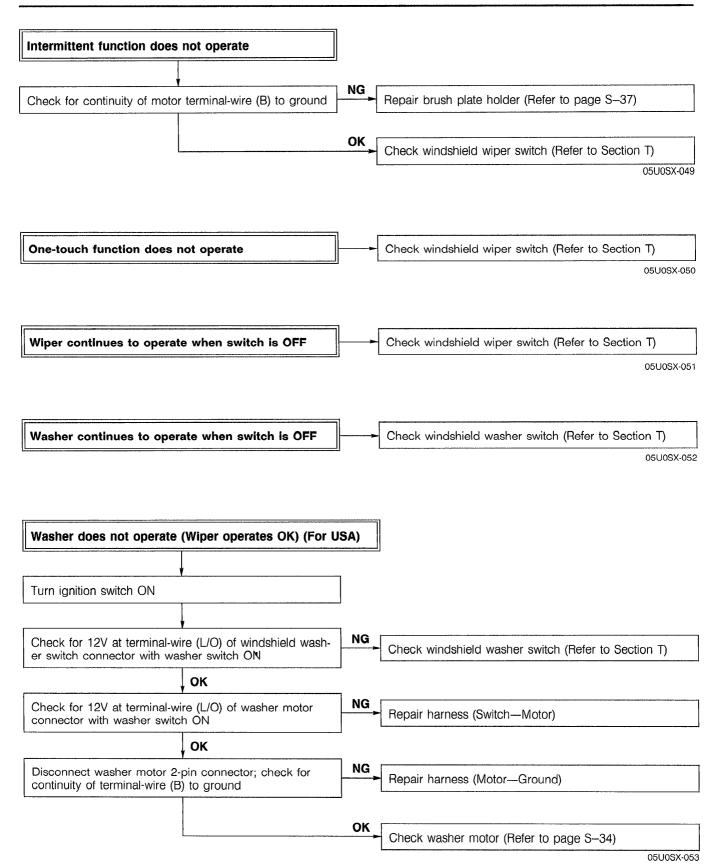
### TROUBLESHOOTING GUIDE

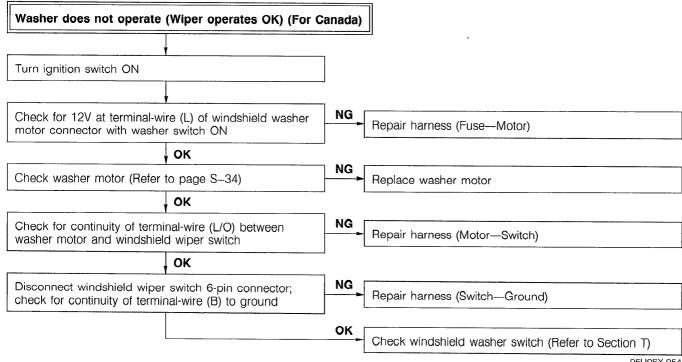


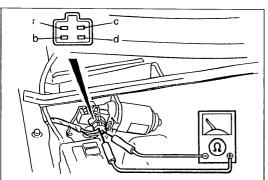
### WINDSHIELD WIPER AND WASHER

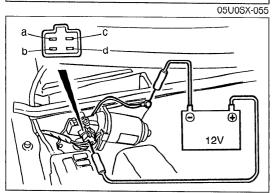


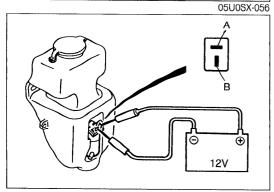












WIPER MOTOR Inspection

Check for continuity between the terminals with the wiper is in parked position.

Terminals	Continuity	Terminals	Continuity
a—b	No (Yes)	b—c	No (Yes)
а—с	Yes (Yes)	b—d	No (Yes)
a—d	Yes (Yes)	c—d	Yes (Yes)

): CANADA

Check operation by applying 12V and a ground to the terminals of the motor connector.

Terminal	0	
12V	Operation speed	
a (c)	Low	
c (a)	High	

): CANADA

# WASHER MOTOR

Inspection

Connect 12V to terminal B and a ground to terminal A, and verify that the motor operates.

# FRONT WIPER AND WASHER SWITCH Inspection

Refer to Section T.

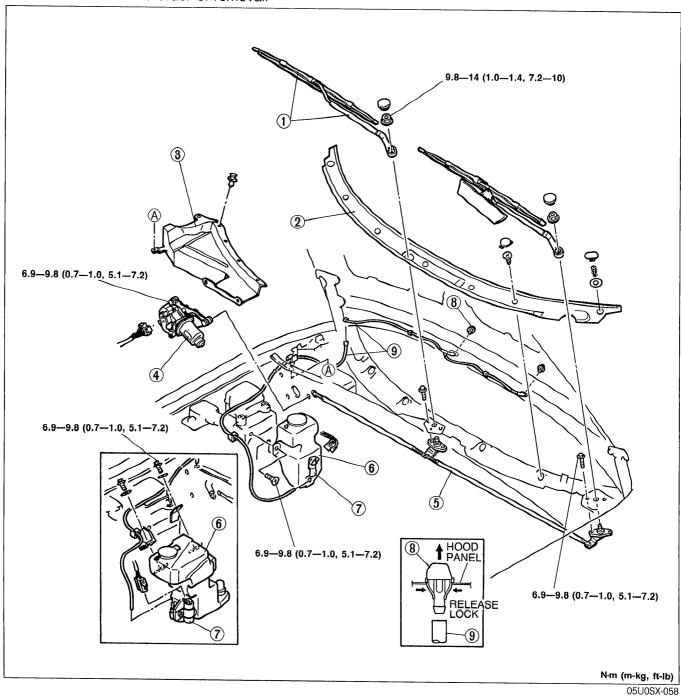
#### **COMPONENTS**

#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)

## **Removal / Installation**

- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal.



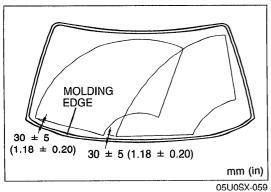
1. Wiper arm and blade Adjustment ...... page S-36

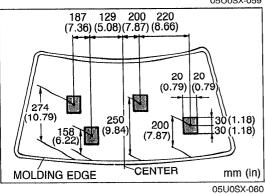
- 2. Cowl grille
- 3. Baffle cover

- 4. Wiper motor Inspection...... page S-34
- 5. Wiper link
- 6. Washer tank

7. Washer motor
Inspection...... page S-34
8. Washer nozzle
Adjustment..... page S-36

9. Washer pipe



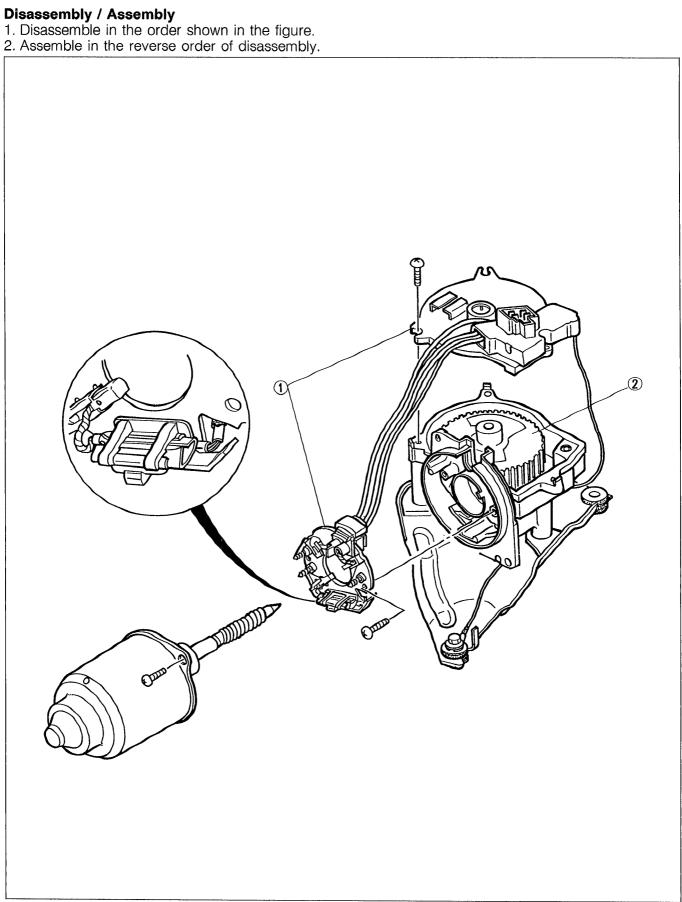


# Adjustment Arm height

Set the arm height as shown.

#### Washer nozzle

Insert a needle or similar object into the nozzle hole and move the nozzle to adjust the spray direction.

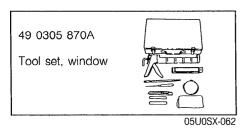


1. Brush plate holder

2. Motor gear shaft

# WINDSHIELD

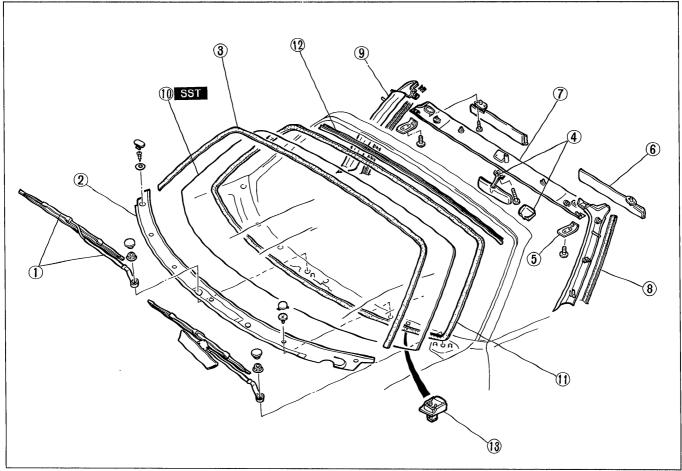
#### **PREPARATION** SST



## **COMPONENTS Removal / Installation**

#### Note

- Use the SST (49 0305 870A) to remove and install the windshield.
- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.



05U0SX-063

- 1. Wiper arm and blade Adjustment ...... page S-36
- 2. Cowl grille
- 3. Windshield molding Installation Note page S-28
- 4. Rearview mirror and cover
- 5. Striker

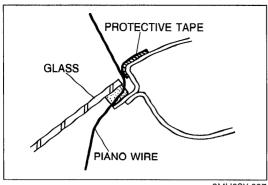
- 6. Sunvisor
- 7. Front header trim Removal Note.. page S-54
- 8. Weatherstrip
- 9. A-pillar trim

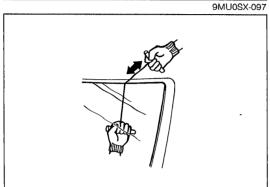
Removal Note.. page S-54 13. Spacer

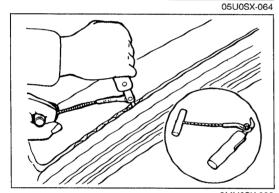
10. Windshield

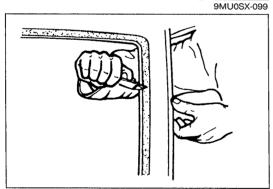
Removal Note.. page S-39 Installation Note page S-39

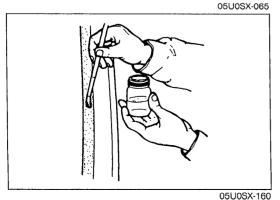
- 11. Dam
- 12. Upper protector











Removal Note Windshield

- 1. Apply protective tape along the edge of the body to protect it from damage.
- 2. Using an awl, make a hole through the sealant from the inside of the vehicle.
- 3. Pass piano wire through the hole.
- 4. Wind each end of the wire around a bar.
- 5. Working with another person, saw through the sealant around the edge of the glass. Then remove the glass.

#### **Caution**

- Use a long sawing action to spread the work over the whole length of wire to prevent it from breaking.
- Be careful that the wire does not rub on the body or dashboard.

#### Note

• If the glass is not to be reused, a tool like that shown in the figure may be used.

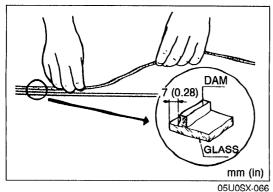
Insert the blade in the sealant, and pull on the bars.

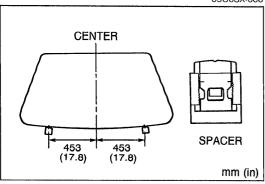
# Installation Note Windshield

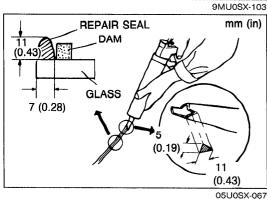
- Cut away the old sealant with a razor knife so that 1 to 2mm (0.04 to 0.08 in) thickness of sealant remains around the circumference of the frame. If all the sealant has come off in any one place, apply some primer after degreasing, and allow it 30 minutes to dry. Then put on new sealant to create a 2mm (0.08 in) layer.
- 2. Carefully clean an area **5 cm (1.97 in)** wide around the circumference of the glass and the bond on the body.
- 3. Apply primer with a brush to the bonding area of the glass and the body, and allow it to dry for **approx. 30 minutes**.

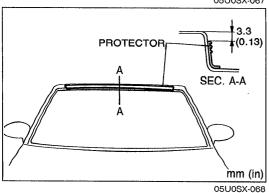
#### Caution

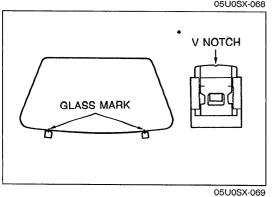
 Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the skin, remove it immediately.











4. Bond a new dam along the circumference of the glass **7mm (0.28 in)** from the edge.

#### Caution

Bond the dam securely and allow it to dry.

5. Install the spacers onto the body as shown.

#### Caution

Damaged spacers must be replaced.

- 6. Prepare the nozzle of the sealant tube so that it has a flange that can run along the edge of the glass and a V from which the sealant can flow. Once the primer is dry, apply repair seal (B001 77 739) around the entire circumference to fill the gap between the dam and the edge of the glass with a ridge of sealant 11mm (0.43 in) high. Keep the bead of sealant smooth and even, reshaping it where necessary with a spatula.
- 7. If the protector is damaged, bond a new protector onto the body, as shown.

#### Caution

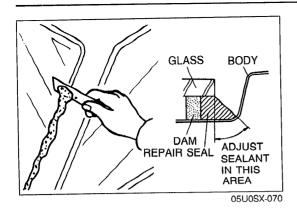
- Bond the protector securely and allow it to dry.
- 8. Install the glass, aligning the glass mark with the V notch in the spacer. Push it in lightly toward the vehicle to compress the sealant.

#### Caution

 Lower the convertible top to prevent the glass from being pushed out by air pressure if a door is closed.

# Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1 hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr



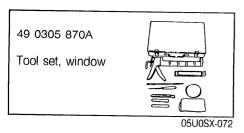
9. Use a scraper to smooth away any sealant that oozes out. Add more sealant to any points of poor contact.10. Install a new windshield molding. (Refer to page S-28.)

11. Check for water leaks.

12. If a leak is found, wipe the water off well and remove the molding and windshield. Reinstall the windshield and replace the molding with new molding. (Refer to page S-28.)

# **REAR WINDOW GLASS (DETACHABLE HARD TOP)**

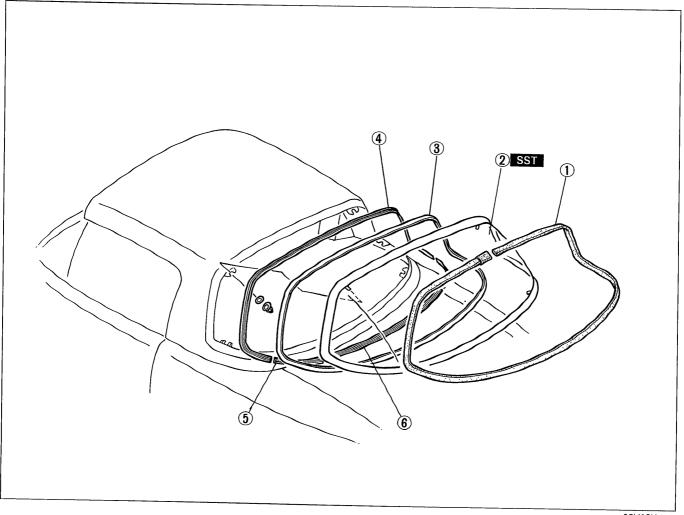
# PREPARATION SST



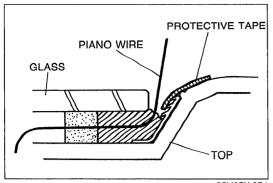
# **COMPONENTS**Removal / Installation

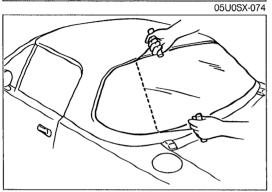
#### Note

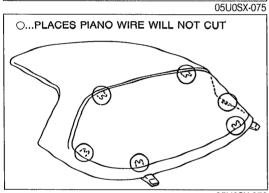
- Use the SST (49 0305 870A) to remove and install the rear window glass.
- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.

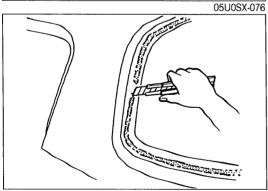


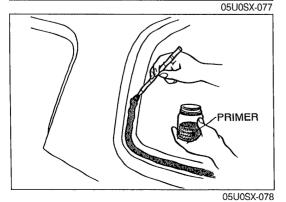
- 3. Dam
- 4. Upper protector
- 5. Lower protector
- 6. Side protector











# Removal Note Rear window glass

- 1. Apply protective tape along the edge of the top to protect it from damage.
- 2. Remove the glass mounting nuts.
- 3. Using an awl, make a hole through the sealant from the inside of the vehicle.
- 4. Pass piano wire through the hole.
- 5. Wind each end of the wire around a bar.
- 6. Saw through the sealant around the edge of the glass. Then remove the glass.

#### Caution

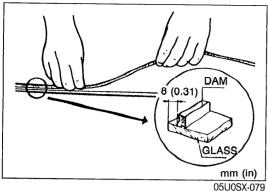
- Use a long sawing action to spread the work over the whole length of wire to prevent it from breaking.
- Be careful that the wire does not rub on the top.
- Use a razor knife to cut where the piano wire will not cut.

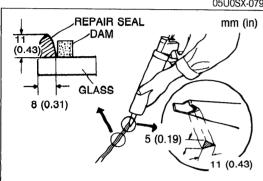
# Installation Note Rear window glass

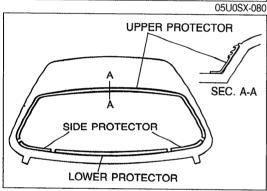
- Cut away the old sealant with a razor knife so that 1 to 2mm (0.04 to 0.08 in) thickness of sealant remains around the circumference of the frame. If all the sealant has come off in any one place, apply some primer after degreasing, and allow it 30 minutes to dry. Then put on new sealant to create a 2mm (0.08 in) layer.
- 2. Carefully clean an area 5 cm (1.97 in) wide around the circumference of the glass and the bond on the top.
- 3. Apply primer with a brush to the bonding area of the glass and the top, and allow it to dry for **approx. 30 minutes**.

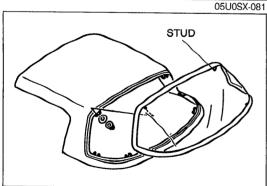
#### Caution

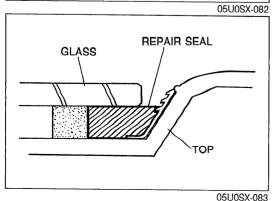
 Keep the area free of dirt and grease. Do not touch the surface. If primer gets on the skin, remove it immediately.











4. Bond a new dam along the circumference of the glass **8mm (0.31 in)** from the edge.

#### Caution

Bond the dam securely and allow it to dry.

5. Prepare the nozzle of the sealant tube so that it has a flange that can run along the edge of the glass and a V from which the sealant can flow. Once the primer is dry, apply the sealant around the entire circumference to fill the gap between the dam and the edge of the glass with a ridge of sealant 11mm (0.43 in) high.

Keep the bead of sealant smooth and even, reshaping it where necessary with a spatula.

6. If protector is damaged bond a new protector onto the detachable hard top, as shown.

#### Caution

• Bond the protector securely and allow it to dry.

- 7. Align the studs of the glass with the detachable hard top and mount the glass.
- 8. Push the glass lightly toward the front to compress the sealant.
- 9. Tighten the glass mounting nuts.

# **Tightening torque:**

2.4—3.3 Nm (24—34 cm-kg, 20.8—29.5 in-lb)

- 10. Use a scraper to smooth away any sealant that oozes out. Add more sealant to any points of poor contact.
- 11. Install the new rear window molding. (Refer to page S-29.)

# Hardening time of repair seal

Temperature	Surface hardening time	Time required until car can be put into service
5°C (41°F)	Approx. 1.5 hr	12 hr
20°C (68°F)	Approx. 1 hr	4 hr
35°C (95°F)	Approx. 10 min	2 hr

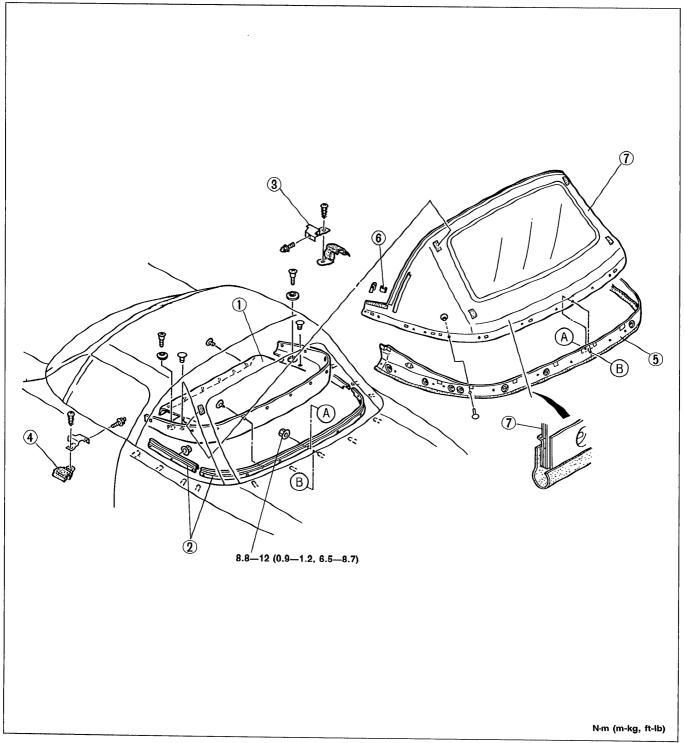
- 12. Check for water leaks.
- 13. If a leak is found, wiper the water off well and remove the molding and rear window glass. Reinstall the glass and replace the molding with new molding. (Refer to page S-29.)

# **REAR WINDOW (CONVERTIBLE TOP)**

## **COMPONENTS**

## **Removal / Installation**

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.



Rear package trim
 Set plate
 Beltline cover

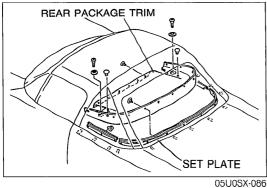
4. Beltline protector

5. Rain rail

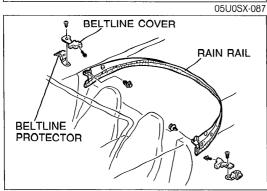
6. Zipper stop

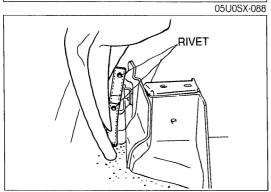
7. Rear window

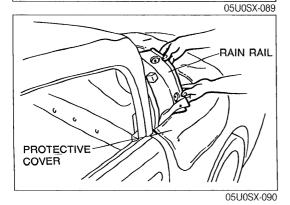
Removal Note..... page S-47 Installation Note.....page S-48



# REAR WINDOW







# Removal Note Rear window

- 1. Remove the rear package trim.
- 2. Remove the set plates.

#### Note

• Unzip the rear window, and lower the convertible top fully.

- 3. Remove the beltline covers.
- 4. Remove the beltline protectors.
- 5. Remove the rain rail mounting fasteners from the body.

#### Note

- Raise the convertible top completely.
- Leave the top latch assemblies in the unlocked position.
- 6. Remove the rain rail from the studs.
- 7. Remove the rivets from the link assembly with a drill.

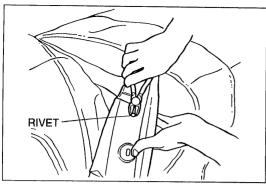
#### Drill size: $\phi$ 4.0mm ( $\phi$ 0.16 in)

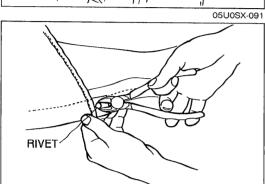
#### Note

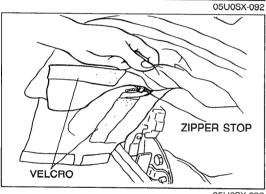
• Remove any accumulated dirt, etc.

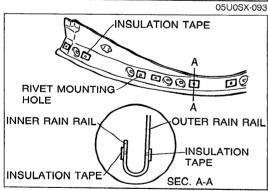
#### Caution

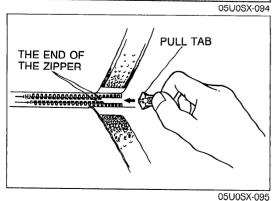
- Cover the body to prevent it from damage.
- 8. Remove the rain rail from the body.











9. Remove the rivets from the rain rail with a cutter, and remove the rain rail from the convertible top.

#### Note

• Do not damage the rain rail.

10. Remove the rivets from the rear window with a cutter.

#### **Note**

Do not damage the rear window.

- 11. Peel apart the Velcro.
- 12. Carefully remove the zipper stops from the rear window and top fabric, and remove the rear window.

#### Note

• Save the zipper stops for reuse.

# Installation Note Rear window

- 1. Degrease the rain rail with ethyl alcohol.
- 2. Install insulation tape to the rivet mounting holes of the rain rail.

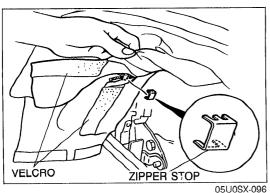
Insulation tape

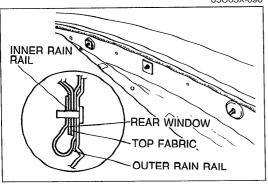
Width: 20mm (0.79 in) Height: 15mm (0.59 in) Thick: 3mm (0.12 in)

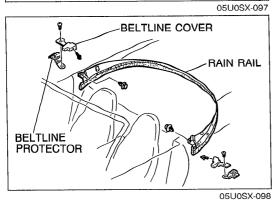
3. Align the ends of the zipper, and install the zipper pull tab.

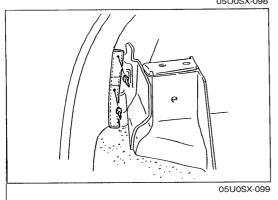
#### Note

- Do not damage the rear window.
- 4. Zip the rear window into place.









- 5. Install the zipper stops to the rear window and the top fabric.
- 6. Affix the rear window to the top fabric with the Velcro.

- 7. Mount the outer rain rail to the studs.
- 8. Mount the top fabric to the studs.
- 9. Mount the rear window to the studs.
- 10. Mount the inner rain rail to the studs.
- 11. Loosely install the set plates.

#### Note

• Install the set plate beginning at the left side.

#### Note

- Unzip the rear window, and lower the convertible top fully.
- 12. Install the rain rail with the fasteners.
- 13. Install the beltline protectors.
- 14. Install the beltline cover.

#### Note

- Raise the convertible top completely, and lock the top latch assemblies.
- Zip the rear window into place.
- 15. Tighten the set plate mounting nuts.

## Tightening torque: 8.8—12 N·m (0.9—1.2 m-kg, 6.5—8.7 ft-lb)

- 16. Rivet the top fabric to the link assembly.
- 17. Install the rear package trim.
- 18. It there is any sagging of the top fabric, remove the pull tab and realign the zipper.

# DASHBOARD AND CONSOLE

#### **COMPONENTS**

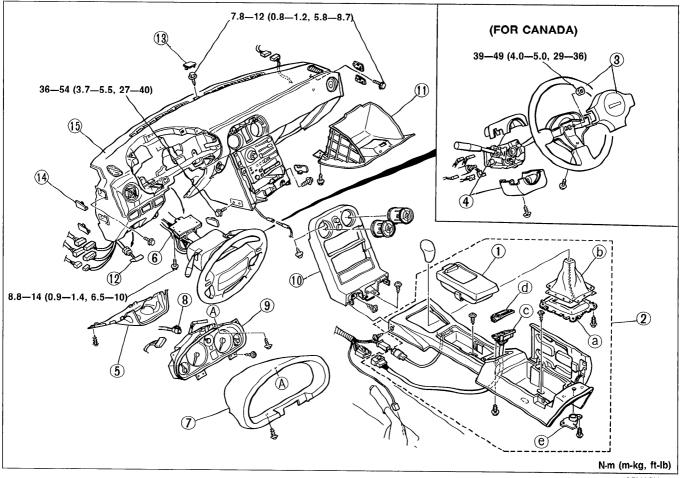
#### Caution

 Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to Section T.)

#### Removal / Installation

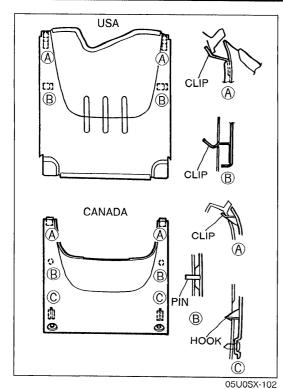
#### Note

- Do not remove the steering wheel if not necessary (U.S. spec.). If it is removed, refer to Section
- Remove the control wires of the heater unit and blower unit for removal of the dashboard.
- If necessary, remove Nos. 10 and 11 shown in the figure.
- 1. Disconnect the negative battery cable.
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal.



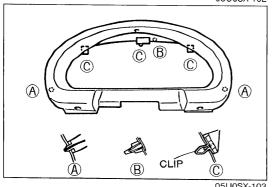
- 1. Ashtray
- 2. Rear console assembly
  - a. Back plate
  - b. Shift lever boot
  - c. Power window switch
  - d. Cover (Without power window)
  - e. Console lock assembly
- 3. Steering wheel and horn cap (Canada)
- 4. Column cover (Canada)
- 5. Center lower panel assembly Removal Note .. page S-51 12. Hood release knob
- 6. Steering shaft
- 7. Meter hood assembly Removal Note.. page S-51 15. Dashboard
- 8. Speedometer cable

- 9. Instrument cluster
- 10. Center panel assembly Removal Note .. page S-51
- 11. Glove box assembly
- 13. Center hole cover
- 14. Side cover



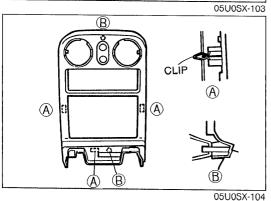
## Removal Note Center lower panel assembly

The clips are where shown.



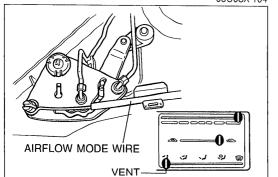
# Meter hood assembly

The clips are where shown.



# Center panel assembly

The clips are where shown.



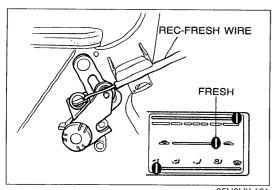
# Adjustment Note Airflow mode wire

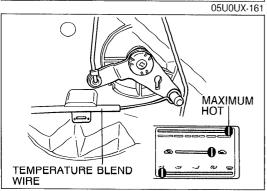
- 1. Set the airflow mode control lever to VENT position.
- 2. Connect and clamp the wire with the shutter lever on the heater unit at its closest point.

#### Caution

05U0SX-105

After installation, move the airflow mode control lever to be sure the wire is securely attached, and that it moves the full stroke from DEF to VENT.





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#### **REC-FRESH** wire

- 1. Set the selector lever to FRESH position.
- 2. Connect and clamp the wire with the shutter lever on the blower unit at its closest point.

#### Caution

 After installation, move the REC-FRESH lever to be sure the wire is securely attached, and that it moves the full stroke from REC to FRESH.

## Temperature blend wire

- 1. Set the temperature blend lever to MAX-HOT position.
- 2. Connect and clamp the wire with the shutter lever on the heater unit all the way to the right.

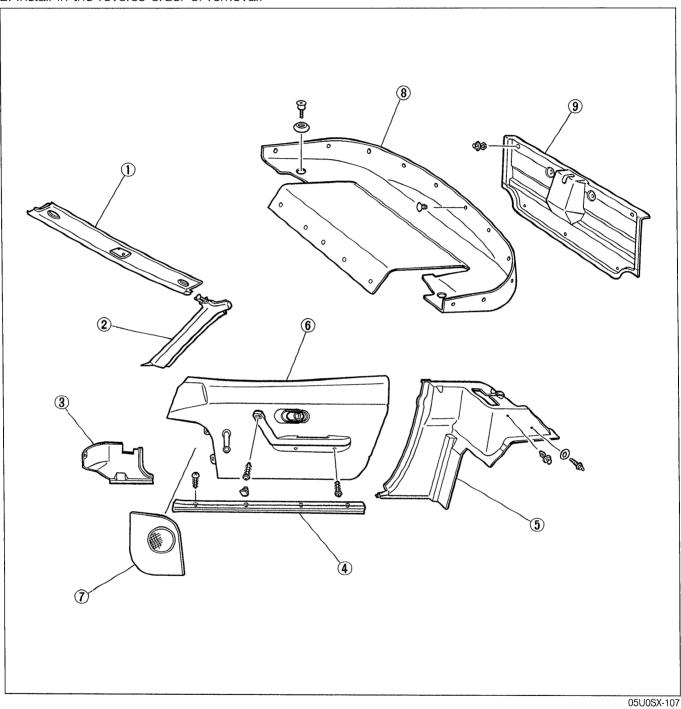
## Caution

After installation, move the temperature blend lever to be sure the wire is securely attached, and that it moves the full stroke from HOT to COLD.

# **TRIM**

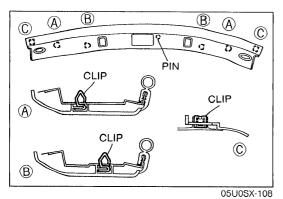
# **COMPONENTS** Removal / Installation

- Remove as shown by prying out the trim clips.
   Install in the reverse order of removal.



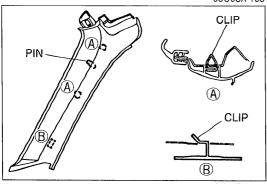
1. Front header trim		
Removal Note	page	S-54
2. A-pillar trim		
Removal	page	S-54
3. Front side trim		
Removal Note	page	S-54
4. Scuff plate		
Removal Note	page	S-54
	. •	

5. Quarter trim
• • • • • • • • • • • • • • • • • • • •
Removal Note page S-54
6. Door trim
Removal Note page S-55
7. Speaker grille
Removal Notepage S-55
8. Rear package trim
9 Trunk end trim

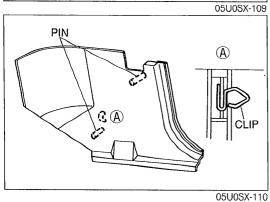


## **Removal Note** Front header trim

The clips and pin are where shown.

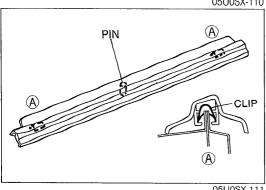


**A-pillar trim** The clips and pin are where shown.



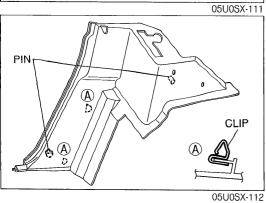
## Front side trim

The clip and pins are where shown.



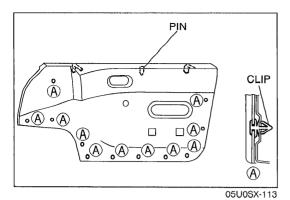
# Scuff plate

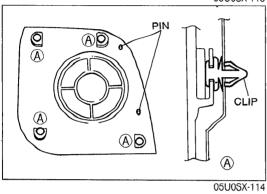
The clips and pin are where shown.



## **Quarter trim**

The clips and pins are where shown.





**Door trim** • The clips and pin are where shown.

**Speaker grille**The clips and pins are where shown.

# **FLOORMAT**

#### **COMPONENTS**

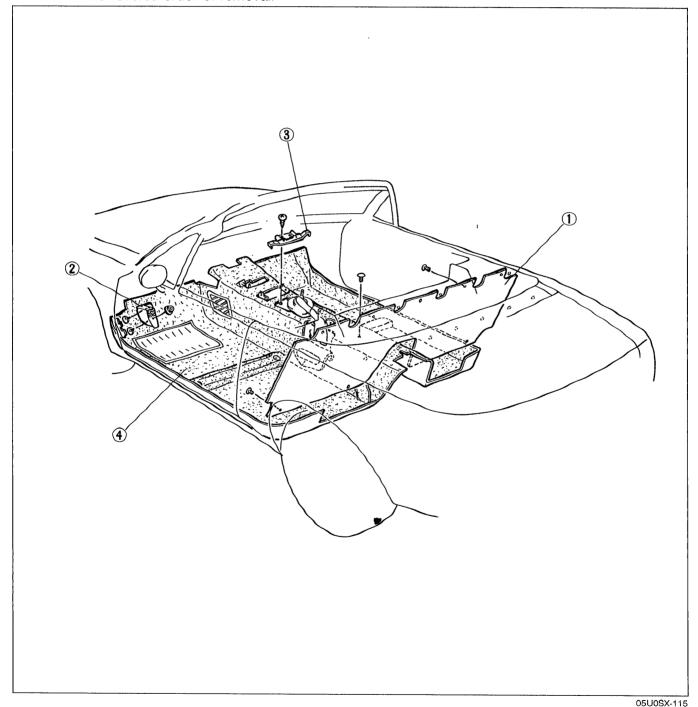
#### Removal / Installation

- 1. To remove the floormat, first remove the following.

  - a) Seats; (Refer to page S-59.) b) Dashboard; (Refer to page S-50.) c) Heater unit; (Refer to Section U.)
- d) Front side trim, scuff plates, quarter trim, and rear package trim; (Refer to page S-53.) e) Front seat belts and buckles; (Refer to page S-57.)

  2. Remove the remaining parts in the order shown in the figure.

  3. Install in the reverse order of removal.



- 1. Rear end mat
- 2. Foot rest

- 3. Bracket
- 4. Front floormat

# **SEAT BELT**

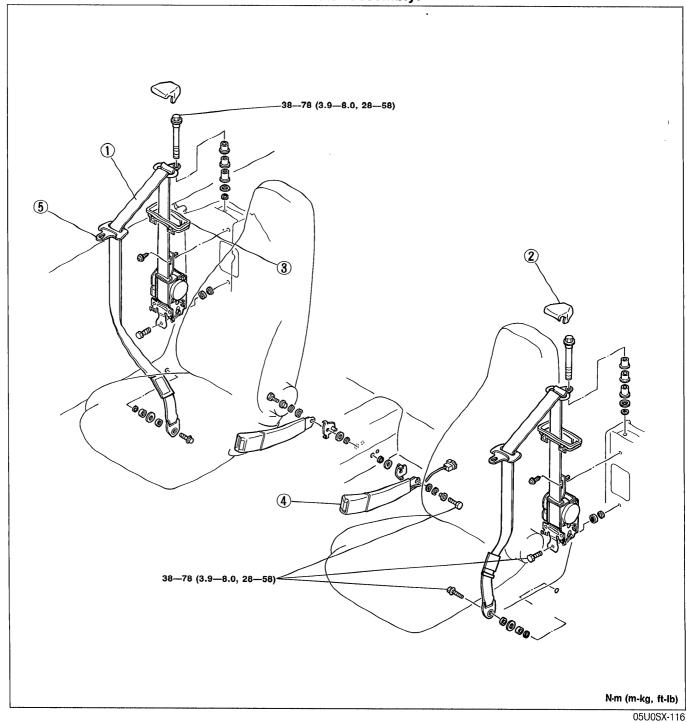
## **COMPONENTS**

# **Removal / Installation**

- 1. Remove the quarter trim for removal of the seat belt. (Refer to page S-54.)
- 2. Remove in the order shown in the figure.
- 3. Install in the reverse order of removal.

## Caution

• Do not disassemble the buckle or retractor assembly.



1. Seat belt

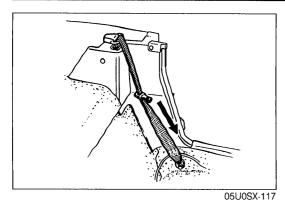
Inspection ...... page S-58

3. Bezel

2. Anchor cover

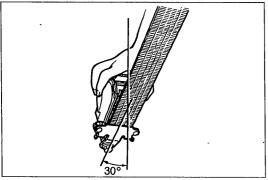
4. Buckle

5. Tang



# **EMERGENCY LOCKING RETRACTOR (ELR) Inspection**

- 1. Verify that the belt can be pulled out smoothly, and that it moves smoothly when worn.
- 2. Verify that the retractor locks when the belt is quickly pulled.

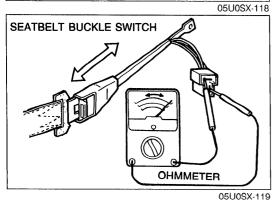


- 3. Remove the retractor.
- 4. Hold the retractor as it would be installed.
- 5. Slowly incline the retractor while pulling out the belt.
- 6. Verify that the retractor locks at **approx. 30 degrees** inclination.

# **WEBBING**

# Inspection

Inspect the webbing for scars, tears, and wear and for deformation of the fittings.



# BUCKLE SWITCH Inspection

- 1. Disconnect the seatbelt buckle switch connector.
- 2. Check continuity of the switch.

Seatbelt	Continuity
Buckled	No
Unbuckled	Yes

3. If continuity is not as specified, replace the switch.

# **SEAT**

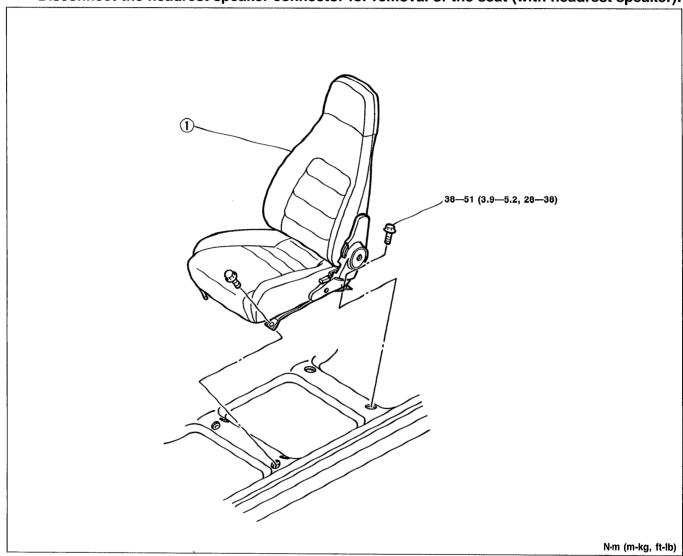
## **COMPONENTS**

## Removal / Installation

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.

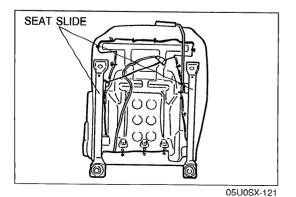
## Note

• Disconnect the headrest speaker connector for removal of the seat (with headrest speaker).



05U0SX-120

1. Front seat Inspection..... below



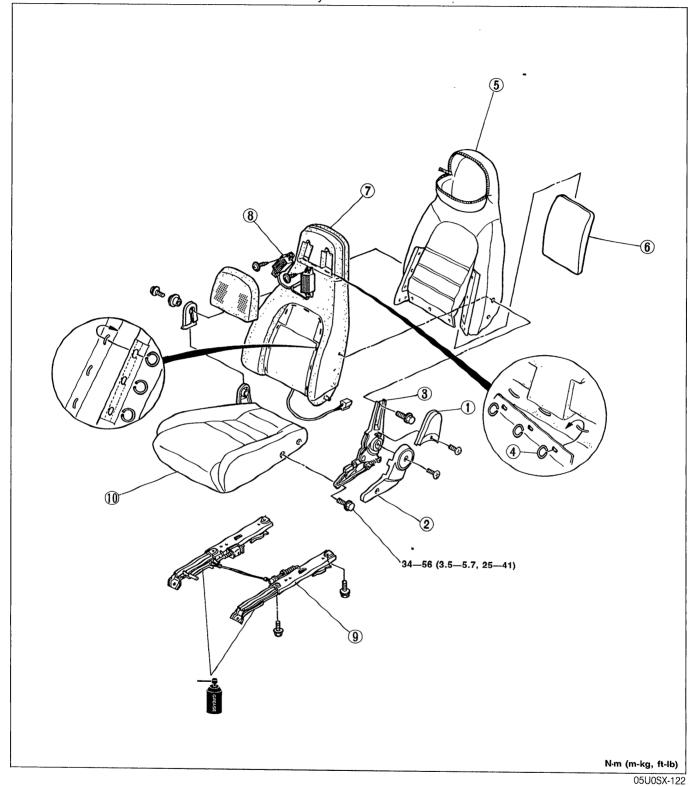
4. Check grease on the seat slides.

# **SEAT**

- Inspection
- 1. Verify that the seat adjuster lever and reclining knuckle move smoothly.
- 2. Check the adjustment lever for wear.
- 3. Check the front seat mounting bolts for looseness.

# **Disassembly / Assembly**

- 1. Disassemble in the order shown in the figure.
- 2. Assemble in the reverse order of disassembly.



1. Side cover

2. Reclining knuckle cover

3. Reclining knuckle

4. Hog ring

5. Seatback trim

6. Pad

7. Back frame

8. Headrest speaker (If equipped) Inspection ...... Section T

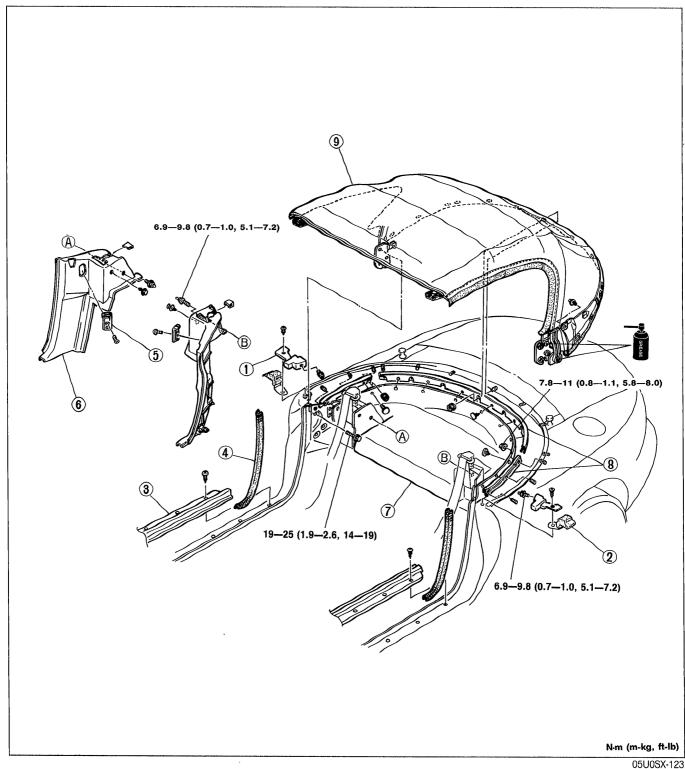
9. Seat slide

10. Seat cushion

# **CONVERTIBLE TOP**

# COMPONENTS Removal / Installation

- 1. Remove in the order shown in the figure.
- 2. Install in the reverse order of removal.



- 1. Beltline cover
- 2. Beltline protector
- 3. Scuff plate

Removal Note.. page S-54

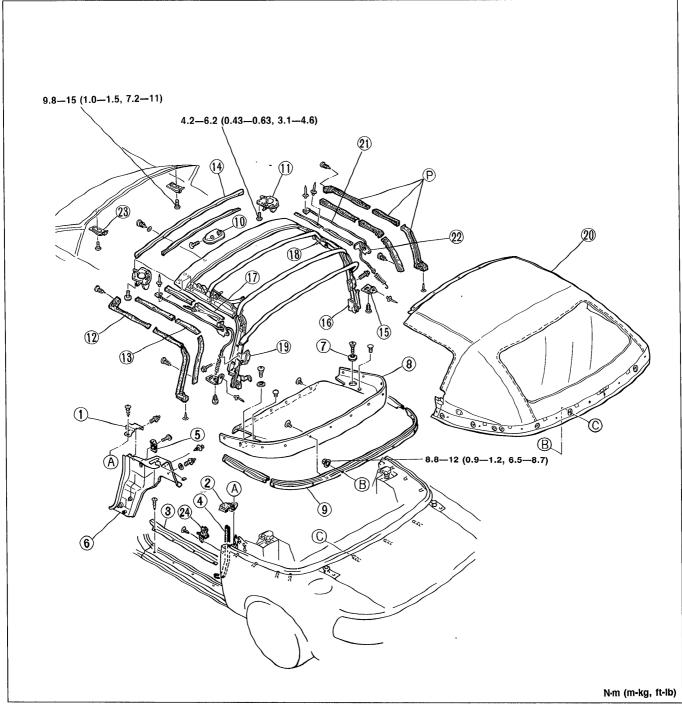
- 4. Seaming welt
- 5. Striker (If equipped)
- 6. Quarter trim

Removal Note.. page S-54

- 7. Rear package trim
- 8. Set plate
- 9. Convertible top

## **Disassembly / Assembly**

- 1. Disassemble in the order shown in the figure.
- 2. Assemble in the reverse order of disassembly.



05U0\$X-124

- 1. Beltline cover
- 2. Beltline protector
- 3. Scuff plate
- 4. Seaming welt
- 5. Striker (If equipped)
- 6. Quarter trim
- 7. Stopper
- 8. Rear package trim
- 9. Set plate
- 10. Top handle

11. Top latch assembly

Adjustment ...... page S-71 20. Top fabric

12. Weatherstrip

Adjustment ...... page S-72

- 13. Retainer
- 14. Set plate
- 15. End plate
- 16. Link assembly
- 17. Protector
- 18. Link stopper

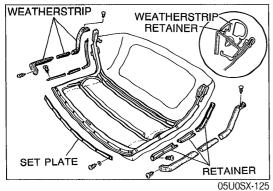
- 19. Open stopper

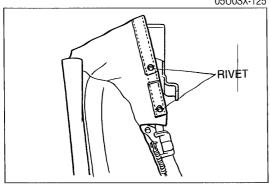
Disassembly Note

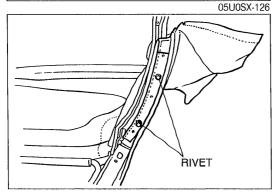
..... page S-63

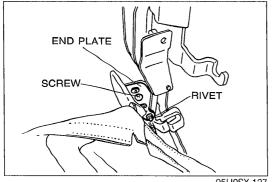
Assembly Note. page S-65

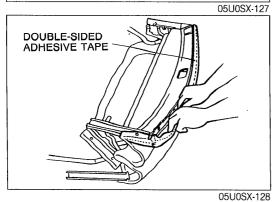
- 21. Cable
- 22. Cable guide
- 23. Striker
- 24. Cab side weatherstrip











Disassembly Note Top fabric

1. Remove the convertible top from the body. (Refer to page S-61.)

Note

- Set the convertible top upside down on a clean surface.
- 2. Remove the set plate, weatherstrips, and retainers.
- 3. Remove the rivets from the link assembly with a drill.

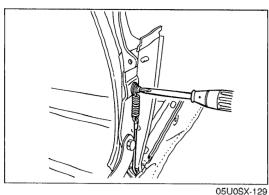
Drill size:  $\phi$ 4.0mm ( $\phi$ 0.16 in)

4. Remove the rivets with a drill and remove the screws from the link assembly. Remove the end plates.

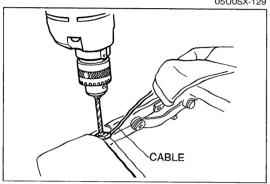
Drill size:  $\phi$ 4.0mm ( $\phi$ 0.16 in)

Note

- Fold the convertible top.
- 5. Remove the top fabric from the link assembly.
- 6. Remove the top fabric from the front header.



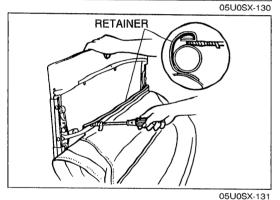
7. Remove the screws, and remove the cables from the rear of the link assembly.



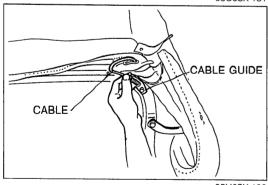
Note

- Unfold the convertible top.
- 8. Remove the rivets from the link assembly with a drill, and remove the cables from the link assembly.

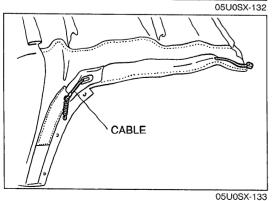
Drill size:  $\phi$ 4.0mm ( $\phi$ 0.16 in)



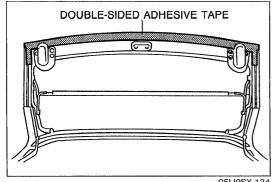
- 9. Peel off the Velcro at the rear bow.
- 10. Pry back the bow retainers with a protected screwdriver.
- 11. Remove the top fabric from the bows.



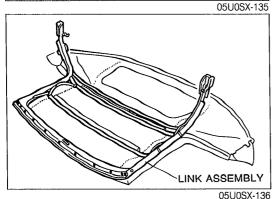
- 12. Remove the cables from the cable guide.
- 13. Remove the top fabric and cables from the link assembly.

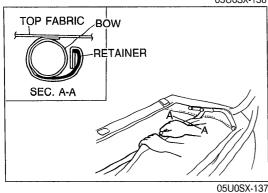


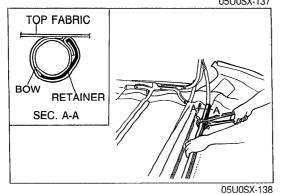
14. Remove the cables from the top fabric.



# O5UOSX-134







# Installation Note Top fabric

- 1. Remove the original double-sided adhesive tape from the front header.
- 2. Degrease the front header with ethyl alcohol.
- 3. Install new double-sided adhesive tape to the front header.
- 4. Thread the cables into the top fabric.

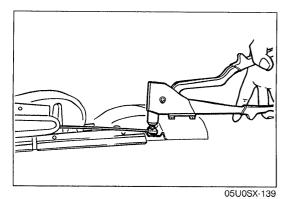
5. Place the link assembly over the top fabric.

## Note

- Install the top fabric to the bows, beginning from the rear bow. Perform Steps 6, 7, and 8.
- 6. Roll the top fabric over the bow retainer.
- 7. Hang the end of the top fabric on the bow retainer.
- 8. Clamp the top fabric to the bow with protected water pump pliers.

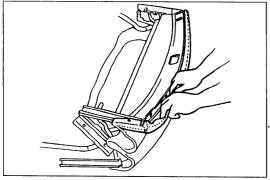
#### Note

- Pull the top fabric by hand to verify that it is held securely.
- 9. Affix the top fabric to the rear bow with the Velcro.



#### **Note**

- Set the convertible top upright.
- 10. Rivet the cables to the front of the link assembly.

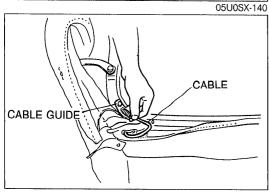


## Note

- Turn the convertible top over and fold it.
- 11. Install the front of the top fabric to the front header.

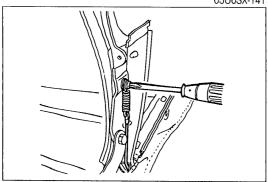
#### Note

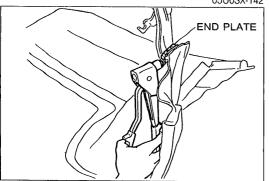
- Align the set plate and top fabric with the set plate mounting holes.
- 12. Install the set plate to the link assembly.
- 13. Pass the cables through the cable guides.



05U0SX-141

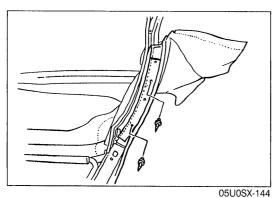
14. Install the cables to the rear of the link assembly.

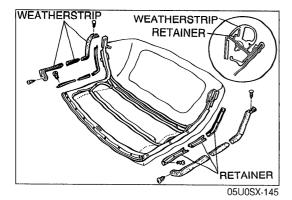




05U0SX-143

- 15. Install the top fabric to the link assembly.
- 16. Install the end plates to the link assembly.





**Note** 

• Unfold the convertible top.

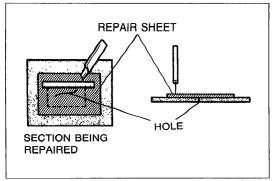
17. Rivet the top fabric to the link assembly.

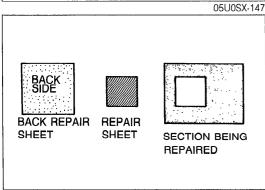
18. Install the retainers and weatherstrips to the link assembly.

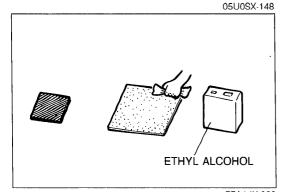
- Adjusting Small Sag

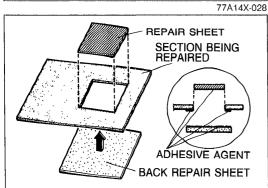
  1. Raise the convertible top and lock the latch assemblies.

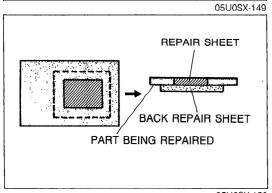
  2. Use a steamer or steam wand to remove sags.
- 3. Allow top fabric to dry.











05U0SX-150

#### REPAIR OF TOP FABRIC

#### Note

Repairing a hole in the top fabric differs from repairing a tear in the fabric. Refer to page S-69 for tear repair.

Repair of Hole in Top Fabric

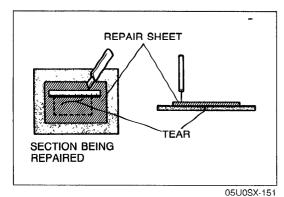
- 1. Place the **repair sheet** (NAY1 R1 211) over the damaged section. Cut both the top fabric and the repair sheet with a razor knife.
- 2. Cut another piece of repair sheet larger than the first for use as a back repair sheet.
- 3. Trim the top fabric and the repair sheets with scissors.

4. Degrease the repair sheets with ethyl alcohol.

5. Apply **adhesive agent** (K180 W0 313) or equivalent to the part being repaired, to the repair sheet, and to the back repair sheet.

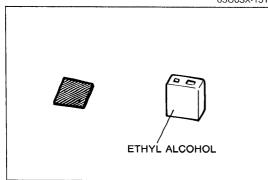
#### Note

- Apply a substantial amount of the adhesive agent to the cloth.
- · Let it stand for a few minutes.
- 6. Insert the repair sheet into the section of the top fabric being repaired. Then install the back repair sheet from the underside.
- 7. Press the repair sheets firmly together.
- 8. Let the top fabric stand until the adhesive agent is fully dry.

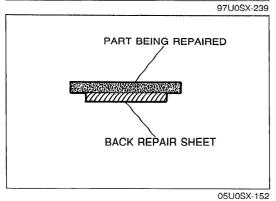


Repair of Tear in Top Fabric

1. Cut a piece of **repair sheet** (NAY1 R1 211) larger than the damaged section for use as a back repair sheet.



2. Degrease the repair sheet with ethyl alcohol.



3. Apply **adhesive agent** (K180 W0 313) or equivalent to the part being repaired and to the back repair sheet.

#### **Note**

- Apply a substantial amount of the adhesive agent to the cloth.
- · Let it stand for a few minutes.
- 4. Install the back repair sheet from the underside.
- 5. Press the repair sheets firmly together.
- 6. Let the top fabric stand until the adhesive agent is fully dry.

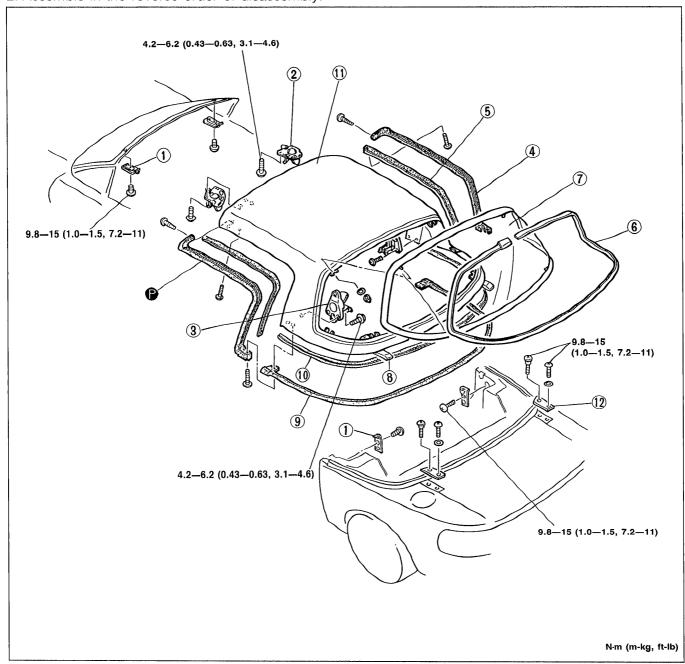
#### **DETACHABLE HARD TOP**

#### **COMPONENTS**

- Disassembly / Assembly

  1. Disassemble in the order shown in the figure.

  2. Assemble in the reverse order of disassembly.



05U0SX-153

1. Striker
2. Top latch assembly
Adjustment page S-71
3. Side latch assembly
Adjustment page S-71
4. Weatherstrip
Adjustment page S-72
5. Retainer
6. Rear window molding
Installation page S-29

7. Rear window glass	
Removal / Insallation	page S-42
8. Rear deck latch assembly	
9. Rear weatherstrip	
10. Edge protector	
11. Detachable hard top	
12. Rear deck plate	

#### CONVERTIBLE TOP, DETACHABLE HARD TOP

#### **Adjustment**

Convertible top/Detachable hard top

The alignment of either top to the windshield header may be adjusted up, down, fore, and aft by turning the respective top latch assembly adjusting nut.

#### Adjustment procedure

- 1. Fold the protector away from the adjusting nut.
- 2. When the adjusting nut is turned clockwise:
  - Clearance (A) and height (B) of the top become less.
- 3. When the adjusting nut is turned counterclockwise: Clearance (A) and height (B) of the top become greater.

#### Caution

Secure the adjusting nut with the protector after completing any adjustment.

#### Detachable hard top

If engagement of the striker and the side latch assembly is too tight or too loose, adjustment is made through the latch assembly adjusting nut.

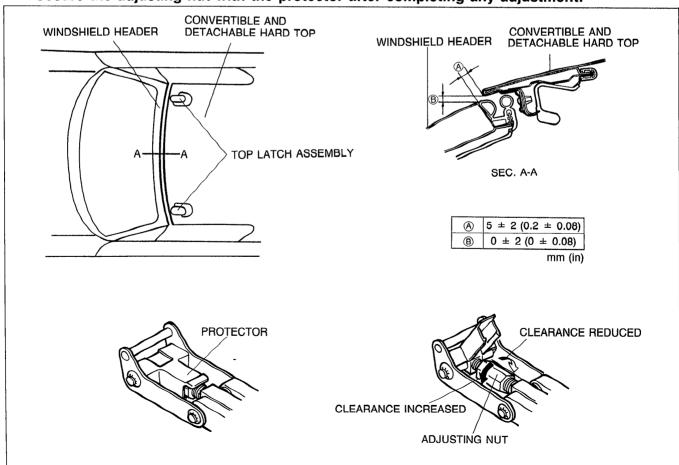
#### Adjustment procedure

- 1. Fold the protector away from the adjusting nut.
- 2. When the adjusting nut is turned clockwise:
  - Engagement of the striker and the side latch assembly becomes tighter.
- 3. When the adjusting nut is turned counterclockwise:

  Engagement of the striker and the side latch assembly becomes looser.

#### Caution

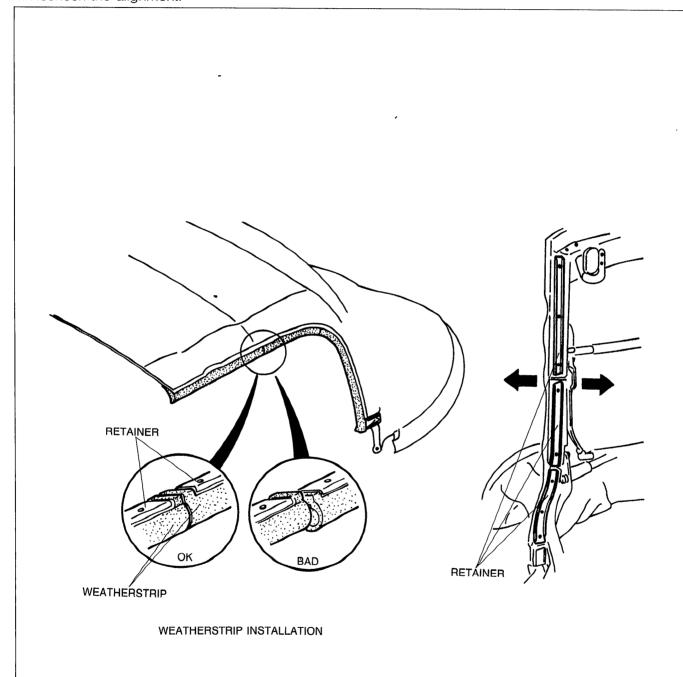
Secure the adjusting nut with the protector after completing any adjustment.



Weatherstrip (Convertible top/Detachable hard top)
If there is any misalignment (lateral or vertical), adjust by following the steps below:

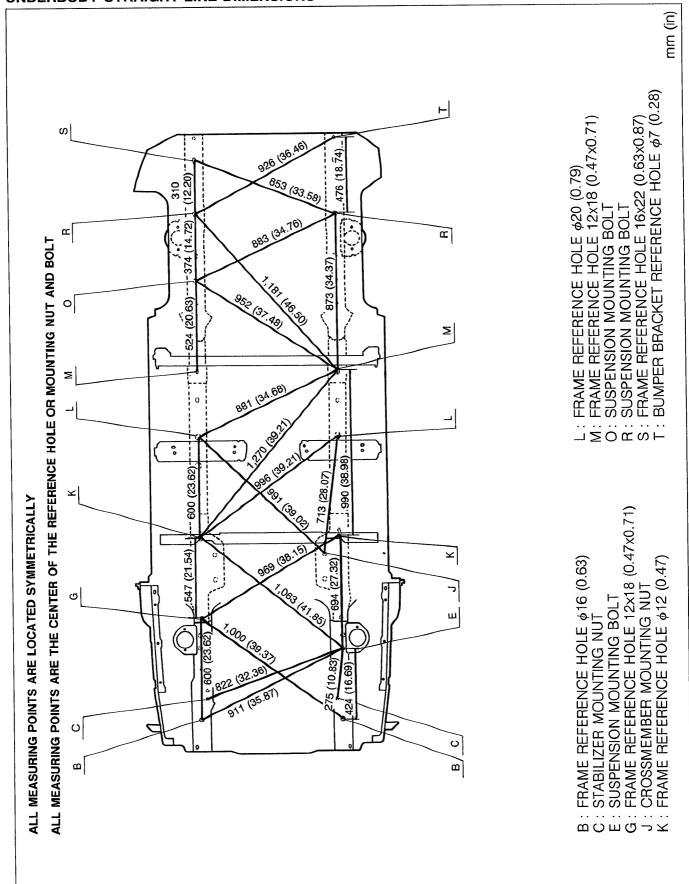
#### Adjustment procedure

- Remove the weatherstrip in question.
   Loosen the retainer screw and adjust the retainer as necessary.
   Tighten the screw, and reinstall the weatherstrip.
- 4. Recheck the alignment.

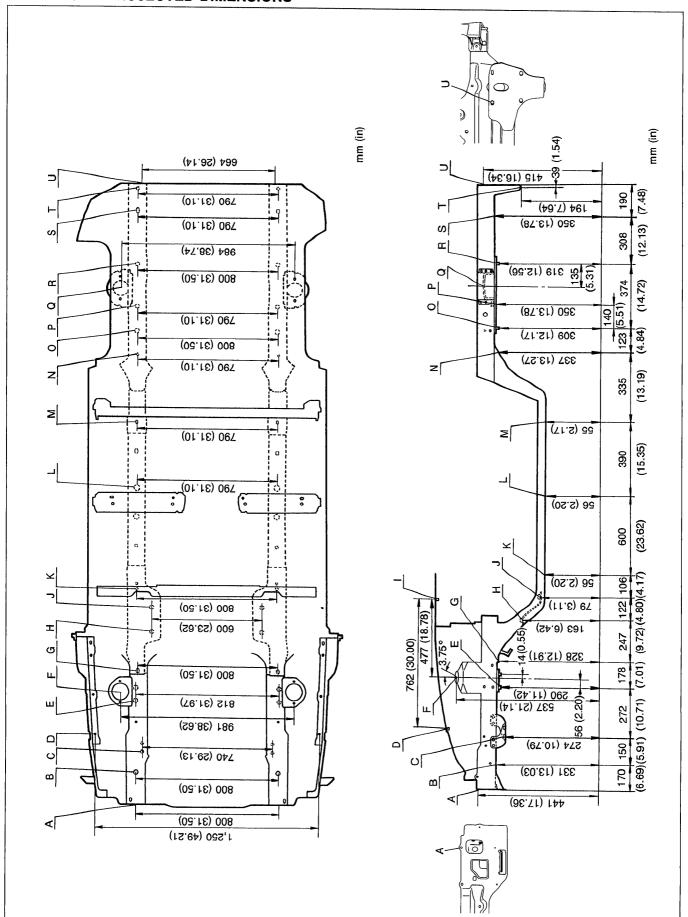


#### **UNDERBODY DIMENSIONS**

#### **UNDERBODY STRAIGHT-LINE DIMENSIONS**



#### **UNDERBODY PROJECTED DIMENSIONS**



- A: BUMPER BRACKET MOUNTING NUT
- B : FRAME REFERENCE HOLE  $\phi$ 16 (0.63)
- C: STABILIZER MOUNTING NUT
- D: FRONT FENDER PANEL MOUNTING NUT
- E: SUSPENSION MOUNTING BOLT
- F: FRONT MOUNTING BLOCK
- G: FRAME REFERENCE HOLE 12x18 (0.47x0.71)
- H: CROSSMEMBER MOUNTING NUT
- I: FRONT FENDER PANEL MOUNTING NUT
- J: CROSSMEMBER MOUNTING NUT
- K : FRAME REFERENCE HOLE  $\phi$ 12 (0.47)
- L : FRAME REFERENCE HOLE  $\phi$ 20 (0.79)
- M: FRAME REFERENCE HOLE 12x18 (0.47x0.71)
- N : FRAME REFERENCE HOLE  $\phi$ 12 (0.47)
- O: SUSPENSION MOUNTING BOLT
- P: SUSPENSION MOUNTING NUT
- Q: REAR MOUNTING BLOCK
- R: SUSPENSION MOUNTING BOLT
- S: FRAME REFERENCE HOLE 16x22 (0.63x0.87)
- T : BUMPER BRACKET REFERENCE HOLE  $\phi$ 7 (0.28)
- U: BUMPER MOUNTING HOLE 12x14 (0.47x0.55)

mm (in)

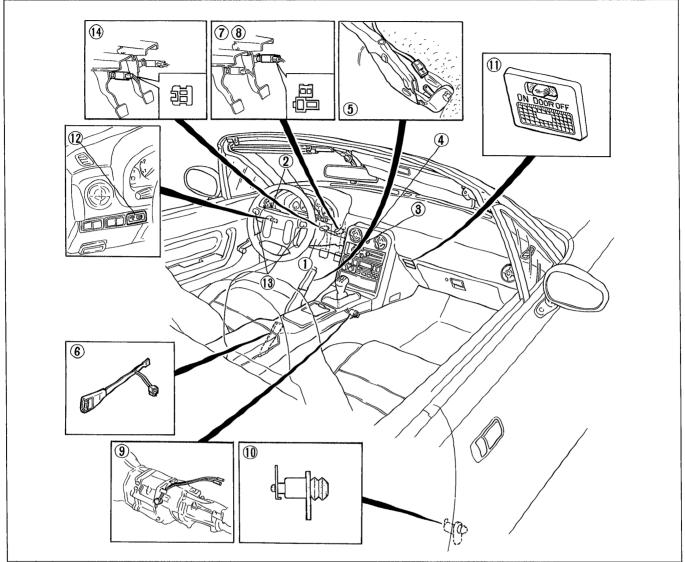
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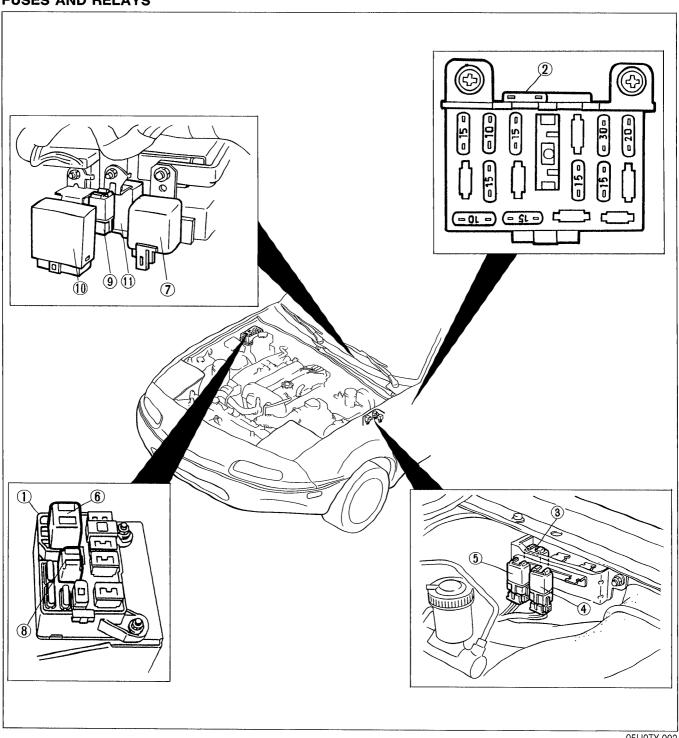


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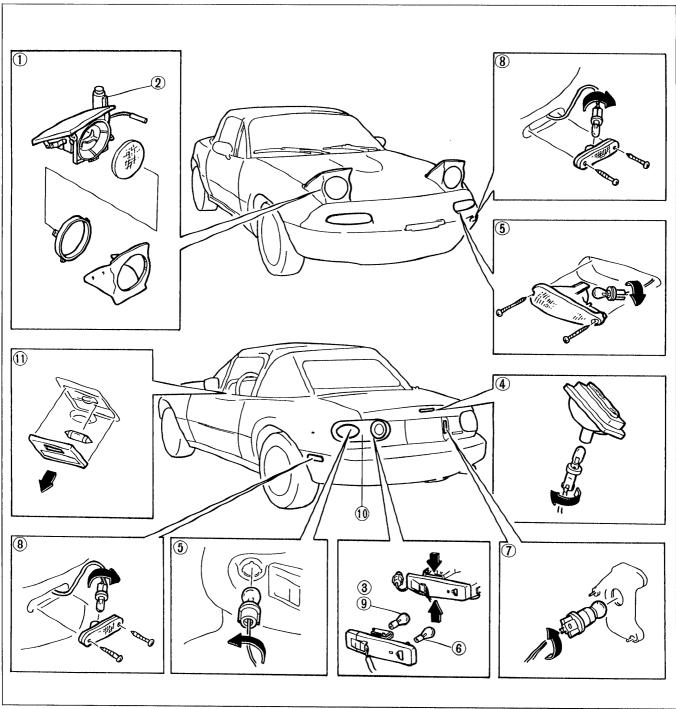
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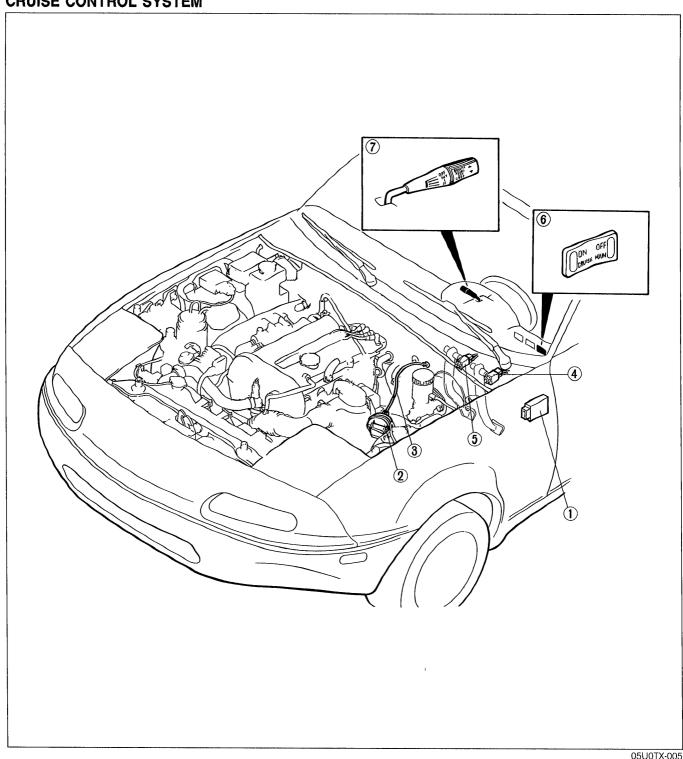


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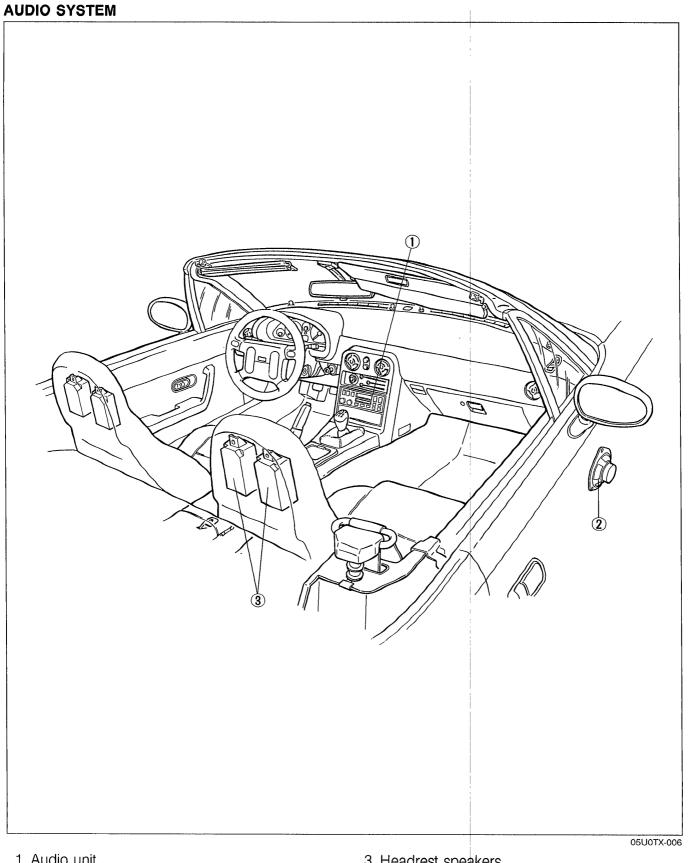
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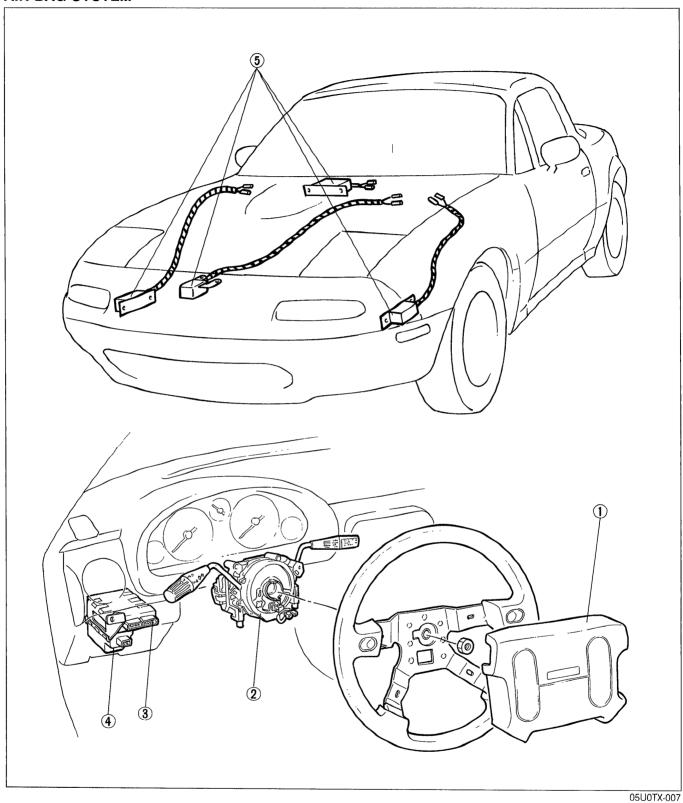
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Warning lamp and sender unit	<ul> <li>Brake warning lamp remains illuminated</li> <li>Brake warning lamp does not illuminate when parking brake on</li> <li>Brake warning lamp does not illuminate when brake fluid in reservoir below MIN</li> <li>Seat belt warning lamp remains ON six seconds after ignition switch turned ON (Timer function does not operate)</li> <li>Seat belt warning lamp does not illuminate when ignition switch first turned ON</li> </ul>	T- 40 T- 41 T- 41 T- 42 T- 42
Lighting system	<ul> <li>Headlights do not illuminate (U.S. spec.)</li> <li>Headlight does not illuminate (Canada spec.)</li> <li>Headlight does not illuminate (right or left)</li> <li>Headlight retractor motors do not operate</li> <li>Headlight retractor motor does not operate (right or left)</li> <li>Stoplights do not illuminate</li> <li>Stoplight does not illuminate</li> <li>Turn and hazard warning functions do not operate (U.S. spec.)</li> <li>Turn and hazard warning function do not operate (Canada spec.)</li> <li>Turn signal(s) flashes rapidly</li> <li>Hazard warning function does not operate</li> <li>Back-up light(s) does not illuminate</li> <li>Taillights, side marker lights, and license plate lights do not illuminate (U.S. spec.)</li> <li>Taillights, side marker lights, and license plate lights do not illuminate (Canada spec.)</li> <li>Running lights do not illuminate</li> <li>Running light function does not cancel</li> <li>Interior lamp(s) do not illuminated</li> <li>Interior lamp(s) remains illuminated</li> </ul>	T- 46 T- 48 T- 50 T- 51 T- 53 T- 59 T- 60 T- 63 T- 65 T- 67 T- 68 T- 72 T- 75 T- 75 T- 80 T- 80 T- 86 T- 88
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Cruise control system	Vehicle speed cannot be set (Cruise control unit will not hold vehicle speed)	T- 99
Audio	<ul> <li>Speaker(s) do not sound (System without headrest speakers)</li> <li>Speaker(s) do not sound (System with headrest speakers)</li> <li>Poor sound quality or noise (Radio)</li> <li>Poor sound quality (Cassette tape player)</li> <li>Cassette tape will not load</li> <li>Cassette tape will not play</li> <li>Compact disc will not load</li> <li>Compact disc skips</li> </ul>	T-115 T-117 T-120 T-122 T-123 T-124 T-125 T-125
Air bag system	Air bag warning lamp flashes	T-138

05U0TX-008

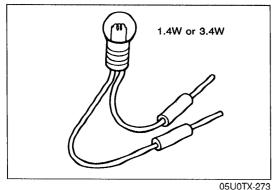
OUTLINE T

#### **OUTLINE**

#### **HOW TO USE THIS SECTION**

Information regarding removal and installation of electrical equipment is given in **SECTION S**. Understanding will be easier if this section is used in conjunction with the **WIRING DIAGRAMS**.

9MU0TX-008

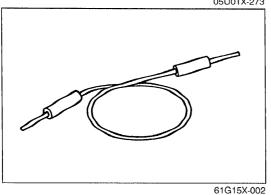


## ELECTRICAL TROUBLESHOOTING TOOLS Test Light

The test light, as shown in the figure, uses a 12V bulb. The two leads should be connected to probes. The test light is used for simple voltage checks and to check for open circuits.

#### Caution

 When checking a control unit, never use a bulb over 3.4W.

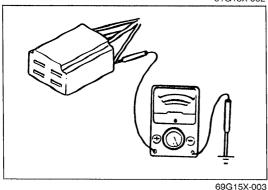


#### **Jumper Wire**

The jumper wire is used for testing by short-circuiting switch terminals and for verifying the condition of ground connections.

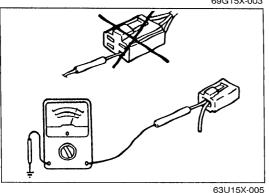
#### Caution

 Do not connect the jumper wire between a power source line and body ground because this may cause burning or other damage to harnesses or electronic components.



#### Voltmeter

The DC voltmeter is used for measuring circuit voltage. A voltmeter with a range of 15V or more is used by connecting the positive (+) probe (red lead) to the point where voltage is to be measured and the negative (-) probe (black lead) to the body ground.

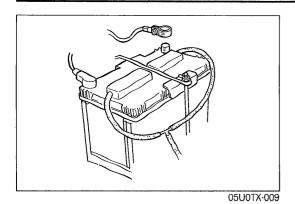


#### **Ohmmeter**

The ohmmeter is used to measure the resistance between two points in a circuit, and is also used to check for continuity and diagnosis of short circuits.

#### Caution

• Do not attempt to connect the ohmmeter to any circuit to which voltage is applied because this may burn or otherwise damage the ohmmeter.



**GENERAL PRECAUTION** 

Before Disconnecting Battery Cables
The optional audio unit has an anti-theft function that is activated when the battery power is disconnected. Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T-113.)

## **ELECTRICAL SYMBOLS**

Switches and Relays
There is an NC (normally closed) and NO (normally open) indication for switches and relays that shows when no change of operation conditions has occurred.

	Re	elay	Switch	
	NO type relay	NC type relay	NO switch	NC switch
Not in operation		0000	_ <del>_</del>	
(No power supply)	\ \	$\Longrightarrow$	×K□	
	STOP	FLOW	STOP	FLOW
In operation	wie -	wie -	_ <del>o'o</del> _	
(Power supply)				K≔
	FLOW	STOP	FLOW	STOP

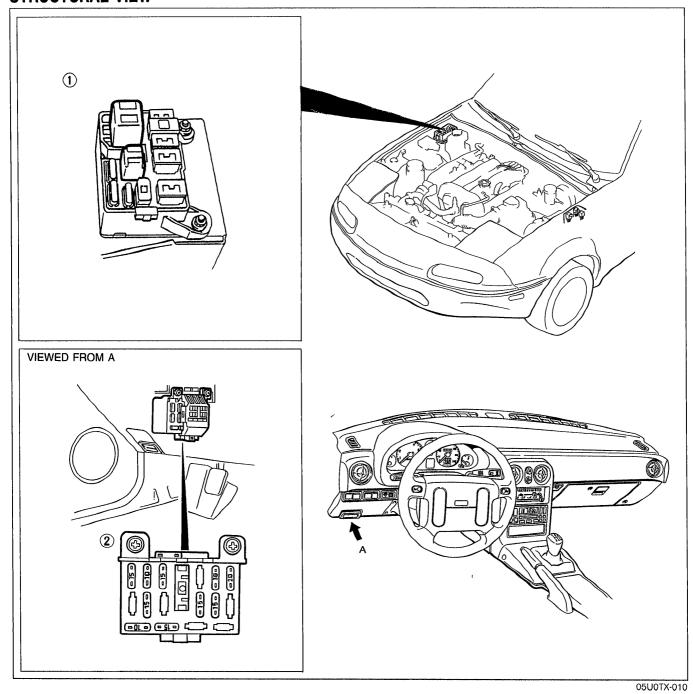
#### **Other Electrical Symbols**

⊖ ⊕		HOLDER BOX	
BATTERY	BODY GROUND	FUSE	FUSIBLE LINK
M	- 300		
MOTOR	COIL, SOLENOID	RESISTOR	VARIABLE RESISTOR
SAMAS	•	<u></u>	3.4)
THERMISTER	DIODE	CONDENSER	LIGHT
<del> </del> <del> </del> <del> </del> <del> </del>			
TRANSISTOR	SPEAKER	CIGARETTE LIGHTER	HEATER

69G15X-009

#### **FUSE**

#### STRUCTURAL VIEW



1. Main fuse block

2. Fuse box

## DESCRIPTION Main Fuse Block

The main fuse block is located on the right side of the engine compartment and it contains nine fuses and two relays.

#### **Fuse Box**

The fuse box is located above the dead pedal of the driver side. The fuse box cover shows the specified fuse locations.

A circuit breaker is contained in the fuse box for protection of the heater blower motor circuit.

05U0TX-011

#### SPECIFICATIONS Main Fuse Block

Fuse	Amperes	Protected circuit
HEAD	30A	Headlight relay, Headlight switch
INJ	30A	Alternator, Diagnostic module (for air bag system)
MAIN	80A	Except circuits protected in main fuse block: INJ 30A, HEAD 30A, RETRACTOR 30A
BTN	40A	TNS relay, Headlight switch
COOLING FAN	30A	EGI main relay, Cooling fan relay
(AIR BAG)	10A	Backup battery (for air bag system)
(AD FAN)	20A	A/C relay
ST SIG	10A	Inhibitor relay, Circuit-opening relay
RETRACTOR	30A	Retractable headlight motors

**FUSE** 

05U0TX-506

#### **Fuse Box**

Fuse	Amperes	Protected circuit
ENGINE	15A	EGI main relay, Cooling fan relay
METER	10A	Instrument cluster, Turn signal switch, Timer and buzzer unit, Cruise control main switch
(AIR BAG)	15A	Diagnostic module
(POWER WIND)	30A	Power window switch
WIPER	20A	Blower switch, Wiper switch
TAIL	15A	Taillights, Side marker lights, License plate lights, Parking lights
STOP	15A	Stoplight switch, Horn switch, Cruise control unit
HAZARD	15A	Turn and hazard warning flasher unit
ROOM	10A	ECU, Key reminder switch, Audio unit
CIGAR	15A	Cigarette lighter, Audio unit

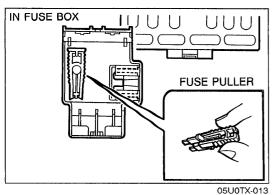
05U0TX-507

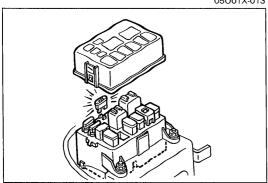
#### **Fuse Color Code**

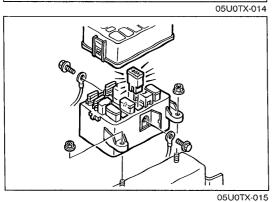
Fuse amperes	Color code	Fuse type
10A	Red	
15A	Light blue	<b>-</b>
20A	Yellow	Plate type
30A	Light green	
30A	Pink	0
A08	Black	Cartridge type

05U0TX-012

REPLACEMENT







Note

- If a fuse again fails after it has been replaced, there is probably a short in the circuit.
- Check the circuit which is protected by the failed fuse, referring to the specifications table.

#### Plate type

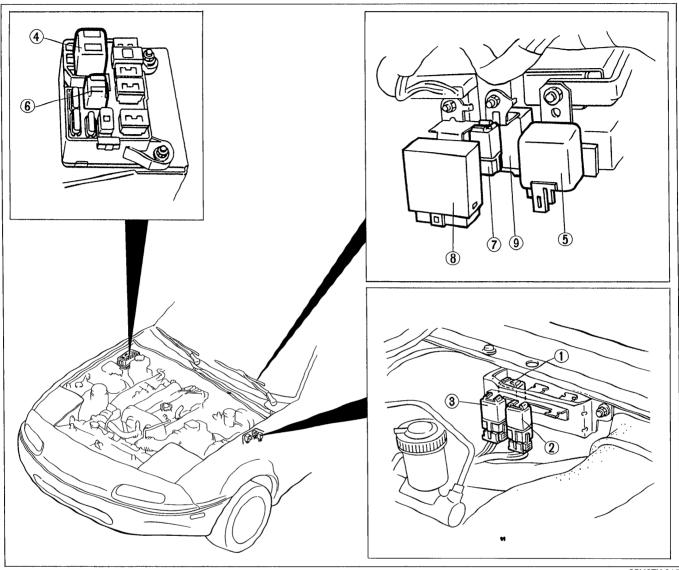
- 1. Disconnect the negative battery cable.
- 2. Using the fuse puller supplied in the fuse box, removed replace the failed fuse.
- 3. Reconnect the negative battery cable.

#### Cartridge-type 80A fuse (Black)

- 1. Disconnect the negative battery cable.
- 2. Remove the fuse block mounting nuts, and remove the service cover.
- 3. Remove the fuse installation bolts, and pull out the fuse.
- 4. Install the new fuse and the fuse installation bolts.
- 5. Install the main fuse block.
- 6. Reconnect the negative battery cable.

#### **RELAY**

#### STRUCTURAL VIEW



05U0TX-016

- 1. Headlight relay
- 2. TNS relay
- 3. Retractor relay

- 4. EGI main relay
- 5. Circuit-opening relay
- 6. Cooling fan relay
- 7. Horn relay
- 8. Turn and hazard warning flasher unit
- 9. Timer and buzzer unit

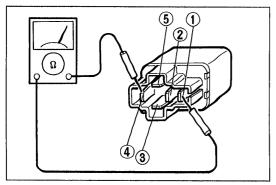
#### Note

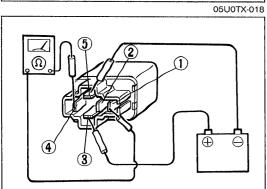
- For inspection of the following relays, refer to specified Section.
  - EGI main relay..... Refer to Section F
  - Circuit-opening relay..... Refer to Section F
  - A/C relay ...... Refer to Section U

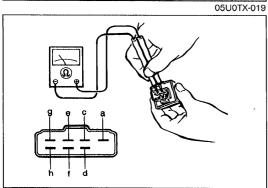
#### **DESCRIPTION**

The DRL control unit which is equipped for Canada vehicles controls the turn lights operation. Except bellow conditions, whenever the ignition switch is in ON or START position, front turn signal lights will illuminate to be running lights.

- Headlight switch ON.
- Turn signal switch ON.
- Hazard switch ON.
- Parking brake switch ON.







05U0TX-020

## HEADLIGHT RETRACTOR RELAY Inspection

1. Check continuity between terminals of the relay.

Terminal	Continuity
14	Yes
2—4	No
3—5	Yes

- 2. If not as specified, replace the retractor relay.
- 3. If correct, go to Step 4.
- 4. Apply 12V to terminal 3 and ground terminal 5. Check continuity between terminals of the relay.

Terminal	Continuity
14	No
2—4	Yes

5. If not as specified, replace the retractor relay.

## TURN AND HAZARD WARNING FLASHER UNIT Inspection

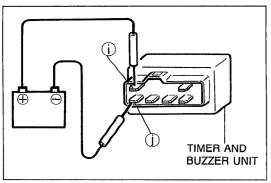
1. Check continuity between terminals of the flasher unit.

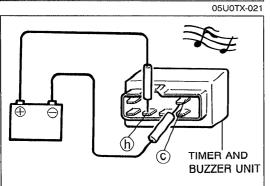
#### Note

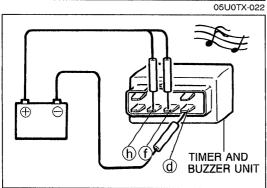
• Set the ohmmeter to  $\times 1000\Omega$  range.

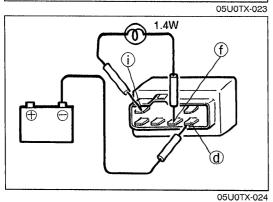
Terminal	Continuity	Terminal	Continuity	Terminal	Continuity
+   -		+   -		+   -	
a — c	X	d — e	Χ	f — g	X
a — d	X	d — f	X	f — h	X
a — e	0	d — g	Х	g — a	Х
a — f	0	d — h	X	g — c	X
a — g	X	е — а	Х	g d	X
a — h	X	е — с	X	д — е	X
c — a	0	e — d	Х	g — f	Х
c — d	0	e — f	X	g — h	Х
с — е	0	e — g	X	h — a	0
c — f	0	e h	X	h — c	0
c g	0	f — a	Х	h — d	0
c h	0	f — c	X	h — e	0
d — a	Х	f — d	Х	h — f	0
d — c	Х	f — e	Х	h — g	0

- O: Indicates continuity
- X: No continuity
- 2. If not as specified, replace the flasher unit.









## TIMER AND BUZZER UNIT Inspection

#### Note

• While performing the following tests, apply 12V to terminal i and ground terminal j.

#### Key remainder alarm test

1. Apply 12V to terminal h and ground terminal c, and check if the buzzer sounds.

Tern	ninal	- Buzzer sounds
12V	Ground	
h	С	Yes

2. If the buzzer does not sound, replace the timer and buzzer unit.

#### Seat belt alarm test

1. Apply 12V to terminals f and h and ground terminal d, and check if the buzzer sounds for **approx. 6 sec.**.

Ter	minal	Durrer counds	
12V	Ground	Buzzer sounds	
f and h	d	Approx. 6 sec.	

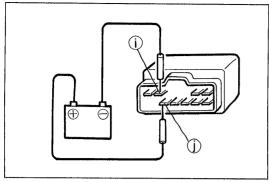
2. If not as specified, replace the timer and buzzer unit.

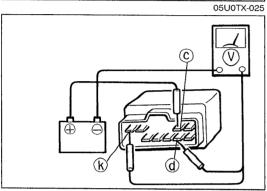
#### Seat belt warning lamp timer

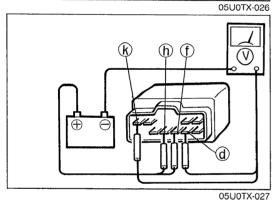
- 1. Connect a test light (1.4W) between terminals i and f.
- 2. Ground terminal d, and check that the test light illuminates for **Approx. 6 sec.**

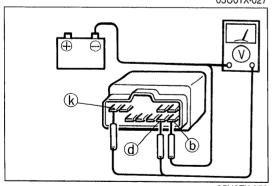
Terminal	Toot light illuminates	
Test light between i and f	Test light illuminates	
d grounded	Approx. 6 sec.	

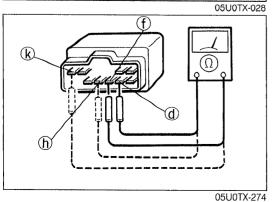
3. If not as specified, replace the timer and buzzer unit.











DRL UNIT Inspection Voltage test

#### Note

- While performing the following voltage tests, apply 12V to terminal j and ground terminal i.
- 1. Apply 12V to terminal c, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

- 2. If not as specified, replace the DRL unit.
- 3. Remove the 12V from terminal c.
- 4. Apply 12V to terminals f and h, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

- 5. If not as specified, replace the DRL unit.
- 6. Remove the 12V from terminals f and h.
- 7. Ground terminal b, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

8. If not as specified, replace the DRL unit.

**Continuity test** 

1. Check for continuity between terminals of the DRL unit.

Terminal	Continuity
d—f	Yes
h—k	Yes

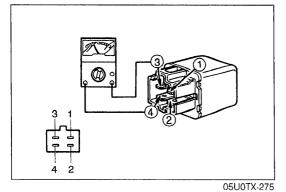
2. If not as specified, replace the DRL unit.

## 4-TERMINAL NORMALLY OPEN RELAY (NO RELAY) Inspection

The relays listed below are 4-terminal normally open (NO) relays.

- Horn relay
- TNS relay
- Headlight relay
- · Cooling fan relay

05U0TX-029

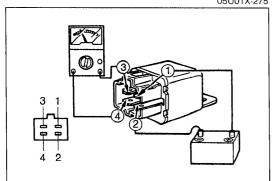


Headlight relay and cooling fan relay

1. Check continuity between terminals 3 and 4.

Terminal	Continuity
34	No

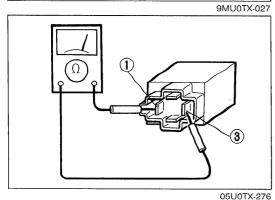
- 2. If not as specified, replace the relay.
- 3. If correct, go to Step 4.



4. Apply 12V to terminal 1 and ground terminal 2. Check for continuity between terminals 3 and 4.

Terminal	Continuity
3—4	Yes

5. If not as specified, replace the relay.

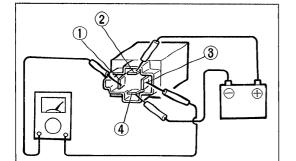


Horn relay and TNS relay

1. Check continuity between terminals 1 and 3.

Terminal	Continuity
1—3	No

- 2. If not as specified, replace the relay.
- 3. If correct, go to Step 4.



05U0TX-277

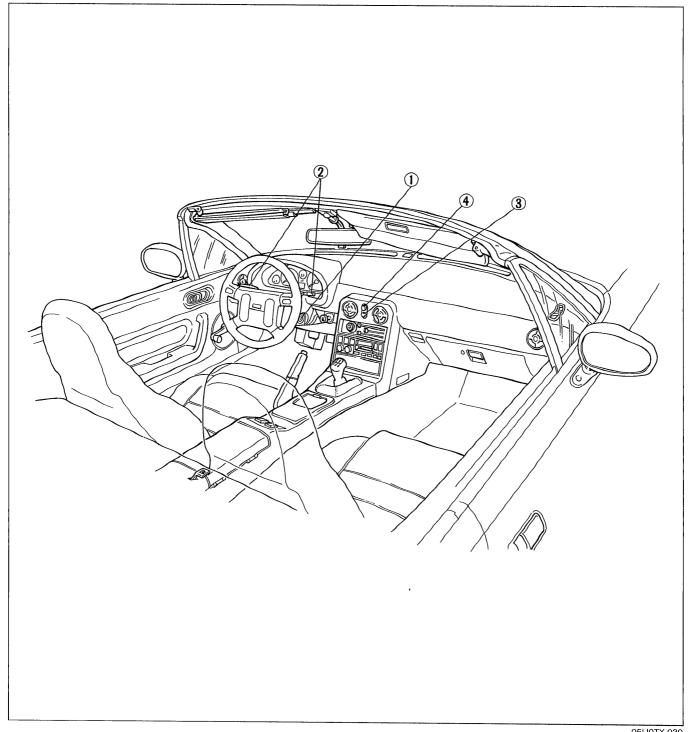
4. Apply 12V to terminal 2 and ground terminal 4. Check for continuity between terminals 1 and 3.

Terminal	Continuity
1—3	Yes

5. If not as specified, replace the relay.

#### **SWITCH**

#### STRUCTURAL VIEW



05U0TX-030

- 1. Ignition switch
- 2. Combination switch

- 3. Headlight retractor switch
- 4. Hazard warning switch

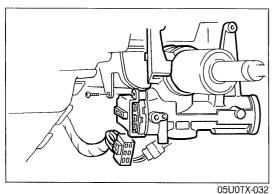
#### **DESCRIPTION**

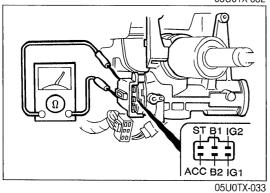
#### Combination Switch (U.S. spec.)

The combination switch equipped for U.S. specification vehicles includes a clock spring type electrical connector for supplying electrical current to the air bag module and horn switches. When installing the combination switch, make sure the clock spring connector is properly aligned. If it is not, it may be broken or the steering wheel may not turn fully. (Refer to page T-22.)

05U0TX-031

SWITCH T





## STEERING LOCK Replacement

- 1. Disconnect the negative battery cable.
- 2. Remove the column covers.
- 3. Remove the screw and the ignition switch.
- 4. Install in the reverse order of removal.

#### Inspection

1. Check continuity between terminals of the switch.

Position				Tern	ninal			,
PUSITION	B1	B2	ACC	IG1	IG2	ST	K1	K2
LOCK							0-	-0
ACC	0-		_0				0-	
ON	0—	<u> </u>	-0-	-0	-0		0	
START	0-	0		0		—o	0	_0

O-O: Indicates continuity

2. If not as specified, replace the combination switch.

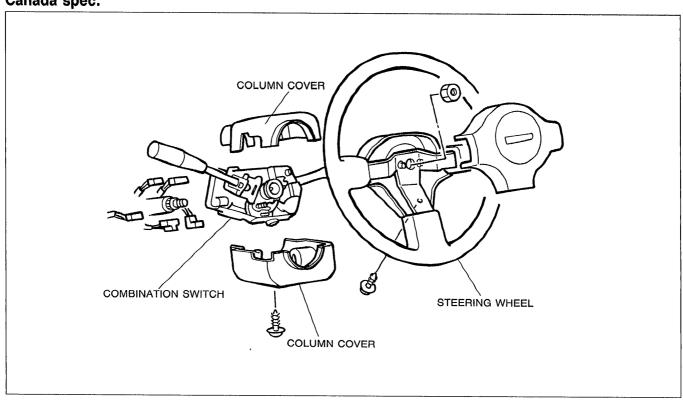
## COMBINATION SWITCH Removal / Installation

#### Caution (U.S. spec.)

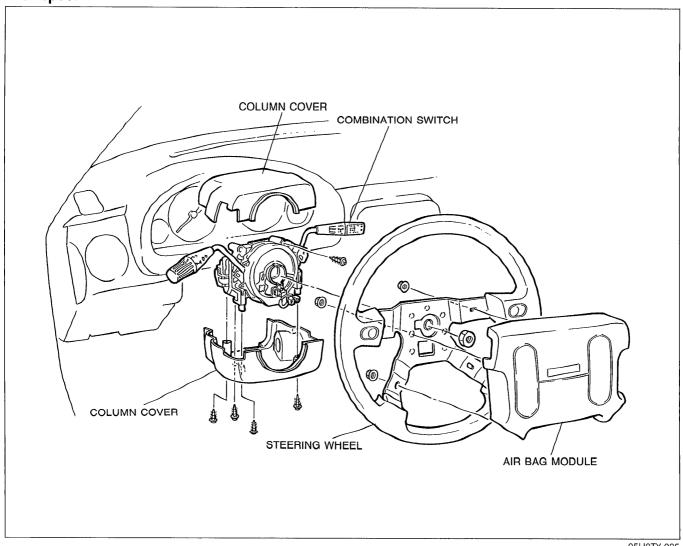
- Before removing the clock spring connector, disconnect the negative battery cable.
- Before installing the steering wheel, reset the clock spring connector. (Refer to page T-22.)

Remove and install as shown in the figure.

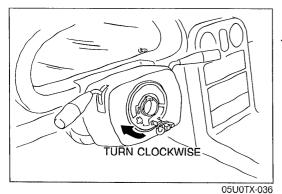
#### Canada spec.



#### U.S. spec.

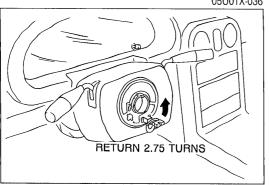


05U0TX-035

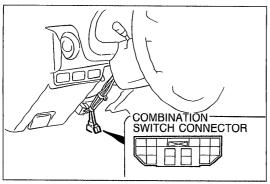


#### **Clock spring connector adjustment**

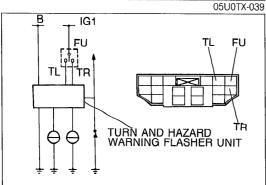
- Set the front wheels straight ahead.
   Turn the clock spring connector clockwise until it stops. Do not force it.

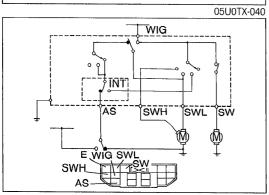


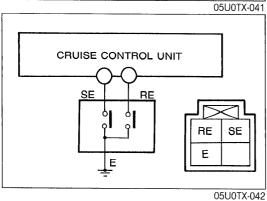
- 3. Return the connector 2.75 turns.
- 4. Align the marks on the clock spring connector and the outer housing.



# HEADLIGHT TNS PELAY HEAD BA B TNS E







## Inspection U.S. spec.

- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector.
- 3. Disconnect the combination switch connector.
- 4. Check the continuity or the resistance between the terminals described with an ohmmeter.
- 5. If the continuity or resistance is not as specified, replace the combination switch as an assembly.

#### Lights, dimmer, and passing switch

Position		Terminal						
100	Position		HL	ΗU	TNS	HEAD	ВА	В
		0-				-0		
	Low beam	0-			$\vdash$			
Headlight			5					
		0-						
	High beam	0-			-0			
Passing				-				$\vdash$
Tail, Parking		<u> </u>			-0			

O-O: Indicates continuity

#### Turn signal switch

Switch		Terminal				
	FU	TL	TR			
Left	0-	<u> </u>				
Right	0					

O---O: Indicates continuity

#### Windshield wiper and washer switch

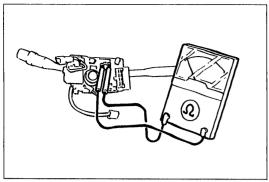
Position	Tei	minal One touch	AS	WIG	SWL	SWH	INT	SW
	OFF	OFF	0		-			
	011	ON		0-	_			
Wiper switch	INT		0-	0-	0		0	
	I (Lov	<i>v</i> )		0	0			
	II (Hiç	gh)		<u> </u>		0		
Washer sw	itch ON			0				0

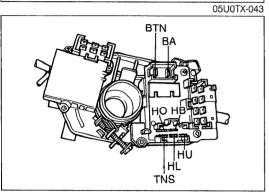
O-O: Indicates continuity

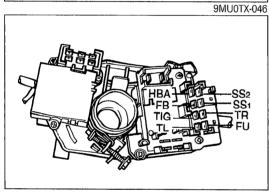
#### Cruise control switch

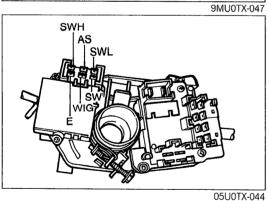
Position	Terminal				
1 OsitiO11	SE	RE	Е		
SET/COAST	0-				
RESUME/ACCEL		0			

O-O: Indicates continuity









Canada spec.

- 1. Check the continuity or resistance between the terminals described
- 2. If the continuity or resistance is not as specified, replace the combination switch.

#### Lights, dimmer, and passing switch

Position	Terminal	НВ	HL.	HU	ВА	BTN	TNS
	Low beam	00	0			0-	0
Headlight	High beam	0-		_0		0-	9
Passing				0-	0		***************************************
Tail, Parking						0-	-0

O-O: Indicates continuity

#### Turn signal switch

Terminal Position	FU	TL	TR
Left	0		
Right	0		

O-O: Indicates continuity

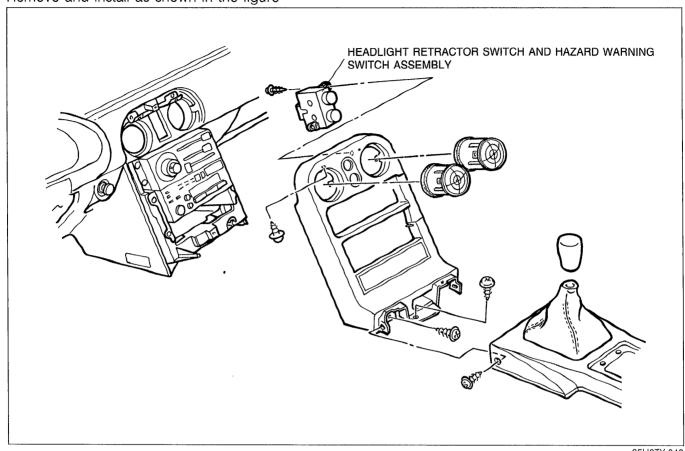
#### Windshield wiper and washer switch

	Tei	minal	4.0	14/10	014/1	0.441.		
Position		One touch	AS	WIG	SWL	SWH	Е	SW
	OFF	OFF	0		-0			
		ON			0		<u> </u>	
Wiper switch	INT				0		9	
OWNER	I (Lov	/)			0-		9	-1
	II (Hiç	jh)				0-	9	
Washer switch ON						0		

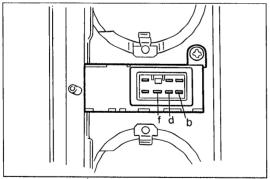
O-O: Indicates continuity

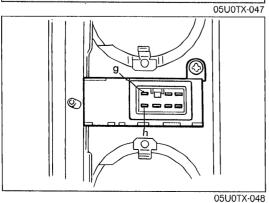
#### HEADLIGHT RETRACTOR SWITCH AND HAZARD WARNING SWITCH ASSEMBLY Removal / Installation

Remove and install as shown in the figure



05U0TX-046





#### Inspection

#### Headlight retractor switch

- 1. Remove the retractor switch.
- 2. Check for continuity between terminals of the switch.

Switch	Terminal				
SWILCH	b	d	f		
Off	0				
On		0	O		

O-O: Indicates continuity

3. If not as specified, replace the retractor and hazard switch as an assembly.

#### Hazard warning switch

- 1. Remove the hazard switch.
- 2. Check continuity between terminals of the switch.

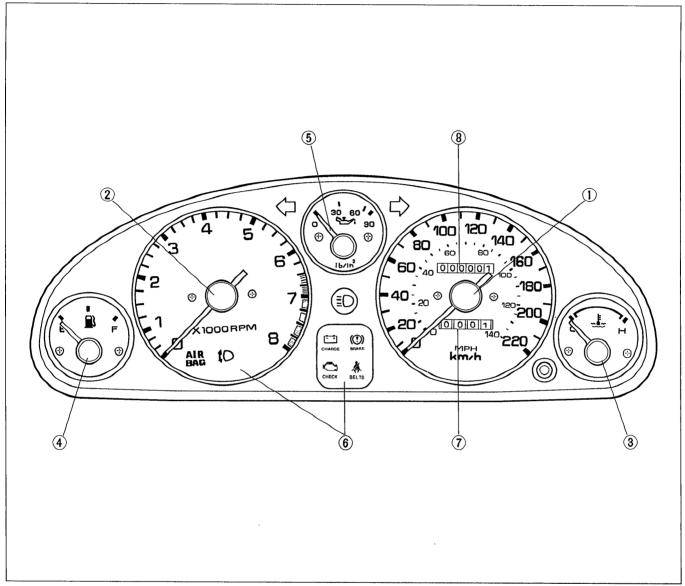
Switch	Terminal		
Switch	g	h	
On	0	<del></del>	
Off ·			

O-O: Indicates continuity

3. If not as specified, replace the hazard and retractor switch as an assembly.

### **INSTRUMENT CLUSTER (METER)**

#### STRUCTURAL VIEW



05U0TX-049

- 1. Speedometer
- 2. Tachometer
- 3. Water temperature gauge
- 4. Fuel gauge

- 5. Oil pressure gauge
- 6. Warning and indicator lamps
- 7. Trip meter
- 8. Odometer

## **DESCRIPTION**Speedometer

Two scales are shown on the speedometer face. The main scale for U.S. specification vehicles is MPH (0—130 MPH); the main scale for Canada specification vehicles is KM/H (0—210 KM/H). The odometer indication is the same as the main scale.

#### **Tachometer**

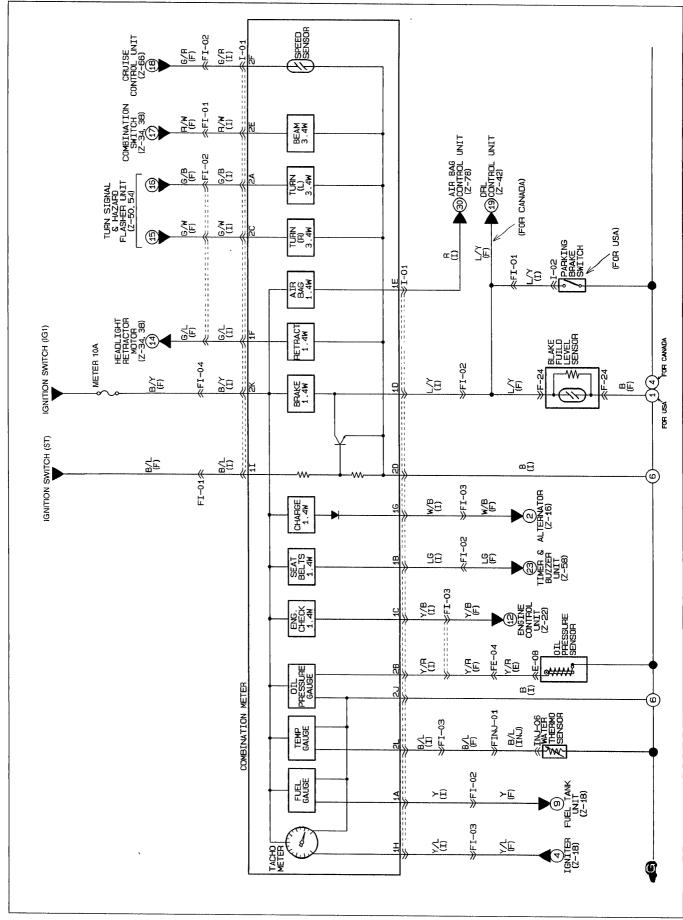
The tachometer has a RED STRIPED ZONE (6,500—7,000 rpm) that indicates momentary allowable engine speed. The engine should not be operated in the RED ZONE (7,000—8,000 rpm).

#### Fuel Gauge

The fuel gauge continues to indicate the amount of fuel remaining in the fuel tank after the ignition switch has been turned OFF.

05U0TX-050

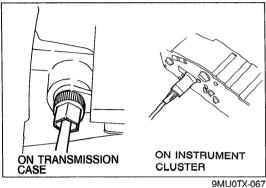
#### **CIRCUIT DIAGRAM**

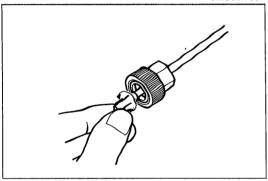


#### **TROUBLESHOOTING**

Symptom: Speedometer does not operate or indication is incorrect.

05U0TX-278





05U0TX-279

#### Step 1

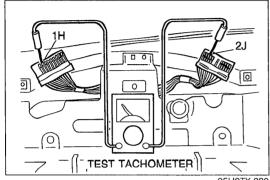
- 1. Verify that the speedometer cable is connected properly.
- 2. If the connections are OK, go to Step 2.

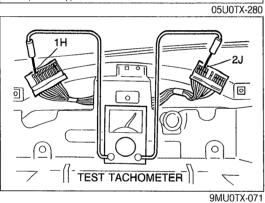
#### Step 2 — Check speedometer cable

- 1. Disconnect the speedometer cable from the instrument cluster and transmission case.
- 2. Verify that the cable and gear spin easily when turned by hand.
- 3. If the cable or gear is stiff, replace as necessary.
- 4. If the speedometer cable and gear are OK, replace the speedometer.

#### Symptom: Tachometer does not operate.

9MU0TX-069





#### Step 1 — Preparation

- 1. Remove the instrument cluster. (Refer to page T-33.)
  2. Connect a test tachometer between terminals 1H and 2J of the harness side connector.

#### Step 2

- 1. Start the engine.
- 2. Check that the test tachometer indicates engine speed.

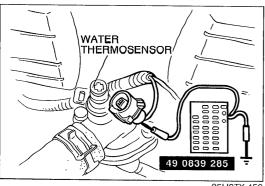
Indicates rpm	Action
Yes	Replace tachometer
No	Repair wiring harness (Instrument cluster — Igniter)

#### Symptom: Water temperature gauge does not operate.

#### Preparation SST

05U0TX-466

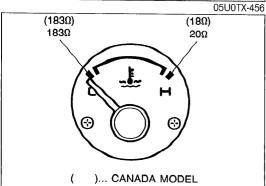




05U0TX-052

#### Step 1

- 1. Disconnect the connector from the water thermosensor.
- 2. Connect the red lead of the SST to the connector, and the black lead to a body ground.





05U0TX-282

- 3. Set the **SST** to the resistance values shown in the figure.
- 4. Turn the ignition switch ON, and check that the needle indicates the correct values.

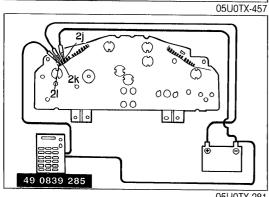
Gauge displays correct	Action
Yes	Replace water thermosensor
No	Go to Step 2

#### Caution

- Continue the above checks for at the least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

#### Step 2

- 1. Remove the instrument cluster. (Refer to page T-33.)
- 2. Apply 12V to terminal 2k and ground terminal 2j.
- 3. Connect the red lead of the SST to terminal 21 and the black lead to a ground.



05U0TX-281  $(183\Omega)$  $(18\Omega)$  $183\Omega$  $20\Omega$ )... CANADA MODEL

4. Set the **SST** to the resistance values shown in the figure.

5. Verify that the needle indicates the correct values.

Indicates correct	, Action
Yes	Repair wiring harness (Instrument cluster — Water thermosensor)
No	Replace water temperature gauge

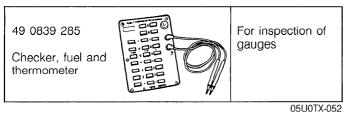
#### Caution

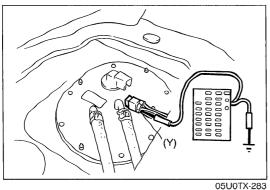
- Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

#### Symptom: Fuel gauge does not operate.

05U0TX-467

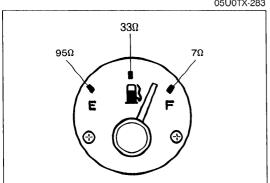
#### Preparation SST





Step 1

- 1. Disconnect the connector from the fuel tank sender unit.
- 2. Connect the red lead of the **SST** to terminal-wire (Y) and the black lead to a body ground.



- 9MU0TX-079 000° 00 0 0 0 0 49 0839 285
- 05U0TX-284  $33\Omega$  $95\Omega$  $7\Omega$ 05U0TX-285

- 3. Set the **SST** to the resistance values shown in the figure.
- 4. Turn the ignition switch ON, and verify that the needle indicates the correct values.

Indicates correct	Action
Yes	Replace fuel gauge sender unit (in fuel tank)
No	Go to Step 2

#### Caution

- Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

#### Step 2

- 1. Remove the instrument cluster. (Refer to page T-33.)
- 2. Apply 12V to terminal 2k and ground terminal 2j.
- 3. Connect the red lead of the **SST** to terminal 1a and the black lead to a ground.
- 4. Set the **SST** to the resistance values shown in the figure.
- 5. Verify that the needle indicates the correct values.

Indicates correct	Action
Yes	Repair wiring harness (Instrument cluster — fuel gauge sender unit)
No	Replace fuel gauge

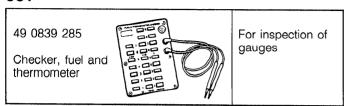
#### Caution

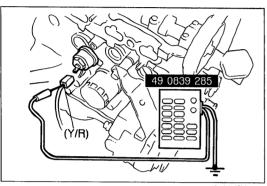
- · Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

#### Symptom: Oil pressure gauge does not operate.

**Preparation** SST

05U0TX-468

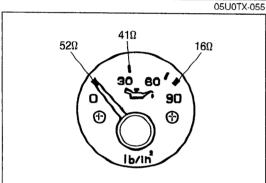




05U0TX-052

#### Step 1

- 1. Disconnect the connector from the oil pressure sensor.
- 2. Connect the red lead of the SST to terminal-wire (Y/R) and the black lead to a body ground.



- 3. Set the **SST** to the resistance values shown in the figure.
- 4. Turn the ignition switch ON, and verify that the needle indicates the correct values.

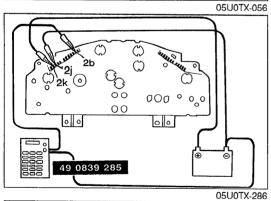
Indicates correct	Action	
Yes	Replace oil pressure sensor	
No	Go to Step 2	

Caution

- Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

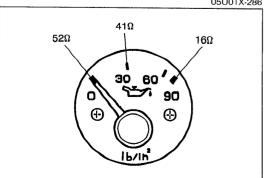


- 1. Remove the instrument cluster. (Refer to page T-33.)
- 2. Apply 12V to terminal 2k and ground terminal 2j.
- 3. Connect the red lead of the SST to terminal 2b and the black lead to a ground.



- 4. Set the **SST** to the resistance values shown in the figure.
- 5. Verify that the needle indicates the correct values.

Indicates correct	Action
Yes	Repair wiring harness (Instrument cluster — oil pressure sensor)
No	Replace oil pressure gauge

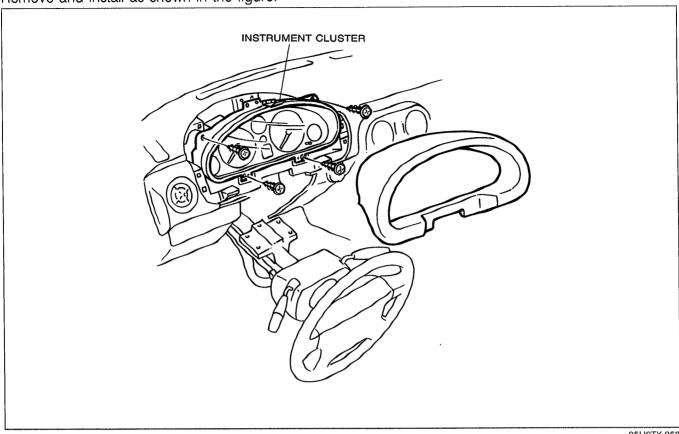


Caution

- Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

#### **REMOVAL / INSTALLATION**

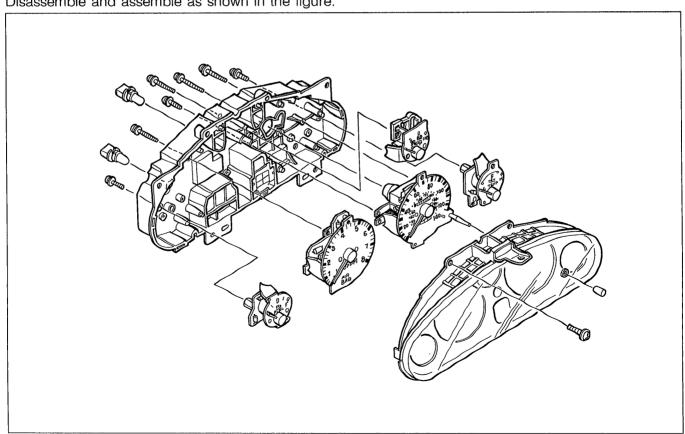
Remove and install as shown in the figure.



05U0TX-058

#### **DISASSEMBLY / ASSEMBLY**

Disassemble and assemble as shown in the figure.



Standard indication (km/h)	Allowable range (km/h)
40	40 43
80	80— 84
120	120—126

Standard indication (mph)	Allowable range (mph)
30	30—32
50	50—53
80	80—84

05U0TX-060

Standard Indication (rpm)	Allowable range (rpm)
2,000	1,850-2,150
3,000	2,760—3,280
4,000	3,700—4,300
5,000	4,640—5,360

05U0TX-061

#### **SPEEDOMETER**

#### Inspection

- 1. Using a speedometer tester, check the speedometer for allowable indication error, and check the operation of the odometer. Replace if necessary.
- 2. Check the speedometer for fluctuation and/or abnormal noise.

#### Caution

- If significant fluctuation occurs or the speedometer ter does not move at all, remove the speedometer cable. If it is normal, replace the speedometer assembly.
- Tire wear and improper inflation will increase speedometer error.

#### **TACHOMETER**

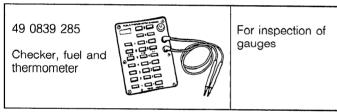
#### Inspection

- 1. Connect a test tachometer to the engine, and start the engine.
- 2. Check the tachometer for allowable indication error. Replace if necessary.

#### Caution

 When removing or installing the tachometer, do not drop it or subject it to sharp shocks.

#### WATER TEMPERATURE GAUGE Inspection Preparation SST



05U0TX-062

lead to a ground.

- 05U0TX-063
  (183Ω) (18Ω)
  20Ω
  (183Ω) (18Ω)
  (183Ω) (18Ω)
  (18Ω) (18Ω)

4. Set the **SST** to the resistance values shown in the figure.

1. Remove the instrument cluster. (Refer to page T-33.) 2. Apply 12V to terminal 2k and ground terminal 2i.

3. Connect the red lead of the SST to terminal 2I and the black

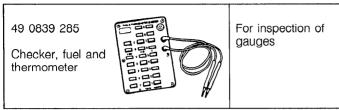
5. Turn the ignition switch ON, and verify that the needle indicates the correct values.

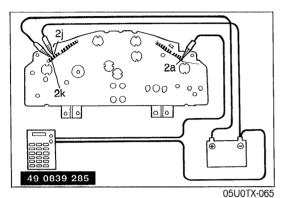
#### Caution

9MU0TX-089

- Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

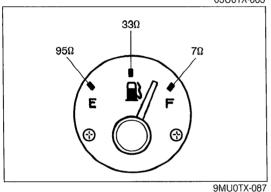
#### **FUEL GAUGE** Inspection Preparation SST





05U0TX-064

- 1. Remove the instrument cluster. (Refer to page T-33.)
- 2. Apply 12V to terminal 2k and ground terminal 2j.
- 3. Connect the red lead of the **SST** to terminal 1a and the black lead to a ground.



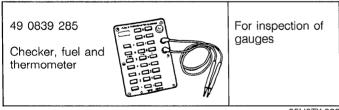
4. Set the **SST** to the resistance values shown in the figure.

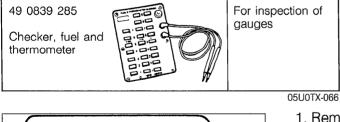
5. Verify that the needle indicates the correct values.

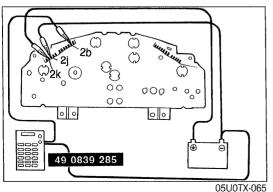
#### Caution

- Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

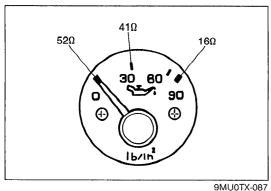
**OIL PRESSURE GAUGE** Inspection Preparation SST

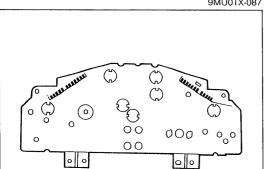


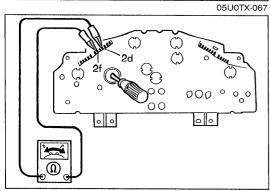


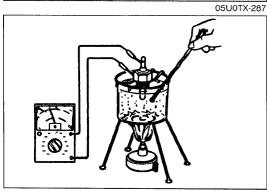


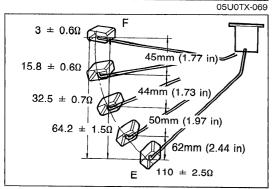
- 1. Remove the instrument cluster. (Refer to page T-33.)
- 2. Apply 12V to terminal 2k and ground terminal 2j.
- 3. Connect the red lead of the SST to terminal 2b and the black lead to a ground.











05U0TX-070

- 4. Set the **SST** to the resistance values shown in the figure.
- 5. Verify that the needle indicates the correct values.

#### Caution

- Continue the above checks for at least two minutes each to correctly judge the condition.
- The allowable indication error is twice the width of the needle.

## PRINTED CIRCUIT Inspection

- 1. Remove the instrument cluster. (Refer to page T-33.)
- 2. Check the printed circuit for damage or oxidization.
- 3. If necessary, replace the printed circuit.

## SPEED SENSOR Inspection

- 1. Remove the instrument cluster.
- 2. Check continuity between terminals 2d and 2f while rotating the speedometer cable shaft.
- 3. If the correct number of pulsations fail to occur during each shaft rotation, replace the speed sensor. (Refer to page T-33.)

Pulsation: 4/shaft rotation

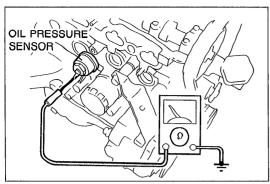
## WATER THERMOSENSOR Inspection

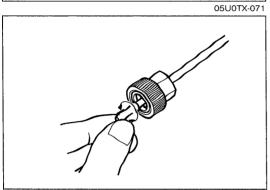
- 1. Remove the sensor.
- 2. Place the sensor and a thermometer in water.
- 3. Heat the water gradually, and measure the resistance of the sensor with an ohmmeter.
- 4. If the resistance is not as specified, replace the sensor.

Resistance:  $190-260\Omega$  at  $50^{\circ}$ C (122°F)

## FUEL GAUGE SENDER UNIT (IN FUEL TANK) Inspection

- 1. Remove the fuel tank gauge sender unit. (Refer to Section F.)
- 2. Disconnect the fuel gauge sender unit connector.
- 3. Check resistance between terminals a and b while slowly moving the unit arm from point F to point E.
- 4. If not correct, replace the fuel gauge sender unit.





05U0TX-072

## OIL PRESSURE SENSOR Inspection

- 1. Disconnect the oil pressure sensor connector.
- 2. Measure resistance between the oil pressure sensor and a body ground as shown.

Condition	Resistance
Engine stopped	110—130Ω
Engine running	13— 55Ω

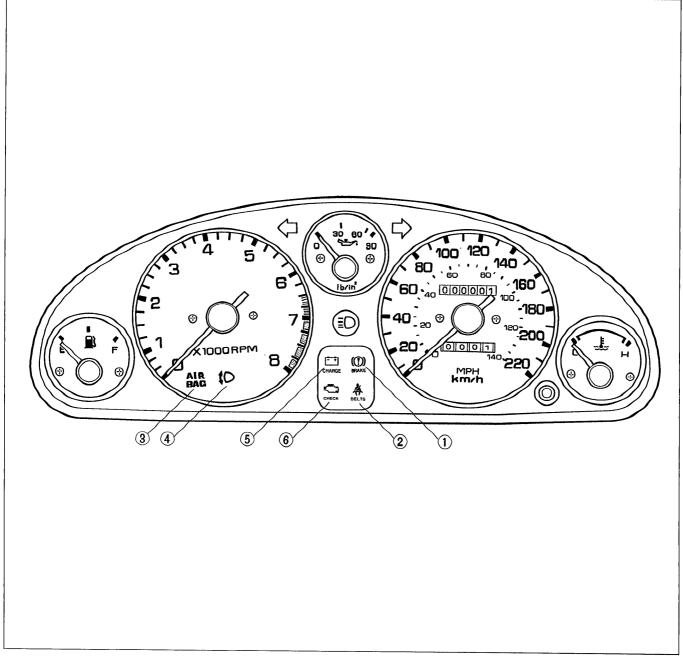
3. If not as specified, replace the oil pressure sensor.

## SPEEDOMETER CABLE Inspection

- 1. Disconnect the speedometer cable from the instrument cluster and transmission case.
- 2. Verify that the cable and gear spin easily when turned by
- 3. If the cable or gear is stiff, replace as necessary.

## WARNING LAMP AND SENDER UNIT

#### STRUCTURAL VIEW



05U0TX-073

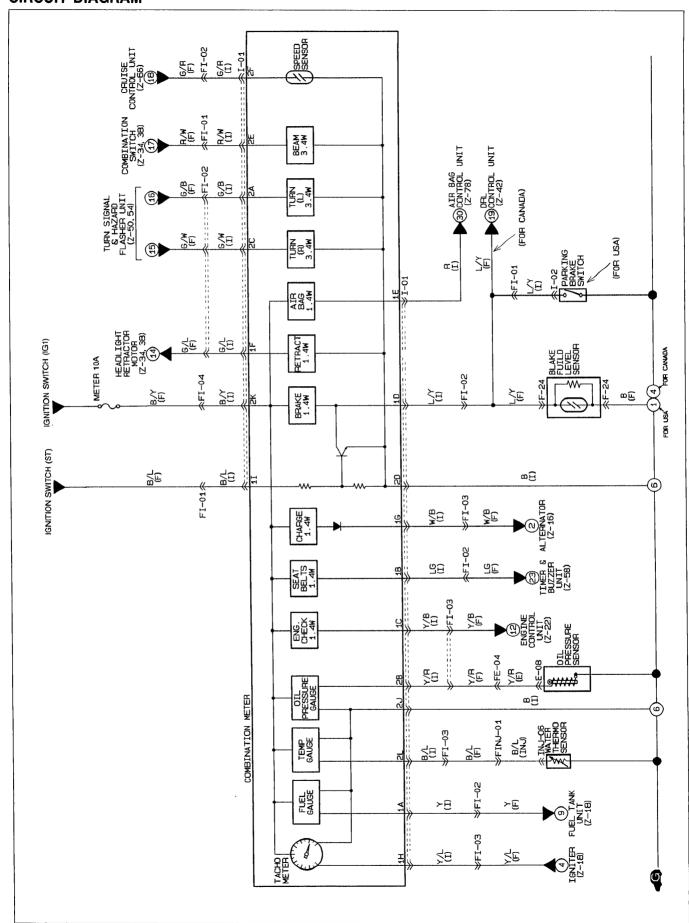
- 1. Brake warning lamp
- 2. Seat belt warning lamp
- 3. Air bag warning lamp
- Headlight retractor motor indicator lamp
- 5. Alternator warning lamp
- 6. MIL (Malfunction indicator lamp)

#### Note

• Refer to the following tables concerning warning lamps information.

Warning indicator lamp	Reference page and Section
Air bag	T-138
Headlight retractor	T-53
Alternator	Section G
MIL (Malfunction indicator lamp)	Section F

#### **CIRCUIT DIAGRAM**



#### **TROUBLESHOOTING**

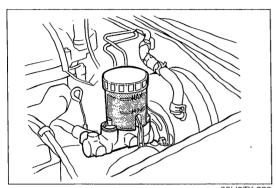
#### Note

• Check the METER 10A fuse in the fuse box before troubleshooting. If normal, refer to the following troubleshooting.

#### **Brake Warning Lamp**

#### Symptom: Brake warning lamp remains illuminated.

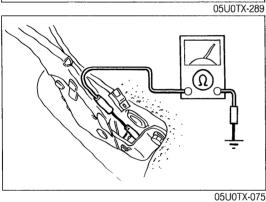
05U0TX-288



#### Step 1 — Check brake fluid level

Check brake fluid level.

Brake fluid level	Action
Below MIN	Check brake system (Refer to Section P)
Above MIN	Go to Step 2



#### Step 2 — Check parking brake switch

- 1. Disconnect the parking brake switch connector.
- 2. Check continuity between the terminal of the switch and a body ground.

Lever	Continuity
Pulled one notch	Yes
Released	No

- 3. If not as specified, adjust or replace the parking brake switch. (Refer to Section P.)
- 4. If the switch is OK, go to Step 3.

# 05U0TX-290

#### Step 3 — Check brake fluid level sensor

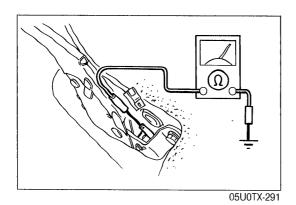
1. Check continuity of the sensor.

Brake fluid level	Continuity
Below MIN	Yes
Above MIN	No

- 2. If not as specified, replace the level sensor.
- 3. If the sensor is OK, repair the wiring harness.

Symptom: Brake warning lamp does not come on when parking brake on. (Ignition switch ON.)

9MU0TX-101



#### Remedy

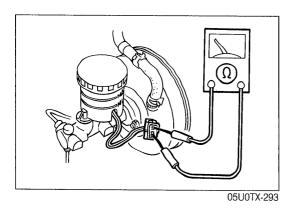
- 1. Disconnect the parking brake switch connector.
- 2. Check continuity between the terminal of the switch and a body ground.

Lever	Continuity
Pulled one notch	Yes
Released	No

- 3. If not as specified, adjust or replace the parking brake switch.
- 4. If the switch is OK, repair the wiring harness.

Symptom: Brake warning lamp does not come on when brake fluid in reservoir tank below MIN.

05U0TX-292



#### Remedy

- 1. Disconnect the brake fluid level sensor connector.
- 2. Check continuity of the brake fluid level sensor.

Brake fluid level	Continuity Yes	
Below MIN		
Above MIN	No	

- 3. If not as specified, replace the level sensor.
- 4. If the sensor is OK, repair the wiring harness.

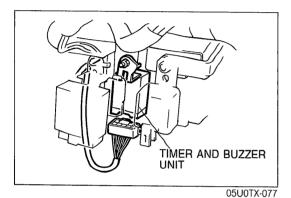
#### Seat Belt Warning Lamp

#### Note

• The seat belt warning lamp is controlled by the timer and buzzer unit.

Symptom: Seat belt warning lamp remains on six seconds after ignition switch turned ON. (Timer function does not operate.)

05U0TX-076



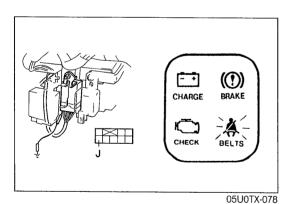
# Remedy

- 1. Disconnect the timer and buzzer unit connector.
- 2. Turn the ignition switch ON, and verify that the seat belt warning lamp illuminates.

Warning lamp illuminates	Action
No	Replace timer and buzzer unit
Yes	Repair wiring harness (Instrument cluster — timer and buzzer unit)

Symptom: Seat belt warning lamp does not illuminate when ignition switch first turned ON.

05U0TX-294



Step 1

- 1. Ground terminal J of the timer and buzzer unit connector.
- 2. Turn the ignition switch ON, and verify that the seat belt warning lamp illuminates.

Warning lamp illuminates	Action
No	Go to Step 2
Yes	Repair wiring harness (Timer and buzzer unit—body ground)

#### Step 2

- 1. Ground terminal D of the timer and buzzer unit connector.
- 2. Turn the ignition switch ON, and verify that the seat belt warning lamp illuminates.

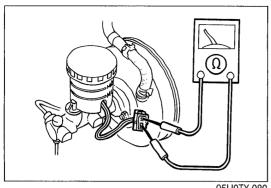
Warning lamp illuminates	Action	
Yes	Replace timer and buzzer unit	
No	Check bulb of seat belt warning lamp If bulb is OK, repair wiring harness (Instrument cluster—timer and buzzer unit)	

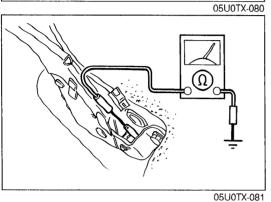
05U0TX-079

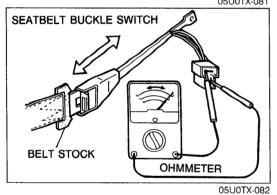
((?))

BRAKE

CHARGE







## BRAKE FLUID LEVEL SENSOR Inspection

1. Check continuity of the sensor.

Float level	Continuity
Below MIN	Yes
Above MIN	No

2. If continuity is not as specified, replace the level sensor.

## PARKING BRAKE SWITCH Inspection

- 1. Disconnect the parking brake switch connector.
- 2. Check for continuity between the switch connector and a body ground.

Lever	Continuity
Pulled one notch	Yes
Released	No

3. If continuity is not as specified, adjust or replace the parking brake switch.

## SEAT BELT BUCKLE SWITCH Inspection

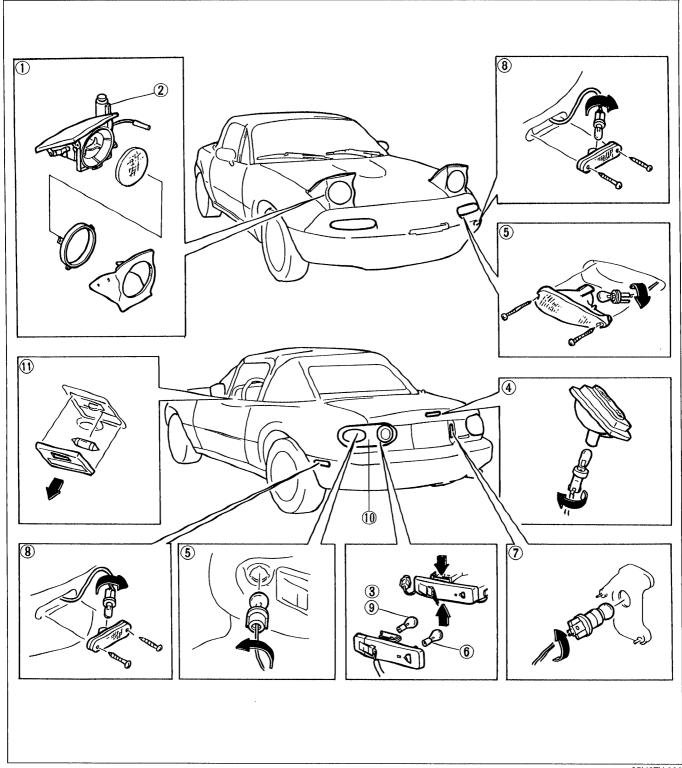
- 1. Disconnect the seat belt buckle switch connector.
- 2. Check continuity of the switch.

Seat belt	Continuity
Seat belt buckled	No
Seat belt unbuckled	Yes

3. If continuity is not as specified, replace the buckle switch.

#### LIGHTING SYSTEM

#### STRUCTURAL VIEW



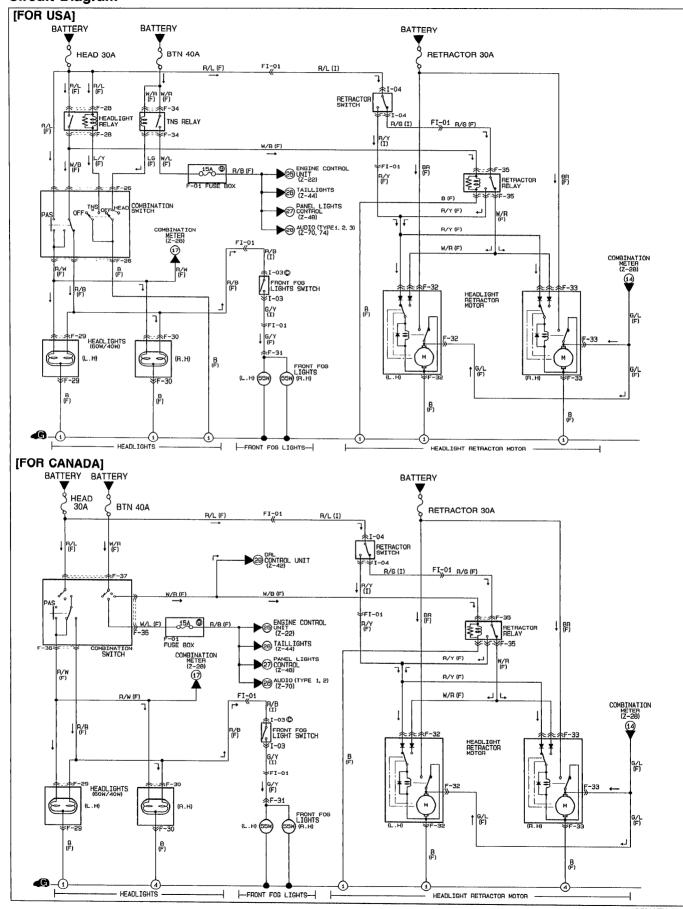
05U0TX-083

- Retractable headlight
   Headlight retractor motor
   Stoplight
   High-mount stoplight
   Turn and hazard warning light
   Back-up light

- 7. License plate light 8. Side marker light 9. Taillight

- 10. Rear combination light lens11. Interior lamp

## **HEADLIGHTS**Circuit Diagram



#### **Description**

The headlight system consists of two halogen headlights mounted on retractable mechanisms, a headlight switch in the combination switch, and a retractor switch between the center ventilation outlets.

When the headlight switch is rotated to the second position, the headlights are activated and the headlight retractor motors lift the headlights. If only the retractor switch is turned ON, the headlights will raise to the upright position, but all lights will be off.

An emergency manual retractor knob is located atop each headlight retractor motor.

#### Warning

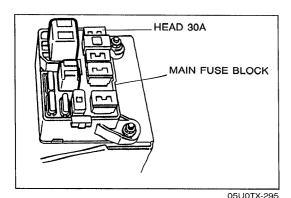
• When using the manual control knob, the negative battery cable must be disconnected to prevent accidental movement of the headlight and possible injury.

05U0TX-085

#### **Troubleshooting**

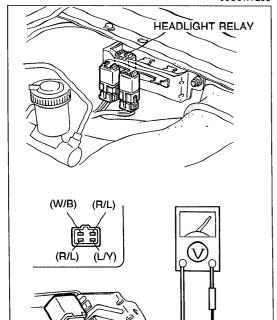
#### Symptom: Headlights do not operate. (U.S. spec.)

05U0TX-086



#### Step '

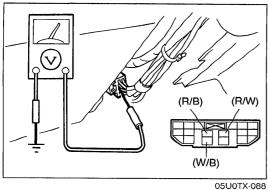
- 1. Check HEAD 30A fuse in the main fuse block.
- 2. If the fuse is burned, replace it. Check and repair the wiring harness, if necessary.
- 3. If the fuse is OK, go to Step 2.

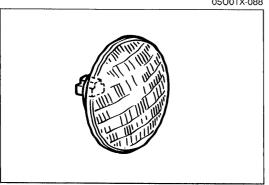


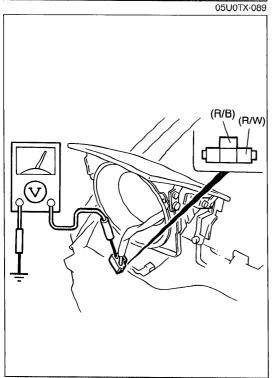
#### Step 2

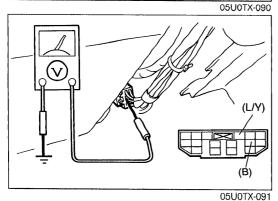
- 1. Turn the headlight switch ON.
- 2. Measure the voltage at the following terminal-wires of the headlight relay connector.

Terminal-wire	Voltage	Action	
(\A//D)	12V	Go to Step 3	
(W/B)	0V	Next check wire (L/Y)	
(L/Y)	12V	Go to Step 6	
(L/1)	0V	Next check wire (R/L)	
	12V	Next check wire (R/L)	
(R/L: Terminal A)	OV	Repair wire (R/L) (HEAD 30A—Headlight relay)	
	12V	Replace headlight relay	
(R/L: Terminal D)	OV	Repair wire (R/L) (HEAD 30A—Headlight relay)	









#### Step 3

1. Turn the headlight switch ON.

2. Measure the voltage at the following terminal-wires of the headlight switch connector.

Wire	Headlight switch	Voltage	Action
	(W/B) —	12V	Next check wire (R/B)
(W/B)		ov	Repair wire (W/B) (Headlight relay—Headlight switch)
(R/B)	R/B) Low beam	12V	Go to Step 4
(IVB) LOW B	LOW Deam	0\	Replace headlight switch
(R/W)	High beam	12V	Go to Step 4
(11/44)	riigii beaiii	0V	Replace headlight switch

#### Step 4

- 1. Check the headlight bulbs.
- If a bulb is burned, replace it.
   If the bulbs are OK, go to Step 5.

#### Step 5

1. Disconnect the headlight connectors.

2. Turn the headlight switch ON, and measure the voltage at the following terminal-wires as shown.

Headlight	Wire	Headlight switch	Voltage	Remedical Action
		Low beam	12V	Repair ground wire (B)
Left	(R/B)		0V	Repair wire (R/B) (Headlight switch—Headlight)
			12V	Repair ground wire (B)
	(R/W)		oV	Repair wire (R/W) (Headlight switch—Headlight)
	(R/B) Low beam		12V	Repair ground wire (B)
1		Low beam	OV	Repair wire (R/W) (Headlight switch—Headlight)
I mgm			12V	Repair ground wire (B)
	(R/W) High beam		0V	Repair wire (R/W) (Headlight switch—Headlight)

#### Step 6

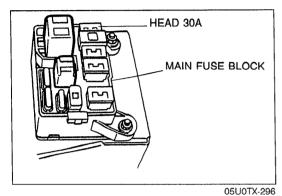
1. Turn the headlight switch ON.

2. Measure the voltage at the following terminal-wires of the headlight switch connector (in the combination switch).

Wire	Voltage	Action	
	12V	Next check wire (B)	
(L/Y)	OV	Repair wire (L/Y) (Headlight relay—Headlight switch)	
(B)	12V	Repair ground wire (B)	
(B)	OV	Replace headlight switch	

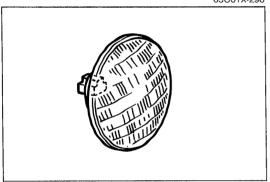
#### Symptom: Headlights do not operate. (Canada spec.)

05U0TX-092



Step 1

- 1. Check HEAD 30A fuse in the main fuse block.
- 2. If the fuse is burned, replace it. Check and repair the wiring harness, if necessary.
- 3. If the fuse is OK, go to Step 2.



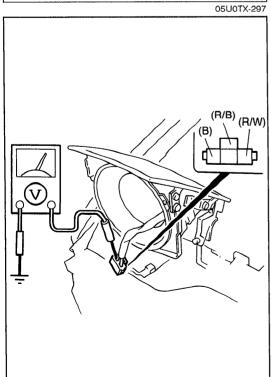
Step 2

- 1. Check the headlight bulbs.
- 2. If a bulb is burned, replace it.
- 3. If the bulbs are OK, go to Step 3.

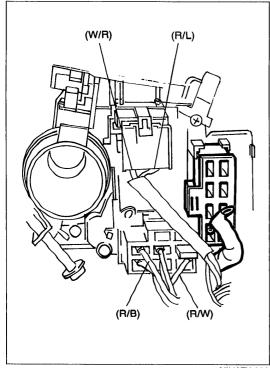
Step 3

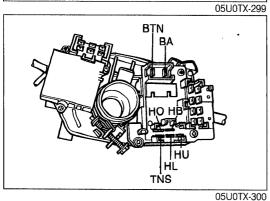
- 1. Turn the headlight switch ON.
- 2. Disconnect the headlight connector, and measure the voltage at the following terminal-wires as shown.

Headlight	Wire	Headlight switch	Voltage	Action
	(R/W)	- High beam	12V	Next, check wire (R/B)
			0V	Go to Step 4
Left	(R/B)	Low beam	12V	Next, check wire (B)
Leit			0V	Go to Step 4
	(D)	Any position	OV	Next, check right side
	(B) Any posi	Any position	12V	Repair ground wire (B)
	(R/W)	/W) High beam	12V	Next, check wire (R/B)
			OV	Go to Step 4
	(R/B)	Low beam	12V	Next, check wire (B)
Right			٥V	Go to Step 4
	(B)	Any position	OV	Check for poor connection of headlight connector
			12V	Go to Step 4



05U0TX-298





#### Step 4

- 1. Reconnect the headlight connector.
- 2. Remove the column cover.
- 3. Measure the voltage at the following terminal-wires of the headlight switch connectors (in the combination switch) as shown.

Wire	Headlight switch	Voltage	Action
		12V	Next, check wire (W/R)
(R/L)	Any position	٥V	Repair wire (R/L) (HEAD 30A fuse—Headlight switch)
		12V	Next, check wire (R/W)
(W/R) /	Any position	0V	Repair wire (W/R) (BTN 40A fuse—Headlight switch)
(R/M)	ON	12V	Next, check wire (R/B)
(11/77)	(R/W) (High beam)	0V	Go to Step 5
(R/B)	ON (Low beam)	12V	Check for poor connection of headlight switch connector
	(Low beam)	0V	Go to Step 5

#### Step 5 — Headlight switch inspection

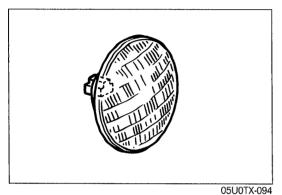
- 1. Disconnect the headlight switch connectors.
- 2. Check for continuity between terminals as shown with an ohmmeter.

Position				Tern	ninal		
		HB	HL	HU	BA	BTN	TNS
Low beam					0	0-	
Headlight	High beam	00			-0	0—	-0
Parking				0-	_0		
Tail, Parking						0-	-0

- O----O: Indicates continuity
- 3. If not as specified, replace the headlight switch.
- 4. If correct, check for a poor connection in the system.

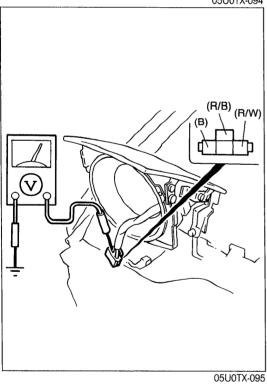
Symptom: Headlight does not operate (right or left).

05U0TX-093



Step 1

- Check the headlight bulbs.
   If a bulb is burned replace it.
   If the bulbs are OK, go to Step 2.



Step 2

- 1. Disconnect the headlight connectors of the faulty side.
- 2. Turn the headlight switch ON, and measure the voltage at the following terminal-wires as shown.

Headlight	Wire	Headlight switch	Voltage	Action
Left		Low beam	12V	Repair ground wire (B)
	(R/B)		0V	Repair wire (R/B) (Headlight switch—Headlight)
Leit			12V	Repair ground wire (B)
	(R/W)	High beam	oV	Repair wire (R/W) (Headlight switch—Headlight)
Right -	(R/B) Lov	Low beam	12V	Repair ground wire (B)
			0V	Repair wire (R/B) (Headlight switch—Headlight)
			12V	Repair ground wire (B)
	(R/W) High beam		0V	Repair wire (R/W) (Headlight switch—Headlight)

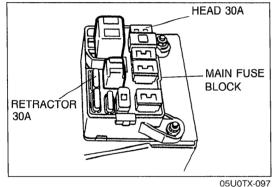
#### Symptom: Headlight retractor motors do not operate (both sides).

#### Note

- Before troubleshooting verify the symptom by activating the headlight switch and retractor switch.
- Check the system using the appropriate troubleshooting below.

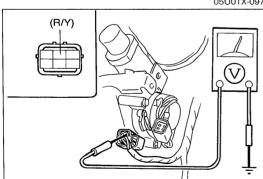
Switch	Retractor motor(s) operate	Action
Headlight switch ON	Yes	Begin troubleshooting from Step 5
	No	Next, turn ON retractor switch
Detro-ten - vitale ONI	Yes	Begin troubleshooting from Step 4
Retractor switch ON	No	Begin troubleshooting from Step 1

05U0TX-096



#### Step 1

- 1. Check RETRACT 30A and HEAD 30A fuses in the main fuse block.
- 2. If a fuse is burned, replace it. Check and repair the wire harness, if necessary.
- 3. If the fuses are OK, go to Step 2.



#### Step 2

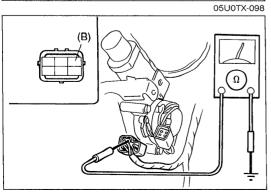
- 1. Retract the headlights fully using the manual knobs.
- 2. Disconnect the retractor motor connectors.
- 3. Turn on the headlight switch and retractor switch.
- 4. Measure the voltage at the following terminal-wires of the retractor motor connectors.

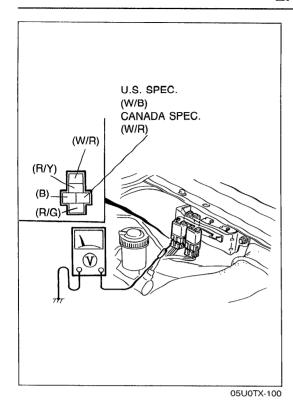
Retractor motor	Wire	Voltage	Action
Left and Right	(D/V)	12V Go to Step 3	
	(R/Y)	OV	Go to Step 4

#### Step 3

- 1. Disconnect the retractor motor connectors.
- 2. Check for continuity between terminal-wire (B) of the retractor motor connectors and a body ground.

Retractor motor	Continuity	Action
	No	Repair wire (B)
Left and Right	Yes	Check retractor motor (Refer to page T—56)





#### Step 4

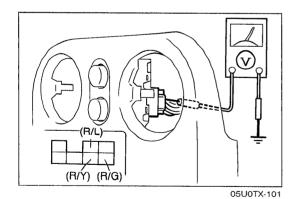
- 1. Turn off the retractor switch.
- 2. Turn on the headlight switch.
- 3. Measure the voltage at the following terminal-wires of the retractor relay connector.

#### U.S. spec.

Wire	Voltage	Action
(R/G)	12V	Next check wire (W/B)
(17/G)	OV	Go to Step 5
	12V	Next check wire (B)
(W/B)	OV	Repair wire (W/B) (Headlight relay—Retractor relay)
(B)	12V	Repair ground wire (B)
	OV	Next check wire (R/Y)
(R/Y)	12V	Repair wire (R/Y) (Retractor relay—Retractor motor)
	0V	Replace retractor relay

#### Canada spec.

Wire	Voltage	Action
(B(G)	12V	Next check wire (W/R)
(R/G)	0V	Go to Step 5
	12V	Next check wire (B)
(W/R) 01	0V	Repair wire (W/R) (Headlight switch—Retractor relay)
(B)	12V	Repair ground wire (B)
(b) 0V	0V	Next check wire (R/Y)
(R/Y)	12V	Repair wire (R/Y) (Retractor relay—Retractor motor)
	OV	Replace retractor motor

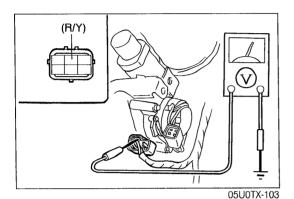


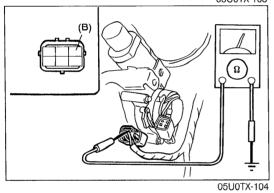
**Step 5**Measure the voltage at the terminal-wires of the retractor switch.

Wire	Retractor switch	Voltage	Action
		12V	Next check wire (R/G) and (R/Y)
(R/L)	Any position	٥٧	Repair wire (R/L) (Retract 30A—Retractor switch)
(R/G) OFF	OFF	12V	Repair wire (R/G) (Retractor switch—Retractor motor)
	0V	Replace retractor switch	
(R/Y)	ON	12V	Repair wire (R/Y) (Retractor switch—Retractor motor)
		0V	Replace retractor switch

Symptom: Headlight retractor motor does not operate (one side).

05U0TX-102





#### Step 1

- 1. Retract the not working headlight fully using the manual knob
- 2. Disconnect the retractor motor connector of the faulty side.
- 3. Turn on the headlight switch and retractor switch.
- 4. Check the voltage at the following terminal-wires of the retractor motor connector.

Wire	Voltage	Action
	12V	Go to Step 2
(R/Y)	0V	Repair wire (R/Y) (Retractor relay—Retractor motor)

#### Step 2

Check for continuity between terminal-wire (B) of the faulty retractor motor connector and a body ground.

Continuity	Action
No	Repair wire (B)
Yes	Check retractor motor (Refer to page T-56)

#### Note

• A retractor indicator lamp is included in the instrument cluster. The indicator lamp illuminates when the retractor motor is operating and should go out when the headlights are fully raised or retracted.

If the indicator lamp remains on, it may be due to pebbles, pieces of ice, etc. lodged between the headlight and the vehicle body. This should be corrected by the following procedure.

1. Turn the ignition switch OFF.

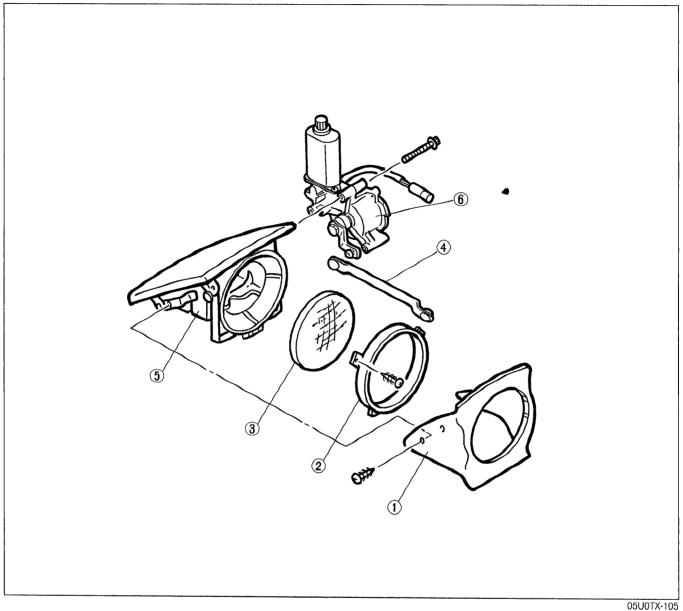
#### Caution

- Obtain the code number and deactive the audio anti-theft function before disconnecting the battery. (Refer to page T-113.)
- 2. Disconnect the negative battery cable or remove RETRACTOR 30A fuse in the main fuse block.
- 3. Raise or lower the headlight by turing the emergency retractor knob.
- 4. Remove the obstruction.
- 5. After verifying that the headlight switch and the retractor switch are OFF, reconnect the negative battery cable.
- 6. Verify operation of the headlight retractor and the retractor indicator lamp.

05U0TX-458

#### **Removal / Installation**

Remove and install as shown in the figure.

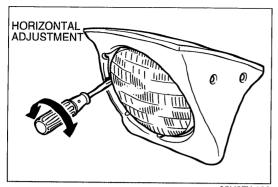


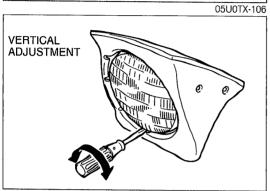
- 1. Bezel
- 2. Headlight housing3. Headlight

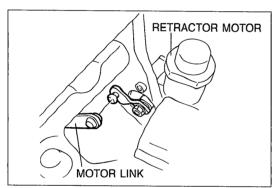
- 4. Motor link
- 5. Retractor hinge
- 6. Retractor motor

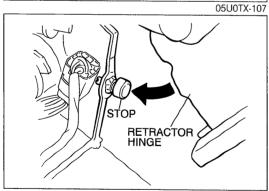
#### Caution

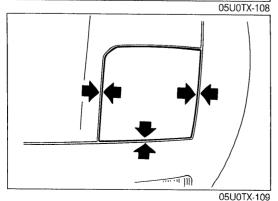
• Do not turn the adjusting screws during removal and installation.











Adjustment Headlight aiming

1. Adjust the tire air pressure to specification.

2. Turn on the retractor switch to raise the retractable headlights.

3. Position the unloaded vehicle on a flat, level surface.

4. Adjust the headlights to meet local regulations by turning the two adjusting screws.

Retractor hinge

1. Begin with the headlights fully retracted.

Caution

 Before disconnecting the negative battery cable, verify the ID code number of audio anti-theft function.

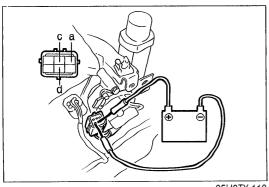
• If not, an audio unit may not operate after reconnecting the negative battery cable.

2. Disconnect the negative battery cable.

3. Disconnect the motor link.

4. Lower the retractor hinge until the hinge is stopped by the stop.

5. Adjust the stop so that the headlight lid is flush with the fender and hood.



05U0TX-110

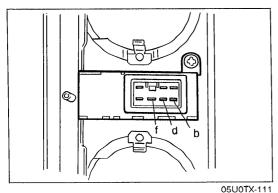
### Inspection

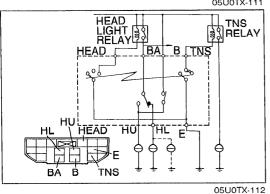
#### **Retractor motor**

- 1. Disconnect the motor link.
- 2. Disconnect the retractor motor connector.
- 3. Connect 12V to terminal f and ground terminal a of the motor connector.
- 4. Check the motor operation when connecting 12V as shown.

Terminal		Motor operation	
12V	Ground	Motor operation	
С	а	Motor rotates to raised position	
d	а	Motor rotates to retracted position	

5. If not as specified, replace the retractor motor.





#### Retractor switch

- 1. Remove the retractor switch.
- 2. Check for continuity between terminals of the switch.

Switch		Terminal	
Switch	b	d	f
Off	0		<del></del> 0
On		0	

O----O: Indicates continuity

3. If not as specified, replace the retractor switch.

## Headlight switch

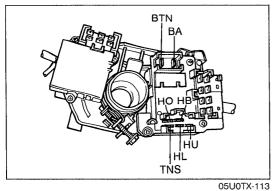
#### U.S. spec.

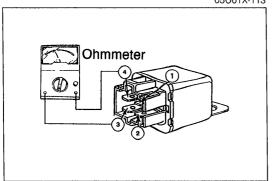
- 1. Remove the knee protector.
- 2. Disconnect the combination switch connector.
- 3. Check for continuity between terminals of the switch.

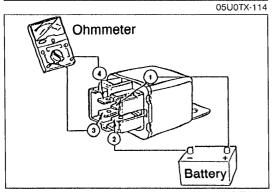
Position		Terminal						
		Е	HL	HU	TNS	HEAD	ВА	В
	Low beam	0				0		
Hondlight	LOW Death		0-				O	
Headlight	High beam	0			0			
Descine				0			$\bigcirc$	
Passing					ļ			
Tail, Parking		0-			$\vdash$			l

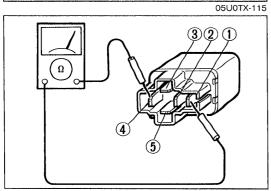
O-O: Indicates continuity

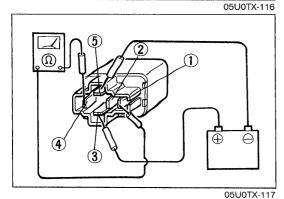
4. If not as specified, replace the combination switch as an assembly.











Canada spec.

- 1. Remove the column cover and disconnect the headlight switch connectors.
- 2. Check for continuity between terminals of the switch.

Position			Terminal					
		HB	HL	HU	BA	BTN	TNS	
	Low beam		0		$\overline{}$	0-	9	
Lloodlight	Low beam	0-			<u></u>	-0		
Headlight	I Park In a second			0-	$\overline{-}$	0-	9	
	High beam	0-				-0		
Passing				0-	-0			
Tail, Parking						0-	$\overline{\mathbb{R}}$	

O----O: Indicates continuity

Headlight relay (U.S. spec.)

1. Check continuity between terminals 3 and 4.

Terminal	Continuity
3—4	No

- 2. If not as specified, replace the headlight relay.
- 3. If correct, go to Step 4.
- 4. Apply 12V to terminal 1 and ground terminal 2. Check for continuity between terminals 3 and 4.

Terminal	Continuity
3—4	Yes

5. If not as specified, replace the headlight relay.

Headlight retractor relay

1. Check continuity between terminals of the relay.

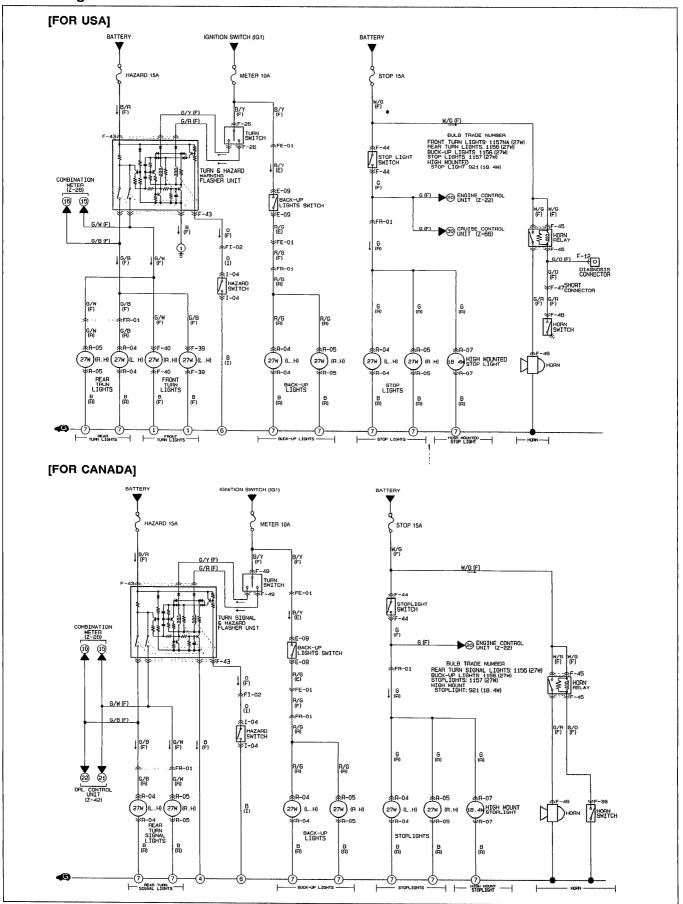
Terminal	Continuity
1—4	Yes
2-4	No
35	Yes

- 2. If not as specified, replace the retractor relay.
- 3. If correct, go to Step 4.
- 4. Apply 12V to terminal 3 and ground terminal 5. Check continuity between terminals of the relay.

Terminal	Continuity
1—4	No
24	Yes

5. If not as specified, replace the retractor relay.

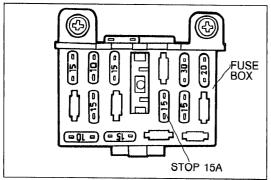
#### STOPLIGHTS Circuit Diagram



#### **Troubleshooting**

#### Symptom: Stoplights do not operate (all).

05U0TX-119

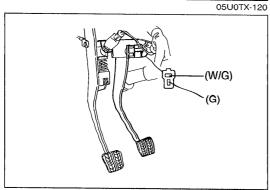


#### Step 1

Check STOP 15A fuse in the fuse box.

If the fuse is burned, replace it. Check and repair the wire harness, if necessary.

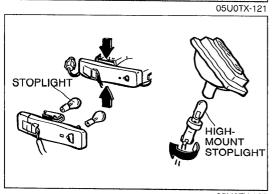
If the fuse is OK, go to Step 2.



#### Step 2

Measure the voltage at the following terminal-wires of the stoplight switch connector.

Inspection condition	Wire	Voltage	Action
	(W/G)	12V	Next check wire (G)
Constant		0V	Repair wire (W/G) (STOP 15A fuse—Stoplight switch)
Brake pedal		12V	Go to Step 3
depressed		OV	Check stoplight switch

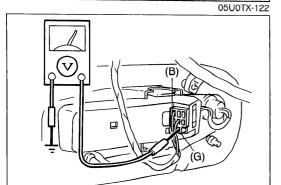


#### Step 3

Check the stoplight bulbs.

If a bulb is burned replace it.

If the bulbs are OK, go to Step 4.



#### Step 4

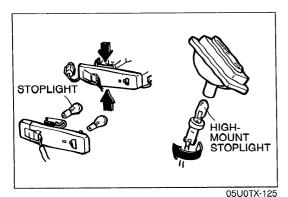
05U0TX-123

Measure the voltage at the following terminal-wires of the right and left stoplight connectors.

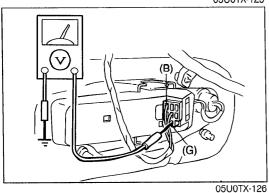
Inspection condition	Wire	Voltage Action	
Brake pedal	(G)	12V	Next check wire (B)
		0V	Repair wire (G) (Stoplight switch—Stoplight)
depressed	(B)	12V	Repair ground wire (B)
		oV	Check for poor connection of connectors

#### Symptom: Stoplights does not operate (one only).

05U0TX-124



Step 1
Check the stoplight bulb of the faulty side.
If a bulb is burned replace it.
If the bulb is OK, go to Step 2.

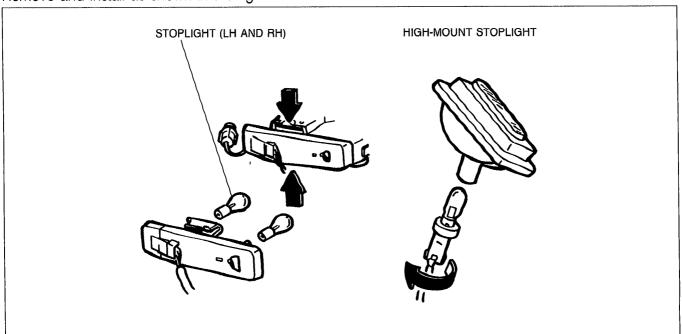


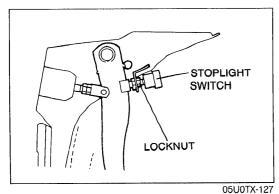
**Step 2**Measure the voltage at the following terminal-wires of the faulty stoplight connector.

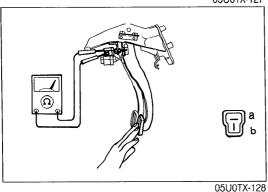
Inspection condition	Wire	Voltage	Action	
Brake pedal	(G)	12V	Next check wire (B)	
		0V	Repair wire (G) (Stoplight switch—Stoplight)	
depressed		12V	Repair ground wire (B)	
	(B)	OV	Check for poor connection of connectors	

#### **Removal / Installation**

Remove and install as shown in the figure.







Adjustment Stoplight switch

- 1. Adjust the brake pedal height. (Refer to Section P.)
- 2. Disconnect the stoplight switch connector.
- 3. Loosen the stoplight switch locknut.
- 4. Turn the stoplight switch until it contacts the pedal arm. Turn an additional 1/2 turn.
- 5. Tighten the locknut.

Locknut tightening torque: 14—18 N·m (1.4—1.8 m-kg, 120—156 in-lb)

#### Inspection Stoplight switch

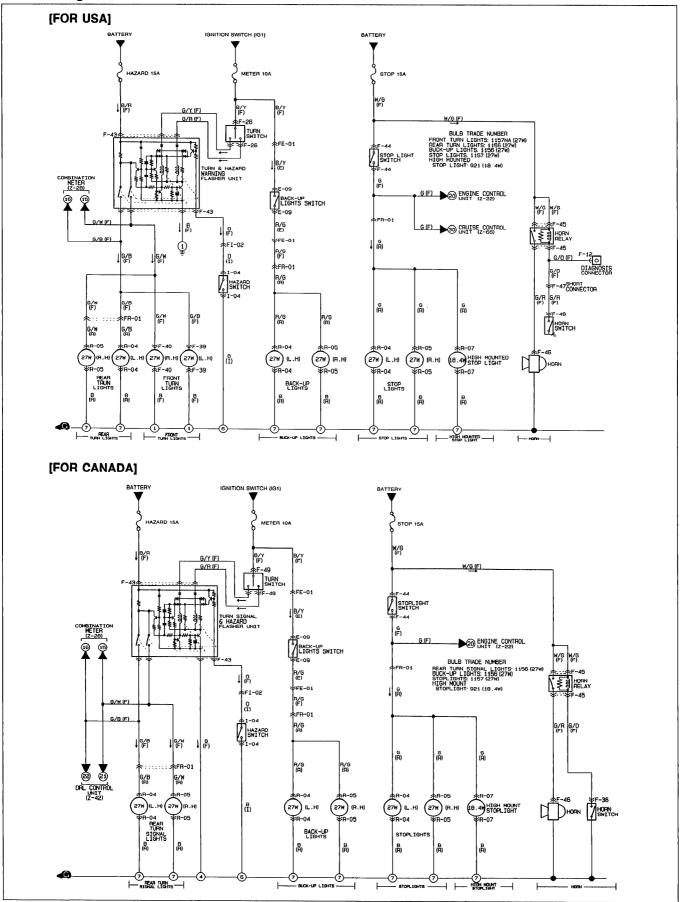
- 1. Disconnect the stoplight switch connector.
- 2. Check continuity between terminals of the switch.

Inonaction condition	Terminal		
Inspection condition –	а	b	
Brake pedal depressed	0		
Brake pedal released			

O----O: Indicates continuity

3. If not as specified, replace the stoplight switch.

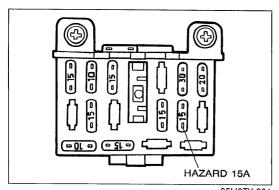
# TURN AND HAZARD WARNING LIGHTS Circuit Diagram

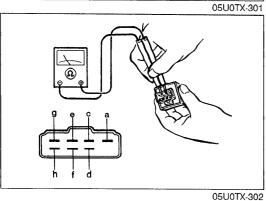


#### **Troubleshooting**

#### Symptom: Turn and hazard warning lights do not operate (U.S. spec.)

05U0TX-130





## Step 1

- 1. Check HAZARD 15A fuse in the fuse box.
- 2. If the fuse is burned replace it. Check and repair the wire harness, if necessary.
- 3. If the fuse is OK, go to Step 2.

#### Step 2 — Check turn and hazard warning flasher unit

- 1. Remove the turn and hazard warning flasher unit.
- 2. Check continuity between terminals of the unit with an ohmmeter.

#### **Note**

#### • Set the ohmmeter to $\times 1000\Omega$ range.

Terminal	Continuity	Terminal	Continuity	Terminal	0
+ -	Continuity	+ -	Continuity	+   -	Continuity
а — с	X	d — e	X	f — g	X
a — d	X	d f	X	f — h	X
а — е	0	d — g	X	g — a	X
a — f	0	d — h	Х	g — c	Х
a — g	X	е — а	X	g — d	X
a — h	X	e — c	Х	g — e	Х
с — а	0	e — d	X	g — f	X
c — d	0	e — f	X	g — h	Х
с — е	0	e — g	X	h — a	0
c — f	0	e — h	Х	h — c	0
_ c — g	0	f a	X	h — d	0
c — h	0	f — c	Х	h — е	0
d a	X	f — d	X	h — f	0
d — c	X	f — e	Х	h — g	0

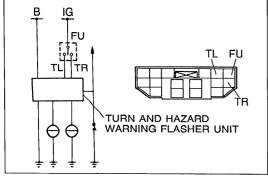
- O: Indicates continuity
- X: No continuity
- 3. If not as specified, replace the flasher unit.
- 4. If the flasher unit is OK, reconnect the connector and go to Step 3.

#### Step 3

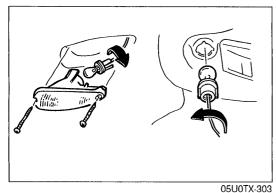
- 1. Remove the knee protector, then disconnect the turn signal switch connector.
- 2. Check continuity between terminals of the switch.

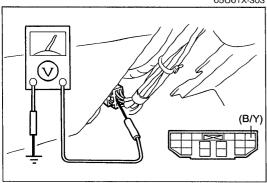
Position	Terminal	FU	TL	TR
Left		0		
Right		0		0

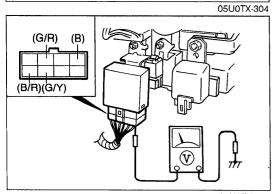
- O----O: Indicates continuity
- 3. If not as specified, replace the turn signal switch.
- 4. If the turn signal switch is OK, reconnect the connector and go to Step 4.

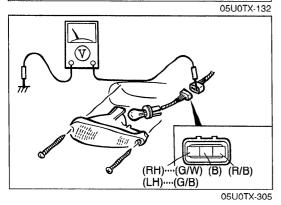


05U0TX-131









Step 4

- 1. Check the bulbs.
- 2. If a bulb is burned, replace it.
- 3. If the bulbs are OK, go to Step 5.

#### Step 5

- 1. Turn the ignition switch ON.
- 2. Measure the voltage at terminal-wire (B/Y) of the turn signal switch connector.

Wire	Voltage	Action	
	12V	Go to Step 6	
(B/Y)	0V	Repair wiring harness (HAZARD 15A fuse — Turn signal switch)	

#### Step 6

Measure the voltage at the terminal-wires of the turn and hazard warning flasher unit connector.

Wire	Condition	Voltage	Action
(B) Con	Constant	12V Repair wire harness (Flasher unit — Body ground)	
		OV	Next, check wire (G/R)
	Turn signal	12V	Next, check wire (G/Y)
(G/R) switch right position	OV	Repair wire harness (Turn signal switch — Flasher unit)	
	Turn signal	12V	Next, check wire (B/R)
(G/Y)			Repair wire harness (Turn signal switch — Flasher unit)
		12V	Go to Step 7
(B/R)	Constant	0V	Repair wire harness (HAZARD 15A fuse — Flasher unit)

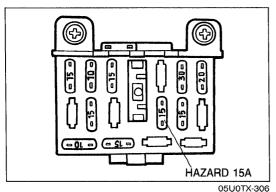
#### Step 7

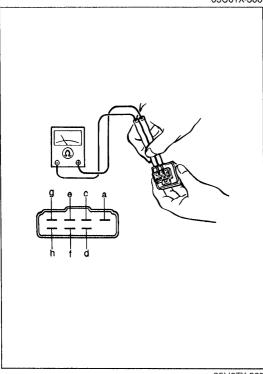
- 1. Disconnect the turn signal light connectors.
- 2. Measure the voltage at the terminal-wires of the turn signal light connectors as shown.

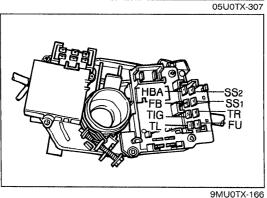
Light	Wire	Condition	Voltage	Action	
Front	Front		12V Repair wire harness (Bulb — Body ground)		
RH	(G/W)	Turn signal switch right	ov	Repair wire harness (Flasher unit — Bulb)	
Rear	(G/W)	position	12V	Repair wire harness (Bulb — Body ground	
RH				0V	Repair wire harness (Flasher unit — Bulb)
Front	ont	12V	Repair wire harness (Bulb — Body Ground)		
LH	(G/B)	Turn signal switch left	OV	Repair wire harness (Flasher unit — Bulb)	
Rear	`	position	12V	Repair wire harness (Bulb — Body ground)	
LH			OV	Repair wire harness (Flasher unit — Bulb)	

#### Symptom: Turn and hazard warning lights do not operate (Canada spec.).

05U0TX-133







Step 1

- 1. Check HAZARD 15A fuse in the fuse box.
- 2. If the fuse is burned, replace it. Check and repair the wire harness, if necessary.
- 3. If the fuse is OK, go to Step 2.

#### Step 2 — Check turn and hazard warning flasher unit

- 1. Remove the turn and hazard warning flasher unit.
- 2. Check continuity between terminals of the unit with an ohmmeter.

#### Note

#### • Set the ohmmeter to $\times 1000\Omega$ range.

Terminal + -	Continuity	Terminal + -	Continuity	Terminal + -	Continuity
a - c	X	d — e	Х	f — g	Х
a — d	X	d — f	Х	f — h	Х
a — e	0	d — g	Х	g — a	Х
a — f	0	d h	×	g — c	X
a — g	Х	e — a	X	g — d	Х
a — h	×	e — c	X	g — e	X
c — a	0	e — d	X	g f	Х
c — d	0	e f	X	g h	X
с — е	0	e — g	Х	h — a	0
c — f	0	e — h	X	h c	0
c g	0	f — a	X	h — d	0
c — h	0	f — c	Χ	h — e	0
d — a	X	f — d	Χ	h — f	0
d — c	Х	f — e	X	h — g	0

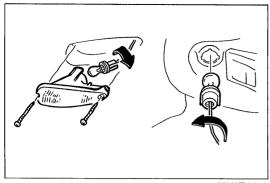
- O: Indicates continuity
- X: No continuity
- 3. If not as specified, replace the flasher unit.
- 4. If the flasher unit is OK, reconnect the connector and go to Step 3.

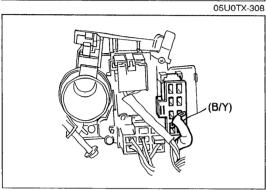
#### Step 3 — Check turn signal switch

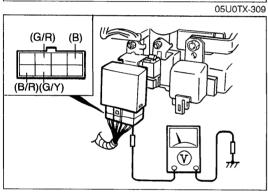
- 1. Remove the column cover, then disconnect the turn signal switch connector.
- 2. Check for continuity between terminals of the switch.

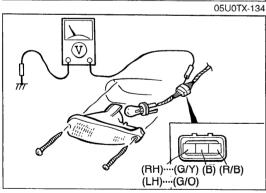
Terminal	Position	FU	TL	TR -
Left		0	0	
Right		0		

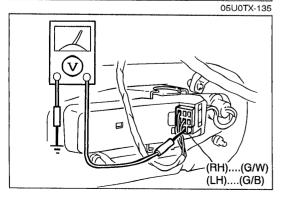
- O----O: Indicates continuity
- 3. If not as specified, replace the turn signal switch.
- 4. If the turn signal switch is OK, reconnect the connector and go to Step 4.











#### Step 4

- 1. Check the bulbs.
- 2. If a bulb is burned, replace it.
- 3. If the bulbs are OK, go to Step 5.

#### Step 5

- Turn the ignition switch ON.
   Measure the voltage at terminal-wire (B/Y) of the turn signal switch connector.

Wire	Voltage	Action
	12V	Go to Step 6
(B/Y)	OV	Repair wire harness (HAZARD 15A fuse — Turn signal switch)

#### Step 6

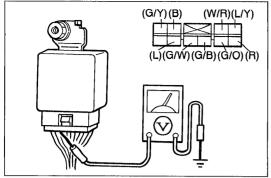
Measure the voltage at the terminal-wires of the turn and hazard warning flasher unit connector.

Wire	Condition	Voltage	Action
(B) Constant	12V	Repair wire harness (Flasher unit — Body ground)	
		0V	Next, check wire (G)
	Turn signal	12V	Next, check wire (G/R)
(G/R)			Repair wire harness (Turn signal switch — Flasher unit)
	Turn signal	12V	Next, check wire (Y/G)
(G/Y)	switch left position	OV	Repair wire harness (Turn signal switch — Flasher unit)
			Go to Step 7
(B/R) Constant	Constant	ov	Repair wire harness (HAZARD 15A fuse — Flasher unit)

#### Step 7

Measure the voltage at the terminal-wires of the turn signal light connectors as shown.

Light	Wire	Condition	Voltage	Action
Front (G/Y)		12V	Repair wire harness (Bulb — Body ground)	
		Turn signal	0V	Go to Step 8
	switch	switch right position	12V	Repair wire harness (Bulb — Body ground
RH	(CI/VV)		ov	Repair wire harness (Flasher unit — Bulb)
Front LH	t (G/O)	12V	Repair wire harness (Bulb — Body Ground)	
		Turn signal	0V	Go to Step 8
Rear LH (G/B)	switch left position	12V	Repair wire harness (Bulb — Body ground)	
	(G/B)		OV	Repair wire harness (Flasher unit — Bulb)



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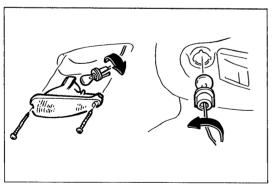
#### Step 8

Measure the voltage at the terminal-wires of the DRL connector as shown.

Wire	Condition	Voltage	Action
	Turn signal switch right position	12V	Next, check wire (G/Y)
(G/W)		oV	Repair wire (G/W) (Flasher unit—DRL unit)
(G/Y)		12V	Repair wire (G/Y) (DRL unit—Bulb)
(G/1)		oV	Check DRL unit (Refer to page T-18)
		12V	Next, check wire (G/O)
(G/B)	Turn signal switch left position	oV	Repair wire (G/O) (Flasher unit—DRL unit)
(G/O)		12V	Repair wire (G/O) (DRL unit—Bulb)
		0V	Check DRL unit (Refer to page T-18)

Symptom: Turn signal(s) flashes rapidly.

9MU0TX-175



9MU0TX-176

#### Remedy

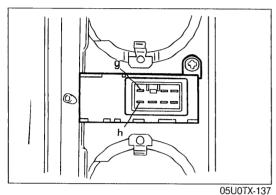
Check the bulbs and the wiring harness between each bulb and the body ground (rapidly flashing side).

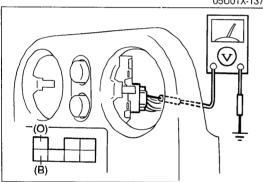
#### Note

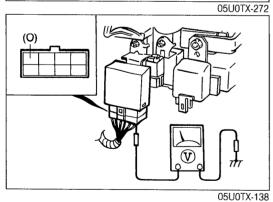
 Rapid flashing is a flasher unit function to warn of a bad bulb or an open circuit.

# Symptom: Hazard warning function does not operate. (Turn signals function normally.)

05U0TX-310







Step 1 — Check hazard warning switch.

- 1. Remove the hazard warning switch.
- 2. Check continuity between terminals of the switch.

Switch	Terminal		
OWITOTI	g	h	
ON	0	<del></del>	
OFF			

O—O: Indicates continuity

- 3. If not as specified, replace the right cluster switch assembly.
- 4. If the cluster switch is OK, go to Step 2.

#### Step 2

Measure the voltage at the terminal-wires of the hazard warning switch connector as shown.

Wire	Voltage	Action	
(O) 12V		Next, check wire (B)	
(0)	0V	Go to Step 3	
		Repair wire harness (Hazard warning switch — Body ground)	
	OV	Replace turn and hazard flasher unit	

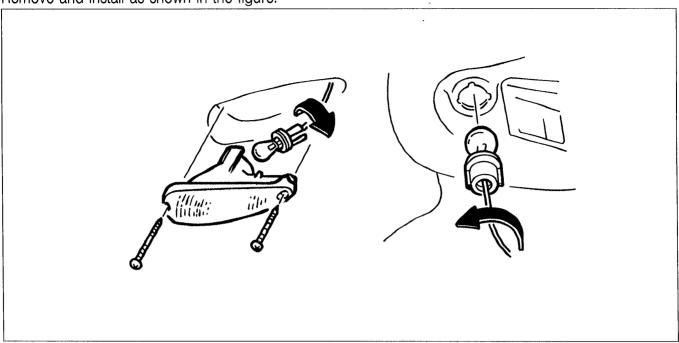
#### Step 3

Check the voltage at terminal-wire (O) of the turn and hazard flasher unit connector.

Wire	Voltage	Action
(O) Repair wire harness (Flasher unit — Hazard warning	Repair wire harness (Flasher unit — Hazard warning switch)	
	OV	Replace turn and hazard flasher unit

#### Removal / Installation

Remove and install as shown in the figure.





(U.S. spec.)
1. Remove the knee protector.

2. Disconnect the combination switch connector.

3. Check continuity between terminals of the switch.

Switch	Terminal		
Switch	FU	TL	TR
Left	0-	<del></del> 0	
Right	0		

O----O: Indicates continuity

4. If not as specified, replace the combination switch as an assembly.

#### (Canada spec.)

- 1. Remove the column cover, then disconnect the turn signal switch connector.
- 2. Check for continuity between terminals of the switch.

Terminal	Position	FU	TL	TR
Left		0-		
Right		0-		<u> </u>

O----O: Indicates continuity

3. If not as specified, replace the turn signal switch.

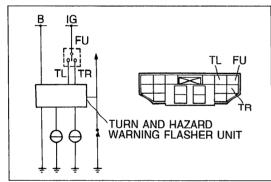
#### Hazard warning switch

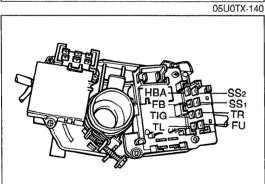
- 1. Remove the hazard switch.
- 2. Check continuity between terminals of the switch.

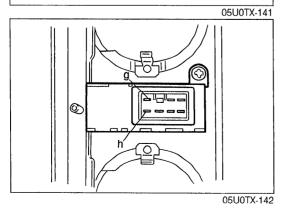
Switch		ninal
Switch	g	h
On	O	<del></del> 0
Off		

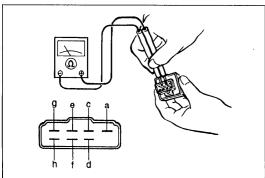
O—O: Indicates continuity

3. If not as specified, replace the hazard switch and retractor switch as an assembly.









05U0TX-143

Turn and hazard warning flasher unit

1. Check continuity between terminals of the flasher unit.

#### Note

• Set the ohmmeter to  $\times 1000\Omega$  range.

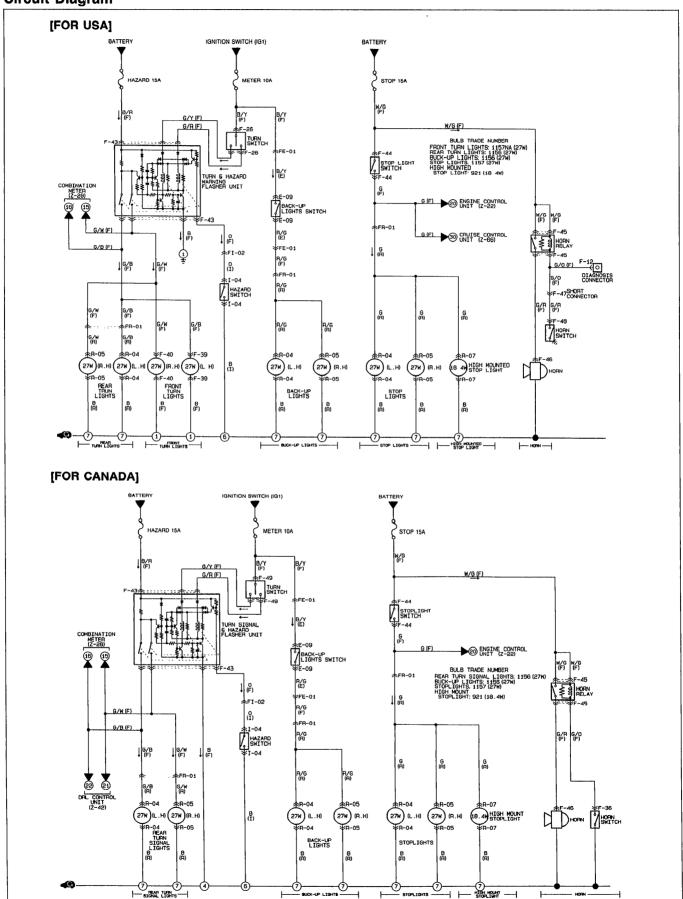
Terminal + -	Continuity	Terminal + -	Continuity	Terminal + -	Continuity
a — c	X	d — e	X		X
				f — g	
a — d	X	d — f	X	f — h	X
a — e	0	d — g	Х	g — a	X
a — f	0	d — h	Х	g — c	X
a — g	X	е — а	Х	g — d	Х
a h	X	e — c	X	д — е	X
c — a	0	e — d	Х	g — f	Х
c — d	0	e — f	X	g — h	X
с — е	0	e — g	Х	h — a	0
c — f	0	e — h	X	h — c	0
c — g	0	f — a	Х	h — d	0
c h	0	f — c	X	h — e	0
d — a	Х	f — d	Х	h — f	0
d — c	X	f — e	X	h — g	0

O: Indicates continuity

2. If not as specified, replace the flasher unit.

X: No continuity

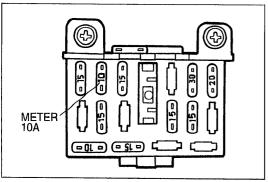
#### BACK-UP LIGHTS Circuit Diagram



#### **Troubleshooting**

# Symptom: Back-up light(s) does not operate.

9MU0TX-185

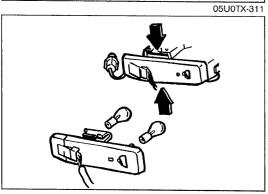


Step 1

Check METER 10A fuse.

If the fuse is burned, replace it. Check and repair the wire harness, if necessary.

If the fuse is OK, go to Step 2.

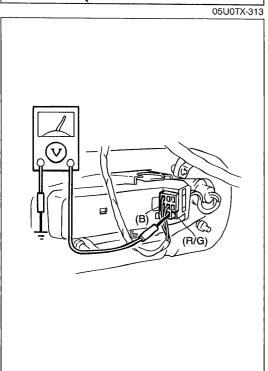


Step 2

Check the back-up light bulbs.

If a bulb is burned, replace it.

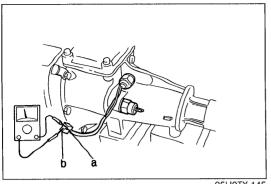
If the bulbs are OK, go to Step 3.



Step 3

- 1. Turn the ignition switch ON, and shift the transmission to reverse.
- 2. Measure the voltage at the terminal-wires of the back-up light connectors.

Back-up light	Wire	Voltage	Action
	(R/G)	12V	Next, check wire (B)
	(11/4)	٥V	Go to Step 4
Left		12V	Repair ground wire (B)
	(B)	٥V	Check for poor connection of back-up light connector
	(R/G)	12V	Next, check wire (B)
		0V	Go to Step 4
Right		12V	Repair ground wire (B)
		0V	Check for poor connection of back-up light connector



05U0TX-145

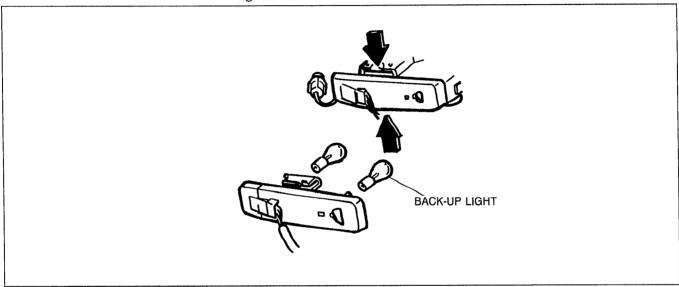
#### Step 4

- Disconnect the back-up light switch connectors.
   Check continuity between terminals of the switch with the transmission in reverse.

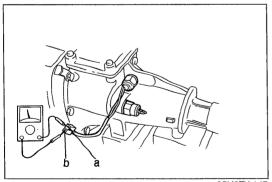
Continuity	Action
Yes	Repair wire harness (METER 10A fuse — Back-up light switch — Back-up light)
No	Replace switch

#### **Removal / Installation**

Remove and install as shown in the figure.



05U0TX-146



05U0TX-147

#### Inspection

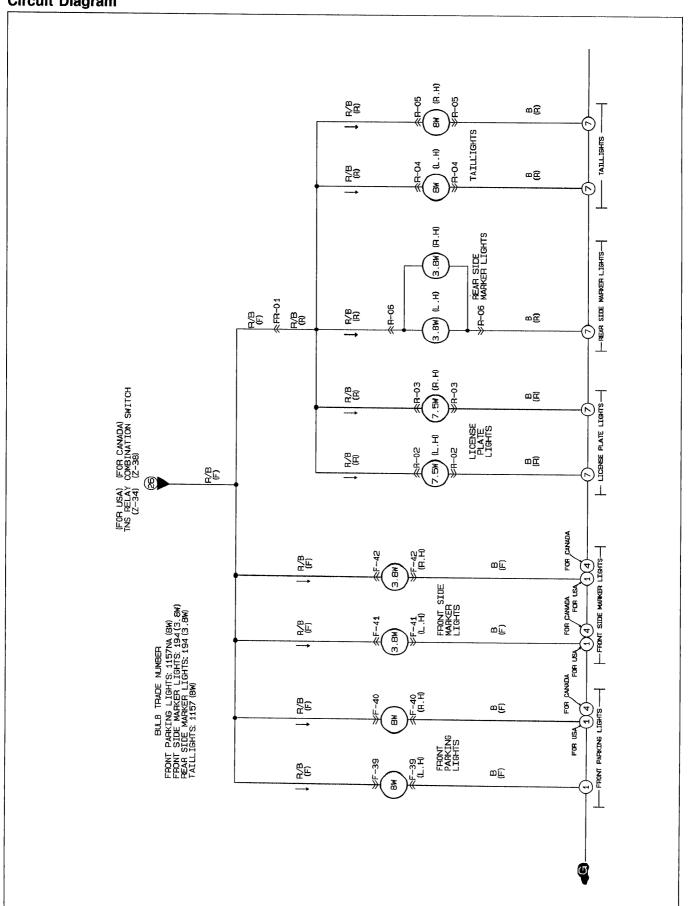
# Back-up light switch

- 1. Disconnect the back-up light switch connectors.
- 2. Check continuity between terminals of the switch as shown.

Transmission	Continuity
Reverse	Yes
Others	No

3. If not as specified, replace the switch.

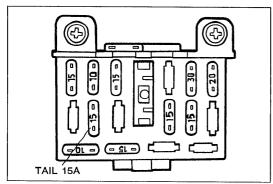
TAILLIGHTS, SIDE MARKER LIGHTS, PARKING LIGHTS AND LICENSE PLATE LIGHTS Circuit Diagram

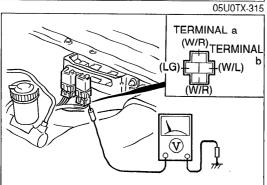


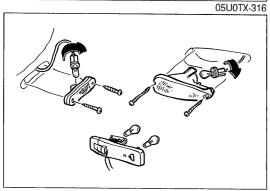
#### **Troubleshooting**

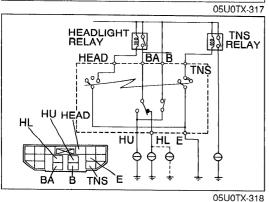
Symptom: No lights illuminate (taillights, side marker lights, and license plate lights). (U.S. spec.)

05U0TX-314









#### Step 1

- 1. Check TAIL 15A.
- 2. If the fuse is burned, replace it. Check and, if necessary, repair the wiring harness.
- 3. If the fuses are OK, go to Step 2.

#### Step 2

- 1. Turn the headlight switch ON.
- 2. Measure the voltage at the following terminal wires of the TNS relay connector.

Wire	Voltage	Action
(W/L)	12V	Go to Step 3
(۷۷/L)	OV	Next check wire (LG)
(LG)	12V	Go to Step 4
(LG)	0V	Next check wire (W/R: Terminal a)
(W/R)	12V	Next check wire (W/R: Terminal b)
Terminal a	OV	Repair wire (W/R) (TAIL 15A fuse — TNS relay)
(W/R)	12V	Replace TNS relay
Terminal b	0V	Repair wire (W/R) (TAIL 15A fuse — TNS relay)

#### Step 3

- 1. Check the bulbs of the each light.
- 2. If the bulb is burned, replace the bulb.
- 3. If the bulbs are OK, repair wiring harness between the TNS relay and the body ground of each light.

#### Step 4

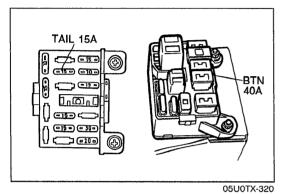
- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector.
- 3. Disconnect the combination switch connector.
- 4. Check continuity between the following terminals of the combination switch.

Position		Terminal						
		E	HL	HU	TNS	HEAD	BA	В
						0		
	Low beam		$\overline{\bigcirc}$				<del>-</del>	
Headlight		0						
	High beam	ŏ-						
				0-			<b>—</b>	
Passing				0				-0
Taillights, Parking		$\circ$			-0			

- O-O: Indicates continuity
- 5. If not as specified, replace the combination switch.
- 6. If correct, repair the wiring harness. (TNS relay combination switch)

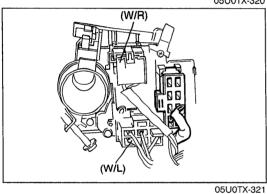
Symptom: No lights illuminate (taillights, side marker lights, and license plate lights). (Canada spec.)

05U0TX-319



Step 1

- 1. Check 15A and A fuses.
- 2. If the fuse is burned, replace it. Check and, if necessary, repair the wiring harness.
- 3. If the fuses are OK, go to Step 2.



Step 2

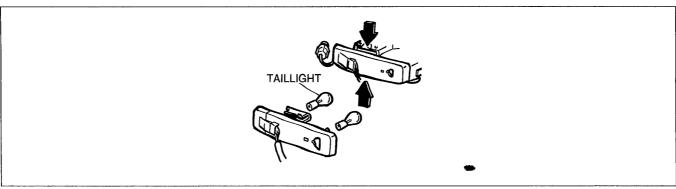
- 1. Turn the headlight switch ON.
- 2. Measure the voltage at the following terminal-wires of the combination switch connector.

Wire	Voltage	Action
12V		Next check wire (W/L)
(W/R)	OV	Repair wire (W/R) (TAIL 15A fuse — combination switch)
(W/L)	12V	Repair the wiring harness (Combination switch — body ground of each light)
	OV	Replace headlight switch

#### Removal / Installation

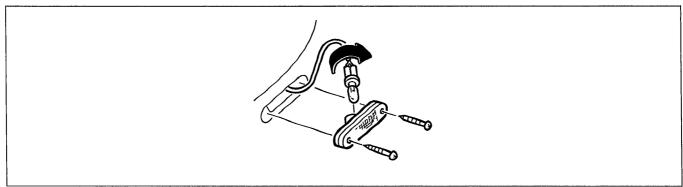
Remove and install as shown in the figures.

# **Taillights**



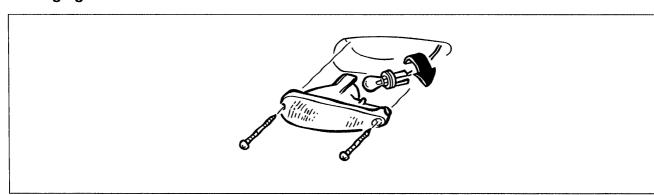
05U0TX-149

# Side marker lights



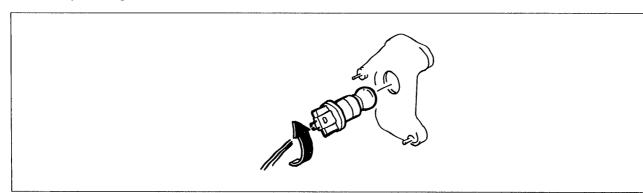
05U0TX-150

# **Parking lights**

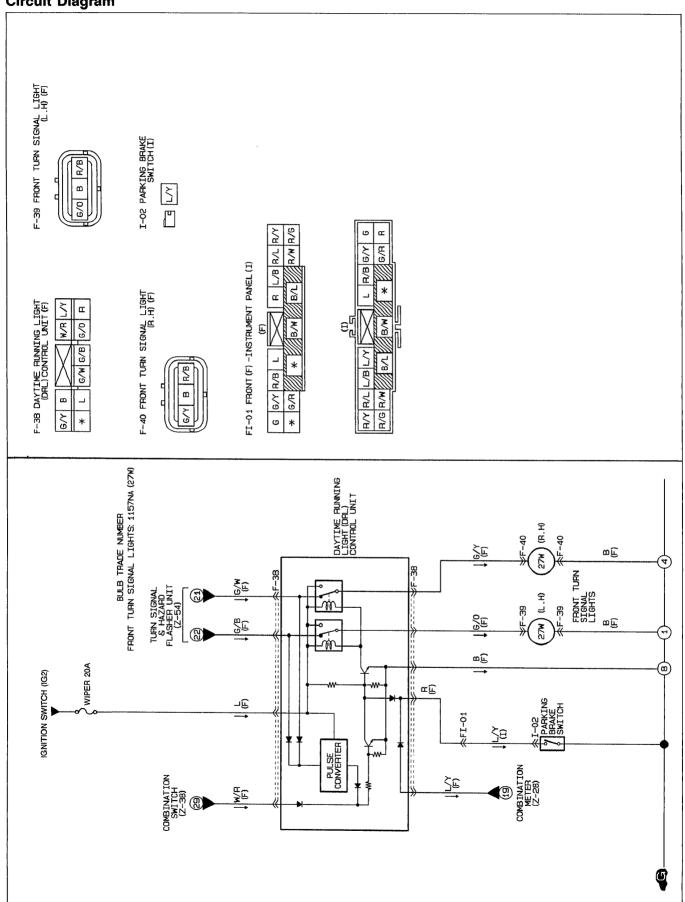


05U0TX-151

# License plate lights



# DAYTIME RUNNING LIGHTS (DRL) (Canada spec.) Circuit Diagram

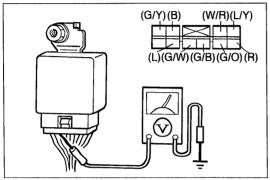


Symptom: Daytime running lights (DRL) do not operate. (Turn signals function normally.)

DRL operate with engine runing and following switches are off:

- Headlight switch
- Turn signal switch
- Hazard warning switch
- Parking brake switch (Parking brake released)

05U0TX-156



05U0TX-157

#### Step 1

#### Warning

- Position the vehicle on a flat surface and block the wheels to prevent vehicle movement.
- 1. Turn on the ignition switch.
- Measure the voltage at the following terminal-wires of the DRL unit.
- 3. If correct, replace the DRL unit.

Wire	Connected to	Test condition	Specification	Action
(L)	WIPER 20A fuse	Constant	12V	Repair wire (L) (WIPER 20A—DRL unit)
(B)	Ground	Constant	OV	Repair wire (B) (DRL unit—Body ground)
(R)	Parking brake switch	Parking brake released	12V	Go to Step 2
(W/R)	Headlight switch	Headlight switch off	0V	Go to Step 3

05U0TX-158

### Step 2

- 1. Disconnect the parking brake switch connector.
- 2. Check continuity between the terminal of the switch and a body ground.

Parking brake lever	Continuity
Pulled one notch	Yes
Released	No

- 3. If not as specified, adjust or replace the parking brake switch.
- 4. If correct, repair wires (R) and (L/Y). (Parking brake switch DRL unit)

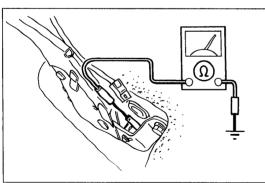
#### Step 3

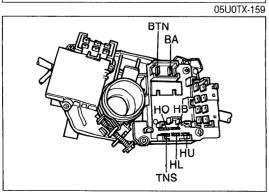
- 1. Remove the column cover and disconnect the connectors of the headlight switch.
- 2. Check continuity between the terminals of the headlight switch connector.

Position	Terminal		
Position	BTN	TNS	
Headlight switch ON	0-	0	
Headlight switch OFF			

O----O: Indicates continuity

- 3. If not as specified, replace the headlight switch.
- 4. If correct, repair wire (W/R). (Headlight switch DRL unit)

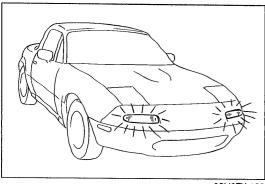




05U0TX-160

# Symptom: Daytime running lights (DRL) function does not cancel.

05U0TX-161



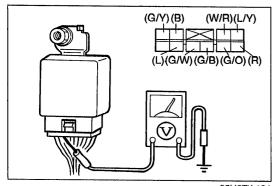
05U0TX-162

#### Step 1

- 1. Turn on the ignition switch ON.
- 2. Verify the symptom by operating the following switches; the DRL should cancel. Go to the specified Step.
  - Headlight switch.
  - Hazard warning switch.
  - Turn signal switch.
  - Parking brake switch (lever pulled one notch).

Symptom: DRL function not canceled when	Next Step
Headlight switch ON	Step 2
Hazard warning switch ON	Step 4
Turn signal switch ON	Step 4
Parking brake switch ON	Step 5

05U0TX-163



05U0TX-164 **BTN** TŃS 05U0TX-165

Step 2

- 1. Turn on the ignition switch.
- 2. Turn on the headlight switch.
- 3. Check the voltage at the terminal-wire (W/R) of the DRL unit connector.

Wire	Voltage
(W/R)	12V

- 4. If not as specified, go to Step 3.
- 5. If correct, replace the DRL unit.

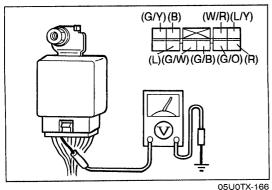
#### Step 3

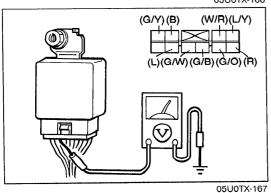
- 1. Remove the column cover and disconnect the connectors of the headlight switch.
- 2. Check continuity between the terminals of the headlight switch connector.

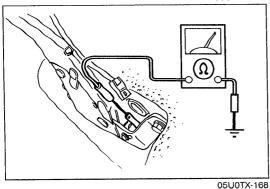
Position	Terminal		
Position	BTN TNS	TNS	
Headlight switch ON	0	0	
Headlight switch OFF			

O-O: Indicates continuity

- 3. If not as specified, replace the headlight switch.
- 4. If correct repair wire (W/R). (Headlight switch DRL unit)







#### Step 4

- 1. Turn on the ignition switch.
- 2. Turn on the headlight switch.
- 3. Check the voltage at the following terminal-wires of the DRL unit connector.

Wire	Voltage
(G/B)	Cycles 12V and 0V
(G/W)	Cycles 12V and 0V

- 4. If not as specified, repair the wire harness. (Turn and hazard warning flasher unit — DRL unit)
- 5. If correct, replace the DRL unit.

#### Step 5

- 1. Turn on the ignition switch.
- 2. Pull the parking brake lever more than one notch.
- 3. Check the voltage at terminal-wire (R) of the DRL unit connector.

Wire	Voltage
. (R)	0V

- 4. If not as specified, go to Step 6.
- 5. If correct, replace the DRL unit.

#### Step 6

- 1. Disconnect the parking brake switch connector.
- 2. Check continuity between the terminal of the switch and a body ground.

Parking brake lever	Continuity
Pulled one notch	Yes
Released	No

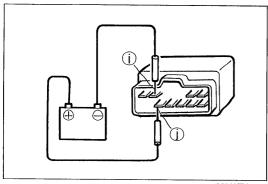
- 3. If not as specified, adjust or replace the parking brake switch.
- 4. If correct, repair wires (R) and (L/Y). (Parking brake switch — DRL unit)

#### Removal / Installation

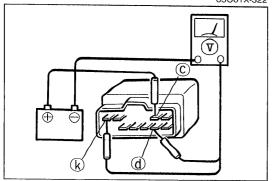
Refer to the following pages:

ltem	Reference page	
Headlight switch (in combination switch)	T-23	
Hazard warning switch	T-25	
Turn signal switch (in combination switch)	T-23	
Daytime running lights (Front turn signal lights)	T-69	

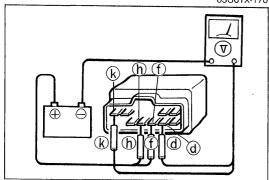
05U0TX-169



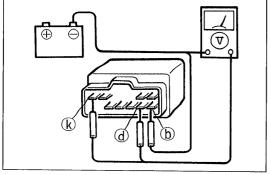
05U0TX-322



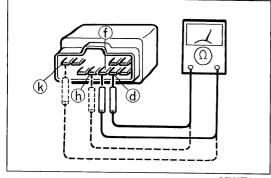
05U0TX-170



05U0TX-171



05U0TX-172



05U0TX-173

#### Inspection DRL unit

#### Note

- While performing the following inspection, apply 12V to terminal j and ground terminal i.
- 1. Apply 12V to terminal c, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

- 2. If not as specified, replace the DRL unit.
- 3. Remove 12V from terminal c.
- 4. Apply 12V to terminals f and h, and measure the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

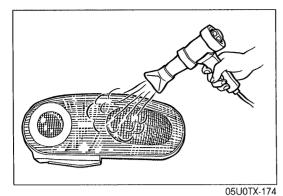
- 5. If not as specified, replace the DRL unit.
- 6. Remove 12V from terminals f and h.
- 7. Ground terminal b, and check the voltage at terminals d and k.

Terminal	Voltage
d	12V
k	12V

- 8. If not as specified, replace the DRL unit.
- 9. Check for continuity between terminals of the DRL unit.

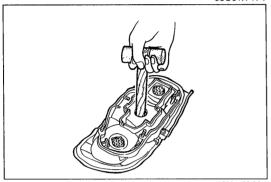
Terminal	Continuity
df	Yes
h—k	Yes

10. If not as specified, replace the DRL unit.

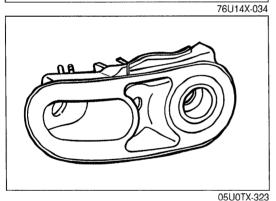


# REAR COMBINATION LIGHT LENS Replacement of Rear Combination Light Lens

1. Use a hot air blower to soften the "hot melt" (bonding agent) around the lens.



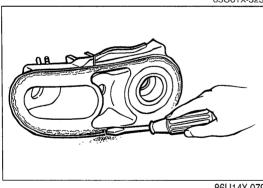
2. Remove the lens from the light housing by pushing the rear of the lens with a hammer handle or round bar.



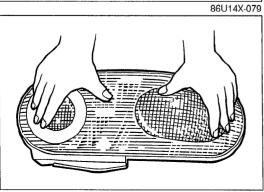
3. Heat the light housing, and remove the "hot melt" and any fragments of the lens.

#### Note

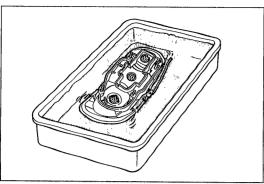
- The "hot melt" should be reused if possible.
- If the "hot melt" can be reused, the Step 4 is unnecessary.



4. Put **Uni-sealer** (8531 77 739) adhesive in the light housing groove.



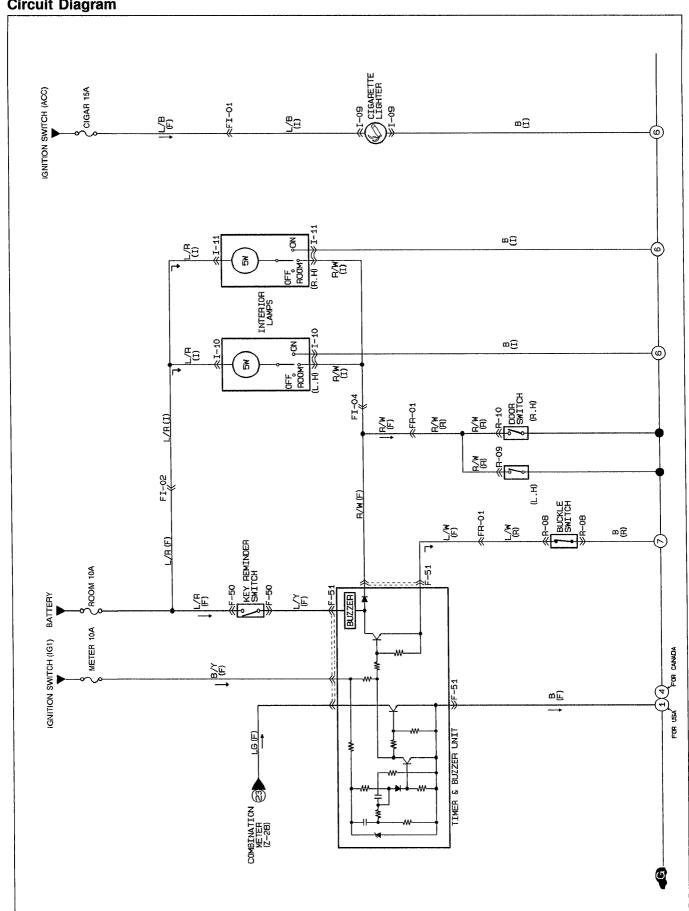
5. Fit the new lens onto the light housing. Press the lens firmly so that it will adhere.



76U14X-038

6. Immerse the combination light in water to check for leaks.

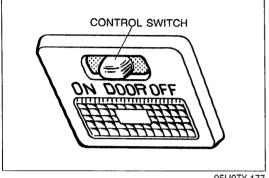
# INTERIOR LAMPS Circuit Diagram



#### **Troubleshooting**

#### Symptom: Interior lamp(s) do not illuminate.

05U0TX-176



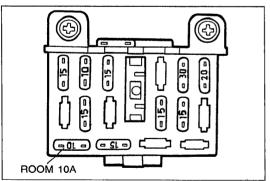
Step 1

Verify the trouble symptom by operating the control switch and opening the doors. Go to the specified Step.

05U0TX-177

Symptom	Go to
Interior lamp(s) do not illuminate when control switches are in any position	Step 2
Interior lamp(s) illuminate when control switches are in ON position, but do not illuminate with door open when switches are in DOOR position	Step 5
Interior lamp(s) illuminate when control switches are in DOOR position, but do not illuminate when switches are in ON position	Step 7

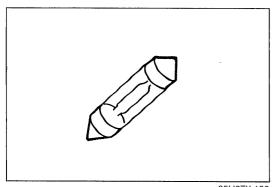
05U0TX-178

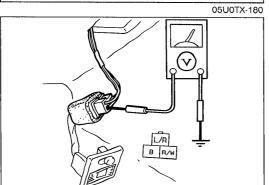


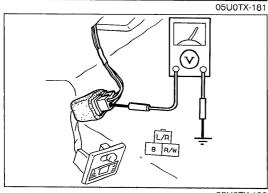
05U0TX-179

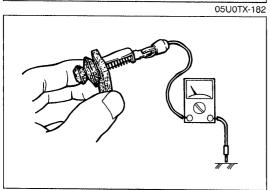
#### Step 2

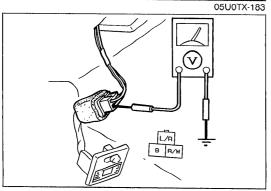
- 1. Check the ROOM 10A fuse.
- 2. If the fuse is burned, replace it. Check and repair the wire harness if necessary.
- 3. If the fuse is OK, go to Step 3.











05U0TX-184

#### Step 3

- 1. Check the bulb of each lamp.
- 2. If a bulb is burned, replace it.
- 3. If the bulbs are OK, go to Step 4.

### Step 4

- 1. Set the control switches to ON position.
- 2. Measure the voltage at the following terminal-wires of each interior lamp connector.

Wire	Voltage	Action
	12V	Next check wire (B)
(L/R)	0V	Repair wire (L/R) (ROOM 10A fuse—Interior lamp)
(B)	12V	Repair wire (B) (Interior lamp—Body ground)
	OV	Replace interior lamp assembly

#### · Step 5

- 1. Open both doors, and set the control switches to DOOR position.
- 2. Measure the voltage at terminal-wire (R/W) of each interior lamp connector.

Wire	Voltage	Action
(R/W)	12V	Go to Step 6
(H/VV) OV	Replace interior lamp assembly	

#### Step 6

1. Disconnect the door switch connector, and check continuity of each switch.

Switch	Continuity
Pushed	No
Released	Yes

- 2. If not as specified, replace the door switch.
- 3. If the switches are OK, repair wire (R/W). (Interior lamp-Door switch)

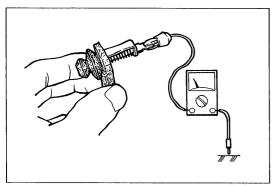
#### Step 7

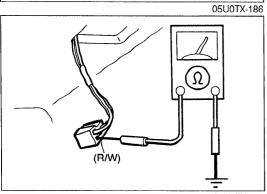
- 1. Set the control switches to ON position.
- 2. Measure the voltage at terminal-wire (B) of the interior lamp connector.

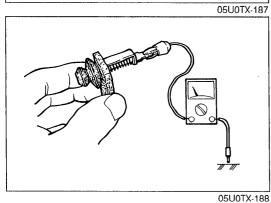
Wire	Voltage	Action
(B)	12V	Repair wire (B) (Interior lamp—Body ground)
	0\	Replace interior lamp assembly

Symptom: Interior lamp(s) remains illuminated with doors closed. (Control switch: DOOR position)

05U0TX-185







Step 1

1. Disconnect the door switch connectors, and check continuity of each switch as shown.

Switch	Continuity
Pushed .	No
Released	Yes

- 2. If not as specified, replace the door switch.
- 3. If the switches are OK go to Step 2.

#### Step 2

- 1. Close both doors.
- 2. Disconnect the interior lamp connectors, and check continuity between terminal-wire (R/W) and a body ground.

Wire	Continuity	Action
(R/W)-Body ground	round Yes	Repair wire (R/W) (Interior lamp—Door switch)
	No	Replace interior lamp assembly

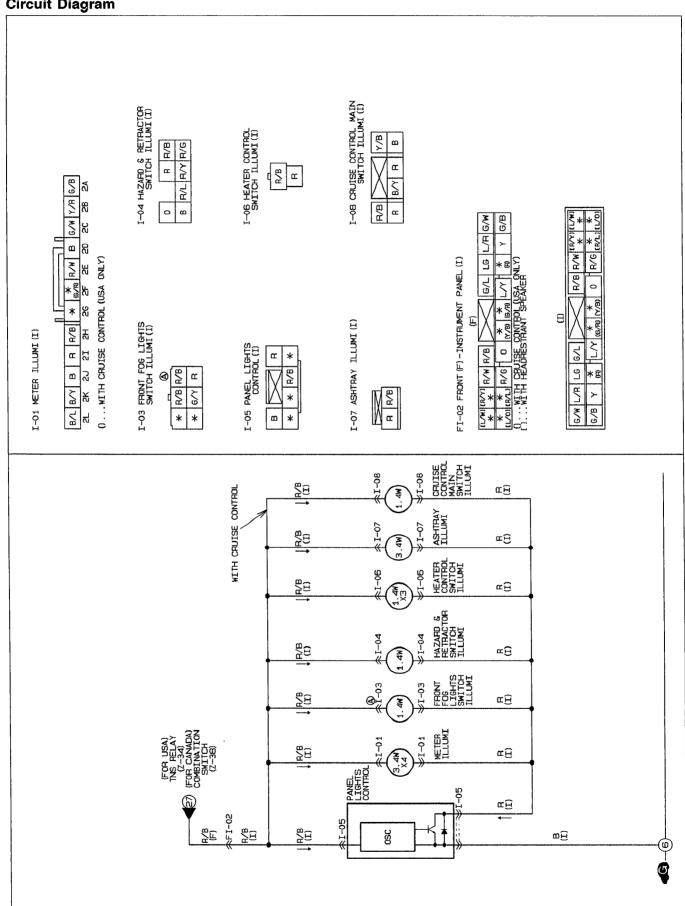
# Inspection Door switch

1. Disconnect the door switch connector, and check continuity of the switch as shown.

Switch	Continuity
Pushed	No
Released	Yes

2. If not as specified, replace the door switch.

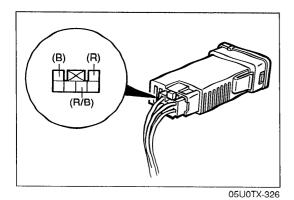
#### ILLUMINATION LAMPS Circuit Diagram



#### **Troubleshooting**

#### Symptom: Illumination lamp control does not operate.

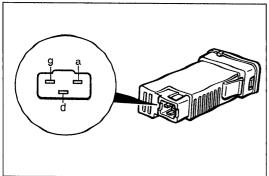
05U0TX-325



#### Remady

- 1. Turn the headlight switch ON.
- 2. Set the panel lamp control switch to Max. position.
- 3. Measure the voltage at the following terminal wires of the panel lamp control switch connector.

Wire	Voltage	Action		
(B)	٥V	Next check wire (R/B)		
	Other 0V	Repair wire (B) (Panel lamp control switch — Body ground)		
(R/B)	12V	Next check wire (R)		
	OV	Repair wire (R/B) (TAIL 15A fuse — Panel lamp control switch)		
(R)	OV	Repair wiring harness (Panel lamp control switch — Each lamp)		
	Other 0V	Replace panel lamp control switch		



05U0TX-327

# Inspection

# Panel lamp control switch

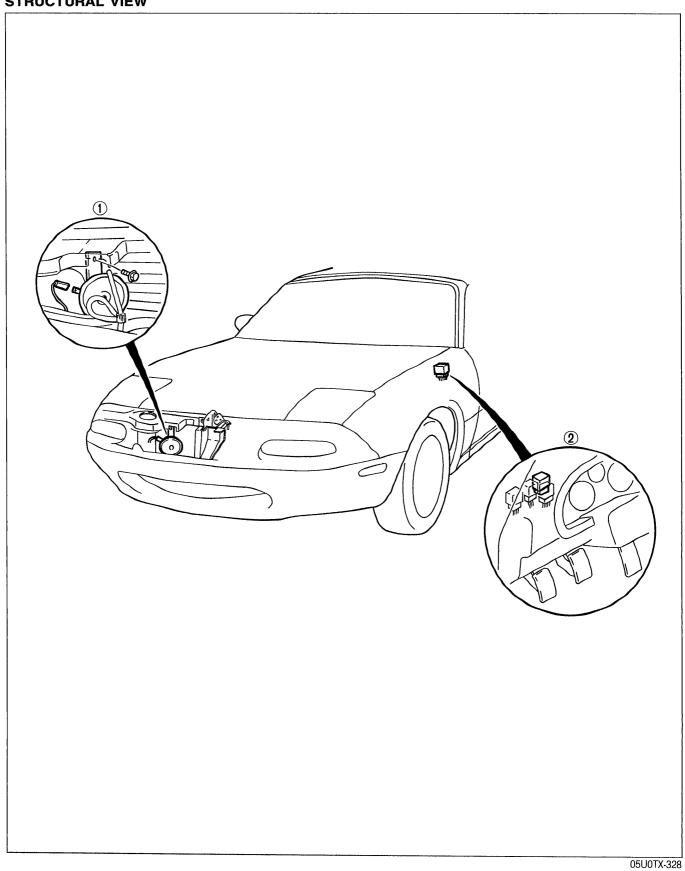
- 1. Remove the panel lamp control switch.
- 2. Apply 12V to terminal d and ground terminal g.
- 3. Check that the voltage at terminal a changes linealy when turning the control switch.

Switch	Voltage	
Min. position	10V	
Max. position	OV	

4. If not as specified, replace the panel lamp control switch.

# **HORN**

# STRUCTURAL VIEW

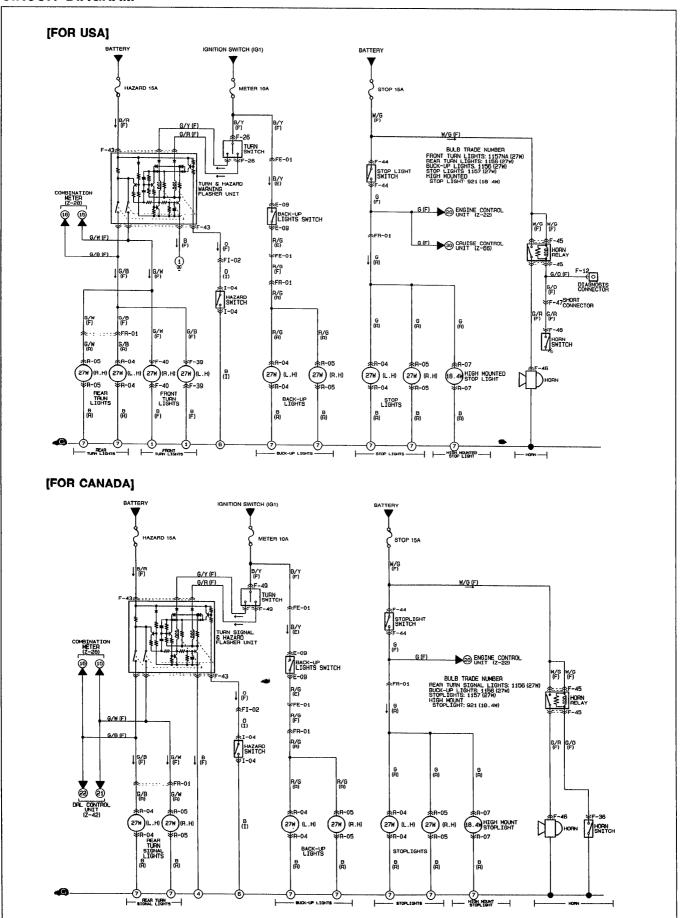


1. Horn

2. Horn relay

3. Horn switch

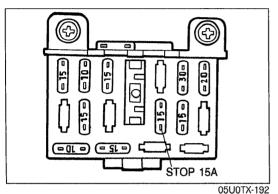
#### **CIRCUIT DIAGRAM**



#### **TROUBLESHOOTING**

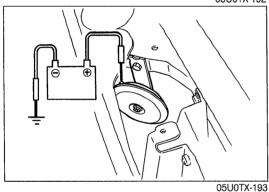
#### Symptom: Horn does not sound.

05U0TX-191



Step 1

- 1. Check the STOP 15A fuse.
- 2. If the fuse is burned, replace it. Check and repair the wire harness, if necessary.
- 3. If the fuse is OK, go to Step 2.

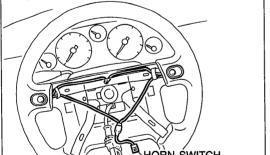




- 1. Disconnect the horn connector.
- 2. Apply 12V to the horn, and check if the horn sounds.
- 3. If the horn sounds, go to Step 3.
- 4. If the horn does not sound, replace the horn.

### Step 3

- 1. Remove the knee protector.
- 2. Ground the terminal wire (G/O) of the horn relay connector.
- 3. If the horn sounds, go to Step 4.
- 4. If the horn does not sound, go to Step 6.



# Step 4

U.S. spec.

#### Warning

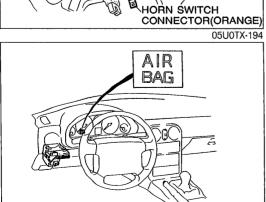
- Before removal of the air bag module, the negative battery cable must be disconnected to prevent accidentaly deployment.
- 1. Remove the air bag module. (Refer to page T-150.)
- 2. Check continuity between the terminal of the horn switch connector and the steering shaft.

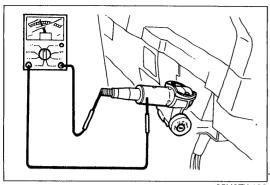
Horn switch	Continuity
ON	Yes
OFF	No

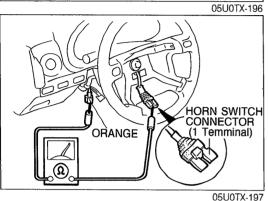
- 3. If not as specified, replace the horn switch and steering wheel as an assembly.
- 4. If correct, go to Step 5.

Warning

 After installing of the air bag module, verify that the air bag system is operating normally by monitoring the air bag warning lamp. (Refer to page T-138.)







Canada spec.

- 1. Remove the steering shaft.
- 2. Check continuity between the horn conductor plate and the serration gear part.

Horn switch	Continuity	
ON	Yes	
OFF	No	

- 3. If not as specified, replace the horn switch and steering wheel as an assembly.
- 4. If correct, repair wire (G/O) (Horn relay horn switch).

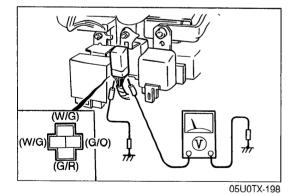
#### Step 5

- 1. Remove the knee protector.
- 2. Disconnect the clock spring connector.
- 3. Check continuity of the clock spring connector as shown in the figure.

Continuity	Action
Yes	Repair wire (G/O) (Horn relay — Clock spring connector)
No	Replace combination switch assembly

#### Warning

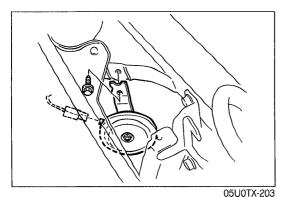
 After installation of the air bag module, verify that the air bag system is operating normally by monitoring the air bag warning lamp. (Refer to page T-138.)



Step 6

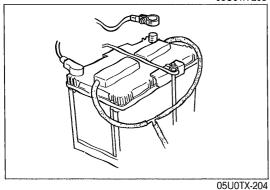
- 1. Ground the terminal wire (G/O) of the horn relay connector.
- 2. Measure the voltage at the following terminal wires of the horn relay connector.

Wire	Voltage	Action		
(G/W)	12V	Next check wire (G/W) of terminal D		
Terminal A	٥V	Repair wire (G/W) (STOP 15A fuse — Horn relay)		
(G/W)	12V	Next check wire (G/R)		
Terminal D	OV	Repair wire (G/W) (STOP 15A fuse — Horn relay)		
(G/R)	12V	Repair wire (G/R)		
		(Horn relay — Horn)		
	V	Replace horn relay		



# REMOVAL / INSTALLATION Horn Remove and install as shown

Remove and install as shown in the figure.



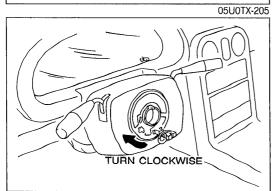
Horn Switch U.S. spec.

Warning

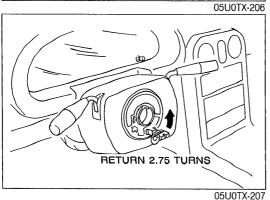
- Before removal of the air bag module, the negative battery cable must be disconnected to prevent accidental deployment of the air bag.
- 1. Disconnect the negative battery cable.
- 2. Remove the air bag module, then remove the steering wheel assembly.

Warning

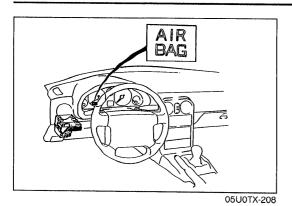
- When carrying an air bag module, make sure the trim cover is pointed away from your body to prevent injury in the event of an accidental deployment.
- When placing an air bag module on any surface place it with the trim cover upward. This will reduce the motion of the module if it is accidentally deployed.



- 3. Before installation of the steering wheel reset the clock spring connector as follows:
  - (1) Set the front wheels straight ahead.
  - (2) Turn the clock spring connector clockwise until it stops.
  - (3) Return 2.75 turns.



(4) Align the marks (counterclockwise) on the clock spring connector and the outer hausing.



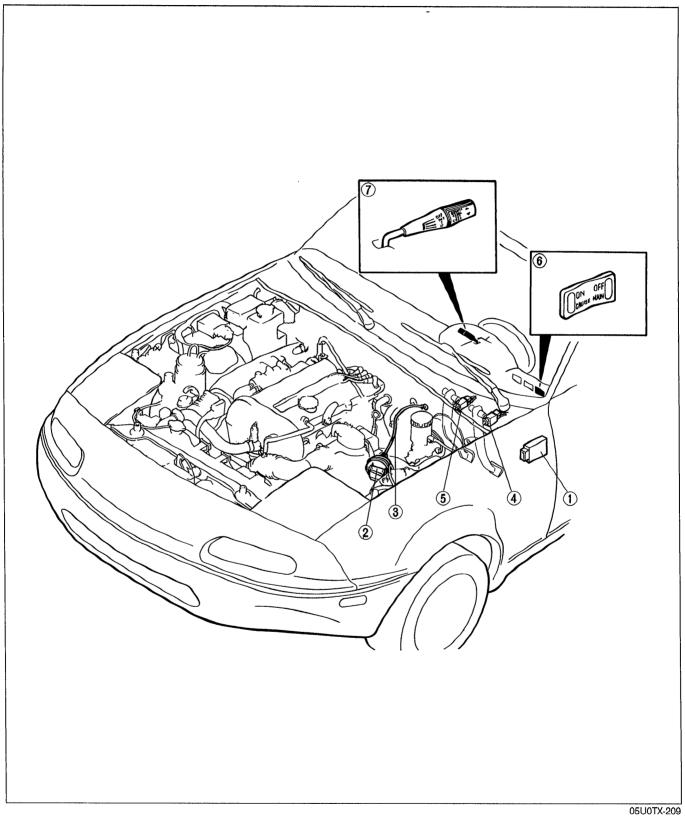
4. Install the steering wheel and the air bag module.

Warning

 After installation of the air bag module, verify that the air bag system is operating normally by monitoring the air bag warning lamp. (Refer to page T-138.)

# **CRUISE CONTROL SYSTEM**

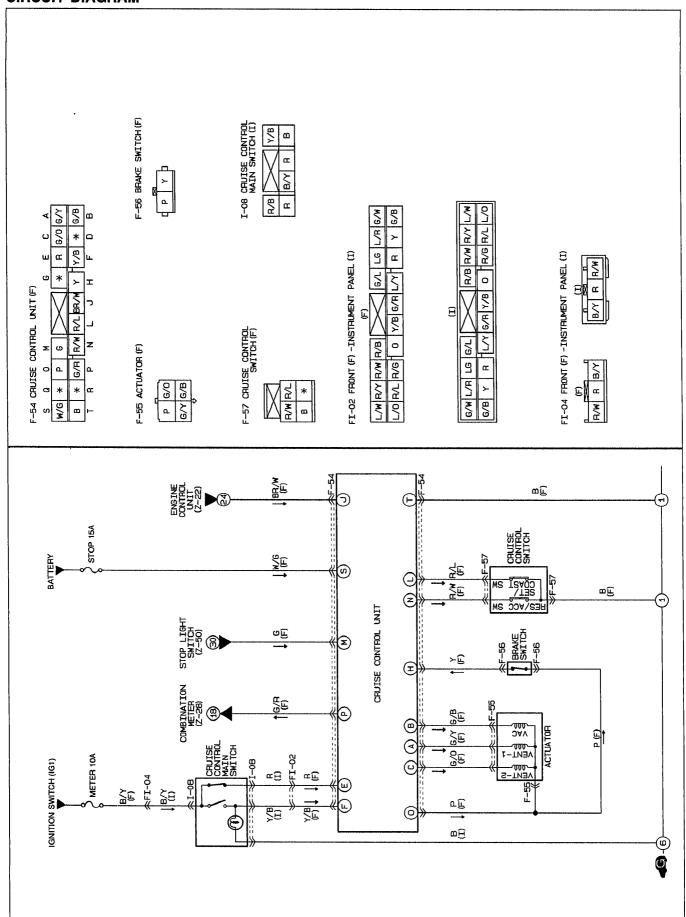
# STRUCTURAL VIEW



- 1. Cruise control unit
- 2. Actuator
- 3. Actuator cable
- 4. Clutch switch

- 5. Brake switch
- 6. Cruise control main switch
- 7. Cruise control switch

#### **CIRCUIT DIAGRAM**



#### **TROUBLESHOOTING**

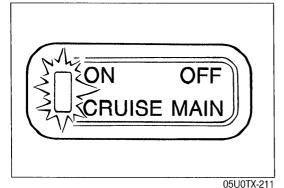
Symptom: Vehicle speed cannot be set. (Cruise control unit will not hold vehicle speed.)

#### Note

- Before troubleshooting of the system, verify the following items:
  - 1. Is system being correctly used by customer?
  - 2. Is fuse OK?

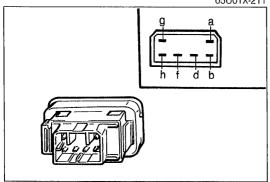
Check the fuse. If the fuse is burned, replace it. Check the wire harness for a short circuit.

05LI0TX-330



#### Step 1

- 1. Turn the ignition switch ON.
- 2. Turn the cruise control main switch ON.
- 3. Check that the main switch indicator lamp comes ON.
- 4. If the lamp does not come ON, go to Step 2.
- 5. If the lamp comes ON, go to Step 3.



#### Step 2

1. Check continuity between terminals of the cruise control main switch.

Position	Terminals					
1 Osition	а	b	d	f	g	h
Neutral			0	9	0	0
Off					0-	-0
On	0-	0-	-0-	- - -	0	<del>-</del> 0

- O----O: Indicates continuity
- 2. If not as specified, replace the switch.
- 3. If the switch is OK, repair the wire harness.

  (METER 10A fuse Cruise control main switch Ground)

#### Step 3

- 1. Measure the voltage at the following terminal-wires of the cruise control unit connector.
- 2. If all terminal voltage are OK, replace the cruise control unit.

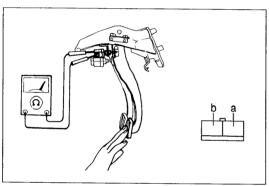
05U0TX-2	12
(B) (G/A) (R/W) (R/L) (BR/W) (Y) (Y/B) (G/B)	
05U0TX-2	13

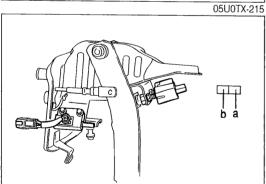
Terminal	Wire color	Connected to	Test condition	Specification	Action
а	(G/X)	Actuator	Main switch off	0V	
a	(G/Y)		Main switch on	9V	
b	(G/B)	Actuator	Main switch off	OV	Co to Store O
	(G/D)	Actuator -	Main switch on	9V	Go to Step 8
C	(G/O)	Actuator	Main switch off	OV	
			Main switch on	9V	
e	(R)	Main switch	Main switch off	12V	Repair wire (R)
	(11)	i iviaii switori	Main switch off	OV	(Main switch—Cruise control unit)
l f	(Y/B)	Y/B) Main switch	Main switch off	0V	Repair wire (Y/B)
<u>'</u>			Main switch on	12V	(Main switch—Cruise control unit)

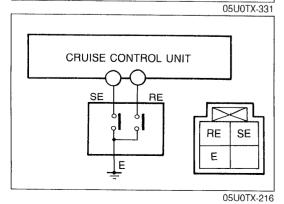
#### (cont'd)

Terminal	Wire color	Connected to	Test condition	Specification	Action
h	h (Y)	Brake switch	Brake pedal depressed	OV	Co to Stop 4
(1)		Brake pedal released	9V	Go to Step 4	
j ,	(BR/W)	Clutch switch	Clutch pedal depressed	OV	Co to Ctor F
J	(51777)	——————————————————————————————————————	Clutch pedal released	12V	Go to Step 5
	-	Cruise control switch	Máin switch ON	12V	
	(R/L)	(Set switch and coast switch)	While pushing set switch after main switch ON	OV	Go to Step 6
m	m (G)	Stoplight switch	Brake pedal depressed	12V	0-1-01-7
	(G)		Brake pedal released	OV	Go to Step 7
	Cruise control switch	Main switch ON	12V		
n	(R/W)	(Resume switch and accel switch)	While pushing resume switch after main switch ON	OV	Go to Step 6
0	(P)	Actuator	Main switch OFF	0V	0-1-0-0
	(1)	/ lotator	Main switch ON	9V	Go to Step 8
р	(G/R)	Speed sensor	While rotating rear tires	Run out between 0—5V	Go to Step 9
S	(W/G)	Battery	Constant	12V	Repair wire (W/G)

05U0TX-214







# Step 4 — Inspection of brake switch

- 1. Disconnect the brake switch connector.
- 2. Check continuity between terminals of the switch.

Pedal position	Terminal		
- Cdar position	а	b	
Pedal released	0		
Pedal depressed			

O-O: Indicates continuity

- 3. If not as specified, replace the brake switch.
- 4. If the switch is OK, repair the wire harness. (Fuse Brake switch Control unit)

### Step 5 — Inspection of clutch switch

- 1. Disconnect the clutch switch connector.
- 2. Check continuity between terminals of the switch.

Pedal position	Terminal		
	а	b	
Pedal released			
Pedal depressed	0		

O----O: Indicates continuity

- 3. If not as specified, replace the clutch switch.
- 4. If the switch is OK, repair the wire harness (Fuse Clutch switch Control unit).

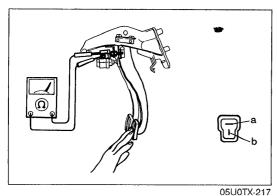
### Step 6 — Inspection of cruise control switch

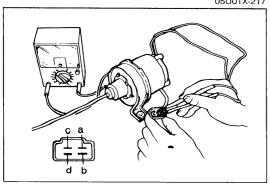
- 1. Remove the knee protector and disconnect the combination switch connector.
- 2. Check continuity between terminals of the combination switch connector.

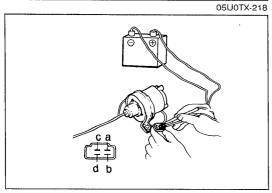
Switch	Terminal			
OWILCIT	SE	RE	E	
SET/COAST	0			
RESUME/ACCEL		0-		

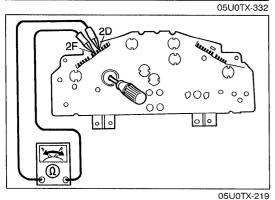
O----O: Indicates continuity

- 3. If not as specified, replace the cruise control switch.
- 4. If the switch is OK, repair the wire harness. (Cruise control switch Control unit)









#### Step 7 — Inspection of stoplight switch

1. Disconnect the stoplight switch.

2. Check continuity between terminals of the switch.

Pedal position	Terminal		
r edai position	а	b	
Pedal released			
Pedal depressed	0		

- 3. If not as specified, replace the stoplight switch.
- 4. If the siwtch is OK, repair the wire harness. (Cruise control unit Stoplight switch)

#### Step 8 — Inspection of actuator

1. Measure the actuator solenoid resistance using an ohmmeter.

Check terminals	Resistance		
c — a	Approx. 25 to $55\Omega$		
c — b			
c — d			

- 2. If not as specified, replace the actuator.
- 3. If continuity is OK, go to Step 8-4.
- 4. Disconnect the actuator cable from the accelerator pedal.
- 5. Run the engine at idle speed.

6. Apply 12V to the following terminals, and check actuator operation.

Order	Terminal condition			Operation of	
	а	b	С	d	control cable
1	Ground	Ground	Power	Ground	Pull
2	Ground	_	Power	Ground	Hold
3	Ground		Power		Extend
4					Release

7. If not as specified, replace the actuator.

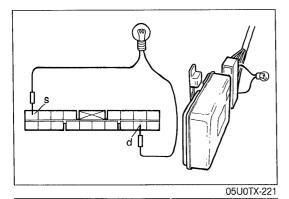
#### Step 9 — Inspection of speed sensor

- 1. Remove the instrument cluster.
- 2. Check continuity between terminals 2D and 2F while rotating the speedometer cable.
- 3. If there are not four pulses per shaft rotation, replace the speed sensor. (Refer to page T-33.)
- 4. If there are four pulses per rotation, check the wire harness (Instrument cluster Control unit).
- 5. If the wiring is OK, replace the cruise control unit.

#### INSPECTION OF CRUISE CONTROL SYSTEM USING SELF-DIAGNOSTIC FUNCTION

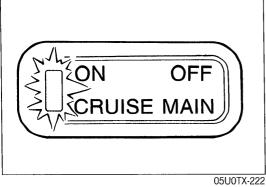
Inspection of the cruise control system may also be done by using the self-diagnostic function integrated in the control unit and using a test light.

05U0TX-220



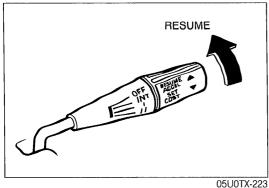
**Preparation** 

- 1. Disconnect the cruise control unit connector.
- 2. Connect a test light between terminals d and s of the cruise control unit connector as shown.
- 3. Reconnect the cruise control unit connector.

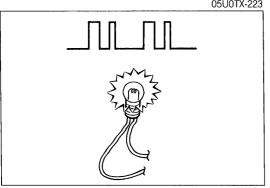


Inspection

- 1. Turn the ignition switch ON.
- 2. Turn the cruise main switch ON.



- 3. Turn the cruise control switch to RESUME and hold it more than 3 seconds.
- 4. Release the switch.
- 5. The self-diagnostic function is now activated.



- 6. Read out and record the condition and operation code number(s) of the test light. (Refer to page T-104.)
- 7. Turn the main switch OFF to deactivate the self-diagnostic function. (The self-diagnostic function will also be canceled if the vehicle is driven at over 16 km/h (10mph)).
- 8. Check the system as per the results of the self-diagnostic test.

05U0TX-224

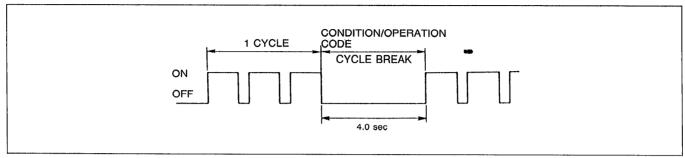
Principle of code cycle

Condition and operation codes are determined by flashing of the CRUISE indicator as shown below.

05U0TX-225

#### 1. Code cycle break

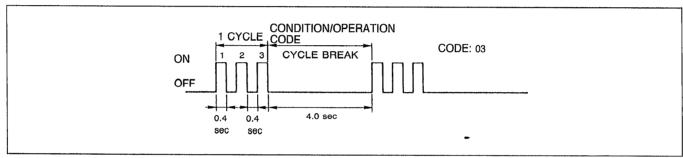
The time between condition/operation code cycles is 4.0 seconds (the time the lamp is off).



97U0TX-188

### 2. Second digit of condition/operation code (ones position)

The digit in the ones position of the condition/operation code represents the number of times the lamp is on 0.4 second during one cycle.

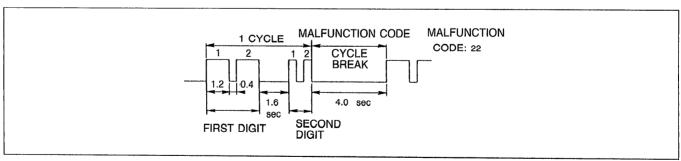


97U0TX-189

### 3. First digit of condition/operation code (tens position)

The digit in the tens position of the condition/operation code represents the number of times the lamp is on 1.2 seconds during one cycle.

The lamp remains off for 1.6 seconds between the long and short flashes.



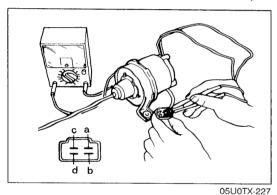
#### Condition/operation code numbers

The test light will flash if a malfunction is present.

	Pattern of output signal (CRUISE indicator lamp)	Code No.	Possible Cause	Action
ON OFF		01	Defective wiring or ground Defective actuator Defective brake switch	Repair harness Inspect actuator (See below)
ON OFF.		05	STOP 15A fuse blown	Replace fuse
ON OFF		07	Both stoplight switch and brake switch (for vehicle and cruise) are ON simultaneously	Inspect stoplight switch and brake switch (Refer to pages T-61 and T-107)
ON OFF		11	Defective cruise control switch	Inspect cruise control switch (Refer to page T-107)
ON OFF		15	Defective cruise control unit	Go to troubleshooting (Refer to page T-99)

Note

If there is more than one malfunction, the code numbers will be indicated in numerical order lowest number first.



#### **ACTUATOR** Inspection

1. Measure the actuator solenoid resistance using an ohmmeter.

05U0TX-226

Check terminals	Resistance
c — a	
c — b	Approx. 25 to $55\Omega$
c — d	

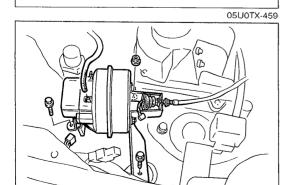
- 2. If not as specified, replace the actuator.
- 3. Disconnect the actuator cable from the accelerator pedal.
- 4. Run the engine at idle speed.
- 5. Apply battery voltage to the following terminals, and check the actuator operation.

Order	Terminal condition				Operation of
Order	а	b	C	d	control cable
1	Ground	Ground	Power	Ground	Pull
2	Ground	_	Power	Ground	Hold
3	Ground		Power	_	Extend
4		_			Release

1. Disconnect the accelerator cable and vacuum hose from

6. If not as specified, replace the actuator.

2. Remove the bolt and nuts and the actuator.

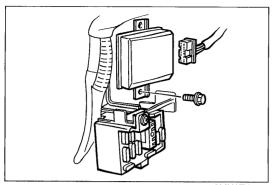


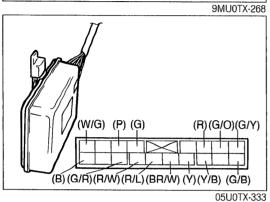
Install in the reverse order of removal.

Removal

the actuator.

Installation





#### **CRUISE CONTROL UNIT** Removal

- Remove the passenger side kick panel.
   Remove the nut and the control unit.

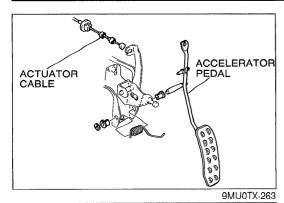
#### Installation

Install in the reverse order of removal.

#### Inspection

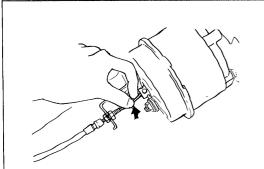
- Check the terminal voltages of the control unit.
   If the terminal voltages are correct, replace the control unit.

Terminal	Wire color	Connected to	Test condition	Specification	Action
a	(G/Y)	Actuator	Main switch OFF	OV	
a	(G/1)	Actuator	Main switch ON	9V	
b	b (G/B)	3) Actuator -	Main switch OFF	OV	Check actuator
D	(G/B)	Actuator	Main switch ON	9V	(Refer to page T-104)
С	(G/O)	Actuator	Main switch OFF	OV	
C	(G/O)	Actuator	Main switch ON	9V	
e	(R)	Main switch	Main switch OFF	12V	
	(11)	IVIAITI SWILCIT	Main switch ON	OV	Check main switch
f	(Y/B)	Main switch	Main switch OFF	OV	(Refer to page T-107)
I	(170)	Main Switch	Main switch ON	12V	
h	(Y)	Brake switch	Brake pedal depressed	OV	Check brake switch
	(')	Diake switch	Brake pedal released	9V	(Refer to page T-107)
j	(BR/W)	Clutch switch	Clutch pedal depressed	OV	Check clutch switch
, ,	(51777)	Oldion Switch	Clutch pedal released	12V	(Refer to page T-106)
	•	Cruise control switch	Main switch ON	12V	Observation and the state of th
l	(R/L)	(Set switch and . Coast switch)	While pushing set switch Main switch ON	ov	Check cruise control switch (Refer to page T-107)
l m	(G)	Stoplight switch	Brake pedal depressed	12V	Check stoplight switch
111	(G)	Stoplight switch	Brake pedal released	0V	(Refer to page T-61)
		Cruise control switch	Main switch ON	12V	
n	(R/W)	(Resume switch and Accel switch)	While pushing resume switch Main switch ON	0V	Check cruise control switch (Refer to page T-107)
0	/D\	Actuator	Main switch OFF	OV	Check actuator
	(P)	/ lotatol	Main switch ON	9V	(Refer to page T-104)
р	(G/R)	Speed sensor	While rotating rear tires	Cycles 0—5V	Check speed sensor (Refer to page T-107)
s	(W/G)	Battery	Constant	12V	Repair wire



#### **ACTUATOR CABLE** Removal

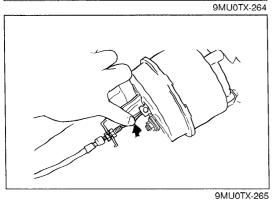
- 1. Disconnect the actuator cable from the accelerator pedal.
- 2. Remove the clamp at the inside of the firewall.



- 3. Disconnect the actuator cable from the actuator.
- 4. Remove the clamps and the actuator cable.

#### Installation

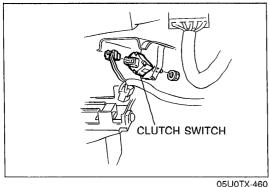
Install in the reverse order of removal.



#### Adjustment

Remove the clamp and adjust the nut so that actuator cable free play is as shown when the cable is pressed lightly.

Cable play: 1-3mm (0.04-0.12 in)



#### **CLUTCH SWITCH** Removal

Loosen the locknut and remove the switch.

#### Installation

Install in the reverse order of removal.

#### Adjustment

Adjust the switch to set the specified pedal height.

Pedal height: 175—185mm (6.89—7.82 in) Pedal freeplay: 0.6—3.1mm (0.02—0.12 in)

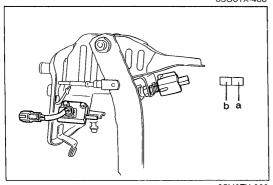


- 1. Disconnect the clutch switch connector.
- 2. Check continuity between terminals of the switch.

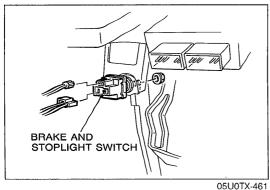
Pedal position	Terminal		
Fedal position	а	b	
Pedal released			
Pedal depressed	0	0	

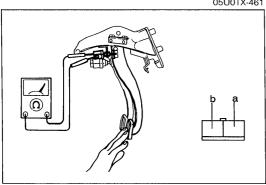
O----O: Indicates continuity

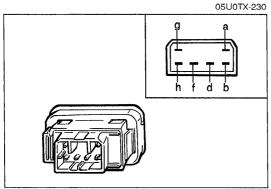
3. If not as specified, replace the clutch switch.

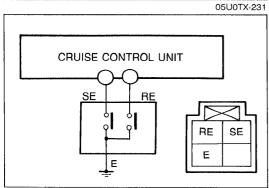


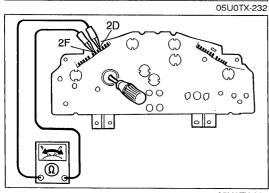
05U0TX-229











05U0TX-233

#### **BRAKE SWITCH**

#### Removal

Loosen the locknut and remove the switch.

#### Installation

Install in the reverse order of removal.

#### Adjustment

Adjust the switch to set the specified pedal height.

Pedal height: 171—181mm (6.93—7.13 in) Pedal free play: 4—7mm (0.16—0.28 in)

#### Inspection

- 1. Disconnect the brake switch connector.
- 2. Check continuity between terminals of the switch.

Pedal position	Terminal		
l edai position	а	b	
Pedal released	0	<del></del> 0	
Pedal depressed			

O——O: Indicates continuity

- 3. If not as specified, replace the brake switch.
- 4. If the switch is OK, repair the wire harness (Fuse Brake switch Control unit).

# CRUISE CONTROL MAIN SWITCH Inspection

1. Check continuity between terminals of the cruise control main switch.

Position	Terminal					
FOSITION	а	b	d	f	g	h
Neutral			0	$\overline{}$	0-	-0
Off					0-	-0
On	0-	0	-0-	00	0	_0

O----O: Indicates continuity

2. If not as specified, replace the cruise control main switch.

# CRUISE CONTROL SWITCH Inspection

- 1. Remove the knee protector and disconnect the combination switch connector.
- 2. Check continuity between terminals of the combination switch connector.

Switch	Terminal			
Switch	SE	RE	E	
SET/COAST	0			
RESUME/ACCEL		0		

O: Indicates continuity

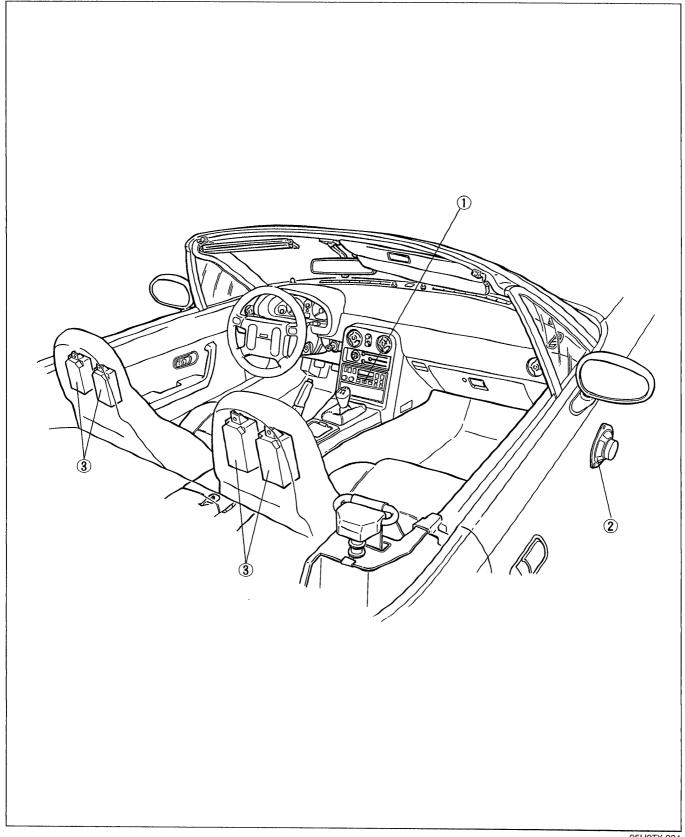
3. If not as specified, replace the cruise control switch.

# SPEED SENSOR Inspection

- 1. Remove the instrument cluster.
- 2. Check continuity between terminals 1L and 2A while rotating the speedometer cable.
- 3. If there are not four pulses per shaft rotation, replace the speed sensor. (Refer to page T-33.)

# **AUDIO**

# STRUCTURAL VIEW



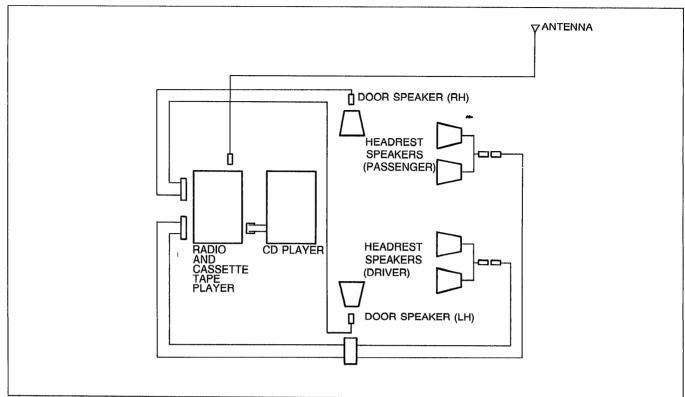
05U0TX-234

Audio unit
 Door speakers

3. Headrest speakers

T

#### SYSTEM DIAGRAM



05U0TX-235

#### **FEATURES**

This new audio system was developed especially for the Mazda MX-5 Miata. The main features are described below.

#### 1. Anti-theft System

To deter theft of the audio unit, the system is designed to accept a code number that makes the audio unit inoperable if it is removal from the vehicle and then reconnected without inputting the correct code number.

When the anti-theft system is activated, the unit will not operate and code will flash on the display until the correct code is input.

#### Caution

- If the vehicle's battery is disconnected, the anti-theft system is activated.
- Three consective errors in inputting a code number to a unit that has had the anti-theft system activated will render the unit completely inoperable. It must then be replaced.

#### 2. Headrest Speaker

Headrest speakers are available.

#### 3. Preset Memory

A total of 18 broadcasting stations on AM, FM1, and FM2 bands can be quickly and easily set.

#### 4. Automatic Memory

By using the automatic memory function, which is independent from the preset memory, station selections can be easily made in an area where the broadcasting station frequencies are not known.

#### 5. Clock

The clock display is incorporated within the audio display.

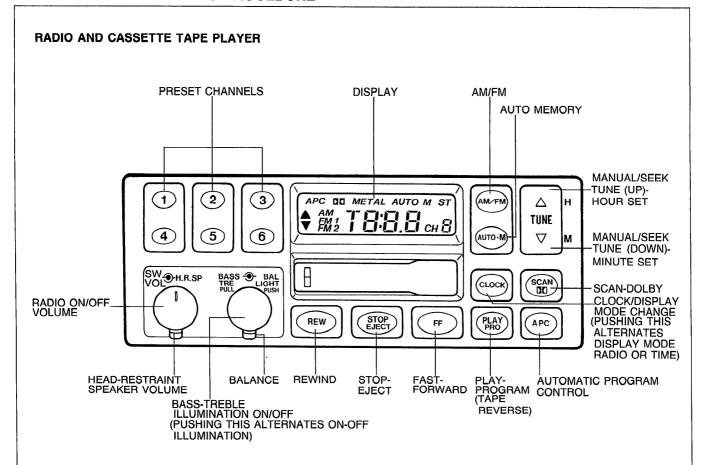
#### 6. Metal Tape Automatic Detection

The tape player automatically detects the use of metal tape and automatically internal adjustments for metal tape playback. The word "METAL" is shown on the display.

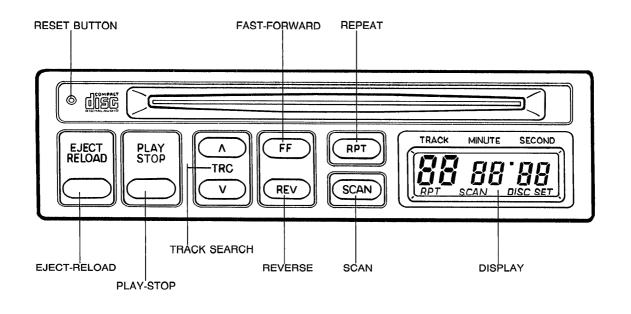
#### 7. Illumination Lamps

The unit's illumination can be switched ON or OFF as desired.

#### **FUNCTION AND OPERATING PROCEDURE**



#### **COMPACT DISC (CD) PLAYER**



#### Note

• Five seconds after completing an operation that is shown on the display, the indicator returns to clock mode.

#### Radio

Function	Operation and procedure	Display
To turn radio ON or OFF	<ul><li>Press VOLUME to turn ON</li><li>Press VOLUME again to turn OFF</li></ul>	AM, FM1, or FM2 and frequency will be displayed
To adjust volume	Turn VOLUME to adjust	
Treble control	<ul> <li>Pull BASS/TREBLE</li> <li>For more highs, turn BASS/TREBLE clockwise</li> <li>For less highs, turn BASS/TREBLE counterclockwise</li> </ul>	
Bass control	<ul> <li>Press BASS/TREBLE</li> <li>For more lows, turn BASS/TREBLE clockwise</li> <li>For less lows, turn BASS/TREBLE counterclockwise</li> </ul>	
Balance control	<ul> <li>To shift sound to left, turn BALANCE clockwise</li> <li>To shift sound to right, turn BALANCE counterclockwise</li> </ul>	
Headrest speaker control	To increase volume, turn H.R.SP clockwise	
Band selector	To chose either AM or FM, press AM/FM (Pressing AM/FM alternates AM, FM1 and FM2)	AM, FM1 or FM2 and frequency will be displayed
Manual tuning	<ul> <li>To manually tune station, press △ for higher frequency and press ▽ for lower frequency</li> </ul>	
Seek tuning	<ul> <li>To seek tune station, press △ or ∇ for more than one second</li> </ul>	
Scan tuning	<ul> <li>Press SCAN to automatically sample strong stations (Scanning stops at each station for about five seconds)</li> <li>To hold station, press SCAN again during five second interval</li> </ul>	
Channel preset tuning	To set frequency  To select band, press AM/FM  To set station, press one channel number, and hold it until beep is heard  To tune preset channel  Press desired channel preset button	
Auto memory tuning	To set frequency  • Press and hold AUTO M for about two seconds To tune automemory station  • Press and release AUTO M	

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# **Cassette Tape Player**

Function	Operation and procedure	Display
Playing/Stopping tape	<ul> <li>Insert cassette tape through cassette slot, open-edge to right (System automatically switches to tape operation)</li> <li>At end of tape, system will automatically reverse tape play</li> <li>To stop tape play during playback without ejecting it, press STOP/EJECT (Tape will be in pause mode)</li> <li>To restart tape play, press STOP/EJECT again</li> <li>To play tape directly from radio/compact disc mode, press PLAY/PRO (while tape is inserted)</li> </ul>	
Ejecting tape/Fast forward/ Rewind	<ul> <li>To eject tape, press STOP/EJECT</li> <li>To fast forward tape, push FF; to stop it, press STOP/EJECT or PLAY/PRO</li> <li>To rewind tape, press REW; to stop it, press STOP/EJECT or PLAY/PRO</li> </ul>	
APC (Automatic program control)	To search for beginning of present or next program, press APC then FF (for next program) or REW (for present)	

# Cassette Tape Player (cont'd)

Function	Operation and procedure	Display
Tape direction change	To change tape-playing direction, press PLAY/PRO	
Dolby B noise reduction	Press when using tape encoded with Dolby NR	

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# Compact Disc (CD) Player

#### Caution

• The CD player cannot play 8 cm (3.1 in) CDs. The smaller CD may dislodge from the adapter and damage the disc or the player. Use only standard 12 cm (4.7 in) CDs.

Function	Operation and procedure	Display
Disc insert	Push disc, label-side up, into slot. Auto-loading mechanism will take over to set disc and begin play	
	Note There will be short lapse of time between time disc is set and play begins. This is because period of time is necessary for disc player to read digital signal on disc. When CD is pressed while disc is being played, play will pause. Play will resume when CD is pressed again	
Stopping/Playing CD	<ul> <li>To stop CD play during playback without ejecting it, press PLAY/STOP (CD will be in pause mode)</li> <li>To start playing CD again, press PLAY/STOP again</li> <li>To play loaded CD directly from radio or tape mode, press PLAY/STOP</li> </ul>	
Ejecting/Reloading CD	To eject CD, press EJECT/RELOAD     To reload ejected CD, press EJECT/RELOAD again	
Fast forward/reverse	<ul><li>To fast forward program, press FF</li><li>To reverse program, press REW</li></ul>	
Repeat play	To listen to program repeatedly, press RPT during play of selection to be repeated	
Music scan	<ul><li>To scan play, press SCAN</li><li>To cancel scan play, press SCAN again</li></ul>	
Track search	<ul> <li>To search program tracks, press ∧ (for forward) or ∨ (for reverse)</li> </ul>	

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#### Clock

#### Note

The clock can be set while radio or tape/CD player is ON.

Function	Operation and procedure		
Time display	Time is normally displayed. Pushing CLOCK will automatically display current radio frequency or mode for approx. five seconds before reverting to time mode.		
Setting clock	To adjust time, press CLOCK for approx. two seconds, current time will flash To advance hours, press $\Delta$ , to advance minutes, press $\nabla$		
	Note if time is not adjusted while clock's current time is flashing (If neither $\triangle$ nor $\nabla$ is pressed) and CLOCK is pressed second time, minutes will be set to 00. If clock's current time setting is within latter part of hour (from 30 to 59 min) hour setting will automatically advance one hour.		
	To resume normal display, press CLOCK again		

#### **Anti-theft System**

#### Note

• The anti-theft system is activated if the electrical power source is ever disconnected from the audio unit. When the system is activated, the audio unit will not operate when reconnected to a power supply, and CODE will flash on the display unit the correct code number is input. If the anti-theft system is activated, reset the unit as described; refer to "If anti-theft system is activated".

**AUDIO** 

- The anti-theft system is activated in the following conditions:
  - 1. Negative battery cable is disconnected.
  - 2. Battery is discharged.

REW

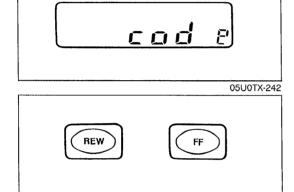
3. Audio unit connectors are disconnected.

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Setting procedure

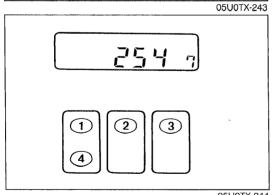
- 1. Turn the audio unit off with the ignition switch ACC.
- 2. Push REW and FF simultaneously for approximately 2 seconds until CODE is on the display.



3. Again push REW and FF while CODE is displayed (within 10 seconds). The display will exhibit bars.

#### Note

 Record the personal code number before attempting to input it.



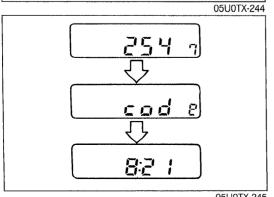
4. While the bars are displayed, input the personal code number by pressing preset channel buttons 1, 2, 3 and 4. Press 1 for the first digit, 2 for the second, 3 for the third, and 4 for the last digit.

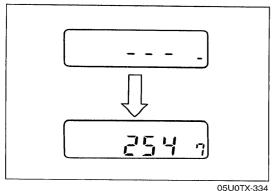
ex. Setting 2547

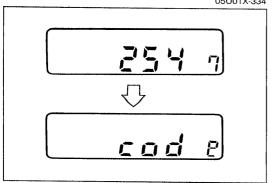
Press 1 three times, 2 six times. 3 five times and 4 eight times.

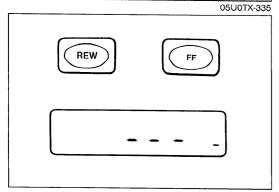
#### Note

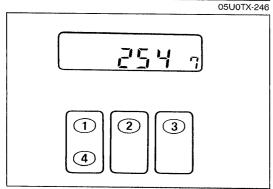
- If the display returns to time while inputing, begin from the Step 1.
- 5. With the code number is displayed, press REW and FF approximately 2 seconds until a beep is heard and CODE beain to flash.
- 6. After approximately 5 seconds, the display will change to time. This indicates the system is set.

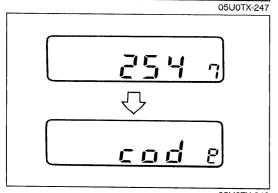












Canceling code number

1. Begin with the audio unit off and the ignition switch in ACC position (time displayed).

2. Press REW and FF simultaneously for approximately 2 seconds unit CODE is displayed and flashes.

3. Again press REW and FF while CODE is flashing (within 10 seconds). The display will exhibit bars.

4. While the bars are displayed, input the current code number as described in setting procedure Step 4. (2547, for example).

5. With the code number on the display, press REW and FF for approximately 2 seconds until a beep is heard and CODE appears.

After 5 seconds, CODE will disappear and the clock mode will appear. This indicates the code number is canceled.

#### Note

• If Err appears on the display, begin from Step 1.

#### If anti-theft system is activated

#### Note

 If the anti-theft system is activated, CODE appear on the display until previous code number is inputted.

#### To deactivable anti-theft system

1. Push REW and FF until bars are displayed.

2. While bars are displayed, input the code number as described in setting procedure.

3. Push REW and FF approximately 2 seconds until a beep is heard CODE is and displayed. CODE will flash for 5 seconds then disapears to indicate that the system is operable.4. If Err (error) appears, try again from Step 1.

#### Note

- Three consecutive error will activate the anti-theft system, and the audio unit will be completely inoperable.
- Have the audio unit changed at listed panasonic service Co.

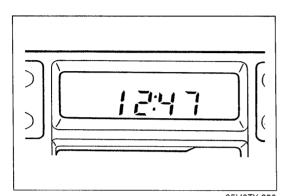
#### TROUBLESHOOTING

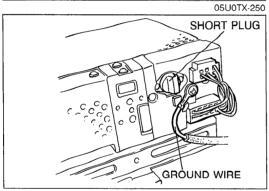
Symptom: Speaker(s) do not operate. (Without headrest speakers.)

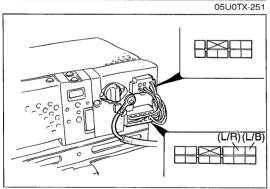
#### Note

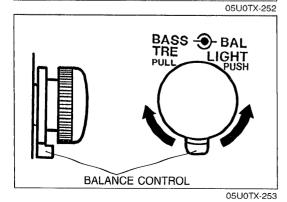
• Before troubleshooting, verify that the customer is using the audio system correctly. If not, advise or instruct in him/her the proper operating procedure. (Refer to page T-110.)

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Step 1

Check if the anti-theft system has been activated. Turn the ignition switch to ACC and note the display.

Display	Action
CODE flashes	Deactive anti-theft system (Refer to page T-114.) Note If CODE appears when ignition switch is turned to ACC from OFF go to Step 2.
Err flashes	Have audio unit changed at a Panasonic service company
Clock	Go to Step 4
No indication	Go to Step 2

#### Step 2

- 1. Remove the audio unit. (Refer to page T-126.)
- 2. Check the connections of the ground wire and the short plug.
- 3. If a connection is poor or loose, repair or replace it.
- 4. If the connections are OK, go to Step 3.

#### Step 3

- 1. Turn the ignition switch to ACC.
- 2. Measure the voltage at the following terminal-wires of the audio unit connector.

Wire	Voltage	Action		
12V		Next, check wire (L/R)		
(L/B) 0V	0V	Check CIGAR 15A fuse If CIGAR 15A fuse OK, repair wiring harness (CIGAR 15A fuse — Audio unit)		
	12V	Replace audio unit		
(L/R)	0V	Check ROOM 10A fuse If ROOM 10A fuse OK, repair wiring harness (ROOM 10A fuse — Audio unit)		

#### Step 4

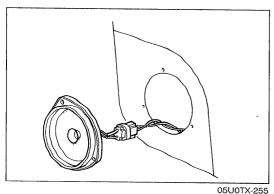
Locate the faulty speaker(s) by using the balance control.

- 1. Turn the ignition switch to ACC.
- 2. Play a prerecorded tape, and set the volume to the center position.
- 3. Set the balance control as shown in Table 1 (page T-116). Check operation of each speaker.
- 4. From results of Table 1 testing, go to the next step.

Table 1

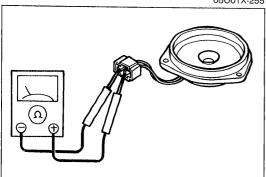
Speaker	Balance	Speaker operates	Judgement	Next Step
Left door	Left	Yes	Left door speaker circuit OK	
	LOIL	No	Left door speaker circuit faulty	Step 5
Right door	Right	Yes	Right door speaker circuit OK	
		No	Right door speaker circuit faulty	Step 5

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Step 5

- 1. Remove the faulty door speaker cover and speaker installation screws.
- 2. Check if the speaker is properly connected.
- 3. If necessary, repair or reconnect the connector.
- 4. If the connection is OK, go to Step 6.

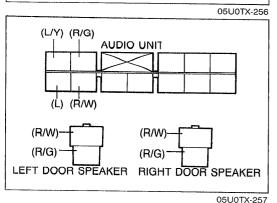


#### Step 6

- 1. Disconnect the connector from the suspected faulty speaker.
- 2. Measure resistance between terminals of the speaker.

### Resistance: $4\Omega$

- 3. If not as specified, replace the speaker.
- 4. If the resistance is OK, go to Step 7.



- 1. Disconnect the 12-pin connector of the audio unit.
- 2. Disconnect both door speakers.
- 3. Check for continuity of the following wires of the door speakers wire harness.

Connectors	Wire	Continuity
Audio unit Left door speaker	(R/W)	Yes
	(R/G)	Yes
Audio unit — Right door speaker	(L)	Yes
- Tight door speaker	(L/Y)	Yes

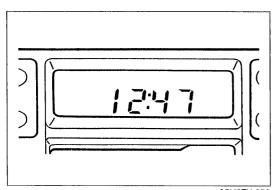
- 4. If not as specified, repair the faulty wiring.
- 5. If the wiring is OK, replace the audio unit.

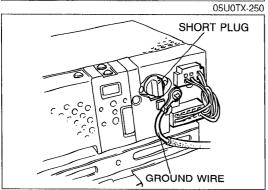
Symptom: Speaker(s) do not operate (With headrest speakers.)

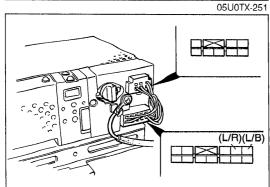
#### Note

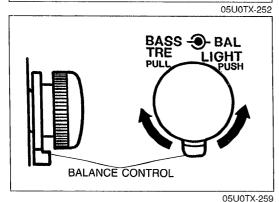
• Before troubleshooting, verify that the customer is using the audio system correctly. If not, advise or instruct him/her in the proper operating procedure. (Refer to page T-110.)

05U0TX-258









Step 1

Check if the anti-theft system has been activated. Turn the ignition switch to ACC and note the display.

Display	Action
CODE flashes	Deactive anti-theft system (Refer to page T-114.)  Note If CODE appears when ignition switch is turned to ACC from OFF go to Step 2.
Err flashes	Have audio unit changed at a Panasonic service company
Clock	Go to Step 4
No indication	Go to Step 2

#### Step 2

- 1. Remove the audio unit. (Refer to page T-126.)
- 2. Check the connections of the ground wire and the short plug.
- 3. If a connection is poor or loose, repair or replace it.
- 4. If the connections are OK, go to Step 3.

#### Step 3

- 1. Turn the ignition switch to ACC.
- 2. Measure the voltage at the following terminal-wires of the audio unit connector.

Wire	Voltage	Action		
12V		Next, check wire (L/R)		
(L/B)	0V	Check CIGAR 15A fuse If CIGAR 15A fuse OK, repair wiring harness (CIGAR 15A fuse — Audio unit)		
	12V	Replace audio unit		
(L/R)	0V	Check ROOM 10A fuse If ROOM 10A fuse OK, repair wiring harness (ROOM 10A fuse — Audio unit)		

#### Step 4

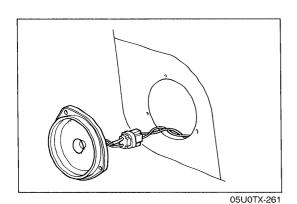
Locate the faulty speaker(s) by using the heatrest speaker volume, and balance control.

- 1. Turn the ignition switch to ACC.
- 2. Play a prerecorded tape, and set the volume to the center position.
- 3. Set the head restraint speaker volume, and balance controls as shown in Table 2 (page T-118). Check operation of each speaker.
- 4. From results of Table 2 testing, go to the next step.

Table 2

Speaker	Balance	Head restraint speaker volume	Speaker operates	Judgement	Next Step
Left door	Left	Min -	Yes	Left door speaker circuit OK	
Leit door	Len	IVIIII	No	Left door speaker circuit faulty	Step 5
Dight door	Dight	Min -	Yes	Right door speaker circuit OK	_
Right door	Right	IVIIII	No	Right door speaker circuit faulty	Step 5
Left headrest (Driver seat) —		May	Yes	Left headrest speaker circuit (driver seat) OK	_
		Max	No	Left headrest speaker circuit (driver seat) faulty	Step 8
Right headrest (Driver seat)		Max	Yes	Right headrest speaker circuit (driver seat) OK	
	Iviax	No	Right headrest speaker circuit (driver seat) faulty	Step 8	
Left headrest		Max	Yes	Left headrest speaker circuit (passenger seat) OK	
(Passenger — seat)	<del></del>	Max	No	Left headrest speaker circuit (passenger seat) faulty	Step 8
Right headrest		Max	Yes	Right headrest speaker circuit (passenger seat) OK	
(Passenger seat)	<del></del>	iviax	No	Right headrest speaker circuit (passenger seat) faulty	Step 8

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#### Step 5

- 1. Remove the faulty door speaker cover and speaker installation screws.
- 2. Check if the speaker is properly connected.
- 3. If necessary, repair or reconnect the connector
- 4. If the connection is OK, go to Step 6.

- 1. Disconnect the connector from the suspected faulty speaker.
- 2. Measure resistance between terminals of the speaker.

#### Resistance: $4\Omega$

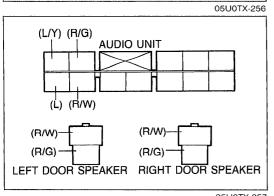
- 3. If not as specified, replace the speaker.
- 4. If the resistance is OK, go to Step 7.

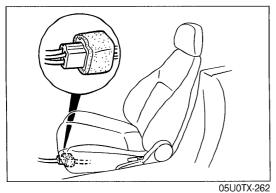
#### Step 7

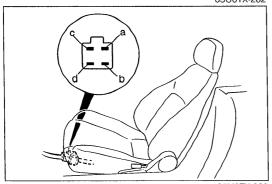
- 1. Disconnect the 12-pin connector of the audio unit.
- 2. Disconnect both door speakers.
- 3. Check for continuity of the following wires of the door speakers wire harness.

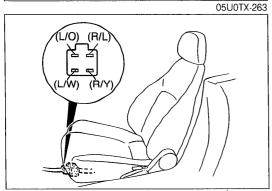
Connectors	Wire	Continuity
Audio unit Laft door appaker	(R/W)	Yes
Audio unit — Left door speaker	(R/G)	Yes
Audio unit Right door speaker	(L)	Yes
Addio driit — Hight door speaker	(L/Y)	Yes

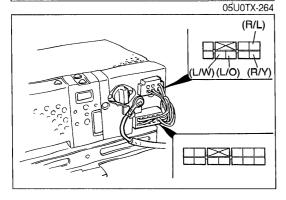
- 4. If not as specified, repair the faulty wiring.
- 5. If the wiring is OK, replace the audio unit.











#### Step 8

- 1. Check if the headrest speaker connector is properly connected.
- 2. If necessary, repair or reconnect the connector.
- 3. If the connection is OK, go to Step 9.

#### Step 9

- 1. Disconnect the headrest speaker connector.
- 2. Measure resistance between terminals of the headrest speaker connector as shown.

Terminal	Resistance
a—b c—d	4Ω

- 3. If not as specified, replace the speaker.
- 4. If the resistance is OK, go to Step 10.

- 1. Disconnect the 8-pin connector of the audio unit.
- 2. Disconnect both headrest speaker connectors.
- 3. Check for continuity of the following wires of the headrest speakers wire harness.

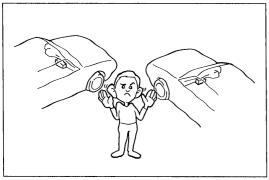
Connectors	Wire	Continuity
	(R/Y)	Yes
Audio wit Driver and boodrest analyses	(R/L)	Yes
Audio unit — Driver seat headrest speakers	(L/W)	Yes
	(L/O)	Yes
	(R/Y)	Yes
Audio unit — Passenger seat headrest	(R/L)	Yes
speakers	(L/W)	Yes
	(L/O)	Yes

- 4. If not as specified, repair the faulty wiring.
- 5. If the wiring is OK, replace the audio unit.

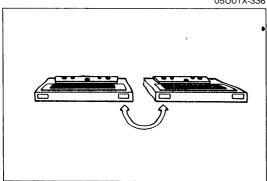
#### Radio

#### Symptom: Poor sound quality or noise

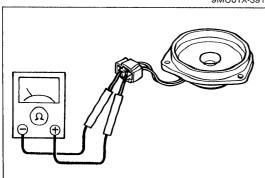
05U0TX-462



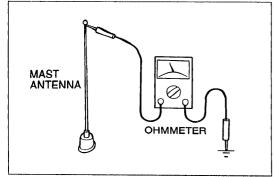




9MU0TX-391



05U0TX-337



9MU0TX-393

#### Step 1

- 1. Tune to the strongest AM station using the automatic memory function. (Refer to pages T-111.)
- 2. If the automatic memory function does not operate, go to Step 4.
- 3. Compare sound quality with that of another vehicle that has the same type audio unit.
- 4. If the sound quality is inferior to the other unit, go to Step 2.
- 5. If the sound quality is the same as the other unit, the system is OK.

#### Step 2

- 1. Play a known good cassette tape, and compare the sound quality with another vehicle that has the same type audio unit.
- 2. If the sound quality is inferior to the other unit, the malfunction may be in the speaker circuit. Go to Step 3.
- 3. If the sound quality is same as the other unit, the malfunction may be in the antenna circuit. Go to Step 4.

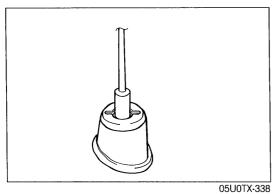
#### Step 3

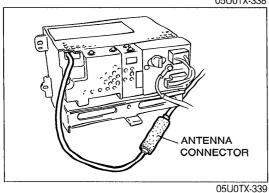
- 1. Check for damage to the speakers.
- 2. Check for proper connection of speaker connectors.
- 3. Disconnect the speaker connectors, and measure resistance of each speaker.

#### Resistance: $4\Omega$

- 4. If a speaker has incorrect resistance or is damaged, replace it.
- 5. If the speakers are OK, replace the audio unit.

- 1. Check that there is no continuity (infinite ohms) between the mast antenna and a body ground.
- 2. If there is continuity, replace the antenna.
- 3. If there is no continuity, go to Step 5.





Step 5

- Check for proper tightness of the antenna mounting nut.
   If the nut is loose, tighten it.
- 3. If the nut is tight, go to Step 6.

- 1. Remove the audio unit.
- 2. Check for proper connection of the antenna connector.
- 3. If necessary, repair or reconnect it.4. If the connection if OK, replace the audio unit..

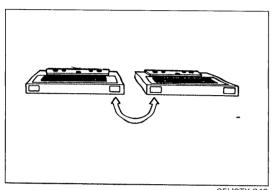
### Cassette Tape Player

### Symptom: Poor sound quality.

#### Note

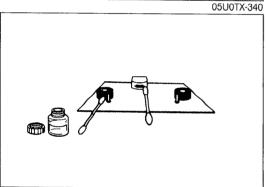
- Before troubleshooting, verify that the customer is using the audio system correctly. If not, instruct him/her in the proper operating procedurer. (Refer to pages T-110.)
- If a speaker(s) do not operate, refer to "Speaker(s) do not operate". (pages T-115 or 117).

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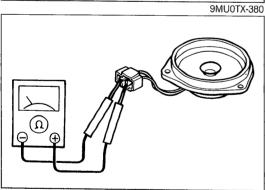
#### Step 1

- 1. Play a known good tape, and check the sound quality.
- 2. If sound quality is normal, the previous tape is defective. The system is OK.
- 3. If sound quality is still poor, go to Step 2.



#### Step 2

- 1. Check for oxide or dirt on the head, capstan, and pinchroller.
- 2. If oxide or dirt is found, clean the parts with a head cleaner.
- 3. If there is no oxide or dirt, go to Step 3.



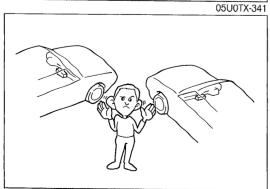
#### Step 3

- 1. Check for damage to the speakers.
- 2. Check for proper connection of the speaker connectors.
- 3. Disconnect all speaker connectors, and measure resistance of each speaker.

#### Resistance: $4\Omega$

- 4. If a speaker has incorrect resistance or is damaged, replace it.
- 5. If the speakers are OK, go to Step 4.

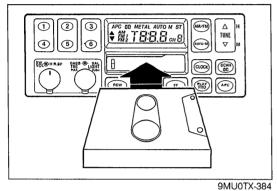
- 1. Compare sound quality with that of another vehicle that has the same type of audio system.
- 2. If the sound quality is inferior to the other unit, replace the audio unit.



9MU0TX-382

#### Symptom: Cassette tape will not load.

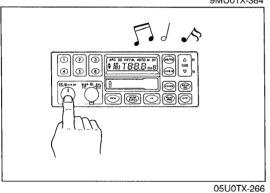
05U0TX-342



Step 1

1. Check if a known good cassette tape will load.

- 2. If the tape loads, the previous tape is defective. The system is OK.
- 3. If the tape will not load, go to Step 2.



Step 2

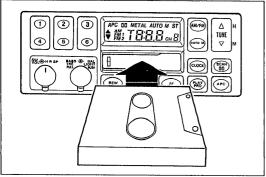
1. Check if radio operation is OK.

2. If radio operation is OK, replace the audio unit.

3. If the radio do not operate, there is a defect in the power supply circuit. (Refer to "Speaker(s) do not operate", pages T-115 or 117.)

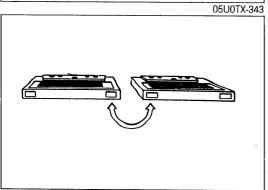
# Symptom: Cassette tape will not play.

9MU0TX-386



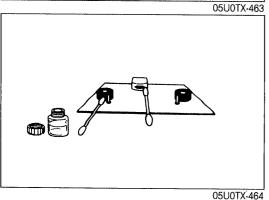
Step 1

- 1. Check if cassette tape will load.
- 2. If cassette tape will not load, see, "Cassette tape will not load". (Refer to page T-123.)
- 3. If cassette tape loads, go to Step 2.



#### Step 2

- 1. Play a known good tape, and check the sound quality.
- 2. If sound quality is normal, the previous tape is defective. The system is OK.
- 3. If sound quality is still poor, go to Step 3.



- 1. Check for oxide or dirt on the head, capstan, and pinchroller.
- 2. If oxide or dirt is found, clean the parts with a head cleaner.
- 3. If after cleaning the parts, the tape still does not play, refer to "Speaker(s) do not operate", pages T-115 or 117.

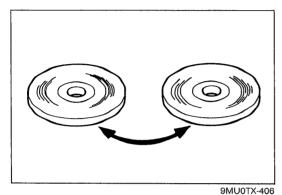
#### **Compact Disc Player**

#### Symptom: Compact disc will not load.

#### Note

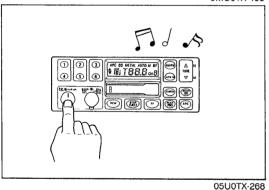
• When a damaged or dirty compact disc is loaded, the audio unit detects such, and ejects the compact disc.

9MU0TX-405



#### Step 1

- 1. Check if a known good compact disc will load.
- 2. If the compact disc will load, the system is OK.
- 3. If the compact disc will not load, go to Step 2.



#### Step 2

- 1. Check if the radio operates normally.
- 2. If the radio operates normally, replace the audio unit.
- 3. If the radio does not operate there is defective in the power supply circuit. (Refer to "Speaker(s) does not sound", pages T-115 or 117.)

Symptom: Compact disc skips.

05U0TX-344

#### Note

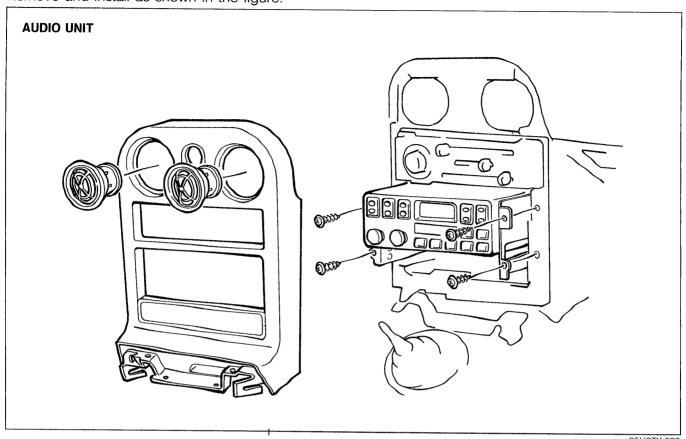
Compact disc skipping may be hard to recreate because it is a result of the vehicle encountering sharp road shocks. This is a normal condition if skipping happens only infrequently.

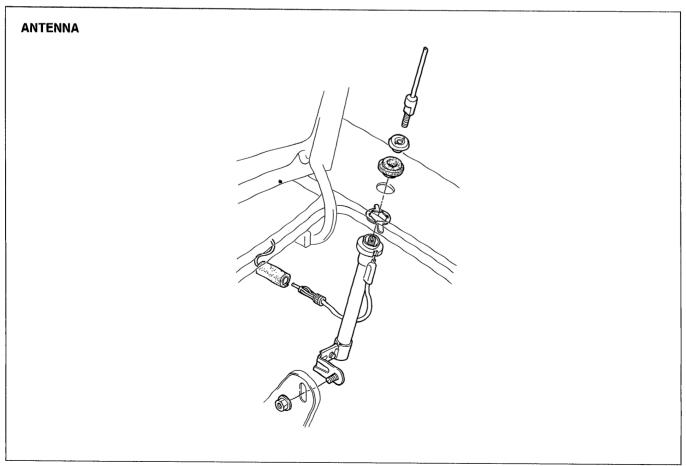
#### Remedy

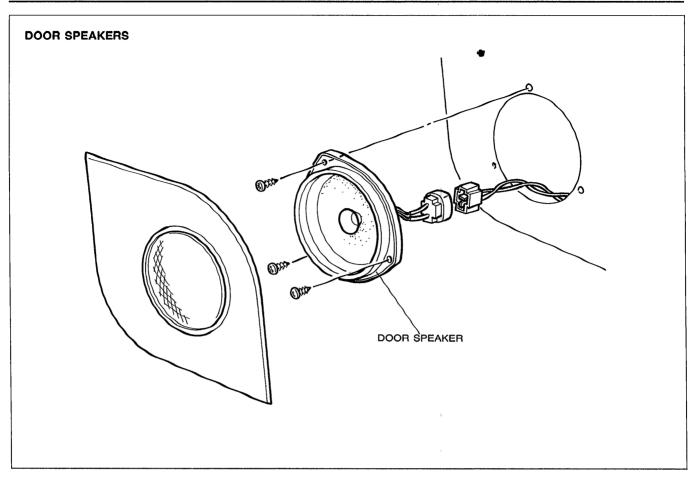
- 1. Check with the driver if skipping occurs often.
- 2. If it occurs often, check that the audio unit is properly installed.
  - (1) If the audio unit is not installed properly, remedy it.
  - (2) If the audio unit is installed properly, replace the audio unit.

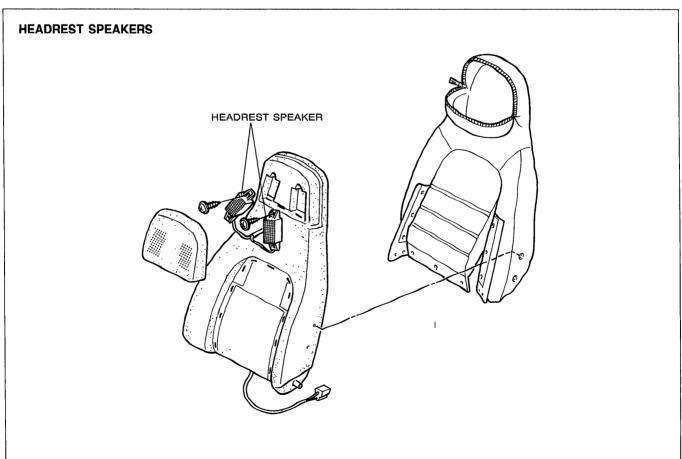
# **REMOVAL / INSTALLATION**

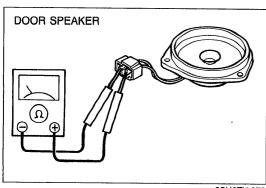
Remove and install as shown in the figure.

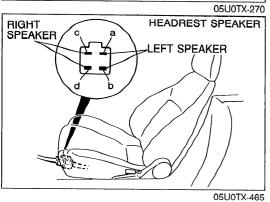












# INSPECTION Door Speakers

- 1. Disconnect the connector from the suspected faulty speaker.
- 2. Measure resistance between terminals of the speaker.

#### Resistance: $4\Omega$

3. If not as specified, replace the speaker.

#### **Headrest Speakers**

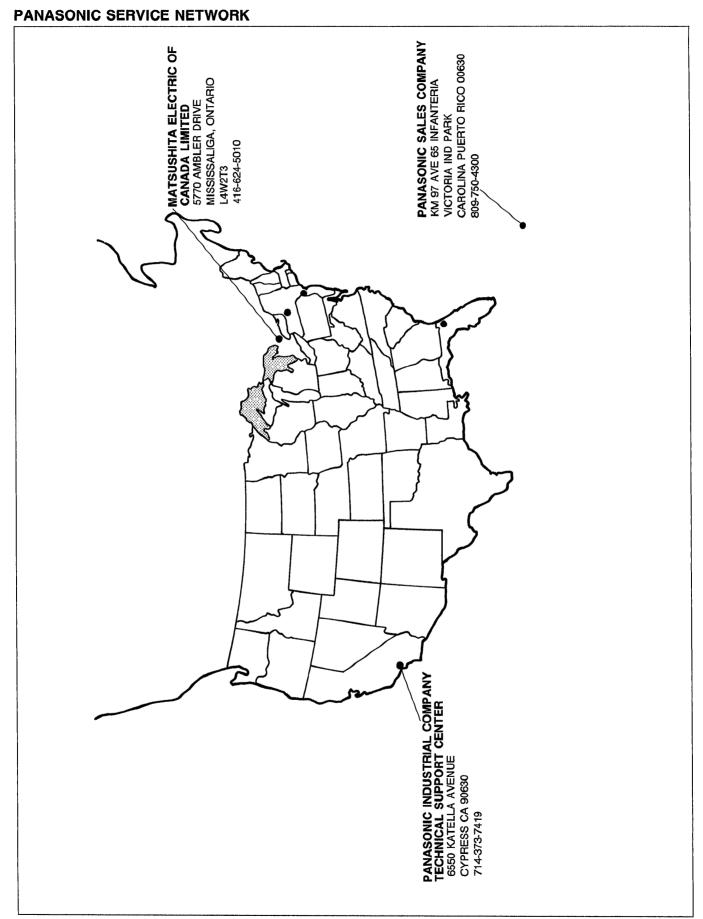
- 1. Disconnect the headrest speaker connector.
- 2. Measure resistance between terminals of the headrest speaker connector as shown.

Terminal	Resistance
a—b c—d	$4\Omega$

3. If not as specified, replace the speaker.

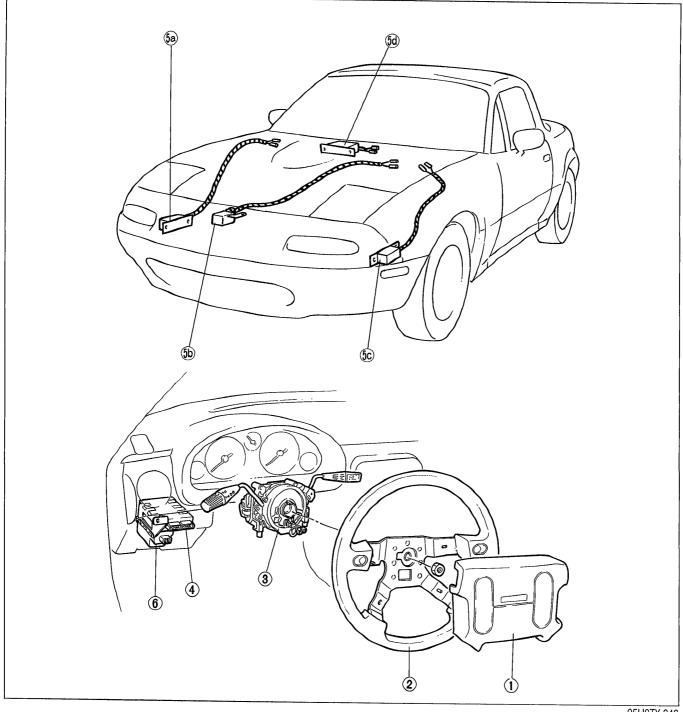
# **CONNECTOR TERMINAL SPECIFICATIONS**

Component	Connector	Terminal	
Audio unit		a : Headrest speaker left ⊕	f : Headrest speaker right
	i c a j h f d b	b : Headrest speaker left ⊖	h : Headrest speaker right
		c:NC d:NC	i : NC i : NC
	m k e c a n l j h f d b	a : ACC b : NC c : +B d : NC e : TNS (for illumination lamps) f : NC	h: NC j: NC k: Door speaker left ⊕ l: Door speaker left ⊝ m: Door speaker right ⊕ n: Door speaker right ⊝
	9 10 13 11 12 5 000 6 6 7 7	<ul> <li>1 : Left signal</li> <li>2 : Left signal</li> <li>3 : Right signal</li> <li>4 : Right signal</li> <li>5 : Signal ground</li> <li>6 : Illumination signal</li> <li>7 : ACC</li> </ul>	8: +B 9: Amp control signal 10: NC 11: NC 12: NC 13: NC
Compact disc player	9 10 11 12 5 6 7 2 3	1 : Left signal 2 : Left signal 3 : Right signal 4 : Right signal 5 : Signal ground 6 : Illumination signal 7 : ACC	8: +B 9: Amp control signal 10: NC 11: NC 12: NC 13: NC



### **AIR BAG SYSTEM**

#### STRUCTURAL VIEW



05U0TX-346

- 1. Air bag module
- 2. Steering wheel
- 3. Clock spring connector
- 4. Diagnostic module
- 5. Crush sensor

- a. D-sendor (RH)
- b. D-sensor (CNT)
- c. D-sensor (LH)
- d. S-sensor
- 6. Backup battery

The MX-5 Miata is equipped with a driver side supplementary air bag system, a first for Mazda vehicles. The air bag system is designed to provide increased accident protection for the driver when used in conjuction with the provided seat belt system. For optimum protection, the seat belts should be used by all vehicles occupants.

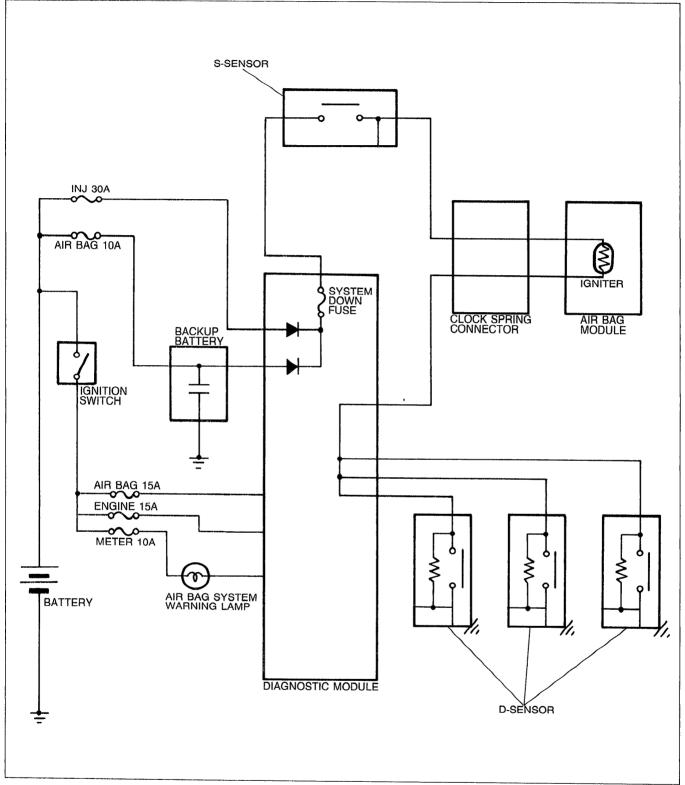
T

# **AIR BAG SYSTEM**

# **COMPONENT DESCRIPTIONS**

Component	Function	Remarks	
Air bag system warning lamp	Lamp illuminates or flashes when problem or failure occurs in air bag system	Located in instrument cluster	
Air bag module	Deploys air bag when current flows to integrated igniter  Air bag fills to volume of about 60 liters (15.9 US gal, 13.2 Imp gal)		
Backup battery	Provides sufficient power to operate air bag system if battery power lost during crash		
Clock spring connector	Ensures uninterrupted electrical circuit to air bag module while allowing rotation of steering wheel		
Crash sensor	Detects frontal impact and completes circuit to send signal to air bag module		
	Two types of sensors used		
Diagnostic module	Monitors electrical system components and circuit		
	Indicates problem or failure in system by illuminating air bag system warning lamp		

#### SYSTEM DIAGRAM

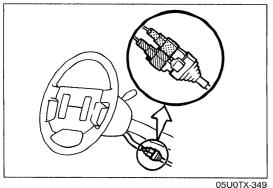


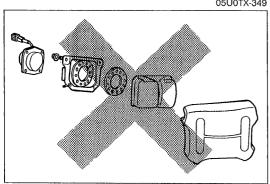
05U0TX-348

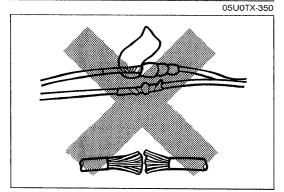
The system diagram is as shown in figure. The battery, S-sensor, air bag module, and D-sensors are connected is series via diagnostic module.

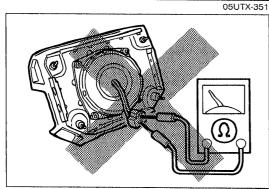
When the S-sensor and one of the D-sensors are activated (closed) simultaneously, electric current flows to trigger the igniter in the air bag module.

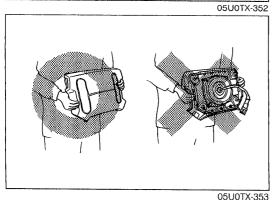
The backup battery supplies the current to trigger the igniter if the battery or fuses fail during a collision. The diagnostic module is fitted to monitor the system for failures. It warns the driver of such by illuminating or flashing the air bag warning lamp.











#### SERVICE PRECAUTION

#### 1. BEFORE COMPONENT REPLACEMENT

- Obtain the code number and deactivate the audio anti-theft function before disconnecting the battery. (Refer to page T-113.)
- Before replacement of any air bag system component or before disconnecting any connector of the system, first disconnect the negative battery cable; then disconnect the clock spring connectors (orange and blue).

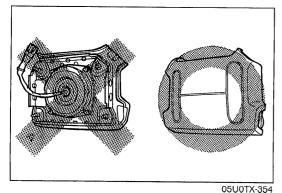
# 2. PROHIBITATION OF COMPONENT DISASSEMBLY AND WIRE HARNESS REPAIR

- The components of the air bag system are not intended to be disassembled for service.
   If a component failure is detected by the diagnostic module, replace the suspected component after checking the connections and the wire harness.
   Do not disassemble any component.
- If an open circuit is found by a continuity test, replace the wire harness. Do not try to repair the wiring.

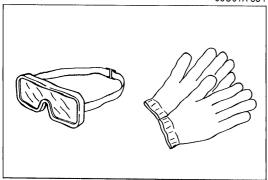
#### 3. HANDLING OF AIR BAG MODULE

 Do not use an ohmmeter for inspection of the air bag module, it may cause an accidental deployment of the air bag.

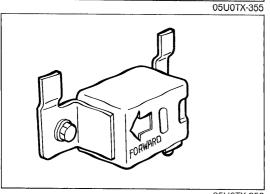
 When carrying a live (unactivated) air bag module, make sure the trim cover is pointed away from your body to prevent personal injury in the event of an accidental deployment.



 When placing a live air bag module on any surface, always face the trim cover upward to reduce the motion of the module if it is accidentally deployed.

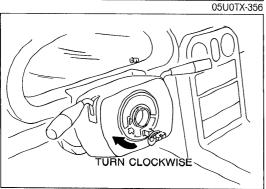


- When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by-product of the gas generant combustion.
- When an air bag module is to be disposed following the proper procedure recommended for the specific situation. (Refer to page T-160.)



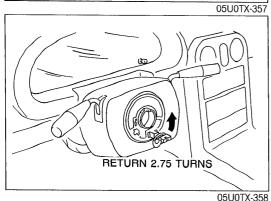
#### 4. CRASH SENSOR INSTALLATION

- Crash sensor oreientation is very important for proper operation. If a vehicle is involved in a collision where its front sheet metal is damaged, inspect the body structure at the sensor mounting area for deformation. If damaged, restore to its original shape.
- When installing a crash sensor, be sure to tighten the mounting bolts to the specified torque because the sensor is grounded through the crash sensor's mounting plate.

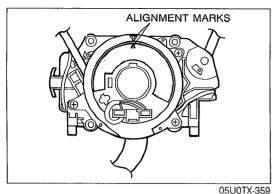


#### 5. ADJUSTMENT OF CLOCK SPRING CONNECTOR

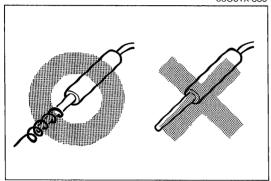
- Whenever the steering wheel is removed, before reinstalling it, set the clock spring connector as follows:
  - 1. Set the front wheels straight ahead.
  - 2. Turn the clock spring connector clockwise until it stops. (Do not force it.)



3. Return the connector 2.75 turns.

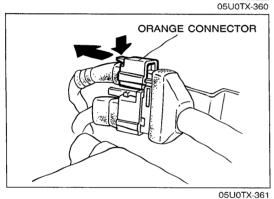


4. Align the marks on the clock spring connector and the outer housing.



6. When Using Test Lead

 When using a test lead for testing, use a fine needle to prevent damage to the terminal.

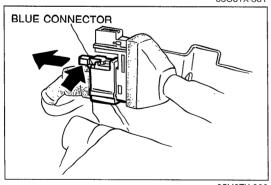


7. Disconnecting Double Lock Type Connector

• The connectors in the air bag system use a double lock type connector.

These connectors are disconnected as below.

1) Press the orange knob and disconnect the orange connector.



- 2) Press the blue knob and disconnect the blue connector.
- 3) Connect the connectors in the reverse order of disconnecting.

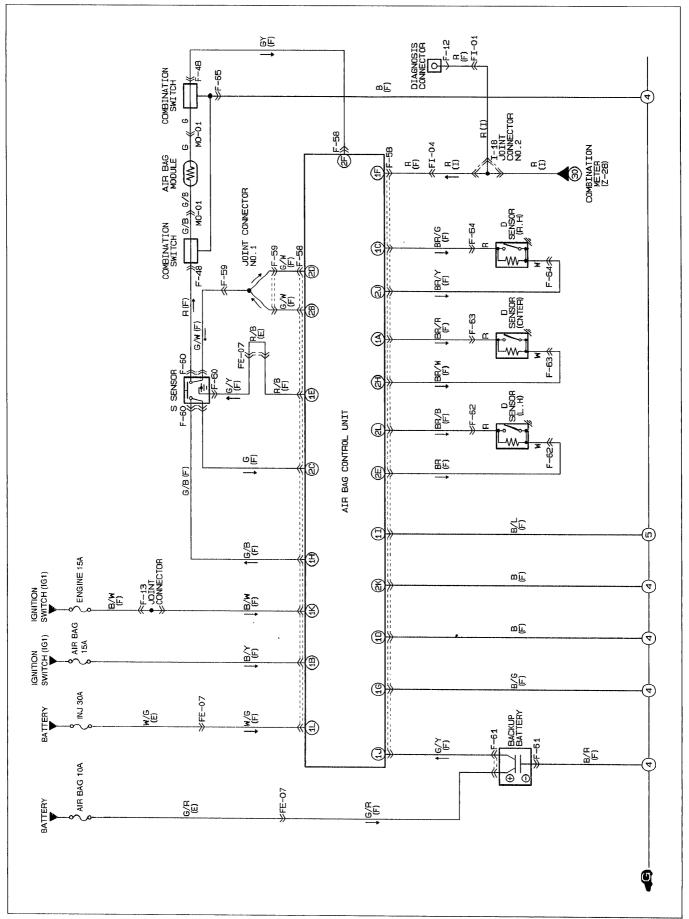


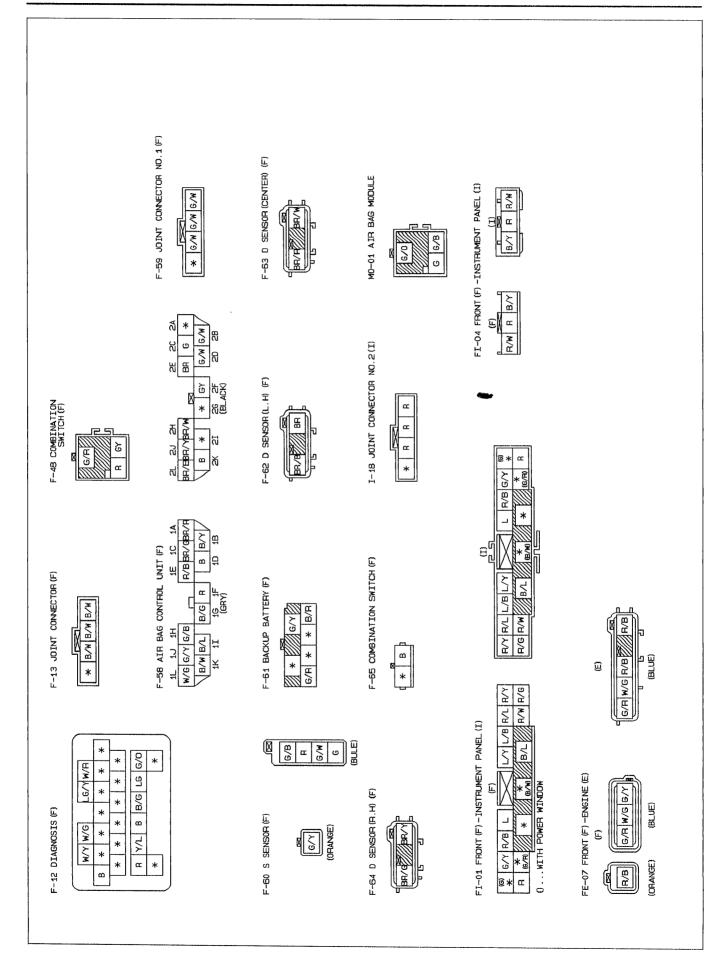
8. After System Service

 After system service verify system operation by checking with the air bag system warning lamp.
 If the system is operating normally, the warning lamp will come on when the ignition switch is turned ON, then go off after approximately 6 seconds.

 Check if the horn sounds. If the horn does not sound, remove the air bag module and check the connections of the air bag module and horn switch connectors.

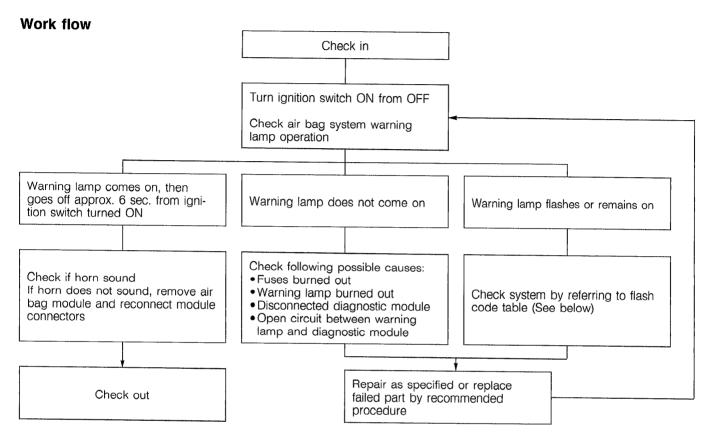
# **CIRCUIT DIAGRAM**





# TROUBLESHOOTING GUIDE Troubleshooting Procedure

Troubleshooting of the air bag system is performed using the coded flashing of the air bag system warning lamp. The number of times the the warning lamp flashes is based on the type of fault being detected. Codes are prioritized in such a way that if two or more faults occur at the same time, the highest priority fault indication will dominate until corrected.



#### Note

• When the ignition switch is turned ON, an audible alarm may be heard. If so, it indicates a simultaneous warning lamp failure and a problem in the air bag system.

050UTX-365

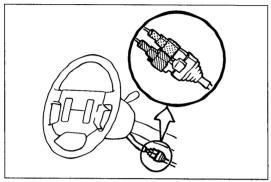
#### Flash code table

Priority	Flash code	Possible cause	Flowchart No.
1	Remains ON	Faulty diagnostic module or poor connection of diagnostic module connector	1 (See page T-139)
2	Flashes three times	Open circuit or poor connection of power source circuit	2 (See page T-140)
3	Flashes five times	Faulty D-sensor (D-sensor remains ON)	3 (See page T-142)
4	Flashes ten times	Faulty diagnostic module (System-down fuse burned)	4 (See page T-143)
5	Flashes four times	Faulty S-sensor	5 (See page T-144)
6	Flashes six times	Faulty air bag module or poor connection of clock spring connector	6 (See page T-146)
7	Flashes eight times	Poor ground of D-sensor	7 (See page T-148)
8	Flashes nine times	Open circuit between diagnostic module and D-sensor	3 (See page T-142)
9	Flashes two times	Poor ground of all D-sensors	7 (See page T-148)

	Varning lamp remains ON aulty diagnostic module or poor connection of diagostic module connector
--	--

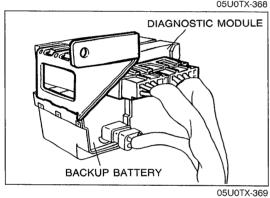
### Caution

• Before troubleshooting, read SERVICE PRECAUTION on page T-133.



Remedy

 Disconnect the negative battery cable.
 Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).

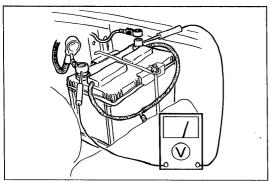


- 3. Check for proper connection of the diagnostic module con-
- 4. If the connector is loose or disconnected, reconnect it.
- 5. If the connection is OK, replace the diagnostic module.

Flowchart No.	Fault indication Warning lamp flashes three times     Possible cause Open circuit or poor connection of power source
2	circuit circuit or poor connection or power source

### Caution

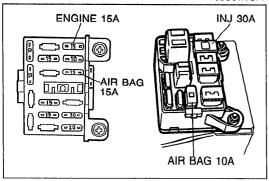
• Before troubleshooting, read SERVICE PRECAUTION on page T-133.



**Step 1**Measure the battery voltage.

Battery voltage	Action
More than 9V	Go to Step 2
Less than 9V	Charge battery by recomended procedure (Refer to Section G)

05U0TX-371



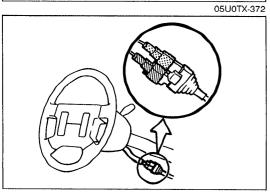
Step 2

1. Check the following fuses.

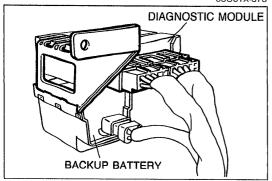
Fuse	Location
INJ 30A	Main fuse block
AIR BAG 15A	Fuse box
AIR BAG 10A	Main fuse block
ENGINE 15A	Fuse box

- 2. If a fuse burned, replace it.
- 3. If the fuses are OK, go to Step 3.

- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).

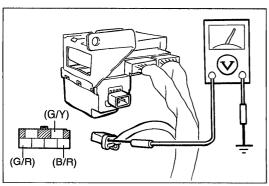


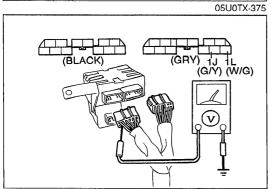
05U0TX-373



05U0TX-374

- 3. Check for proper connection of the backup battery connector.
- 4. If the connector is loose or disconnected, reconnect it.
- 5. If the connection is OK, go to Step 4.





Step 4

- Disconnect the backup battery connector.
   Reconnect the negative battery cable.
   Measure the voltage at terminal-wire (G/R) of the backup battery connector.

Wire	Voltage	Action
(G/R)	12V	Go to Step 5
(G/H)	OV	Replace wire harness assembly

### Step 5

05U0TX-376

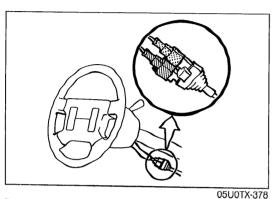
- Disconnect the negative battery cable.
   Disconnect the diagnostic module connector.
   Reconnect the negative battery cable.
   Measure the voltage at the terminal-wires of the diagnostic module connector.

Terminal-wire	Voltage	Action
1L	12V	Next, check terminal-wire 1J (G/Y)
(W/G)	٥V	Replace wire harness assembly
1J	12V	Replace diagnostic module
(G/Y)	0V	Replace wire harness assembly

Flowchart No.	
3	<ul> <li>Fault indication Warning lamp flashes five times or nine times</li> <li>Possible cause Faulty D-sensor (CNT, LH or RH)</li> </ul>

### Caution

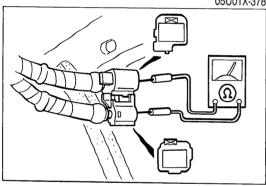
Before troubleshooting, read SERVICE PRECAUTION on page T-133.



### Step 1

1. Disconnect the negative battery cable.

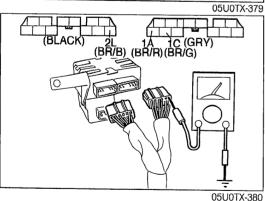
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



3. Disconnect all D-sensor (CNT, LH and RH) connectors, and measure the resistance of each sensor.

Resistance: Approx. 1.2  $k\Omega$ 

- 4. If not as specified, replace the sensor.
- 5. If correct, go to Step 2.



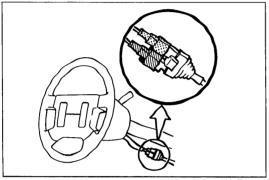
- 1. Reconnect all D-sensor connectors.
- 2. Disconnect the diagnostic module connector.
- 3. Measure the resistance between the following terminal-wire of the diagnostic module connector and a body ground.

Terminal-wire	Resistance	Action
1C	Approx. 1.2 kΩ	Next, check terminal-wire 1A (BR/R)
(BR/G)	Other 1.2 kΩ	Replace wire harness
1A	Approx. 1.2 kΩ	Next, check terminal-wire 2L (BR/B)
(BR/R)	Other 1.2 kΩ	Replace wire harness
2L	Approx. 1.2 kΩ	Replace diagnostic module
(BR/B)	Other 1.2 kΩ	Replace wire harness

ı	Flowchart No.	
ł		• Fault indication Warning lamp flashes ten times
ı		• Possible cause Faulty diagnostic module (System down fuse burned)
Į	•	

### Caution

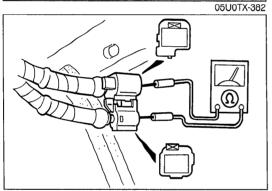
• Before troubleshooting, read SERVICE PRECAUTION on page T-133.



Step 1

1. Disconnect the negative battery cable.

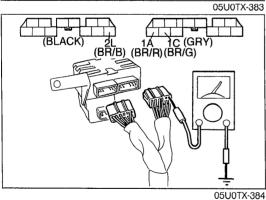
2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



3. Disconnect all D-sensor (CNT, LH and RH) connectors, and measure the resistance of each sensor.

### Resistance: Approx. 1.2 $k\Omega$

- 4. If not as specified, replace the sensor, then go to Step 3.
- 5. If correct, go to Step 2.



Step 2 1. Reco

Reconnect all D-sensor connectors.

2. Disconnect the diagnostic module connector.

3. Measure the resistance between the following terminal-wires of the diagnostic module connector and a body ground.

Terminal-wire	Resistance	Action
1C	Approx. 1.2 kΩ	Next, check terminal-wire 1A (BR/R)
(BR/G)	Other 1.2 kΩ	Replace wire harness, then go to Step 3
1A	Approx. 1.2 kΩ	Next, check terminal-wire 2L (BR/B)
(BR/R)	Other 1.2 kΩ	Replace wire harness, then go to Step 3
2L	Approx. 1.2 kΩ	Go to Step 3
(BR/B)	Other 1.2 kΩ	Replace wire harness, then go to Step 3

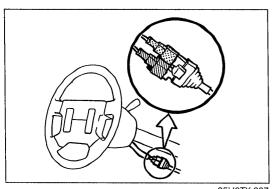


- 1. Reconnect the diagnostic module connector.
- 2. Reconnect the clock spring connector.
- 3. Reconnect the negative battery cable.
- 4. Turn the ignition switch ON, and monitor the warning lamp operation.
- 5. If the warning lamp flashes ten times again, replace the diagnostic module.

Flowchart No.	
5	<ul> <li>Fault indication Warning lamp flashes four times</li> <li>Possible cause Faulty S-sensor</li> </ul>

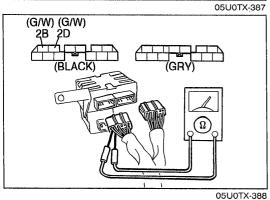
### Caution

• Before troubleshooting, read SERVICE PRECAUTION on page T-133.



Step 1

- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).



- 3. Disconnect the diagnostic module connector.
- 4. Check continuity between terminal-wires of the diagnostic module connector.

Terminal-wire	Continuity	Action
2B (G/W)—	Yes	Go to Step 2
2D (G/W)	No	Replace wire harness

# 2C (BLACK) (GRY)

### Step 2

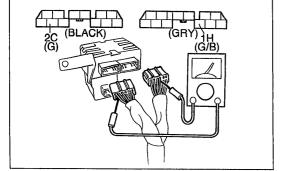
- 1. Disconnect the diagnostic connector.
- 2. Check continuity between terminal-wire of diagnostic module connector and a body ground.

Terminal-wire	Continuity	Action
2C (G)—	Yes	Go to Step 3
Body ground	No .	Go to Step 5

### Step 3

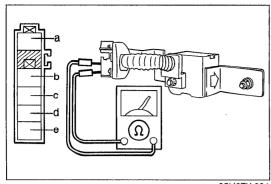
- 1. Disconnect the diagnostic module connectors.
- 2. Check continuity between terminal-wires of the diagnostic module connector.

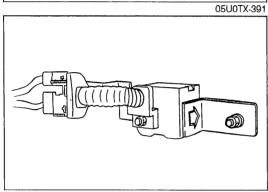
Terminal-wire	Continuity	Action	
1H (G/B)	Yes	Go to Step 5	
2C (G)	No	Go to Step 4	

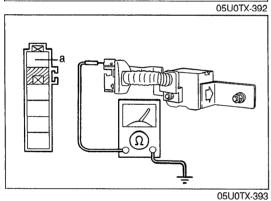


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### Step 4

- 1. Disconnect the S-sensor connectors.
- 2. Check continuity between terminals of the sensor.

Terminal	Continuity	Action
(b)—(e)	Yes	Replace wire harness
(b)—(e)	No	Replace S-sensor

### Step 5

- Verify that the S-sensor is installed properly.
   If the installation is poor, clean the mounting and tighten the bolts.
- 3. If correct, go to Step 6.

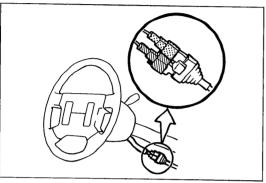
- 1. Disconnect the S-sensor connectors.
- 2. Check continuity between terminal of the sensor and a body ground.

Terminal	Continuity	Action
(a)—	Yes	Replace S-sensor
Body ground	No	Replace wire harness

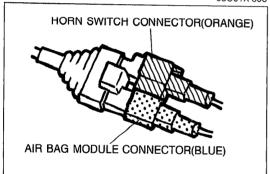
Flowchart No.	• Fault indication Warning lamp flashes six times
6	Possible cause Faulty air bag module or poor connection of clock spring connector

### Caution

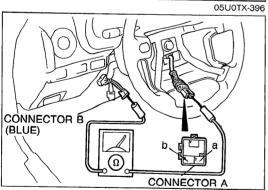
• Before troubleshooting, read SERVICE PRECAUTION on page T-133.



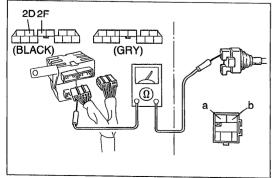
05U0TX-395



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05U0TX-397



05U0TX-398

### Step 1

1. Disconnect the negative battery cable.

- 2. Check for proper connection of the clock spring connectors (Orange and blue).
- 3. If a connector is loose or disconnected, reconnect it.
- 4. If the connections are OK, go to Step 2.

### Step 2

1. Remove the air bag module installation nuts.

- 2. Verify that the air bag module connector is properly connected.
- 3. If the connector is loose or disconnected, reconnect it.
- 4. If the connection is OK, go to Step 3.

### Step 3

- 1. Disconnect the air bag module and clock spring connector.
- 2. Check continuity between terminals of the clock spring connectors (blue) as shown.

Term	ninals	0 11 11
Connector A	Connector B	Continuity
а	A	Yes
b	В	Yes

3. If not as specified, replace the clock spring connector.

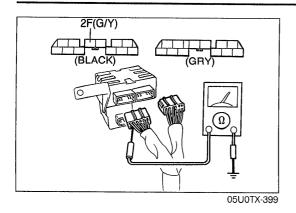
### Step 4

1. Disconnect the diagnostic module connector.

2. Check continuity between the diagnostic module connector and the clock spring connector (wire harness side) as shown.

Terminal-wire	
(Diagnostic (Clock spring module) connector)	Continuity
(2D : G/W)—(a : R)	Yes
(2F : G/Y)—(b : G/Y)	Yes

- 3. If not as specified, replace the wire harness assembly.
- 4. If correct, go to Step 5.



Step 5

1. Check continuity between terminal-wire 2F (G/Y) of the diagnostic module connector and a body ground.

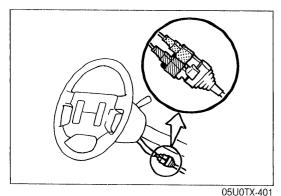
Terminal-wire	Continuity	
2F (G/Y)—Body ground	No	

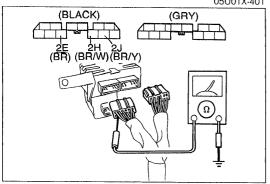
2. If not as specified, replace the wire harness assembly.3. If correct, replace the air bag module.

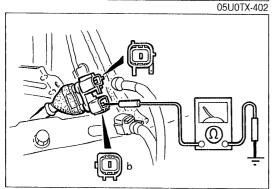
Flowchart No.	<ul> <li>Fault indication Warning lamp flashes two times or eight times</li> <li>Possible cause Poor ground of D-sensor</li> </ul>
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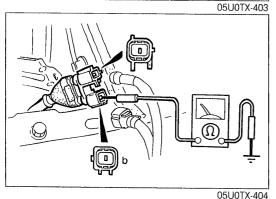
### Caution

• Before troubleshooting, read SERVICE PRECAUTION on page T-133.









Step 1

1. Disconnect the negative battery cable.

2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).

3. Disconnect the diagnostic module connector.

4. Check continuity between the following terminals of the diagnostic module connector and a body ground.

Terminal-wire	Continuity	Action
2J (BR/Y)— Body ground	Yes	Next, check between 2H (BR/W) and body ground
Body ground	No	Go to Step 2
2H (BR/W)— Body ground	Yes	Next, check between 2E (BR) and body ground
Body ground	No	Go to Step 3
2E (BR)— Body ground	Yes	Replace diagnostic module
Body ground	No	Go to Step 4

### Step 2

1. Disconnect the D-sensor (RH) connectors, and check continuity between terminals of the sensor connectors and a body ground.

Terminal	Continuity
b—Body ground	Yes

2. If not as specified, go to Step 5.

3. If correct, replace the wire harness assembly.

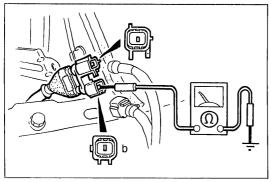
### Step 3

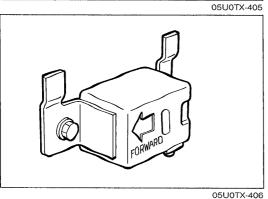
Disconnect the D-sensor (CNT) connectors, and check continuity between terminals of the sensor connector and a body ground.

Terminal	Continuity
b—Body ground	Yes

2. If not as specified, go to Step 5.

3. If correct, replace the wire harness assembly.





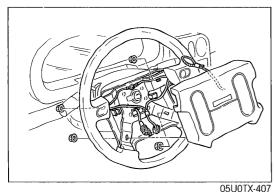
Step 4

1. Disconnect the D-sensor (LH) connectors, and check continuity between terminals of the sensor connector and a body ground.

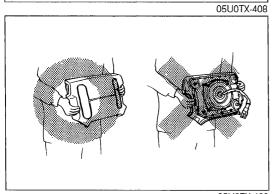
Terminal	Continuity
b—Body ground	Yes

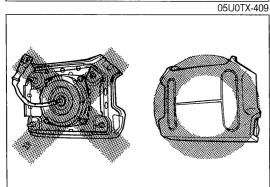
- 2. If not as specified, go to Step 5.3. If correct, replace the wire harness assembly.

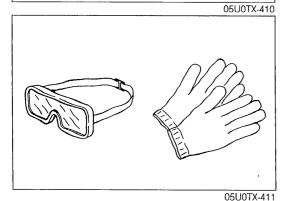
- 1. Check that all D-sensors (CNT, LH and RH) are properly installed.
- 2. If an installation bolt is loose, tighten it.
- 3. If correct, replace the faulty D-sensor.



# 05001X-407







# REMOVAL / INSTALLATION Air Bag Module

- 1. Disconnect the negative battery cable.
- 2. Remove the nuts and remove the air bag module.

### Caution

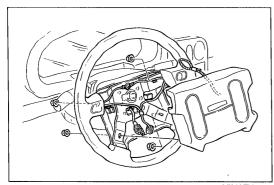
- Do not try to disassemble the air bag module.
   The air bag module must only be replaced as an assembly.
- Do not use an ohmmeter for inspection of the air bag module, it may cause an accidental deployment of the air bag.

 When carrying a live (unactivated) air bag module, make sure the trim cover is pointed away from your body to prevent personal injury in the event of an accidental deployment.

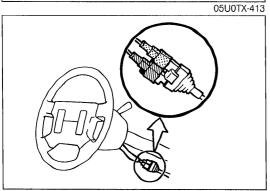
 When placing a live air bag module on any surface, always face the trim cover upward to reduce the motion of the module if it is accidentally deployed.

 When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by-product of the gas generant combustion.  When an air bag module is to be disposed of, it must be disposed following the proper procedue recommended for the specific situation.

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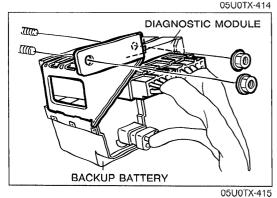


3. Install in the reverse order of removal.

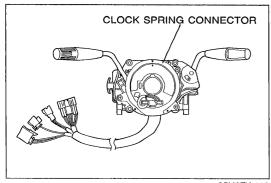


### **Diangosis Module and Backup Battery**

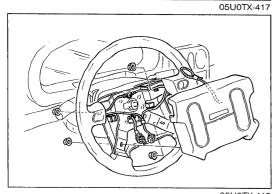
- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).

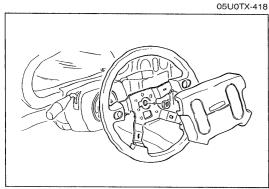


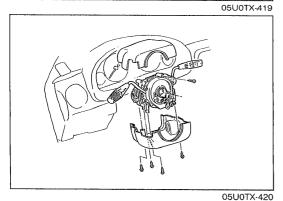
- 3. Disconnect the diagnostic module and backup battery connectors.
- 4. Remove the nuts and remove the diagnostic module and backup battery as an assembly.
- 5. Install the diagnostic module and backup battery in the reverse order of removal.



# OSUOTX-416







**Clock Spring Connector Assembly** 

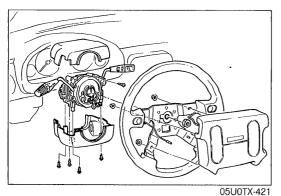
### **Note**

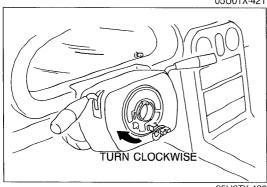
- The clock spring connector assembly is part of the combination switch. When replacing the clock spring connector assembly, replace it with the combination switch as an assembly.
- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring and combination switch connectors.

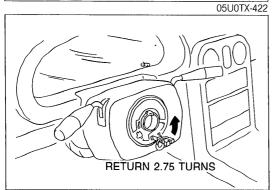
3. Remove the nuts and remove the air bag module. (Refer to page T-150.)

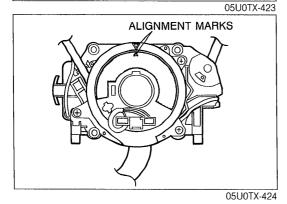
### Caution

- Do not strike the steering shaft with a hammer; the collapsible shaft may collapse.
- 4. Remove the nut and remove the steering wheel with a steering wheel puller.
- 5. Remove the screws and column cover.
- 6. Loosen the screws and remove the clock spring connector assembly with the combination switch.









7. Install the clock spring connector assembly and combination switch in the reverse order of removal, referring to **Installation Note**.

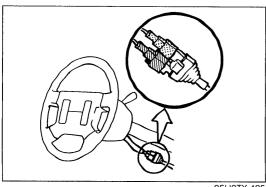
### Installation note

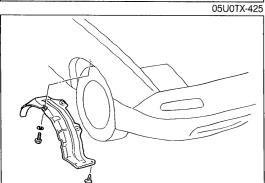
- Before installing the steering wheel, set the clock spring connector as follows:
  1) Set the front wheels straight ahead.
  - 2) Turn the clock spring connector clockwise until it

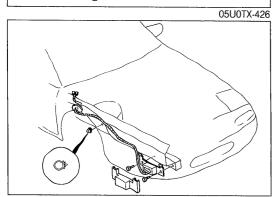
3) Return the connector 2.75 turns.

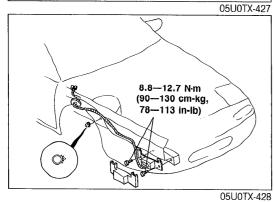
stops. (Do not force it.)

4) Align the marks (counterclockwise) on the clock spring connector and the outer housing.









D-sensor (RH)

1. Disconnect the negative battery cable.

2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).

3. Remove the nuts and the main fuse block.

4. Disconnect the D-sensor (RH) connectors.

5. Remove the undercover.

6. Remove the clips and remove the bolts and the D-sensor (RH).

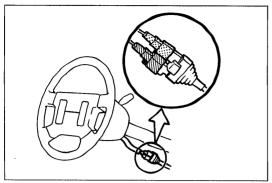
7. Install the D-sensor (RH), in the reverse order of removal, referring to the **Installation Note**.

Installation note

- Position the sensor with the arrow toward the front of the vehicle.
- Tighten the mounting bolts to the specific torque.

**Tightening torque:** 

8.8—12.7 Nm (90—130 cm-kg, 78—113 in-lb)



D-sensor (LH)

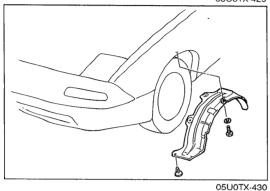
1. Disconnect the negative battery cable.

2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).

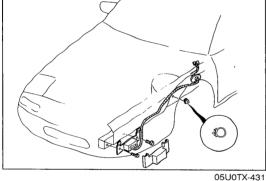
3. Remove the bolts and the relay box.

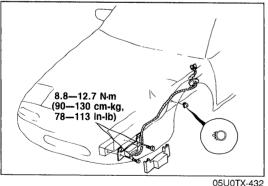
4. Disconnect the D-sensor (LH) connectors.

5. Remove the undercover.



6. Remove the clips and remove the bolts and the D-sensor (LH).





7. Install the D-sensor (LH), in the reverse order of removal, referring to the Installation Note.

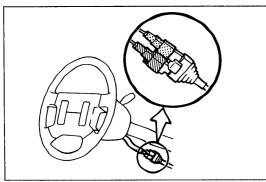
### Installation note

Position the sensor with the arrow toward the front of the vehicle.

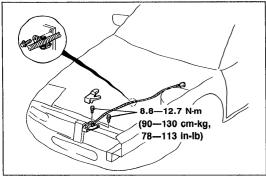
• Tighten the mounting bolts to the specific torque.

Tightening torque:

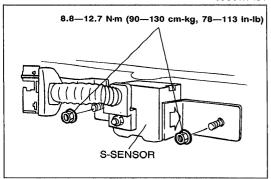
8.8—12.7 N·m (90—130 cm-kg, 78—113 in-lb)



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05U0TX-434



05U0TX-435

### D-sensor (CNT)

- 1. Disconnect the negative battery cable.
- 2. Disconnect the D-sensor (CNT) connectors.

- 3. Remove the wiring clips.
- 4. Remove the bolts and the D-sensor (CNT).
- 5. Install the D-sensor (CNT) in the reverse order of removal, referring to the **Installation Note**.

### Installation note

- Position the sensor with the arrow toward the front of the vehicle.
- Tighten the mounting bolts to the specified torque.

### Tightening torque: 8.8—12.7 N·m (90—130 cm-kg, 78—113 in-lb)

### S-sensor

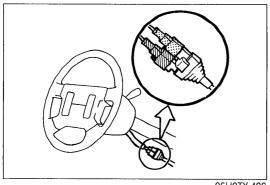
- 1. Disconnect the negative battery cable.
- 2. Remove the instrument panel. (Refer to Section S.)
- 3. Disconnect the S-sensor connectors.
- 4. Remove the bolts and S-sensor.
- 5. Install the S-sensor in the reverse order of removal, referring to the Installation Note.

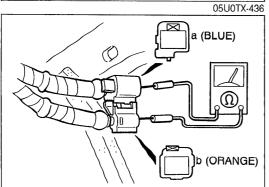
### Installation note

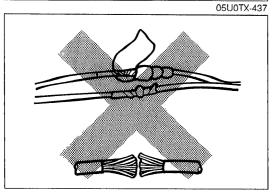
- Position the sensor with the arrow toward the front of the vehicle.
- Tighten the mounting bolts to the specified torque.

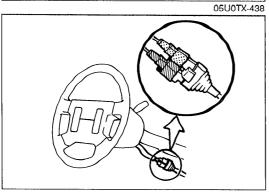
### Tightening torque:

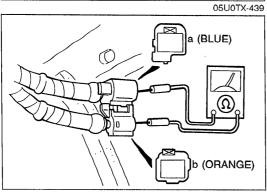
8.8—12.7 Nm (8.8—12.7 cm-kg, 78—113 in-lb)











# INSPECTION D-sensor (LH)

- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
- 3. Remove the bolts and the relay box.
- 4. Disconnect the D-sensor (LH) connector.

### Caution

- Do not connect an ohmmeter to the harness side connector.
   Connect the ohmmeter to the sensor side connectors only.
- 5. Measure resistance between the terminals of the sensor connectors.

Terminals	Resistance	
a (blue)—b (orange)	Approx. 1.2 kΩ	

6. If not as specified, replace the sensor.

### Caution

• Do not try to repair the wire harness.

### D-sensor (RH)

- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
- 3. Remove the bolts and the main fuse block.
- 4. Disconnect the D-sensor (RH) connector.

### Caution

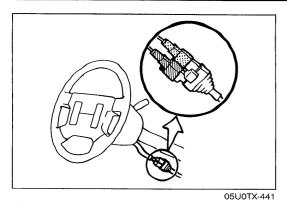
- Do not connect an ohmmeter to the harness side connector.
   Connect the ohmmeter to the sensor side connectors only.
- 5. Measure resistance between the terminals of the sensor connectors.

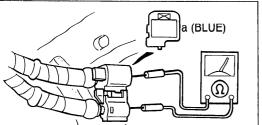
Terminals	Resistance
a (blue)b (orange)	Approx. 1.2 kΩ

6. If not as specified, replace the sensor.

### Caution

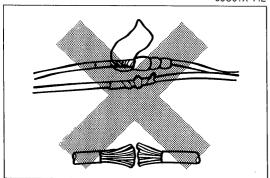
• Do not try to repair the wire harness.

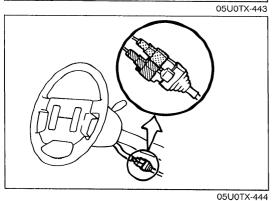


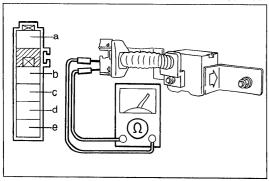




(ORANGE)







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### D-sensor (CNT)

- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
- 3. Disconnect the D-sensor (CNT) connectors.

### Caution

- Do not connect an ohmmeter to the harness side connector.
   Connect the ohmmeter to the sensor side connectors only.
- Measure resistance between the terminals of the sensor connectors.

Terminals	Resistance
a (blue)—b (orange)	Approx. 1.2 kΩ

5. If not as specified, replace the sensor.

### Caution

Do not try to repair the wire harness.

### S-sensor

- 1. Disconnect the negative battery cable.
- 2. Remove the knee protector, and disconnect the clock spring connectors (Orange and blue).
- 3. Remove the instrument panel assembly.
- 4. Disconnect the S-sensor connectors.

### Caution

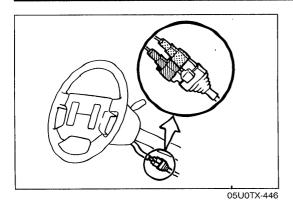
- Do not connect an ohmmeter to the harness side connector.
   Connect the ohmmeter to the sensor side connectors only.
- 4. Check resistance between the terminals of the sensor connectors.

Terminals	Continuity	
b—e	Yes	
c—d	Yes	
b—c	No	

5. If not as specified, replace the sensor.

### Caution

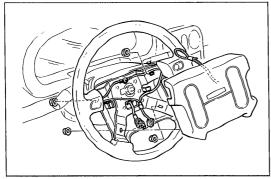
Do not try to repair the wire harness.



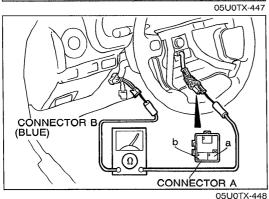
# **Clock Spring Connector Assembly**

1. Disconnect the negative battery cable.

2. Remove the knee protector and disconnect the clock spring connectors (Orange and blue).



3. Remove the nuts and remove the air bag module.



4. Check continuity between terminals of the clock spring connectors (blue) as shown.

Terminals		Continuity	
Connector A	Connector B	Continuity	
а	А	Yes	
b	В	Yes	

5. If not as specified, replace the clock spring connector.

### Note

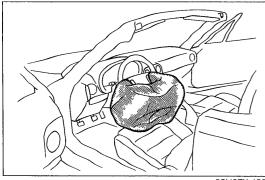
 The clock spring connector assembly is part of the combination switch. When replacing the clock spring connector assembly, replace it with combination switch as an assembly.

### AIR BAG MODULE DISPOSAL PROCEDURE

When an air bag module is to be disposed of, it must be disposed following the proper procedure recommended for the partinular situation. These situations and the disposal recommendations are shown in the following table and described in detail below.

Condition	Disposal instraction	
Faulty but live air bag module replaced	Air bag module must be return to location designated by Mazda	
Vehicle to be scrapped with live air bag module	Air bag module must be deliberately deployed (See below)	
Vehicle to be scrapped with deployed air bag module	Scrap air bag module with vehicle in usual manner	
Deployed air bag module replaced	Scrap air bag module in usual manner	

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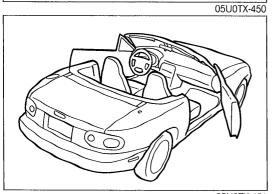


### **Deployed Air Bag Module**

To service a deployed air bag, it must be replaced with an new module. The deployed air bag module can be disposed of in the usual manner as any part to be scrapped.

Warning

 When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by product of the gas generant combustion.

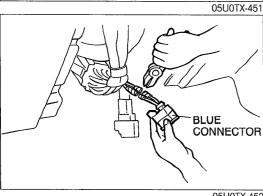


### **Live Air Bag Module**

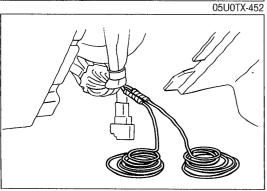
When a live air bag module is scrapped with the vehicle, the module should be deployed before it is scrapped.

### A deliberate deployment should be performed as follows:

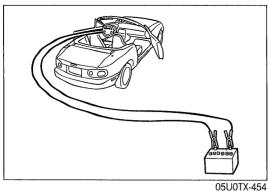
- 1. Locate the vehicle outdoors away from other persons, and open the convertible top and doors.
- 2. Disconnect the negative battery cable.

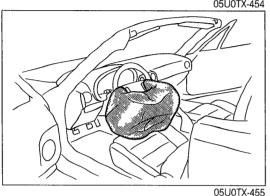


- 3. Verify that the air bag module is firmly mounted to the steering wheel.
- 4. Remove the knee protector and disconnect the clock spring connectors.
- 5. Cut the clock spring connector (blue) wires.



6. Connect two jumper wires [6 m (20 ft) min] to the clock spring cut wires as shown.





Warning

- All personnel should be at least 6 m (20 ft) away from the vehicle to ensure personnel safety and due to the loud sound that occurs when the air bag deploys.
- 7. From 6 m (20 ft), connect the jumper wires to the terminals of a 12V vehicle battery to trigger the igniter.
- 8. Allow at least 10 minutes before approaching the air bag to allow for cooling of the module and dissipation of the effluents.

Warning

- When handling a deployed air bag module, wear gloves and safety glasses, because the deployed air bag module may contain deposits of sodium hydroxide, a caustic by product of the gas generant combustion.
- 9. Remove the deployed air bag module, and scrap it in the usual manner of any part to be scrapped.

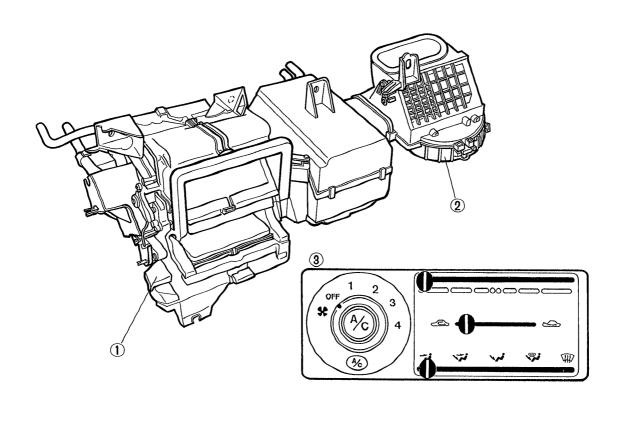
# HEATER AND AIR CONDITIONER SYSTEMS

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# **HEATER**

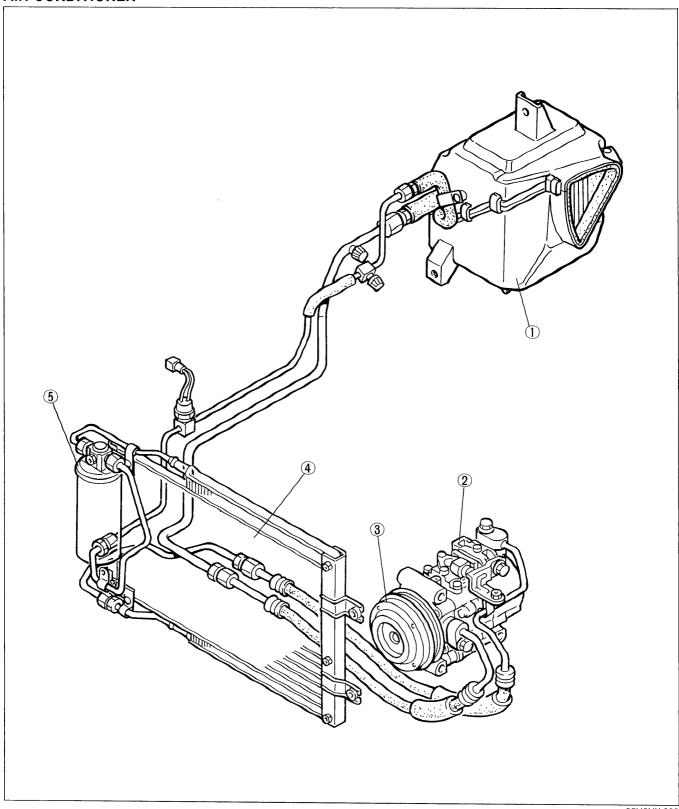


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1.	Heater unit		
	Removal / Installation	page	U-19
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# AIR CONDITIONER



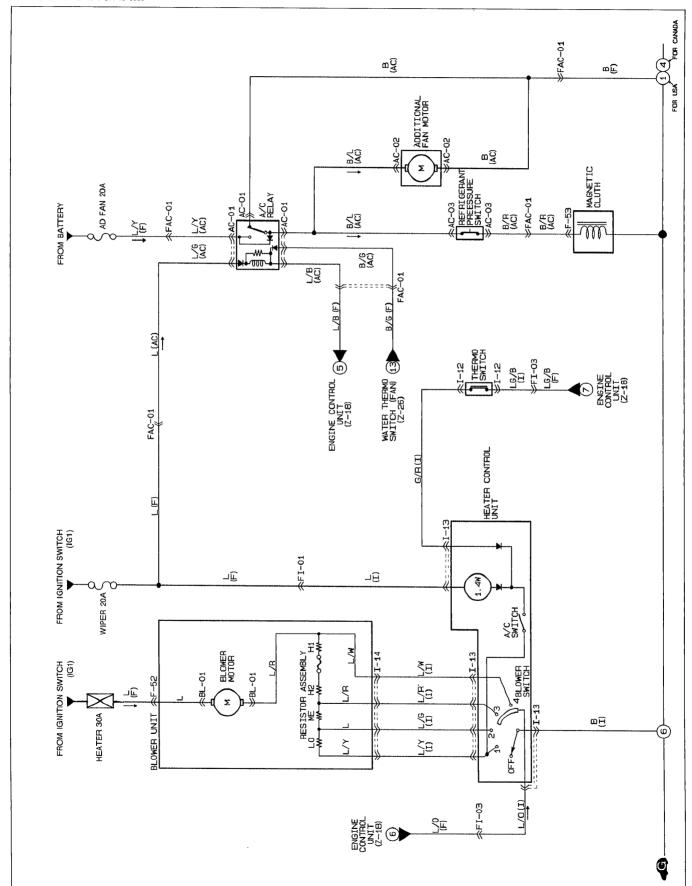
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1. Cooling unit		
Removal / Installation	page	U-32
Disassembly / Assembly	page	U-33
2. Compressor	, 0	
Removal / Installation	page	U-40

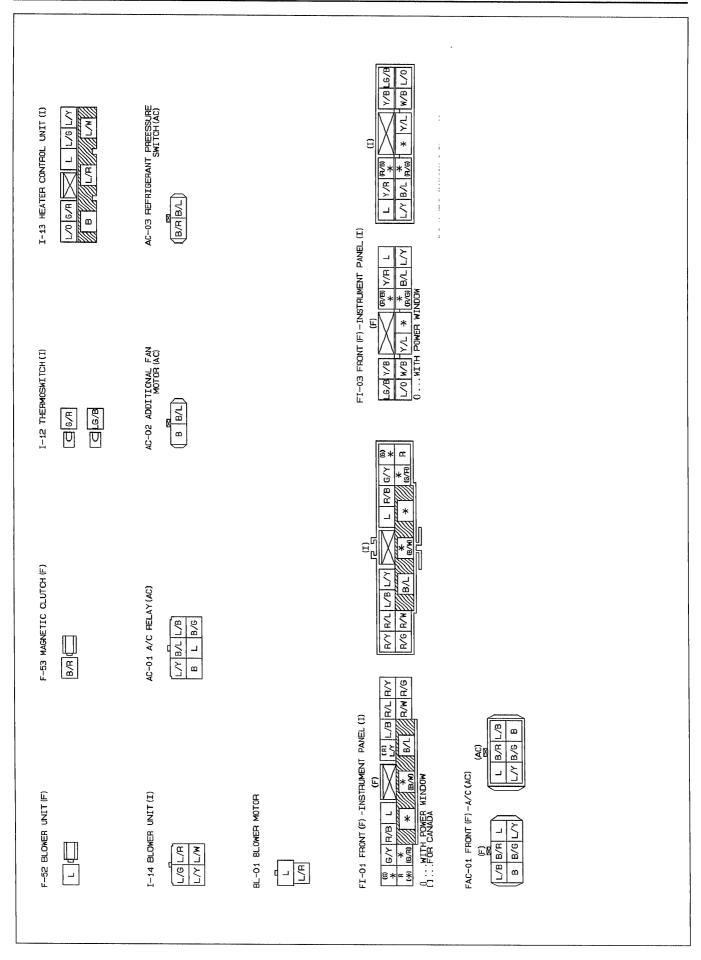
3.	Magnetic clutch		
	Disassembly / Assembly	page	U-41
4.	Condenser		
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5.	Receiver / drier		
	Removal / Installation	page	U-35

# TROUBLESHOOTING GUIDE

# **CIRCUIT DIAGRAM**



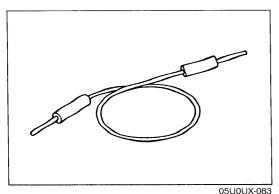
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### TROUBLESHOOTING GUIDE

Symptom	Reference page
Blower motor does not operate	U–7
Magnetic clutch does not operate	U-9
Additional (condenser) fan does not operate	U-11
Insufficient cooling No cooling Intermittent cooling	U-12

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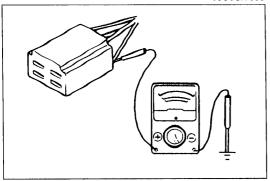




The jumper wire is used for testing by short-circuiting switch terminals and to verify the condition of ground connections.

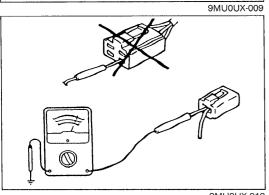
### Caution

 Do not connect the jumper wire between a power source and a body ground. Doing so may cause burning or other damage to harnesses and electronic components.



### Voltmeter

The DC voltmeter is used for measurement of circuit voltage. A voltmeter with a range of 15V or more must be used. It is used by connecting the positive (+) probe (red lead) to the point where voltage is to be measured and connecting the negative (-) probe (black lead) to a body ground.

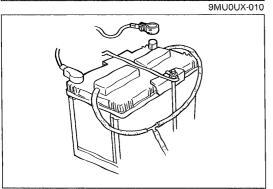


### **Ohmmeter**

The ohmmeter is used to measure the resistance between two points in a circuit, to check for continuity, and to diagnose short circuits.

### Caution

 Never connect the ohmmeter to any circuit to which voltage is applied. Doing so may burn or otherwise damage the ohmmeter.



# GENERAL PRECAUTION Before Disconnecting Battery Cables

The optional audio unit has an anti-theft function that is activated when the battery power is disconnected. Obtain the code number and deactivate the audio anti-theft system before disconnecting the battery. (Refer to page T–113.)



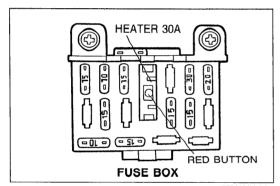
Symptom: Blower motor does not operate.

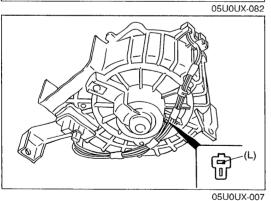
### Normal operation of blower motor

Blower motor speed is controlled by the blower switch and a resistor assembly in the blower unit. When the blower switch is in the OFF position, the motor ground circuit is open and the blower motor does not operate. When the switch is in the first (Low) position, current flow from the blower motor is restricted by the three resistors in the resistor assembly, and the blower motor turns at low speed.

Changing the blower switch to the second (Mid), third (High), or fourth (Super-high) position causes the circuit resistance to decrease, and the blower motor speed becomes correspondingly faster.

05U0UX-006





### Step 1

1. Check the circuit breaker.

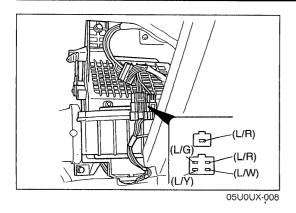
Circuit breaker	Amperage	Location
HEATER	30A	Fuse box

- 2. If the reset button is not out, go to Step 2.
- 3. If the reset button is out, check for a short circuit in the harness. Repair as necessary; then depress the reset button to reset the circuit breaker.

- 1. Turn the ignition switch ON.
- 2. Turn the blower switch to the fourth position.
- 3. Measure the voltage at terminal-wire (L) of the blower motor connector.

Wire	Voltage	Action
(L)	12V	Go to Step 3
	0V	Repair wire harness (Circuit breaker—Blower motor)

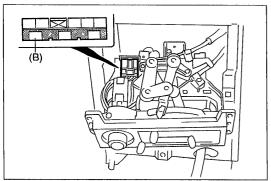
### TROUBLESHOOTING GUIDE

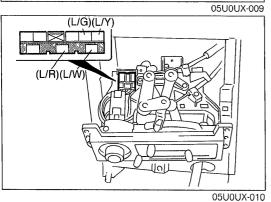


Step 3

- 1. Turn the ignition switch ON.
- 2. Turn the blower switch and A/C switch OFF.
- 3. Measure the voltage at the terminal-wires of the resistor assembly.

Wire	Voltage	Action
(L/R)	12V	Next, check wire (L/W)
(1-pin connector)	0V	Replace blower motor
(L/W)	12V	Next, check wire (L/R)
	OV	Replace resistor assembly
(L/R)	12V	Next, check wire (L/G)
(4-pin connector)	OV	Replace resistor assembly
(L/G)	12V	Next, check wire (L/Y)
	0V	Replace resistor assembly
(L/Y)	12V	Go to Step 4
	OV	Replace resistor assembly





### Step 4

- 1. Turn the ignition switch ON.
- 2. Turn the blower switch to the fourth position.
- 3. Measure the voltage at terminal-wire (B) of the blower switch connector.

Wire	Voltage	Action
(B)	OV	Go to Step 5
	12V	Repair wire harness (Blower switch—Body ground)

- 1. Turn the ignition switch ON.
- 2. Turn the blower switch and A/C switch OFF.
- 3. Measure the voltage at the terminal-wires of the blower switch connector.

Wire	Voltage	Action
(L/W)	OV	Repair wire harness
		(Resistor assembly—Blower switch)
	12V	Next, check wire (L/R)
(L/R)	0V	Repair wire harness
		(Resistor assembly—Blower switch)
	12V	Next, check wire (L/G)
(L/G)	0V	Repair wire harness
		(Resistor assembly—Blower switch)
	12V	Next, check wire (L/Y)
(L/Y)	OV	Repair wire harness
		(Resistor assembly—Blower switch)
	12V	Replace blower switch



Symptom: Magnetic clutch does not operate.

### Note

• If the blower motor also does not operate, see "Blower motor does not operate"; page U-7.

### Normal operation of magnetic clutch

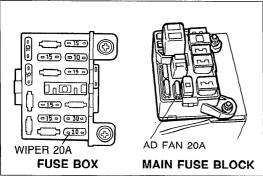
The magnetic clutch is supplied with battery voltage as shown:

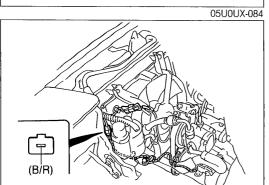
- 1. A/C and blower switches are turned ON.
- 2. ECU receives signal that A/C and blower switches are ON and creates ground circuit.
- 3. A/C relay is magnetized and contact is closed.
- 4. Battery voltage is applied to magnetic clutch and clutch locks.

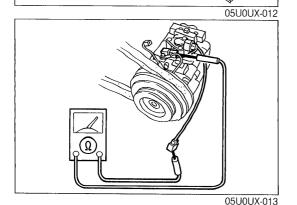
### Note

• The ECU also controls the additional fan and magnetic clutch operation depending on engine load. (Refer to Section F.)

05U0UX-011







### Step 1

1. Check the following fuses.

Fuse	Amperage	Location	
WIPER	20A	In fuse box	
AD FAN	20A	In main fuse block	

- 2. If the fuses are OK, go to Step 2.
- 3. If a fuse is burned, check for a short circuit in the harness before replacing it.

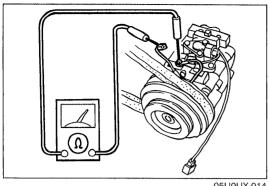
### Step 2

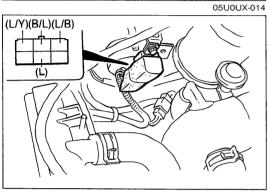
- 1. Run the engine at idle.
- 2. Turn the A/C switch and blower switch ON.
- 3. Measure the voltage at terminal-wire (B/R) of the magnetic clutch connector.

	Wire	Voltage	Action
Ì	(D/D)	12V	Go to Step 3
Į	(6/11)	0V.	Go to Step 5

- 1. Disconnect the thermoswitch connector.
- 2. Check for continuity of the thermoswitch.

Continuity	Action
Yes	Go to Step 4
No	Replace thermoswitch





05U0UX-015

### Step 4

- 1. Disconnect the magnetic clutch connector.
- 2. Check for continuity between the magnetic clutch connector and a body ground.

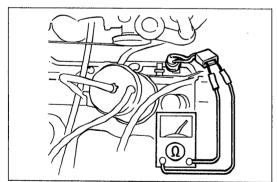
### Note

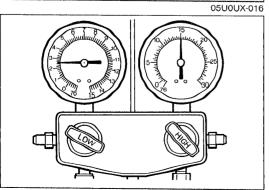
- Set the ohmmeter to x1,000 range.
- 3. If there is no continuity, replace the magnetic clutch.
- 4. If there is continuity, adjust the magnetic clutch clearance or check the compressor for internal trouble.

### Step 5

- 1. Start the engine.
- 2. Turn the blower and A/C switches ON.
- 3. Measure the voltage at the following terminal-wires of the A/C relay connector.

Wire	Voltage	Action
(B/L)	12V	Go to Step 6
	٥V	Next, check wire (L/Y)
(L/Y)	12V	Next, check wire (L/G)
	OV	Repair wire (L/G)
		(AD FAN 20A fuse—A/C relay)
(L)	12V	Next, check wire (L/B)
	OV	Repair wire (L/G)
		(WİPER 20A`fuse—A/C relay)
(L/B)	12V	Check ECU terminal voltage
	0V	Replace A/C relay





05U0UX-017

### Step 6

- 1. Disconnect the refrigerant pressure switch connector.
- 2. Check continuity of the refrigerant pressure switch.

Continuity	Action
Yes	Repair wiring harness (A/C relay—Refrigerant pressure switch—Magnetic clutch)
No	Go to Step 7

### Step 7

1. Measure the refrigerant pressure. (Refer to page U-31.)

### Normal pressure

Low-pressure side:

147—294 kPa (1.5—3.0 kg/cm², 21—43 psi)

**High-pressure side:** 

1,177—1,619 kPa (12.0—16.5 kg/cm<sup>2</sup>, 171—235 psi)

- 2. If not as specified, check the refrigerant system by referring to the troubleshooting information on page U-12.
- 3. If correct, replace the refrigerant pressure switch.

### TROUBLESHOOTING GUIDE



Symptom: Additional (condenser) fan does not operate.

### Note

• If the magnetic clutch also does not operate, see "Magnetic clutch does not operate"; page U=9.

### Normal operation of additional fan

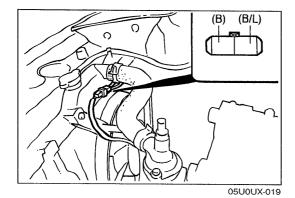
The additional fan is supplied with battery voltage as shown:

- 1. A/C and blower switches are turned ON.
- 2. ECU receives signal that A/C and blower switches are ON and creates ground circuit.
- 3. A/C relay is magnetized and contact is closed.
- 4. Battery voltage is applied to additional fan and fan operates.

### Note

• The ECU also controls the additional fan and magnetic clutch operation depending on engine load. (Refer to Section F.)

05U0UX-018

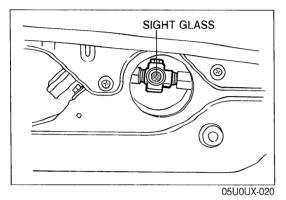


### Remedy

1. Measure the voltage at the terminal-wire(s) of the additional fan.

Wire	Voltage	Action	
(B/L)	12V	Next, check wire (B)	
	OV	Repair wire (B/L) (A/C relay—Additional fan)	
(B)	12V	Repair wire (B) (Additional fan—Body ground)	
	OV	Replace additional fan	

Symptom: Insufficient cooling. No cooling. Intermittent cooling.

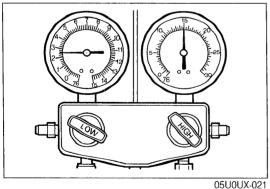


## Step 1 Checking refrigerant charge

- 1. Run the engine at a fast idle.
- 2. Operate the air conditioner at maximum cooling for a few minutes.
- 3. Observe the sight glass to determine the amount of refrigerant and the related action as shown below.

Item	Symptom	Amount of refrigerant	Action
1	Bubbles present in sight glass	Insufficient refrigerant	Check refrigerant pressure, go to Step 2
2	No bubbles present in sight glass	Too much or proper amount of refrigerant	Turn air conditioner OFF, and watch bubbles (Refer to Items 3 and 4)
3	Immediately after air conditioner turned off, refrigerant in sight glass stays clear	Too much refrigerant	Check refrigerant pressure, go to Step 2
4	When air conditioner turned OFF, refrigerant foams, and then sight glass becomes clear	Proper amount of refrigerant	Refrigerant amount normal

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### Step 2 Checking refrigerant pressure

- 1. Connect the A/C manifold gauge set.
- 2. Operate the engine at 2,000 rpm and set the air conditioner to maximum cooling.
- 3. Measure the refrigerant pressure.

### Normal pressure

Low-pressure side:

147-294 kPa (1.5-3.0 kg/cm<sup>2</sup>, 21-43 psi) High-pressure side:

1,177—1,619 kPa (12.0—16.5 kg/cm<sup>2</sup>, 171—235 psi)

4. If the pressures are not as specified, refer to the chart on the next page and check the system.

# TROUBLESHOOTING GUIDE

Measured pressure		Possible cause	Action
LOW PRESSURE SIDE SIDE SIDE SIDE SIDE SIDE SIDE SID	Low side: Below 78.5 kPa (0.8 kg/cm², 11.4 psi) High side: 785—883 kPa (8—9 kg/cm², 114—128 psi)	Insufficient refrigerant	Case 1 (Refer to page U-14)
LOW PRESSURE SIDE  2 5 kg/cm²  20 kg/cm²	Low side: Above 245 kPa (2.5 kg/cm², 35.6 psi) High side: Above 1,962 kPa (20 kg/cm², 284 psi)	Excessive refrigerant or insufficient condenser cooling	Case 2 (Refer to page U-15)
LOW PRESSURE SIDE  2.5 kg/cm²  23 kg/cm²	Low side: Above 245 kPa (2.5 kg/cm², 35.6 psi) High side: Above 2,256 kPa (23 kg/cm², 327 psi)	Air in system	Case 3 (Refer to page U-15)
LOW PRESSURE SIDE HIGH PRESSURE SIDE  50 cmHg— 1 5 kg/cm²  1 5 kg/cm²	Low side: 50 cmHg (2.0 inHg) of Vacuum—147 kPa (1.5 kg/cm², 21.3 psi) High side: 687—1,472 kPa (7—15 kg/cm², 100—213 psi)	Moisture in system	Case 4 (Refer to page U-16)
LOW PRESSURE SIDE SIDE 16 kg/cm²	Low side: 76 cmHg (3.0 inHg) of Vacuum High side: Below 589 kPa (6 kg/cm <sup>2</sup> , 85 psi)	No refrigerant circulation	Case 5 (Refer to page U-16)
LOW PRESSURE SIDE SIDE SIDE 19—20 kg/cm²	Low side: Above 245 kPa (2.5 kg/cm², 35.6 psi) High side: 1,864—1,962 kPa (19—20 kg/cm², 270—284 psi)	Expansion valve stuck open	Case 6 (Refer to page U-17)
LOW PRESSURE SIDE SIDE  4—6 kg/cm²  7—10 kg/cm²	Low side: 392—589 kPa (4—6 kg/cm², 57—85 psi) High side: 687—981 kPa (7—10 kg/cm², 100—142 psi)	Faulty compressor	Case 7 (Refer to page U-17)

#### Case 1: Insufficient refrigerant

Measured pressure

Low-pressure side: Less than 78.5 kPa (0.8 kg/cm<sup>2</sup>, 11.4 psi) High-pressure side: 785—883 kPa (8—9 kg/cm<sup>2</sup>, 114—128 psi)

#### Condition

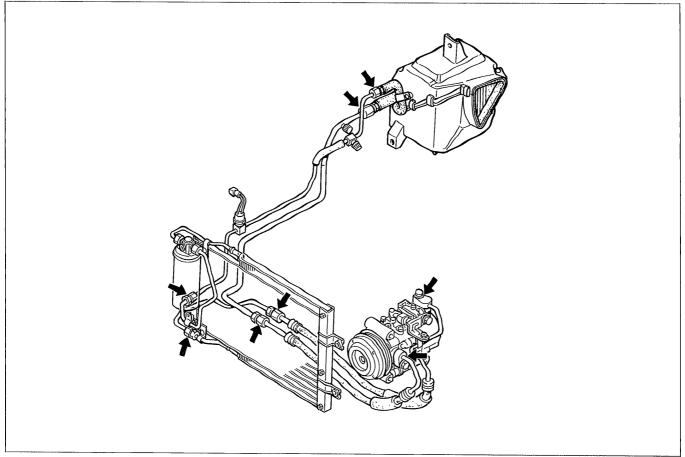
- Outlet air from vents not cold.
- Bubbles seen in sight glass.

#### Step 1

1. Check for oil stains on the pipes, hoses and other parts. (Refer to illustration below.)

2. If oil staining is found at the connection of pipes or hoses, replace the O-ring; then, evacuate, charge, and test the system.

3. If oil staining is not found, go to Step 2.



05U0UX-023

#### Step 2

- 1. Check for leakage from the following connections with a gas leak tester.
  - Inlet and outlet of condenser.
  - Inlet and outlet of receiver/drier.
  - Inlet and outlet of compressor.
  - · Sight glass.
  - Inlet and outlet of cooling unit.
- 2. If leakage is evident, go to Step 3.
- 3. If leakage cannot be found, evacuate, charge, and test the system. (System OK, but refrigerant leaked gradually over time.)

#### Step 3

- 1. Check tightening torque of the connection where leak was detected.
- 2. If the connection is loose, tighten the connection to the specified torque; then evacuate, charge, and test the system.
- 3. If the connection is properly tightened, replace the O-ring; then evacuate, charge, and test the system.

Case 2: Excessive refrigerant or insufficient condenser cooling

Measured pressure

Low-pressure side: Above 245 kPa (2.5 kg/cm<sup>2</sup>, 35.6 psi) High-pressure side: Above 1,962 kPa (20 kg/cm<sup>2</sup>, 284 psi)

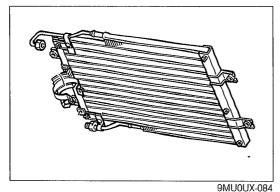
Condition

Insufficient cooling

#### Note

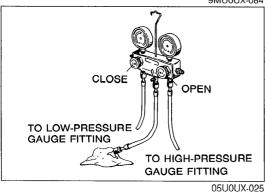
• If the condenser fan does not operate when the air conditioner is operating, see "Additional (condenser) fan does not operate"; page U-11, before proceeding.

05U0UX-024



Step 1

- 1. Check the condenser for bent fins or damage. Repair or replace if necessary.
- 2. If the condenser is OK, go to Step 2.



Step 2

1. Discharge the excessive refrigerant. (Refer to page U-28.)

#### Warning

- Always wear gloves and eye protection when discharging the refrigerant.
- 2. Verify that the refrigerant pressure is normal.

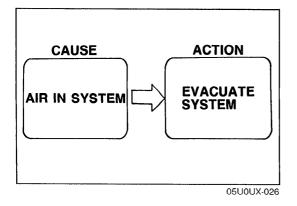
Case 3: Air in system Measured pressure

Low-pressure side: Above 245 kPa (2.5 kg/cm<sup>2</sup>, 35.6 psi) High-pressure side: Above 2,256 kPa (23 kg/cm<sup>2</sup>, 327 psi)

Condition

Insufficient cooling

05U0UX-085



Step 1

Discharge the refrigeration system. (Refer to page U-28.)

#### Step 2

Evacuate the system to remove all air from it. (Refer to page U-29.)

Step 3

Charge the system with refrigerant. (Refer to page U-29.)

#### Step 4

After charging, measure the refrigerant pressure. (Refer to page U-31.)

### Step 5

If low- and high-pressure sides are still too high, replace the receiver/drier.

# TROUBLESHOOTING GUIDE

## Case 4: Moisture in system

Measured pressure

Low-pressure side: 50 cmHg (2.0 inHg): [Vacuum]

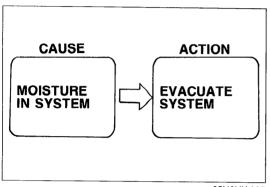
High-pressure side: 687—1,472 kPa (7—15 kg/cm<sup>2</sup>, 100—213 psi)

Condition

Intermittent cooling

(Moisture in refrigeration system freezes in expansion valve and causes temporary blocking. After time, ice melts and condition returns to normal.)

05U0UX-086



05U0UX-027

#### Step 1

Discharge the refrigeration system. (Refer to page U-28.)

#### Step 2

Evacuate the system to remove all air and moisture from it. (Refer to page U-29.)

#### Step 3

Charge the system with refrigerant. (Refer to page U-28.)

After charging, measure the refrigerant pressure. (Refer to page U-31.)

# Step 5

If low- and high-pressure sides are still too high, replace the receiver/drier.

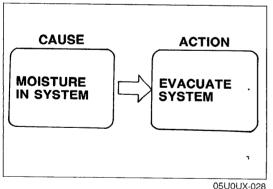
# Case 5: No refrigerant circulation

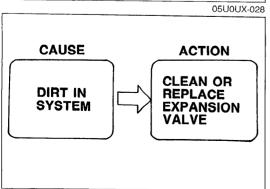
Measured pressure

Low-pressure side: 76 cmHg (3.0 inHg) [Vacuum] High-pressure side: Below 589 kPa (6 kg/cm<sup>2</sup>, 85 psi)

Refrigerant flow obstructed by moisture or dirt, causing freezing or blockage of expansion valve

05U0UX-087





#### Step 1

Turn the air conditioner OFF for about 10 minutes. Turn the air conditioner ON to determine whether the blockage is due to moisture or dirt.

a) If caused by moisture

System will operate normally after being OFF for 10 minutes. (Ice melts and relieves blockage.)

Refer to "Moisture in system".

b) If caused by dirt

System remains abnormal after being OFF 10 minutes. Go to Step 2.

#### Step 2

- 1. Remove the expansion valve. (Refer to page U-33.)
- 2. Blow out the dirt with compressed air.
- 3. If unable to remove the dirt, replace the expansion valve.
- 4. Evacuate, charge, and test the system.



Case 6: Expansion valve stuck open

Measured pressure

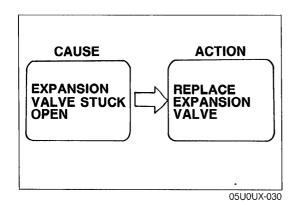
Low-pressure side: Above 245 kPa (2.5 kg/cm<sup>2</sup>, 35.6 psi)

High-pressure side: 1,864—1,962 kPa (19—20 kg/cm<sup>2</sup>, 270—284 psi)

Condition

Insufficient cooling

05U0UX-088



- 1. Check whether there is frost or heavy dew on the suction pipe (between cooling unit and compressor).
- 2. If neither is found, refer to "Excessive refrigerant or insufficient condenser cooling"; page U-15.
- 3. If either is found, replace the expansion valve. (Refer to page U-33.)

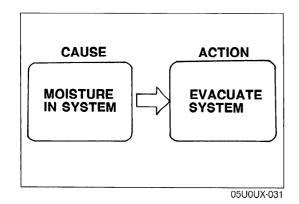
Case 7: Faulty compressor

Measured pressure

Low-pressure side: 392—589 kPa (4—6 kg/cm<sup>2</sup>, 57—85 psi)

High-pressure side: 687—981 kPa (7—10 kg/cm<sup>2</sup>, 100—142 psi)

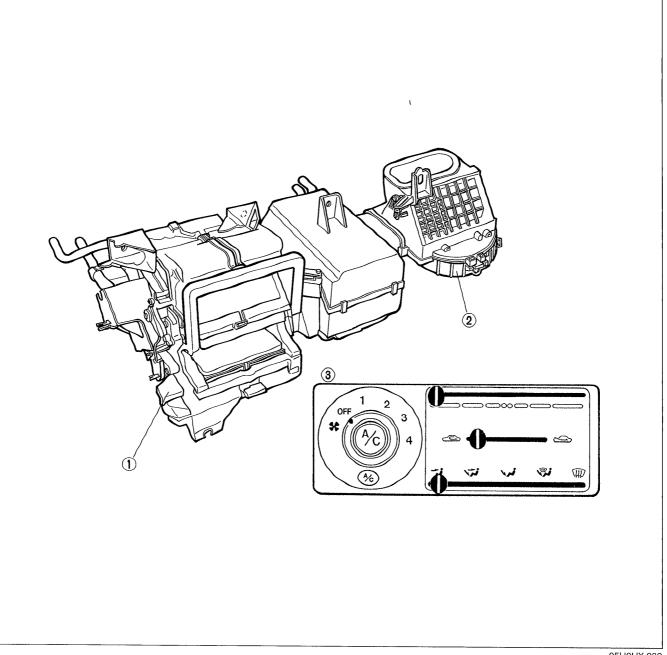
Condition No cooling



- 1. Run the engine at a first idle.
- 2. Verify that the magnetic clutch is ON when the A/C switch and blower switch are ON.
- 3. If the magnetic clutch remains OFF, refer to "Magnetic clutch does not operate"; page U-9.

# **HEATER**

# STRUCTURAL VIEW



1	Heater unit		
٠.	Removal / Installation	page page	U-19 U-20
2	Heater core Inspection Blower unit	page	U-20
ζ.	Removal / Installation Disassembly / Assembly	page page	U-21 U-22

	05U0UX-032
Blower motor	
Inspection	. page U-22
Resistor assembly	
Inspection	. page U-22
3. Heater control switch assembly	
Removal / Installation	. page U-23
Disassembly / Assembly	
Inspection	. page U-25
Adjustment	. page U-25

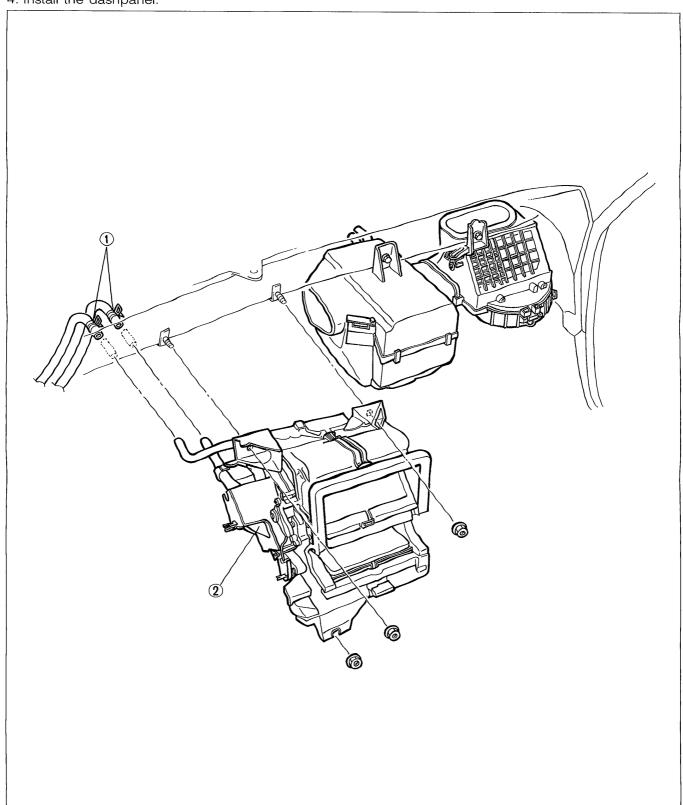
# Note

• Refer to Section E for engine coolant flow.

### **HEATER UNIT**

### Removal / Installation

- Remove the dashpanel. (Refer to Section S.)
   Remove the heater unit as shown in the figure.
   Install the heater unit in the reverse order of removal.
   Install the dashpanel.



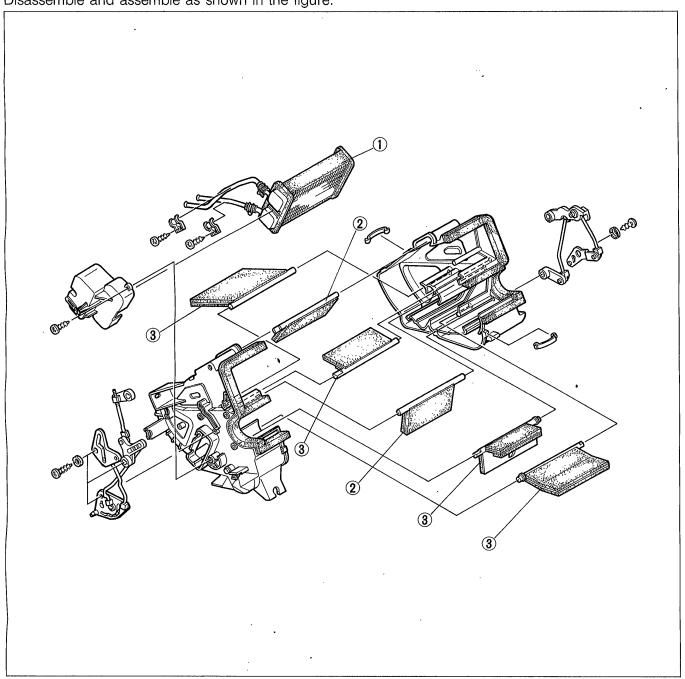
1. Heater hose

2. Heater unit

# **HEATER**

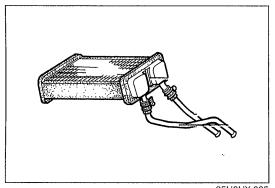
### **Disassembly / Assembly**

Disassemble and assemble as shown in the figure.



05U0UX-034

- 1. Heater core
- 2. Temperature blend door



3. Airflow mode door

## Inspection Heater core

- Check the heater core fins for blockage.
   If the fins are clogged, clean them.
- 3. Check the fittings for cracks or other damage. Replace the heater core if necessary.

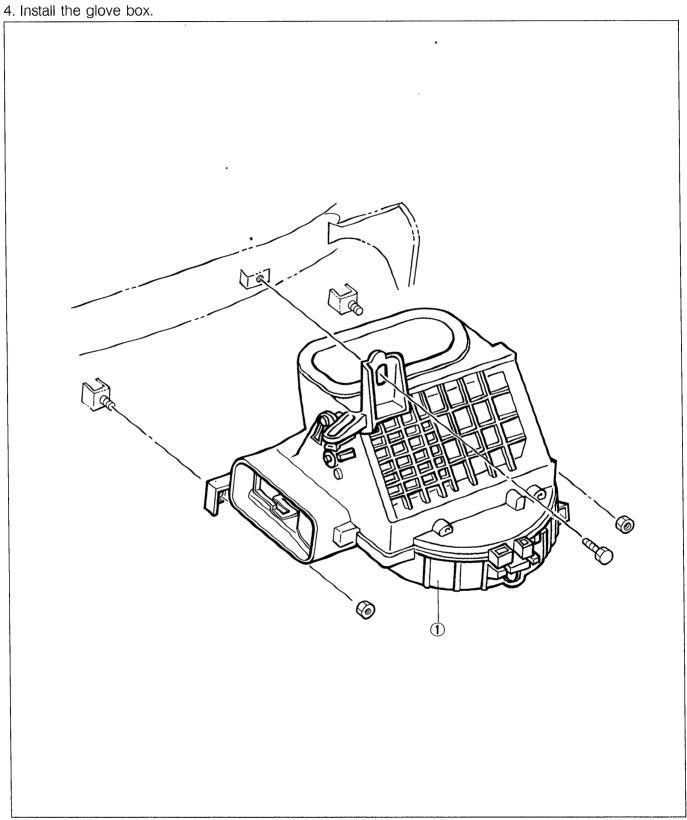
#### **BLOWER UNIT**

- Removal / Installation

  1. Remove the glove box.

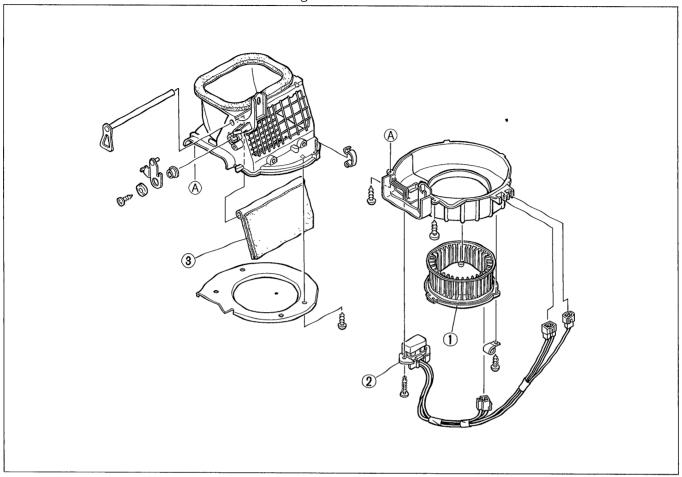
  2. Remove the blower unit as shown in the figure.

  3. Install the blower unit in the reverse order of removal.



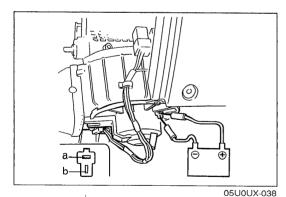
## **Disassembly / Assembly**

Disassemble and assemble as shown in the figure.



05U0UX-037

- 1. Blower motor
- 2. Resistor assembly



Resistor assembly 1. Check for continuity between terminals of the resistor assembly.

Terminals	Continuity	
C—Lo	Yes	
C—Me	Yes	
C—Mh	Yes	
C—Hi	Yes	

#### Note

05U0UX-039

- Set the ohmmeter to the x1,000 range.
- 2. If not as specified, replace the resistor assembly.

3. REC-FRESH door

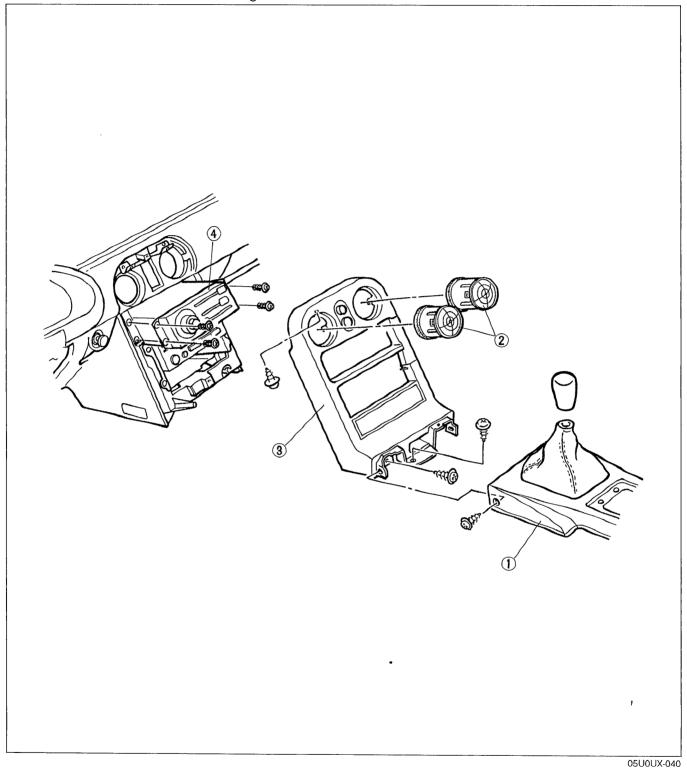
Inspection **Blower motor** 

- 1. Verify that the blower motor runs when connecting 12V to terminal a and grounding terminal b.
- 2. If the blower motor does not run, replace it.

# **HEATER CONTROL SWITCH ASSEMBLY**

**Removal / Installation** 

Remove and install as shown in the figure.



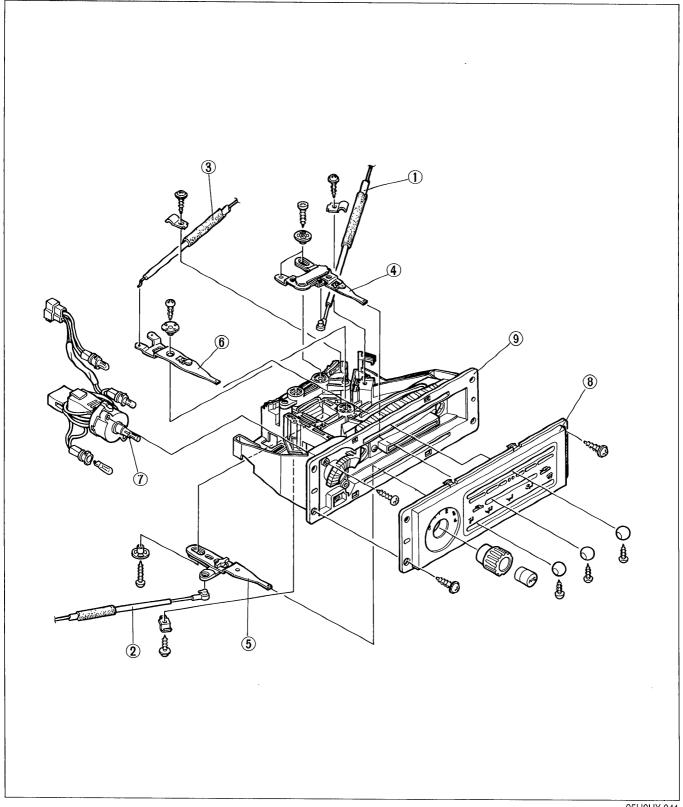
- 1. Center console
- 2. Vent outlet

- 3. Switch panel4. Rec-Fresh wire

### Installation note

• When installing the heater control switch assembly adjust the airflow mode, temperature blend, and Rec-Fresh wires. (Refer to page U-25.)

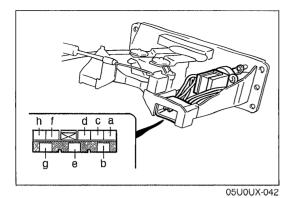
**Disassembly / Assembly**Disassemble and assemble as shown in the figure.



- 1. Rec-Fresh wire
- 2. Airflow mode wire
- 3. Temperature blend wire
- 4. Rec-Fresh lever
- 5. Airflow mode lever

- 6. Temperature blend lever
- 7. Blower and A/C switch
- 8. Panel
- 9. Switch body





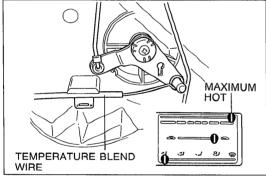
# Inspection Blower and A/C switch

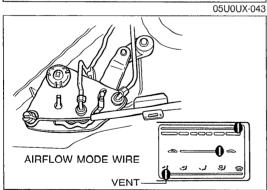
1. Check continuity between terminals of the switch.

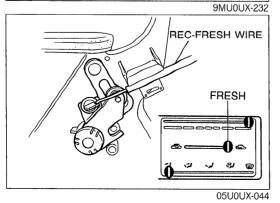
Position					Terr	ninal			
	Position		b	С	d	е	f	g	h
	OFF								
Diamag	First	0-						-0	
Blower switch	Second			0-				0-	$-\circ$
SWILCH	Third					0-		-0-	-0
	Fourth		0					-0-	-0
A/C	OFF								
switch	ON	0-	-	<del></del>			-0		

○ : Indicates continuity○ : Indicates diode

2. If not as specified, replace the switch.







#### Adjustment

#### Temperature blend wire

- 1. Set the temperature blend lever to maximum hot position.
- 2. Connect and clamp the wire with the shutter lever on the heater unit all the way to the right.

#### Caution

After installation, move the temperature blend lever to be sure the wire is securely attached and that it moves the full stroke from HOT to COLD.

#### Airflow mode wire

- 1. Set the airflow mode control lever to VENT position.
- 2. Connect and clamp the wire with the shutter lever on the heater unit at its closest point.

#### Caution

After installation, move the airflow mode control lever to be sure the wire is securely attached and that it moves the full stroke from DEF to VENT.

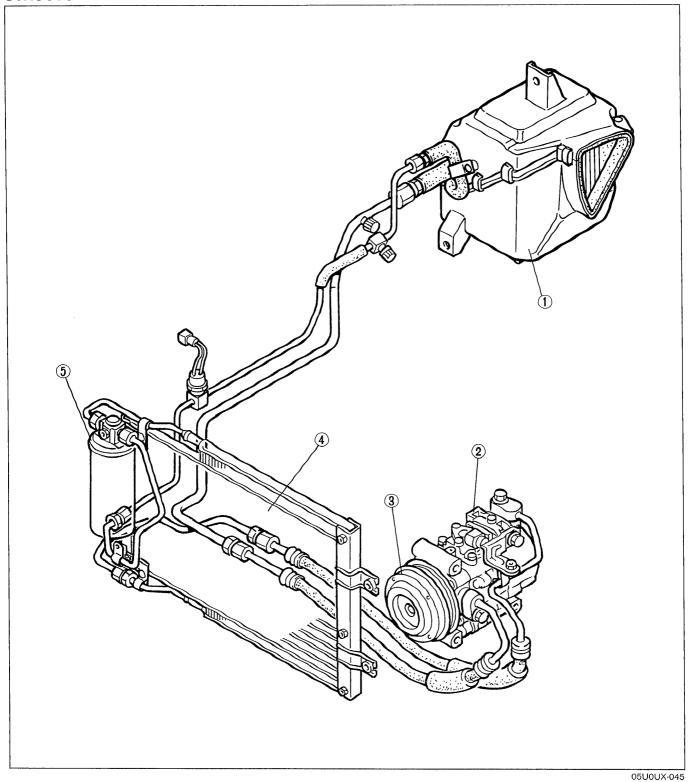
#### Rec-Fresh wire

- 1. Set the Rec-Fresh lever to FRESH position.
- 2. Connect and clamp the wire with the shutter lever on the blower unit at its closest point.

#### Caution

 After installation, move the Rec-Fresh lever to be sure the wire is securely attached and that it moves the full stroke from REC to FRESH.

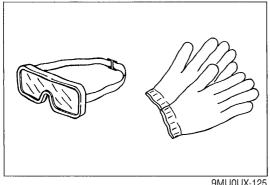
# STRUCTURAL VIEW



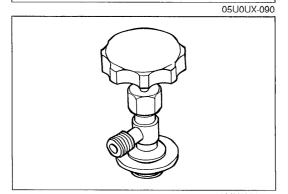
1. Cooling unit		
Removal / Installation	page	U-32
Disassembly / Assembly	page	U-33
2. Compressor		
Removal / Installation	page	U-40

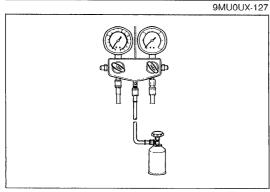
32 33	4. C
10	5. R

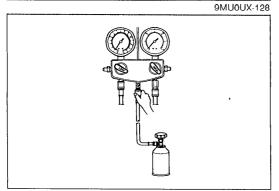
3. Magnetic	clutch		
	embly / Assembly	page	U-4
1. Condens			
Remov	al / Installation	page	U-35
5. Reciver /	drier		
Remov	al / Installation	page	U-35











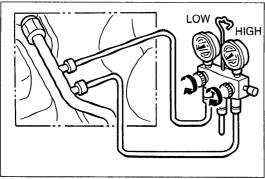
# REFRIGERANT SYSTEM Safety Precaution

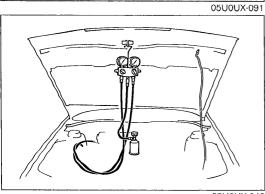
- 1. R-12 liquid refrigerant is highly volatile. A drop of it on the skin could result in localized frostbite. When handling the refrigerant, be sure to wear gloves.
- 2. If the refrigerant splashes into the eyes, wash them with clean water immediately. Always wear goggles or glasses to protect the eyes.
- 3. The R-12 container is a highly pressurized vessel. Never subject it to high heat, and be sure that the temperature where it is stored is below **52°C** (**125.6°F**).
- 4. A halide leak detector is ofen used to check an A/Ć system for refrigerant leakage. Remember that R-12, upon coming into contact with the flame, produces phosgene, a toxic gas. Always provide adequate ventilation.

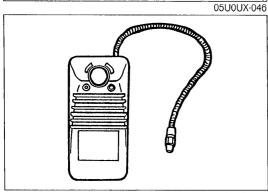
# **Basic Procedure of Refrigerant System Service Refrigerant container service valve**

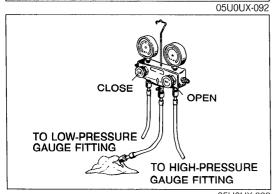
- 1. Turn the handle fully counterclockwise before connecting the valve to the refrigerant container.
- 2. Turn the outlet valve counterclockwise until it reaches its highest position.
- 3. Turn the outlet valve fully clockwise by hand. Connect the center hose to the valve fitting.
- 4. Turn the handle clockwise to puncture the sealed can.
- 5. Turn the handle fully counterclockwise to fill the center hose. Do not open the high- or low-pressure manual valves.

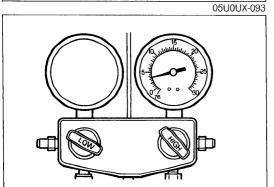
6. Loosen the hose nut connected to the center fitting of the manifold gauge. Allow air to escape until gas is expelled; then retighten the nut.











05U0UX-094

# Installation of manifold gauge set

#### **Note**

- Fittings for attaching the manifold gauge set are on the high- and low-pressure pipes.
- 1. Close both hand valves of the manifold gauge set.
- 2. Connect the low-pressure hose to the low-pressure gauge fitting and high-pressure hose to the high-pressure gauge fitting.
- 3. Tighten the hose nuts by hand only.

#### Leak test

After evacuating the system (refer to page U-29), check for leaks.

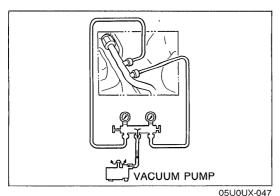
- 1. Connect a full refrigerant container to the service valve.
- 2. Open the high-pressure manual valve to charge the system with refrigerant gas.
- 3. When the low-pressure gauge reads **98 kPa (1 kg/cm², 14 psi)**, close the high-pressure manual valve.
- 4. Use a gas leak detector to check the system for leaks. If a leak is found, repair the faulty component or connection; then evacuate the system again.

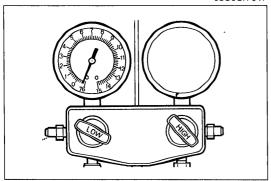
#### Discharging

- 1. Connect the manifold gauge set to the refrigeration system.
- 2. Place the free end of the center hose on a shop towel.
- 3. Slowly open the high-pressure manual valve to allow the refrigerant to escape.

#### Caution

- Open the valve only slightly.
   If refrigerant is allowed to escape too fast, the compressor oil will be drawn out of the system.
- 4. Check the shop towel to make sure no oil is being discharged. If oil is present, partially close the manual valve.
- After the manifold gauge reading drops below 343 kPa (3.5 kg/cm², 50 psi), slowly open the low-pressure manual valve.
- As the system pressure drops, gradually open both the highand low-pressure manual valves until both gauges show 0 kPa (0 kg/cm², 0 psi).



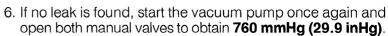


05U0UX-095

**Evacuation** 

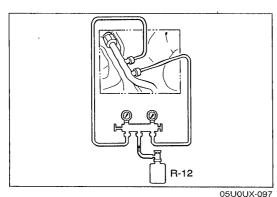
Whenever the refrigeration system has been exposed to the atmosphere, it must be purged of moisture and air.

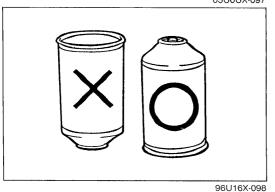
- 1. Connect the manifold gauge set. (Refer to page U-28.)
- 2. Connect the center hose of the gauge set to the vacuum pump inlet.
- 3. Start the vacuum pump and open both manual valves.
- 4. When the low-pressure gauge shows approximately **700 mmHg (27.6 inHg)**, close both manual valves and stop the vacuum pump.
- 5. Verify that the pressure remains the same for **5 minutes** or more. If the pressure changes, check the system for leaks, and repair as necessary.



- 7. After the low-pressure gauge shows lower than **760 mmHg (29.9 inHg)**, continue evacuating for **20 minutes**.
- 8. Close both manual valves and stop the vacuum pump.
- 9. Disconnect the hose from the vacuum pump.

05U0UX-096





Charging

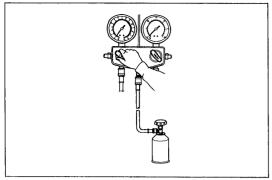
- 1. Close the high- and low-pressure manual valves fully after the system is evacuated.
- 2. Install the refrigerant container service valve.
- 3. Open the low-pressure manual valve to charge the system with refrigerant gas.

#### Note

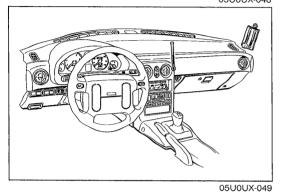
 When charging of the system becomes slow, run the engine at fast idle and operate the air conditioner.

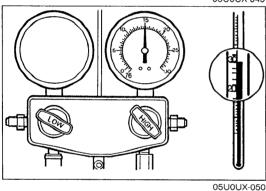
#### Caution

- Be sure to keep the container in the upright position to prevent liquid refrigerant from being charged into the system through the suction side, possibly damaging the compressor.
- Never open the high-pressure manual valve while charging the system with the A/C ON. Doing so may cause the refrigerant can to explode.



05U0UX-048





4. Charge the system with the specified amount of refrigerant.

### Specified amount: 800 q (28.24 oz)

- 5. Close the low-pressure manual valve and the service valve of the refrigerant container.
- 6. Carry out a performance test (Refer to below.).
- 7. Stop the air conditioner and the engine.
- 8. Quickly disconnect both hoses from the gauge fittings.
- 9. Put the cap nuts on the gauge fittings.

#### Performance test

After finishing repairs, conduct a performance test of the air conditioning system as follows.

- 1. Connect the manifold gauge set. (Refer to page U-28.)
- 2. Start the engine and keep the engine speed at 1.500 rpm.
- 3. Operate the air conditioner at maximum cooling.
- 4. Open all windows and doors.
- 5. Place a dry-bulb thermometer in the center ventilator outlet.
- 6. Place a dry and wet thermometer close to the blower inlet.
- 7. Wait until the air conditioner outlet temperature stabilizes.

Stabilized condition

Blower inlet temperature: 25—35°C (77—95°F)

High-pressure side:

1,177—1,619 kPa (12.0—16.5 kg/cm<sup>2</sup>, 171—235 psi)

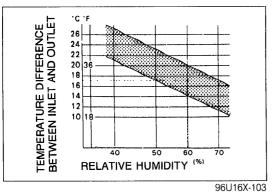
#### Note

- If the high-pressure side becomes too high, pour cool water on the condenser. If it is too low, cover the front of the condenser.
- 8. After the air conditioner stabilizes, read the dry and wet thermometer at the air inlet.
- 9. Calculate the relative humidity from the chart below by comparing the wet- and dry-bulb readings.

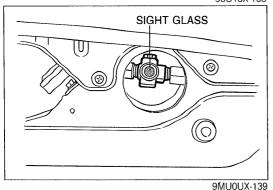
05U0UX-051

# HOW TO READ THE GRAPH: AFTER MEASURING THE TEMPERATURES OF WET- AND DRY-BULB THERMOMETERS AT THE EVAPORATOR AIR INLET, RELATIVE HUMIDITY (%) CAN BE OBTAINED. EXAMPLE: SUPPOSING DRY- AND WET-BULB TEMPERA-TURES AT EVAPORATOR AIR INLET ARE 25°C AND 19.5°C RESPECTIVELY THE POINT OF INTERSECTION OF THE DOTTED LINES IN THE GRAPH, AND IS 60%. WET BULB TEMPERATURE! CI HUMIDITY(%)

U



- 10. Read the dry thermometer at the air outlet, and calculate the difference between the inlet dry bulb and outlet dry bulb temperatures.
- 11. Verify that the intersection of the relative humidity and temperature difference is in the shaded zone.

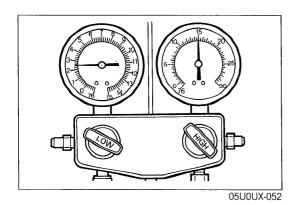


### Checking refrigerant charge

- 1. Run the engine at a fast idle.
- 2. Operate the air conditioner at maximum cooling for a few minutes.
- 3. Determine the amount of refrigerant as shown below by observing the sight glass.

ltem	Symptom	Amount of refrigerant	Action
1	Bubbles present in sight glass	Insufficient refrigerant	Check refrigerant pressure
2	No bubbles present in sight glass	Too much or proper amount of refrigerant	Turn air conditioner off, and watch bubbles (Refer to Items 3 and 4)
3	Immediately after air conditioner turned off, refrigerant in sight glass stays clear	Too much refrigerant	Check refrigerant pressure
4	When air conditioner turned OFF, refrigerant foams, and then sight glass becomes clear	Proper amount of refrigerant	Refrigerant amount normal

9MU0UX-140



#### Checking refrigerant pressure

- 1. Connect the manifold gauge set. (Refer to page U-28.)
- 2. Operate the engine at 1,500 rpm and set the air conditioner to maximum cooling.
- 3. Measure the low- and high-pressure sides.

#### Normal pressure

Low-pressure side:

147—294 kPa (1.5—3.0 kg/cm², 21—43 psi)

High-pressure side:

1,177—1,619 kPa (12.0—16.5 kg/cm<sup>2</sup>, 171—235 psi)

#### **COOLING UNIT**

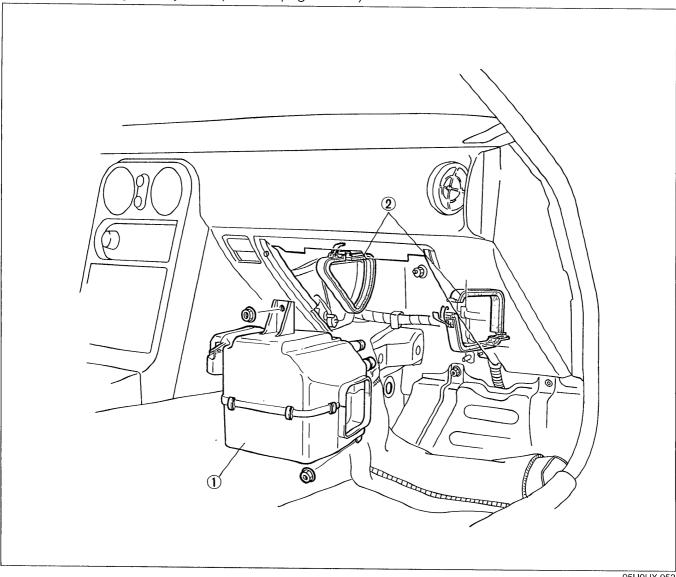
#### Removal / Installation

1. Discharge the refrigerant system. (Refer to page U-28.)

2. Remove the cooling unit as shown in the figure, referring to Removal Note.

3. Install the cooling unit in the reverse order of removal, referring to Installation Note.

4. Charge the refrigerant system. (Refer to page U-29.)



05U0UX-053

1. Cooling unit

2. Sealing plate

#### Removal note

• Immediately plug all open fittings to keep moisture out of the system.

#### Installation note

Position the cooling unit so that its connections match those of the heater unit and the blower unit.

Apply clean compressor oil to the O-rings before connecting the fittings.

Do not apply compressor oil to the fitting nuts.

• If the evaporator is replaced, add compressor oil to the compressor.

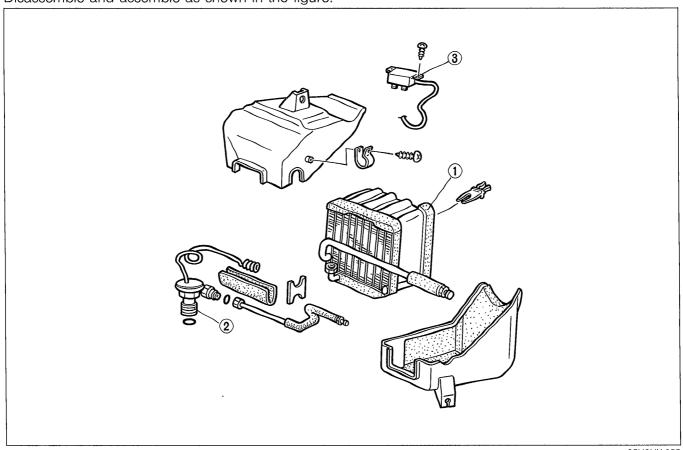
Compressor oil: 50 cc (3.05 cu in)

Tightening torque:

Inlet pipe : 9.8—20 N·m (1.0—2.0 m-kg, 7.2—14 ft-lb) : 20-29 Nm (2.0-3.0 m-kg, 14-22 ft-lb) Outlet pipe

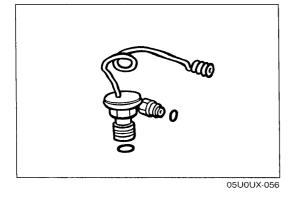
#### **Disassembly / Assembly**

Disassemble and assemble as shown in the figure.



05U0UX-055

- 1. Evaporator
- 2. Expansion valve



3. Thermoswitch

# Replacement Expansion valve

#### Note

- Before replacement of the expansion valve, carefully check the refrigeration system, referring to the troubleshooting information on page U-12.
- 1. Remove the cooling unit. (Refer to page U-32.)
- 2. Disassemble the cooling unit. Remove the evaporator and expansion valve as an assembly.
- 3. Disconnect the inlet and outlet pipes.
- 4. Remove the capillary tube from the outlet pipe and remove the expansion valve.
- 5. Install in the reverse order of removal, noting the following.

#### Note

- Apply clean compressor oil to the O-rings before connecting the fittings.
- Do not apply compressor oil to the fitting nuts.

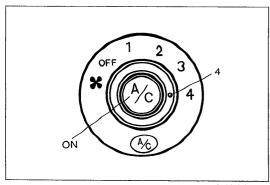
#### Tightening torque:

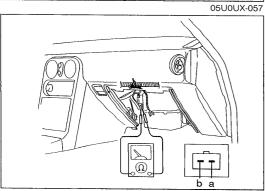
Inlet pipe:

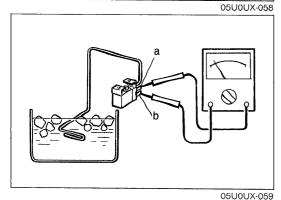
12—15 N·m (1.2—1.5 m-kg, 8.7—11 ft-lb)

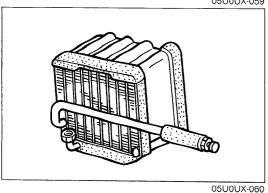
Outlet pipe:

29—34 N·m (3.0—3.5 m-kg, 22—25 ft-lb)









On-vehicle Inspection Thermoswitch

- 1. Remove the glove box.
- 2. Run the engine at idle.
- 3. Turn OFF the A/C switch and set the blower switch to the highest position to operate the blower fan for a few minutes.
- 4. After a few minutes, turn OFF the blower switch and stop the engine.
- 5. Disconnect the thermoswitch connector and check for continuity between terminals of the switch.

Terminals	Continuity
a—b	Yes

6. If not as specified, replace the thermoswitch.

#### Note

• The thermoswitch contacts will be open if the evaporator temperature is below 0°C (32°F).

# Inspection

#### **Thermoswitch**

- 1. Immerse the sensing bulb in a container of ice water.
- 2. Check continuity between terminals of the switch as specified.

Terminals	Temperature	Continuity
0 h	Above 0°C (32°F)	Yes
a—b	Below 0°C (32°F)	No

3. If not as specified, replace the thermoswitch.

#### **Evaporator**

1. Check the evaporator fins for blockage. If the fins are clogged, clean them with compressed air.

#### Caution

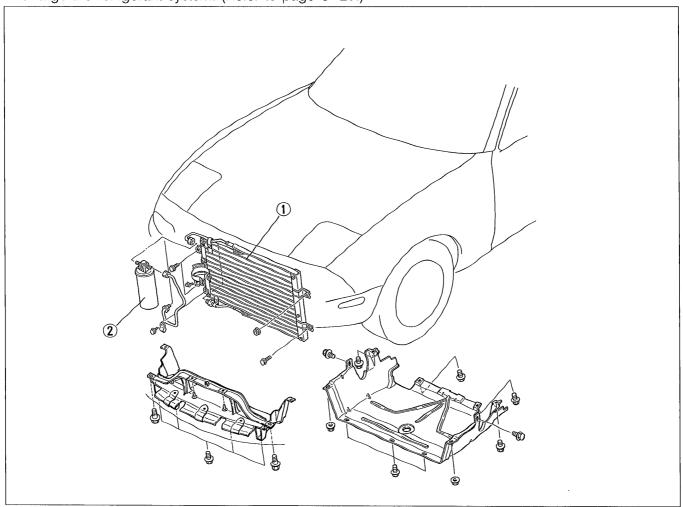
- Never use water to clean the evaporator.
- 2. Check the fittings for cracks and other damage. Replace the evaporator if necessary.



#### **CONDENSER AND RECEIVER/DRIER**

#### Removal / Installation

- 1. Raise the front of the vehicle at least 300mm (11.8 in) and support it on safety stands.
- 2. Discharge the refrigerant system. (Refer to page U-28.)
- 3. Remove the splash shield and air guide.
- 4. Remove the condenser and receiver/drier as an assembly as shown in the figure, referring to **Removal Note**.
- 5. Install the condenser and receiver/drier in the reverse order of removal, referring to **Installation Note**.
- 6. Install the air guide and splash shield.
- 7. Charge the refrigerant system. (Refer to page U-29.)



05U0UX-061

1. Condenser

2. Receiver/Drier

#### Removal note

• Immediately plug any open fittings to keep moisture out of the system.

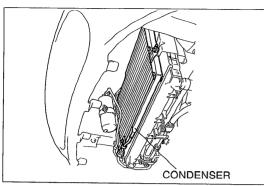
#### Installation note

- Apply clean compressor oil to the O-rings before connecting the fittings.
- Do not apply compressor oil to the fitting nuts.
- If the condenser or receiver/drier is replaced, add the specified amount of compressor oil.

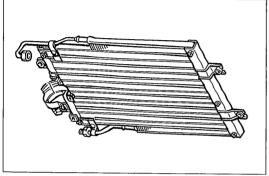
Replaced part Compressor oil amount	
Condenser	30 cc (1.83 cu in)
Receiver/drier	10 cc (0.61 cu in)

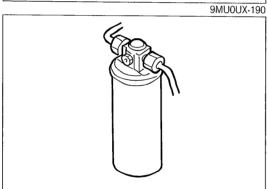
Tightening torque:

Receiver/drier inlet and outlet: 9.8—20 N·m (1.0—2.0 m-kg, 7.2—14 ft-lb)
Condenser inlet : 15—25 N·m (1.5—2.5 m-kg, 11—18 ft-lb)









05U0UX-064

#### **On-vehicle Inspection** Condenser

- 1. Check for oil stains on the condenser or fittings.
- 2. If staining is found at a fitting, replace the O-ring at the fitting.
- 3. Charge the system and check for leaks.
- 4. If leakage is found at a fitting or the condenser, replace parts as necessary.
- 5. Check the condenser for the following and repair or replace as necessary.
  - (1) Cracks or damage.
  - (2) Bent fins.
  - (3) Distorted or damaged condenser inlet or outlet.

#### Receiver / drier

- 1. Check for oil stains on the fittings.
- 2. If staining is found, replace the O-ring at the fitting.
- 3. Charge the system and check for leaks.
- 4. If leakage is found, check and replace the receiver/drier or piping.



# REFRIGERANT LINES On-vehicle Inspection

Check for leakage at connections by using a gas leak tester. Repair or replace as necessary.

#### Replacement

- 1. Discharge the refrigerant system. (Refer to page U-28.)
- 2. Replace the faulty pipe or hose.

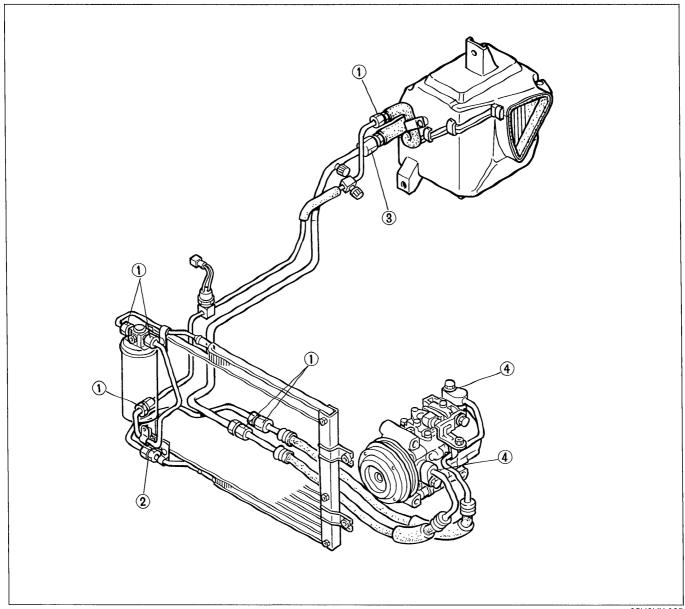
#### Note

• Immediately plug any open fittings to keep moisture out of the system.

# **Tightening torque (fittings):**

Location	Tightening torque
1)	9.8-20 N·m (1.0-2.0 m·kg, 7.2-14 ft·lb)
2	15—25 N·m (1.5—2.5 m·kg, 11—18 ft·lb)
3	20-29 N·m (2.0-3.0 m-kg, 14-22 ft·lb)
(4)	9.8—16 N·m (1.0—1.6 m-kg, 7.2—12 ft-lb)

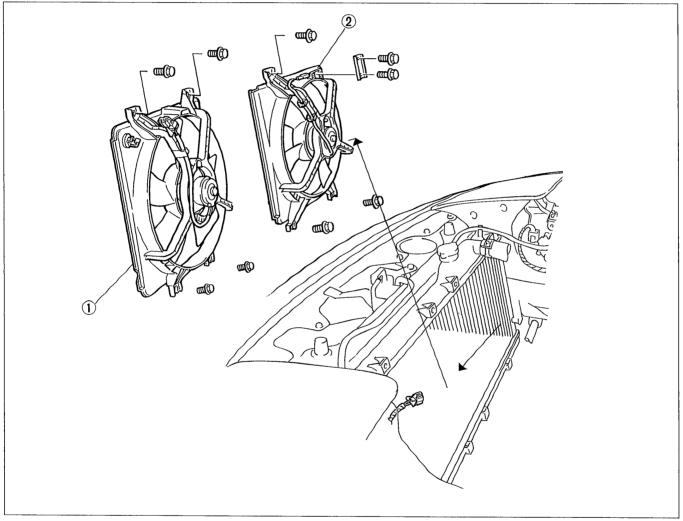
3. Evacuate, charge, and test the refrigerant system.



# CONDENSER FAN Removal / Installation

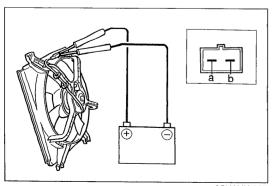
#### Caution

- Obtain the code number and deactive the audio anti-theft function before disconnecting the battery cable.
- 1. Disconnect the negative battery cable.
- 2. Disconnect the cooling fan connector.
- 3. Remove the bolts and cooling fan.
- 4. Remove the condenser fan as shown in the figure.
- 5. Install the condenser fan in the reverse order of removal.



05U0UX-066

# 1. Cooling fan



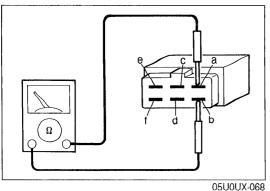
# Inspection

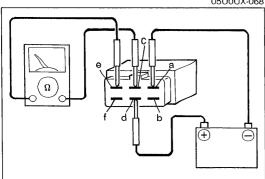
1. Disconnect the condenser fan connector.

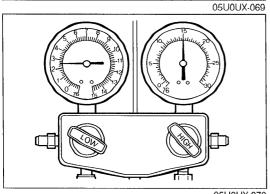
2. Condenser fan

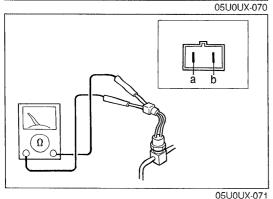
2. Verify that the condenser fan motor runs when connecting 12V to terminal a and grounding terminal b.

Conn	ection	Motor operation	
12V	Ground		
а	b	Yes	









A/C RELAY Inspection

1. Check continuity between terminals of the relay.

		Terminals				
	а	b	С	d	е	f
Continuity	0-+	-0				
	0		-			
			0-	-	0	
			0-			

○ : Indicates continuity
○ ! Indicates diode

- 2. If not as specified, replace the relay.
- 3. If correct, go to the next step.
- 4. Apply 12V to terminal d and ground terminal a.
- 5. Check continuity between terminals of the relay.

	Terminals				
	С	е	f		
Continuity	0	0			

O----O: Indicates continuity

6. If not as specified, replace the relay.

# REFRIGERANT PRESSURE SWITCH Inspection

- 1. Turn the ignition switch OFF.
- 2. Connect the manifold gauge set and measure the highpressure side refrigerant pressure.

## High-pressure side: Above 216 kPa (2.2 kg/cm<sup>2</sup>, 31.2 psi)

- 3. If not as specified, check the refrigerant system. (Refer to page U-12.)
- 4. If correct, go to the next step.
- 5. Disconnect the refrigerant pressure switch connector.
- 6. Check for continuity of the switch.

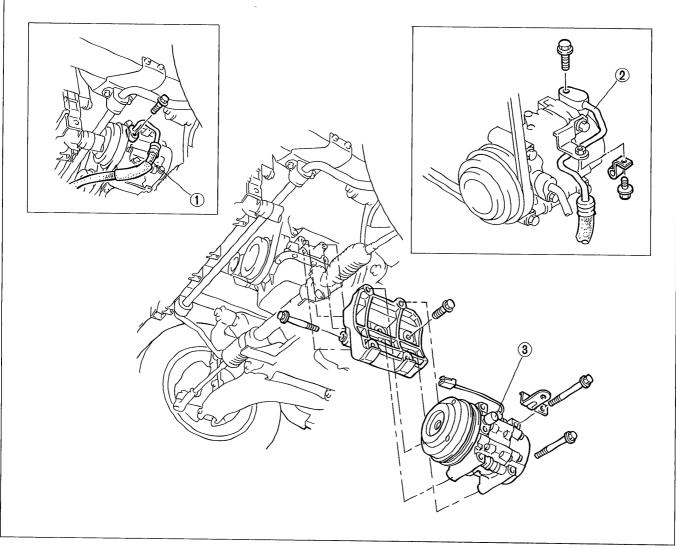
Terminals	Continuity
a—b	Yes

7. If not as specified, replace the switch and the suction pipe.

#### **COMPRESSOR**

#### Removal / Installation

- 1. Raise the front of the vehicle at least 300mm (11.8 in) and support it with safety stands.
- 2. Discharge the refrigerant system. (Refer to page U-28.)
- 3. Remove the splash shield and air quide.
- 4. Remove the compressor as shown in the figure, referring to **Removal Note**.
- 5. Install the compressor in the reverse order of removal, referring to Installation Note.
- 6. Install the air guide and splash shield.
- 7. Charge the refrigerant system. (Refer to page U-29.)



05U0UX-072

- 1. Suction hose
- 2. Discharge hose

# Compressor

#### Removal note

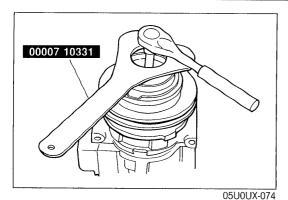
Immediately plug any open fittings to keep moisture out of the system.

#### Installation note

- Apply clean compressor oil to the O-rings before connecting the fittings.
- Do not apply compressor oil to the fitting nuts.
- Adjust the belt tension to specification. (Refer to page U-43.)

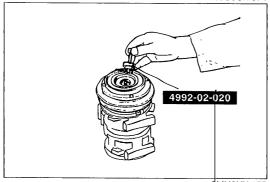
# Tightening torque:

Compressor inlet and outlet: 9.8—16 N·m (1.0—1.6 m-kg, 7.2—12 ft-lb) Compressor mounting bolt : 14.7—21.6 N·m (1.5—2.2 m-kg, 10.8—15.9 ft-lb)

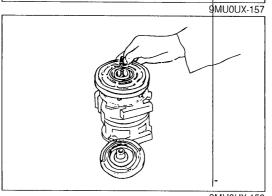


# Disassembly / Assembly Magnetic clutch

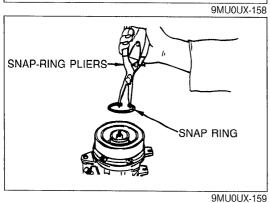
1. Hold the clutch with the SST and remove the shaft nut.



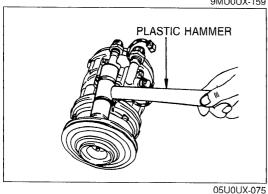
2. Remove the pressure plate with the SST.



3. Remove the shims.



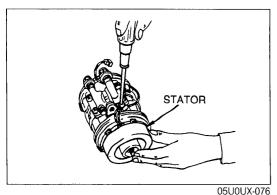
4. Remove the snap ring.



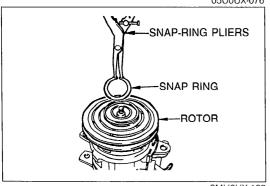
5. Remove the rotor by tapping it with a plastic hammer.

#### Note

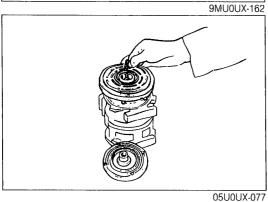
• Do not damage the pulley when tapping the rotor.



6. Disconnect the stator wires from the compressor housing.



7. Remove the snap ring and the stator.



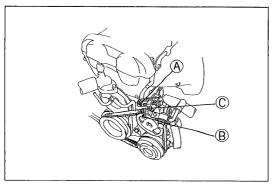
8. Assemble in the reverse order of disassembly, referring to **Assembly note**.

### Assembly note

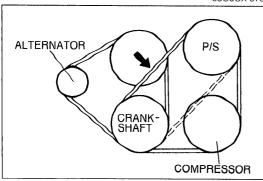
 Adjust the clearance between the pressure plate and the rotor after referring to the table and selecting the proper shims.

Standard clearance: 0.4—0.6mm (0.016—0.024 in)

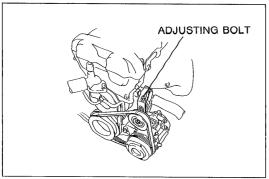
Part No.	Thickness
KA10 61 L12	0.10mm (0.004 in)
KA10 61 L22	0.30mm (0.012 in)
KA10 61 L23	0.50mm (0.020 in)



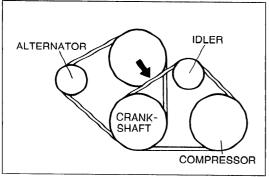
05U0UX-078



05U0UX-079



05U0UX-080



05U0UX-081

### Adjustment Drive belt (With P/S)

- 1. Loosen P/S oil pump bolts (A) and (B) and nut (C).
- 2. Adjust the belt tension and deflection to specification by turning adjusting bolt (D).
- 3. Tighten bolts (A) and (B) and nut (C).

#### Tightening torque:

A: 31—46 N·m (3.2—4.7 m-kg, 23—34 ft-lb)
B: 36—54 N·m (3.7—5.5 m-kg, 27—40 ft-lb)
C: 19—25 N·m (1.9—2.6 m-kg, 14—19 ft-lb)

	Specification		
	New	Used	
Tension	491—589 N (50—60 kg, 110—132 lb)	422-491 N (43-50 kg, 95-110 lb)	
Deflection when applying moderate pressure 98 N (10 kg, 22 lb)	8.0—9.0mm (0.31—0.35 in)	9.0—10.0mm (0.35—0.39 in)	

#### (Without P/S)

- 1. Loosen the locknut.
- 2. Adjust the belt tension and deflection to specification by turning the adjusting bolt.

#### **Tightening torque:**

37—52 N·m (3.8—5.3 m-kg, 27—38 ft-lb)

	Specification		
	New	Used	
Tension	491—589 N (50—60 kg, 110—132 lb)	422-491 N (43-50 kg, 95-110 lb)	
Deflection when applying moderate pressure 98 N (10 kg, 22 lb)	8.0—9.0mm (0.31—0.35 in)	9.0—10.0mm (0.35—0.39 in)	

# **TECHNICAL DATA**

MEASUREMENTS	TD-	2
ENGINE		
LUBRICATING SYSTEM		
COOLING SYSTEM	TD-	5
<b>FUEL AND EMISSION CONTROL SYSTEMS</b>		
ENGINE ELECTRICAL SYSTEM	TD-	7
CLUTCH		
MANUAL TRANSMISSION	TD-	8
PROPELLER SHAFT		
FRONT AND REAR AXLES	TD-	9
STEERING SYSTEM		
BRAKING SYSTEM		
WHEELS AND TIRES	TD-1	10
SUSPENSION	<b>TD-</b> 1	10
BODY ELECTRICAL SYSTEM	TD <sub>-1</sub>	11
HEATER AND AIR CONDITIONING		
SYSTEM	TD-1	12
STANDARD BOLT AND NUT TIGHTENING		
TORQUE	TD-1	12
	ELITOV (	201

05UTDX-001

# **TECHNICAL DATA**

# A. MEASUREMENTS

Item		Measurements		
Overall length		mm (in)	3,948 (155.4)	···
Overall width		mm (in)	1,676 (65.9)	
Overall height		mm (in)	1,224 (48.2)	
Wheelbase		mm (in)	2,266 (89.2)	
Tread	Front	mm (in)	1,410 (55.5)	
	Rear	mm (in)	1,428 (56.2)	

# **B. ENGINE**

tem Engine			B6 DOHC
Туре			Gasoline, 4-cycle
Cylinder arrangement and num	ber		In-line, 4-cylinders
Combustion chamber			Pentroof
Valve system			DOHC, belt-driven 16 valves
Bore x Stroke		mm (in)	78.0 x 83.6 (3.07 x 3.29)
Total piston displacement		cc (cu in)	1,597 (97.42)
Compression ratio	· · · · · · · · · · · · · · · · · · ·		9.4
	Standard		1,324 (13.5, 192)-300
Compression pressure	Minimum		932 (9.5, 135)-300
kPa (kg/cm², psi)-rpm		ference between	
	each cylinder		196 (2.0, 28)
		Open BTDC	5°
Value timine	IN	Close ABDC	51°
Valve timing		Open BBDC	53°
	EX	Close ATDC	15°
	I	IN	0: Maintenance-free
Valve clearance	mm (in)	EX	0: Maintenance-free
Cylinder head			o. Wainterlance-nee
Height		mm (in)	133.8—134.0 (5.268—5.276)
Distortion		mm (in)	0.15 (0.006) max.
Grinding		mm (in)	
Standard			0.20 (0.008) max.
Cylinder head-to-HLA clearance mm (in)		Maximum	0.025—0.066 (0.0010—0.0026)
Valve and valve guide		Maximum	0.18 (0.0071)
Value bood disperse		IN	30.9—31.1 (1.217—1.224)
Valve head diameter	mm (in)	EX	26.1—26.3 (1.028—1.035)
Mahara basadasa sasia dalah		IN	1.0 (0.039)
Valve head margin thickness	mm (in)	EX	1.0 (0.039)
N/ 1 /		IN	45°
Valve face angle		EX	45°
	I .	Standard	105.29 (4.1452)
	IN	Minimum	104.79 (4.1256)
Valve length mm (in)		Standard	105.39 (4.1492)
	EX	Minimum	104.89 (4.1295)
		IN	
Valve stem diameter	mm (in)		5.970—5.985 (0.2350—0.2356)
Guide inner diameter		EX (ia)	5.965—5.980 (0.2348—0.2354)
Guide IIIIer GidHeler		mm (in)	6.01—6.03 (0.2366—0.2374)
Valva stom to guida alagrana	marine Pro-N	IN	0.025—0.060 (0.0010—0.0024)
Valve stem-to-guide clearance	mm (in)	EX	0.030—0.065 (0.0012—0.0026)
		Maximum	0.20 (0.008)
Guide projection (Height "A")	mm (in)	IN	16.8—17.4 (0.661—0.685)
		EX	16.8—17.4 (0.661—0.685)
Valve seat		T	
Seat angle		IN	45°
		EX	45°

Item		Engine	B6 DOHC
Seat contact width		mm (in)	0.8—1.4 (0.031—0.055)
Seat sinking mm (in)		Standard	43.5 (1.713)
		Maximum	45.0 (1.772)
Valve spring		T	
	IN	Standard	48.0 (1.890)
Free length mm (in)		Minimum	47.0 (1.850)
	EX	Standard Minimum	48.3 (1.902)
	L	IN	47.3 (1.862)
Out-of-square	mm (in)	EX	1.68 (0.0661) max. 1.69 (0.0665) max.
		IN	217—246 (22.1—25.1, 48.6—55.2)/40.0 (1.575)
Setting load/height N (kg	kg, lb)/mm (in)	EX	174—196 (17.7—20.0, 38.9—44.0)/40.0 (1.575)
Camshaft		<u> </u>	2010, 0010 (11070)
	IN	Standard	40.888 (1.6098)
Cam height mm (in)	1114	Minimum	40.688 (1.6019)
Tan mangin	EX	Standard	40.889 (1.6098)
		Minimum	40.689 (1.6019)
Journal diameter	(in)	Standard	25.940—25.965 (1.0213—1.0222)
Journal diameter	mm (in)	(No.1—No.5) Out-of-round	0.05 (0.002) max.
		Standard	
Camshaft bearing oil clearance	mm (in)	(No.1—No.5)	0.035—0.081 (0.0014—0.0032)
	. ,	Maximum	0.15 (0.006)
Camshaft runout		mm (in)	0.03 (0.0012) max.
Camshaft end play	mm (in)	Standard	0.07—0.19 (0.0028—0.0075)
		Maximum	0.20 (0.008)
Cylinder block			
Height		mm (in)	221.5 (8.720)
Distortion Crieding		mm (in)	0.15 (0.006) max.
Grinding	Standard size	mm (in)	0.20 (0.008) max.
Cylinder bore diameter	0.25 (0.010)		78.006—78.013 (3.0711—3.0714) 78.256—78.263 (3.0809—3.0812)
mm (in)	0.50 (0.020)		78.506—78.513 (3.0908—3.0911)
Cylinder bore taper and out-of-	round	mm (in)	0.019 (0.0007) max.
Piston			0.010 (0.0001) max.
Piston diameter	Standard size	)	77.954—77.974 (3.0690—3.0698)
Measured at 90° to pin bore	0.25 (0.010)	oversize	78.211—78.217 (3.0792—3.0794)
axis and 16.5mm (0.650 in) below oil ring groove mm (in)	0.50 (0.020)		78.461—78.467 (3.0890—3.0892)
	<u>.</u>	Standard	0.039—0.052 (0.0015—0.0020)
Piston-to-cylinder clearance	mm (in)	Maximum	0.15 (0.006)
Piston ring		L	
Thickness	mm (in)	Тор	1.47—1.49 (0.0579—0.0587)
THICKINGS	111111 (111)	Second	1.47—1.49 (0.0579—0.0587)
		Тор	0.15—0.30 (0.006—0.012)
End gap (Measured in cylinder	) mm (in)	Second	0.15—0.30 (0.006—0.012)
<b>3</b>	,	Oil (rail)	0.20—0.70 (0.008—0.028)
		Maximum	1.0 (0.039)
Ring groove width in piston	mm (in)	Top	1.52—1.54 (0.0598—0.0606)
Timing groove width in pistori	mm (in)	Second Oil	1.52—1.54 (0.0598—0.0606)
		Top	4.02—4.04 (0.1583—0.1591) 0.03—0.07 (0.0012—0.0028)
Piston ring-to-ring groove clear		Second	0.03—0.07 (0.0012—0.0028)
	mm (in)	Maximum	0.15 (0.006)
Piston pin			0.10 (0.000)
Diameter		mm (in)	19.987—19.993 (0.7869—0.7871)
Piston-to-piston pin clearance		mm (in)	-0.005-0.013 (-0.0002-0.0005)
Connecting rod bush-to-piston	nin clearance	mm (in)	0.010—0.027 (0.0004—0.0011)

ltem Engine			B6 DOHC
Connecting rod and connec	ting rod bearir	ng	
Length (Center to center)		mm (in)	132.85—132.95 (5.230—5.234)
Bending		0.075 (0.0030) max./50 (1.97)	
Small end bore (Bush inner di	ameter)	mm (in)	20.003—20.014 (0.7875—0.7880)
Big end bore		mm (in)	48.000—48.016 (1.8898—1.8904)
Big end width		mm (in)	21.838—21.890 (0.8598—0.8618)
		Standard	0.110—0.262 (0.0043—0.0103)
Connecting rod side clearance	e mm (in)	Maximum	0.30 (0.012)
Crankshaft		<del>                                      </del>	(0.0.2)
Crankshaft runout		mm (in)	0.04 (0.0016) max.
	Standard	Standard	49.938—49.956 (1.9661—1.9668)
	size	Minimum	49.904 (1.9647)
	0.25 (0.010)	Standard	49.704—49.708 (1.9568—1.9570)
Main journal diameter	undersize	Minimum	49.652 (1.9548)
mm (in)	0.50 (0.020)	Standard	49.454—49.458 (1.9470—1.9472)
	undersize	Minimum	49.402 (1.9450)
	0.75 (0.030)	Standard	49.204—49.208 (1.9372—1.9373)
	undersize	Minimum	49.152 (1.9351)
Main journal taper and out-of-i	round	mm (in)	0.05 (0.0020) max.
	Standard	Standard	44.940—44.956 (1.7693—1.7699)
	size	Minimum	44.908 (1.7680)
	0.25 (0.010)	Standard	44.690—44.706 (1.7594—1.7601)
Crankpın diameter	undersize	Minimum	44.658 (1.7582)
mm (in)	0.50 (0.020)	Standard	44.440—44.456 (1.7496—1.7502)
,	undersize	Minimum	44.408 (1.7483)
	0.75 (0.030)	Standard	44.190—44.206 (1.7398—1.7404)
	undersize	Minimum	44.158 (1.7385)
Crankpin taper and out-of-rour		mm (in)	0.05 (0.0020) max.
Main bearing	TG	71111 (11)	0.00 (0.0020) max.
		Standard	0.018—0.036 (0.0007—0.0014)
Main journal bearing oil cleara	ince mm (in)	Maximum	0.10 (0.004)
Available undersize bearing		mm (in)	0.25 (0.010), 0.50 (0.020), 0.75 (0.030)
Crankpin bearing		11111 (111)	0.25 (0.010), 0.50 (0.020), 0.75 (0.030)
		Standard	0.0280.068 (0.00110.0027)
Crankpin bearing oil clearance	mm (in)	Maximum	0.020-0.008 (0.0011-0.0021)
Available undersize bearing		mm (in)	
Thrust bearing		11111 (111)	0.25 (0.010), 0.50 (0.020), 0.75 (0.030)
		Standard	0.090 0.393 (0.0031 0.0111)
Crankshaft end play	mm (in)	Maximum	0.0800.282 (0.00310.0111)
	Standard size		0.30 (0.012)
	0.25 (0.010)		2.500—2.550 (0.0984—0.1004)
Bearing width mm (in)	0.50 (0.020)		2.625—2.675 (0.1033—0.1053)
	0.50 (0.020)		2.750—2.800 (0.1083—0.1102)
Timing belt	1 0.75 (0.030)	oversize	2.875—2.925 (0.1132—0.1152)
Belt deflection	mm (in)/00	N (10 kg, 00 lb)	0.0 44.5 (0.05 5.15)
DOIL GOILGOIGH	11111 (111)/98	N (10 kg, 22 lb)	9.0—11.5 (0.35—0.45)

# D. LUBRICATION SYSTEM

Item		Engine	B6 DOHC
Lubricating method			Force-fed
Oil pump		· · · · · · · · · · · · · · · · · · ·	
Туре			Trochoid gear
Relief pressure		kPa (kg/cm², psi)	343—441 (3.5—4.5, 50—64)
Oil pressure	kPa (kg/cm², psi)	1,000 rpm	196—294 (2.0—3.0, 28—43)
	Ki a (kg/ciii , psi)	3,000 rpm	294—392 (3.0—4.0, 43—57)

Item Engine			Engine	B6 DOHC	
Inner rotor tooth tip to outer rotor Stan			Standard	0.02—0.16 (0.0008—0.0063)	
clearance mm (in)		Maximum	0.20 (0.0079)		
Outer rotor to body clearance mm (in)		Standard	0.09—0.18 (0.0035—0.0071)		
		Maximum	0.22 (0.0087)		
Side clearance mm (in)		Standard	0.03—0.11 (0.0012—0.0043)		
		Maximum	0.14 (0.0055)		
Oil filter					
Туре				Full-flow, paper element	
Relief pressure differential kPa (kg/cm², psi)			kPa (kg/cm², psi)	78—118 (0.8—1.2, 11—17)	
Engine oil					
Capacity liters (US qt, Imp qt)  Total (dry eng Oil pan Oil filter		gine)	3.6 (3.8, 3.2)		
		Oil pan		3.2 (3.4, 2.8)	
		Oil filter		0.17 (0.18, 0.15)	
Grade			API Service SF or SG		
Above 30°C (86°F)			SAE 40		
	0°C-40°C (32°F-104°F)			SAE 30	
-10°C-20°C (14°F-68°F)			SAE 20W-20		
Viscosity	Above -10°C (14°F)			SAE 20W-40 or 20W-50	
number				SAE 10W-30	
Above -25°C (-13°F) Below 0°C (32°F)				SAE 10W-40 or 10W-50	
			SAE 5W-30		
	Below -20°C (-4°F)			SAE 5W-20	

# E. COOLING SYSTEM

Item	Engine	B6 DOHC
Cooling method		Water-cooled, forced circulation
Water pump		
Туре		Centrifugal, V-belt driven
Impeller diameter	mm (in)	75 (2.95)
Number of impeller blades		6
Speed ratio		1:1.05
Water seal type		Unified mechanical seal
Thermostat		
Type		Wax, two-stage
Opening temperature	°C (°F)	Sub: 83.5—86.5 (182—188), Main: 86.5—89.5 (188—193)
Full-open temperature	°C (°F)	100 (212)
Full-open lift	mm (in)	Sub: 1.5 (0.06) min., Main: 8.0 (0.31) min.
Radiator		
Туре		Corrugated fin
Cap valve opening pressure	kPa (kg/cm², psi)	74—103 (0.75—1.05, 11—15)
Cooling circuit checking pressure	kPa (kg/cm², psi)	103 (1.05, 15)
Cooling fan		
Туре		Electric
Number of blades		5
Outer diameter	mm (in)	320 (12.6)
Switching temperature OFF → ON	°C (°F)	97 (207)
Capacity	WV	70—12
Current	A	5.3—6.5
Coolant		
Capacity	liters (US qt, Imp qt)	6.0 (6.3, 5.3)

Item	Engine		B6 DOHC	
	Coolant protection	Volume pe	ercentage %	Specific gravity at
	Godan protection	Water	Coolant	20°C (68°F)
Antifreeze solution	Above -16°C (3°F)	65	35	1.054
	Above -26°C (-15°F)	55	45	1.066
	Above -40°C (-40°F)	45	55	1.078

# F. FUEL AND EMISSION CONTROL SYSTEMS

		rpm BTDC	850 ± 50 * 10° ± 1° *		
		BTDC	10° ± 1° *		
		mm (in)			
		mm (in)			
		mm (in)	Horizontal draft		
			55 (2.2)		
		` '	00 (2.2)		
		rpm	2,500 ± 150		
		- γ	2,000 ± 100		
E2		Fully closed	200—600		
	E2 ↔ Vs	Fully open	20—1,000		
	E <sub>2</sub> ↔ Vc	, -	200—400		
	E <sub>2</sub> ↔ THA <sub>A</sub> (Intake air	-20°C (-4°F)	13,600—18,400		
Ω					
ļ			2,210—26,90		
			493—667		
	E1 ↔ Fc				
		r any open	0		
			last all and the last		
Type Output pressure kPa (kg/cm² psi)			Impeller (in-tank)		
Fuel filter			441—589 (4.5—6.0, 64—85)		
Low proceure eide		oido I	N. I.		
			Nylon element		
Pressure regulator			Paper element		
			Di L		
Type Regulating pressure kPa (kg/cm² psi)			Diaphragm 2005 2014 (0.77 200 200 200 200 200 200 200 200 200 2		
Injector KPa (kg/cm², psi)			265—314 (2.7—3.2, 38—46)		
Type of drive			High-ohmic		
			Voltage		
ISC valve (Solenoid valve [idle speed control])			12—16 (at 20°C, 68°F)		
e [rui	e speed cont				
		<u> </u>	11—13 (at 20°C, 68°F)		
		OT			
	$\Omega$		21—43		
			109—226		
	n	B — FP	∞		
ntro	I)				
		Ω	23-27 (at 20°C, 68°F)		
			Optical pickup		
Resistance		-20°C (-4°F)	14.6—17.8		
		20°C (68°F)	2.2—2.7		
		80°C (176°F)	0.29-0.35		
		· · · · · · · · · · · · · · · · · · ·			
		°C (°F)	Below 40 (104)		
		, , ,			
	liters (	US gal, Imp gal)	45 (11.9, 9.9)		
	ontro	Ω E2 ↔ THAA (Intake air thermosensor)  E1 ↔ Fc  Low-pressure High-pressure	$\Omega \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		

<sup>\*....</sup>with system selector (49 B019 9A0) test switch at SELF TEST

Item	Specification
Air cleaner	
Element type	Oil permeated
Accelerator cable	
Free play mm (in)	1—3 (0.039—0.118)
Fuel	
Specification	Unleaded regular (RON 87 or higher)

### G. ENGINE ELECTRICAL SYSTEM

Item		Engine model	B6	DOHC
5	Voltage	V	12, Nega	itive ground
Battery	Type and capacity (5-hour	rate)		h) Maintenance-free
Dark current *		mA	2	20.0
	Туре		Α	A.C.
	Output	V-A	1:	2-60
	Regulator type		Transistorized (b	ouilt-in IC regulator)
Alternator	Regulated voltage		14.1	—14.7
Alternator	Brush length mm (in	Standard	21.5	5 (0.85)
	Brush length - mm (ii	Minimum	8 (	(0.31)
	Drive belt tension mm (in	, New	8—9 (0	.31—0.35)
	Drive beit tension mm (ir	Used	9—10 (0	0.35-0.39)
	Туре		Conv	ventional
Starter	Output	V-kW	12-0.9	5 (Others)
Starter	Brush length mm (ir	Standard	17.0	) (0.67)
	Brush length   mm (ii 	Minimum		5 (0.45)
lanition austom	Туре		Electronic spa	rk advance (ESA)
Ignition system	Spark advance control			controls sparks advance
Ignition timing		BTDC	10° ± 1° (Test o	connector grounded)
	Туре		M	olded
Ignition coil	Primary coil winding	kΩ	0.78	30.94
	Secondary coil winding kΩ			2—15.2
Spark plug	Туре		NGK: BKR5E-11 BKR6E-11 BKR7E-11	NIPPON DENSO: K16PR-U11 K20PR-U11 K22PR-U11
1	Plug gap	mm (in)	1.0—1.1 (0.039—0.043)	
	Firing order	·	1	342

<sup>\*</sup> Dark current is the constant flow of current while the ignition switch is OFF. (i.e. engine control unit, audio etc.)

### H. CLUTCH

	Engine model	
Item	2.19.110 1110401	B6 DOHC
Clutch control		Hydraulic
Clutch pedal	-	
Type		Suspended
Pedal ratio		6.13
Full stroke	mm (in)	120 (4.72)
Height (with carpet)	mm (in)	175—185 (6.89—7.28)
Free play	mm (in)	0.6—3.1 (0.02—0.12)
Distance to carpet when clutch fully disengaged mm	n (in) Minimum	68 (2.68)
Flywheel		
Runout limit	mm (in)	0.2 (0.008)
Clutch disc		
Type		Single dry plate

Item	Enĝine model B6 DOHC	B6 DOHC
Runout limit	mm (in)	0.7 (0.028)
Wear limit	mm (in)	0.3 (0.012) from rivet head
Outer diameter	mm (in)	200 (7.87)
Inner diameter	mm (in)	130 (5.12)
Facing thickness mm (in)	Flywheel side	3.5 (0.14)
racing thickness Thin (iii)	Pressure plate side	3.5 (0.14)
Clutch cover		
Type		Diaphragm spring
Set load	N (kg, lb)	4,022 (410, 902)

### J. MANUAL TRANSMISSION

Item Transmission model			M-type (M5M-D)
	1st		3.136
2nd 3rd			1.888
			1.330
Gear railo	4th		1.000
	5th		0.814
	Reverse		3.758
Oil capacity	liter	s (US qt, Imp qt)	2.0 (2.1, 1.8)
	Runout mm (in)	Maximun	0.03 (0.0012)
Mainshaft	Clearance between mainshaft and gear (or bush) mm (in)	Wear limit	0.15 (0.006)
Reverse Idle gear	Clearance between reverse idle gear bushing and shaft mm (in)	Wear limit	0.15 (0.006)
Shift fork	Clearance between shift fork and clutch sleeve mm (in)	Wear limit	0.5 (0.020)
and rod	Clearance between shift rod gate and control lever mm (in)	Wear limit	0.8 (0.031)
Synchronizer	Clearance between Synchronizer synchronizer ring and		1.5 (0.059)
ring side of gear when fitted mm (in)		Wear limit	0.8 (0.031)
Shift rod (5th/Reverse) spring	Free length	mm (in)	75 (2.953)
Detent ball spring (1st/2nd)	Free length mm (in)		22.5 (0.886)
Detent ball spring (3rd/4th)	Free length mm (in)		22.5 (0.886)
Detent ball spring (5th/Reverse)	Free length	mm (in)	17.0 (0.669)
Lubricant	Above 10°C (50°F)		API Service GL-4 or GL-5 SAE 80W-90
Lubricarii	All seasons		API Service GL-4 or GL-5 SAE 75W-90

### L. PROPELLER SHAFT

Item	Specification
Max. permissible run-out mm (in)	0.4 (0.016)

### M. FRONT AND REAR AXLES

Item		Transmission model	M5N	i-D
	Туре		Double-w	ishbone
Front axle	Bearing		Angular ba	ll bearing
	Wheel bearing p	play mm (in) Maximum	0.05 (0	.002)
	Туре		Double-w	ishbone
Rear axle	Bearing		Angular ba	ll bearing
	Wheel bearing p	olay mm (in) Maximum	0.05 (0	.002)
	Туре		Standard	Viscous L.S.D.
	Reduction gear		Hypoid	gear
	Reduction ratio		4.300	
	Differential gear		Straight-bevel gear	
	Ring gear size mm (in)		162.16 (6.38)	
		Grade	API service GL-5	
Differential	Oil	Viscosity	Above -18°C (0 Below -18°C (0	o°F): SAE 90 °F): SAE 80W
		Capacity liters (Us qt, Imp qt)	0.65 (0.69	
	Drive pinion preload (without oil seal)  N·m (cm-kg, in-lb)		0.3—0.7 (3—	7, 2.6—6.1)
	Backlash	Side gear and pinion gear	0-0.1 (0-	-0.004)
	mm (in)		0.09—0.11 (0.0	035-0.0043)
	Length (Pilot section to pilot section)  mm (in)		150.20 +0 72 (	5.913 <sup>+0</sup> <sub>0028</sub> )

Viscous L.S.D.: Viscous Limited Slip Differential

## N. STEERING SYSTEM

Item	Туре	Manual steering	Power steering
Steering wheel			
Outer diameter	mm (in)	370 (	(14.6)
Free play	mm (in)		0—1.18)
Wheel effort		4.9—29.4 (0.5—3.0, 1.1—6.6)	23.5—35.3 (2.4—3.6. 5.3—8.0)
Lock-to-lock	turns	3.36	2.8
Steering Shaft			
Shaft type		Collapsib	le, non-tilt
Joint type			ss joint
Power steering system			is joint
Power assist type		Engine spe	eed sensing
Gear type			nd-pinion
Gear ratio			nfinite)
Rack stroke	mm (in)		(4.76)
Power steering fluid		ATF DEXRO	
Fluid capacity	liter (Us qt, Imp qt)	0.8 (0.8	
Fluid pressure	kPa (kg/cm², psi)		-85.0, 1,102—1,209)

#### P. BRAKING SYSTEM

	Item		Specifications
	Height (with carpet)	mm (in)	171—181 (6.73—7.13)
	Free play	mm (in)	4-7 (0.16-0.28)
Brake pedal	Reserve travel (without carpet, clearance wher depressed at 589 N (60 kg, 13	mm (in) pedal is 2 lb))	95 (3.74)
Master	Type		Tandem
cylinder Bore		mm (in)	22.22 (0.87)
	Fluid type		SAEJ1703 or FMVSS116, DOT-3

	Item		Specifications
	Туре		Disc
	Thickness of pad mm (in)	Standard	9.5 (0.37)
Front brake	Thickness of pad Thirt (iii)	Limit	1.0 (0.04)
(Disc)	Thickness of disc plate	Standard	18.0 (0.71)
,	mm (in)	Limit	16.0 (0.63)
	Disc plate runout	mm (in)	0.1 (0.004) max.
	Wheel cylinder bore	mm (in)	51.1 (2.01)
	Type		DISC
	Thickness of pad mm (in)	Standard	8.0 (0.31)
Rear brake		Limit	1.0 (0.04)
(Disc)	Thickness of disc plate	Standard	9 (0.35)
	mm (in) Limit		7 (0.28)
	Wheel cylinder bore	mm (in)	31.75 (1.25)
Parking brake	Lever notches [Pulled at 98 N (10 kg, 22 lk	o)]	5—7
	Туре		Single diaphragm
	Diameter mm (in)		214 (8.0)
Power brake unit	Push rod-to-piston clearance	mm (in)	When vacuum applied to the unit is approx. 500 mmHg (19.7 inHg) 0.1—0.3mm (0.004—0.012 in)
	Fluid pressure per treading force kPa (kg/cm², psi)/N (kg, lb)		1,079—1,177 (11—12, 156—171)/196 (20, 44) at 0 mmHg (0 inHg) min. 5,199—5,494 (53—56, 754—796)/196 (20, 44) at 500 mmHg (19.7 inHg) min.
Rear wheel	ulic Bend portion (Rear brake pressure)		PBV
hydraulic control system			2,943 (30, 427)

### Q. WHEELS AND TIRES

Item		Туре	Standard	Temporary spare
	Size		14 × 5 1/2-JJ	14 x 4T
Wheel	Offset	mm (in)	45 (1.77)	
VVIICCI	Pitch circle diam	eter mm (in)	100 (3.94)	
	Material		Aluminum alloy	Steel
Tire	Size		P185/60R14 82H	T115/70D14
	Air pressure	kPa (kg/cm², psi)	177 (1.8, 26)	412 (4.2, 60)
	Runout limit	Horizontal	2.0 (0.079)	
Wheel and tire	mm (in)	Vertical	1.5 (0.059)	
wheel and the	Maximum unbala (at rim edge)	ance g (oz)	10 (0.35)	

### **R. SUSPENSION**

Item		Specifications	
Front suspen	sion		
Туре			Double-wishbone
Stabilizer	Type		Torsion bar
Otabilizor	Diameter	mm (in)	19 (0.75)
Shock absorbe			Cylindrical double-acting, low-pressure gas charged
	Identification color		Red
	Wire diameter	mm (in)	10.8 (0.43)
Coil springs	Coil inner diameter	mm (in)	83 (3.27)
	Free length	mm (in)	282.5 (11.12)
	Coil number		5.91

	Item		Specifications
Rear suspension			
Туре			Double-wishbone
Stabilizer	Туре		Torsion bar
	Diameter	mm (in)	12 (0.47)
Shock absorbe	ers		Cylindrical double-acting, low-pressure gas charged
	Identification color		Blue
	Wire diameter	mm (in)	10.1 (0.40)
Coil springs	Coil inner diameter mm (in)		83 (3.27)
	Free length	mm (in)	339.5 (13.37)
	Coil number		7.68
Wheel alignm	ent		
	Total toe-in	mm (in)	$3 \pm 3 (0.12 \pm 0.12)$
	Total toe-III	degree	0°18' ± 18'
Front wheel	Maximum steering angle	Inner	37°23′ ± 2°
alignment		Outer	32°32′ ± 2°
(Unladed*1)	Camber angle		0°24' ± 45'* <sup>2</sup>
	Caster angle		4°30' ± 45'
	King pin angle		11°20′
Rear wheel	Total toe-in	mm (in)	$3 \pm 3 (0.12 \pm 0.12)$
alignment		degree	0°18' ± 18'
(Unladed*1)	Camber angle		$-0^{\circ}43' \pm 30'$

<sup>\*1</sup> Fuel tank full; radiator coolant and engine oil at specified level, and spare tire, jack, and tools in designated position.
\*2 Difference between left and right must not exceed 1°.

T. BODY ELECTRICAL SYSTEM

Item	Wattage (Bulb trade number)
Instrument cluster lamps	
Beam	3.4
Turn (LH and RH)	3.4
Illumination	3.4
Engine check	1.4
Brake	1.4
Charge	1.4
Belts	1.4
Air bag	1.4
Retractor	1.4
Exterior lights	
Head lights	60/40
Front turn signal/parking lights	27/8 (1157 NA)
Front side marker lights	3.8 (194)
License plate lights	7.5
Rear turn signal lights	27 (1156)
Rear side marker lights	3.8 (194)
Stop/taillights	27/8 (1157)
Back-up lights	27 (1156)
High-mount stoplight	18.4 (921)
Interior lamps	5
Illumination lamps	
Ash tray	3.4
Heater control switch panel	1.4
A/C switch	1.4
Hazard switch	1.4
Cruise control main switch	1.4

#### **U. HEATER AND AIR CONDITIONING SYSTEM**

Item		Specifications
Refrigerant amount	g (oz)	800 (28.24)
Compressor oil amount	cc (cc in)	80—100 (4.88—6.1)
Refrigerant normal pressure	kPa (kg/cm², psi)	Low pressure: 147—294 (1.5—3.0, 21—43) High pressure: 1,177—1,619 (12.0—16.5, 171—235)

#### STANDARD BOLT AND NUT TIGHTENING TORQUE

Diameter	Pitch		4T			6T			8T	
mm (in)	mm (in)	N⋅m	m-kg	ft-lb	N⋅m	m-kg	ft-lb	N⋅m	m-kg	ft-lb
6 (0.236)	1 (0.039)	4.2—6.2	0.43—0.63	3.1-4.6	6.9—9.8	0.7—1.0	5.0—7.2	7.8—11.8	0.8—1.2	5.8—8.8
8 (0.315)	1.25 (0.049)	9.8-14.7	1.0—1.5	7.2-10.8	1623	1.6-2.3	12-17	18-26	1.8-2.7	13—20
10 (0.394)	1.25 (0.049)	20—28	2.0-2.9	14—21	31—46	3.2-4.7	23—34	36—54	3.7—5.5	27—40
12 (0.472)	1.5 (0.059)	34—50	3.55.1	25—37	55—80	5.6-8.2	41-59	63-93	6.4-9.5	4669
14 (0.551)	1.5 (0.059)				75—103	7.7—10.5	5676	102—137	10—14	75—101
16 (0.630)	1.5 (0.059)		_	_	116157	12-16	85-116	156-211	16-22	115—156
18 (0.709)	1.5 (0.059)		_		167—225	17—23	123—166	221-299	23—31	163-221
20 (0.787)	1.5 (0.059)			_	231—314	24—32	171—231	308-417	31—43	227—307
22 (0.866)	1.5 (0.059)			_	314—423	32-43	231312	417—564	43—58	307—416
24 (0.945)	1.5 (0.059)	_		_	475—546	41—56	298—403	536—726	55—74	396—536

# **SPECIAL TOOLS**

GENERAL INFORMATION	ST-	2
ENGINE		
<b>CLUTCH AND MANUAL TRANSMISSION</b>	ST-	4
DIFFERENTIAL		
FRONT AND REAR AXLES	ST_	é
STEERING SYSTEM		
BRAKING SYSTEM	ST_	7
FRONT AND REAR SUSPENSIONS		
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SHESKERS AND STILL EQUIPMENT	31-	C

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#### GENERAL INFORMATION .

The letters A and B in the priority column indicate the degree of importance of each tool.

A....Indispensable

The tools ranked A in this list are indispensable for performing operations satisfactorily, easily, safely, and efficiently. It is, therefore, advisable that all service shops have these tools.

B.....Selective

The tools ranked B are not as necessary as tools ranked A, but all service shops should have them to perform repairs more easily and efficiently.

#### Note

When ordering tool sets that consist of several tools, check the List in the Parts Catalogue to make sure that some tools are not duplicated in other sets you may already have. If they are, instead of ordering the set, order only those new tools that are needed.

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## **ENGINE**

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0107 680A Engine stand	А	
49 E301 060 Brake, ring gear	А	
49 0636 100A  Arm, valve spring lifter	А	
49 B011 102 Lock tool, crankshaft	А	
49 S120 710 Holder, coupling flange	А	
49 9200 145 Adapter set, radiater cap tester	А	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 L012 0A0 Installer set, valve seal & valve guide	А	000 111
49 L010 1A0 Hanger set, engine stand	А	
49 B012 006 Pivot, valve spring lifter	А	
49 B012 005 Remover & installer, valve guide	Α	
49 0221 061A Remover & installer, piston pin	В	
49 S120 170 Remover, valve seal	А	

# **CLUTCH AND MANUAL TRANSMISSION**

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 SE01 310 Centering tool, clutch disc	Α	
49 0259 440 Holder, mainshaft	Α	
49 1243 465A Wrench, main- shaft lock nut	Α	
49 0636 145 Puller, fan pulley boss	Α	
49 0839 425C Puller set, bearing	Α	
49 H017 101 Hook	Α	
49 0180 321A Installer, main drive gear bearing	Α	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 1285 071 Puller, bearing	А	
49 0187 451A Guide, interlock pin assembly	В	
49 0862 350 Guide, shift fork assembly	В	
49 0500 330 Installer, bearing	А	
49 0305 430 Pusher, main drive shaft	Α	
49 0710 520 Puller, bearing	Α	
49 B025 0A0 Installer, dust seal	А	

### **DIFFERENTIAL**

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 N027 001 Gauge block NEW SST	А	
49 N034 213 Installer, rubber bushing NEW SST	А	
49 M005 561 Hanger, differential carrier	А	
49 H027 002 Remover, bearing	А	
49 8531 565 Pinion model	А	
49 H027 001 Collar	Α	
49 0727 570 Gauge body, pinion height	Α	
49 B001 795 Installer, oil seal	Α	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 U027 003 Installer, oil seal	А	
49 F027 005  Attachment φ62	А	
49 H033 101 Remover, bearing	А	
49 F401 331 Body	А	
49 F401 336B Attachment B	А	
49 F401 337A Attachment C	А	
49 0259 720 Adjustment wrench, side bearing	В	

### FRONT AND REAR AXLES

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 F026 103 Puller, wheel hub	А	0 0
49 F027 007  Attachment φ72	A	
49 F027 009 Attachment φ68 & φ77	А	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 G030 727 Attachment A	Α	
49 G033 102 Handle	Α	
49 V001 795 Installer, oil seal	Α	

#### **STEERING SYSTEM**

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0118 850C Puller, ball joint	В	
49 1243 785 Installer, dust boot	Α	
49 B032 302 Adapter, power steering gauge	Α	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 1232 670A Gauge set, power steering	А	
49 H002 671 Adapter, power steering gauge	А	
-		_

### **BRAKING SYSTEM**

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0221 600C Expand tool, disc brake	А	
49 F043 001 Adjust gauge	А	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49,0259 770B Wrench, flare nut	Α	20C
49 0208 701A Air out tool, boot	Α	

# FRONT AND REAR SUSPENSIONS

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 G034 1A0 Compressor, coil spring	В	
49 0180 510B Attachment, preload measuring	В	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0727 575 Puller, ball joint	В	
49 H028 301 Installer, dust boot	А	

### **CHECKERS AND OTHER EQUIPMENT**

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 N018 001  Adapter harness (Igniter checker)  NEW SST	Α	
49 B019 9A0 System Selector NEW SST	Α	
49 G018 903 Adapter harness (Engine Signal Monitor) NEW SST	Α	
49 G018 904 Sheet (Engine Signal Monitor) NEW SST	Α	(48PIN (K.G.)A. (K.G.
49 H018 9A1 Self-Diagnosis Checker	A	II: BB STATE OF THE STATE OF TH
49 9200 020 Tension gauge, V-ribbed belt	В	
49 9200 162 Engine Signal Monitor	А	

TOOL NUMBER & DESCRIPTION	PRIORITY	ILLUSTRATION
49 0839 285 Checker, fuel and thermometer	Α	0000000 00000000 000000000
49 0305 870A Tool set, window	Α	
49 F018 002 Igniter Checker	Α	THE STATE OF THE S
49 9200 165 Tester, throttle sensor	A	(30°)
49 9200 166 Adapter, throttle sensor	А	
49 0187 280 Gauge, oil pressure	В	
	_	_

Α	COLUMN COVER (CANADA)	S- 50
/ \	DASHBOARD	5- 50
	GLOVE BOX ASSEMBLY	
A/C RELAY U- 39	INSTRUMENT CLUSTER	
ACCELERATOR PEDAL AND CABLE F- 96	METER HOOD ASSEMBLY	
AIR BAG MODULET-130,150,160	REAR CONSOLE ASSEMBLY	
AIR CLEANER F- 92	DASHPOT	F–121
AIR VALVE	DETACHABLE HARD TOP	S- 70
AIRFLOW METER	DIAGNOSTIC MODULE	T-130,151
ALTERNATOR	DIFFERENTIAL	
ANTENNA	DIFFERENTIAL OIL	M- 24
AUDIO	DOOR	S- 7
AUDIO UNIT	ARMREST	S 9
7,00,00 011111-120	CHECKER	S– 7
	DOOR	
· B	DOOR GLASS	
	DOOR LOCK ASSEMBLY	
DACKUD DATTEDY T 400 454	DOOR LOCK STRIKER	
BACKUP BATTERY T-130,151	DOOR SCREEN	S– 0
BACK-UP LIGHT SWITCHT- 73	DOOR TRIM	
BATTERY G- 8	GLASS GUIDE	
BLOWER MOTOR	HINGE	
BLOWER UNIT U- 21	INNER HANDLE	S- 9
BRAKE FLUID P- 7	KEY CYLINDER	
BRAKE PEDALP- 7	OUTER HANDLE	
	QUARTER GLASS	
C	REGULATOR HANDLE	S– 9 S– 9
	SPEAKER	
OAL IDED (EDOLED)	WINDOW REGULATOR	S– 9 S– 9
CALIPER (FRONT)	DOOR MIRROR	
CALIPER (REAR) P- 25	DOOR SPEAKERS	
CATALYTIC CONVERTER F-122	DOOR SWITCH	
CHARCOAL CANISTER F-120	DRIVE BELT	
CIRCUIT OPENING RELAY F-110	DRIVESHAFT	
CLOCK SPRING CONNECTOR T-130,152,159	DITIVEORI/ IT	
CLUTCH COVER H-15,17		
CLUTCH DISC H-15,17		
CLUTCH FLUIDH- 4		
CLUTCH MASTER CYLINDER H- 7	ENGINE	R_ 1
CLUTCH PEDALH- 5	BEARING	
CLUTCH RELEASE CYLINDER	CAMSHAFT	B_20 10 50
CLUTCH SWITCHF-139	CAMSHAFT PULLEY	B-20,40,52 B-20,40,50
COMPRESSOR	CONNECTING ROD	D 20,40,55
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CONDENSER FAN	CYLINDER BLOCK	🗗 40,00
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COOLING FAN DELAY	CYLINDER BLOCK	D-40,04,00
COOLING FAN RELAY T- 19	(INTERNAL PARTS)	B_45 54 61
COOLING UNIT	CYLINDER HEAD	
CRANK ANGLE SENSOR	CYLINDER HEAD COVER	
CRASH SENSOR T-130,154,157	CYLINDER HEAD GASKET	D-12,30
	DRIVE BELT	
l D	ENGINE COOLANT	
	ENGINE OIL	
DASHBOARD AND CONSOLES- 50	FRONT OIL SEAL	
ASHTRAYS_ 50	HLA	
CENTER LOWER PANEL ASSEMBLY. S- 50	OIL JET	R_45 55
CENTER LOWER PANEL ASSEMBLY. 5- 50 CENTER PANEL ASSEMBLY S- 50	PISTON	B-45 56
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FRONT BRAKE (DISC) P- 18 FRONT BUMPER S- 24 FRONT COMBINATION LIGHT S- 24 FRONT FASCIA S- 24 FRONT SIDE MARKER LIGHT S- 24 FRONT SUSPENSION R- 11 CROSSMEMBER R- 20 LOWER ARM R- 15 SHOCK ABSORBER AND SPRING R- 12 STABILIZER R- 19 UPPER ARM R- 17 FUEL FILLER LID OPENER S- 23 FILLER LID S- 23 FILLER LID OPENER S- 23 OPENER CABLE S- 23 OPENER CABLE S- 23 FUEL FILTER F-106 FUEL PUMP F-107 FUEL TANK F-104 FUEL VAPOR VALVE F-119 FUSE T- 12 FUSE BOX T- 12	IGNITER
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	THROTTLE BODY

TNS RELAY TRIM  A-PILLAR TRIM DOOR TRIM FRONT HEADER TRIM FRONT SIDE TRIM QUARTER TRIM REAR PACKAGE TRIM SCUFF PLATE SPEAKER GRILLE TRUNK END TRIM TRUNK LID BALANCE SPRING HINGE KEY CYLINDER REAR COMBINATION LIGHT REAR FINISHER REAR PACKAGE TRIM SET PLATE STRIKER TRUNK END TRIM TRUNK LID TRUNK LID TRUNK LID	S- 53 S-38,53 S-9,53 S-9,53 S-38,53 S-53 S-53 S-16,53 S-53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53 S-16,53
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# **WIRING DIAGRAM**

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ABS (ANTI-LOCK BRAKE SYSTEM		HEATER & AIR CONDITIONER	
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AIR BAG CONTROL SYSTEM	S	HORN	F- 1,2
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CANADA		WINDSHIELD WIPER & WASHER.	D-2
HEADLIGHTS	E-2		

# WIRING COLOR CODE

Color	Code	Color	Code	
Blue	L Natural		N	
Black	В	Orange	0	
Brown	BR	Pink	Р	
Dark Blue	DL	Red	R	
Dark Green	DG	Purple	PU	
Green	G	Tan	Т	
Gray	GY	White	W	
Light Blue	LB	Yellow	Y	
Light Green	LG	Violet	V	

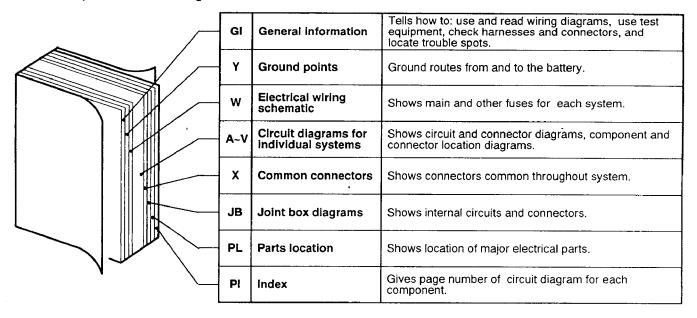
# **GENERAL INFORMATION**

Contents of and Using Electrical Wiring Diagrams
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Using wiring diagrams · · · · · · · · · · · · · · · · · · ·
Reading Wiring Diagrams
Ground points · · · · · GI-3
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Finding should supplie

# **Z-GI-2** Contents of and Using Electrical Wiring Diagrams

# Contents of wiring diagrams

 This document is composed of the 8 groups shown below. The main components are summarized in the components location diagram at the end of the document.



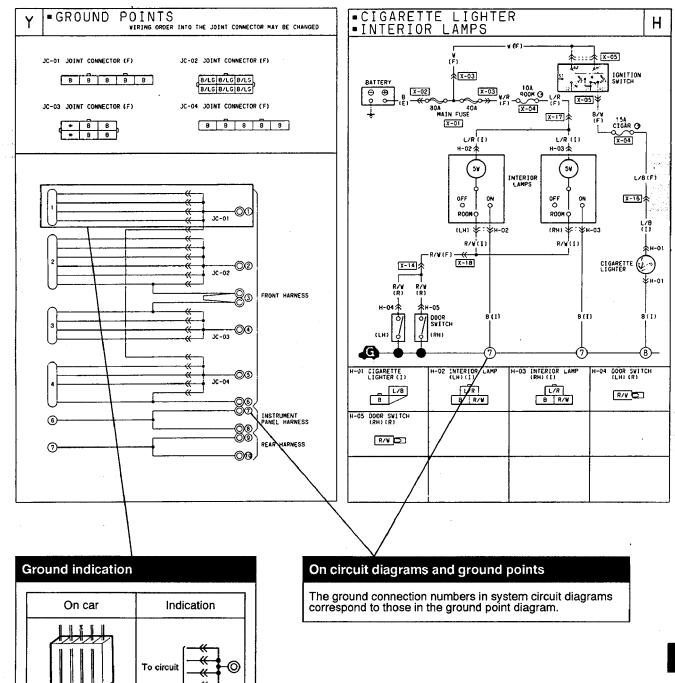
# Using wiring diagrams

• The use of the wiring diagram depends on its intended application.

Application	Use	Application	Use
For checking circuits of individual systems	Open to page with circuit diagram and harness routing to be used and fold out common connector diagram or joint box diagram.	For checking fuse connections	Open to electrical wiring schematic.
For checking ground circuit of individual systems	Open to page with ground point diagram and fold out common connector diagram or joint box diagram.	For locating page numbers of systems and components	Parts Index System Index or Open to parts index or system index.

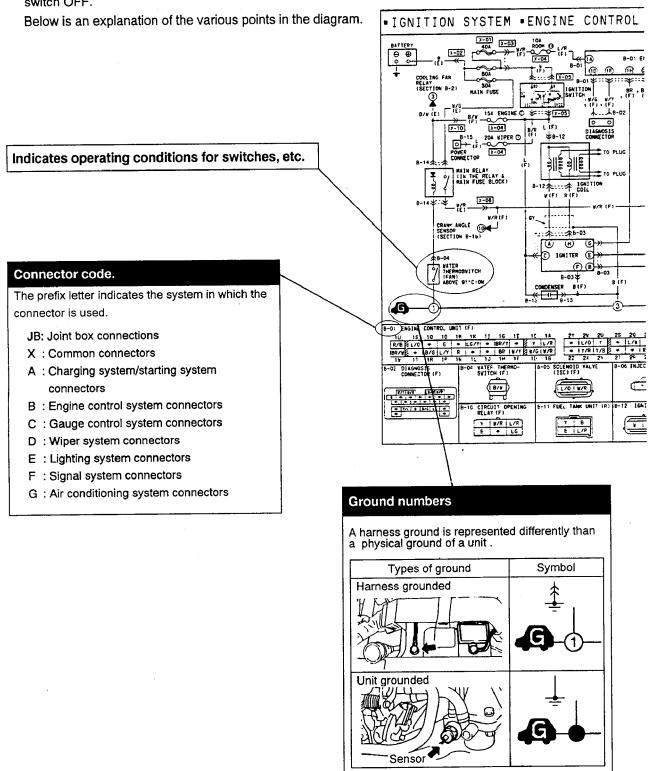
# **Ground points**

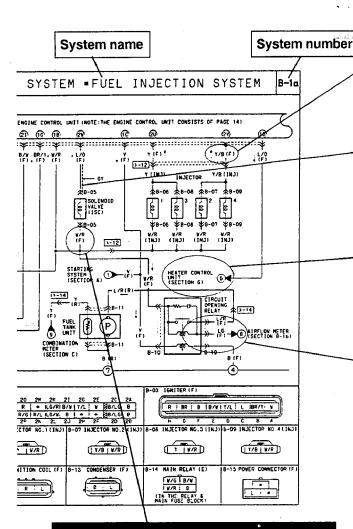
This shows ground points of the harness.



# System circuit diagram/connector diagram

• These show the circuits for each system, from the power supply to the ground. The power supply side is at the top of the page and the ground side is at the bottom. The diagrams describe circuits with the ignition switch OFF.

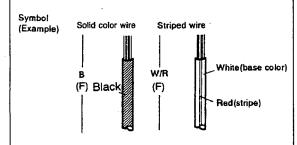




### Wire color code (harness symbol)

 Two-color wires are indicated by a Two-letter symbol. The first letter indicates the base color of the wire and the second indicates the color of the stripe.
 For example

> W/R is a white wire with a red strip BR/Y is a brown wire with a yellow strip



 The harness symbol is given in the ( ) following the wire color (Refer to GI-7.).

#### **Current symbol**

Current flows in the direction of the arrow.

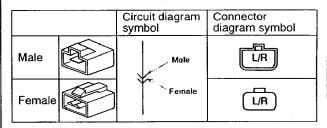
#### \*Indicates shielded wire.

\*Shielded wire:
Prevents signal disturbances due to
electrical interference.
Wire is covered by a metal meshing for
grounding.

The number (e.g. 6), indicates the circuit continues to the related system diagram.

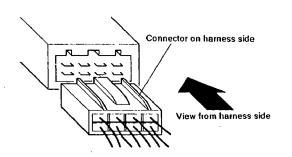
#### **Connector symbols**

 Male and female connectors are represented as follows in the circuit and connector diagrams.



- Like connectors are linked by broken lines between the connector symbols.
- Connector diagrams always show connectors on the harness side. The arrow indicates the view from the harness side.

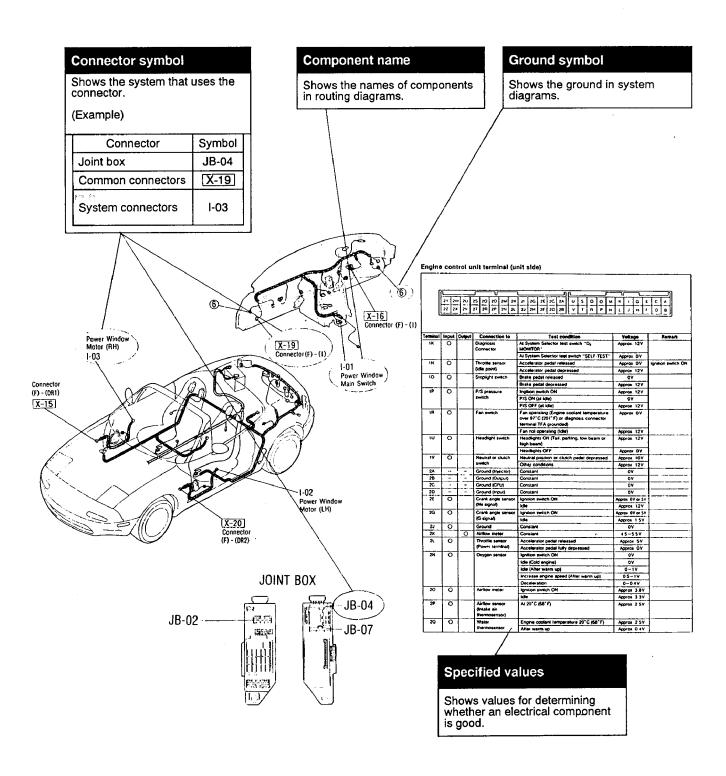
(Example)



- Colors for connectors other than those that are off white are given in diagrams.
- Unused terminals are indicated by \*.

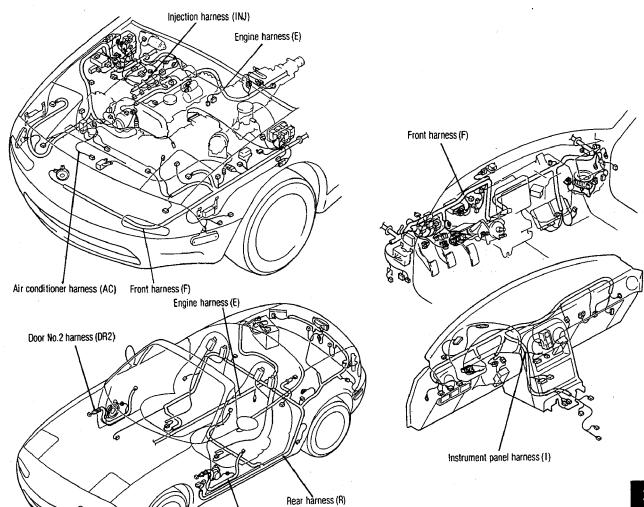
# **Routing diagram**

- This shows where electrical components are located on the system circuit diagram by lead and connector symbols.
- Specified values are listed beside the routing diagram or on the following page.



# Harness symbols

DESCRIPTION OF HARNESS	COLOR	SYMBOL	DESCRIPTION OF HARNESS	SYMBOL
Front harness		(F)	Injection harness	(INJ)
Engine harness		(E)	Air conditioner harness	(AC)
Instrument panel harness		(1)	Door No.1 harness	(DR1)
Rear harness		(R)	Door No.2 harness	(DR2)



Door No.1 harness (DR1)

**Symbols** 

Symbol Battery	Meaning  ● Generates electricity through	Symbol	Ì	N	leaning	a	
Battery	<ul> <li>Generates electricity through</li> </ul>		1 2 4	A '41		_	
$\Theta$	chemical reaction  Supplies direct current to circuits	Resistance	rated v	used to nents in oltage ng resista	protect circuits	electrica by main	al
Ground (1)  ———————————————————————————————————	<ul> <li>Connecting point to vehicle body or other ground wire where current flows from positive to negative terminal of battery</li> <li>Ground (1) indicates a ground point to body through wire harness</li> <li>Gound (2) indicates point where component is grounded directly to body</li> </ul>		<colored< td=""><td>(ппп</td><td>- No.2 C - No.3 C - No.4 C</td><td>olor band olor band olor band olor band rat color. R recond cok</td><td>alues</td></colored<>	(ппп	- No.2 C - No.3 C - No.4 C	olor band olor band olor band olor band rat color. R recond cok	alues
1	component is grounded directly to body		Color	No.1	No.2	No.3	No.4
	Remark		Black	Resistanc	e values	Multiplier ×10°	Tolerance
	<ul> <li>Current will not flow through a circuit if ground is faulty</li> </ul>		Brown	1	1	×10'	
			Red	2	2	×10 <sup>1</sup>	
Fuse (1)	● Melts when current flow exceeds that		Orange	3	3	×10'	
	specified for circuit, stopping current flow		Yellow	4	4	×10'	
$ -\infty- $		,	Green	·5	5	×10°	
	Precautions		Blue	6	6	×10 <sup>t</sup>	
(box)	<ul> <li>Do not replace with fuses exceeding specified capacity</li> </ul>		Purple	7	7	×10′	
Fuse (2)	<box type=""> <cartridge type=""></cartridge></box>		Grey	8	8	×10'	
	(F) 15 (F)		White	9	9	×10°	
	To Wall		Gold			×10-1	± 5%
(Cortridge)			Silver			×10·	± 10%
(Cartridge)  Main fuse/Fusible	<main fuse=""> <fusible link=""></fusible></main>						± 20%
link			<numer< td=""><td>ical type</td><td>Third :</td><td>x 10<sup>x</sup> Resistanc</td><td>e values</td></numer<>	ical type	Third :	x 10 <sup>x</sup> Resistanc	e values
Transistor (1)	Electrical switching component .	Motor	● Conver	ts electri	cal ene	ray into	
Collector (C)  Base NPN (B)  Emitter (E)	Turns on when voltage is applied to the base(B)  Collector indication mark  B  E C B  E C C	M		nical ene			
Transistor (2)	• Reading code	Pump	● Pulls in	and exp	els gas	ses and	liquids
Base PNP (B) Emitter (E)	2 S C 828 A Revision mark  A:High- frequency PNP B:Low- frequency PNP C:High- frequency NPN D:Low- frequency NPN	P					
Lamp	Emits light and generates heat when current flows through filament	Cigarette lighter	Electric	al coil th	at gene	erates he	eat

Symbol	Meaning	Symbol	Meaning
Horn	Generates sound when current flows.	Switch (1)	Allows or breaks current flow by opening and closing circuits.
Speaker		Normally open (NO) Switch (2)	,
		Normally closed (NC)	
Heater	Generates heat when current flows.	Harness	Unconnected intersecting harness.
Speed sensor	Movement of magnet in speedometer set turns contact within sensor on and off.	(Not connected)	Connected intersecting harness.
Ignition switch  ST OFF  ACC  Normally open (NO)	Turning ignition key operates switch contacts to complete various circuits.	(Connected)	
Relay (1)	Current flowing through coil produces ele		
<b>3</b>	Normally open relay (NO)	Open No	flow Closed Closed
Relay (2) Normally closed (NC)	Normally closed relay (NC)	S	w S No flow
Sensor (variable)	Resistor whose resistance changes with operation of other components.	Diode — I◀	● Known as a semiconductor rectifier, diode allows current flow in one direction only  Cathode(K) ← Anode(A)  Flow of electric current  K-1 A K
Sensor (thermistor)	Resistor whose resistance changes with temperature.	Light emitting diode (LED)	Unlike ordinary light bulbs, diode does not generate heat when lit
Capacitor ————————————————————————————————————	Component that temporarily stores electrical charge.	<u>\$</u>  4	Cathode(K) Anode(A)  Cathode(K)  Anode(A)  Flow of electric current
Solenoid	Current flowing through coil generates electromagnetic force to operate plungers, etc.	Reference(zener)	Allows current to flow in one direction up to a certain voltage, allows current to flow in other direction once that voltage is exceeded.

# Logic symbols

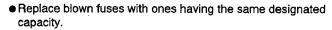
Types of logic symbols	Operation	Expressing output	Simple relay circuits
OR A B	Input to A or B will produce output at C	Low electrical potential (L) at A and B → No output (L) at C High electrical potential (H) at A or B → Output (H) at C	A OF C
AND A B C	Input to A and B will produce output at C	High electrical potential (H) at A and B → Output (H) at C Low electrical potential (L) at A or B → No output (L) at C	A POPULATION C
A————B	No input to A will produce an output at B Input to A will not produce any output at B	Low electrical potential (L) at A → Ungrounds (H) B High electrical potential (H) at A → Grounds (L) B	A B
PROCESS	Simplified representation of main function  1.Signal detector for emissi tachometer  2.Signal converter for turn a transistor igniter unit, etc.	(Examples) Breakerless transistor igniters Signal converter Coil signal converted to ON/OFF signal	

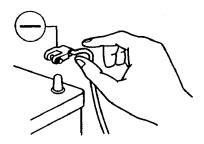
# Abbreviations used in this booklet

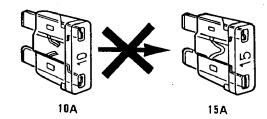
Α	Ampere	ELR	Emergency Locking Retractor	ON	Switch On
AAS	Auto Adjusting Suspension	ELEC	Electric	P	Power
ABS	Anti-lock Brake System	ETR	Electronic Tuner	PRCV	Pressure Regulator Control
ACV	Air Control Valve	EXH	Exhaust		Solenoid Valve
ΑĒ	Acoustic Equilibration	F	Front	PTC	Positive Temperature
AIS	Air Injection System	FICB	Fast Idle Cam Breaker		Coefficient Heater
ALL	Automatic Load Leveling	FL	Front Left	P/S	Power Steering
AS	Auto Stop	FR	Front Right	PRG	Purge Solenoid Valve
ASV	Air Supply Valve	F/B	Feedback	QSS	Quick Start System
A/C	Air Conditioner	F/I	Fuel Injector	R	Rear
A/F	Air Fuel	FM	Frequency Modulation	RH	Right Hand
A/R	Auto Reverse	GEN	Generator	ĦĹ	Rear Left
A/T	Automatic Transmission	HEI	High Energy Ignition	RPM	Revolution Per Minute
ACC	Accessory	H/D	Heat/Defroster	RR	Rear Right
	Accelerator	HEAT	Heater	REC	Recirculation
ADD	Additional	HI	High	SOL	Solenoid
ALT	Alternator	isc	Idle Speed Control	ST	Start
AM	Amplitude Modulation	iG	Ignition	ŚW	Short Wave
AMP	Amplifier	İLLUMI		ŚW	Switch
ANT	Antenna	INT	Intermittent	TCV	Twin Scrol Turbocharger Solenoid
ATP	Atmospheric Pressure	ĴΒ	Joint Box		Valve
ATX	Automatic Transaxle	ĽH	Left Hand	TICS	Triple Induction Control System
B	Battery	ĽĊD	Liquid Crystal Display	TEMP	Temperature
BAC	By-pass Air Control Valve	ĹŎ	Low	TR	Transistor
B/L	Bi-Level	ĹŴ	Low Wave	TWS	Total Wiring System
CPU	Central Processing Unit	M	Motor	v	Volt
CSD	Cold Start Device	ЙIL	Malfunction Indicator Lamp	VRIS	Variable Resonance Induction
CARB	Carburator	MTR	Mechanical Tuning Radio	******	System
CCT	Circuit	M/T	Manual Transmission	VENT	Ventilation
	Cigarette	MID	Middle	VOL	Volume
	Combination	MIN	Minute	ŵ	Watt
COMBI	Conditioner	MIX	Mixture		
	Control	MPX	Multiplex		
CONT	Double Overhead Camshaft	MTX	Manual Transaxle		
		MW	Middle Wave		
DEF	Defroster	NC	Normally Closed		
ECPS	Electronically Controlled Power	NO NO	Normally Open		
<b>E01</b>	Steering	OD	Over Drive		
EGI	Electronic Gasoline Injection	OFF	Switch Off		
EGR	Exhaust Gas Recirculation	UFF	SWIRCH OIL		

# Precautions when servicing electrical system

- Note the following items when servicing the electrical system.
- Do not alter the wiring or electrical equipment in any way as this may damage the vehicle or cause a fire due to shorting or overcapacity of a circuit.
- Always disconnect the negative (—) battery cable first and reconnect it last when disconnecting the battery.





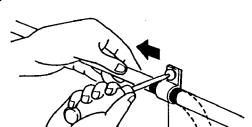


#### Caution

 Be sure that the ignition and other switches are OFF before disconnecting or connecting the battery terminals.

Failure to do so may damage the semi-conductor components.

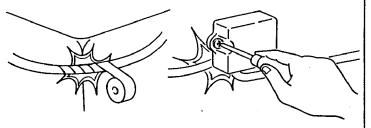
 Secure harnesses with a clamp when provided to take up any slack.



Mark

#### Caution

- Replacing a fuse with one of a larger capacity than designated may damage components or cause an electrical fire.
- Tape areas of the harness that may rub or bump against sharp edges to protect it from damage.
- Be sure that the harness is not caught or damaged when mounting components.

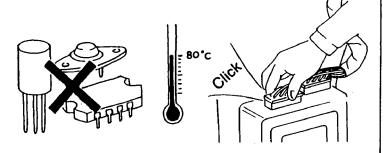


#### Caution

- Clamp all harnesses near vibrating components(e.g. the engine) to remove any slack and prevent contact due to vibration.
- Do not handle roughly or drop electrical components.



- Disconnect heat sensitive parts (e.g. relays, ECU) when performing maintenance where temperatures may exceed 80°C (176°F) (i.e.welding).
- Make sure that the connectors are securely connected when installed.



# **Handling connectors**

#### Caution

• Be sure to grasp the connectors, not the wires, when disconnecting them.

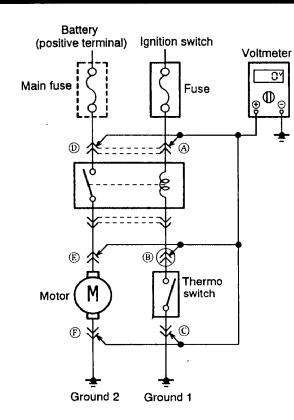
	nnector removal	Checking connector engagement	Checking for loose terminal	Repairing terminal
Push type	Remove	Caution Improperly engaged connectors will cause poor terminal contact.  Using a matching male terminal make sure there is no looseness in the female terminal.	Caution A loose terminal will cause poor terminal contact.  Verify that terminals are not pushed out of the connector when engaged.	CPU connector>  1. Open the rear cover. 2. Lift the tab with a small screwdriver and remove the terminal.  Ceneral connector>  Lift the tab with a small screwdiver and remove the terminal.  Round connectors>  1. Open the cover. 2. Lift the terminal to remove it. 3. Verify that the terminal is securely mounted in the connector when reinstalling.  Common ground connector> 1. Open the cover. 2. Remove A.
Pull up type			Lightly pull each wire to verify that the terminal does not pull out of the connector.	3. Lift the tab with a small screwdriver and remove the terminal.
Spring type				

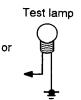
Using electrical test equipment

Equipment	Use	Operation	Handling precautions
Test lamp	Test for locating open or shorted circuits.	Connect the test lamp between the circuit being measured and a ground. The lamp will light if the circuit is energized to the point tested.	● Test lamps use 12V 1.4 or 3.4W bulbs or light-emitting diodes (LED). Using a large capacity bulb may damage the CPU.
Jumper wire	Used to create a temporary circuit.	Connect the jumper wire between the terminals of a circuit to bypass a switch, etc.	Do not connect the power side directly to a ground as this may burn the harness or damage electrical components.
Voltmeter  O O O O O O O O O O O O O O O O O O O	Used for measuring the voltage of a circuit to locate possible opens or shorts.	● Connect the positive (+) lead to where voltage is to be measured and the negative (-) lead to a ground.	Connect the voltmeter in parallel with the circuit. Set the range to the desired voltage. Use the service hole when measuring the voltage at the diagnosis connector.  Tie a thin wire to the positive (+) lead to access narrow terminals.
Ohmmeter	Used for locating opens and shorts in the circuit, confirming continuity of switches and checking sensor resistance.	Verify that current is not flowing through the circuit.  Touch the leads to the check points.	<ul> <li>■ Zero the meter after switching to the measuring range.</li> <li>■ Before using the ohmmeter, make sure that the ignition switch is OFF or the negative (-) battery cable is disconnected to prevent burning the ohmmeter.</li> </ul>
Ammeter	Used for checking alternator output, current supplied to the starter, and dark current within a circuit.  Note Dark current is the current flowing through the circuit when the ignition switch is OFF.	•Connect the ammeter in series with the circuit by touching the positive (+) lead to the power side terminal and the negative (-) lead to the ground - side terminal.	<ul> <li>Set the range to the desired voltage.</li> <li>Connect the ammeter in series with the circuit. The ammeter may be burned if it is connected in parallel.</li> </ul>

# Measuring voltage

#### Checks



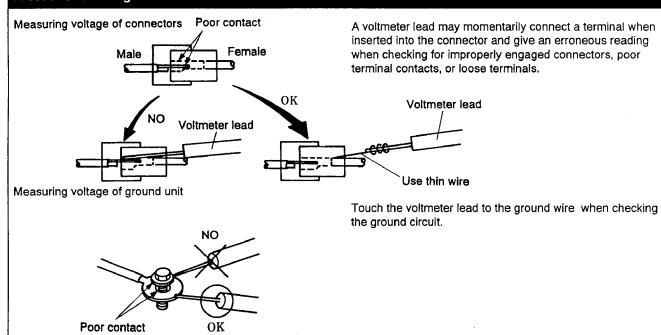


1. Use a voltmeter or test lamp to ascertain voltage at the measuring points.

	Circuit operation					
Measur- ing points	Ignition switch: OFF		Ignition switch:ON			
ing points			Thermo s OFF		Thermo sv	witch:
@	٥V	×	12V	Ó	12V	Ó
6	٥V	×	12V	Ó.	٥V	X
©	0V	×	0V	×	٥V	×
<b>®</b>	12V	Ö	12V	Ó	12V	Ö
e	٥V	×	0V	×	12V	Ö
Ð	٥٧	×	٥٧	×	٥٧	×

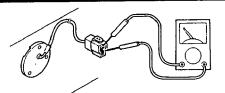
 $\times$  : Test lamp OFF

#### Precautions during checks



# Measuring continuity/resistance

#### **Checking switches**

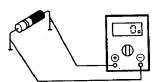


Touch the ohmmeter leads to the switch terminals to check continuity.

#### Caution

Verify the operating state of the switch before checking continuity because readings vary accordingly.

#### **Checking diodes**



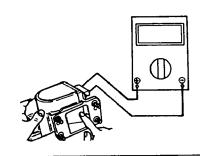
Remark

The negative (-) lead of the ohmmeter is connected to the positive terminal of the internal ohmmeter battery. The positive (+) lead to the negative terminal of the battery.

Continuity is checked according to the direction of the positive (+) and negative (-) leads of the ohmmeter in the circuit containing the diode.

Connection	Continuity
© ⊕	Yes
(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	No

#### Checking sensors, solenoid valves

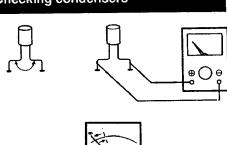


Connect the ohmmeter leads to the sensor or solenoid valve terminals to check resistance.

#### Caution

Verify the operating state of the sensor before checking resistance because readings vary accordingly.

#### **Checking condensers**



- 1. Short between the terminals with a jumper wire to discharge the capacitor.
- 2. Set the ohmmeter range to x10k  $\Omega\,$  and connect it to the capacitor terminals.
- 3. The capacitor is good if the needle of the ohmmeter swings once and returns to it original position.

# Finding short circuits

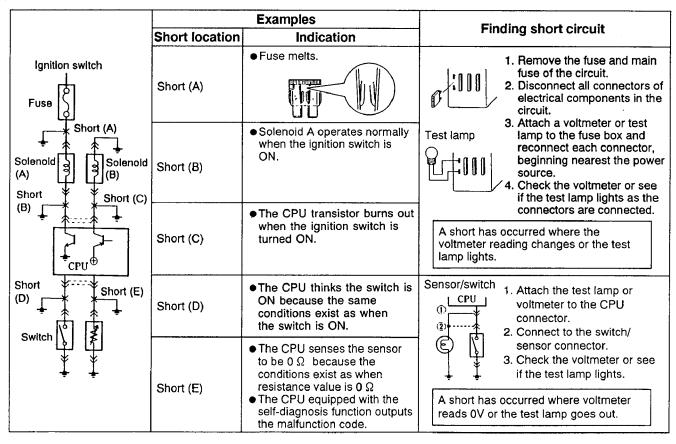
Shorts occur between the power(positive) and ground(negative) sides of a circuit.

Therefore, finding a short circuit requires determining how the circuit is routed.

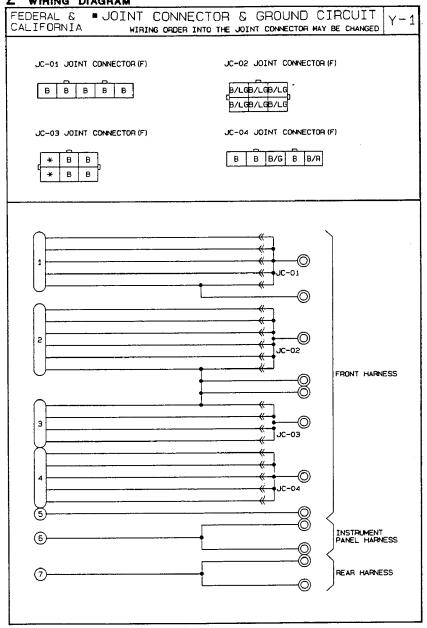
#### Circuits not connected to control unit

	Examples		Finding chart circuit	
(magitive	Short location	Indication	Finding short circuit	
(positive terminal)  Main tuse   Ignition switch	Short-(A)	• Fuse melts.	1. Remove the fuse and main fuse of the circuit. 2. Disconnect all connectors of electrical components in the circuit.	
Relay	Short (B)	Main fuse melts.	3. Attach a voltmeter or test lamp to the fuse box and reconnect each connector, beginning nearest the power source.	
(D) Short(C) The- rrno-	Short (C)	<ul> <li>The motor operates regardless of whether the is ON or OFF when the ignition switch is ON.</li> <li>The fuse is not melted.</li> </ul>	4. Check the voltmeter or see if the test lamp lights as the connectors are connected.	
switch	Short (D)	<ul> <li>The main fuse melts when the ignition switch and thermo- switch are ON and the relay is operating.</li> </ul>	A short has occurred where the voltmeter reading changes or the test lamp lights.	

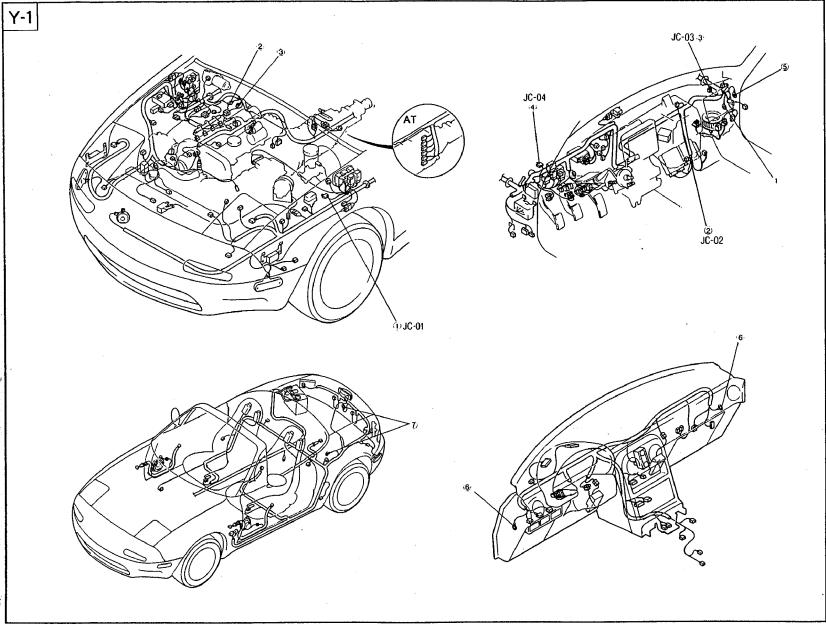
#### Circuits connected to control unit



Z WIRING DIAGRAM

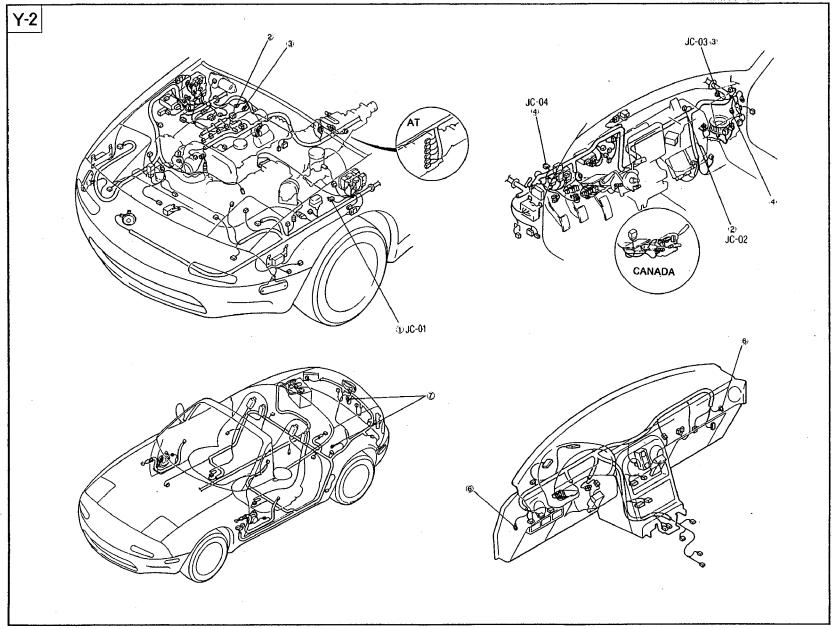


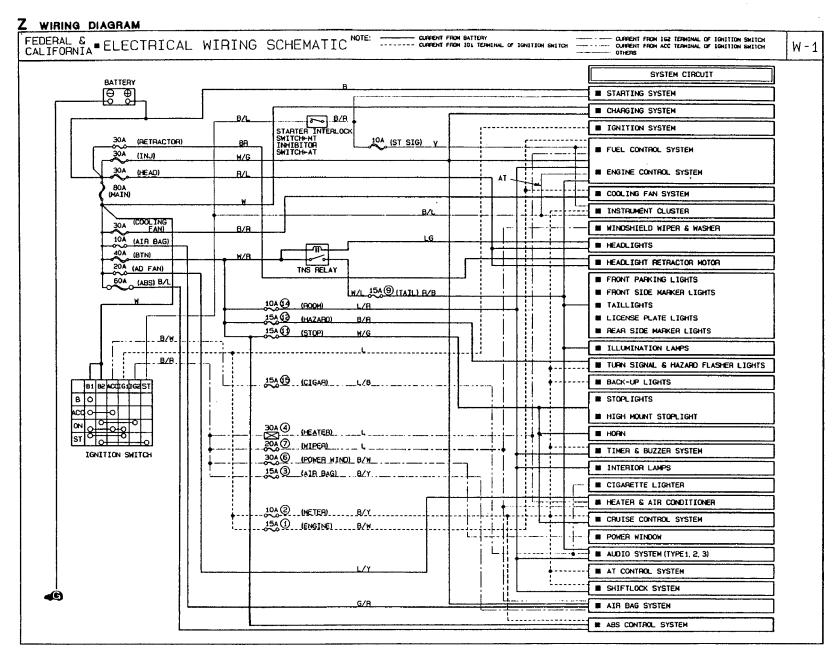
Z-18

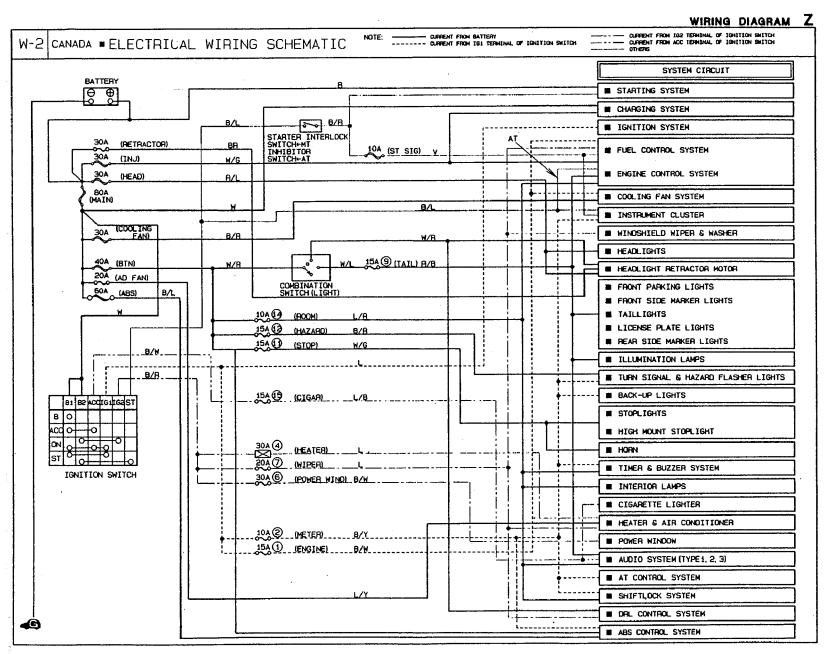


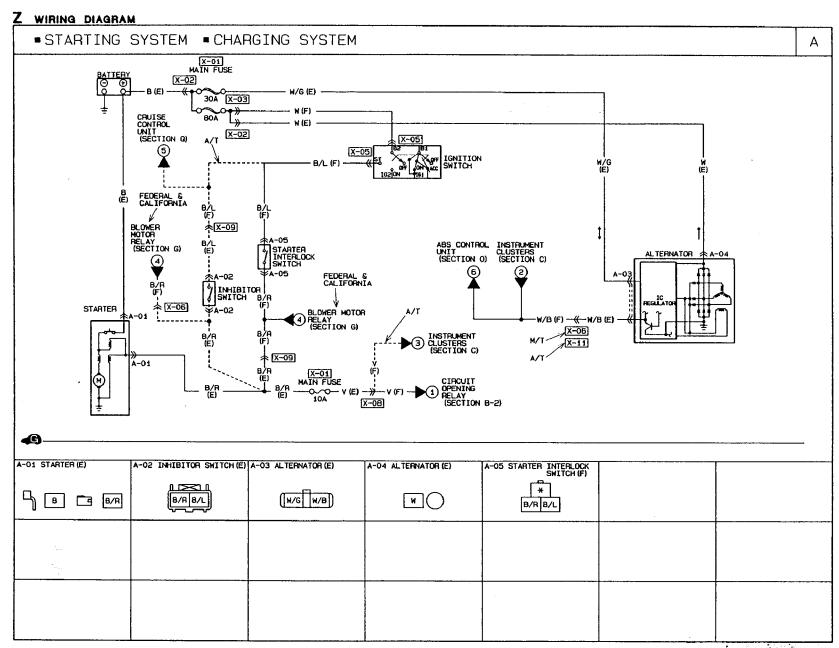
Z WIRING DIAGRAM CANADA JOINT CONNECTOR & GROUND CIRCUIT WIRING ORDER INTO THE JOINT CONNECTOR MAY BE CHANGED JC-02 JOINT CONNECTOR (F) JC-01 JOINT CONNECTOR (F) B/LGB/LGB/LG B B B B JC-04 JOINT CONNECTOR (F) JC-03 JOINT CONNECTOR (F) B B B B FRONT HARNESS INSTRUMENT PANEL HARNESS REAR HARNESS

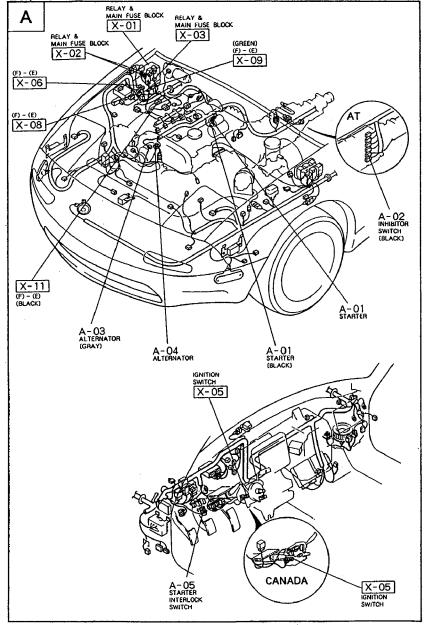
Z-20

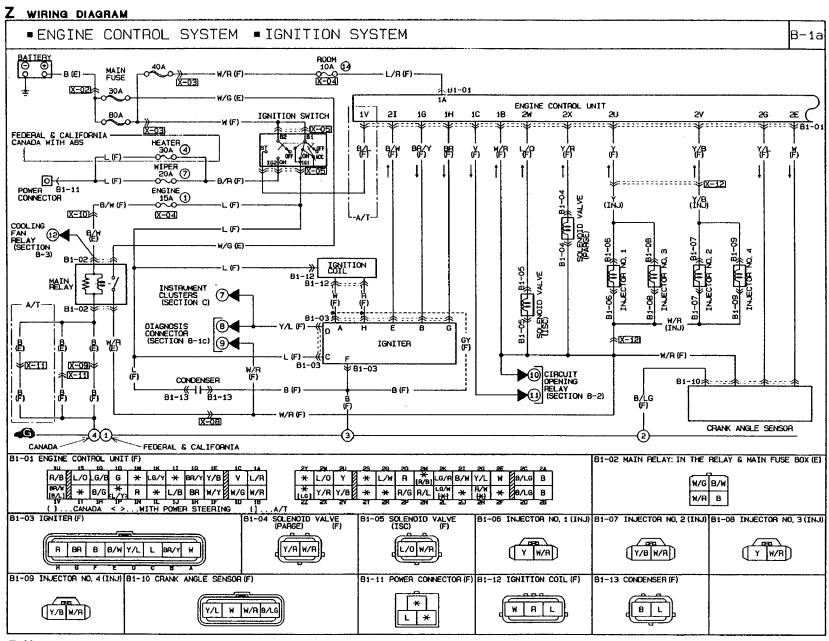


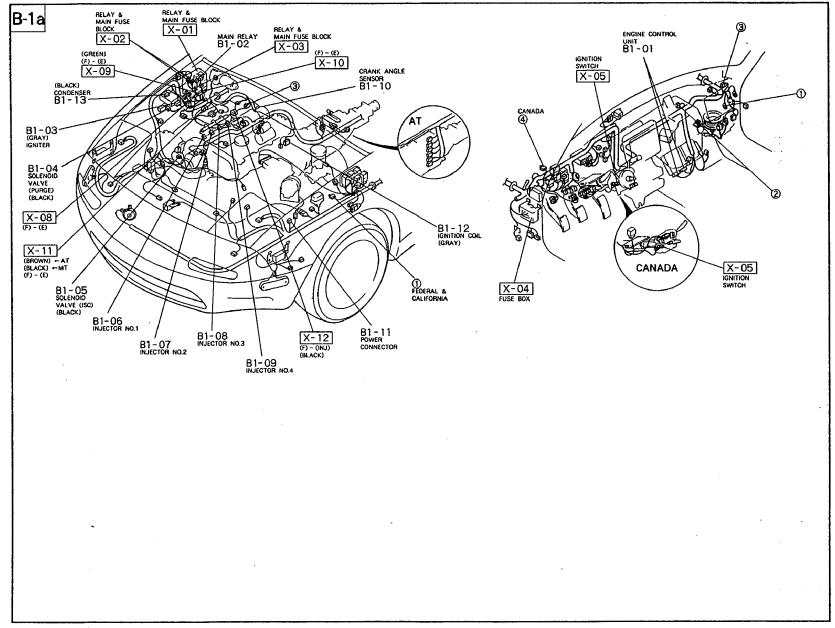


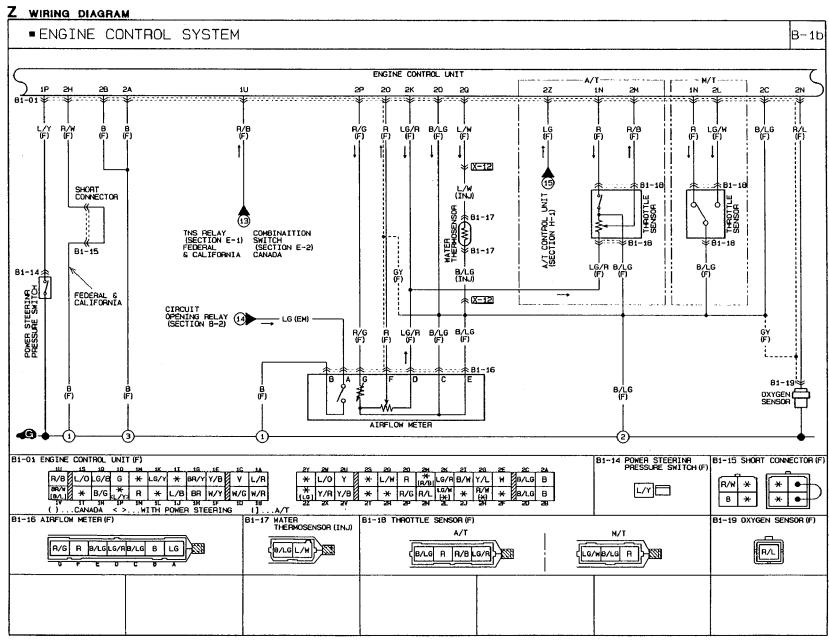


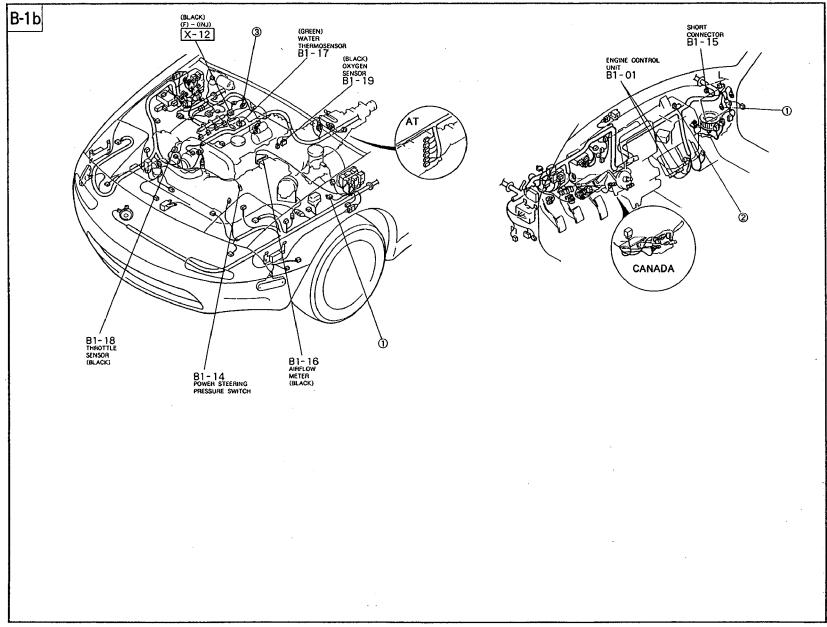


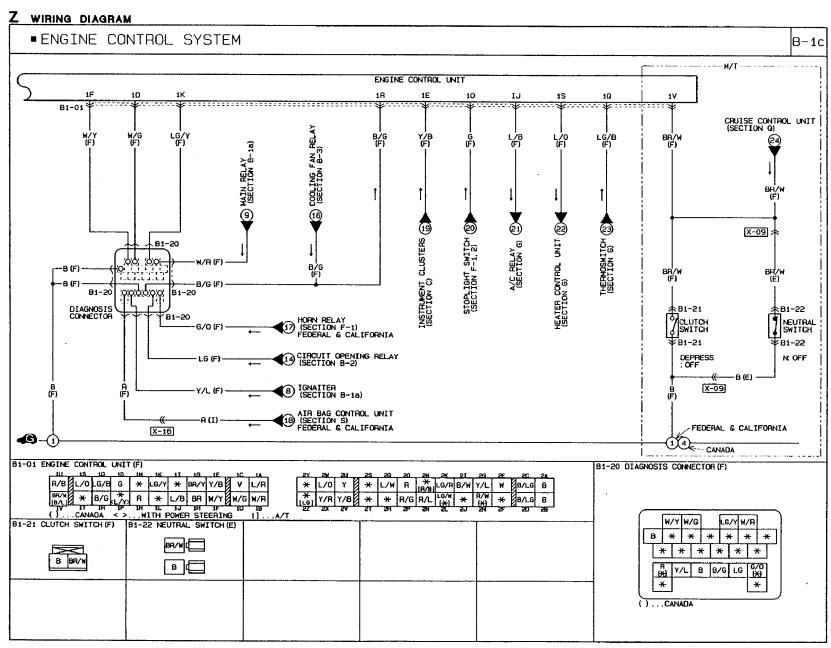


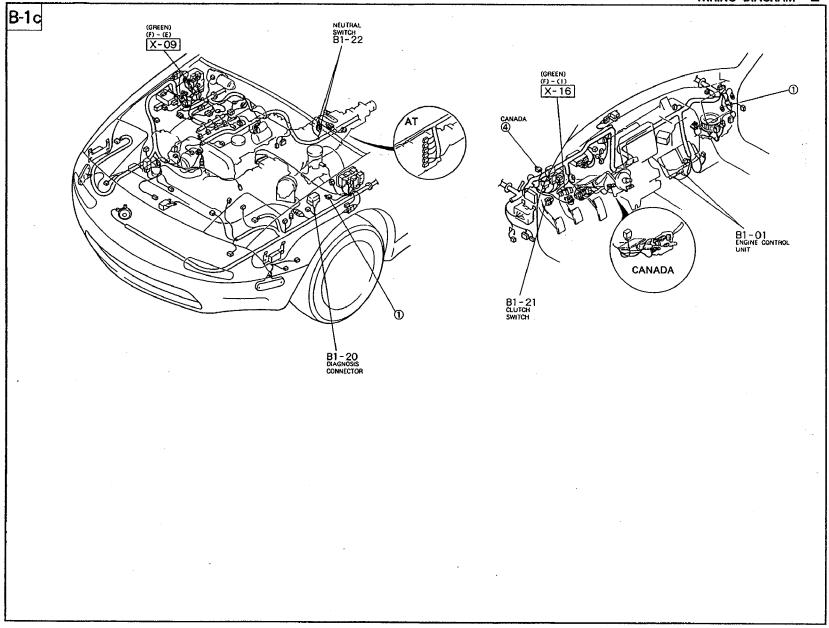












## Terminal Voltage

Terminal	Connection to	Abnormal voltage	Possible cause
1A	Battery	Always approx. (IV (Battery OK)	RCOM 10A fuse burned     Open circuit in wiring from ROOM 10A fuse to ECU terminal 1A
18	Main refay	Always approx, 0V	Main rotay mailunction (Refer to page F=140)     Open circuit in wiring from main relay to ECU terminal 18
10	Ignition switch (Start position)	Always approx. 0V (Starter turns)	Open circuit in wiring from starter Interlock switch to ECU terminal 1C
10	Self-Diagnosis Checker (Monitor tamp)	Ahvays approx. 0V	Mein retay mellunction (Refer to page F-140)     Open circuit in wring from mein retay to diagnosis connector terminal +8     Open or whort circuit in wring from diagnosis connector terminal MEN to ECU terminal 1D
١.		Always approx. 12V	Poor connection at ECU connector     ECU methynoston
	<b></b>	Always approx. 5V	ECU malfunction
16	Malfunction indicator lamp (MIL)	Always below 2.5V (MIL shrays ON)	Short circuit in wiring from combination mater to ECU terminal 1E     ECU malfunction
	İ	Always below 2.5V (MIL never ON)	Open circuit in wiring from combination meter to ECU terminal 1E
		Always approx. 12V	Poor connection at ECU connector     ECU malfunction
15	Self-Diagnosis Checker (Code No.)	Always below 2.5V (No display on Self Diagnosis Checker)	Main relay malfunction (Refer to page F=140)     Open circuit in wiring from main relay to diagnosis connector terminal +8
		Always below 2.5V ("88" is displayed and buzzer sounds continuously)	Open or short circuit in wiring from diagnosis connector terminal FEN to ECU terminal 1F
		Always approx. 12V	Poor connection at ECU connector     ECU mellunction
1G 1H	Igniter	Always approx. OV	Refer to Code No.01 troubleshooting (Refer to page F-81)
1,5	A/C relay	Always below 2.5V (AIC does not operate)	A/C retay malfunction (Refer to page U=39)     Open circuit in wiring from main retay to A/C retay     Open circuit in wiring from A/C retay to ECU terminal 1J
	1	Alvays below 2.5V (A/C switch OFF but A/C operates)	Short circuit in wiring from A/C relay to ECU terminal 1.0     ECU mathunction
L		Always approx. 12V	A/C switch malfunction (Refer to page U-25)     Poor connection at ECU connector     ECU malfunction
111	Diagnosis connector (Terminal TEN)	Always approx. OV	Short circuit in wiring from ECU terminal 1K to diagnosis connector terminal TEN
	1	Always approx. 12V	Open circuit in wiring from ECU terminal 1K to clag- nosis connector terminal TEN     Open circuit in wiring from diagnosis connector ter- minal GNO to ground
IN	Throttle sensor (icle terminal)	Always approx. 0V	Throttle sensor miseclustment (Refer to page F=136)     Short circuit in wiring from ECU terminal TN to throttle sensor     ECU melfunction
		Always approx. 12V	Throttle sensor misadjustment (Refer to page F-136) Open circuit in wiring from ECU terminal 1N to throt- de sensor Open circuit in wiring from throttle sensor to ground
10	Stoplight switch	Always approx. 6V	Open circuit in wiring from stoplight switch to ECU terminal 10
1P	P/S pressure switch	(Stopights OK) Always approx. 0V	PRS pressure switch malfunction (Refer to page F=140)     Short circuit in wiring from ECU terminal 1P to P/S pressure switch     ECU malfunction
		Always approx. 12V	P/S pressure switch maturction (Refer to page F-140)     Open circuit in wiring from ECU terminal 1P to P/S pressure switch     Open circuit in wiring from P/S pressure switch to ground
10	A/C switch	Always approx. OV (with blower switch CN)	A/C swisch malfunction (Refer to page U-25)     Short circuit in wining from ECU terminal 1Q to A/C switch     Poor connection at ECU connector     ECU malfunction
		Aways approx. 12V (with blower switch ON) (Blower Ian OK)	AC switch malfunction (Refer to page U-25) Open circuit in widing from ECU terminal 10 to AC switch Open circuit in widing from AC switch to blower control switch.  The switch is switch to blower control switch to be switch to blower control switch switch.
18	Fan switch	Always approx, OV (Cooling Ian OK)	Open or short circuit in wiring from electric cooling fan relay to ECU terminal 1R     ECU mailunction
18	Blower control switch	Always approx. 0V (Blower Ian OK)	Short circuit in wiring from blower control switch to ECU terminal 13     Poor correction at ECU connector     ECU mailurction
l	1	Always approx. 12V	Open circuit in wiring from blower control switch to

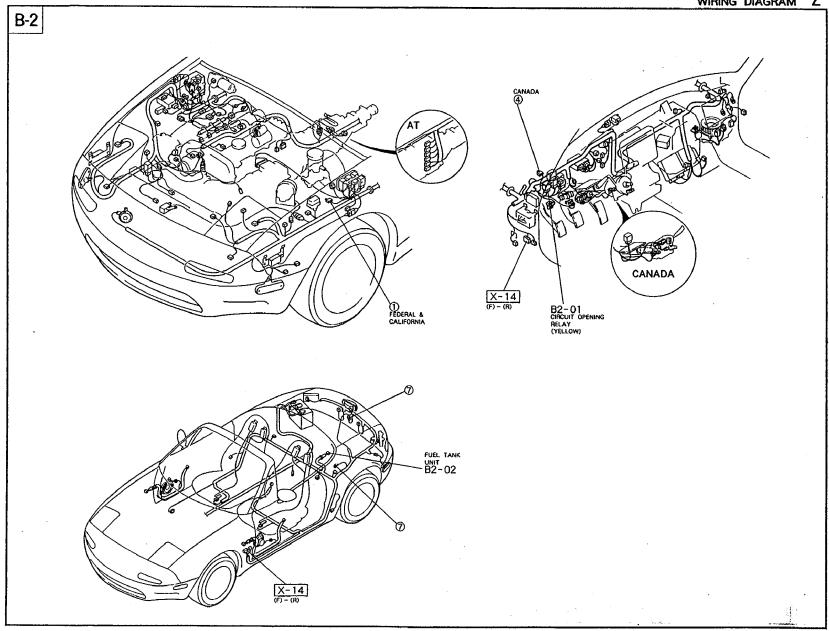
Terminal	Connection to	Abnormal voltage	Possible cause		
10	Headlight switch	Always approx. 0V (Headlights OK)	Open or short circuit in wiring from headlight relay to ECU terminal 1U		
١٧	Neutral switch Clutch switch (M/T)	Always approx. OV (M/T)	Neural evitch malfunction (Refer to page F-140)     Chrich evitch malfunction (Refer to page F-139)     Short circuit in wring from ECU terminal 1V to neutral or chrich switch.		
		Always approx. 12V (M/T)	Neutral switch malfunction (Refer to page F-140)     Clutch switch malfunction (Refer to page F-139)     Open cloud in wining from ECU serminal 1V to neutral or clutch switch     Poor connection at ECU connector		
	Inhibitor switch (4A/T)	Always approx. 0V (4A/II)	Inhibitor switch malfunction (Refer to Section K)     Short circuit in wiring from inhibitor switch to ECU terminal 1V		
		Always approx. 12V (4A/T)	Inhibitor switch malfunction (Rater to Section K)     Open circuit in wring from inhibitor switch to ECU terminal 1V		
2A 2B 2C 2O	Ground	More than 0V	Poor contact at ground ferminal     Open circuit in wiring from ECU to ground		
3E	Crank angle sensor (Ne signat)	Always approx. 0V or approx. 5V	Refer to Code No.02 troubleshooting (Refer to page F=82)		
203	Crank angle sensor (G-signal)	Always approx. 0V or approx. 5V	Refer to Code No 03 traubleshooting (Refer to page F-82)		
214	Ground	Approx. 5V	Open circuit in wiring from ECU terminal 2H to ground		
	(Federal and Canada)	Approx. OV	Short circuit in wiring from ECU terminal 2H to ground		
21	igniter	Always Approx. 0V	Refer to Code No.01 troubleshooting (Refer to page F-81)		
2K	Airflow meter	Always approx. 0V	Short circuit in wiring from ECU terminal 2K to air. Sow mater     Poor connection at ECU connector     ECU matunation		
		Below 4.5V or above 5.5V	+ ECU melfunction		
21.	Throttle sensor (Power terminal) (M/II)	Always approx. 0V	Throttle sensor matfunction (Refer to page F-136) Short circuia in wising from ECU terminal 2L to throttle sensor Poor connection at ECU connector ECU matfunction  Throttle sensor matfuncti		
		Always approx. 5V	Throttle sensor missigus/ment (flefer to page F=136)     Open circuit in wring from ECU terminal 2L to throttle sensor     Open circuit in wring from throttle sensor to ground		
2M	Throttle sensor (4A/T)	Always constant	Open circuit in wiring from ECU terminel 2M to throtise sensor     Open circuit in wiring from ECU terminel 2K to throtise sensor     Open circuit in wiring from ECU terminel 2O to throtise sensor		
4		Always above 1V	Throttle sensor misedjustment     Reter to Code No.15 troubleshooting		
SN	Oxygen sensor	(V after warm-up	(Refer to page F-85)		
		Always approx, 1V after warm-up	Refer to Code No.17 troubleshooting (Refer to page F-86)		
20	Airflow mater	Alweys approx, 0V or approx, 5V	Refer to Code No.08 troubleshooting (Refer to page F=84)		
ZP	Airflow meter (Intake eir thermosensor)	Always approx. 0V or approx. 5V	Refer to Code No 10 troubleshooting (Refer to page F-85) Intake if thermosensor malfunction (Refer to page F-133)		
2C	Water thermosensor	Always approx. (V or approx. 5V	Refer to Code No.09 traubleshooting (Refer to page f-85)     Water thermosensor malfunction		
2V 2V	Injector	Alweys approx. 0V	(Rafer to page F-136)  Main relay mailunction (Rafer to page F-140) Open or short circuit in wiring from injector to ECU terminal 2U or 2V		
L	-	Always approx. 12V	ECU malfunction     Refer to Code No.34 troubleshooting		
2W	ISC valve	Always approx, OV of approx, 12V	(Refer to page F-87)  • ISC valve mailunction		
- X	Colored at a	the second of a	(Refer to page F-99)  • Refer to Code No 28 troubleshooting		
2X	Solenoid valve (Purge control)	Always approx. 0V or approx. 12V	(Ruler to page F-87)  Solanoid valve (Purge control) malfunction (Ruler to page F-119)		
<u> </u>	L	10	(Rater to page F-119)  • ECU maltunction		
22	4A/T control unit	Always approx. 12V	+ ECU mellunction		

## Terminal Voltage

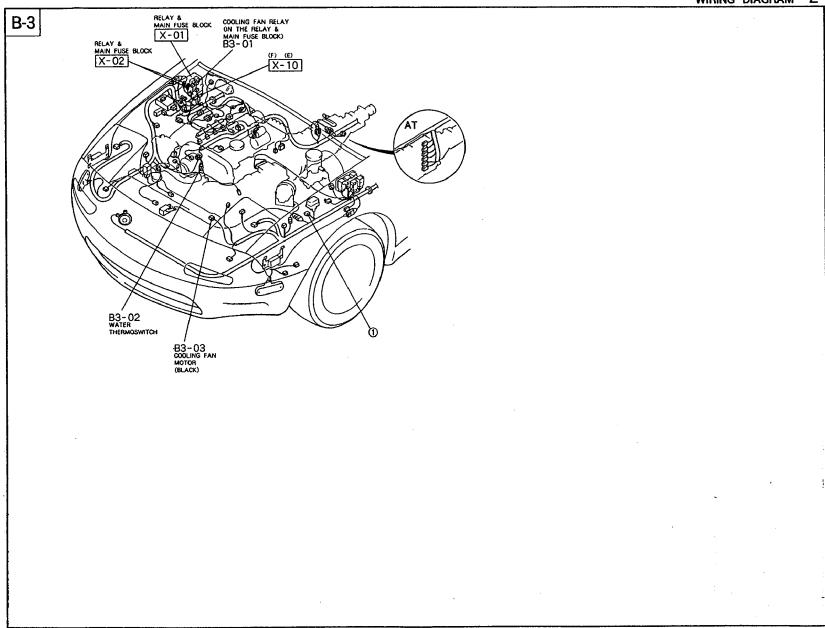
Terminal	Input	Output	Connection to	Test condition	Voltage	Rémark
1A	=	-	Battery	Constant	Approx. 12V	For backup
1B	0		Main relay	Ignition switch OFF	Approx. OV	
				Ignition switch ON	Approx. 12V	1
1C	0	1	Ignition switch	White cranking	Approx. 10V	
	<u></u>		(Štart position)	Ignition switch ON	Approx. QV	l
1D		0	Self-Diagnosis Checker (Monitor lamp)	Test switch at "SELF-TEST" Lamp illuminated for 3 sec, after ignition switch OFF→ON	Approx. 5V	With Self-Diagnosis Checker and System Selector
	ŀ			Lamp not illuminated after 3 sec.	Approx. 12V	)
				Test switch at "O2 MONITOR" at idle Monitor lamp illuminated Test switch at "O2 MONITOR" at idle	Approx. 5V	
1E			Malfunction	Monitor lamp not illuminated	Approx. 12V	
IE		0	indicator lamp	Lamp illuminated for 3 sec. after ignition switch OFF→ON	Below 2.5V	With System Selector test
	İ			Lamp not illuminated after 3 sec.	Approx. 12V	switch at "SELF-TEST"
				Lamp illuminated	Below 2.5V	SELFICSI
			0-401	Lamp not illuminated	Approx. 12V	
1F		0	Seff-Diagnosis Checker (Code number)	Buzzer sound for 3 sec. after ignition switch OFF→ON	Below 2.5V	With Self- Diagnosis Chacker and
	ļ			Buzzer not sounded after 3 sec.	Approx. 12V	System Selector With System
				Buzzer sounded _	Below 2.5V	Selector test switch at "SELF-TEST"
1G		0	T-9-	Buzzer not sounded	Approx. 12V	SELF-1ES1
10	i '	1 0 1	Igniter	Ignition switch ON	Approx. 0V	
1H		0	loniter	gnition switch ON	Approx. 0.2V	
in		'	igrater	Idle	Approx. 0V Approx. 0.2V	
11				, iole	Approx. U.2V	
17			A/C relay	Ignition switch ON	Approx. 12V	<u>-</u>
		~	740 Idiay	A/C switch ON at idle	Below 2.5V	
				A/C switch OFF at idle	Approx. 12V	
1K	0		Diagnosis connector	System Selector test switch at "Oz MONITOR"	Approx. 12V	
				System Selector test switch at "SELF-TEST"	Approx, 0V	
1L.	ı			_	_	_
1M	1	-			_	-
1N	0		Throttle sensor	Accelerator pedal released	Approx. 0V	Ignition switch
			(Idle point)	Accelerator pedal depressed	Approx. 12V	ON
10	0		Stoplight switch	Brake pedal released	OV	
				Brake pedal depressed	Approx. 12V	
1P	0		P/S pressure switch	Ignition switch ON	Approx. 12V	
			amii(J1	P/S ON (at idle)	0V -	
10	0		A/C switch	P/S OFF (at idle)	Approx. 12V	Planes males Ct
ıu	0		∿∩ ZWICH	A/C switch ON (Ignition switch ON)  A/C switch OFF (Ignition switch ON)	Below 2.5V Approx. 12V	Blower motor ON
1R	0		Fan switch	Fan operating (Engine coolant tempera- ture over 97°C (207°F) or diagnosis con- nector terminal TFA grounded)	Approx. 0V	
				Fan not operating (Idle)	Approx. 12V	
15	0		Blower control switch	Blower control switch at mid, high or super high position	Approx. 0V	Ignition switch ON
				Blower control switch OFF or low	Approx. 12V	
11	_			_	_	
10	0		Headlight switch	Headlights ON (Tail, parking, low beam/ high beam)	Approx. 12V	
-11				Headlights OFF	OV	
1V	0		Neutral or clutch switch (M/T)	Neutral position or clutch pedal depressed	Approx. 0V	
		ļ		Other conditions	Approx. 12V	
ŀ			Inhibitor switch	N or P range	Approx. 0V	
			(4A/T)	Other conditions	Approx. 12V	I

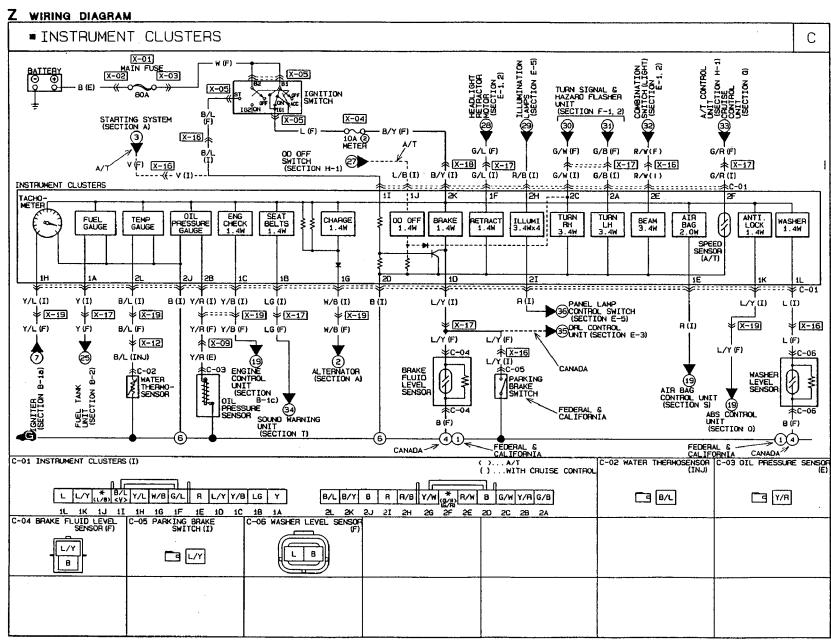
Terminal	Input	Output	Connection to	Test condition	Voltage	Remark
2A	L		Ground (Injector)	Constant	OV	
2B	ľ	-	Ground (Output)	Constant	OV	
2C	1	-	Ground (CPU)	Constant	0V	
2D	П	_	Ground (Input)	Constant	OV	
2E	0		Crank angle sensor (Ne-signal)	Ignition switch ON	Approx. OV or 5V	
				Idle	Approx. 2V	
2F	-			_		_
2G	0		Crank angle sensor (G-signal)	Ignition switch ON	Approx. OV or 5V	
				Idle	Approx. 1.5V	
2H	0		Ground	Constant	0V	
	L		Open	Federal and Canada spec	Approx. 2V	
21	0		Igniter	Ignition switch ON	Below 0.5V	
				Idle	Approx. 1V	
2K		0	Airflow meter	Constant	4.5-5.5V	
2L	0		Throttle sensor	Accelerator pedal released	Approx. 5V	
			(Power terminal)	Accelerator pedal fully depressed	Approx. 0V	
2M	0	_	Throttle sensor	Accelerator pedal released	Approx. 0.5V	
	_		(4A/T)	Accelerator pedal fully depressed	Approx. 4.0V	
2N	0	0	Oxygen sensor	Ignition switch ON	OV	
1	-			idle (Cold engine)	OV.	
				idle (After warm-up)	0-17	
				Increase engine speed (After warm-up)	0.5-1V	
				Deceleration	0-0.4V	
20	0		Airflow meter	Ignition switch ON	Approx. 3.8V	
	_			Idle	Approx. 3.3V	
2P	0		Airflow sensor (Intake air thermosensor)	At 20°C (68°F)	Approx. 2.5V	
2Q	0	$\neg$	Water	Engine coolant temperature 20°C (68°F)	Approx. 2.5V	
	l i		thermosensor	After warm-up	Approx. 0.4V	
2R	-			_		_
2S	_	_	_	_		
2T						
2U		0	Injector (Nos.1, 3)	Ignition switch ON	Approx. 12V	Engine Signal
		- 1	(Nos.2, 4)	idle	Approx. 12V*	Monitor: Green
2V		0		Deceleration from 3,000 rpm to 1,900 rpm (After warm-up)	Approx. 12V	and red lights flash
2W		0	ISC valve	Ignition switch ON	Approx. 7V	
				Ide	Approx. 9V	
2X		0	Solenoid valve	Ignition switch ON	Approx. 12V	
- 1	1 1		(Purge control)	Idle	Approx. 12V	
2Y	- 1		_			
2Ž		0	4A/T control unit	Ignition switch ON	Approx. 0V	

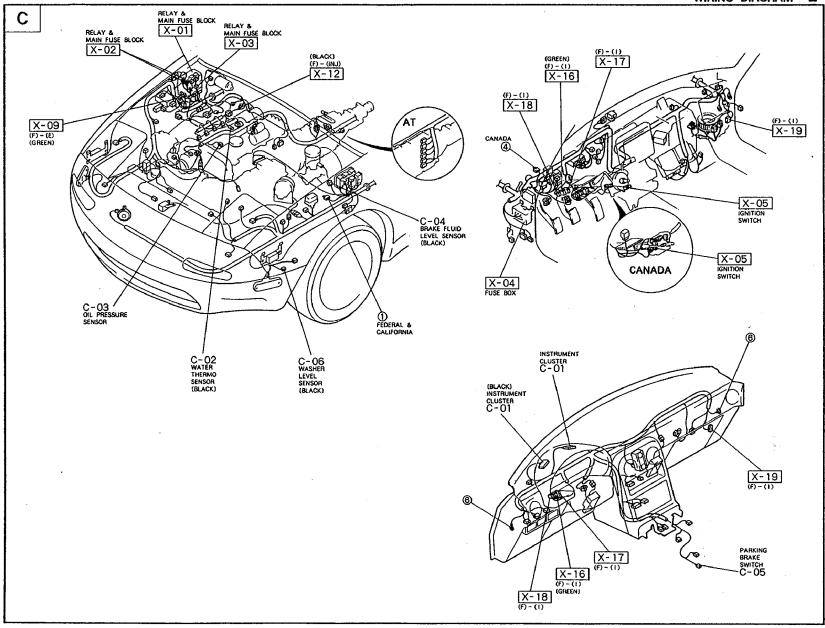
WIRING DIAGRAM
■FUEL CONTROL SYSTEM B-2
V (F) STARTING SYSTEM
V (F)
W/R (F) MAIN FELAY (SECTION 8-1a)
CIRCUIT OPENING RELAY
B2-01 Y (F) Y (F) INSTRUMENT CLUSTERS (SECTION C)
B LG L/R Y (F) (F) (R) (R)
AIRFLOW METER (SECTION B-1b)
AND DIAGNOSIS CONNECTOR (SECTION B-1c)  (R)  (R)
7
CANADA FEDERAL & CALIFORNIA
B2-01 CIRCUIT OPENING RELAY (F) B2-02 FUEL TANK UNIT (R)
V W/R L/R B * LG



Z WIRING DIAGRAM		
■ COOLING FAN SYSTEM		B-3
BATTERY  MAIN FUSE  BOA  30A  WASH  BYR BYM  (E)  BYR BYM	Y K) B/G (F)	A/C RELAY (SECTION G)  (SECTION G)  (SE)  B/G (F)  B/G (F)  B/G (F)  B/G (F)  B/G (F)  B/G (F)  B/G (F)  B/G (F)
B (F)	B3-02 MATER THERMO- ABOVE THERMO- 97' C: ON (FAN)	Ing. 02 COOL THE EAN
B3-01 COOLING FAN RELAY (E) (IN THE RELAY & MAIN FUSE BLOCK)	B3-02 WATER THERMO- SWITCH (FAN) (F)	B3-03 COOLING FAN MOTOR (F)
B/R B/R B/G	(B/G)	В

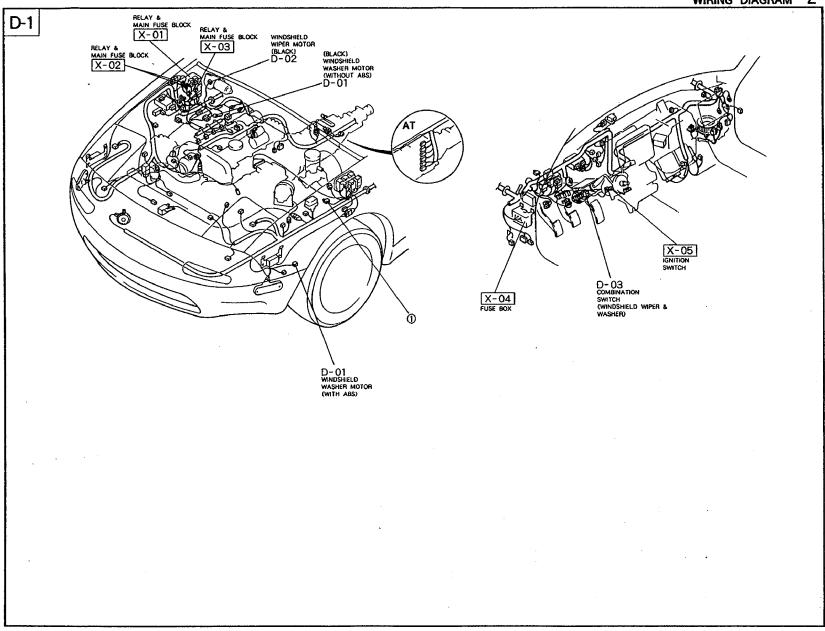




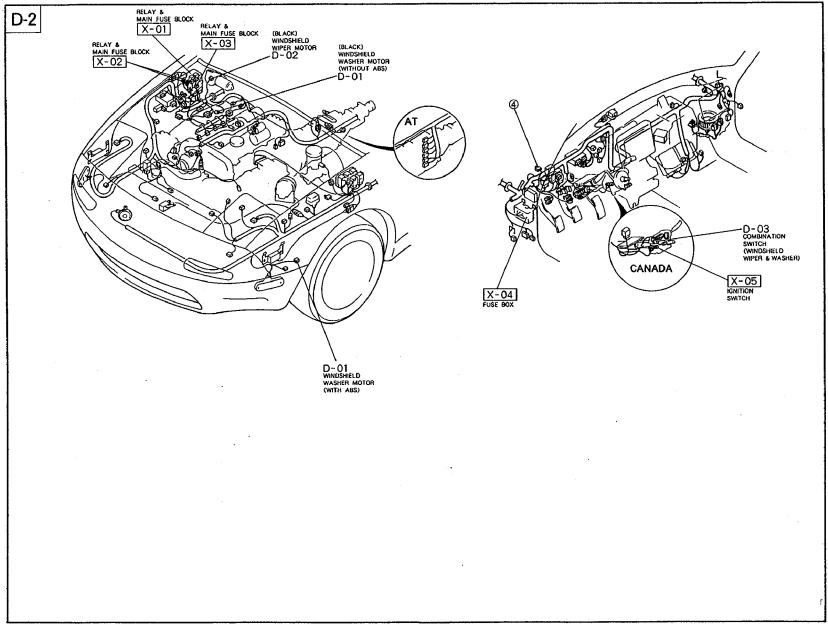


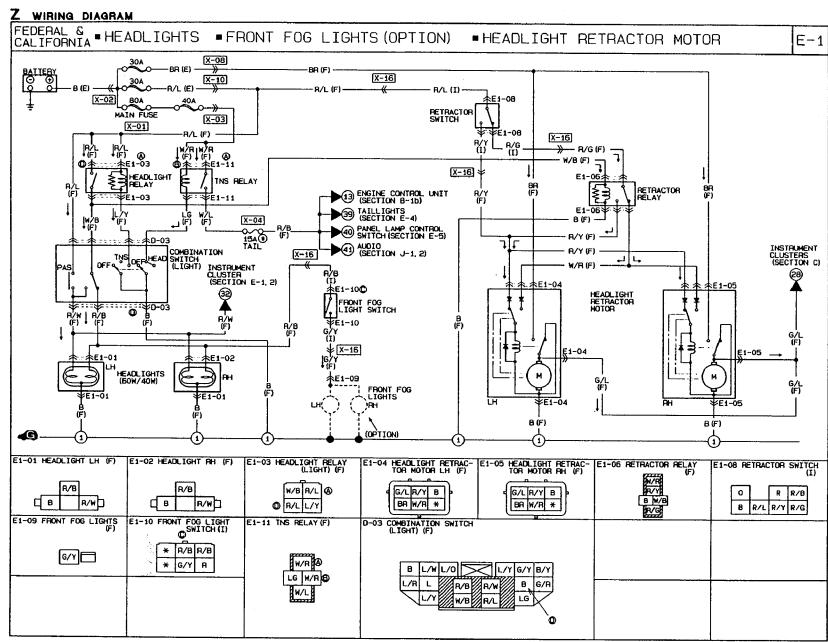
Z WIRING DIAGRAM
FEDERAL & WINDSHIELD WIPER & WASHER D-
BATTERY   X-01   X-05
COMBINATION SWITCH (F) B/R (F) (X-US)  COMBINATION SWITCH WIPER (MINOSHIELD WIPER & WASHER) D-03
HIGH OFF WASHER SWITCH
L (F) B (F) L/Y (F) L/R (F) L/W (F) L/O (F)
D-02  WINDSHIELD  WASHER  MOTOR  D-01  WASHER  MOTOR
D-02 CIRCUIT BRAKER B (F)
WINDSHIELD WIPER MOTOR
D-01 WINDSHIELD D-02 WINDSHIELD D-03 COMBINATION SWITCH WIPER MOTOR (F) WIPER MOTOR (F) (WINDSHIELD WIPER & WASHER) (F)
B L/W L/O L/Y G/Y B/Y  WITHOUT ABS  WITH ABS  (B L/O)
ì

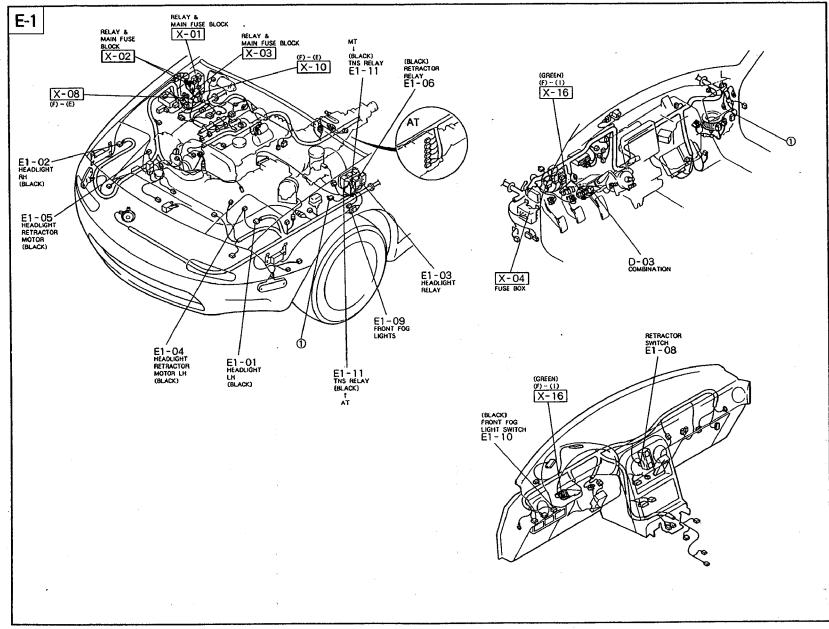
Z-42

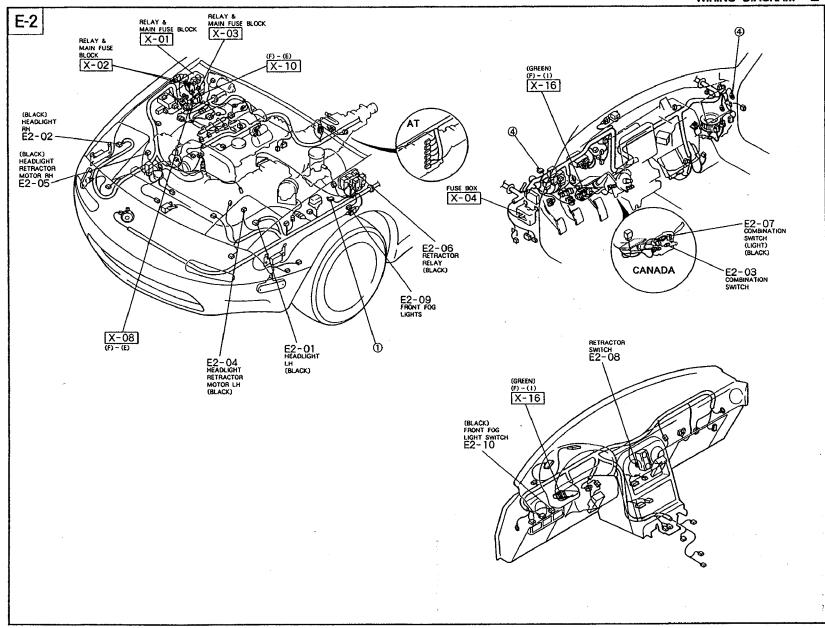


CANADA = WINDSHIELD WIPER &WASHER	D-2
BATTERY  MAIN FUSE  (X-02)  (X-03)  (X-04)  (X-05)	•
OFF OOLD AS OPIL OF DOOS  L (F) B (F) L/R (F) L/Y (F) L/M (F) L/Q (F)	
D-02  CIRCUIT BRAKER  MINOSHIELD MIPER MOTOR	ELD
D-01 WINDSHIELD (F) WINDSHIELD (F) WASHER MOTOR (F) WIPER MOTOR (F) WIPER MOTOR (F) WIPER MOTOR (F) WIPER MOTOR (F) WIPER MOTOR (F) WIPER MOTOR (F)	
WÄSHËR MOTOR (F)  WÎPËR MOTOR (F)  L/R L/H  L/Y L/  L/Y L/R	
WITHOUT ABS WITH ABS	

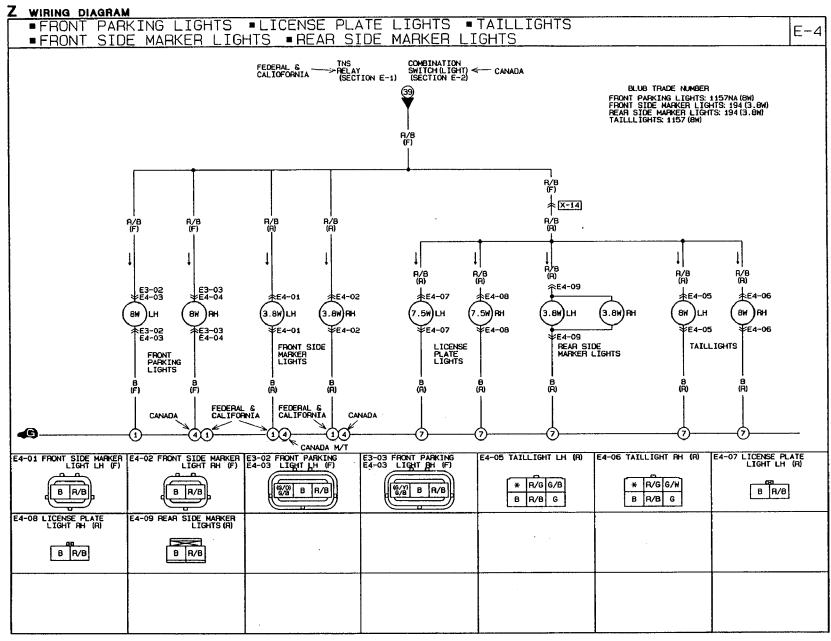


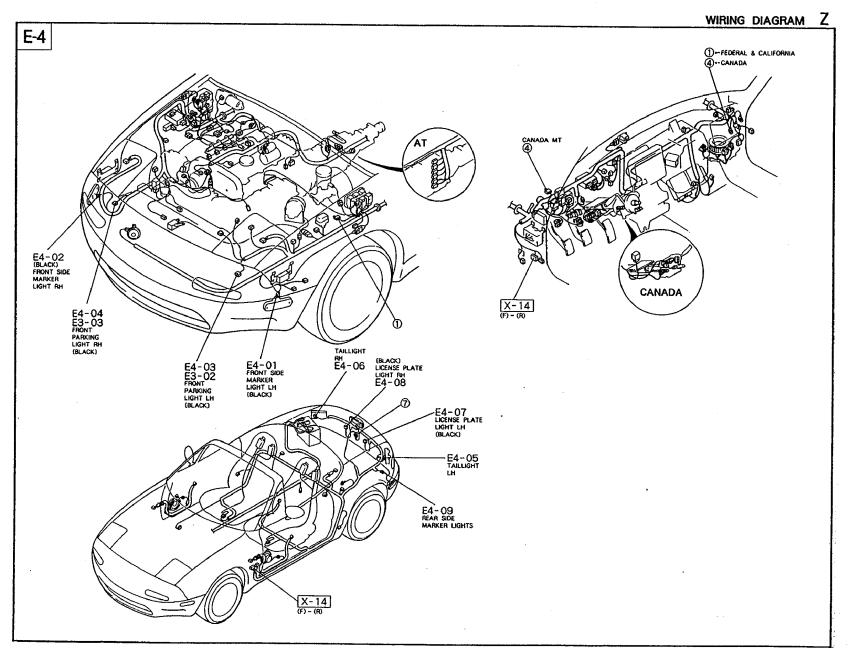


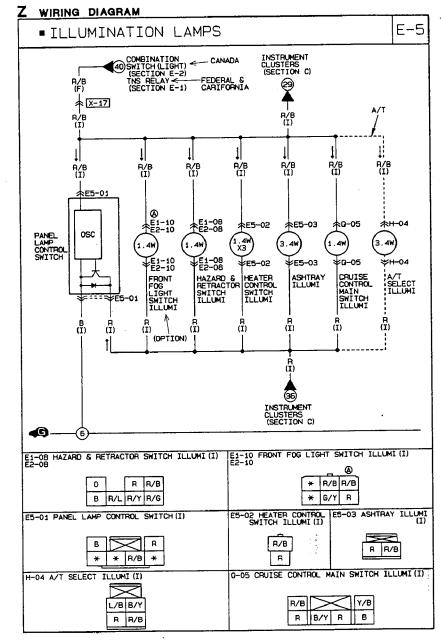


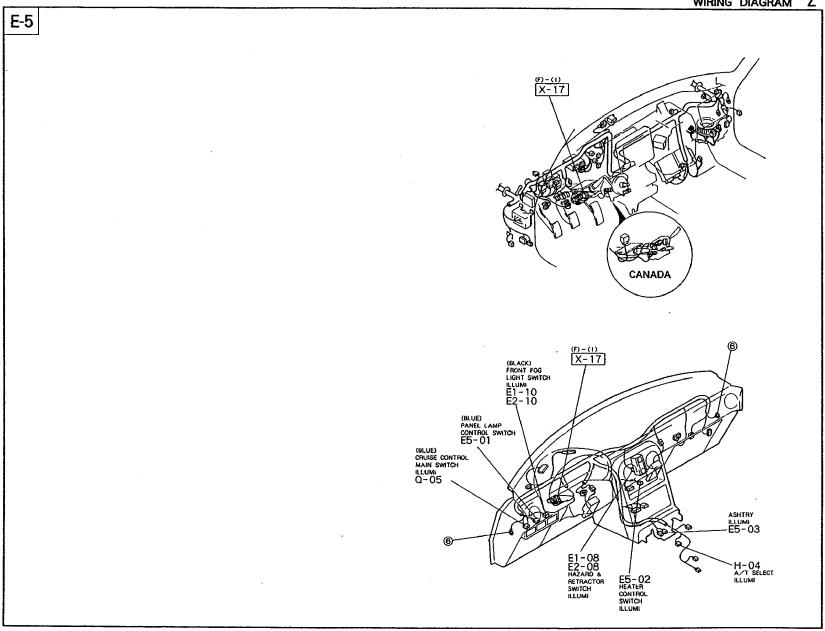


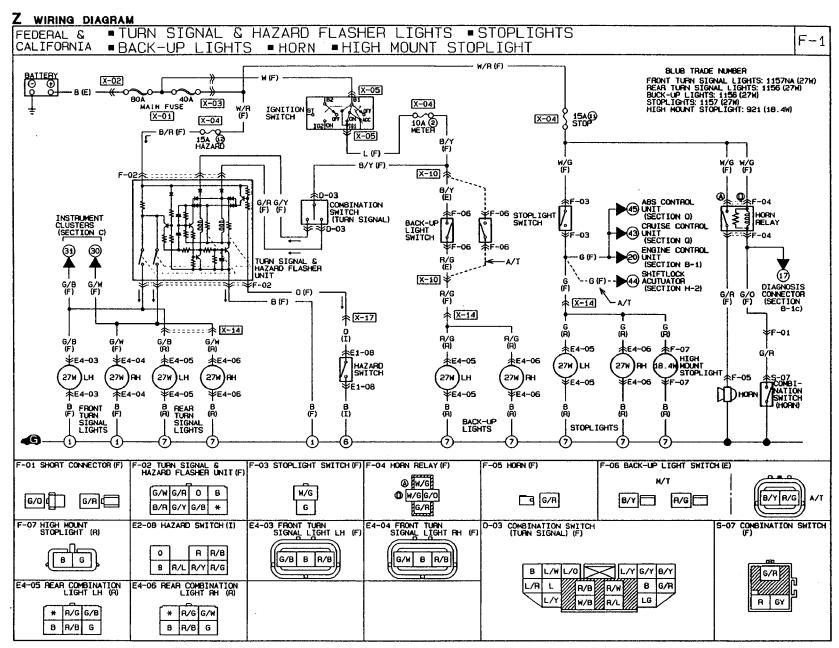
Z WIRING DIAGRAM  CANADA - DAYTIME RUNNING LIGHT
CONTROL SYSTEM
BALTERY  BOA  W (F)  GNITION SWITCH  EDULB TRADE NUMBER FRONT TURN SIGNAL LIGHTS : 1157NA (27W)  BOA  W (F)  GNITION SWITCH  IGNITION SWITCH
AE3-01 DAYTIME RUNNING LIGHT CONTROL UNIT
PULSE CONVENTER
E3-01
M/P L/Y A B G/B G/M G/O G/Y (F) (F) (F) (F) (F) (F)   +  +      +
(42) (35) (31) (31) (32) (32) (32)
SWITCH CASE OF THE CONTRACT OF
BRAKE STONAL B SIGNAL
4 Page 1
E3-01 DAYTIME RUNNING LIGHT CONTROL UNIT (F)
G/Y B W/R L/Y  * L G/W G/B G/O R
E3-03 FRONT TURN SIGNAL LIGHTS RH (F) E3-04 PAKING BRAKE SWITCH (I)
G/Y B R/B

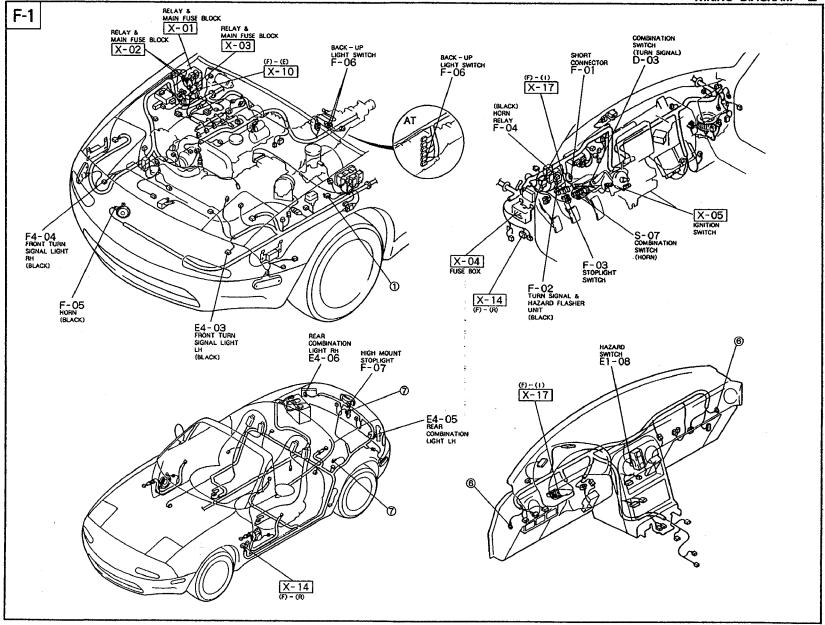


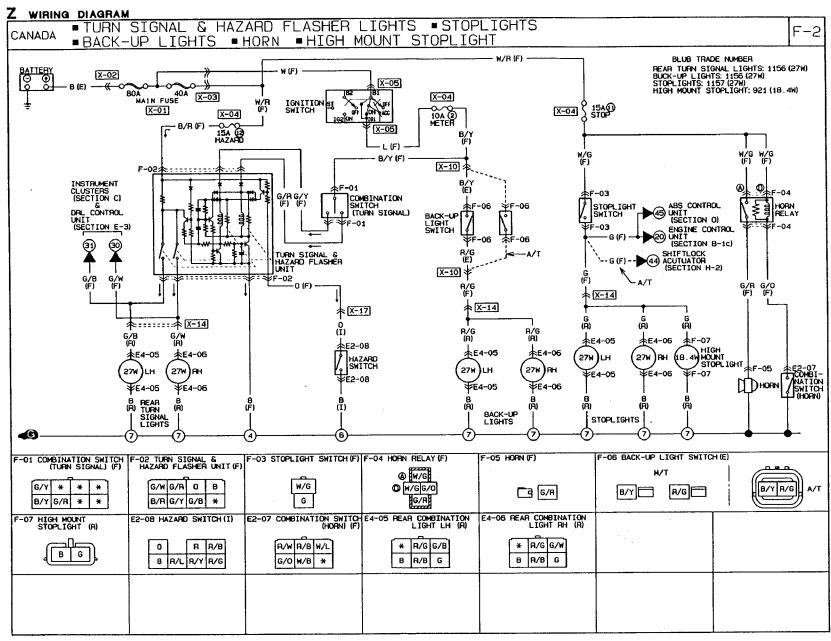


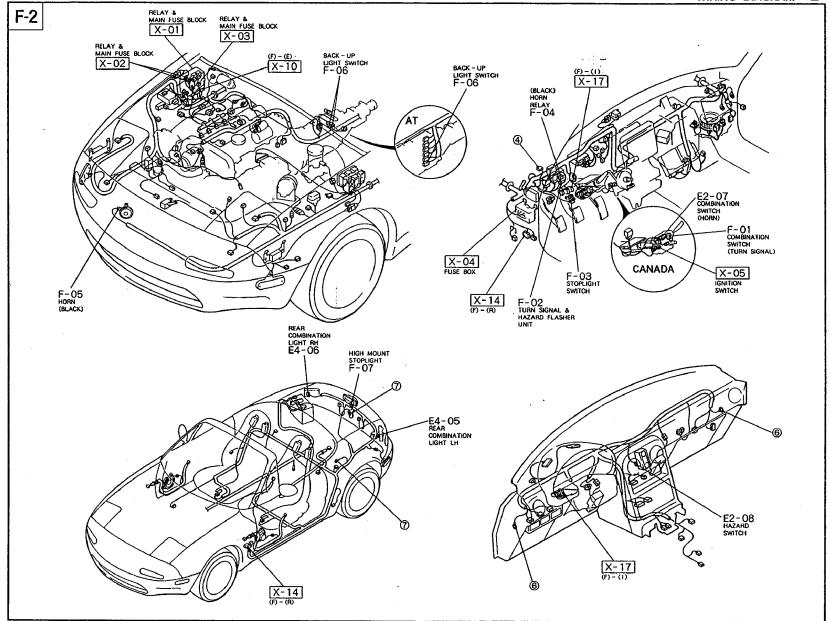


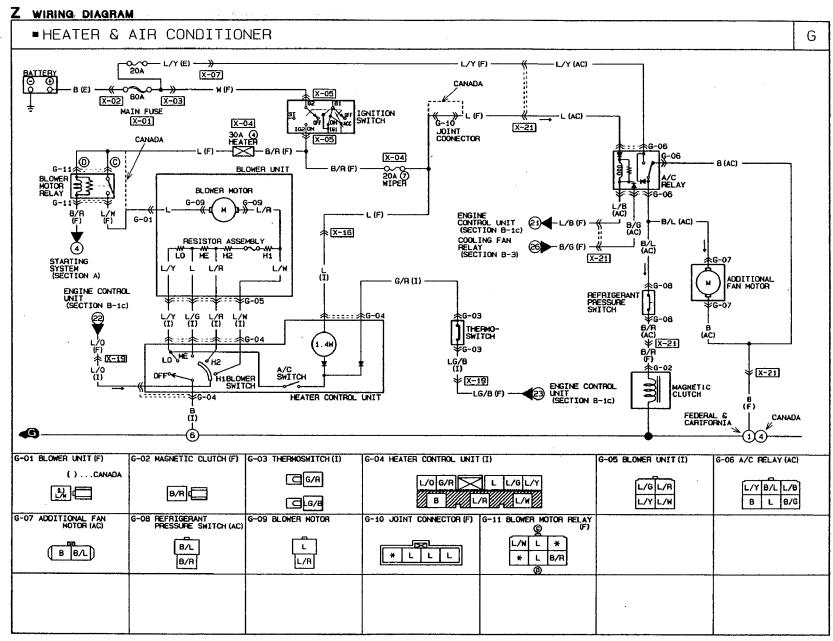


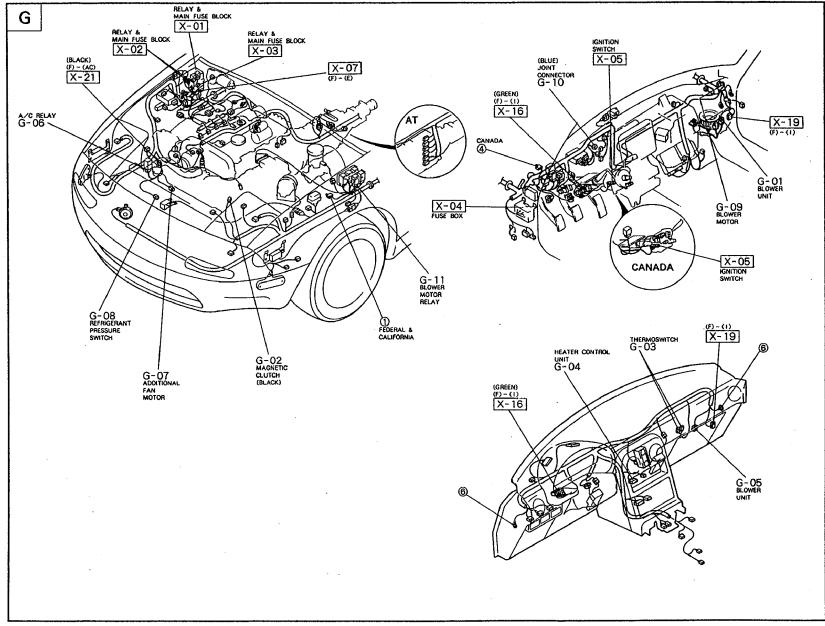


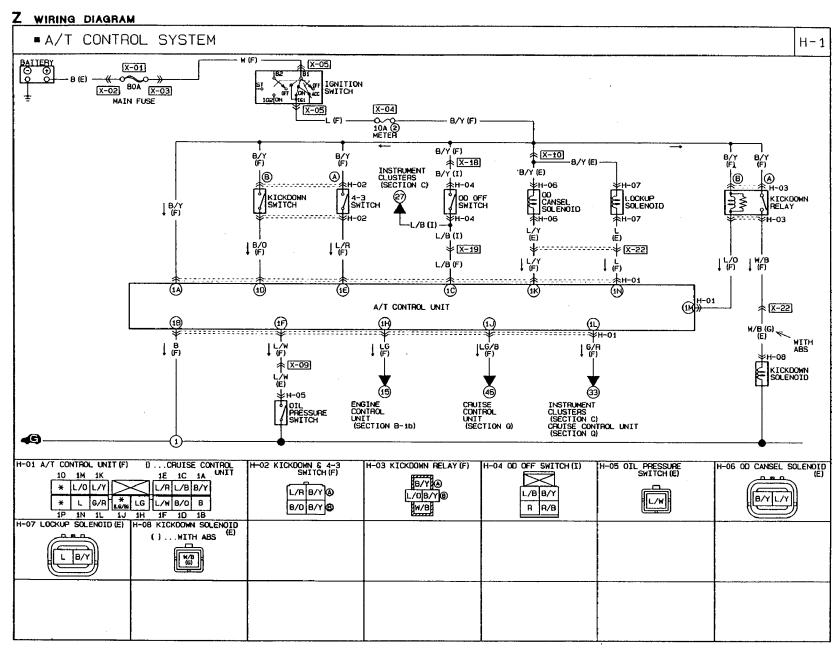


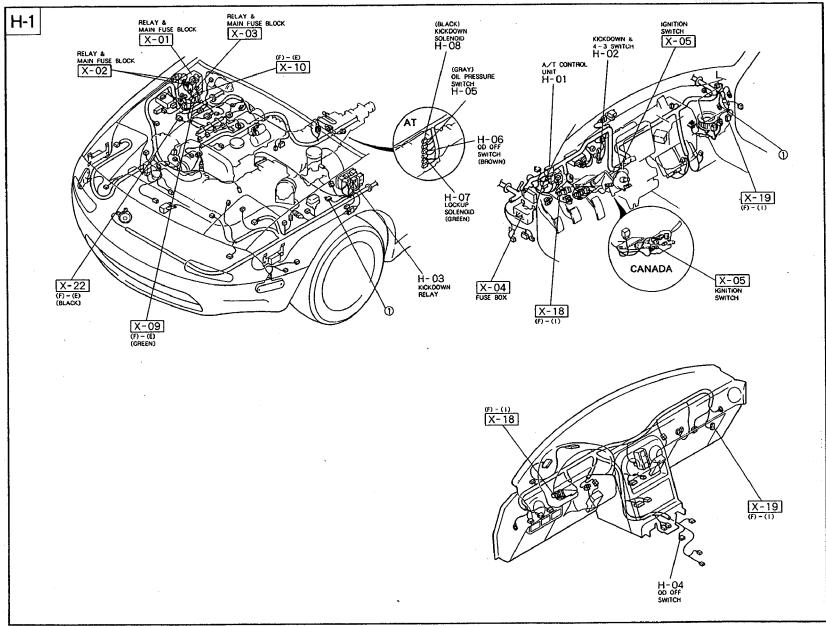








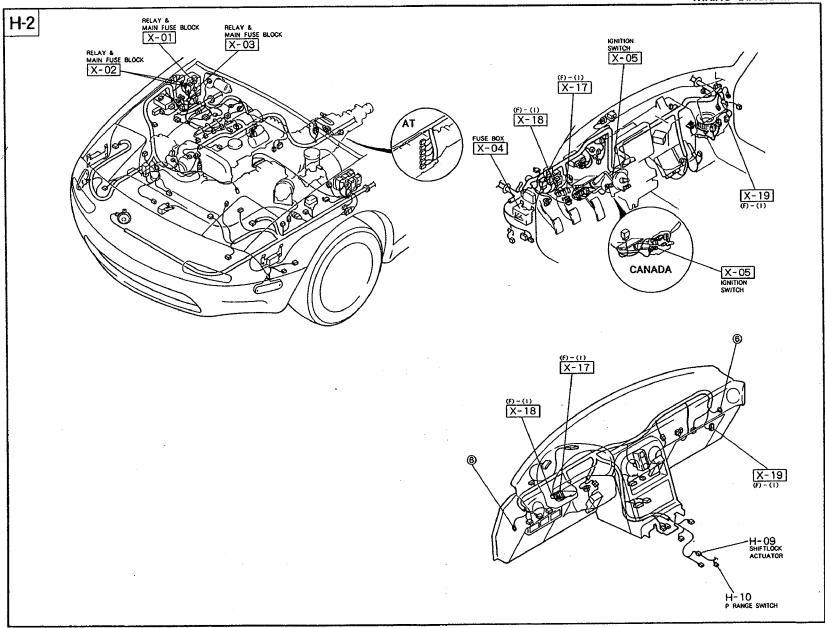




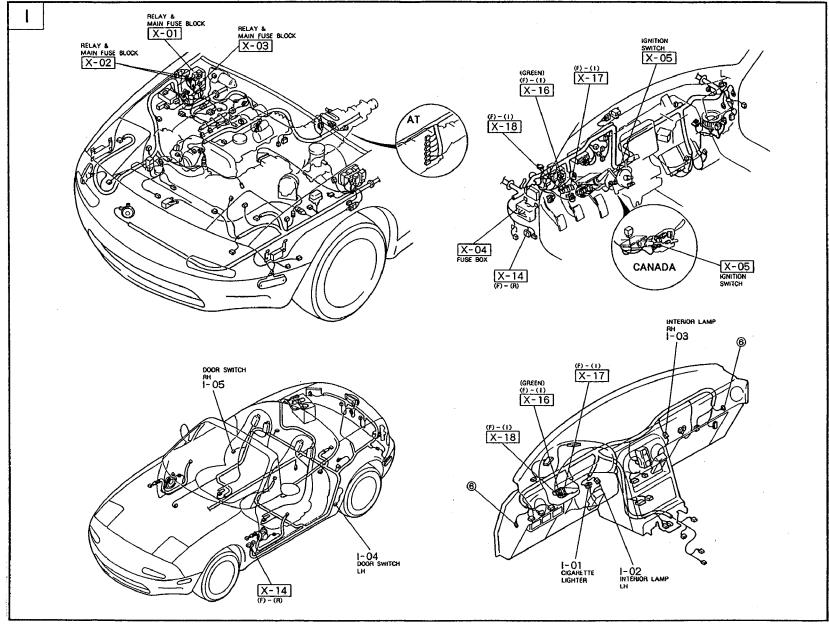
#### Terminal Voltage

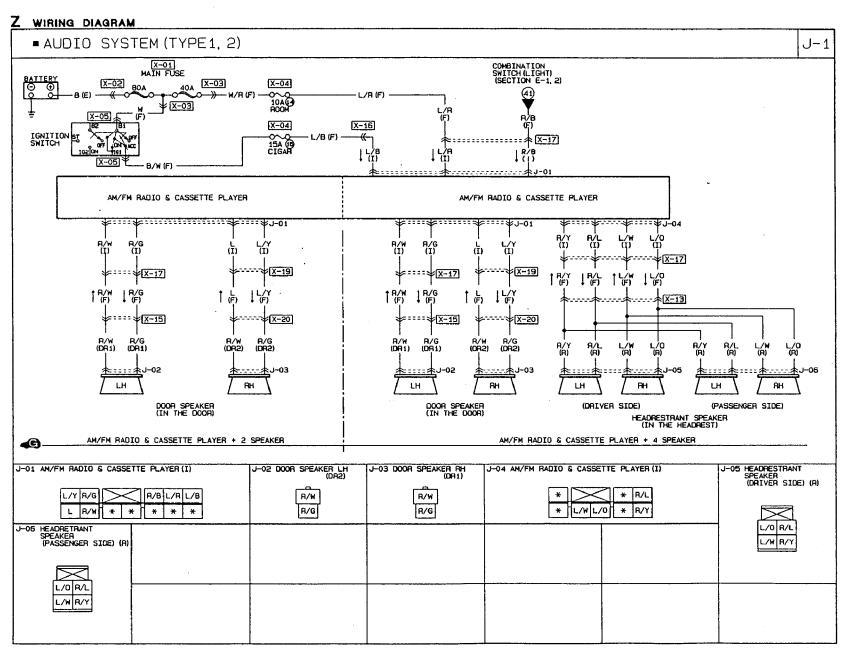
Terminal	Connected to	Voltage	Condition		
1A	Battery	Approx 12V	Ignition switch ON		
(Battery power)	L	Below 1.5V	Ignition switch OFF		
1B (Ground)	_	Below 1.5V	_		
1C (Input)	OD OFF switch	Approx. 12V	OD OFF switch released  OD not available		
Below 1.5V OD OFF switch depressed  OD available					
1D (Input)	Kickdown switch	Approx. 12V	Switch ON: • Throttle opening 7/8—8/8		
		Below 1.5V	Switch OFF: Other than conditions above		
1E (Input)	4-3 switch	Approx. 12V	Switch ON: •Throttle opening 6/8—8/8		
Ве		Below 1.5V	Switch OFF: Other than conditions above		
1F (Input)	Oil pressure switch	Approx. 12V	Switch OFF:  • 1st, 2nd, and 3rd gear positions in forward ranges  • P, R, and N ranges		
		Below 1.5V	Switch ON: OD gear position		
1H (Input)	Engine control unit	Below 1.5V	Ignition switch ON		
11	_	_			
1J (Input)	Cruise control unit	Approx. 12V	Normal conditions		
		Below 1.5V	Set or Resume switch ON, or vehicle speed 8 km/h (5 mp lower than preset speed (Driving vehicle: cruise control operation)		
1K (Output)	OD cancel solenoid	Approx. 12V	Solenoid OFF:  OD gear position		
●1st, 2nd		Solenoid ON: 1st, 2nd, and 3rd gear positions in forward ranges P, R, and N ranges			
1L (Input)	Speed sensor	1.57V	During driving		
		Approx. 7V or below 1.5V	Vehicle stopped		
1M (Input)	Kickdown relay	Approx. 12V	Other than conditions below		
		Below 1.5V			
1N (Output)	Lockup solenoid	Approx. 12V	Solenoid OFF: • Lockup prohibition	Ignition switch ON	
		Below 1.5V	Solenoid ON:  Lockup	Engine running	

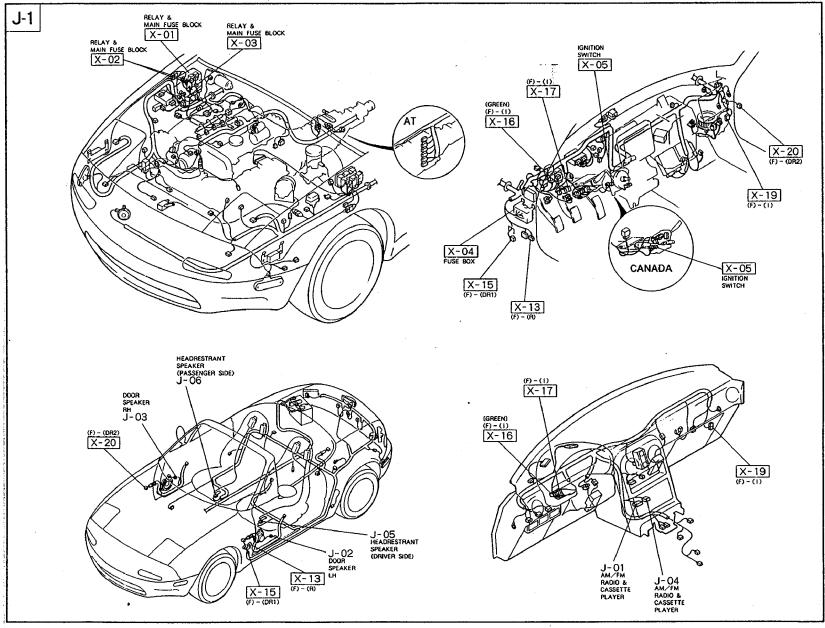
A/T = SHIFTLOCK SYSTEM	H <b>-</b> 2
BATTERY  MAIN FUSE  SOA  W/A (F)  STORLIGHT SMITCH (SECTION F-1, 2)  SHIFTLOCK ACUTUATOR H-10  B  P RANGE SMITCH  SMITCH  SHIFTLOCK ACUTUATOR H-10  B  P RANGE SMITCH  SMITCH  SHIFTLOCK ACUTUATOR H-10  B  P RANGE SMITCH	ا
H-09 SHIFTLOCK ACUTUATOR (I)   H-10 P RANGE SHITCH	
G B B/Y L/R R Y B L B B	

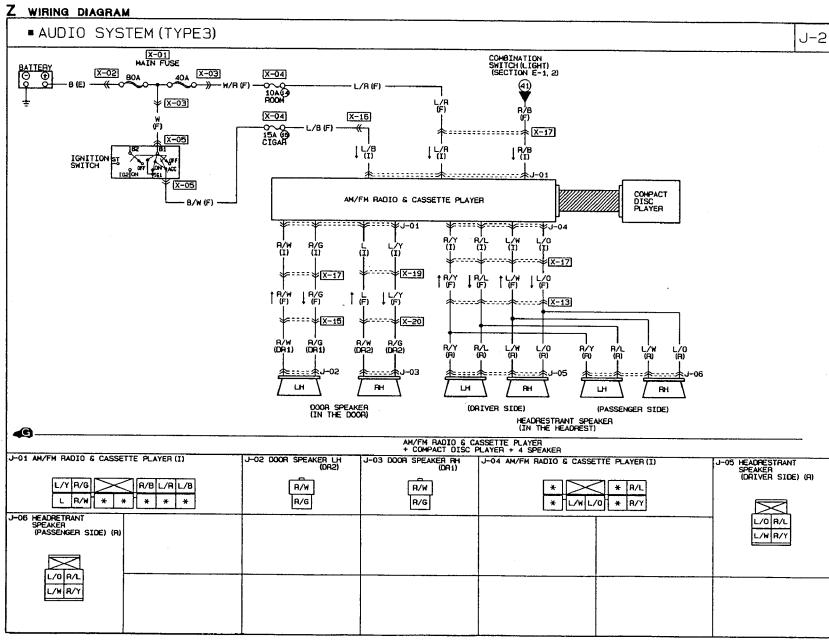


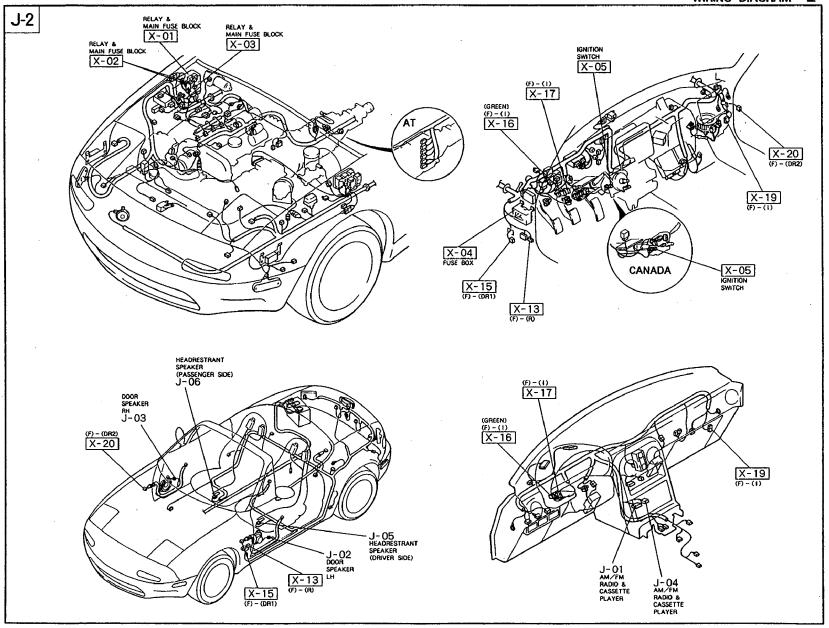
Z WIRING DIAG	RAM			
■ INTERIO	IGHTER R LAMPS			I
\$ (X=05)	#/A (F X=01) (X=03) W/B (F	FOOM 102 00 102 00 102 00 102 102 102 102 10	BODS BI IGNITION SWITCH (X-05)	N
OFF. ON INTERIO	OFF V ON SECT	O MARNING AT R/M (F)	· .	
(I) (I)	B (I)	R/W (R)  R/W (R)  R/W (R)  R/W (R)  R/W (R)  R/W (R)	I-01  CIGARETT  LIGHTER  I-01  B  (I)  6	Ε
I-01 CIGAR LIGHTER	I-02 INTERIOR LAMP LH (I)  L/R  B R/W	I-03 INTERIOR LAMP RH (I)  L/R  B R/W	1-04 DOOR SWITE (R)	ᅄᅭ
I-05 DOOR SWITCH RH				



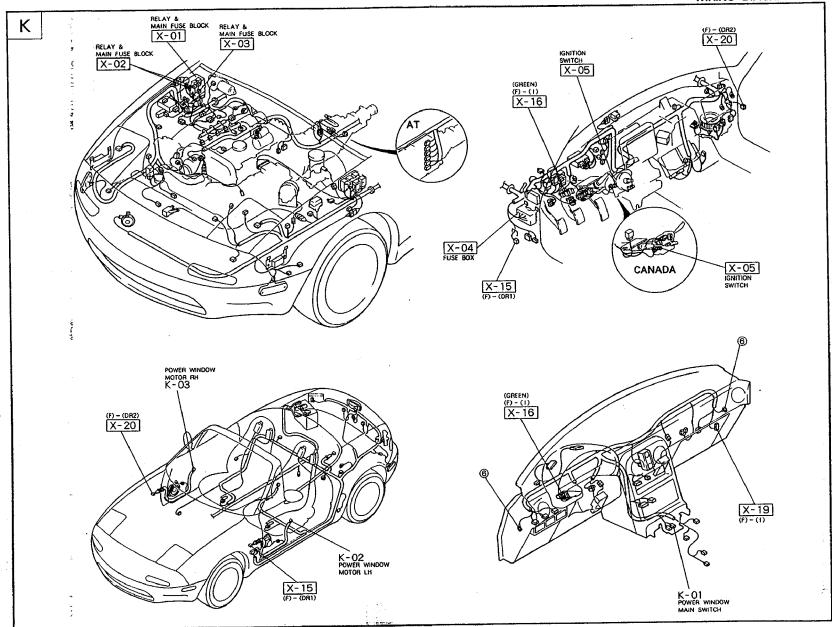


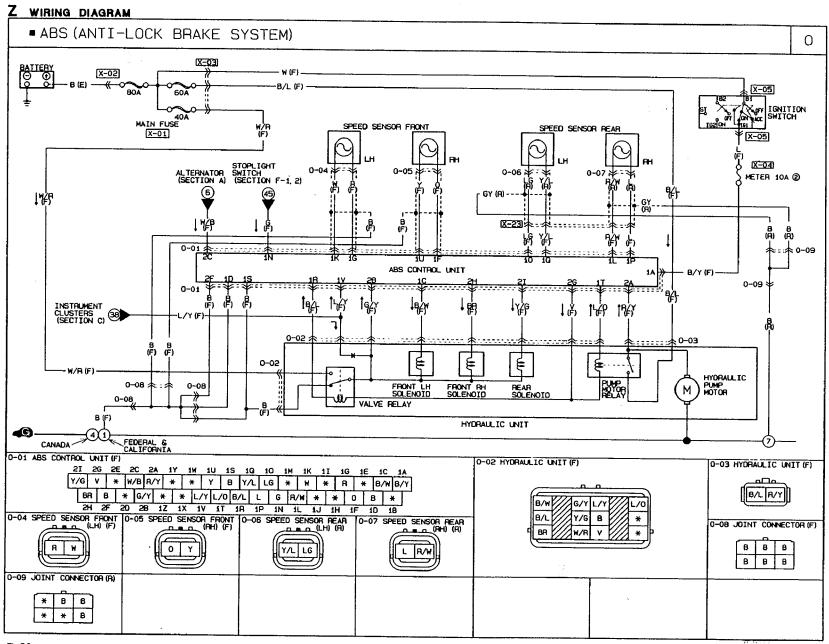


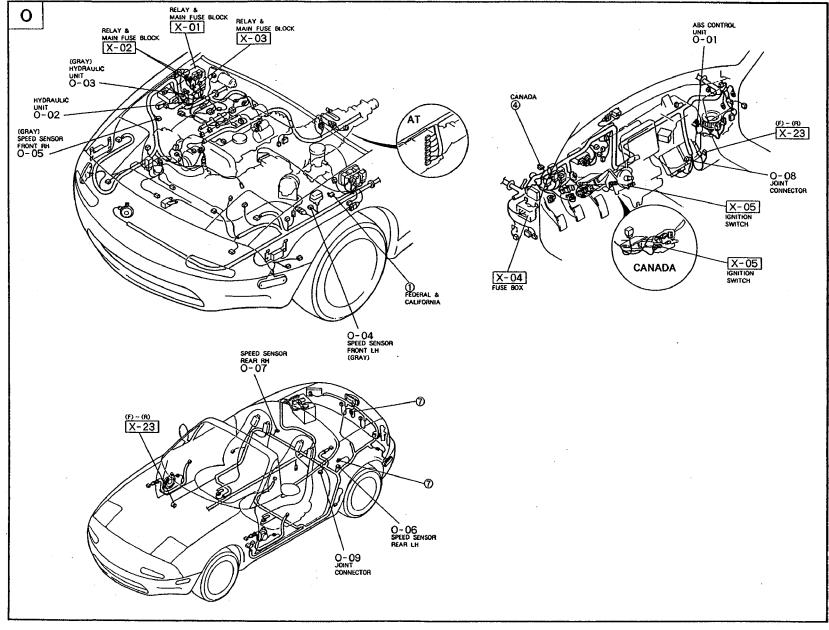


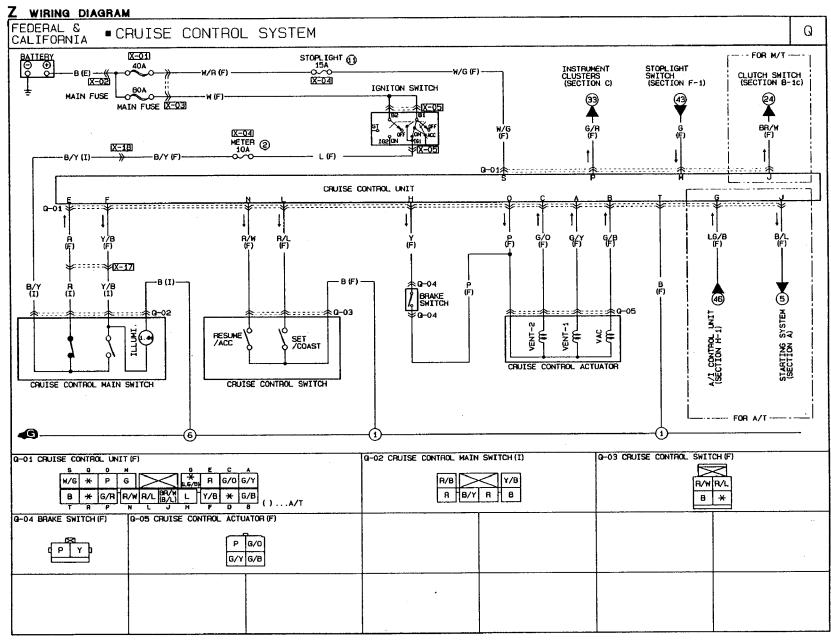


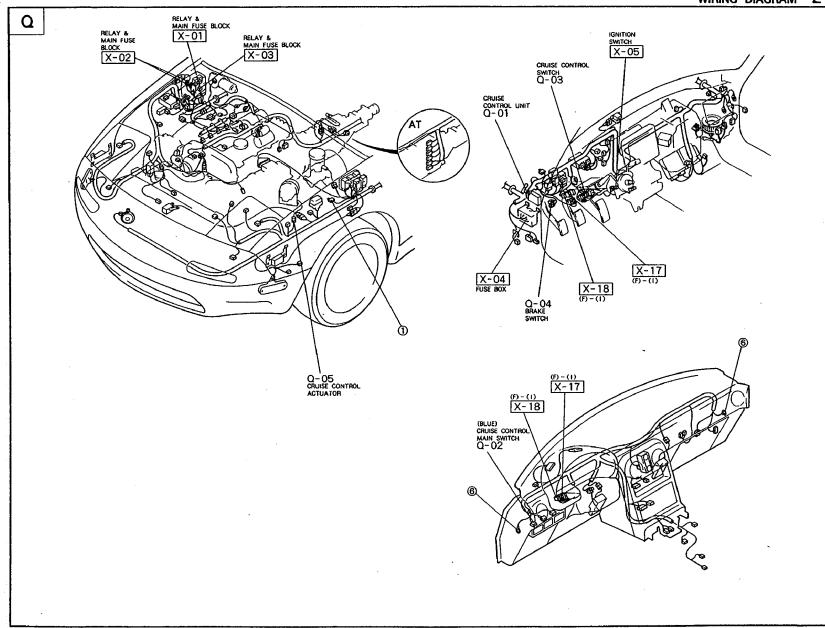
Z WIRING DIAGRAM					
■ POWER WINDOW	К				
X-01   MAIN FUSE   X-03   X-05   B2   B1   IGNITION   X-04   TS   X-05					
30A ©  X-16  POWER WIND  POWER WIND  MAIN SWITCH					
K-01					
LH RH					
POWER WINDOW MOTOR 6					
K-01 POWER WINDOW K-02 POWER WINDOW MOTOR RH (DR1)					
R/B G/R B/W G/R G/R G/R G/R G/R G/R G/R G/R G/R G/R					
·					





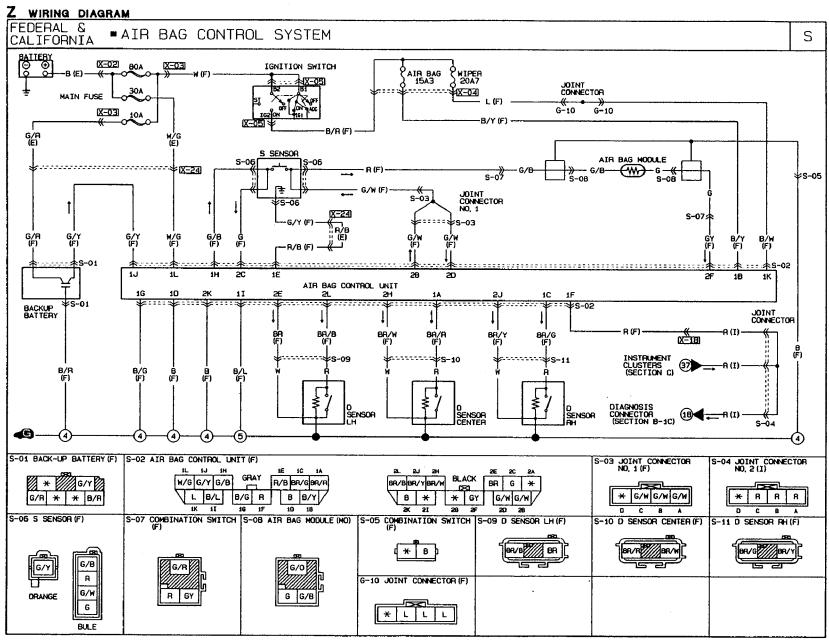


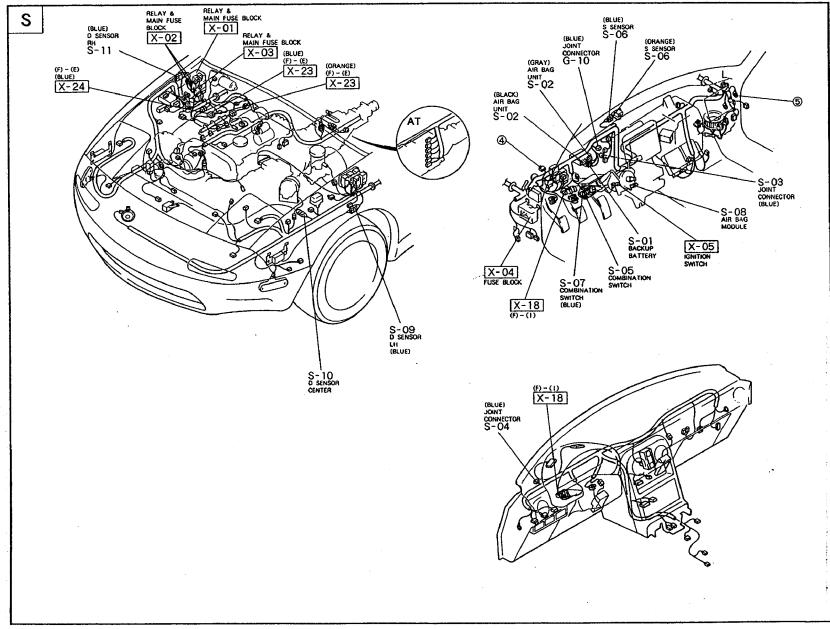




#### Terminal Voltage

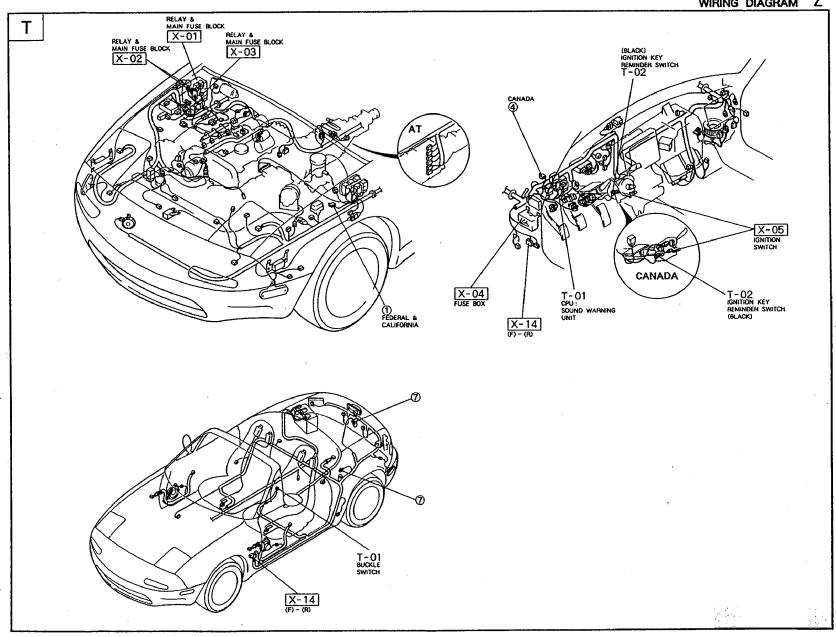
erminal	Wire color	Connected to	Test condition	Specification	Action	
	4000	A - 4 - 44	Main switch off	OV		
а	(G/Y)	Actuator	Main switch on	9V		
b (G/B)	A	Main switch off	OV	Go to Step 8		
	Actuator	Main switch on	9V			
	- (0(0)		Main switch off	OV		
С	(G/O)	Actuator	Main switch on	9V		
	(D)	Main muitab	Main switch off	12V	Repair wire (R)	
е	(R)	Main switch	Main switch off	OV	(Main switch-Cruise control unit)	
	045)	Made evilate	Main switch off	0V	Repair wire (Y/B)	
f	(Y/B)	Main switch	Main switch on	12 <b>V</b>	(Main switch-Cruise control unit)	
	(1.0/0)	AT	Ignition switch off	OV	Go to page K-	
g	(LG/B)	AT control unit	Ignition switch on	12V	GO to page K=	
h	00	Overlan environ	Brake pedal depressed	OV	Go to Step 4	
n	m	Brake switch	Brake pedal released	9V	G0 10 Step 4	
	(5.11.)	) Inhibitor switch	Shift to "N" or "P" range	ov	Go to page K-	
i	(8/L)		Shift to other range	5V		
1			Clutch pedal depressed	OV	Go to Step 5	
	(BR/W)	R/W) Clutch switch	Clutch pedal released	12V		
		Cruise control switch	Main switch ON	12V		
ı	(R/L)	(Set switch and coast switch)	While pushing set switch after main switch ON	0V	Go to Step 6	
	(0)	Orași de la contra la cont	Brake pedal depressed	12V	Go to Step 7	
m	(G)	Stoplight switch	Brake pedal released	OV	Go to step /	
		Cruise control switch	Main switch ON	12V		
n	n (R/W)		White pushing resume switch after main switch ON	ov .	Go to Step 6	
o (P)		Main switch OFF	OV	C- 1- S1 0		
	(P)	(P) Actuator	Main switch ON	9V	Go to Step 8	
р	(G/R)	Speed sensor	While rotating rear tires	Run out between 0-5V	Go to Step 9	
s	(W/G)	Battery	Constant	12V	Repair wire (W/G)	
t	(B)	Ground	Constant	OV	Repair wire (B)	

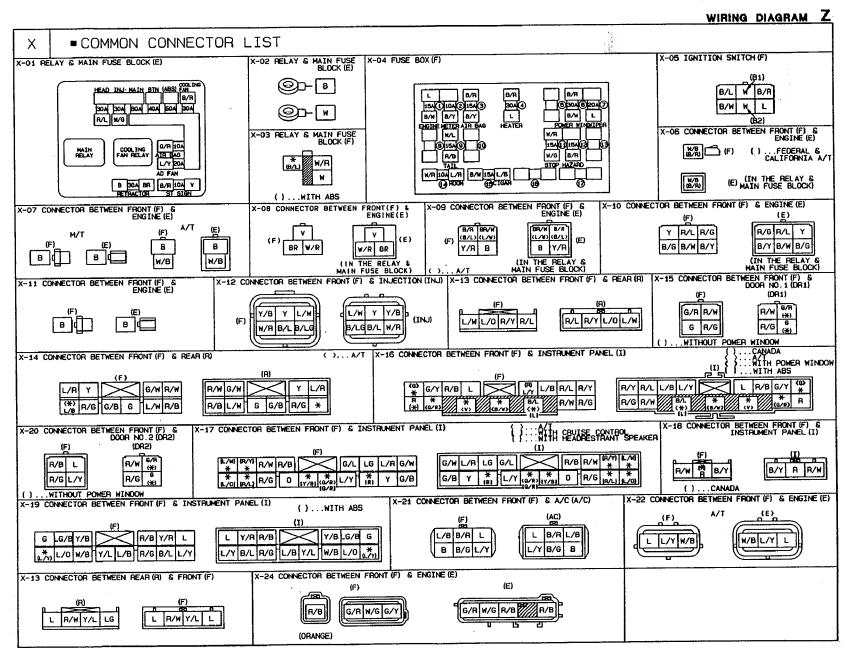


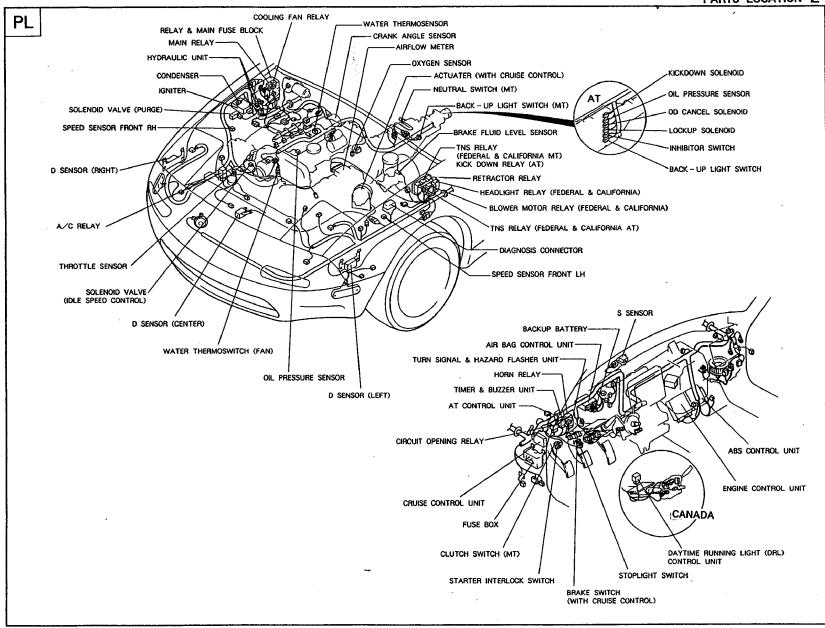


Z WIRING DIAGRAM
■ CPU: SOUND WARNING UNIT T
BATTERY MAIN FUSE BOA  W (F)  IGNITION SWITCH  EX-02  W/R (F)  IGNITION SWITCH  IGNITION SW
INSTRUMENT  L/M  R/W  L/Y  B/Y  (F)  (F)  (F)  (F)  (F)  (F)  (BUZZER)  BUZZER  W  H-W-W-W
T-01 BUCKLE SWITCH T-01 CPU: SOUND WARNING UNIT T-03  (R) FEDERAL & CALIFORNIA (F) CANADA
T-01 BUCKLE SWITCH (R) T-02 IGNITION KEY REMINDER SWITCH (F)
L/W B
T-03 CPU: SUND WARNING UNIT (F)  B/Y R/W *  B L/Y LG L/W *

#### WIRING DIAGRAM







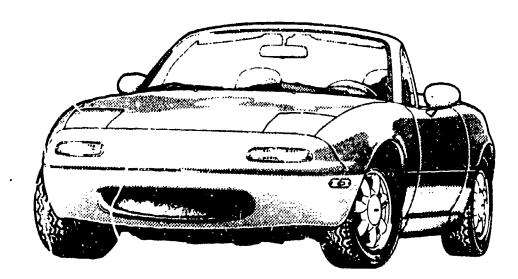
## PARTS INDEX

PARTS NAME	SECTION	PARTS NAME	SECTION
A A/C RELAY	^	M UAZADO 6 DETDACTOS CHI	ITOU II I I I I I I I
		HAZARD & RETRACTOR SW	
A/T CONTROL UNIT	1	HAZARD SWITCH	· · · · · · · · · · · · · · · · · · ·
A/T SELECT ILLUMI	- 1	HEADLIGHT RELAY	
ABS CONTROL UNIT		HEADLIGHT RETRACTOR MC	TOR E- 1,2
ADDITIONAL FAN MOTOR	G	HEADLIGHTS	E- 1,2
AIR BAG CONTROL UNIT	s	HEADRESTRANT SPEAKER	J-1.2
AIR BAG MODULE	s	HEATER CONTROL SWITCH	
AIRFLOW METER		HEATER CONTROL UNIT	
ALTERNATOR	i i	HIGH MOUNT STOPLIGHT	
AM/FM RADIO & CASETTE			
		HORN RELAY	•
ASHTRAY ILLUMI	t-5	HORN	
		HYDRAULIC PUMP MOTOR.	
B BACK-UP LIGHT SWITCH	- I	HYDRAULIC UNIT	0
BACK-UP LIGHTS	F-1,2		
BACKUP BATTERY	s	IGNITION KEY REMINDER SY	VITCH T
BATTERY		IGNITION SWITCH	
BLOWER MOTOR RELAY		IGNITER	
BLOWER UNIT	· · · · · · · · · · · · · · · · · · ·	INHIBITOR SWITCH	
BRAKE FLUID LEVEL SENSOR	i	INJECTOR	
BRAKE SWITCH	_	INSTRUMENT CLUSTERS	
BUCKLE SWITCH	T	INTERIOR LAMPS	
CIGARETTE LIGHTER	т	JOINT CONNECTOR	G,0
CIRCUIT OPENING RELAY	B-2	JOIT CONNECTOR	s
CLUTCH SWITCH			
COMBINATION SWITCH		KICKDOWN RELAY	<b>⊔_1</b>
(HORN)		_	
		KICKDOWN SOLENOID	
(LIGHT)		KICKDOWN SWITCH	H-1
(TURN SIGNAL)		_	
(WINDSHIELD WIPER & V	VASHER) D-1,2	LICENSE PLATE LIGHTS	E-4
COMPACT DISK PLAYER	J-2	LOCKUP SOLENOID	
CONDENSER	B - 1a		
COOLING FAN MOTOR		M MAGNETIC CLUTCH	G
COOLING FAN RELAY		MAIN RELAY	
CPU : SOUND WARNING UNI		WITH THE TYLE	
		A NEUTON OWITON	
CRANK ANGLE SENSOR		NEUTRAL SWITCH	B-1c
CRUISE CONTROL ACTUATOR		_	
CRUISE CONTROL MAIN SWI	TCH ILLUMI E-5	O OD CANSEL SOLENOID	H-1
CRUISE CONTROL MAIN SWI	TCH Q	OD OFF SWITCH	
CRUISE CONTROL SWITCH		OIL PRESSURE SENSOR	c
CRUISE CONTROL UNIT	0	OIL PRESSURE SWITCH	H-1
3.13.32 33.11.132 3.11.11.11		OXYGEN SENSOR	
D D SENSOR	c	OKTOLIA SENSON	
		A D DANGE CHITCH	
DAYTIME RUNNING CONTRO		P P RANGE SWITCH	
DIAGNOSIS CONNECTOR		PANEL LAMP CONTROL SW	
DOOR SPEAKER		PARKING BRAKE SWITCH	-,
DOOR SWITCH		POWER STEERINR PRESSURI	E SWITCHB-1b
		POWER WINDOW MAIN SWI	TCHK
ENGINE CONTROL UNIT	B-1a1h1c	POWER WINDOW MOTOR	
2.10.112 00111102 01111 1111		PUMP MOTOR RELAY	
A FRONT FOR LIGHT SWITCH	HILLIKAI EE	I TOWN WICHOR MELAT	
FRONT FOG LIGHT SWITCH		A DEAD OIDE MADICED LIGHT	
FRONT FOG LIGHT SWITCH		R REAR SIDE MARKER LIGHTS	
FRONT FOG LIGHTS	· 1	REAR TURN SIGNAL LIGHTS	•
FRONT PARKING LIGHTS	E-4 }	REFRIGERANT PRESSURE SV	VITCH
FRONT SIDE MARKER LIGHT	SE-4	RELAY & MAIN FUSE BLOC	K X
FRONT TURN SIGNAL LIGHT	'SF-1	RETRACTOR RELAY	
FUEL LEVEL SENSOR		RETRACTOR SWITCH	
FUEL PUMP		HETAKOTOR OWITOH	
FUEL TANK UNIT		S C CENCOD	^
FULL IMINE UNIT	. <i>.</i>	S SENSOR	
FUSE BOX		SHIFTLOCK ACTUATOR	~

## PARTS INDEX

# Parts Catalog

Mazda MX-5 MIATA U.S.A. ('90)



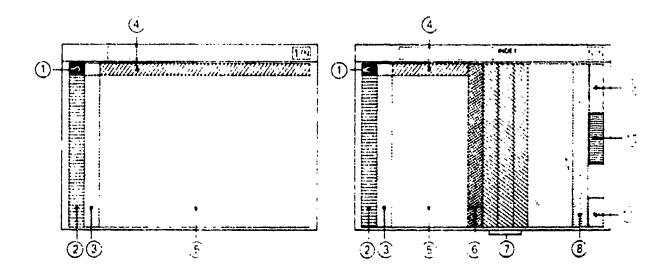
(NA35++-100001-200000

Feb. 92 (FINAL)
Catalog No. AU-NA/J1-U7



#### LAYOUT OF CONTENTS

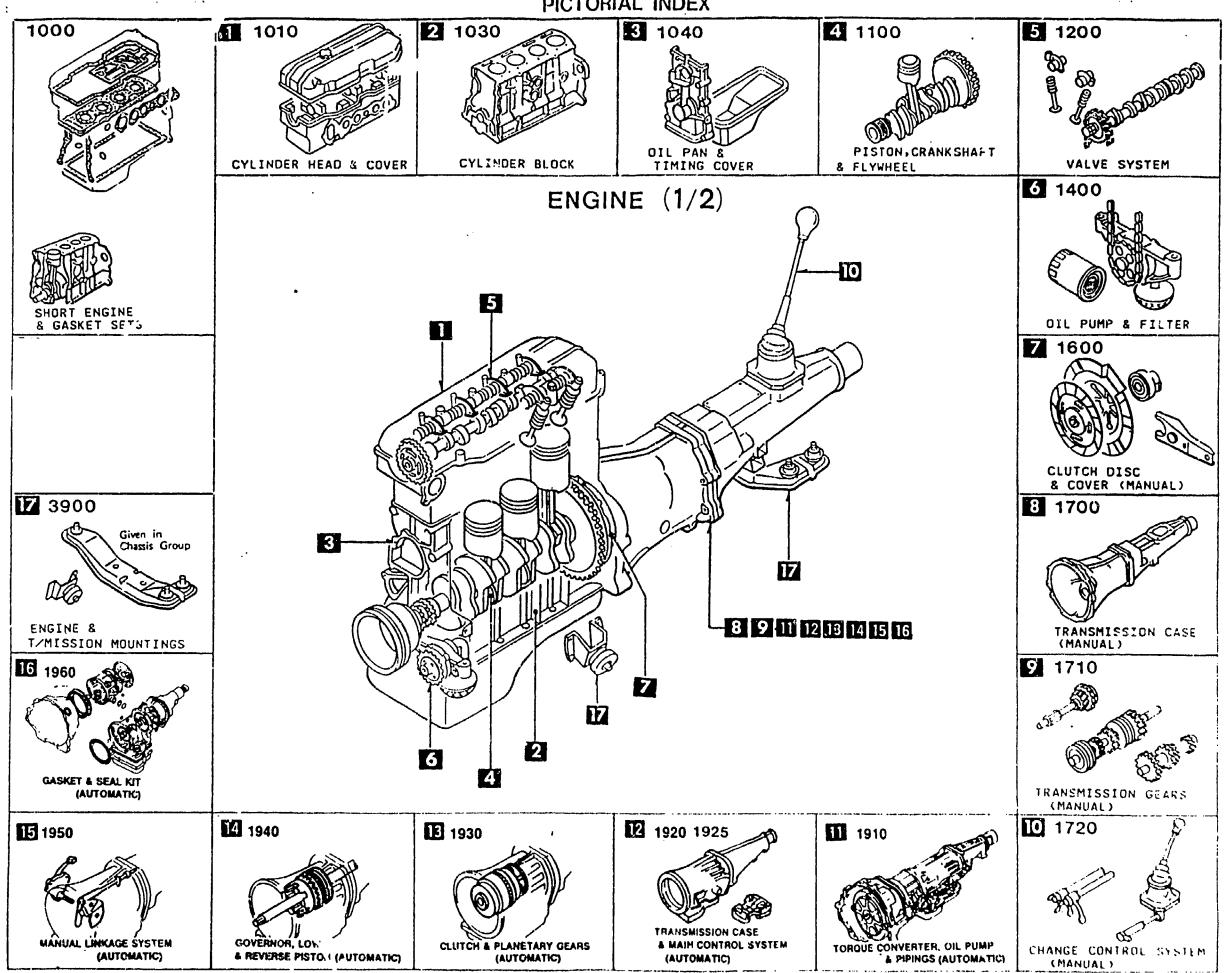
• The following is a typical example of the layout of contents on Mazda microfiche parts catalog



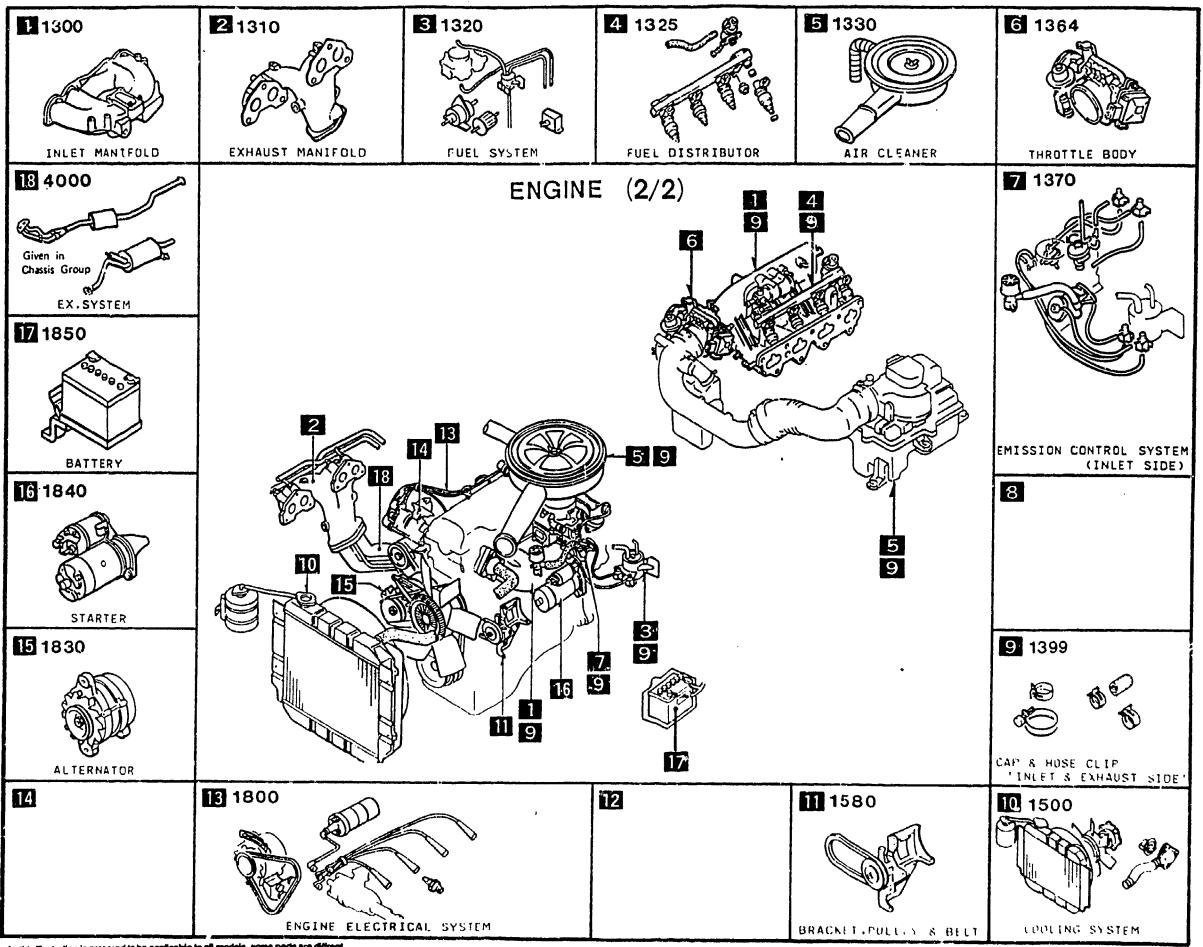
- (1) · Layout of contents
- 2 Pictorial Index
- 3 Master Section No. Index

- (4) Section No. Index for the Column
- (5) Illustration & Text
- 6 Pari to Index

- (7) · Alphabetical Index
- (B) Model Identification
- Vehicle Identification System

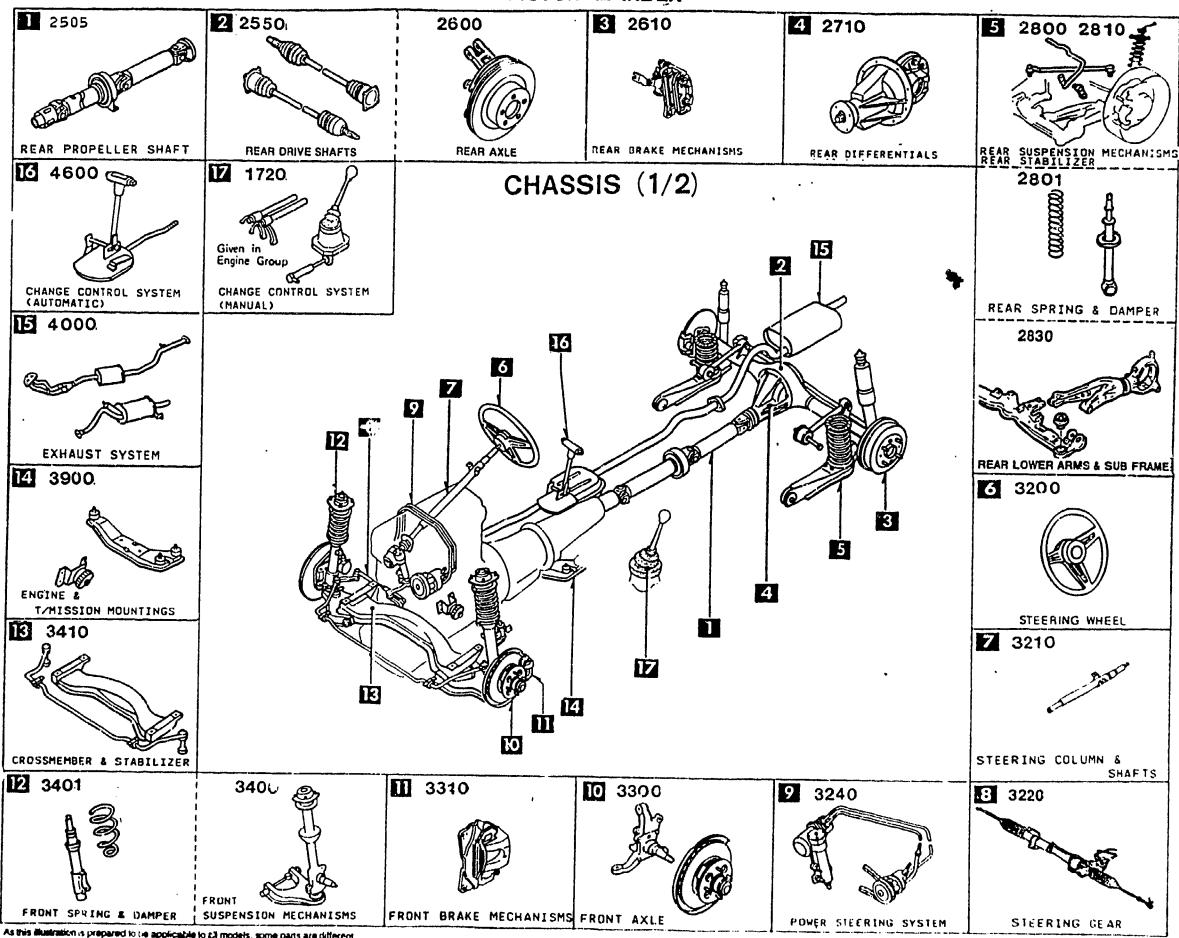


### PICTORIAL INDEX

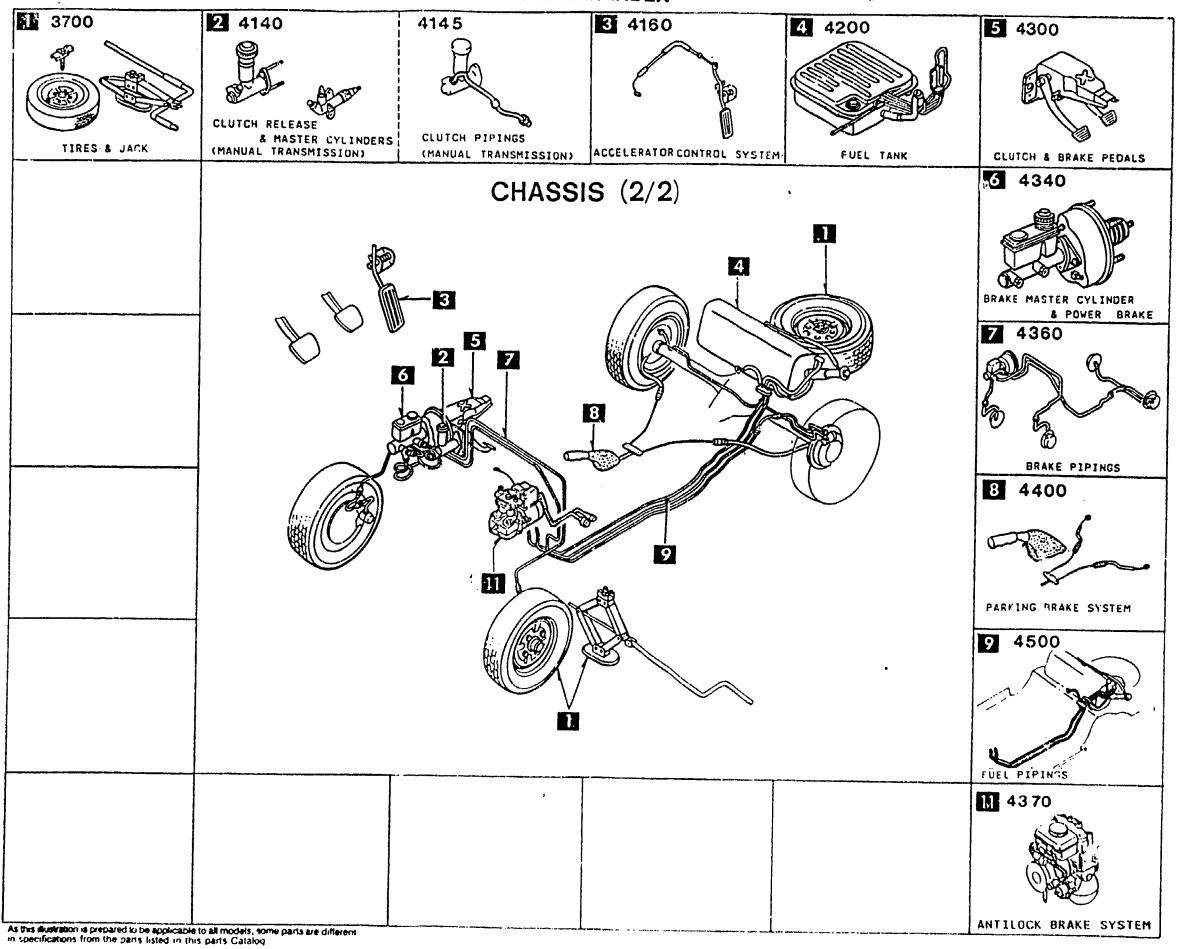


As this illustration is prepared to be applicable to all models, some parts are diffrent in specifications from the parts listed in this parts Catalog.

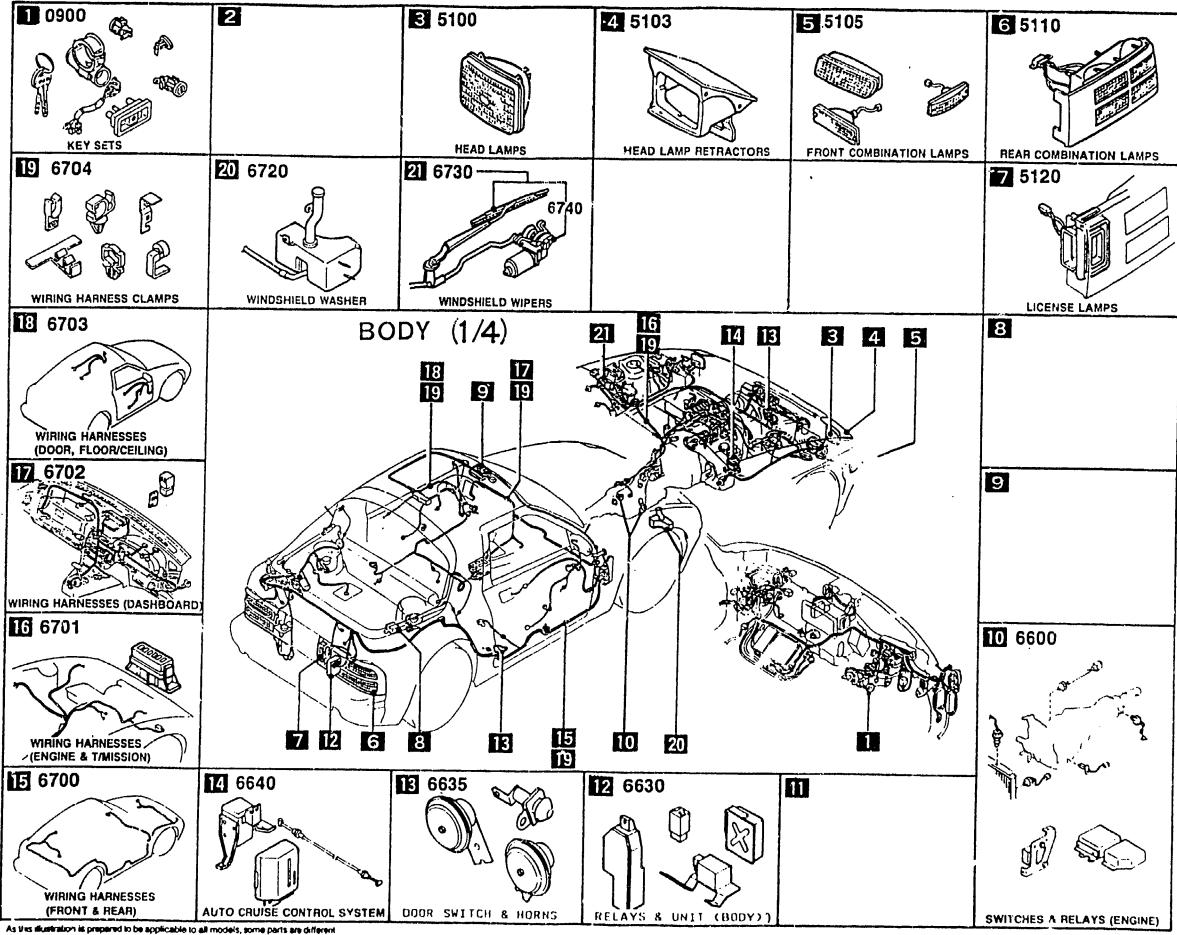
# PICTORIAL INDEX

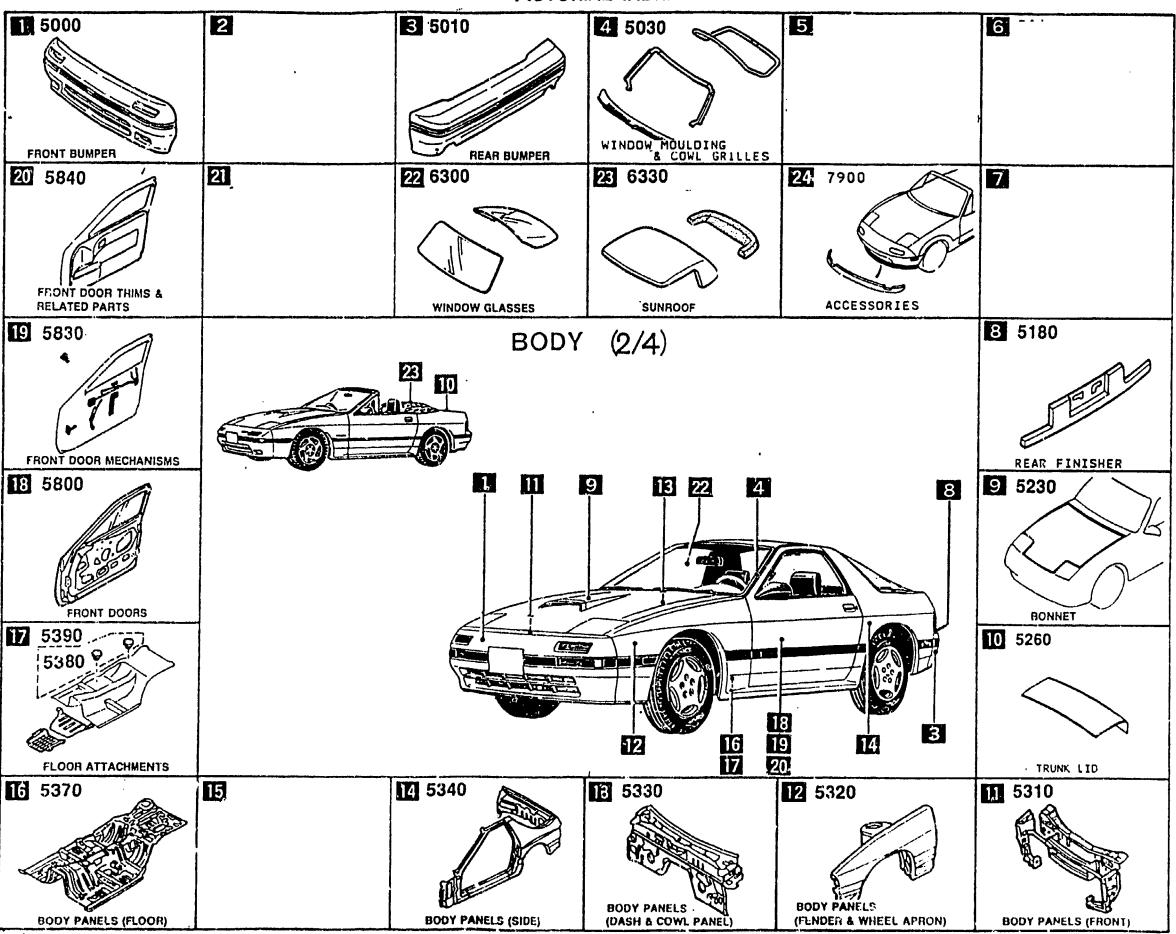


As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

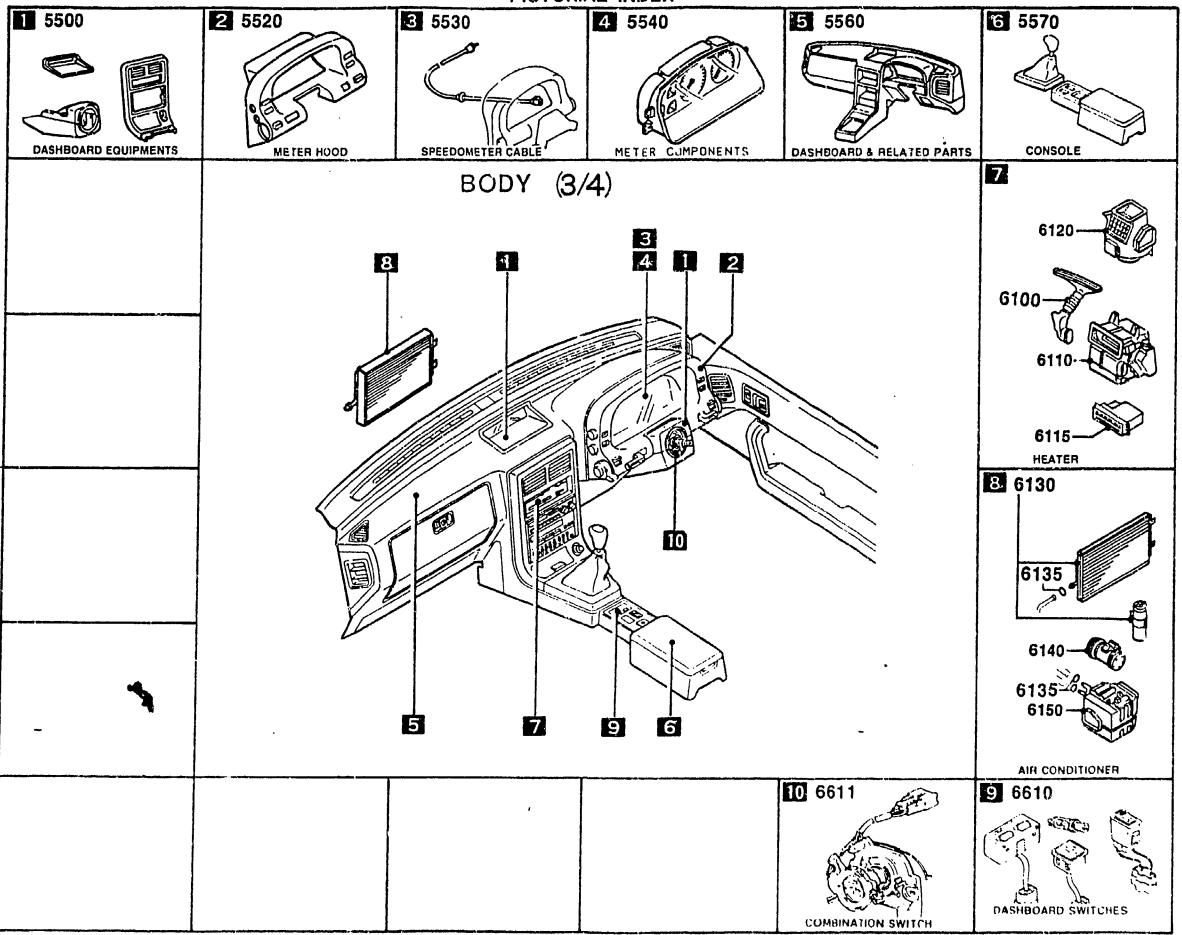


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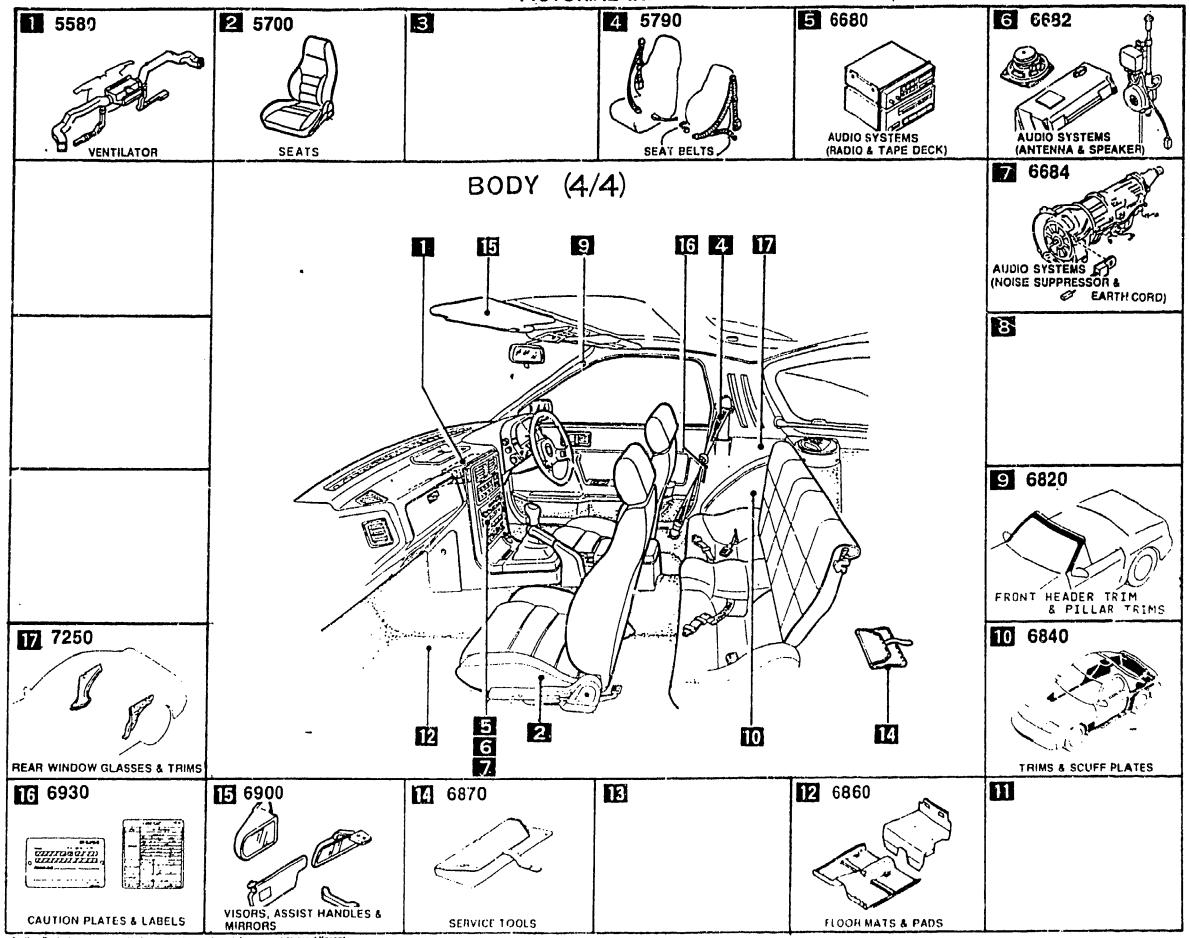




As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.



As this illustration is prepared to be applicable to all models, some parts are different in specific allons from the parts listed in this part, Carallog



As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

1-J 1

#### SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	1.0.NO	SEC.NO	SECTION NAME	LO.HO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-D03	1010	CYLINDER HEAD & COVER			,			
1-G03	1030	CYLINDER BLOCK						
1-103	1040	DIL PAN & TIMING COVER						
1-K03	1100	PISTON, CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-D04	1300	INLET MANIFOLD		ļ				
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM				İ	ļ	
1-H04	1325	FUEL DISTRIBUTOR		]	•			
1-104	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)			·			
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAU						
1-N04	1400	OIL PUMP & FILTER					i i	
1-C05	1500	COOLING SYSTEM				İ		
1-G05	1580	BRACKET, PULLEY & BELT	1				ļ	·
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-006	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)					}	
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)	ٳ					
1-E08	1925	CONTROL VALVE (AUTOMATIC)		}				
1-108	1930	CLUTCHES & PLANETARY GEARS (AU TOMATIC)						
1-009	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT						
1-109	1960	GASKET & SEAL KIT (AUTOMATIC)	İ					

#### SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.ND	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-011	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS		! 	
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM			
1-F11	2610	REAR BRAKE MECHANISMS			(AT)	•		
1-H11	2719	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-012	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STAPILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-112	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS			,			
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-113	3310	FRONT BRAKE MECHANISMS		<u> </u>  -				
1-K13	3400	FRONT SUSPENSION MECHANISMS		İ				
1-M13	3401	FRONT SPRING & DAMPER	]					
1-N13	3410	CROSSMEMBER & STABILIZER						
1-014	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS				ŀ		
1-015	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI SSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-115	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

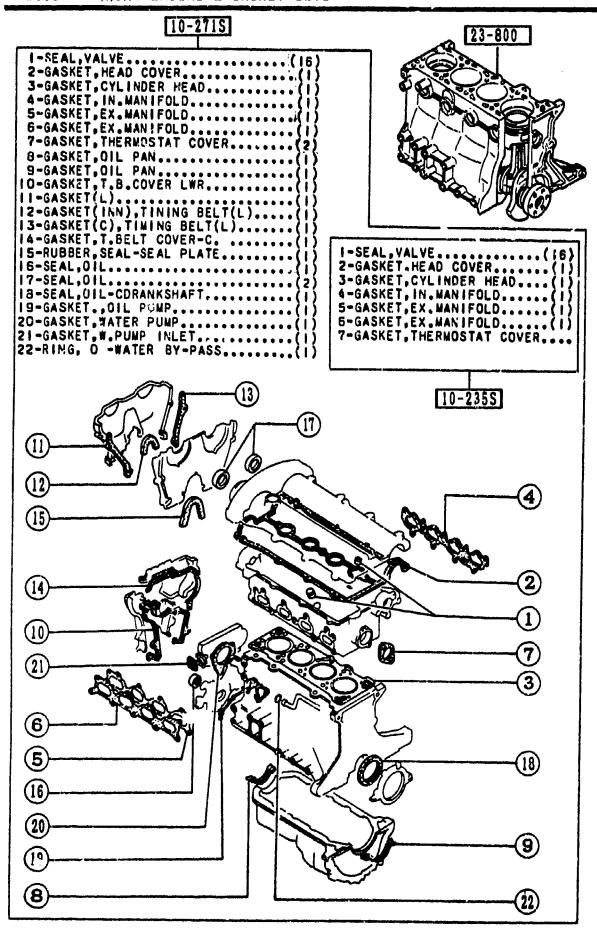
SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CON			
2-M05	5103	HEAD LAMP RETRACTORS	2112	4150	DITIONER)			
2-006	5105	FRONT COMBINATION LAMPS	2-N12 2-C13	6150 6300	COOLING UNIT (AIR CONDITIONER)			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	WINDOW GLASSES SUNROOF			
2-106	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)	!		
2-106	5180	REAR FINISHER	2-014	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14		RELAYS & UNIT (BODY)			
2-D07	5310	BODY PANELS (FRONT)		6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL AP			AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)		. 1	AUDIO SYSTEMS (RADIO & TAPE DE			
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK			
2-C08	5370	BODY PANELS (FLOOR)			ER)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR			
2-G08	3390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI			
2-C09	5500	DASHBOARD EQUIPMENTS	2-D15	6702	WIRING HARNESSES (DASHBOARD)			
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE ILING)			
2-F09	1	SPEEDOMETER CABLE	2-F15	6704	WIRING HARNESS CLAMPS			
	1	METER COMPONENTS	2-115		WINDSHIELD WASHER		-	
	1	DASHBOARD & RELATED PARTS		1	WINDSHIELD WIPERS			
	1	CONSOLE	- 1	í	WIPER MOTOR COMPONENTS (FRUNT)			
		VENTILATOR	i	1	FRONT HEADER TRIM & PILLAR TRI			
	i	SEATS	1	ļ	MS			
	į.		į	:	TRIMS & SCUFF PLATES			
	1		1	- 1	FLOOR MATS & PADS	ļ		
			1		SERVICE TOOLS			
2-F11	1	FRONT DOOR TRIMS & RELATED PAR	į		VISORS, ASSIST HANDLES & MIRROR			
	1		2-J16	6930	CAUTION PLATES & LABELS			
2-012	6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS			

#### SECTION NAME INDEX (ENGINE)

Γ.	0 110	CEC NO	CCOTTON NAME	1.0 40	<del></del>	CECTION NAME	1.0 40	OFO ME	OPOTTON NAME
_	0.NO	SEC.NO		LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
	-C03	1000	SHORT ENGINE & GASKET SETS				1		
	-003		CYLINDER HEAD & COVER		]				
	-G03		CYLINDER BLOCK						
	-103	1040	OIL PAN & TIMING COVER						
	-K03		PISTON, CRANKSHAFT & FLYWHEEL	B					
_	-N03	1200	VALVE SYSTEM	(A)					
- 1	-D04	1300	INLET MANIFOLD						
	-E04	1310	EXHAUST MANIFOLD				İ		
	-F04	1320	FUEL SYSTEM						
- 1	-H04	1325	FUEL DISTRIBUTOR						
1	-104	1330	AIR CLEANER						
- 1	-K04	1364	THROTTLE BODY						
1	-104	1370	EMISSION CONTROL SYSTEM (INLET		,				
]	-M04	1399	CAP & HOSE CLIP (INLET & EXHAUST SIDE)						
1	-N04	1400	OIL PUMP & FILTER			•			
1	-c05	1500	COOLING SYSTEM						
[]	-G05	1580	BRACKET, PULLEY & BELT	,					
1	-c06	1600	CLUTCH DISC & COVER (MANUAL)						
1	-D06	1700	TRANSMISSION CASE (MANUAL)						
1	-E06	1710	TRANSMISSION GEARS(MANUAL)						
1	-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1	-M06	1800	ENGINE ELECTRICAL SYSTEM						
	-co7	1830	ALTERNATOR						
2	-E07	1840	STARTER						
1	-G07	1850	BATTERY				1		
]	-H07	1910	TORQUE CONVERTER, DIL PUM; & PI PINGS (AUTOMATIC)						
] ;	-KD7	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
;	-E08	1925	CONTROL VALVE (AUTOMATIC)						
3	-108	1930	CLUTCHES & PLANETARY GEARS (AU TOMATIC)						
;	-009	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
:	-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT						
	-109	1960	GASKET & SEAL KIT (AUTOMATIC)						

AUNAOI



DARY NA JOYN	WAATI (8565)		I	T
PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-2355	GASKET SET, CYL. HEAD			
8AN1-10-235 1				
10-2718	GASKET SET, ENGINE			
8AN1-10-271 1				<u> </u>
23-800	ENGINE, SHORT			
B64E-02-200 1 A (B64E-02-200A)	1			-9A0
1				
B64J-02-200 1 A (364J-02-200A)				-022
B64E-02-200A 1 A (B64E-02-200B)				9A04-022
B64E-02-200B 1	( <del>1</del> T)			0222-
B64J-02-200A 1	CAN			0222-
	<u> </u>			
				:
9A04 NA35HH-123 0222 NA35HH-140	3222 J <b>861</b>			-
	-			

CAT. AUNA01-07

AUNAOI

10-100   B61P-10-100A				والتنبيات والمستناوي
B61P-10-100A		HEAD, CYLINDER		
AN(861P-10-100B)	, 1			-9901
861P-10-100B	1			9901-
10-106		CLIP, VALVE GUIDE		
B660-10-106	16			
10-119		STUD		
FE4J-13-146	3			
10-126		BOLT, CAMSHAFT CAP		
B660-10-126	20			
10-135		BOLT, CYLINDER HEAD		
B660-10-135A	10			
10-138   B630-10-138A	10	WASHER, PLAIN CYL. HE		
+				
10-142     10-142     10-142	9	STUD,EX. MANIFOLD		
10-22X		PLATE, OIL BAFFLE-IN.		
B61P-10-22X	1	SIDE		
10-22Y		PLATE, OIL BAFFLE-EX.		
B657-10-22Y	1			
10-220		COVER, CYLINDER HEAD		
B61P-10-210B A (B61P-10-210C)	1			-9904
B61P-10-210C	1			9904-
10-227		PLATE, BAFFLE		
B61P-10-227	1			
10-229A		PLATE, OIL BAFFLE		
B6S7-10-225	2			
10-235		GASKET, HEAD COVER		
9901 NA35##- 9904 NA35##-	-119	9257 9498	***************************************	-

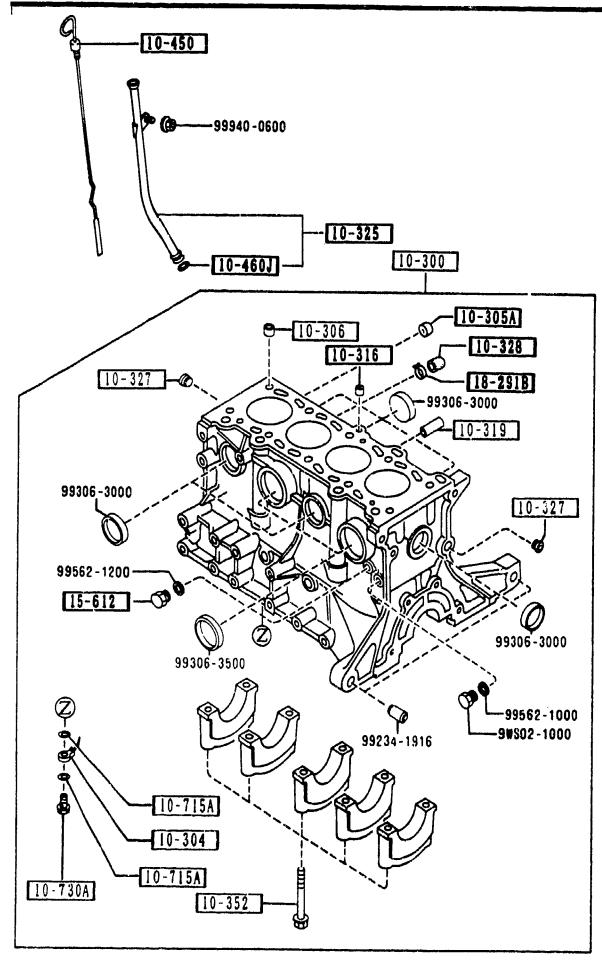
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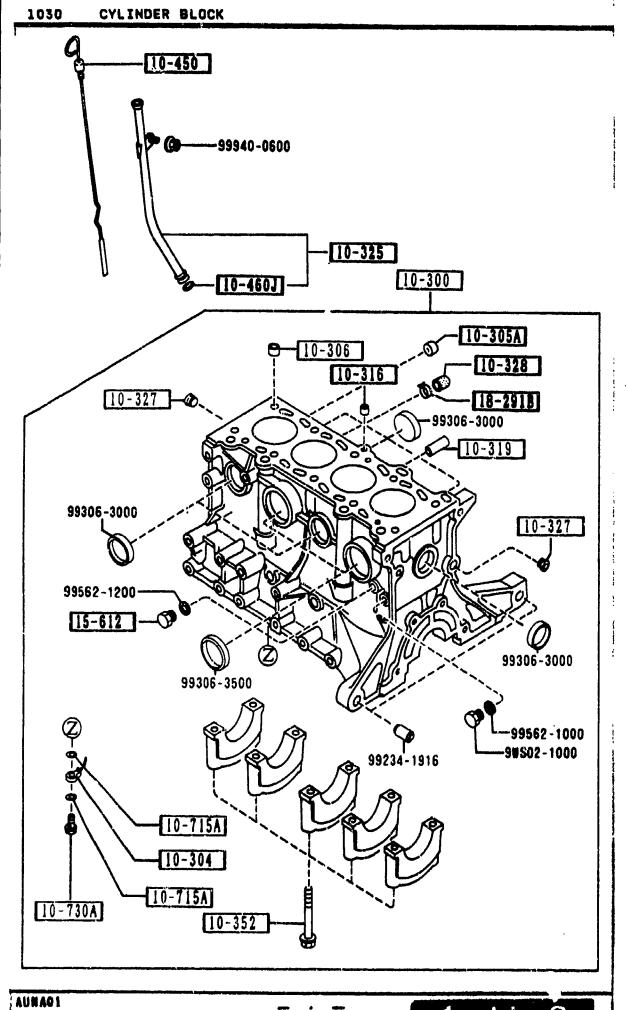
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B61P-10-235	1	NON ASBESTOS			
10-241B   B660-10-241	2	PROTECTOR, HT.CORD-S. TANK			
10-244 B660-10-244	11	BOLT, CYLINDER HEAD COVER			
10-250 0453-10-250A	1	CAP,OIL FILLER			
10-252 0324-10-252	1	GASKET			
10-271   B6F4-10-271A	1	GASKET, CYLINDER HEAD NON ASBESTOS			
10-561   +	2	HANGER, ENGINE			-9B01
B660-10-561 ++	1				9801-
10-561B     ++   B61P-10-565	1	HANGER, ENGINE-REAR			9801-
10-945B     B61P-13-366	2	BCLT			
13-104H   F667-13-104	1	CAP, BLIND			-9801
13-104T     FEA7-13-104	1	CAP, SEALING	•		9801-
13-338   E301-13-338A	1	SEAL, RUBBER			
13-342A   861P-13-74XA	1	PIPE, VENTILATION			
9301 NA35H 9801 NA35H	1-116 1-126	316 490			
A1. AUNAU1-07					1992-02

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
+	17.,			HOULD RESIRESTED	וועחון - זו
13-740	_	HOSE, VENT PURGE CON			
B61P-13-740A	1				
13-742B		HOSE, VENTILATION			
B61P-13-742A	1				
13-743		HOSE, L'ENTILATION			
B61P-13-743A	1				
1 13-890 1		VALVE, P.C.V.			
BP05-13-890	1	VALVE, P. G. V.			
+					
13-8958		HOSE,P.C.V.			
B61P-13-741	1				
13-9F3D		ORIFICE			
B61P-13-986	1				
15-538		CLAMP, WATER HOSE			
JF02-15-538	1				
1 23-080		GUIDE, VALVE			
B6Z0-10-280	8				
1 23-090		OUTDE VALUE			
B6Z0-10-290	8	GUIDE, VALVE			
5020 10 270	٦				
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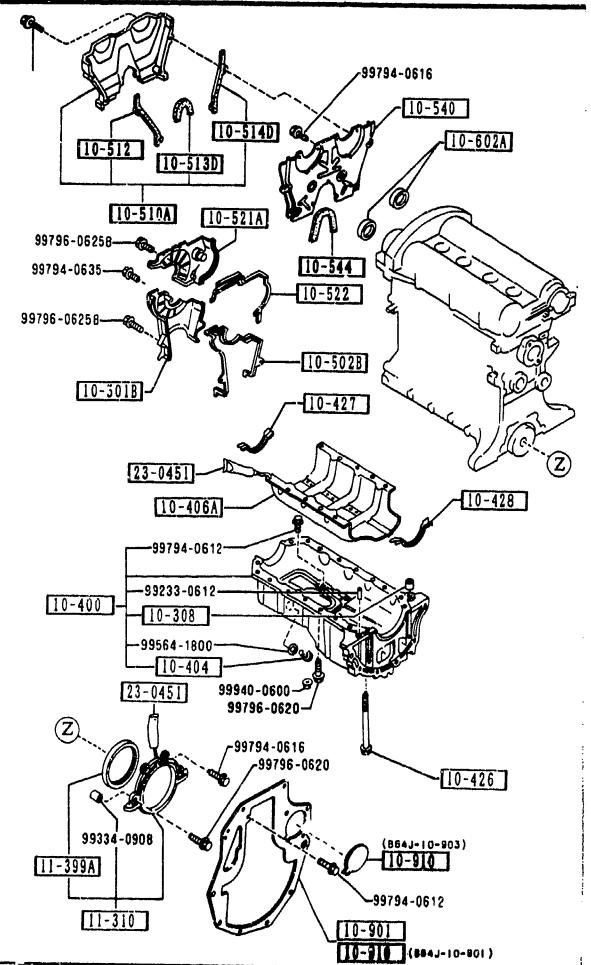


PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-300	- <del></del>	BLOCK, CYLINDER			
B6A7-10-300G	1	1			-9330
B64J-10~300	1	1			9330-
10-304		JET,OIL			
B660-10-580A	4				
10-305A		PLUG			
B366-16 ·305	1				9330-
10-306		PIN, TUBULAR			
B630-10-306	2				
10-316		PLUG, OIL CONTROL			
B630-10-305	1	1			-9330
10-319		JOINT			
B630-10-319	1				
1 10-325		PIPE, OIL LEVEL GAUGE			
B61P-10-440	1				
1 10-327		PLUG, BLIND			
0221-10-327	2				
1 10-32?		COVER, BLIND-CYL. BLO			
B660-10-328	1	CK			
10-352		BOLT, BEARING CAP			
B630-10-352	10				
10-450		GAUGE.OIL LEVEL			
# B61P-10-450B A (B61P-10-450C	, 1				-9825
B61P-10-450C	1				9825-
10-460J		RING, 'O'			
79541-00907	1				
10-715A		GASKET, DIL JET			
SE01-10-715	8				
9330 NA35** 9825 NA35**	-100 -118	1072 1378	**************************************	***************************************	
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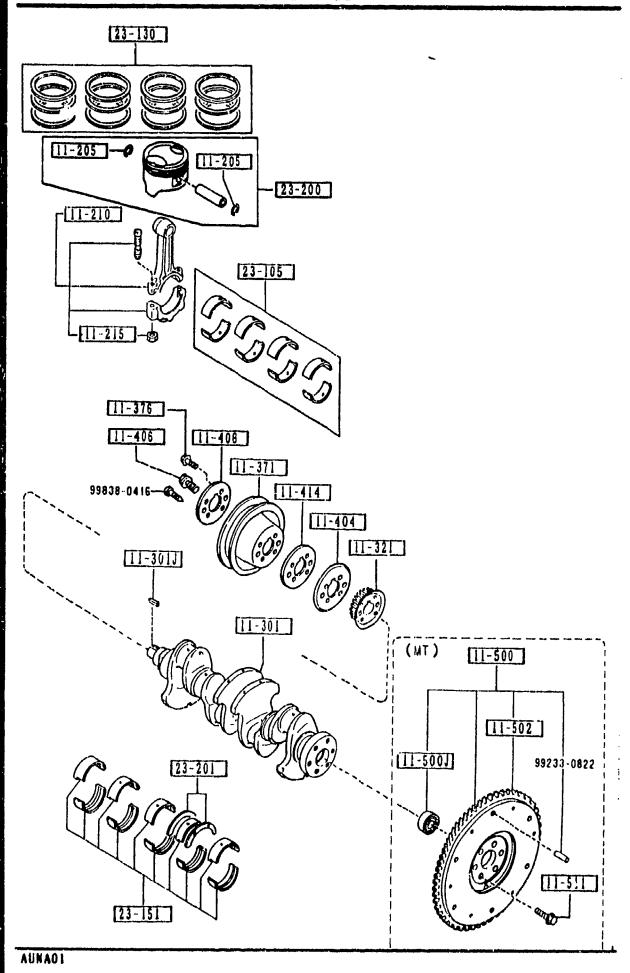


PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-730A		VALVE, OIL JET			
SE01-10-730	4				
15-612		PLUG			
SE01-15-612	1				
18-2918		CLAMP, HOSE			
R230-15-538	1				
			<b>4</b>		
					L

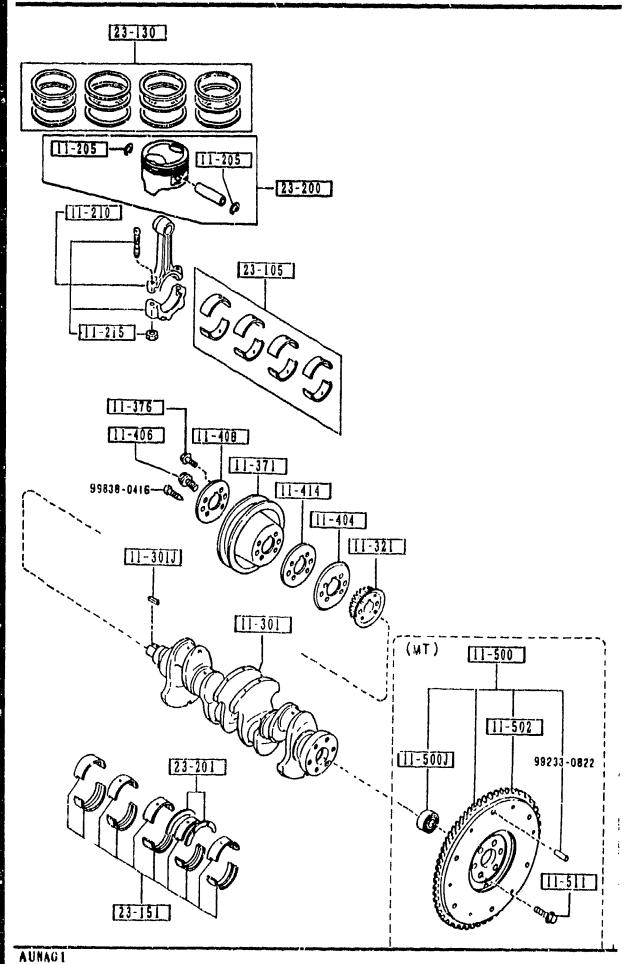
PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
10-308	PIN, TUBULAR			
# ### ############################				
1 10-400	PAN, DIL			
B6Y0-19-400B 1	1			-020
A (86Y0-10-400C) B6Y0-10-400C 1				0201-
<b>+</b> +		1		0201-
+	PLUG, DRAIN			
B6S7-10-404 1 (B6S7-10-404A)				-020
B6S7-10-404A 1				0201-
10-406A	PLATE, OIL BAFFLE-CYL			
B61P-10-40YA 1	, DLN			
10-426	BOLT			
B6S7-10-465 2				
1 10-427	GASKET, DIL PAN			
B6F4-10-427 1				
10-428	GASKET, OIL PAN			
B6F4-10-428 1				
10-501B	COVER, TIMING BELT-LW			1
B660-10-501D 1	R			
† 10-502B	GASKET, T.B.COVER LWR			
# <del>-</del> B660-10-502B	NON ASSESTOS			
1				
10-510A	COVER(UP.), TIMING CH			
861P-10-510 1	1			
10-512	GASKET(L)			
B61P-10-512	NON ASBESTOS			
10-5130	GASKET(INN), TIMING B			
861P-10-513	ELT(L) NON ASBESTOS			
1				
0201 NA35##-13	7180			



PART NO.	QΤΥ	HODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
10-514D   861P-10-514	1	GASKET(C), TIMING BEL T(L) NON ASBESTOS			
10-521A     10-521A     B560-10-521A		COVER, TIMING BELT-C.			-962
N(8660-10-521B 8660-10-521B					<b>9626-</b>
10-522		GASKET, T. BELT COVER-			,020
B660-10-522	1	NON ASBESTOS			
10-540   861P-10-540B	1	PLATE, SEAL-T. BELT CO VER U			
10-544   B61P-10-544	1	RUBBER, SEAL-SEAL PLA			
10-602A   F801-10-602	2	SEAL, OIL			
10-901   B61P-10-901	1	PLATE, END			-970
N (B61P-10-901A B61P-10-901A	,	(MT)			9701-
1 10-910		COVER, END PLATE			
B64J-10-901	- 1	CTA			
B64J-10-903 ++	1	(TA)			
11-310   B366-11-310	1	COVER, REAR			-970
: (8366-11-3108: 8366-11-3108	,				9701-
11-399A   8630-11-312		SEAL, OIL-CRANKSHAFT			
23-0451	-	TUBE, SILICON			
8527-77-739	1				
9626 NA35##- 9701 NA35##-	-111 -111	021 969	**************************************		<del></del>



			<del></del>		
PAKI NO. O	YTÇ	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
11-205		CLIP			
0221-11-205	8				
+======+   13 010		DOD COUNTOTING			
11-210	- 1	ROD, CONNECTING			
86S7~11-210D	4				
11-215	Ī	NUT, CONNECTING ROD			
B6S7-11-215A	8				
11-301		CRANKSHAFT			
B616-11-300B	1				
++ 1 33 703 / 1	-				
11-301J   	- 1	KEY, WOODRUFF-PULLEY			
B630-11-317 A (B630-11-317A)	1				-0101
B630-11-317A	1				0101-
† 11-321		PULLEY, TIMING BELT			
B366-11-321A	1				
+		<b></b>			
11-371   +	1	PULLEY, CRANKSHAFT			
4					
11-376		BOLT, PULLEY			
B631-11-405	4				
11-404		PLATE, TIMING BELT GU			
B541-11-404	1	IDE			
11-406		BOLT, LOCK-C.SHAFT PU			
B630-11-406C	1	LLEY			
+					
11-408	Į	PLATE, CRANKSHAFT PULLEY			
B630-11-408B	1				
11-414		PLATE (OUT) , TIMING BE			
B631-11-414	1	LT			
11-500		WHEEL, FLY			
+	- 1	(MT)			
<b></b>	١	· · ·			i
0101 NA35##-1	ı	591			<u> </u>



PART NO.	DTY HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
+======+		HODES/ RED/RED/ED/	HODELFRESHRIGHTON	1 1011-10
11-500J	BEARING, BALL-FLY WHE			
F801-11-303	î (MT)			
11-502	GEAR, RING-FLY WHEEL			
B367~11~502	1 (MT)			
11-511	BOLT, LOCK-FLY WHEEL			
F201-11-511	6 (MT)			
23-105	METAL SET, CONN. ROD			
B6Y1-11-SE0	STD.			
86Y1-11-SFX	0.8. 0.50	•		
	1			
86Y1-11-SFY	0.8. 0.75			
86Y1-11-SF0	0.\$. 0.25			
23-130	RINJ SET, PISTON			
B6Y3-11-SC0	STD. 1 (AT)			
B6Y3-11-SDX	0.S. 0.50 1 (AT)			
86Y3-11-SD0	0.S. 0.25 1 (AT)			
B6Y4-11-SC0 A (B6Y4-11-SC0A)	1 STD.			-9A04
B6Y4-11-SDX A (B6Y4-11-SDXA)	0.8. 0.50			9A04
B6Y4-11-SD0 A (B6Y4-11-SD0A)	0.8. 0.25			-9A04
B6Y4-11-SCOA	STD.			9AU4-
B6Y4-11-SDXA	0.S 0.50 (MT)			9A04-
B6Y4-11-SD0A	1 (MT)			9A04-
23-151	METAL SET, MAIN BRG.			
B6Y2-11-SG0	STD.			
B6Y1-11-SHX	0.8. 0.50			
9A04 NA35NH-1	123222	والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة والمراجعة		

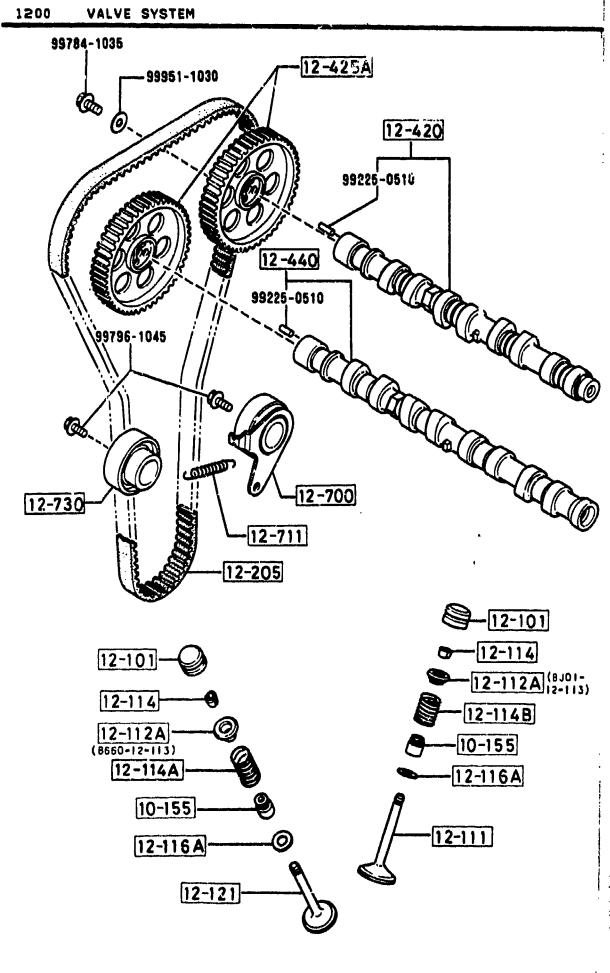
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
CONT'D	لنثل		Treeser neer neer neer	HOUSE RED INSUITAGE	1,011.10
B6Y1-11-SH0	1	0.5. 0.25			
1 27 200	!				
23-200	1	PISTON SET			
B6Z5-11-SA0	4	STD.			
B6Z5-11-SBX	4	0.S. 0.50 (AT)	!		
B6Z5-11-SB0	4	0.S. 0.20 (AT;			
B6Z2-11-SAOB A (86Z2-11-SAOC	z) 4	STO			-9601
B6Z2-11-SBXB A (B6Z2-11-SBXC	3) 4	0.S. 0.50			-9601
B6Z2-11-SB0B A (86Z2-11-SB0C	2) 4	0.S. 0.25	1		-9601
B6Z2-11-SAOC	4	STD.			9601-
B622-11-SBXC	4	0.S. 0.50	1		9601-
B622-11-SB0C	4	0.S. 0.25 (MT)			9601-
23-201		METAL SET, THRUST	1		
86Y0-11-SJ0 A (86Y1-11-SJ0		STD.	1		-0405
86Y0-11-SKX A (86Y1-11-SKX	) 1	0.S. 0.50	1		-0405
B6Y0-11-SKY	1	0.S. 0.75	1		-0405
B6Y0-11-SK0 A (B6Y1-11-SK0	, 1	0.S., 0.25	1		-0405
86Y1-11-SJ0	1	STD.	1		0405-
B6Y1 11-SKX	1	0.8. 0.50	1		0405-
B6Y1-11-3KY	1	0.S. 0.75	1		0405-
R6Y1-11-SK0	1	0.8. 0.25			0405-
ĺ			1		
	1	i	1		
9601 NA35## 0405 NA35##	-106 -147	5797 7140			
	-	• • • • • • • • • • • • • • • • • • • •			
1					
l					

PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
++	1011	HOUSELY RESTRICTION	HODEL/KES/KICIION	HODELYKESIKICITON	PRUM-10
10-155		SEAL, VALVE			
B660-10-155	16				
12-101		ADJUSTER, HYDRAULIC L			
B660-12-101		ASH NITTAN VALVE			
0000-12-101	16	MILIMA AWEAG			
12-111		VALVE, INLET			
B6S7-12-111	8	i			
+					
12-112A		SEAT, VALVE SPG-UP.			
BJ01-12-113	8				
B660-12-113	8				
12-114		COTTER, VALVE			
B660-12-114	32				
+					
12-114A		SPRING, OUT VALVE			
B61P-12-125	δ				]
1 12-1148		SPRING, VALVE			
BJ01-12-125	8				}
<b>+</b> +					
12-116A	i	SEAT, VALVE SPG LWR			
8660-12-123	16				
1 12-121		VALVE, EXHAUST			
B660-12-121	8	•			
+					
12-205	- 1	BELT, TIMING			
B6S7-12-205A	1				
12-420		CAMSHAFT		•	
B64J-12-420	1	(AT)			
B660-12-420C	1	(MT)			
12-425A		BILLEY CAMCHAST			
B6S7-12-425A	1	PULLEY, CAMSHAFT			
D03/-12-46DM	2				
12-440	l	CAMSHAFT, EXHAUST		•	
B. A7-12-440A	1	(AT)			

#### SECTION NAME INDEX (ENGINE)

	.0.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
	-C03	1000	SHORT ENGINE & GASKET SETS						
	1-003	1010	CYLINDER HEAD & COVER						
	1-G03	1030	CYLINDER BLOCK						·
-	1-103	1040	DIL PAN & TIMING COVER						
	7K03	1100	PISTON, CRANKSHAFT & FLYWHEEL						
	L-N03	1206	VALVE SYSTEM						
	1-004	1300	INLET MANIFOLD						
	1-E04	1310	EXMAUST MANIFOLD						
1	1-F04	1320	FUEL SYSTEM						
•	L-H04	1325	FUEL DISTRIBUTOR			•			
	L-104	1330	AIR CLEANER			·			
·	L-K04	1364	THROTTLE BODY				!		
	L-L04	1370	EMISSION CONTPOL SYSTEM (INLET SIDE)	_					
7	L-M04	1399	CAP & HOSE CLIP (INLET & EXHAU ST SIDE)	B	وي ا				
	1-N04	1400	OIL PUMP & FILTER	حي					
	1-C05	1500	COOLING SYSTEM						
	1-G05	1580	BRACKET, PULLEY & BELT	i					
1	r-c06	1600	CLUTCH DISC & COVER (MANUAL)						
1	1-D06	1700	TRANSMISSION CASE (MANUAL)						
	1-E06	1710	TRANSMISSION GEARS(MANUAL)						
	1-106	1720	CHANGE CONTROL SYSTEM (MANUAL)	ļ					
	1-M06	1800	ENGINE ELECTRICAL SYSTEM						
-	1-C07	1830	ALTERNATOR						
	1-E07	1840	STARTER						
	1-G07	1850	BATTERY						
	1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)						
	1-KD7	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
	803-1	1925	CONTROL VALVE (AUTOMATIC)						
	1-108	1930	CLUTCHES & PLANETARY GEARS (AU TOMATIC)						
	1-009	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
	1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT		:				
	L-T09	1960	GASKET & SEAL KIT (AUTOMATIC)						

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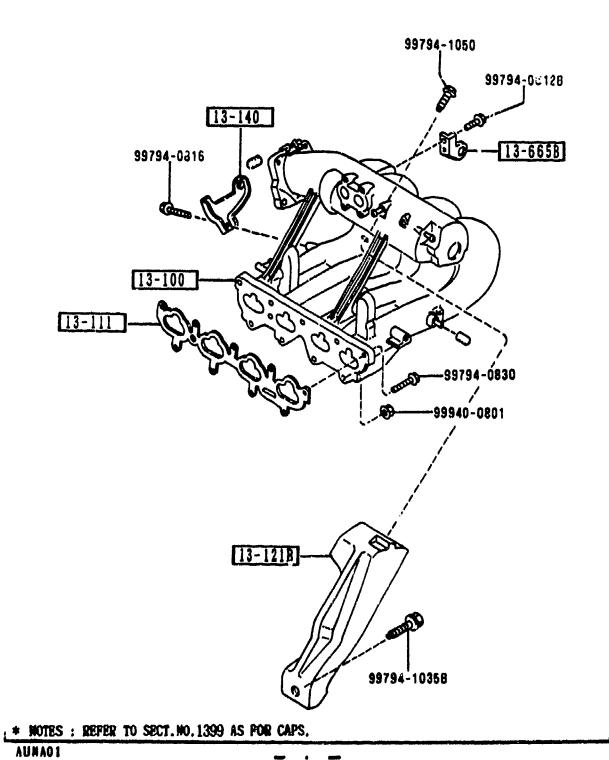


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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B61P-12-440		(MT)			
1 12-700		TENSIONER, T. BELT			
B660-12-700C	1				
12-711		SPRING, TENSIONER			
B660-12-711C	1				
12-730   8660-12-730B	1	IDLER, TIMING BELT			
1 1000	•				

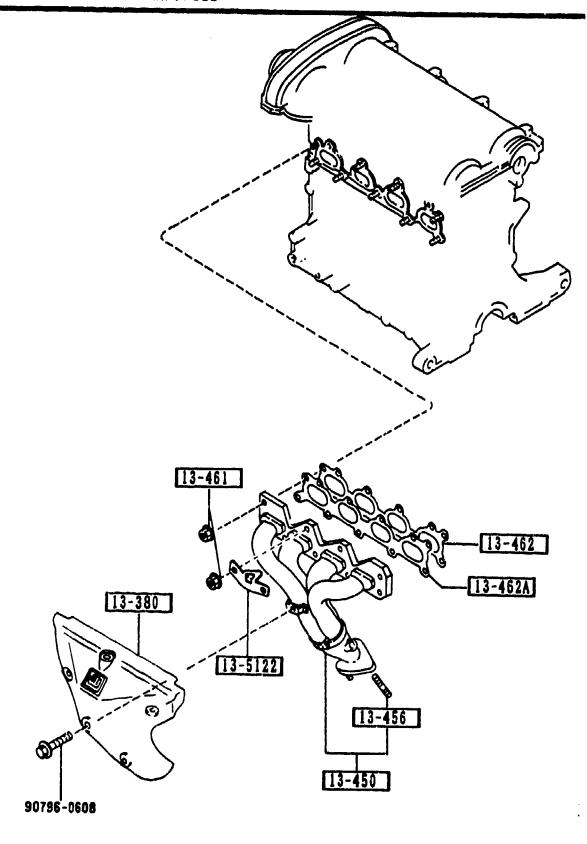
CAT. AUNA01-07

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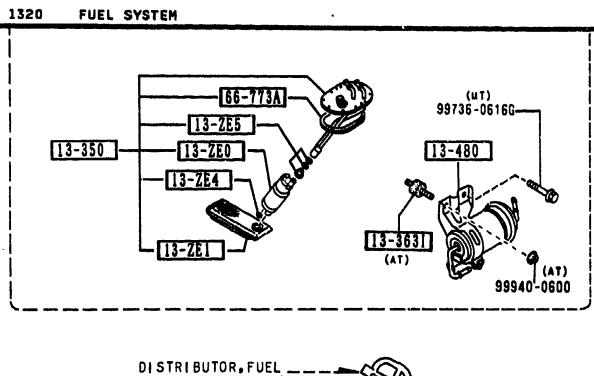
PART NO. OT	Y MODEL/RESTRICTION	HODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
13-100	MANIFOLD, INLET			
B61P-13-100B A (B61P-13-100C)	l			-9417
B61P-13-100C AN(B61P-13-100D)				9417-0404
B61P-13-100D	<b>L</b>			0404-
13-111	GASKET, IN . MANIFOLD			
B61P-13-111	NON ASBESTOS			
13-121B B61P-13-121	STAY, MANIFOLD			
13-140 B61P-13-140	BRKT.SURGE TANK			
13-665B B61P-13-665	BRACKET, ACCEL WIRE			
		·		
9417 NA35#H-10 0404 NA35#H-14	10773 16945			

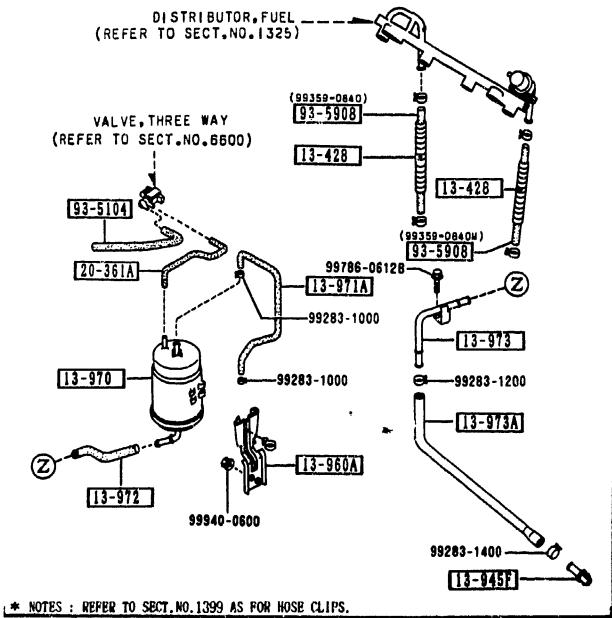
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PART NO. QT	Y HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-380   	INSULATOR, HEAT			<del>-9</del> C(
				9003-
13-450     13-450     13-450     1661P-13-450A)	MANIFOLD, EXHAUST			-97
B61P-13-450A				9714-
13-456     2306-13-456	STUD			
13-461   86\$7-13-465	NUT.EX.MANIFOLD			
13-462     13-462     13-460   (8695-13-460A)	GASKET, EX. MANIFOLD NON ASBESTOS			
1695-13-460A	NON ASBESTOS			-98 9801-
13-462A   3695-13-462 ]	GASKET, EX. MANIFOLD			
13-5122   361P-13-468 1	BRACKET, EX. MANIFOLD			9001-

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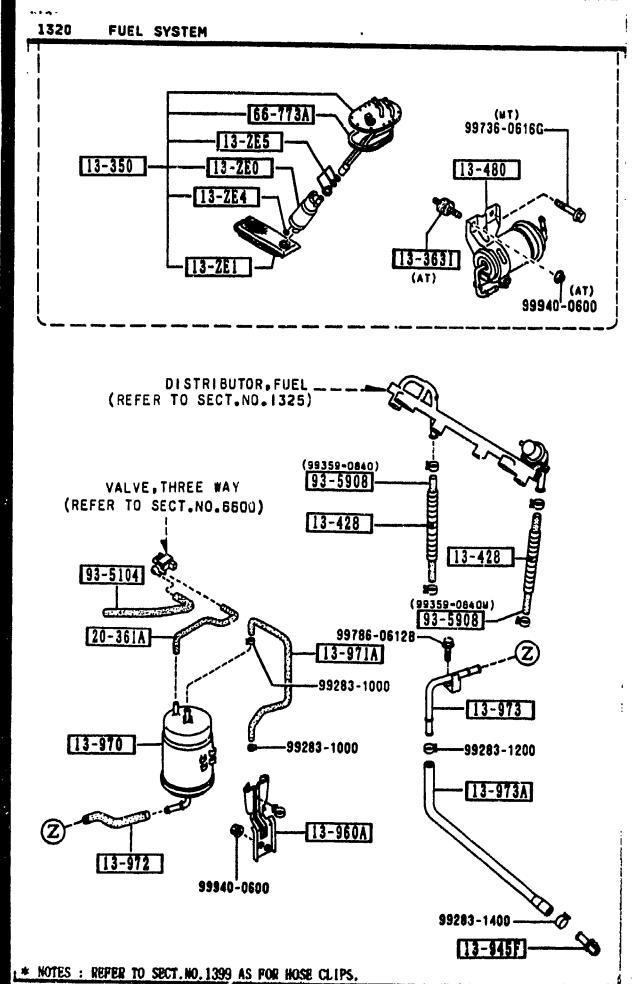




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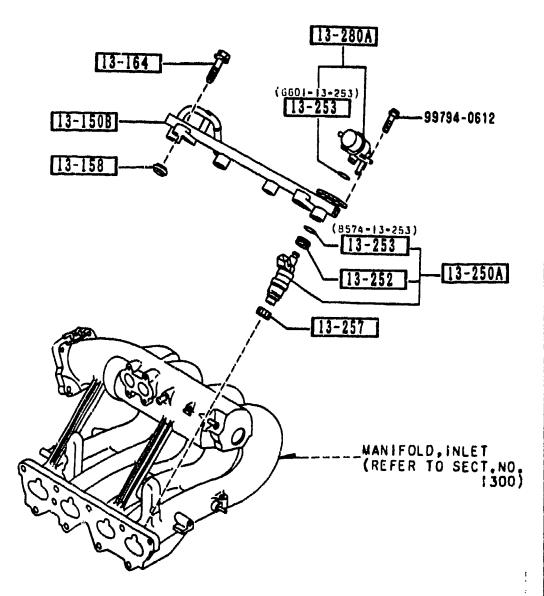
			,			
PART	NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-	ZEO I		PUMP, FUEL			
B61P-13	+	1				
+		•				
13-	ZE1 İ		FILTER, FUEL PUMP			
B61P-13	~ZE1	1				
13-	+ 754		WACUED LOCK DIMO ET			
+			WASHER, LOCK-PUMP FIL			
FEH2-13	-ZE9	1	DENSO			
<b>+</b>	+					
13-	+		RING, 'O'-FUEL PUMP			
BJ04-13	-ZE5	1				-9511
861P-13	-ZE5	1				9511-
13-	350 I		PUMP, FUEL			
B61P-13	+	1	, , , , , , , , , , , , , , , , ,		<b>5</b>	
<b>A</b>		•				
13-	3631		RUBBER, INSULATION			
N326-13	-363B	2	(AT)			
<b>+</b>	+					
13-4			PROTECTOR			
B41P~13	-928	2				
13-4	480		FILTER, FUEL			
861P-20-	-490	1				
<b>+</b> -	+	İ				
13-9	+	1	CONNECTOR			
JE16-13-	-298	1				
13-9	960A		BRACKET, CANISTER			
B61P-13-	+	1				
<b>*</b>		-				
13-9	70		CANISTER			
B61P-13-	-970	1				
13-9	+		HDSE, VACUUM			
+	+	1	HUSE, VACUUM			
861P-13-		1				
13-9	72	ļ	HOSE, EVAPORATION			
B61P-13-	-972A	1				
9511	NA35##	-103	176	<u> </u>		
						1

1992-02

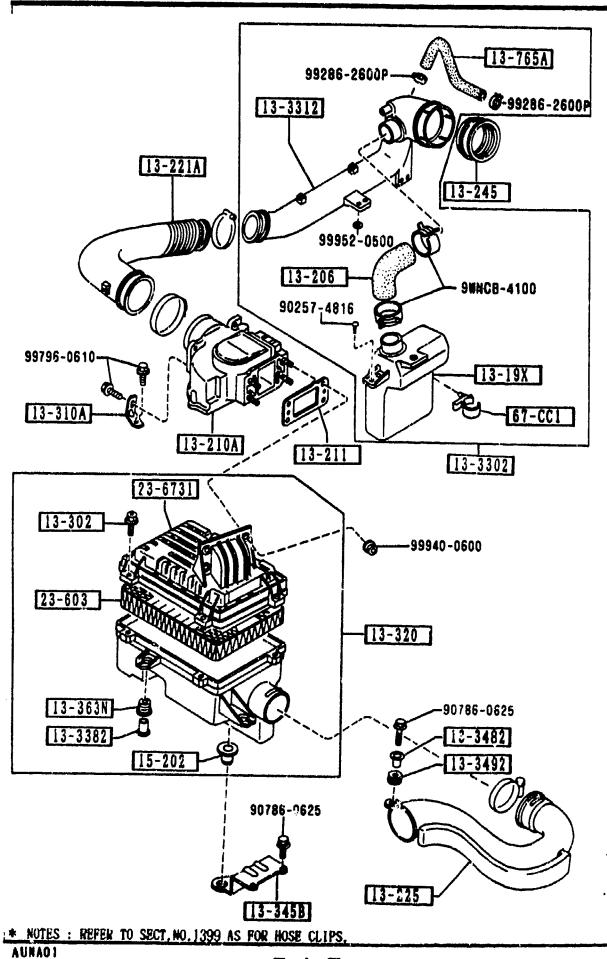


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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-973	- 1	HOSE, DRAIN			
61P-13-97YA	1	1			
13-973A	1	HOSE, EVAPORATION			
13-773A 161P-13-973A	1	•			
+					
20-361A		TUBE, VACUUM			
61P-20-361 ++	1	!			
66-773A		GASKET			
IA01-60-962	1	1			
93-5104	!	HOSE			
9351-04999	1				
93-5908	!	HOSE			
9359-0840	1		·		
9359-0840M	1	1			
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	1.	<b>Table 1</b>			<del>,</del>
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-1508		DISTRIBUTOR, FUEL			
B61P-13-150	1				
+					
13-158		INSULATOR, FUEL DIST.			
B675-13-158	2				
13-164		BOLT, FUEL DISTRIBUTO			
F883-13-164	2	!R			
++					
13-250A		INJECTOR, FUEL			
B6S7-13-250	4				
13-252		GROMMET			
8574-13-252	4	1			
+=====+	·				
13-253		RING,'O'			
G601-13-253	1				
8574-13-253	4				
13-257		INSULATOR, INJECTION			
JE06-13-257	4				
+	·				
13-280A		PRESSURE RG., FUEL			
B61P-13-280	1				
- Article Control Cont					
			<del>_</del>		



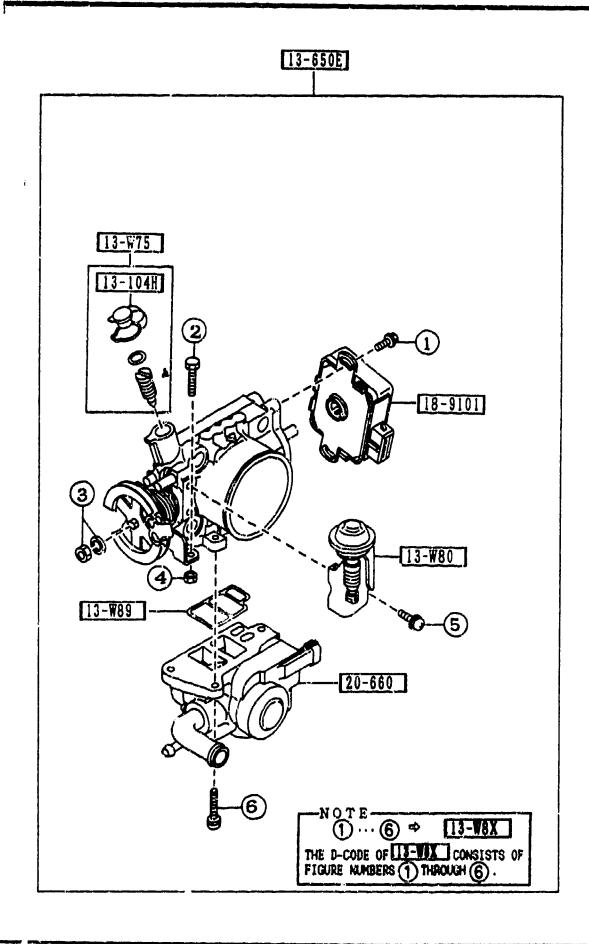
					<del>,</del>
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICT (ON	FROM-TO
13-19X		CHAMBER, RESONANCE			
B61P-13-19XA	1	(MT)			
B64J-13-19X	1	(AT)			
13-206		HOSE-AIR			
B61P-13-206A	1				
13-210A		METER, AIR FLOW			
86S7-13-210A	1	PIGICKIMIK FLOM			
++	•				
13-211		GASKET			
B6S7-13-211A	1	NON ASBESTOS			
++ 1 37-221A 1		Uner Arn			
13-221A   B61P-13-221B	1	HUSE, AIR			
++	•				
13-225		DUCT, FRESH AIR			
B61P-13-200A A (B61P-13-200B)	1				-9926
B61P-13-200B	1				9926-
1 13-245		JOINT, RUBBER			
B61P-13-245	1				
++					
13-302		BOLT, AIR CLEANER			
F201-13-302A	5				ļ
13-310A		BRKT, AIR FLOW METER			
861P-13-311B	1				
13-320		CLEANER, AIR			
B61P-13-320	1				
A (B61P-13-320A)					
B61P-13-320A	1				9825-
		TUBE,AIR INTAKE			1
861P-13-330E	1	(MT)			
B64J-13-330	1	(AT)			
13-3312		PIPE,AIR INTAKE			
9825 NA35##- 9926 NA35##-	118	3378 2894	**************************************	*** **********************************	<del> </del>
, , Eq. 19102.		• <del>• • •</del>			
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\* HOTES : REFER TO SECT, NO. 1399 AS FOR HOSE CLIPS.

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B61P-13-331B	1				
13-3382		SPACER			
FE51-13-329	3				
13-345B		BRACKET, AIR CLEANER			
B61P-20-211	1				
13-3482		SPACER, AIR INT. PIPE			
V115-13-348	1				-0201
SLA1-13-321	1				0201-
13-3492		INSULATOR			
\$501-13-349	1				
13-363N	i	RUBBER, MOUNTING			
FE51-13-363	3				
13-765A	- 1	HOSE,AIR			
B61R-13-765	1				
15-202	I	RUBBER, MOUNT			
E501-15-202	1	DENSO			
23-603		ELEMENT, AIR CLEANER			
B6S7-13-Z40	1	ļ			
23-6731		COVER, AIR CLEANER			
861P-13-Z01	1				
67-CC1		CLIP, HARNESS			
NA02-67-CH1	1				
		ļ			
0201 NA35##	-137	180		antigina pingapinangan pingapinangan panggapinangan ang panggapinangan pingapinangan panggapinangan panggapina	<u> </u>

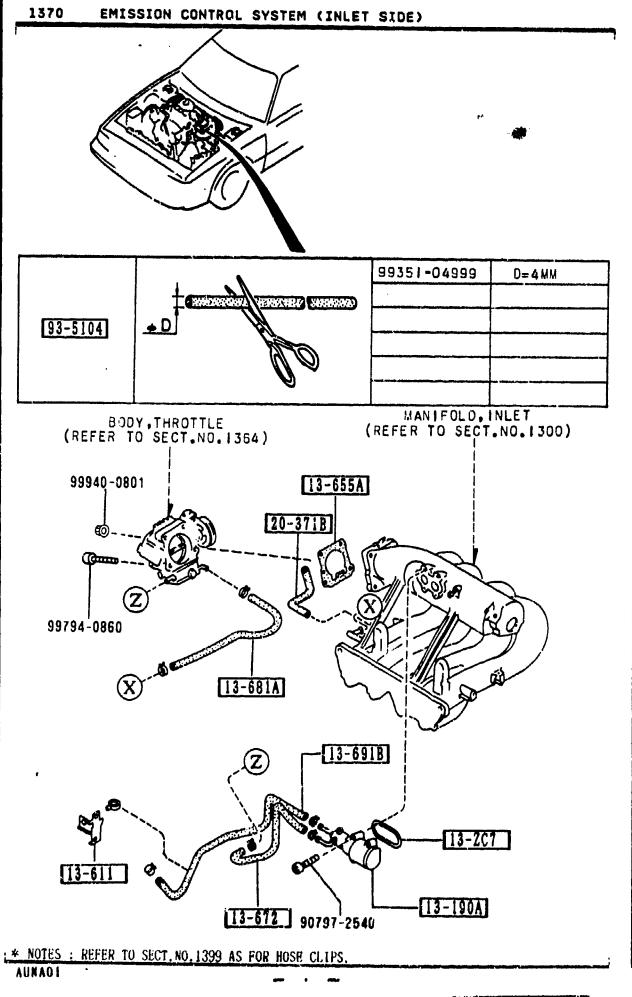
CAT. AUNA01-07



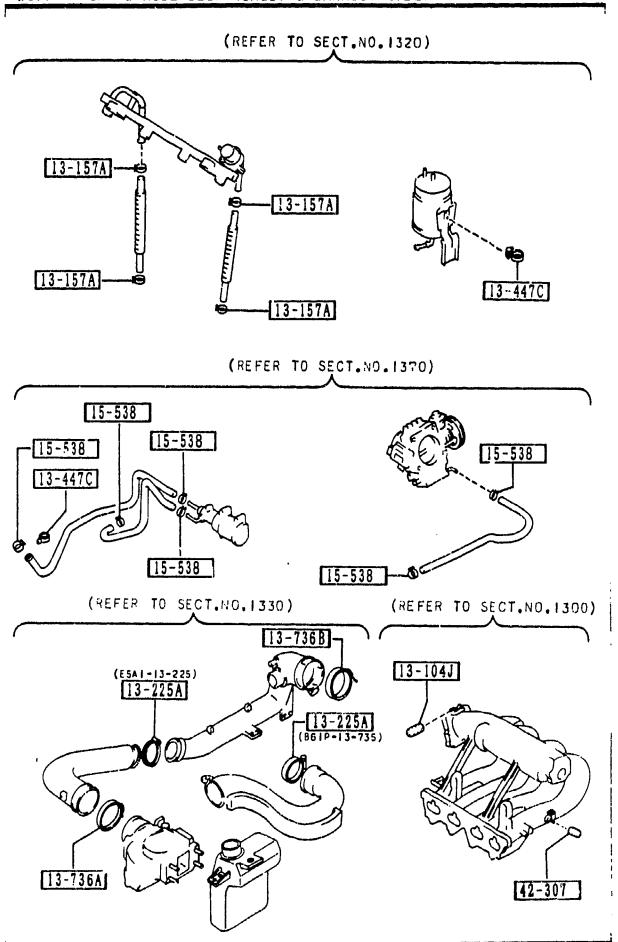
PART NO.	OTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-W75 8551-13-W75A	1	SCREW SET, IDLE ADJUS			
13-W8X     13-W8X     8551-13-W8X	1	SCREW & WASHER SET			
13-W80     B61P-13-W80	1	BRACKET SET, DASH POT			
13-W89     13-W89     8551-13-W89	1	GASKET, THERMO			
13-104H   1551-13-104	1	CAP, BL IND			
13-650E     13-650E     13-640B	1	BODY, THROTTLE			
864J-13-640 ++		(AT)			
18-9101    +   B658-18-911		SENSOR, THROTTLE			
B630-18-911		(MT)			
20-660 B61P-20-660	1	VALVE, BY-PASS AIR CO NTROL			
	į				
		•			
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-207		RING, 'O'-AIR VALVE			
6S7-13-ZC7	1				
13-190A	1	VALVE.AIR			
61P-13-190A		(H7)			
64J~13~190	1	(AT)			
13-611	1	BRACKET			
61P-13-685A	1				
13-655A	!	GASKET			
6\$7-13-655	1	NON ASBESTOS			
13-672		HOSE, WATER			
113-6/2 61P-13-682A	1	ļ.			
+					
13-681A   61P-13-681B	1	HOSE, WATER			
+					
13-691B   61P-13-691A	1	HOSE, WATER			
++					
20-371B   	1	TUBE, VACUUM			
++					
93-5104     93-5104     9351-04999	1	HOSE	•		
<b>1002 2</b>		1			
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DAD 9 HA	10.2	MODEL (OPENSORS)		HARE INCATA	****
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-104J 1010-13-104	1	CAP, BLIND			
13-157A   8574-13-157	4	CLIP			
13-225A   E5A1-13-225	1	CLAMP, HOSE			
B61P-13-735	1				
13-447C   B61P-13-447	2	CLAMP, HOSE			
13-736A   B630-13-736	1	CLAMP,HOSE-A.I.P./A. CLNR			
13-736B   F249-13-736	1	CLAMP, HOSE			
JF02-15-538	6	CLAMP.WATER HOSE			
0223-42-307		CAP (MT)			
					,

CAT. AUNAGT -07

PART NO	7077	NODEL (PERIOTEN)	HARRI JARATATATION	T MODEL (BLANDICTION	T
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 10-602A	1	SEAL, OIL			
B630-10-602	1				
14-100	ļ	PUMP, OIL			
B63:-14-100E	1				
4					
14-113		GASKET, DIL PUMP			
B630-14-113	1	ASBESTOS			
***			,		
14-115	_	PLUNGER, CONTROL			
0221-14-115	1			1	
14-116	1	SPRING, PRESSURE			
0324-14-116A	1		İ		
+			:		
114-118		SHEET, SPRING	j		
0222-14-118	1				
14-120		COVE' TL PUMP			
B630-14-121	1				
14-124		SCREW, DIL PUMP COVER	· 		
FE1H-14-124	6	SOILER, OLL TOTAL	· · · · · · · · · · · · · · · · · · ·		
+					
14-1328		GEAR, INNER	; 		
B660-19-132	1		I		
1 14-141		GEAR, OUTER	!		
B660-14-141	1		<b>,</b> 		
<b>4</b>			<b>!</b>		
14-1711	i	GASKET, OIL STRAINER	!		
0810-14-171A	1	ASBESTOS	!		
1.16-260		CTGATNED OT			
14-240   	1	STRAINER, OIL		,	
	1		1		
23-802	1	CARTRIDGE, DIL FILTER	,	,	
B6Y1-14-302	1		,		
	1				
					<u></u>
					1
CAT. AUNA01-07	-				1992-02

#### SECTION NAME INDEX (MNGINE)

LO.	NO SE	C.NO	SECTION NAME	LO.NO	SEC.HO	SECTION NAME	LO.NO	SEC.NO	SFCTION NAME
1-C	03 10	00	SHURT ENGINE & GASKET SETS				]		
1-D	03   10	10	CYLINDER HEAD & COVER						
1-G	03   10:	30	CYLINDER BLOCK		,		1		
1-1	03   10	140	DIL PAN & TIMING COVER						
1-K	03   11	00	PISTON, CRANKSHAFT & FLYWHEEL						
1-N	03   120	500	VALVE SYSTEM				İ		
1-0	04   13	300	INLET MANIFOLD				1		
1-E	04   13	10	EXHAUST MANIFOLD .			,			
1-F	04   13	20	FUEL SYSTEM						
1-H	04   13:	325	FUEL DISTRIBUTGR						
1-1	04   13	30	AIR CLEANER						
1-K	04   13	364	THROTTLE BODY						
1-L	04 13	370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M	04   13	399	CAP & HOSE CLIP (INLET & EXHAU ST SIDE)						
1-N	04 14	00	OIL PUMP & FILTER						
, 1-C	05 15	500	COOLING SYSTEM	0					
° 1-G	05 15	680	BRACKET, PULLEY & BELT	B					
1-C	06   16	00	CLUTCH DISC & COVER (MANUAL)	E V	?				
1-0	06   17	700	TRANSMISSION CASE (MANUAL)	•					
1-E	06   17	710	TRANSMISSION GEARS(MANUAL)						
1-J	06   17	20	CHANGE CONTROL SYSTEM (MANUAL)						
1-M	06   18	300	ENGINE ELECTRICAL SYSTEM				ļ		
1-C	07   18	330	ALTERNATOR				1		
1-E	07 18	340	STARTER						
1-G	07   18	350	BATTERY						
1-14	07   19	10	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)					į	
1-K	07   19	20	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
1-E	08   19	25	CONTROL VALVE (AUTOMATIC)						
1-1	08 19	30	CLUTCHES & PLANETARY GEARS (AU TOMATIC)						
1-0	09   19	740	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G	09 19	950	MANUAL LINKAGE SYSTEM (AUTOMAT						
1-1	09 19	960	GASKET & SEAL KIT (AUTOMATIC)						

1500 COOLING SYS	STEM	
15-186 -9WNCB-	3400 / 997 <b>9</b> 4-0825	99940-0801
	15-172 15-173	
(Z)	( <del>Y</del> )	715 [15-179]
17-160C [15-176B]	15-106A	
	99794-9825	
15-538	15-104 15-388 (861P-15-547)	
99794-08257	15-224A	
15-131	1 1	sec since
99794-0612	15-165	
	9 UNCB-3	400
99794-( 9078		000
15-355A	9WNCB-340	0 (2)
15-3	15-190	NOTE  1 2 \$\phi\$ [15-0105]
(F201-15-388A)	9WC8-3400	THE D-CODE OF [15-0105] CONSISTS OF FIGURE NUMBERS (1) THROUGH (2).
CREATE TO THE REAL PROPERTY OF THE PARTY OF	15-185	99796-0616
	<u>15-189</u>	15-2101
	90786-0825	
		15-210A
15-205	THE PARTY	
15-200	90906-0501	0
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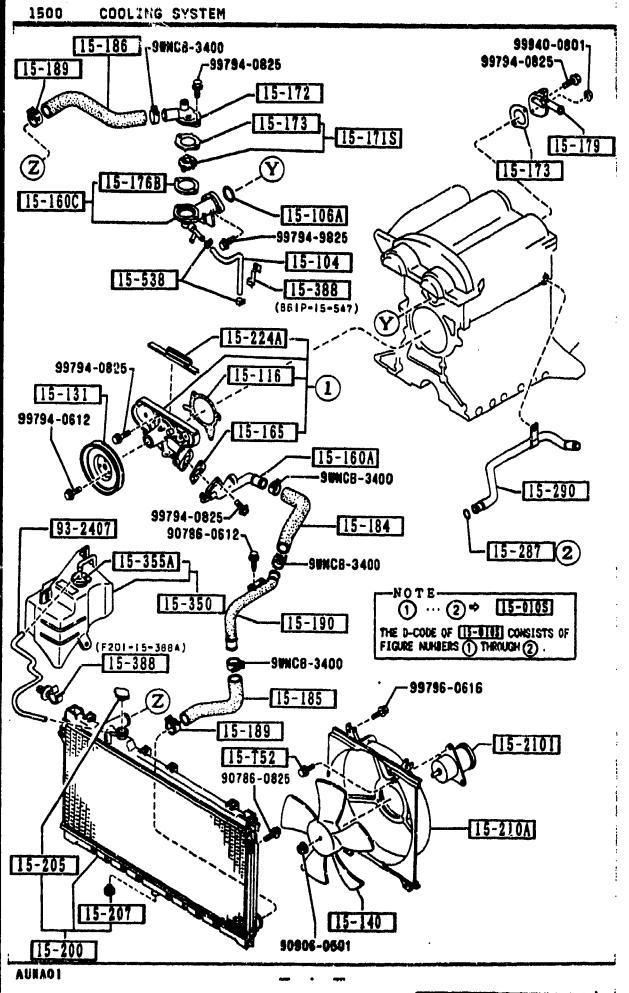
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-T52   B6S8-15-T52	3	SCREW, MOTOR-ELECTRIC FAN			
15-0108	,	PUMP SET, WATER	ĺ		
8AB8-15-010		NON ASBESTOS			
	1		1		
15-104	1	HOSE, WATER BY-PASS	ı		
861P-15-261A	1		I		
++   15-106A	1	RING, 'O'-WATER PUMP	i		
B61P-15-106	1		I		
++   15-116	1	GASKET, WATER PUMP	i		
B621-15-116A	!	NON ASSESTOS	ĺ		
0064-15-00-0-	1		İ		
15-131	1	PULLEY, WATER PUMP	i İ		
B366-15-131	1	1	!		-9901
AN(8366-15-131A) B366-15-131A	' 1		! 		9901-
<b>+</b>	- 1		l		7701-
15-140	1	FAN, COOLING	1		
B6S6-15-140A		CALSONIC (AT)	i i		
861P-15-140	1	(MT)	! !		
++   15-160A	!	INLET, WATER PUMP	!		
B61P-15-160	1		1		
<b>+</b>			r I		
15-160C     ++   B61P-15-170A	1	PIPE, WATER PUMP	! !		-9601
A (B61P-15-170B)			· ·		-9401
B61P-15-170B	1		!		9401-
15-165	1	GASKET, W. PUMP INLET	<b>!</b>		
8621-15-165	1	NON ASBESTOS	<b>!</b>		1
4	1		<b>!</b>		
15-1715	1	THERMOSTAT SET	<b>!</b>		
8AN1-15-171	1	NON ASBESTOS			
i					
9401 NA35##- 9901 NA35##-	-101	0090			
1	<b>**</b> .	/4.5+			
i					]
CAT. AUNA01-07			Particular designation of the latest the second section of the section of the se		1992-02

1500	COOLING	SYSTEM			
15-189	15-186	MCB-3400 	)825		995 10-0801 99794-0823
, CO			15-172	-1715]	
<b>2</b>	[15-176B		Ŷ	1110	15-173
15-160C	<u> </u>		15-106A 		
	15-538		15-104 -15-388 (861P-15-547)		) · · · · · · · · · · · · · · · · · · ·
9979	04-08257	15-2	241		
15-13 99794-061			165	mall.	pace children
			15-161 9mce-		15-290
93-	2407]	90786-0612-	15	-184	15-287 (2)
n S	15-355	15-350	9UNCB-3	400	
	(F201-15-38 			1 -	THROUGH (2)
	ZZ	30 15-11	15-185	99796-06	16
		15-16 15-T 90786	52	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	15-2101
					15-210A
15-205		, , , , , , , , , , , , , , , , , , ,	Ma		
[15-200	15-207		90906-0501	40	
AUNAO 1				<u> </u>	

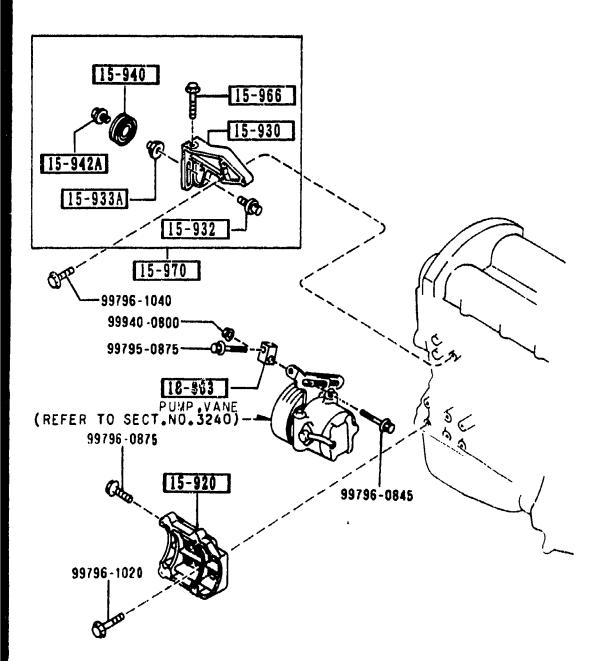
PART NO. Q	Y MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
15-172	COVER, THERMOSTAT			
B61P-15-172	1			
15-173	GASKET, THERMOSTAT CO			
B621-15-173	VER NON ASBESTOS			
<b>+</b>				
15-1768	CASE, THERMOSTAT			-940
B61P-15-176A (B61P-15-176B)				
B61P-15-176B	1			9401-
15-179	OUTLET, WATER			
B61P-15-179 \ (B61P-15-179A)	1			-941
861P-15-179A	1			9415-
1 15-184	HOSE, WATER			
B61P-15-184	1			
15-185	HOSE, WATER			
B61P-15-185	1			
1 15-186	HOSE, WATER			
B61P-15-186	1			
15-189	CLAMP, HOSE			
8366-15-182	2			
15-190	PIPE, WA			
B61P-15-190	1			
15-200	RADIATOS			
B61P-15-200	CALSONIC (MT)			
B64J-15-200A	CALSONIC 1 (AT)			
++   15-205	CAP, RADIATOR			
D316-15-205	CALSONIC			
	1			
9401 NA35**-1	00090			<u> </u>
9415 NA35##-1	00/15			

1500 COOLING SYSTEM	
15-186 -3400 15-189 -99794-0825	99940-0801-
15-172	
Z Y (15-1768) (Y)	(\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
15-160CH 15-106A	
99794-9825 15-104 15-388 (861P-15-547)	
99794-08257	3)
99794-0612	Joan Ch
9 WICB-3400	15-290
93-2407 99794-0825-	15-287 (2)
15-350 NOTE	. ②
	96-0616
15-189 15-T52 9C786-0825	[15-2101]
[15-205]	15-210A
15-207 90906-0501	
AUN/01	

DADT NO	071	HODEL (DECEMBER)	MADEL APPROPRIATE	T 4000 (05000000	
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-207		COCK, DRAIN			
N326-15-203	1				
1 15-210A Î		COWLING, RADIATOR			
B61P-15-210A	1				
†======+   1		FAN DOTAG			
15-2101     H	,	FAN DRIVE (MT)			
864J-15-150		(AT)			
++					
15-224A	_	RUBBER, SEAL			
B660-10-543B	1				
15-287		RING,'0'-WATER BY-PA			
E301-15-287	1				
15-290		PIPE, BY PASS			
B61P-15-290 AN(B61P-15-290A	, 1				-9A01
B61P-15-290A	1				9A01-0301
AN(B61P-15-290B	)				3W01-0901
B61P-15-290B	1				0301-
15-350		TANK, SUB-RADIATOR			
B61P-15-350A A (B61P-15-350B	ຸ 1				-9419
B61P-15-350B	´ 1				9419-9901
AN(861P-15-350C					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B61P-15-350C	1				9901-
15-355A		CAP, SUB TANK			
B61P-15-355 AN(B61P-15-355A	, 1				-9901
B61P-1' 55A	1				9901-
++ 1 15 700 1					
15-388   	1	CLIP, HOSE-SUB T.& WA			
F201-15-388	1				-9401
A (F201-15-388A	)				7401
F201-15-388A	1				9401-
9401 NA35** 9419 NA35** 9901 NA35** 9A01 NA35** 0301 NA35**	-101 -119 -122	038 1257 1908			
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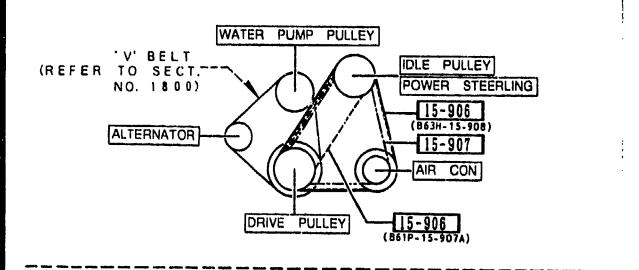


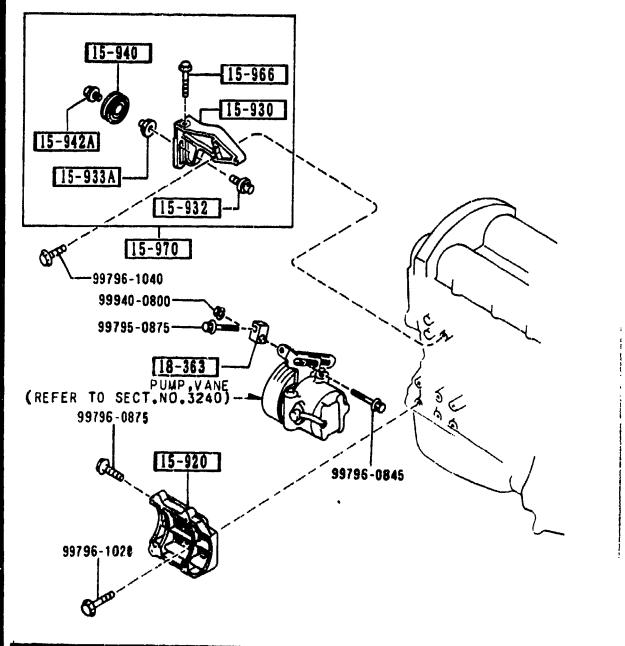
PART NO.	QTY	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-538		CLAMP, WATER HOSE			
JF02-15-538	2	1	1		
93-2407	1	HOSE, WATER	1		
99324-07630	1	ı	1		-9419
99324-07610	1	,	1		9419-
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9419 NA35##	M-10	1036	<u> </u>	1	1
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CAT. AUNA01-07					1992-02



1580 -1 BRACKET, PULLEY & BELT

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PART NO. Q	TY HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 15-906	BELT'V'			
863H-15-908	L=953 4PK RIB.V			
B61P-15-907 AN(B61P-15-907A)	L=865 4PK RIB.BELT			-9626
861P-15-907A	1 (W/P.S.)			9626-
15-907	BELT'V'			
R63H-15-909	1 L=855 4PK RIB.V			
15-920	BRACKET, COMPRESSOR			
B61P-15-810A	1 (A)			
1 15-930	BRACKET, IDLE PULLEY			
BP01-15-951	1 (A)			
15-932	SHAFT, PULLEY			
#+ B631-15-932	1 (A)			
15-933A	COLLAR			
BP01-15-933	1 (A)			
1 15-940	PULLEY, IDLE			
BP01-15-940	1 (A)			
15-942A	COLLAR			
E564-15-942	1 (A)			
15-966	BOLT, ADJUST			
E564-15-934	1 (A)			
1 15-970	PULLEY, IDLE			
BP01-15-930	1 (A)			
18-363	SPACER, STRAP			
9626 NA35##-1	111021		***************************************	

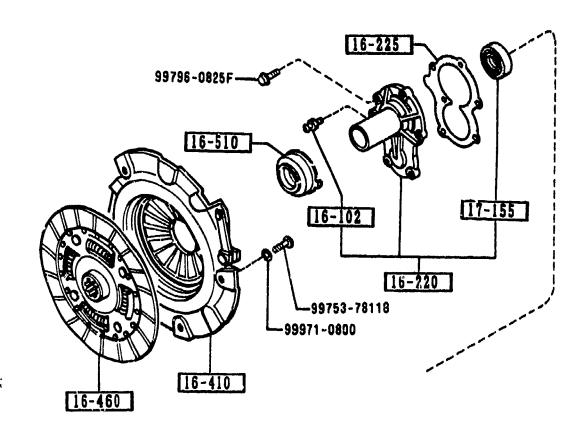


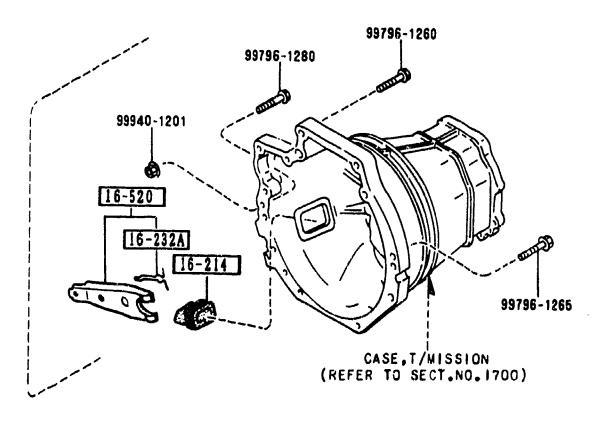


PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
CONT'D F201-18-363		(W/P.S.)			1
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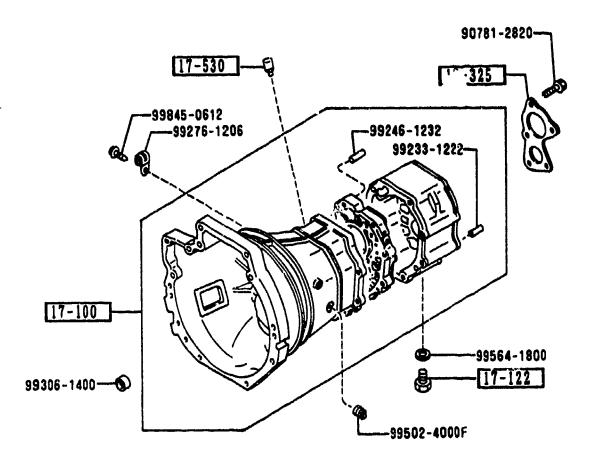
## SECTION NAME INDEX (ENGINE)

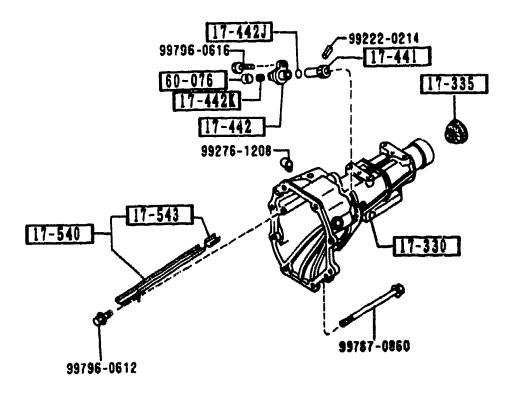
LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS						
1-003	1010	CYLINDER HEAD & COVER						,
1-G03	1030	CYLINDER BLOCK						
1-103	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON, CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM		<u> </u>				
1-004	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD					,	
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-104	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-104	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAU ST SIDE)						
1-104	1400	OIL PUMP & FILTER						
1-05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET, PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-D06	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)	A					
1-M06	1800	ENGINE ELECTRICAL SYSTEM	100	<b>y</b> )				
1-C07	1830	ALTERNATOR		7				
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)		1				
1-108	1930	CLUTCHES & PLANETARY GEARS (AU TOMATIC)						
1-009	1940	GOVERNUR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT						
1-109	1960	GASKET & SEAL KIT (AUTOMATIC)						





PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
16-102     0603-16-102B   1	PIN, PIVOT-CLUTCH REL .FORK			
16-214     16-214     FE86-16-214	COVER, DUST-CLUTCH FO			
16-220     16-220     8622-16-220	COVER, FRONT CLUTCH			
16-225     FE50-16-225A   1	GASKET, FRONT COVER			
16-232A 1	SUPPORTER, FORK			
16-410     B622-16-410	COVER, CLUTCH			
16-460	DISC, CLUTCH			
B622-16-460 A (B622-16-460A) 1	ASBESTOS			0770
B622-16-460A	ASBESTOS			-9330
1	H30E3103			9330-
16-510     16-510     B622-16-510	COLLAR, CLUTCH REL.			
16-520   	FORK, CLUTCH RELEASE			
17-155     H501-17-103   1	SEAL, OIL			
9330 NA35##-100	0072			





PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-100     M526-17-100	1	CASE, T/MISSION			
17-122     0810-17-121		PLUG, MAGNET			
17-325     17-325     8086-17-326	1	COVER, BEARING			
17-330     M5Y1-17-330	1	HOUSING, EXTENSION			
17-335   M507-17-335	1	SEAL, OIL			
17-441     1472-17-441A	1	GEAR, DRIVEN N=23			
17-442     17-442   	1	SLEEVE, SPEEDOMETER			
17-442J     1011-17-443		RING,'O'			
17-442K 1	1	SEAL, OIL			
17-530     17-530     0884-17-530	1	BREATHER, AIR-T/MISSI ON			
17-540     17-540     M509-17-540	1	PASS, OIL			
17-543     M501-17-543A	1	RUBBER, SEAL			
60-076     60-076     B092-60-076A	1	GASKET.GUIDE SEAL-SP EEDO.			

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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-201		GEAR, MAIN DRIVE			
M516-17-201	1				
+	_				
17-201J		BEARING, BALL-MAIN DR			
M502-17-295C	1				
17-203		BEARING, NEEDLE			
M501-17-210	1				
+	•				
17-204		BEARING, BALL-MAIN SH			
M503-17-204	1				
17-205		READING BOLLES			1
R502-17-306A	1	BEARING, ROLLER			
M902-17-306A	•				
17-205F		RING, RETAINING			
M501-17-205	1				
++   17 001		CHAPT MATA			
17-221	_	SHAFT, MAIN			
M505-17-2218	1				
17-225		RING, SNAP			
0317-17-225	1				
++ 1 12-270 1		CEAR IRD			
17-230		GEAR, 3RD			
M513-17-231	1				
17-240		HUB SET, CLUTCH-SRD &			
M502-17-240B	. 1	4TH			-970
(M502-17-240C					
M502-17-240C	1				9701-
17-241		HUB, CLUTCH			
M501-17-241B	1				
+					
17-242A		SLEEVE, CLUTCH HUB			
F401-17-242A	1				
17-243		KEY, SYNCHRONIZER			
F401-17-243A	9				
9701 NA35**	-111	.969			L

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17-250		
17-260	I	
M505-17-260A 1   17-261   HUB, CLUTCH     17-262   SLEEVE, CLUTCH HUB     17-264   SPRING, SYNCHRO. KEY     17-264   SPRING, SYNCHRO. KEY     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-265   SPRING, SYNCHRONIZER     17-276   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-275   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-275   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-271   SPRING, SYNCHRONIZER     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-271   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-276   SPRING, SYNCHRO. KEY     17-276   SPRING, SYNCHRO. KEY     17-276   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY     17-275   SPRING, SYNCHRO. KEY		
M505-17-260A 1   17-261   HUB, CLUTCH     17-262   SLEEVE, CLUTCH HUB     17-264   SPRING, SYNCHRO. KEY     17-264A   SPRING, SYNCRONIZER     17-265   GFOIL-17-265A   RING, SYNCHRONIZER     17-265   GFOIL-17-265A   RING, SYNCHRONIZER     17-271   GEAR, 1ST     17-271   GEAR, 1ST     17-274   GEAR, 1ST     17-275   RACE, INNER     17-276   WASHER, THRUST     17-276   WASHER, THRUST     17-276   WASHER, THRUST     17-276   WASHER, THRUST     17-276   TELL MASH		
M502-17-261 1   17-262		
17-262		
M503-17-262 1  17-264   SPRING, SYNCHRO. KEY  G401-17-264   SPRING, SYNCRON1ZER  F401-17-265A   RING, SYNCHRONIZER  G501-17-265A   RING, SYNCHRONIZER  M502-17-265A   AM504-17-265A   AM504-17-265A   AM504-17-265A   AM504-17-271   AM516-17-271   AM516-17-271   AM516-17-271   AM516-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-283A   AM504-17-284E   AM504-17-284		
17-264   SPRING, SYNCHRO. KEY   G401-17-264   2   17-264A   2   17-265   G501-17-265A   2   M502-17-265A   2   M504-17-265A   3   M504-17-265A   1   17-271   GEAR, 1ST   M516-17-271   1   17-274   BEARING, NEEDLE   4069-17-283A   2   17-275   RACE, INNER   4069-17-284E   1   17-276   WASHER, THRUST   T=3MM   T=2.2MM   T=2.2MM   T=2.2MM   T=2.2MM   T=2.7MM   T=2.		
G401-17-264 2  17-264A   SPRING, SYNCRONIZER  F401-17-265A 2  M502-17-265A 2  M504-17-265A 1  M504-17-265A 1  17-271   GEAR, 1ST  M516-17-271 1  17-274   BEARING, NEEDLE  4069-17-283A 2  17-275   RACE, INNER  0259-17-274A 2  0259-17-276 2  0259-17-277 T=2. ZMM  T=2. ZMM		
17-264A		
F401-17-264A 2    17-265   RING, SYNCHRONIZER    302-17-265A 2   RING, SYNCHRONIZER    4064-17-265A 2   RING, SYNCHRONIZER    4064-17-265A 1   RING, SYNCHRONIZER    4064-17-265A 1   RING, SYNCHRONIZER    4064-17-265A 1   RING, SYNCHRONIZER    4064-17-265A 1   RING, SYNCHRONIZER    4064-17-265A 1   RING, SYNCHRONIZER    4064-17-265A 1   RING, SYNCHRONIZER    4064-17-265A 2   RING, SYNCHRONIZER    4064-17-2		
G501-17-265A 2 M502-17-265A 2 M504-17-265A 1 M504-17-265A 1  M504-17-265A 1  M516-17-271   GEAR, 1ST  M516-17-271   BEARING, NEEDLE  17-275   RACE, INNER  4069-17-284E 1  17-276   WASHER, THRUST  0259-17-276 2 0259-17-276 2 T=2.7MM		
M502-17-265A 2 M504-17-265A)  M504-17-265A 1  #504-17-265A 1  #516-17-271   GEAR,1ST  #516-17-271   BEARING, NEEDLE  #069-17-283A 2  #17-275   RACE, INNER  #069-17-284E 1  #17-276   WASHER, THRUST  #17-276   T=3MM  #17-276   T=2.2MM		
M504-17-265A 1 M504-17-265A 1    17-271   GEAR,1ST  M516-17-271 1    17-274   BEARING, NEEDLE    17-275   RACE, INNER    17-276   WASHER, THRUST   17-276   T=3MM    20259-17-276   T=2.2MM    17-277   T=2.7MM		
M504-17-265A 1   17-271   GEAR, 1ST  M516-17-271   BEARING, NEEDLE    17-275   RACE, INNER    17-276   WASHER, THRUST    17-276   T=3MM    20259-17-276   T=2.2MM		-010
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M516-17-271 1    17-274		
4069-17-283A 2   17-275   RACE, INNER 4069-17-284E 1   17-276   WASHER, THRUST   0259-17-274A 2 0259-17-276 2 0259-17-277 T=2.7MM		
17-275   RACE, INNER  4069-17-284E 1  17-276   WASHER, THRUST  1259-17-274A 2  0259-17-276 2  T=2.7MM		
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17-276   WASHER, THRUST   T=3MM   T=2.2MM   T=2.7MM   T=2.7MM		:   
T=3MM  0259-17-274A  T=3MM  T=2.2MM  T=2.7MM		
2 0259-17-276 2 0259-17-277 T=2.7MM		
2 0259-17-277 T=2.7MM		
0259-17-277 Z T=2.7MM		
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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D 0259-17-278	2	T=3.2MM			
0259-17-279	2	T=3.7MM			
17-279   8540-17-275A	1	SLEEVE, GEAR			
17-281     17-281     17-281   M509-17-281   CM509-17-281/	A) 1	GEAR, REVERSE			-98
M509-17-281A	1				9801-
1 17-287J   99963-6310		SHIM,ADJUST T=0.1MM			
99963-6315	2	T=0.15MM			
99963-6330	2	T=0.3MM			
17-297A     17-297A     M502-17-297A	1	BEARING, BALL-COUNTER SHAFT G.			
17-298     M502-17-298A	1	BEARING			
17-301     17-301     M528-17-301	1	GEAR, COUNTER SHAFT			
17-302   M512-17-302	1	GEAR, COUNTER REVERSE			-98
A (M512-17-302A M512-17-302A					9801-
17-304     M504-17-304	1	SPACER			
17-304B   M501-17-304B	1	SPACER			
17-305A   0839-17-305B	1	RING, RETAINING-BALL BEARING			
9801 NA35#	t-116	5316			1
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PART NO. Q	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-306	BEARING, BALL			
M502-17-299A	1			
17-308 M510-17-308	GEAR, COUNTER			
17-309B   M501-17-309	NUT, LOCK-COUNTER SHA			
17-310   M509-17-310 A (M509-17-310A)	GEAR, REVERSE IDLE			-9801
M509-17-310A	1			0901-
17-313   M501-17-313	WASHER, THRUST-REVERS E IDLE G.			
17-3138	WASHER, THRUST			
4077-17-314A	T=2.8MM			
4077-17-315A	T=3MM			
4077-17-316	T=2.6MM			
17-315 +	SHAFT, REV. IDLE GEAR			
17-316D	SPACER			
R502-17-316	1			
17-327 0305-17-327	SHIM, ADJUST-COUNTER SHAFT GEAR T=0.1MM			
0305-17-328	T=0.3MM			
1 17-341A   M503-17-341	GEAR, SPEEDO. DRIVE			
17-611	GEAR, OVER TOP			
M517-17-611	1			
9801 NA35##-1	16316	nach mark de l'indice i indice de la company de la company de la company de la company de la company de la comp	l	L

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-620     M505-17-620	1	HUB SET, CLUTCH-0.T.			
17-621   M505-17-621	1	HUB.CLUTCH			
17-629 8601-17-629	1	NUT,LOCK-CLUTCH HUB			
17-631   0884-17-632B	1	WASHER, THRUST LOCK-O VER TOP G. T=6.2MM			
0884-17-633B	1	T=6.4MM			
0884-17-634B	1	T=6.5MM			
0884-17-635B	1	T=6.6MM			
17-651 M501-17-651	4	WASHER, THRUST			
M501-17-653	2	T=3.1MM			
M501-17-654	2	T=3.2MM			
M501-17-655	2	T=2.9MM			
17-652   	2	RING, THRUST WASHER T=2MM			
17-724A     17-724A     W501-17-724	2	SPRING, SYNCHRO.KEY			
17-725C   V501-17-725	1	RING,SYNCHRONIZER			
17-732   	4	SLEEVE, CLUTCH HUB			-0701
A (W501-17-7328					-9701
W501-17-732B	1				9701-
9701 NA35##	-111	1969			
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0214-17-351 2    17-402   FORK, SI  M503-17-402 1    17-404   FORK, SI  M501-17-404B 1    17-406   FORK, SI  M504-17-406A 1    17-410   ROD, SHI  M503-17-411 1    17-410   SPRING,  0103-17-411 2    17-411   SPRING,  0103-17-411 2    17-415   RING, RE  ROD EN  3648-17-415 1	TER LOCK. HIFT(1ST&2ND) HIFT(3RD&4TH)		
17-351A   PIN. 1NT   0214-17-351   2   17-402   FORK, SI   M503-17-402   1   17-404   FORK, SI   M504-17-404B   1   17-410   ROD, SHI   M503-17-411   END, S/F   M507-17-412   1   17-411   SPRING, SI   O103-17-411   2   17-415   ROD ERSE   CONTROL   CREE   CRE	HIFT(1ST&2ND)		
17-402   FORK, SI   M503-17-402   1     17-404     FORK, SI   M501-17-4048   1     17-406     FORK, SI   M504-17-406A   1     17-410     ROD, SHI   M503-17-411   1     17-411   SPRING, SI   STH & FORK, SI   M507-17-412   1     17-411   SPRING, SI   SPRING, SI   STH & FORK, SI   M507-17-412   1     17-415   ROD, SHI   SPRING, SI   RING, RESE   ROD EN   SPRING, RESE   SPRING, RESE   ROD EN   SPRING, RESE   M501-17-416   SPRING, RESE   M501-17-416   SPRING, RESE   M501-17-416   1   SPRING, RESE   M501-17-416   SPRING, RESE   M50			
M501-17-4048 1    17-406   FORK, SH  M504-17-406A 1    17-410   ROD, SHI  M503-17-411 1    17-410A   END, S/F  M507-17-412 1    17-411   SPRING,  0103-17-411 2    17-415   RING, RE  ROD EN  3648-17-415 1    17-416   SPRING,  M501-17-416 1	HIFT(3RD&4TH)		
M504-17-406A 1    17-410   ROD, SHI  M503-17-411 1    17-410A   END, S/F  M507-17-412 1    17-411   SPRING,  5TH & F    17-415   RING, RE  ROD EN  3648-17-415 1    17-416   SPRING,  M501-17-416 1	I		
M503-17-411 1 END, S/F  M507-17-412 1 SPRING,  0103-17-411 2 SPRING,  17-411A   SPRING,  0014-17-411 2 SPRING,  ERSE  17-415   RING, RE  ROD EN  3648-17-415 1  17-416   SPRING,  M501-17-416 1	HIFT		
M507-17-412 1    17-411   SPRING,   5TH & F   17-411A   SPRING,   17-415   RING, RE   17-415   ROD EN   17-416   SPRING,   M501-17-416   SPRING,	IFT(1ST&2ND)		
0103-17-411 2 5TH & F    17-411A   SPRING, ERSE    17-415   RING, RE ROD EN    17-416   SPRING, RE ROD EN    17-416   SPRING, RE ROD EN    17-416   SPRING, RE ROD EN	ROD(1ST&2ND)		
0014-17-411 2 ERSE  17-415   RING, RE ROD EN  3648-17-415 1  17-416   SPRING,  M501-17-416 1	,SHIFT ROD REVERSE		
3648-17-415 1   ROD EN	SHIFT ROD-REV		
M501-17-416 1	ETAINING-SHIFT		
1,50	SHIFT ROD END		
M505-17-416 1			
M503-17-421 1	[ET(3DDRATH)		
17-422A   END, S/R   M507-17-422   1	IFT(3RD&4TH)		

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PART NO.	PTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-431     17-431     M506-17-431   M506-17-431A	, 1	ROD,SHIFT-OVER TOP & REVERSE			-031
M506-17-431A	1				0316-
17-4328     M508-17-432	1	END,SHIFT ROD(O/TOP& REV.)			
17-435E   R502-17-435	3	RING, RETAINING			
17-461A   M508-17-461	1	END, CONTROL LEVER			
17-4618   M516-17-450	1	ROD, CONTROL			
17-462 0398-17-462A	1	SHEET, SPRING			
17-470   17-470   M510-17-470B 4 (M510-17-470C	ı	CASE, CHANGE CONTROL			-0116
M510-17-470C	1				0116-
17-474A     17-474A     M501-17-474	1	CAP, SPRING			
17-475     17-475     4-17-480   M514-17-480A	1	BOOT, DUST-CHANGE LEV			-0515
M514-17-480A	1				0515-
17-475A   M501-17-475	1	GASKET, SPRING CAP			
17-476   M502-17-476A	1	SPINDLE, SELECT LOCK			
17-4815     15-4815     1505-99-178	1	BUSH SET, CHANGE LEVE			
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-482		WASHER, WAVE-CHANGE CONT.CASE			
M505-17-482	1				
17-486A		COVER, BLIND			
R501-17-47X	1				
17-490A		COVER, ROD			
M504-17-490A	1				
++					
17-4918		CAP, SPRING			
0183-17-491	1				
17-501		INSULATOR, CHG LEVER			
M501-17-501	1				
1 17-510		LEVER, CHANGE			
M524-17-510A	1				
17-520		KNOB, CHANGE LEVER			
M515-17-520	1	NIGOTONAIGE LEVEN			
00		NAO BLACK			
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17-552   		SPRING			
17504-17-552	1				
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	ALTERNATOR (REFER TO SECT.NO.1830)
[18-381]	- (REFER : 0 SECTENDE 1050)
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18-140	99800-10105
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	NU.1840) - (
90796-081	8560-18-411C) -118-401C
	(2)-[18-401C]
99796-1055	(BGIP-18-:10)
AURAGI	99794-1020
OCCUPA-	Name # 48.23*

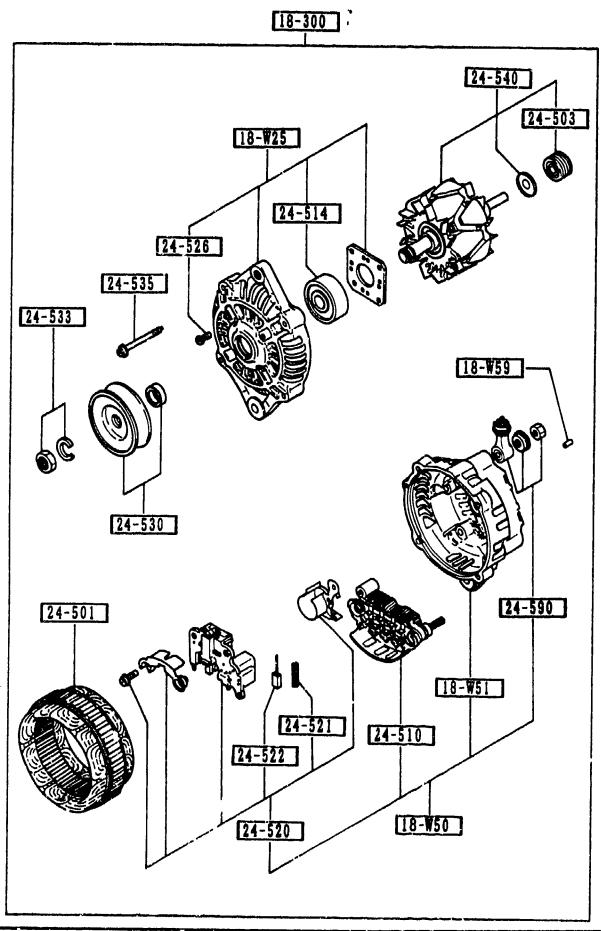
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-3480	•	SPACER			
B61P-13-348	1				
13-363N		RUBBER, MOUNTING			
B61P-13-363A	1				
15-966		BOLT, ADJUST			
FE38-15-966	1				
18-10X		COIL & IGNITER			
861P-18-10XB	1				-052
AN(861P-18-10XC) - B61P-18-10XC	1		ι		050
+	•				0521-
18-110		PLUG, SPARK			
BP01-18-110	4	BKR5E11 NGK (OPTION HOT TYPE)			
BP02-18-110	4	K16PR-U11 DENSO (OPTION HOT TYPE)			
BP03-18-110	4	BKR6E-11 NGK (STD.)			
BP04-18-110	4	K20PR-U11 DENSO (STD.)			
BP05-18-110	4	BKR7E11 NGK (OPTION COLD TYPE)			
BP06-18-110	4	K22PR-U11 DENSO (OPTION COLD TYPE)			
18-113		BOLT			
861P-18-1A5A	1				
18-140		CORD SET, HI. TENSION			
B61P-18-140B	1				
18-160		CORD NO.1, HI. TENSION			
B61P-18-160B	1				
1 18-170		CORD NO.2,HI.TENSION			
B61P-18-170B	1	COND HO.E. MI. IENSIUN			
+		0000 NO 7 NF TENES			
18-180   	1	CORD NO.3, HI. TENSION			
0521 NA35HH-	152	930			L
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1	ALTERNATO (REFER TO SECT.	)R
[10]		INV & FUJU /
18-	81	
		18-361 15-966
	10-1001	1
9994	10-1001	- manage
		18-363
		04 790
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18-1	<del></del>	1 407744 7076
	330	00-10105
18-160		99794-1260
18-170		
	-180	
18-110	18-190	
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( F(5)		99794-08208
1 / Company		18-265
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99940-1000 ك		
lon		18-113
S	TARTER EFER TO SECT. NO.1840)	[13-348C]
F	NO.1840)	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	6-0816 (8650-18-411C)	13-363N
	18-401C	
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99796-1055	(86 18-410)	
	99794-1020	
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PART NO.	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-190	CORD NO.4, HI. TENSION			
361P-18-190B	1			
18-265	CLIP, COUPLER			
B61R-18-266 A (B61R-18-266A)	1			-9A1
D61R-18-266A	1			9A13-
18-361	STRAP, ALTERNATOR			
B61P-18-360 A (B61P-18-360A)	1			-980
B61P-18-360A	1			9801-
18-363	SPACER, STRAP			
F201-18-363	1			
18-381   ++	BELT'V' AUTO-FLEX-3 A-34.7			
8657-18-381A (8657-18-381B)				-030
B6S7-18-381B	1 AUTO-FLEX-3 A-34.7	:		0308-
18-401C	BRACKET, STARTER			
B61P-18-410 B660-18-411C	1 1			
0000-10-4110	•			
			,	
			•	
		ı		! !
<del></del>				
9801 NA35##-1 9801 NA35##-1 0308 NA35##-1	26490			
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AT. AUNA01-07	* <del></del>			1992-02

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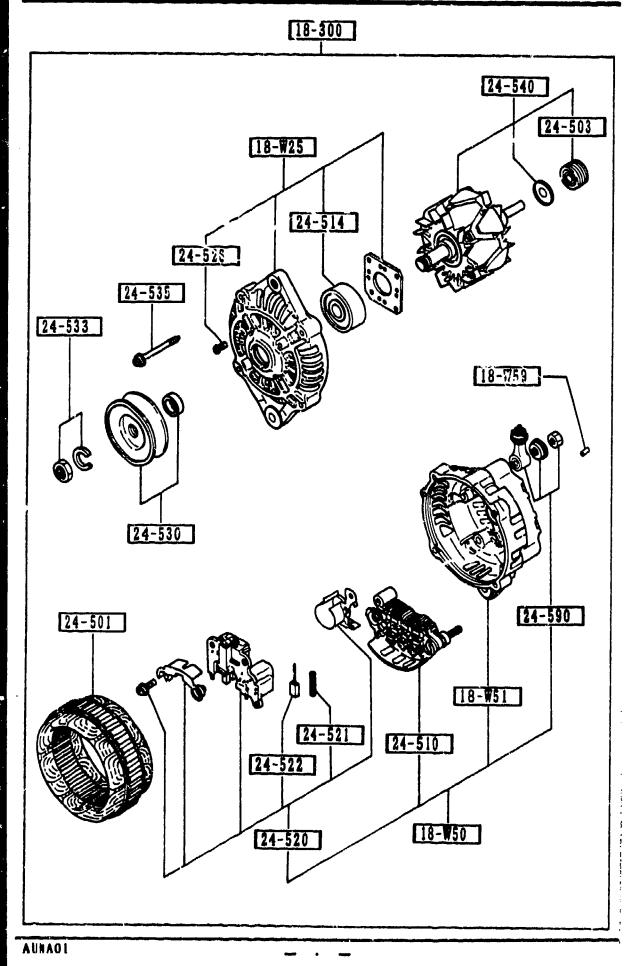
	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
	1-C03	1000	SHORT ENGINE & GASKET SETS						
	1-003	1016	CYLINDER HEAD & COVER			, <b>,</b>			
	1-G03	1030	CYLINDER BLOCK	4		· •			
	1-103	1040	OIL PAN & TIMING COVER						
1	1-K03	1100	PISTON, CRANKSHAFT & FLYWHEEL						
	1-N03	1200	VALVE SYSTEM						
	1-D04	1300	INLET MANIFOLD						
١	1-E04	1310	EXHAUST MANIFOLD						
١	1-F04	1320	FUEL SYSTEM						
	1-H04	1325	FUEL DISTRIBUTOR						
١	1-104	1330	AIR CLEANER						
i	1-K04	1364	THROTTLE BODY						·
	1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
	1-M04	1399	CAP & HOSE CLIP (INLET & EXHAU						
	1-N04	1400	OIL PUMP & FILTER						
	1-C05	1500	COOLING SYSTEM						
	1-G05	1580	BRACKET, PULLEY & BELT						
-	1-006	1600	CLUTCH DISC & COVER (MANUAL)						
	1-006	1700	TRANSMISSION CASE (MANUAL)						
	1-E06	1710	TRANSMISSION GEARS(MANUAL)						
	1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
	1-M06	1800	ENGINE ELECTRICAL SYSTEM						
	1-C07	1830	ALTERNATOR						
	1-E07	1840	STARTER						
	1-G07	1850	BATTERY	2					
	1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)	<b>E</b>					
	1-K07	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)	7					
	1-E08	1925	CONTROL VALVE (AUTOMATIC)						
	1-108	1930	CLUTCHES & PLANETARY GEARS (AU						
	1-009	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)			<b>b</b>			
	1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT						
	1-109	1960	GASKET & SEAL KIT (AUTOMATIC)						



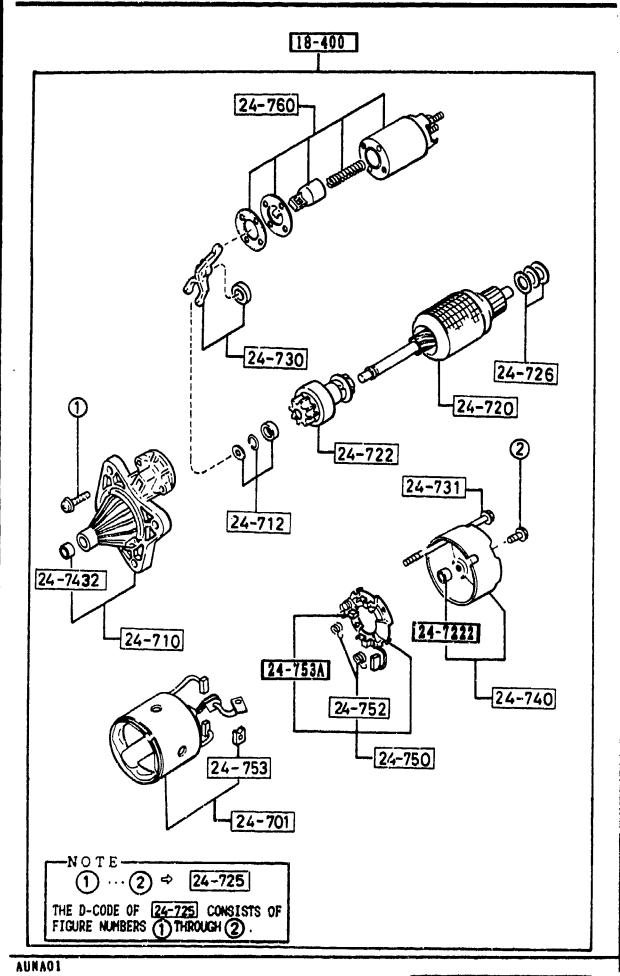
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-1/25		COVER, FRONT-ALTERNAT			
B61P-18-W25	1	l OR	•		
18-W.10		COVER, REAR-ALTERNATO			
B61P-18-W10	1	R (MT)			
B64J-18-W50		(AT)			
18-W51		COVER, REAR-ALTERNATO			
B366-18-W51	1	lR I			
++					
18-W59		PLUG			
B675-18-W59	1				
18-300		ALTERNATOR			
B61P-18-300D		(MT)			
B64J-18-300A	1	(AT)			
24-501		STATOR			
8366-18-W45	1	(AT)			
G608-18-W45	1	(MT)			
24-503		BEARING, BALL-ALT. RE			
4336-18-W36	1	AR			ļ
24-510		RECTIFIER			
8366-18-W60	1	(AT)			
B61P-18-W60	1	(MT)			
24-514		BEARING, BALL-ALT. FR			
F811-18-W27	1	ONT			
1 24-520		REGULATOR			
B61P-18-W70	1				
+					
24-521	2	SPRING, BRUSH			
8599-24-521	ے				
24-522		BRUSH		! !	
FE2H-18-W77	2				
		L			J
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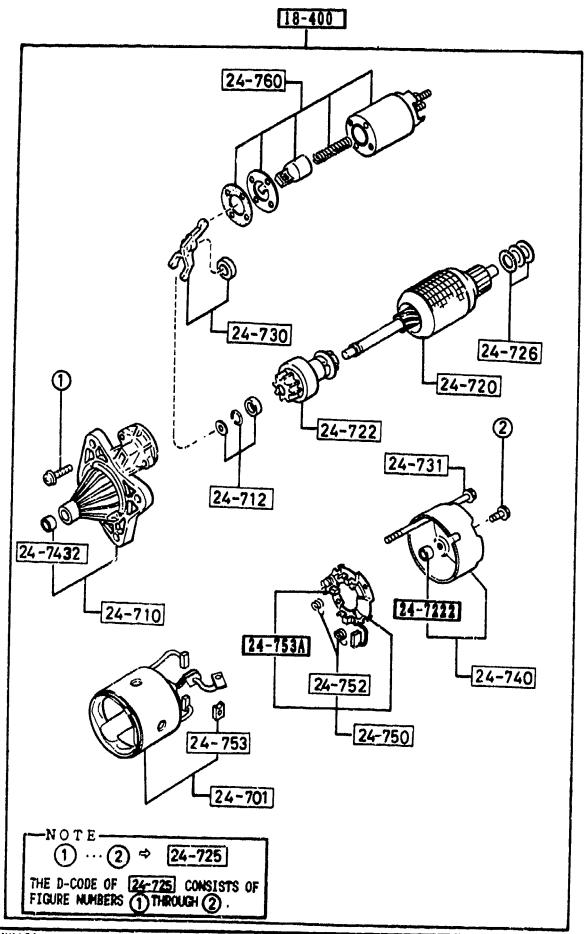
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PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
24-526   RF71-18-W26 1	SCREW SET			
24-530     24-530     B366-18-W10 1	PULLEY			
24-533 8028-24-533 1	NUT SET			
24-535     RF71-18-W20 1	SCREW SET			
+	ROTOR (MT)			
B366-18-W35 A (B366-18-W35A)				-0601
	(AT)			0601-
24-590     24-590     N337-18-W80   1	TERMINAL SET			
				!
0601 NA35##-154	3752			
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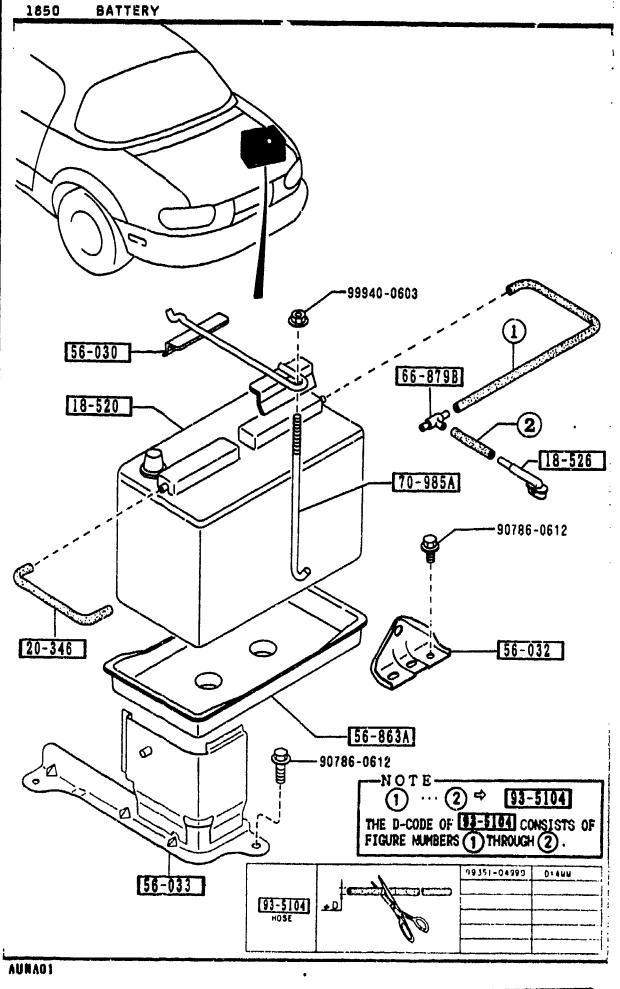


PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 18-400	STARTER			
++ B61R-18-400 (B61R-18-400A) 1				
				-9B2
B61R-18-400A	NON ASBESTOS			9821-
24-701	YOKE			
B61R-18-X65 1 ++   24-710	BRACKET, FRONT			
861R-18-X00 1				
24-712   E356-18-X30 1	STOPPER SET			
24-720	ARMATURE			
F210-18-X60	ASBESTOS			-9B2
B6S8-18-X60	NON ASBESTOS			9821-
1 24-722   B630-18-X45 1	CLUTCH, OVER RUNNING			
24-7222     24-7222     E356-18-X81 1	SLEEVE, BEARING-REAR			
1 24-725 +	REW SET			
+	WASHER SET			
+	LEVER			
<b>+</b>	BOLT SET			
+	BRACKET, REAR			
9821 NA35HH-12	9010			



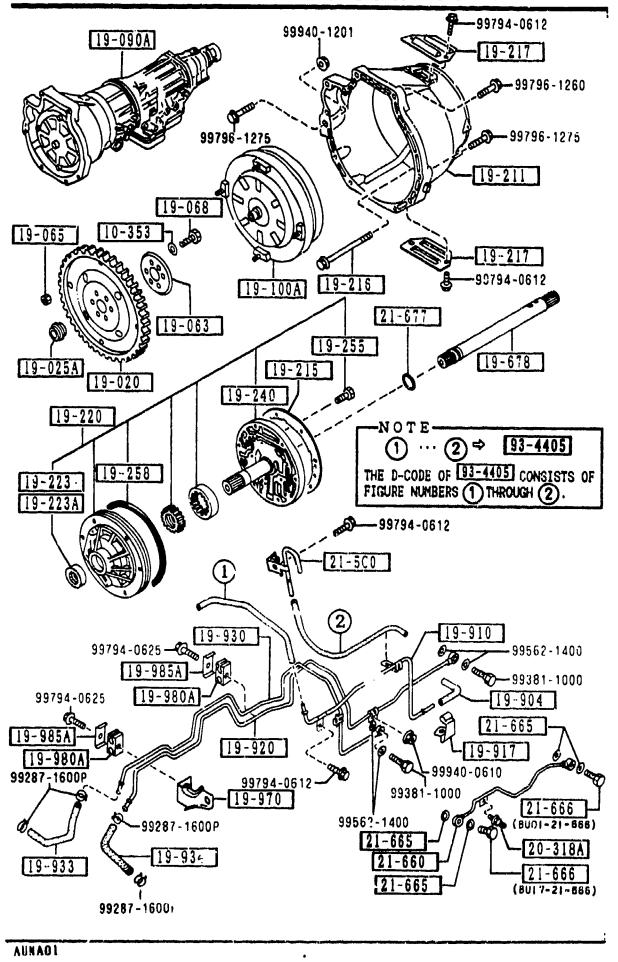
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PART NO.	QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
24-7432		SLEEVE, BEARING-FRONT			
F210-18-X01	1				Ì
24-750		HOLDER, BRUSH			
B61R-18-X70	1	1			
<b>+</b>	•				
24-752		SPRING, BRUSH			ļ
0222-24-752A	4				
24-753		BRUSH, YOKE			
B630-18-X66	2				
24-753A		BRUSH			
B660-18-X66	2				
+					
24-760	i	SWITCH			
E356-18-X10	1				
			ļ		
	ł				

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PART NO. OT	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MDDEL/RESTRICTION	FROM-TO
+				1
18-520	BATTERY			
B61R-18-520A An(B61R-18-520B) 1	S46A24L(S) PANASONIC			-0201
B61R-18-5208	S46A24L(S) PANASONIC			
1	•			0201-
18-526	CONNECTOR, TUBE-BATTE			
B61P-18-526 1				
1 20-346	TUBE, VACUUM			
FE4J-20-346 1	1			-9901
B61P-18-524 1	į s			9901-
+				
56-030	CLAMP, BATTERY			
NA01-56-03XA 1	,			
56-032	BRACKET, BATTERY CLAM			
NA01-56-032A 1	(W/STD.BATTERY)			
†   56-033	BRACKET, STOPPER-BATT			
<b></b>	ERY (W/STD.BATTERY)			
4======+	(W. SIU. BMIIEN;			
56-863A	TRAY, BATTERY			
B095-56-032 1				
1 66-8798	JOINT			
U813-66-879 1	1			
<b>+</b>				
70-985A	BOLT, CLAMP			
0259-54-292A 1				
93-5104	HOSE	 		
99351-04999 1		<u> </u>		
		]		
9901 NA35##-11 0201 NA35##-13	9257 7180			
				ļ
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PART NO. Q	TY HODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TG		
10-353	WASHER, PLAIN					
0290-10-353   19-020     8055-19-020	PLATE, DRIVE					
19-025A   FU60-19-025	ADAPTER, DRIVE PLATE					
19-063   FT31-19-063	PLATE BACKING					
19-065 FU51-19-065	NUT					
19-068   FT31-19-064	BOLT, LOCK					
19-090A   BUY2-19-090 W(BUY2-19-090A)	T/MISSION CPT.			-030:		
BUY2-19-090A	1			0301-		
19-100A   BU55-19-100	CONVERTER, TORQUE					
19-211 BU55-19-211	HOUSING, CONVERTER					
19-215   	GASKET, OIL PUMP ASBESTOS					
19-216   BU01-19-216	BOLT					
19-217 BU55-19-217	COVER, BLIND					
19-220   BU55-19-220	PUMP,OZL					
0301 NA35##-141901						
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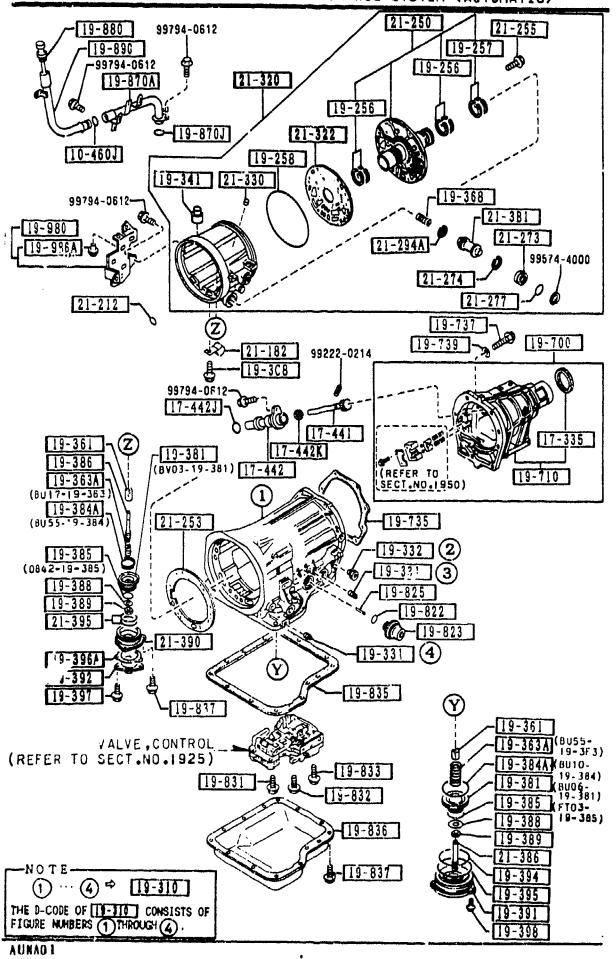
19-090A) 99940-120	
	19-217
	99796-1260
99796-1275	99796-1275
	19-211
19-068	
19-065 10-353	The state of the s
600	19-217 216 99794-0612
\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	21-677
19-063	
19-025A 19-020 19-215	19-678
19-240	
	NOTE (1) ··· (2) ⇒ 93-4405
19-223	THE D-CODE OF 33-4405 CONSISTS OF FIGURE NUMBERS (1) THROUGH (2).
19-223A	9-99794-0612
(ACOM)	
	-5CO
	)
99794-0625-6	99562 - 1400
99794-0625 19-980A 99794-0625	99381 - 1000
	19-904
19-985A 19-980A	19-917
99287-1600P 19-970	39381-1000
	9562-1400 (8001-21-666)
19-933	21-665 $20-318A$
	21-665 (BUI7-21-866)
99287 - 1600+	·
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PART NO.	QTY		MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-223		SEAL, OIL			
BU55-19-223	1				
++   19-223A		SEAL, OIL			
0338-19-223A	1				
+	•				
19-240		COVER, DIL PUMP			
:iU55−19~240	1				
19-255		BOLT			
0338-19-255	5				
1 19-258		SEAL, CUT RING			
0338-19-258	1				
+					
19-678		SHAFT, INPUT			
BU55-21-678	1				
19-904		HOSE, VACUUM			
0338-19-904A	1				
1 19-910		PIPE, VACUUM			
BU55-19-910A	1				
19-917		CLIP			
BU17-19-917	1				
++	•				
19-920		PIPE, CIL			
8U55-19-920B A (BU55-19-920C	) 1				-0221
BU55-19-920C	1				0221-
19-930		PIPE,OIL			
\$U55-19-930B	1				-0221
A (BU55-19-930C	)				
BU55-19-930C	1				0221-
19-933		HOSE, OIL			
BU55-19-933A	1				
1 19-934		HOSE,OIL			
+					
0221 NA35##	-14(	1695			
			والمراقع وال		

1710 TORQUE CONVERTER, OIL PUMP & PIPINGS	(AUTOMATIC)
19-090A 99940-1201	99794-0612
	99796-1260
99796-1275	99796-1275
19-068	19-211
19-065 10-353	19-217
19-100A 19-216	99794-0612
19-063	
19-025A 19-020 19-240 19-240	19-678
19-220 NOT	
19-258 THE D-C	② ⇒ 93-4405 ODE OF 93-4405 CONSTSTS OF
19-223A FIGURE	WUMBERS 1 THROUGH 2.
99794	-0612
1 21-500	
99794-0625	99562-1400
19-985A - P	99381 - 1000
99794-0625 <u>19-980A</u>	19-904 21-665
19-985A 19-980A	99340-0610
99287-1600P 99794-0612 993	81-1000
99287 - 1600P 99562 - 1400 21 - 665	(BUOI-21-886)
19-933 21-6	21-666
99267-1600+	
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-	<del>-,</del>	·	<del></del>	<del>,</del>	<del></del>
PART NO.	710	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BU55-19-934A	1				
1 19-970	,	BRACKET			
BU55-19-970A	1	ł			
19-980A		SUPPORT, DIL PIPE			
BU29-19-980	2				
+					
19-985A   	2	CLIP, OIL PIPE			
++					
20-318A		BOLT			
BU27-19-838	1				
21-5C0		BREATHER			
BU55-21-5C0A	1				
21-660		TUBE, GOVERNOR			
BU55-21-660	1				
21-665		WASHER, SEAL			
BU01-21-665	4				
21-666		BULT, CONNECTOR			
BU01-21-466	1				
BU17-21-666	1				
21-677		RTNG,'O'			
BU01-21-677	1				
1 93-4405		HOSE			
99344-05150	1	11995			
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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
110-460J		RING,'O'			
99541-01201	1	·			
+					
17-335		SEAL, OIL			
M507-17-335	1				
17-441		GEAR, DRIVEN			
BJ55-17-441	1				
++					
17-442		SLEEVE, SPEEDOMETER			
BU55-17-442	1				
1 17-442J		RING,'O'			
1011-17-443	1		· · · · · · · · · · · · · · · · · · ·		
++	•				
17-442K		SEAL, OIL			
99586-08166	1				
19-256		RING, SEAL			
BU01-19-256	4				
+	•				
19-257		ring, seal			
BU01-19-257	2				
1 19-258		SEAL, CUT RING			
0338-19-258	1				
+	_				
19-3C8		BOLT, BUFFLE PLATE			
BU55-19-3C8	1				
1 19-310		CASE, T/MISSION			
BU55-19-310A	1				
++					
19-331		PLUG, SQUARE HEAD			
BV11-19-3C4	2				
1 19-332		CONNECTOR, STRAIGHT			
BU01-19-332A	1				
++	-				
19-341		BOLT, ANCHOR END			
0338-19-341	1				

-NOTE-

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1 ... 4 = 19-310

THE D-CODE OF 19-310 CONSISTS OF

FIGUPE NUMBERS (1) THROUGH (4)

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-361		STRUT, BAND			
0338-19-361B	2				
19-363A	į	SPRING, PISTON RETURN			
BUS5-19-3F3	1				
BU17-19-363	1				
19-368		SPRING, CUSHION-PSTN.			1
BU20-19-368	1	SIEM			
19-381		PISTON, BAND SERVO			
BU06-19-381	1				
BV03-19-381	1				
19-384A		SEAL, PISTON			Tanana and Tanana and
BU10-19-384	1				
BU55-19-384	1				
19-385		SEAL, PISTON			
FT03-19-385	1	D=44MM			<u> </u> 
0842-19-385	1	D=36MM			: 
1 19-386		STEM, PISTON			
0338-19-386A	1	31L(1)7 231 GR			
19-388		WASHER, PLAIN			1 1 1 1 1
U338-19-388A	2	i			
i 19-389		NUT			<u> </u> 
0338-19-389	2				
19-391		RETAINER, SERVO			
BU06-19-391	1	TE THAITERS SELLY U			
1 19-392		COVER, SERVO		·· · · · ·	
1758-19-392A	1	JUTERY GET VU			•
19-394		SEAL, LATHE CUT			
0842-19-394	1	Same / Smills OUT			' ! &
Majarani da 1879, p. 19. april 19. april 19. april 19. april 19. april 19. april 19. april 19. april 19. april				ka dangan danun 1960 dangan penggangan-danun pagan pengganan 1969 dangan berapa 19	·

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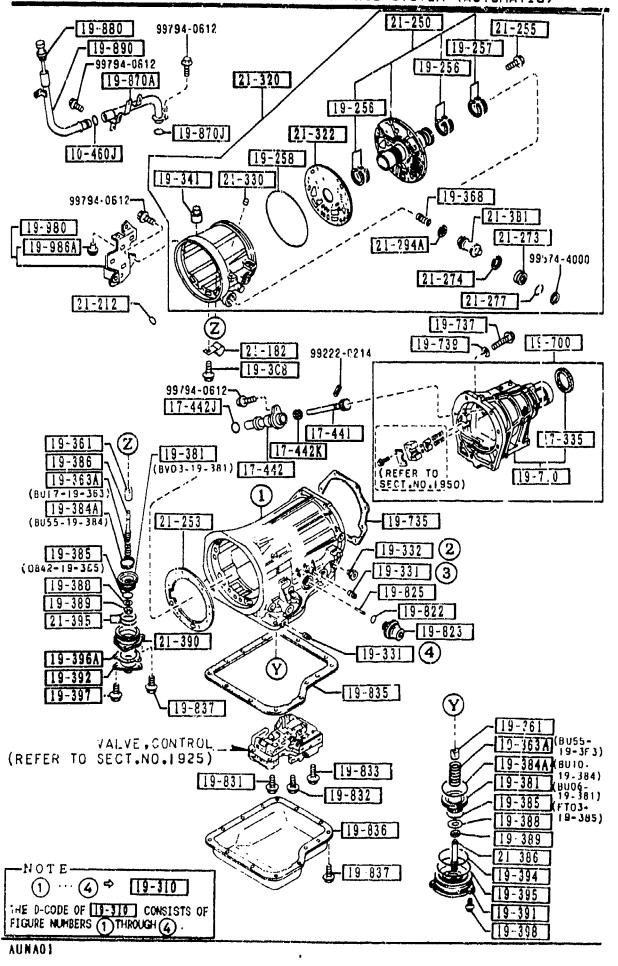
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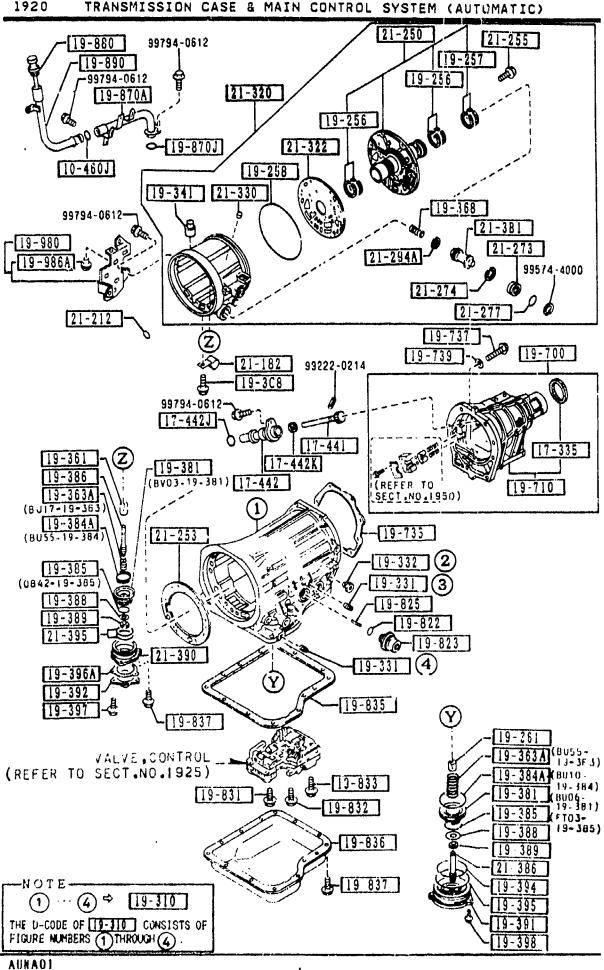
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FPOM-TO
19-395		RING,'O'			
0338-19-395	1				
1 20-20-4		CACUPT			
19-396A		GASKET			1
1758-19-394A	1	ASBESTOS			
19-397		BOLT			
1758-19-397	3	DOL 1			
+	•				į
19-398		BOLT			
0338-19-398	3				
1 12-700		HOUSING, EXTENSION			
BUY2-19-7A0	1	110002110727112102011			
+	-				
19-710		HOUSING, EXTENSION			
BU55-19-710	1				
1 19-735		GASKET, EXTENSION			<u> </u>
0338-19-735		ASBESTOS			
	1				i
19-737		BOLT			
U338-19-737	8				
+		MACHED DI ATAI			
19-739   ++ 0338-19-739	- 1	WASHER, PLAIN		•	
	8				
19-822		SEAL . · O'RING			
0338-19-822	2				1
1 19-823		DIAPHRAGM, VACUUM			
BU55-19-823	1	DZMI INCHONI VACCONI			
+					
19-825		ROD DIAPHRAGM			
BU55-19-825	1	L=29.75MM			
0338-19-825	İ	L=30MM			
	1				
0338-19-826	1	L=31MM			

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D 0338-19-827	<del>-1</del>	L=30.5MM	nobe. Neormed 120N	NODEL NEG TREGITATION	1
0338-19-828	1	L=29MM			
0338-19-829	1	L=29.5MM			
1 19-831 · 1 0338-19-831	2	BOLT, CONTROL VALVE			
19-832	2	BOLT, CONTROL VALVE			
19-833	3	BOLT, CONTROL VALVE	·		
19-835   0338-19-835B	1	GASKET, OIL PAN ASBESTOS			
19-836     0338-19-836A	1	PAN, OIL	•		
19-837	17	BOLT,OIL PAN			
19-870A   BU55-19-870	1	TUBE,FILLER			
19-870J 99541-01601	1	RING,'O'			
19-880     BU17-19-880B	1	GAUGE, OIL LEVEL			
19-890     BU55-19-890	1	TUBE,OIL FILTER-UPPE			
19-980   BU55-19-980A	1	BRACKET			
19-986A		BUSH, RUBBER	•		
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SECTION NAME INDEX (ENGINE)

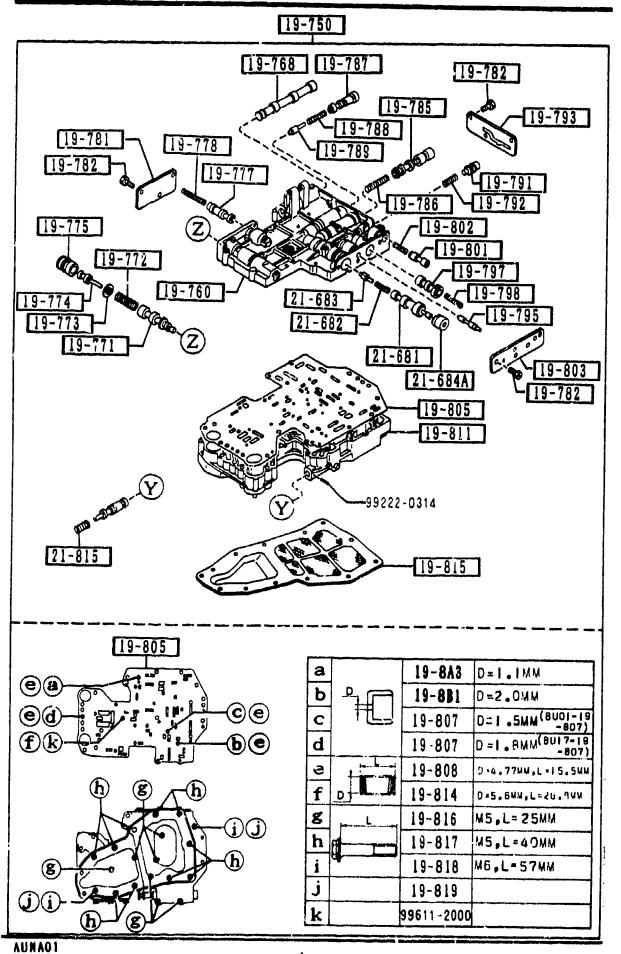
1-C03	SEC.NO	SECTION NAME	1 L D . NO	SEC.NO	L CEPTION NAME			
1	1000				SECTION NAME	LO.NO	SEC.NO	SECTION NAME
13mn2		SHORT ENGINE & GASKET SETS						
1-003		CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-103	1040	TIL PAN & TIMING COVER						
1-K03	1100	PISTON, CRANXSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-004	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-104	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-104	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAU ST SIDE)						
1-N04	1400	OIL PUMP & FILTER						
1-C05	1500	COOLING SYSTEM						
1-G05	1560	BRACKET, PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-006	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER						
1-G07	1850	BATTERY		ļ				
1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)	8					
1-108	1930	CLUTCHES & PLANETARY GEARS (AU.	<b>B</b> )					
1-009	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT IC)						
1-109	1960	GASKET & SEAL KYT (AUTOMATIC)						

THE STATE (AUTOMATIC)	_
19-880 99794-0612 19-890 19-257 19-256 19-256 19-256	
[9-256] [9-870J] [21-322]	
99794-0612	
19-986A 21-294A 21-294A 99574-4000 21-274 99574-4000	
21-212 Z 21-182 99222-0214 19-739 19-700	_ _
99794-0612 17-442J	
19-361 Z 19-386 17-442K 19-363A (BU17-19-363) 19-384A (BU55-19-584) 19-735 17-442 (REFER TO SECT.NO.1950)	
(0842-19-385) 19-388 19-389 21-395 -21-390 19-382 21-395	
19-396A 19-397 19-837 19-835 Y	
(REFER TO SECT.NC.1925)  19-831  19-832  19-363A (8055- 19-363A) 19-361 19-381 19-381 19-381 19-381 19-381 19-381 19-381 19-381	)
NOTE 19-388 19-395 19-381 19-395 19-395 19-395	<b>'</b>
THE D-CODE OF [19-395] FIGURE NUMBERS () THROUGH (2).  AUNAO1	<del></del>

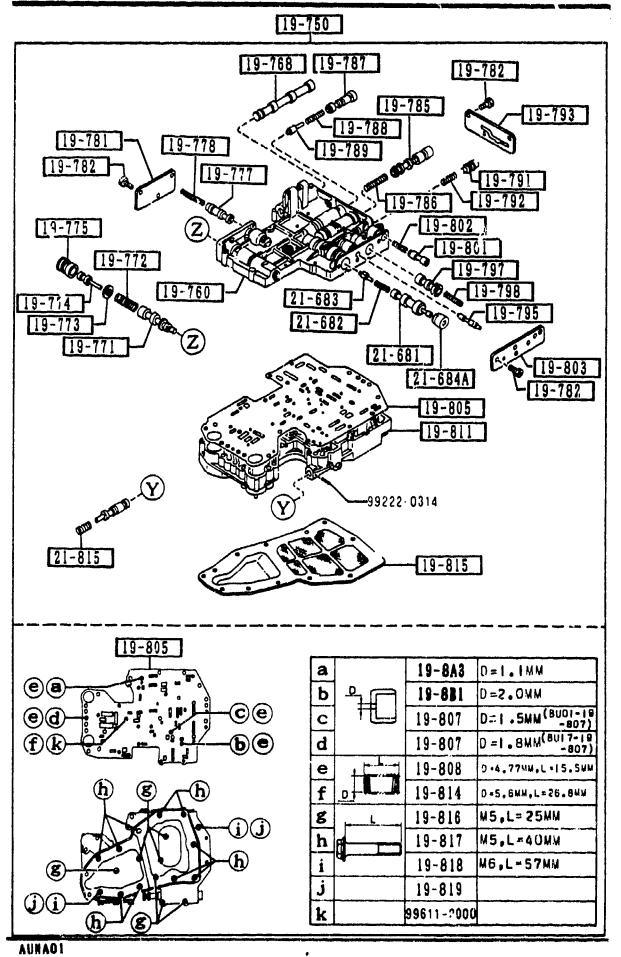
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-10
CONT'D BV01-19-986	1				
21-182		BRACKET			
BU55-21-182	1				
21-212		RING,'O'			
BU01-21-212	2				
21-250	,	SUPPORT, DRUM			
8U55-21-250	1				
21-253   BU01-21-253		GASKET, DRUM SUPPORT ASBESTOS			
<b>+</b>	1				
21-255   BU01-21-255	5	BOLT			} }
1 21-273		PLUG, ACCUMLATOR			
BU01-21-273	1	PEOD ACCOMENTUR			
21-274		SEAL,'O'RING			
BU01-21-274	1				
21-277		RING,'O'			
BU01-21-277	1				
21-294A   BU55-21-293	1	RING, SEAL			
1 21-381	•	PISTON, ACCUMLATOR			
BU55-21-381	1	7131014710001121101			
21-320		CASE, OVER DRIVE			
BU55-21-320	1				<u> </u>
21-322		GASKET, D/DRIVE CASE			
BU01-21-322	1				
1 21-330   8V01-21-330	1	VALVE, ONE WAY			

PART NO.	OTY HODEL/RESTRICTION	HODEL /PECTO/CTTON	MODEL (DECEMBER)	T 500H 70
+	MODEL/RESIRICITON	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
21-386	STEM, PISTON BAND			
b1/01-21-386	1			
21- 390	SERVO, OVER DRIVE			
BU20-21-390	1			
21-395	RING,'O'			
BU01-21-395	2			
		,		
-				

-D 8



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-750   BU55-19-750	1	VALVE, CONTROL			
19-760     BU55-19-760	1	BODY, CONTROL VALVE-U			
19-768     19-768     0338-19-768	1	VALVE, MANUAL			
19-771   	1	VALVE, REGULATER			
1 19-772	1	SPRING, REGULATER			
119-773	1	SEAT, REGULATER SPRIN G			
19-774     BU55-19-774	1	PLUG,REGULATER			
19-775 8055-19-775	1	SLEEVE, REGULATER PLU G			
19-777	1	VALVE, SECOND LOCK			
19-778	1	SPRING, SECOND LOCK			
19-781	1	PLATE, SIDE'D'			
19-782	9	SCREW			
19-785 BU55-19-785	1	VALVE,1-2 SHIFT			
19-786 BU55-19-786	1	SPRING,1-2 SHIFT			
					Ì



	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-787   BU55-19-787	1	VALVE,2-3 SHIFT			
19-788   FT21-19-788	1	SPRING,2-3 SHIFT			
19-789     T13-19-789	1	PLUG,2-3 SHIFT			
19-791     T27-19-791A	1	VALVE, MODIFIER			
19-792   FT37-19-792	1	SPRING, MODIFIER	1		
19-793   0338-19-793A	1	PLATE, SIDE'A'			
19-795 0338-19-795B	1	VALVE, THROTTLE			
19-797	1	VALVE, THROTTLE BACK- UP			
19-798		SPRING, THROTTLE BACK			
19-8A3     BV01-19-8A3	-	VALVE, ORIFICE CHECK			
19-8B1     W01-19-8B1		VALVE, ORIFICE CHECK			
19-801	1	VALVE, DOWN SHIFT			
19-802	1	SPRING, DOWN SHIFT			
1 19-803   BU01-19-803A		PLATE, SIDE'8'			

19-750						
19-781 19-778 19-775 2 19-774 19-770 19-770 21	19-787 19-788 19-788 19-788 19-786 19-791 19-802 19-801 19-797 19-797 19-798 19-795 19-803 19-805 19-811					
21-815	19-815					
e a c c e c e c e c e c e c e c e c e c	19-8A3   D=1.14M   19-8B1   D=2.0MM   19-807   D=1.5MM(8U01-19 -807)   19-807   D=1.8MM(8U17-19 -807)   19-808   D:4.77MM,L:15.5MM   19-814   D:5.6WM,L=26.8MM   19-816   M5.L=25MM   19-817   M5,L=40MM   19-818   M6,L=57MM   19-819   19-819   99611-2000					

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-805		PLATE, SEPARATOR			
BU55-19-805	1			}	
19-807		VALVE, ORIFICE CHECK			ļ
BU01-19-807	1				
BU17~19-807	1				
1 19-808		SPRING			
0338-19-808	4	į į			
1 19-811		BODY, VALVE LWR			
BU10-19-811	1	DODIJANEVE ENK			
+======+		CARTANA			
19-814   0338-19-814	1	SPRIING			
+					
19-815   		STRAINER, OIL			
++	1				
19-816	1	SCREW			
0338-19-816	7				
19-817	- 1	SCREW			
0338-19-817	10				
19-818		BOLT			
0338-19-818	2				
19-819		NUT			
0338-19-819	2				
21-681		VALVE, SHIFT 3-4			
BU35-21-681A	1				
21-682		SPRING,3-4 SHIFT			
BU35-21-682	1				
1 21-683		PLUG,3-4 SHIFT			
BU03-21-683A	1	Joseph V Mital I			
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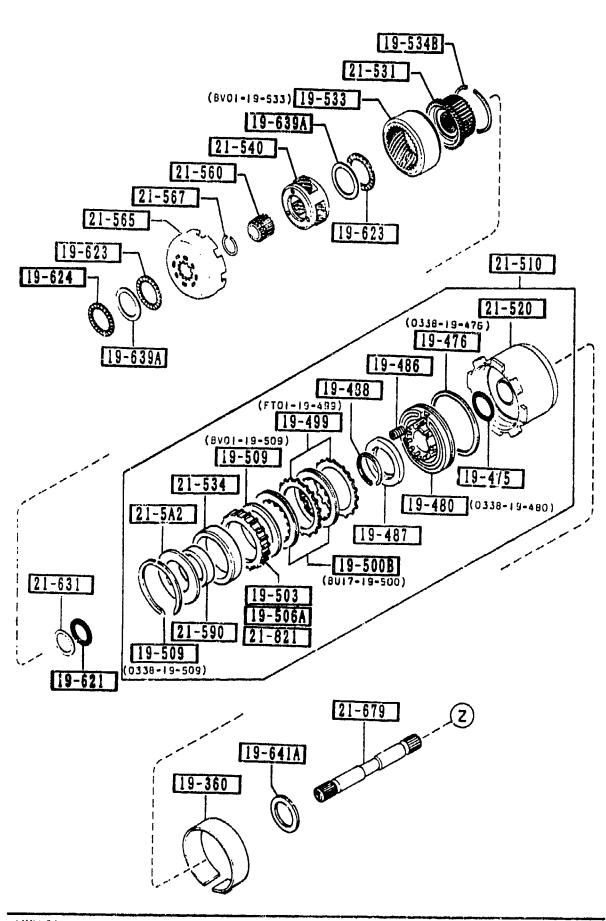
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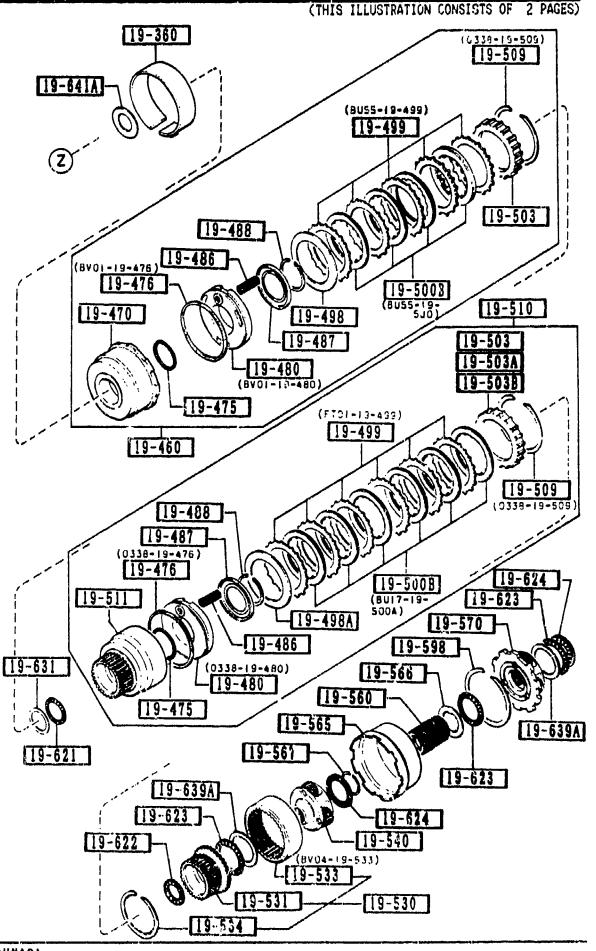
19-	750
19-781 19-782 19-775 2 19-777 19-772 19-773 19-771 2 2 19-771 2 2	19-787 19-785 19-788 19-788 19-789 19-786 19-791 19-791 19-792 19-801 19-795 19-803 19-805 19-803 19-811
21-815  (a) (a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	19-815   19-8A3   D=1.1MM   19-881   D=2.0MM   19-881   D=2.0MM   19-807   D=1.5MM   BUOI-19   -807   19-808   D-4.77MM.L=15.5MM   19-814   D=5.6MM,L=26.6MM   19-816   M5,L=25MM   19-818   M6,L=57MM   19-819   M6,L=57MM   M6,L=57

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PART NO.	OTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
21-684A		SLEEVE, 3-4 SHIFT			
BU35-21-684	1	į į			
+	:				
21-815	:	SPRING, 3-2 TIMING			
BU17-21-815	1				
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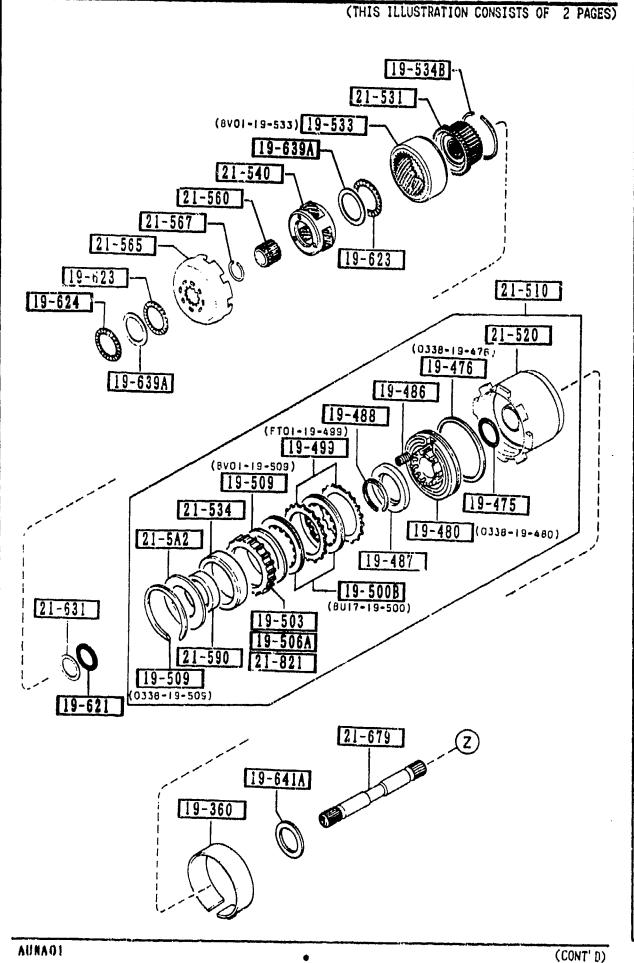




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PART NO.	QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-360   0338-19-369B	2	BAND, BRAKE			
17-460     19-460     BU55-19-460	1	CLUTCH, FRONT			
19-470 BU55-19-470	1	DRUM, CLUTCH			
19-475	3	SEAL, 'O'RING			
19-476 BV01-19-476	1	SEAL, LATHE CUT			
0338-19-476 19-480 BV01-19-480	2	PISTON, CLUTCH			
0338-19-480   19-486   0338-19-486	28	SPRING, PISTON RETURN			
19-467	3	RETAINER, SPRING			
19-488	3	RING, SNAP			
19-498	1	PLATE, DISHED			
1 19-498A   BU17-19-498	1	PLATE, DISHEO			
19-499   BU55-19-499	5	PLATE, DRIVEN			
FT01-19-499	8	PLATE, DRIVEN			
		<u></u>		·	

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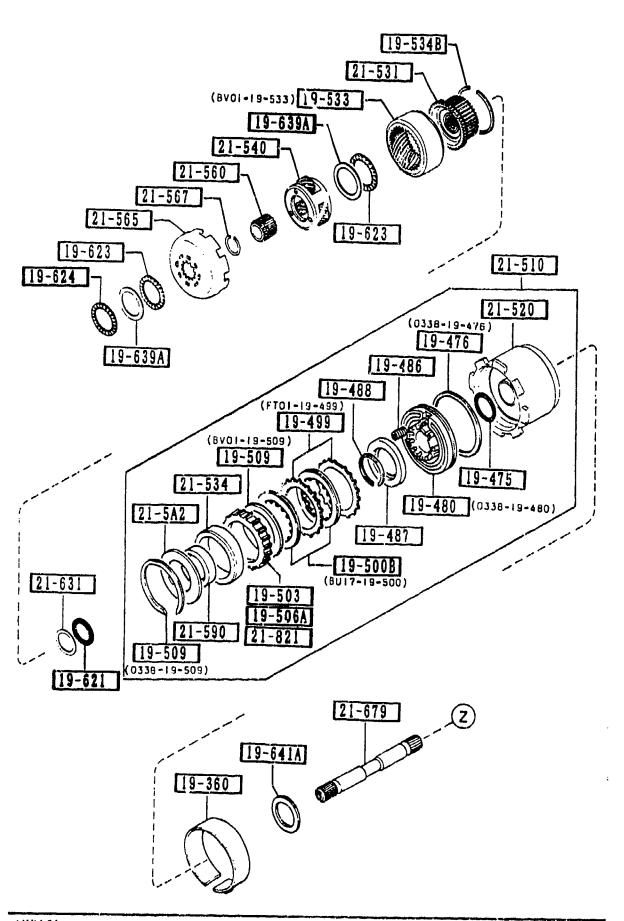
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	-360		(0338-19-509) 19-509
19-641A			
9		(8U55-19-499) 19-499	1
2	-1/		
	/		19.503
	19-488		
(8V01-19-47	6/	19-498   19-500  (8U55-19-500)	
19-470		19-498 19-487	19-510
	19-48 (8V01-19	10	19-503A 19-503B
	19-475	(FT01-12-493)	
	1-460	19-499	
	10.400		19-509
	19-488		-17
19	3-19-476 -476	19-500B	19-624 7
19-51	TONY .	(BUI7-19-	9-570
19-631	(0.338-19-480)	6 [19-598 [19-566]	1
N. Je	19-480	19-760	
	[19-56]	9-565	19-639A
19-621	[19-639A]-	- / [ii ] (I ]	19-623
	9-623	-[19-624]	
19-622		(BV04-19-531) 19-533	
	19-531	19-530	
AUNAUI	))—[19-534]		
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PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BU55-19-5J0	4				
BU17-19-500	8				
19-503		PLATE, RETAINING			
3959-19-503	1	T=5MM			
3959-19-504	1	T=5.2MM			
3959-19-505	1	T=5.4MM			
3959-19-506	2	T=5.6MM			
3959-19-507	2	T=5.8MM			
3959-19-508	2	T=6MM			
3959-19-509	3	T=6.2MM			
19-503A		PLATE, RETAINING			
1758-17-503	1	T=7.2MM			
1758-19-504	1	T=7.4MM			
1758-19-505	1	T=7.6MM			
19-503B		PLATE, RETAINING			
BV02-19-505	1	T=6.4M4			
BV02-19-506	1	Υ=6.6MM			
BV02-19-50?	1	T=6.8MM			
BV02-19-508	1	T=7MM			
19-506A		PLATE, RETAINING			
BU05-21-528	1	T=7MM			
119-509	- 1	RING. SNAP			
8V01-19-509 0338-19-509	3				

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-510 BV01-19-510		CLUTCH, REAR			
19-511     1758-19-511	_	DRUM, REAR CLUTCH			
19-530 8V04-19-530	1	HUB, REAR CLUTCH			
19-531   BV04-19-531	1	HUB, REAR CLUTCH			
19-533 BV01-19-533	1	GEAR, INTERNAL			
3V04-19-533   19-534     0338-19-534	1	RING, SNAP			٠.
19-534B     19-534B     BU03-19-534	1	RING, SNAP			
19-540   BV01-19-540A	1	CARRIER, FRONT			,
19-560 BV04-19-560	1	GEAR, SUN			
19-565 BV04-19-565	1	SHELL, CONNECTING			
19-566 BV04-19-566	1	RACE, SHELL BEARING			
19-567 BU02-19-567	1	RING, SNAP			
19-570   BV01-19-570A	1	CARRIER, REAR			

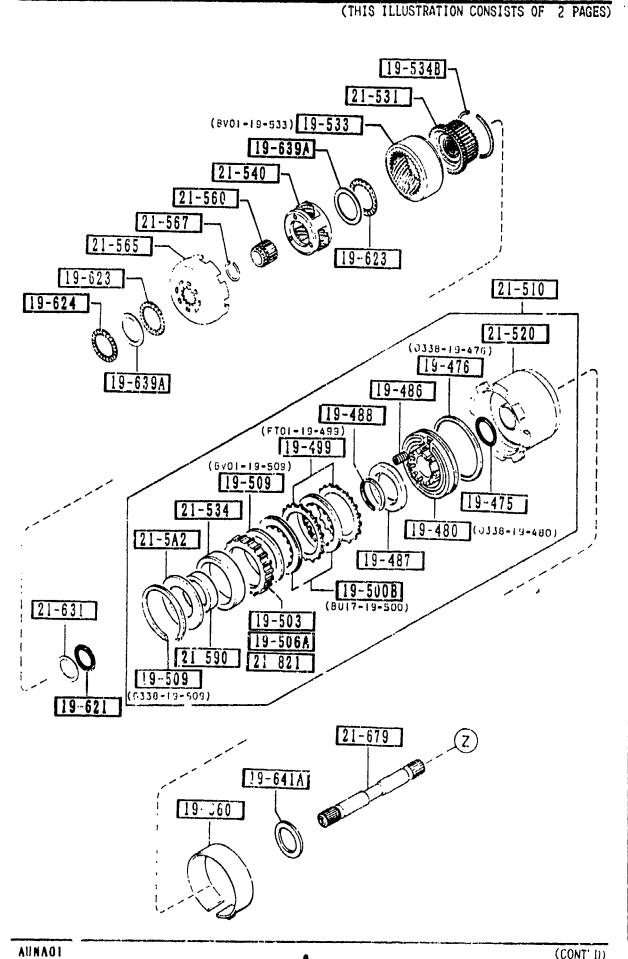
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	(THIS ILLUSTRATION CONSISTS OF 2 PAGES)
19-360	
[13 000]	(0338-19-509)
	19-509
19-641A	
	(BU55-19-499)
	19-499
(Z) ,	
19-488	19-503
(8v01-19-476) 19-486	
19-476	19-500B
19-470	19-498 (81/55-19- 5JO) 19-510
0	19-487
	9-480 19-503A
	19-503B
<u> 19-475</u>	(5731-13-499)
	19-499
19-460	
	19-509
19-488	(0338-19-509)
19-487	
(0338-19-476)	
19-476	19-500B 19-624 7
19-511	19-500B (BU17-19- 19-623)
	SUUA)
	<del>-486</del> <del>19-598</del>
19-631 (2336-19-	19-566
	19-560
19-475	TO SEE
	19-0930
$\boxed{19-621}$	-567
[10 0001]	19-623
19-639A	
19-623 -	19-624
19-622	19-540
	(BV04-15-533)
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[19-	19-530
19-534	
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PART NO. OT	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-598	RING, SNAP	,		
0338-19-598				
+				
19-621	BEARING, NEEDLE			ļ
0338-19-621 2				
19-622	BEARING, NEEDLE			
FT01-19-622	1			
101-17-022				
19-623	BEARING, NEEDLE			
0338-19-623	<b>5</b>			-0401
A (0338-19-623A)				
0338-19-623A 5				0401-
19-624	BEARING, NEEDLE			
0339-19-624 3	3			
+				
19-631	RACE, BRG. PUMP COVER			
0338-19-631	T=1.2MM			
0338-19-632	T=1.4MM			
1	1			
0338-19-633	T=1.6MM			
0338-19-634	T=1.8MM			
1				
0338-19-635	T=2MM			
0338-19-636	T=2.2MM			!
1				•
1 10-4704	RACE, BEARING			
19-6394   ++   0338-19-639   4			•	!
0338-19-639 4				
19-641A	WASHER			
0338-19-641	T=1.9MM			1
2		,		
0338-19-642	T=2.1MM			
0338-19-643	V=2.3MH			!
2	1			·
0338-19-644	T=2.5MM			
0401 NA35##-14	6561			
L	·			

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=2.7MM =1.5MM =1.7MM =1.3MM =1.3MM =1.3MM =0.6MM =0.8MM =1.2MM =1.2MM =0.4MM =0.4MM			
=1.7MM  =1.3MM  ECCE,SIDE-ONE WAY CLITCH =0.6MM  =0.8MM  =1.2MM  =1.2MM  =0.4MM			
=1.3MM  ECE,SIDE-ONE WAY CLITCH =0.6MM  =0.8MM  =1.2MM  =0.4MM  EUTCH,DIRECT			
ECE,SIDE-ONE WAY CL TCH =0.6MM =0.8MM =1MM =1.2MM =0.4MM			
TCH =0.6MM =0.8MM =1MM =1.2MM =0.4MM =0.4MM			
=1MM =1.2MM =0.4MM :LUTCH,DIRECT			
=1.2MM =0.4MM SLUTCH,DIRECT			
=0.4MM ELUTCH,DIRECT			
LUTCH, DIRECT			
RUM, DIRECT			1
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UB,O∕DRIVE CLUTCH			
ACE DUTER-ONE WAY CUTCH			
ARRIER, OVER URIVE			
EAR, OVER DRIVE			
ONNECTING, SHELL			
ING, SNAP	•		
	ARRIER, DVER URIVE EAR, OVER DRIVE DNNECTING, SHELL	ARRIER, DVER URIVE EAR, OVER DRIVE DNNECTING, SHELL	ARRIER, OVER URIVE EAR, OVER DRIVE DNNECTING, SHELL

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#### SECTION NAME INDEX (ENGINE)

LO NO	SEC NO	CECTION NAME	10 40	SEC.NO	SECTION NAME	I D NO	SEC.NO	SECTION NAME
LO.NO	SEC.NO		LO.NO	350.40	SECTION NAME		350.70	SECTION NAME
1-C03		SHORT ENGINE & GASKET SETS				1		
1-003		CYLINDER HEAD & COVER					[ 	
1-G03	1030	CYLINDER BLOCK				1		
1-103	1040	OIL PAN & TIMING COVER	,			İ		
1-K03	1100	PISTON, CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-004		INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	325	FUEL DISTRIBUTOR						
1-104	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-104	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAU ST SIDE)						
1-N04	1400	OIL PUMP & FILTER	!			ł		
1-C05	1500	COOLING SYSTEM						
1-G05	1580	BRACKET, PULLEY & BELT						
1-C06	1600	CLUTCH DISC & COVER (MANUAL)						
1-006	1700	TRANSMISSION CASE (MANUAL)	!			ł		
1-E06	3710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)				ļ		
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR						
1-E07	1840	STARTER	!					
1-G07	1850	BATTERY	i					
1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)	:					
1-K07	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-108	1930	CLUTCHES & PLANETARY GEARS (AU						
1-009	1940	GOVERNOR, LOW & REVERSE PISTON						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT	<b>E</b>					
1-109	1960	GASKET & SEAL KIT (AUTOMATIC)						

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONY'D BU03-21-567	1				
21-590		CLUTCH, ONE WAY			
BV01-21-533	1				
21-631		RACE, BRG. HUB CLUTCH			
BU01-21-631	1	L=1.2MM			
BU01-21-632	1				
8901-21-633	1	L=1.6794			
BU01-21-634	1	L=1.8MM			
EU01-21-635	1	L=2MM			
BU01-21-636	2	L=2.2MM			
21-679     BU01-21-679	1	SHAFT, INTERMEDIATE			
21-821     21-821     BV01-21-821A	1	PLATE, RETAINING			
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					<b>!</b>

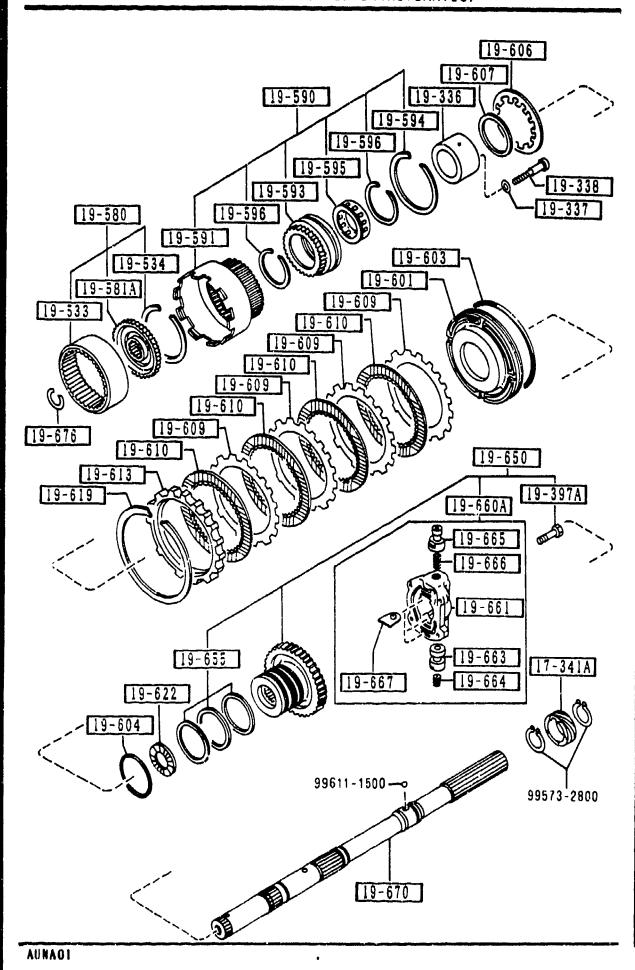
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19-613 19-660A 19-665 19-661
19-655 19-667 19-664 19-664 19-664 19-664 99573-2800
AUNA01

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-341A		GEAR, SPEEDO. DRIVE			
1281-17-341	1				
1 19-336		RACE, INNER			
0338-19-336	1	i			
19-337		WASHER, PLAIN			
0338-19-337	8				
1 19-338		BOLT			
0338-19-338	8				
++   19-397A		BOLT			
0338-19-397	4				
19-533		GEAR, INTERNAL			
BV04-19-533	1	OCAR, INTERIME			
10_E74		DING CNAD			
19-534   0338-19-534	1	RING, SNAP			
+					
19-580   	1	FLANGE			
+					
19-581A   ++ BV04-19-581	1	HUB, DRIVE			
++					
19-590		DRUM, CONNECTING			
0338-19-590	1			:	
! 19-591	- 1	DRUM, CONNECTING			
0338-19-591	1				
19-593	- 1	RACE, OUTER			
0338-19-593	1				
19-594		RING, SNAP			
0338-19-594	1				
19-595		CLUTCH, ONE WAY			
0338-19-595	1				

19-606	
19-590 19-336 19-594 19-595	>
19-593 19-596 19-337	]
19-591 19-581A 19-603 10-600	
$ \begin{array}{c c} \hline 19-533 \\ \hline 19-609 \\ \hline 19-610 \\ \hline 19-610 \\ \hline \end{array} $	>
19-676 19-610 19-613	
19-619 19-660A 19-665 19-666	,
19-655 19-663 17-341A	
19-622 19-667 19-664 19-664 19-664	
99611-1500 99573-2800	
19-670	r
AUNAOI .	-

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-596		RING, SNAP			
0338-19-596	2				
19-601		PISTON, LOW & REVERSE			
BT08-19-600	1				
19-603		SEAL, PISTON			
0338-19-603	1				
19-604		SEAL,'O'RING			
0338-19-604	1				
19-606		SPRING, PISTON			
0338-19-606	1				
19-607 0338-19-607	1	RING, SNAP			
+					
19-609   0338-19-609	4	PLATE, DRIVEN			
19-610		PLATE, DRIVEN			
BU17-19-610	4				
1 19-613		PLATE, RETAINING			
1758-19-613	1	T=7.8MM			
1758-19-614	1	T=8MM			
1758-19-615	1	T=8.2MM			
1758-19-616	1	T=8.4MM			
1758-19-617	ł	T=8.6MM			
1758-19-618	ı	T=8.8MM			
1 19-619		RING, SNAP			
0338-19-619	1	TI STUDY CONTROL			
19-622		BEARING, NEEDLE			
······································				and the second s	<u> </u>

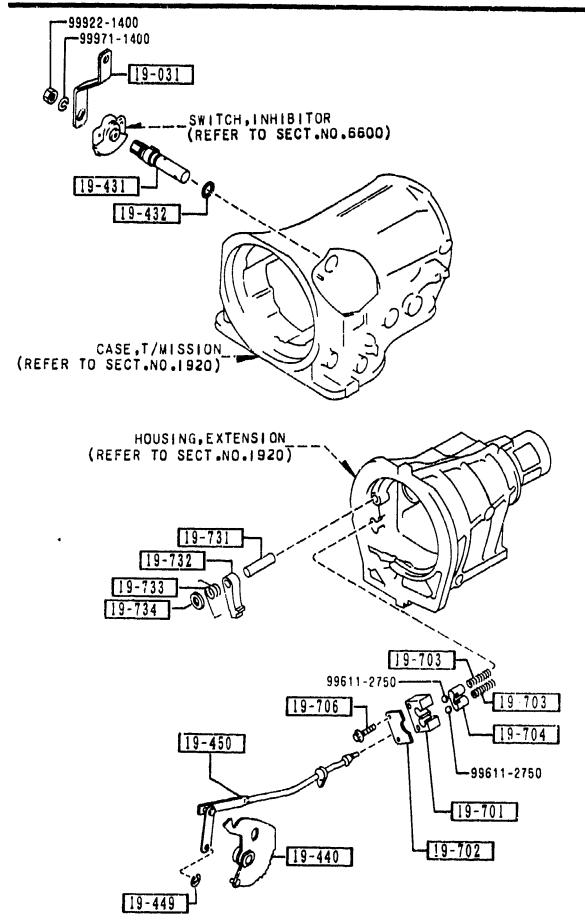


PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D FT01-19-622		HODEL RESTRESS	TOBEL RESTRICTION	HODEFRESTRICTION	TROIT TO
+	1				
19-650		DISTRIBUTOR, OIL			
BU55-19-650	ĭ				
19-655		RING, SEAL			
0338-19-655	3				
19-660A		VALVE, GOVERNOR			
BU55-19-660	1				
1 19-661		BODY			
BU55-19-661	1				
1 19-663		VALVE			
0338-19-663	1				
1 19-664		SPRING			
0338-19-664	1				
19-665		VALVE			
BU55-19-665	1				
19-666		SPRING, GOVERNOR			
BU55-19-666	1				
19-667	Ì	PLATE, RETAINER			
0338-19-667	3				
19-670		SHAFT			
BU55-19-670	1				
1 19-676		RING			
0338-19-676	1				
······					
·					
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-	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-031   BU55-19-031	1	LEVER, SELECT			
19-431   BU67-19-431	1	SHAFT, MANUAL			
19-432	1	RING,'O'			
19-440     BU55-19-440		PLATE, MANUAL			
19-449		RING, SNAP			
0338-19-449	1	ROD, PARKING			
BU17-19-450	1	SUPPORTER, ACTUATOR			
0338-19-701A	1	PLATE, RETAINING			
0338-19-702A	1				
19-703   0338-19-703	2	SPRING, BALL PARK			
19-704   0338-19-704	1	RETAINER			
19-706 0338-19-706	1	BOLT			
19-731     19-731     0338-19-731	1	SHAFT, PARKING PAWL			
19-732     19-732     BU17-19-732	1	PAWL, PARKING			
19-733		SPRING, PAWL RETURN			

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PART NO. Q	YTC	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-734	s	PACER, DOWEL			
0338-19-734A	1				
	ļ				
					:
					į
CAT. AUNA01-07					1992-02

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22-	900
I-SEAL, DIL	15-GASKET, EXTENSION
3 27 3 (2) (3)	10 9 12 13 13 16 16 16 17 23 24 22 28

PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
22-900   BU01-99-190A	1	GASKET & SEAL KIT ASBESTOS			
		t			
	:				

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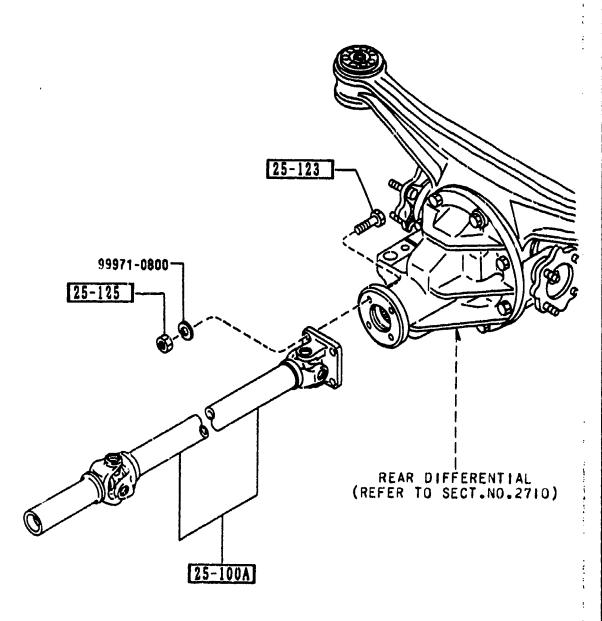
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SECTION NAME INDEX (CHASSIS)

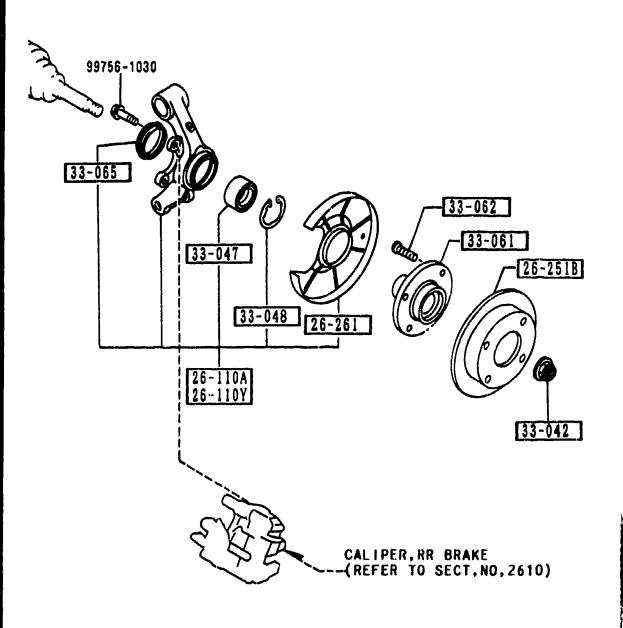
LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			
1-011	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	5600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM			
1-F11	2610	REAR DRAKE MECHANISMS			(TA)			
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)	B	<b>A3</b>				
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)	<b>W</b>					
1-012	5800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER APMS & SUB FRAME						
1-112	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS					İ	
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE					,	
1-113	3310	FRONT BRAKE MECHANISMS					1	
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-014	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-015	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI SSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-115	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-016	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						



Dane He	6.00	HODEL (DECEMBER)	MARCI (ACCEPTATION	HODEL INCOLUNICATION	500% 50
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
25-100A		SHAFT, PROPELLER			
M091-25-100	1				
25-123		BOLT			
N010-25-123	4	<b>f</b> .			
	4				
25-125		NUT			
1456-25-125	4				
		1			
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
22-5108     22-5108     M090-22-510	2	JOINT SET.OUTER	<u>;</u>		
22-5208     22-5208     M090-22-520	2	JOINT SET(R), INNER	· ·		
22-530     22-530     M090-22-530	2	BOOT SET, OUTER JOINT			
22-540     090-22-540	2	BOOT SET, INNER JOINT	: :		
22-550A     22-550A     40-22-550	1	CLIP SET, DRIVE SHAFT	:		
25-124     25-124     1368-25-124		NUT			
25-500     25-500     4-25-500	- 1	SHAFT, DRIVE			



PART NO. OT	Y MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
+======+	HODEFRESTRICTION	HODELY KESTKICTION	HUDEL/RESIRICITUM	PRUMPIU
26-110A	KNUCKLE (R), REAR	!		
NA01-26-130 1 A (NA01-26-130A)				-9901
NA01-26-130A				9901-
<b>+</b>				
26-110Y	KNUCKLE(L), REAR			
NA01-26-140 A (NA01-26-140A)				-9901
NA01-26-140A 1	,			9901-
++   26-251B	PLATE, DISC			
* NA01-26-251A 2	i			
+		,		
26-261	COVER, DUST			
NA01-26-261 2 A (NA01-26-261A)				-9901
NA01-26-261A 2				9901-
1 33-042	TUN			
NA01-33-042A	W/WASHER			
2				
33-047	BEARING, WHEEL			
B455-33-047A 2				
1 33-048	RING, RETAINING-DISC			
H260-33-048 2	PLATE			
+======+				
33-061	HUB, WHEEL			
8455-33-061 2				
33-062	BOLT, HUB			
B455-33-062 8				
+   33-065	SEAL, OIL-AXLE			
G304-33-065 2				
9901 NA35##-11	9257			
				İ

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 26-28X   NA10-26-28X	1	SUPPORT(R),MOUNTING			
26-29X		SUPPORT(L),MOUNTING			
NA10-26-29X	1	PAD SET,RR CALIPER			
NAY1-26-43Z	1	ASBESTOS			
26-668   	1	SPRING(R), LEVER			
26-668Z   BWOH-26-669	1	SPRING(L), LEVER			
26-680 BW0H-26-680	2	BOLT			
26-683A     BW0H-26-683	2	PROTECTOR			
26-700     8W0H-26-700	2	PLUG, SCREW			
26-731   BWOH-26-731	2	SPINDLE, ADJUSTER			
26-733     26-733     BWOH-26-733	2	GEAR, ADJUST			
1 26-800   BWOH-26-800	1	LEVER(R), OPERATING			
1 26-800Z   BW0H-26-810	1	LEVER(L), OPERATING			
26-812A		ROD, PUSH-FRT CALIPER			
BWOH-26-812   26-816	2	RING, SNAP-RR CALIFER			

33-693A 6	26-980 26-980Z
33-691A	26-432
26-700 -26-733 -26-680	
26-683A 26-851 26-851Z	26-29X 26-812A 26-731 26-816
19-250A N O T E 1	
THE D-CODE OF 49-240A CONSIST FIGURE NUMBERS (1) THROUGH (3).	THOUGH ILLUSTRATIONS OF D-CODE 49-2404, 49-2504, AND 25-43Z ARE TO THE SIDE ONLY QUANTITIES OF THESE D-CODES IN THE TOT

		<b>,</b>			
PART NO.	QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D BWOH-26-816	2				
26-851		BRACKET(R),CABLE			
BW0H-26-851	1				
26-8512		BRACKET(L), CABLE			
BW0H-26-861 ++	1				
26-980   NA01-26-980A	1	CALIPER(R), RR BRAKE			
<b>+</b>	•				
26-980Z   NA01-26-990A	1	CALIPER(L),RR BRAKE			
++		BTN GUTDE			
1 26-998   BW3H-26-998A	2	PIN, GUIDE			
33-691A		SCREW, BLEEDER			
BW0H-26-691	2				
33-693A		CAP, BLEEDER SCREW			
0259-33-693	2				
49-240A		SEAL KIT, CALIPER-RR			
NAY1-26-44Z	1				
49-250A	1	BOOT KIT, RR CALIPER			
BWYH-26-45Z	1				
	İ				

PART NO. ÇT	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-122   0810-17-121	PLUG, MAGNET			
25-421   F001-25-421A 2	CLIP			
26-060 U730-26-060 I	BREATHER			
27-012   3919-27-012	WASHER			
27-018     27-018     T020-27-165   1	SEAL, OIL			
27-020     27-020     T002-27-120A     N(T002-27-120B)	FLANGE, COMPANION			-972
T000-27-120B 1	NUT, LOCK			9721-
3919-27-130 1	DRIVING & DIFF.			
T020-27-1C0H 1 W(T020-27-100J) T020-27-100J 1 (T020-27-100K)				-972 9721-980
T020-27-100K)				9801-
1 27-110   T020-27-110B	GEAR SET, FINAL R=4.300			
27-141   0755-27-210 1	BEARING, PINION			
27-141A     27-121A     3919-27-220 1	BEARING, PINION			
27-150B     27-150C 1	CARRIER, DIFFERTIAL-F			~980
9721 NA35##-11 9801 NA35##-11	4922 6316	Philippi Paulity Philippi minima mangapa yaka asayuntul	- to and definition in the engine of the entire and the advice of the advice of the advice of the engine of the	<u> </u>
AT. AUNA01-07				1992-02

28-890A

27-270A

-99511-1800

**4**-99564-1800

26-060

17-122

(GOAO-27-604A)-

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D	<del></del>				
A (T020-27-150D T020-27-150D	, 1				0001-
+	•				9801-
27-158		SPACE			
T020-27-158A	1				
27-159		PIN, TUBULAR			
T020-27-159A	1				
1 27-171	:	PIECE, DISTANCE			
T020-27-171	1				
1 27-230		CASE	·		
T005-27-231	1				
++   27_2/E		BOLT DING OFF			
27-235   		BOLT,RING GEAR D=10.2MM			
	8	- /-			
3919-27-236	8	D=10MM			
1 27-238		SEAL, OIL			
T020-27-238	2	0245 ) 032			
27-251		CEAR DIES CIDS			
F035-27-251	2	GEAR, DIFF. SIDE			
+					
27-252    +   F001-27-252		WASHER T=2MM			
F001-27-252	2				
F001-27-253	2	T=2.1MM			
F001-27-254	2	T=2.2FM			
<b>+</b>	-				
27-255	1	PINION, DIFFERENTIAL			
T020-27-255	2				
27-261		SHAFT, DIFF. PINION			
F001-27-261A	1				
27-202		NIP			
9801 NA35KH	-116	5316	<u></u>	<u> </u>	<del></del>
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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D 0114-27-262	1				
27-270A   T005-27-270B	2	SHAFT, OUT PUT			
27-301A     0180-27-301A	2	SCREW, ADJUST			
27-302   0290-27-302	2	PLATE, LOCK			
27-305     27-350     0249-27-350	2	BEARING			
27-401     0259-27-401		SPACER T=3.08MM			
0259-27-402	1	T=3.11MM			
0259-27-403	1	T=3.14MM			
0259-27-404	1	Υ≈3.17MM			
0259-27-405	1	T=3.2MM			
0259-27-406	1	T=3.23MM			
0259-27-407	1	T=3.26MM			
0259-27-408	1	T=3.29MM			
0259-27-409	1	T=3,32MM			
0259-27-412	1	T=3.35MM			
0259-27-413	1	T=3.41MM			
0259-27-414	1	T=3.44MM			
0259-27-415	1	T=3.47MM			
T020-27-401A	- 1	L=50.850			

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CNURMA	L DIFF.)			
PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D				-0401
T020-27-402A	L=50.875			-0401
T020-27-403A	L=50.900			-0401
T020-27-404A	L=50.925			-0401
T020-27-405A	L=50.950			-0401
T020-27-406A	L=50.975			-0401
T020-27-407A	L=51.000			-0401
T020-27-408A	L=51.025			-0401
T020-27-409A	L=51.050			-0401
27-431     T001-27-431	SPACER			
T020-27-600D 1	CASING, DIFFERNTIAL			-9609
T020-27-600E 1 A (T020-27-600F)				9609-9926
T020-27~600F 1				9926-
27-604     G0A0-27-604A 2	BOLT, CARRITA			
27-609     MOA1-27-609A 1	PLATE, BAFFLE-DIFF CA SING			
28-890A   NA01-28-890 2	RUBBER, SUB FRAME MTG			
9609 NA35HH-108 9926 NA35HH-128 0401 NA35HH-148	2890			
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(GOAD-27-604A)-

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2710 A-1 REAR DIFFERENTIALS (LIMITED SLIP DIFF.)

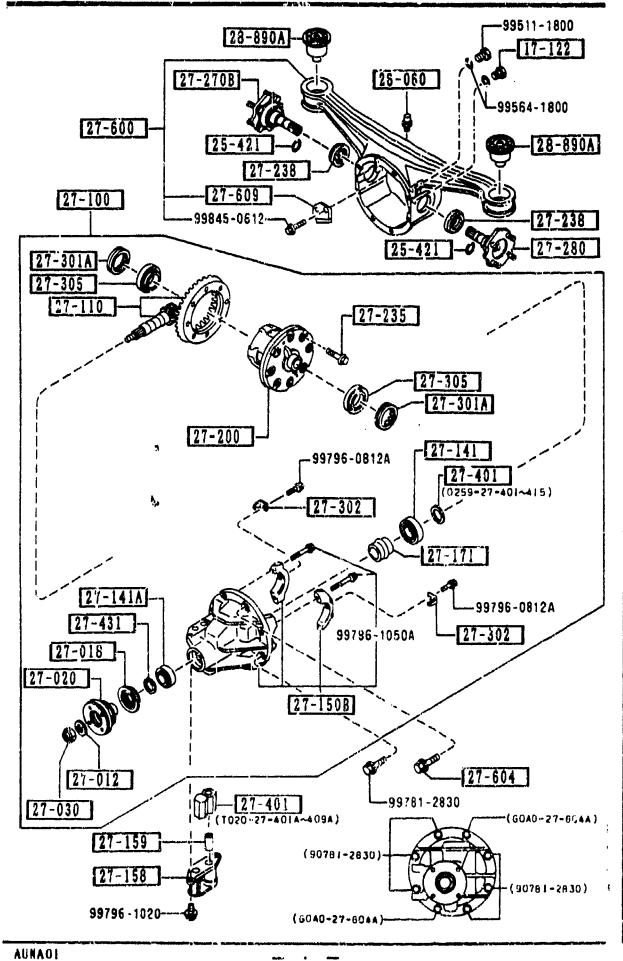
DADT UA	107.	HODEL ARESTON	MODEL /DEGENERATION	MODEL (BEATA:	
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-122		PLUG, MAGNET			
0810-17-121	1				
25-421		CLIP			
F001-25-421A	2	1			
+========	6				
26-060		BREATHER			
0730-26-060	1				
1 27-012		WASHER			
3919-27-012	1				
++	=				
27-018	_	SEAL, OIL			
T020-27-165	1				
27-020		FLANGE, COMPANION			
T002-27-120A AN(T002-27-120B	, 1				-9721
T002-27-120B	1				9721-
1 27-030 1		NUT, LOCK			
3919-27-130	1				
+					
27-100   	1	DRIVING & DIFF.			
T025-27-100F A (T025-27-100G	)				- 9405
T025-27-100G AN(T025-27-100H	, 1				9405-9721
T025-27-100H A (T025-27-100J	, 1				9721-9801
T025-27-100J	1				9801-
   27-110		GEAR SET, FINAL			
T020-27-110B		R=4.300			1
1424 01 4440	1	7,000			
27-141		BEARING, PINION			
0755-27-210	1	! !			
<b>+</b>					
! 27-141A   ++	,	BEARING, PINION			
3919-27-220	1				
9405 NA35**	-100	<u> </u>			1
9721 NA35##- 9801 NA35##-	-119	1922			
					i

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(90781-2830)

(CIMITED SEIP DIFF.			
28-89 27-270B 25-421	<u> </u>	26-060	99511-1800 17-122 99564-1800 28-890A
27-100 99845-0612- 27-301A 27-305	238	25-421	27-238 27-280
27-110		-235 -27-305 27-30	
	99796-081	г 27	<del>401</del> 3-27-401~4(5)
27-14IA 27-01B 27-020	99796 27-150B	1050A 2	-99796-0812A 7-302
27-012 27-030 27-159	(90761-2830	99781-2830	(GOAO-27-604A)
99796-1020	(GUAO-27-604A		(90781-2830)

ARRIER, DIFFERTIAL-F PACE			-980 9801~
			9801-
			1
IN, TUBULAR			
ļ			
ECE, DISTANCE			
FFERENTIAL			-940
			9405-
OLT, RING GEAR			
10MM			
AL,OIL			
MAFT(R),OUTPUT			
IAFT(L),OUTPUT			
REW, ADJUST			
ATE.LOCK			
ARING			
	ILT, RING GEAR 10.2MM 10MM AL, OIL AFT(R), OUTPUT AFT(L), OUTPUT REW, ADJUST	ILT, RING GEAR 10.2MM 10MM AL, OIL AFT(R), OUTPUT AFT(L), OUTPUT REW, ADJUST ATE, LOCK ARING	LT,RING GEAR  10.2MM  10MM  AL,OIL  AFT(R),OUTPUT  AFT(L),OUTPUT  ATE.LDCK  ARING



	-	EU SLIF DIFF./			
PART NO.	QΤΥ	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
27-401		SPACER			
0259-27-401		T=3.08MM			
0250_27(02	1	T., 7 11444			
0259-27-402	1	T=3.11MM			
0259-27-403	1	T=3.14MM			
0259-27-404	•	T=3.17MM			
	1				
0259-27-405	1	T=3.2MM			
0259-27-406	2	T=3.23MM	•		
0259-27-407	A	T=3.26MM			1
	1				
0259-27-408	1	T=3.29MM			
0259-27-409	1	T=3.32MM			-
0259-27-411	•	T=3.35MM			
	1				
0259-27-412	1	T=3.38MM			
0259-27-413	4	T=3.41MM			
0259-27-414	1	T=3.44MM			
OBD AT THE	1	1			
0259-27-415	ì	T=3.47MM			1
T020-27-401A		L=50.850			
T020-27-402A	1	L=50.875	Ł		-0401
1020-27-402A	1	L=30.073			-0401
T020-27-4U3A	1	L=50.900			-0401
T020-27-404A		L=50.925			
T020 07 4074	1				-0401
T020-27-405A	1	L=50.950			-0401
1020-27-406A	1	L=50.975			-0401
T020-27-407A		L=51.000			
	1				-0401
T020-27-408A	1	L=51.025			-0401
0401 NA35**	-164	5561			
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SECTION NAME INDEX (CHASSIS)

Г	0,00	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME SECTION NAME	LO.NO	SEC.NO	SECTION NAME
١.	-C11		REAR PROPELLER SHAFT	1-J16		PARKING BRAKE SYSTEM			
- 1	-011		REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
	-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM			
	-F11	2610	REAR BRAKE MECHANISMS			(AT)			
];	I-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
	I-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
	-012	2800	REAR SUSPENSION MECHANISMS						
	-E12	2801	REAR SPRING & DAMPER						
	-F12	2810	REAR STABILIZER						
	1-G12	2830	REAR LOWER ARMS & SUB FRAME						
	-112	3200	STEERING WHEEL	AST OF					
	I-L12	3210	STEERING COLUMN & SHAFTS	A.	<b>7</b> )				
	-M12	3220	STEERING GEAR (W/O POWER STEERING)		<b>9</b>		Ì		
:	1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
:	1-F13	3240	POWER STEERING SYSTEM						
:	L-H13	3300	FRONT AXLE		:				•
:	1-113	3310	FRONT BRAKE MECHANISMS						_
	I-K13	3400	FRONT SUSPENSION MECHANISMS				•		
	L-M13	3401	FRONT SPRING & DAMPER					1	
1:	L-N13	3410	CROSSMEMBER & STABILIZER						
	1-C14	3700	TIRES & JACK						
	1-C15	3900	ENGINE & T/MISSION MOUNTINGS				}		
	1-015	4000	EXHAUST SYSTEM						
-   -	1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
	I-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI SSION)						
] :	1-H15	4160	ACCELERATOR CONTROL SYSTEM						
	1-115	4200	FUEL TANK	!   					
	1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)					'	
	1-016	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
	1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
	L-H16	4360	BRAKE PIPINGS						

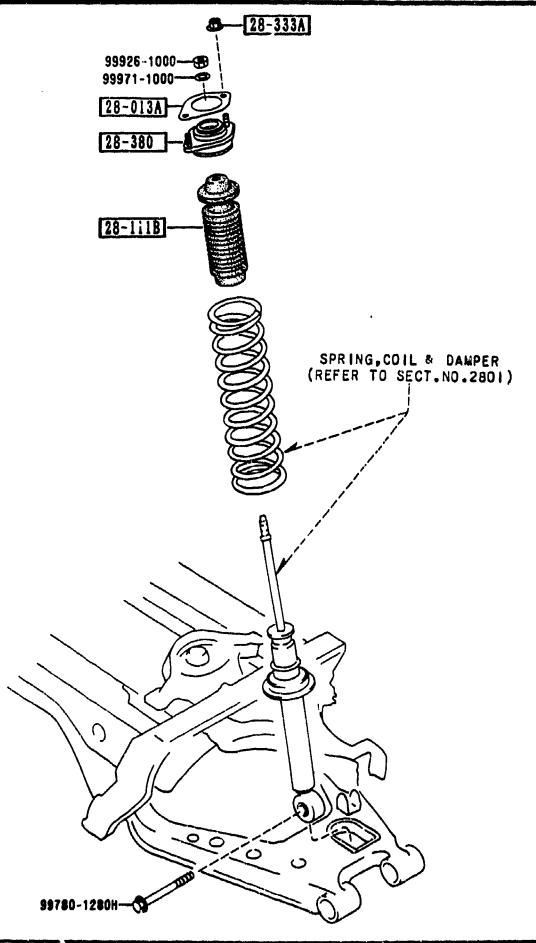
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28-890A 27-270B	99511-1800 17-122
27-600	99564-1800 28-890A
27-100 27-609 99845-0612	
27-301A 27-305	25-421 — 27-280 25-421 — 27-280
27-110	27-235
	27-305 27-301A
<u>27-200</u> — 99796-	[27-401]
27-30	0
27-141A	99796-0812A
1 27-018 - 1 - 27-018	96-1050A 27-302
27-020 27-150B	
<u>27-012</u> <u>27-030</u> <u>27-401</u>	99781-2830
(90781-2)	(GOAO-27-504A)
99796-1020— GOAO-27-6	(90781-2830)

	ED SLIP DIFF.)				
PART NO. QT	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO	
CONT'D T020-27-409A 1	L=51.050			-0401	
27-431     27-431     T001-27-431	SPACER				
27-600     T020-27-600D 1	CASING, DIFFERNTIAL			-9609	
A (T020-27-600E)					
T020-27-600E 1 A (T020-27-600F)				9609-9926	
T020-27-600F 1				9926-	
27-604   G0A0-27-604A 2	BOLT, CARRIER				
27-609     MOA1-27-609A   1	PLATE, BAFFLE-DIFF CA				
28-890A   NA01-28-890 2	RUBBER, SUB FRAME MTG				
9609 NA35HH-108360 9926 NA35HH-127890 0401 NA35HH-146561					

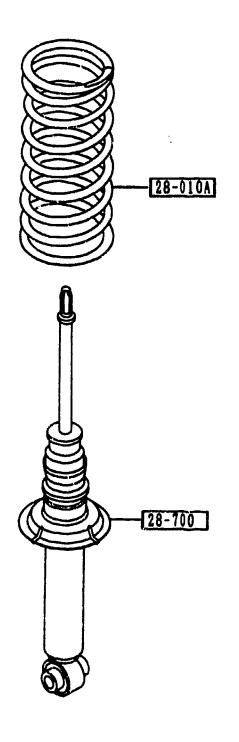
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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
28-013A	-	SHEET, RUBBER		110522.1120111201	
G030-28-013A	2	STOPFER, BUMP			9330-
NA01-28-111	2	NUT, FLANGE			
H001-28-333	4				
28-380   NA01-28-380A	S	RUBBER, MOUNTING			
	i				
9330 NA35##	-100	072			

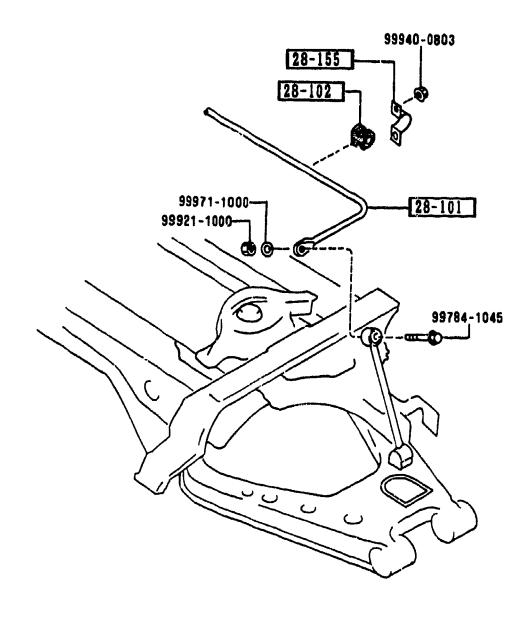
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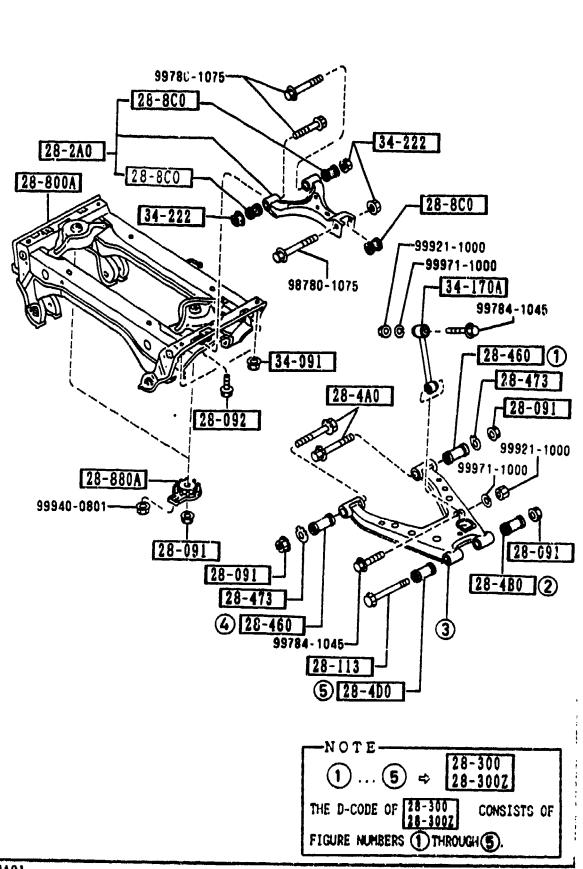


PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-010A		SPRING, COIL-REAR			
NA01-28-011B	2	(MT)			
NA03-28-011	2	(AT)			
1 28-700		DAMPER, REAR			
NA01-28-700	2				]
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-101 NA01-28-151A	1	STABILIZER, RR			
28-102     FB01-28-156	2	BUSH, STABILIZER-RR			
28-155		PLATE, STABILIZER-RR			
FB01-28-155	2				
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-091		NUT			
B037-28-091	8				
+					
1 28-092	_	BOLT, CONTROL LINK			
NA01-28-092	2				
28-113		ROLT			
NA01-28-113	2				
+		40W 1100CD DE 40			
28-2A0		ARM, UPPER-REAR			
NA01-28-2A0B	2				
25-300		ARM(R),LOWER-REAR			
NA01-28-300	1				
+					
28-3002		ARM(L),LOWER-REAR			
NA01-28-350	1				
28-4A0	i	BOLT, ADJUST			
NA01-28-4A0	4				
<b>+</b>					
28-480		BUSHING, RUBBER-LOWER	ļ		
NA01-28-480	2				
28-4D0		BUSHING, RUBBER-LOWER			
NA01-28-4D0	2	ARM			
1 28-460 i		RIICUTNO I OWED ADM			
NA01-28-460	4	BUSHING, LOWER ARM			
4	7				
28-473		PLATE, COM-SUB FRAME			
NA01-28-473	4				
28-8C0		BUSHING, RUBBER			
NA01-28-8C0B	6	PARIATION NODEN			
+					
28-800A		MEMBER, CROSS			
NA01-28-800B	1				
1 28-880A 1		WASHER, STOP			
NA01-28-880B	2				
					Ì
					į

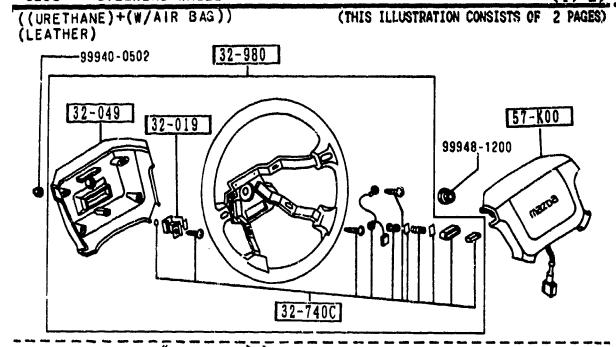
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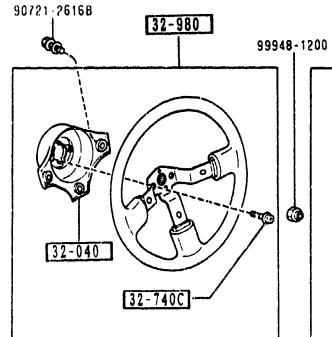
28-880A 99940-0801 28-091 [28-091] [28-091]	34-222 28-8C0 99921-1000 99971-1000 34-170A 99784-1045 99921-1000 99971-1000 99971-1000 99971-1000 99971-1000 99971-1000 99971-1000 99971-1000
AUNAO1	THE D-CODE OF $28-300$ CONSISTS OF FIGURE NUMBERS 1 THROUGH 5.

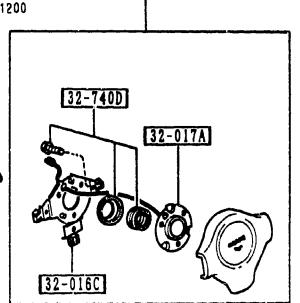
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PART NO.	QTY	Y MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-091		NUT			
FB01-34-091	4.	1			
+					
34-170A		LINK, CONTROL-STAB			
NA01-34-170	2	1			
34-222		NUT			
8871-34-222	6	,	1	'	
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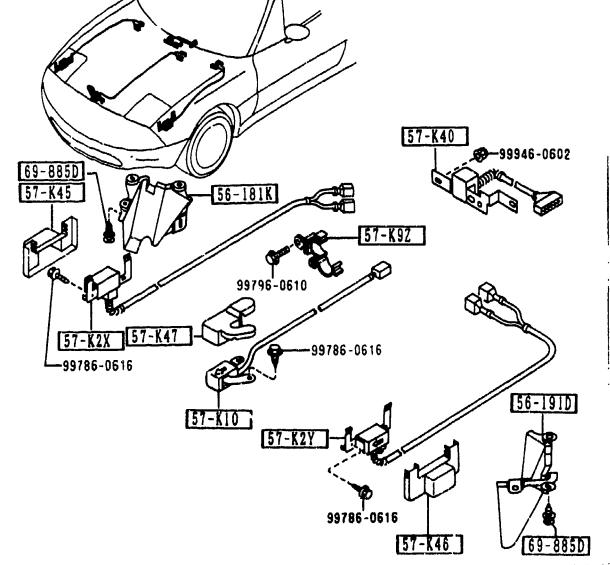
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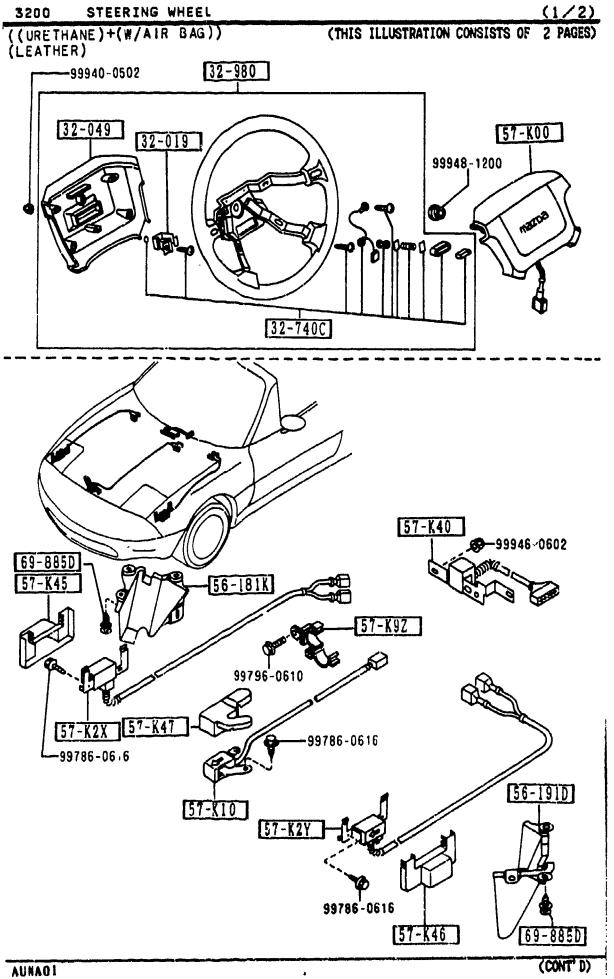




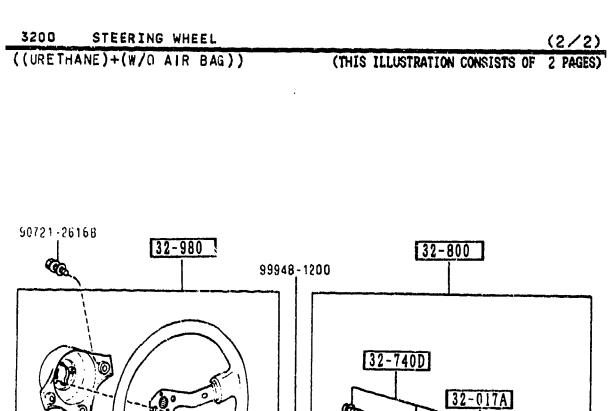
32-800



(CONT' D)



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-016C		PLATE, CONTACT			
B461-32-020	1	BASE, (W/O AIR BAG)			0701-
32-017A		PLATE, CONTACT			
B461-32-030	1	BASE, (W/D AIR BAG)			0701-
32-019		BRACKET, COUPLER			
NA01-32-019	1	PKG-OPT, V-SPECIAL, (W/AIR BAG)			
32-040	:	COVER,ST.WHEEL BOSS			
8461-32-040	1	BASE, (W/O AIR BAG)			0701-
32-049		COVER, WHEEL CORE			
NA01-32-049	1	PKG-OPT, V-SPECIAL, (W/AIR BAG)			
32-740C		PARTS SET, ST. WHEEL			
NA01-32-750	1	PKG-OPT, V-SPECIAL, (W/AIR BAG)			
B461-32-750	1	BASE, (W/O AIR BAG)			0701-
32-740D		PARTS SET, HORN CAP			
B461-32-740	1	BASE, (W/O AIR BAG)			0701-
32-800		CAP, HORN			
B461-32-800A	1	BASE, (W/O AIR BAG)			0701-
32-980		BOSS, STEERING WHEEL			
NA01-32-980B	1	(URETHANE+W/AIR BAG)			
NA02-32-980B	1	PKG-DPT, V-SPECIAL, (LEATHER)			
B461-32-980	1	(URETHANE+W/G AIR BA G)			0701-
56-181K		COVER(R), SENSOR-AIR			
NA01-56-191A	1	BAG (W/AIR BAG)			



(3)

32-016C

PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-1910   NA01-56-181A	1	COVER(L),SENSOR-AIR BAG (W/AIR BAG)			
57-K00		MODULE, AIR BAG			
NA0157-K00A	1	(W/AIR BAG)			
00		NAO BLACK			
57-K10   NA01-57-K10G	,	SENSOR(C),AIR BAG		• .	2040
A (NA01-57-K10H)	, 1				-960
NA01-57-K10H	1	(W/AIR BAG)			9601-
57-K2X		SENSOR(R),AIR BAG			
NA01-57-K2XJ	1	(W/AIR BAG)			
57-K2Y		SENSOR(L),AIR BAG			
NA01-57-K2YJ	1	(W/AIR BAG)			
1 57-K40		SENSOR, AIR BAG-INNER			
NA01-57-K40D	1	(W/AIR BAG)			
57-K45		COVER(R).SENSOR		•	
NA01-57-K45B	1	(W/AIR BAG)			1
57-K46		COVER(L), SENSOR			<u>.</u>
NA01-57-K46B	1	(W/AIR BAG)		*	
57-K47		COVER(C), SENSOR		_	
NA01-57-K478	1	(W/AIR BAG)			
57-K9Z		BRACKET, CLIP			
NA01-57-K9ZA A (NA01-57-K9ZB)	1				-9516
NA01-57-K9ZB	1	(W/AIR BAG)			9516-
69-885D		FASTENER			
NA01-56-145	8	(W/AIR BAG)			
9516 NA35##- 9601 NA35##-	103	924 797			

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32-040

32-740C

PART NU.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-AZ0		COVER, JOINT			
NA01-32-AZ0A (NA01-32-AZ2A)	, 1				-941
4					
1 32-AZ1	- 1	COVER, JOINT-UPPER			
NA01-32-AZ1B	1				9401-
32-AZ2		COVER, JOINT-LOWER			
NA01-32-AZ2A	1				9410-
32-090B		SHAFT, INTERMED.			
NA01-32-090A AN(NA01-32-090B)	, 1				-030
NA02-32-090A AN(NA02-32-090B)	1				-0301
NA01-32-090B	1	(W/O P.S.+W/AIR BAG)			0301-
NA02-32-090B	1	(W/P.S.+W/AIR BAG)			0301-
NA07-32-090A		(W/O P.S.+W/O AIR BA			0701-
NA08-32-090A	1	(W/P.S.+W/D AIR BAG)			0701-
1 32-099		BULT, SHAFT			
8455-32-099	3				
32-100		SHAFT, ENGY . ABSORBER			
NA01-32-100B	1	(W/AIR BAG)			
NA07-32-100A	1	(W/O AIR BAG)			0701-
1 32-217 1		GROMMET			
NA01-32-217	1				
1 32-850		JOINT, STEERING			
NA01-32-850	1				
	i				
					1
9410 NA35**	-100	242			<u> </u>

0301 NA35##-141901 0701 NA35##-200041

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STEERING GEAR (W/O POWER STEERING) 3220 -1

G030-32-115 1   32-118E   COVER, D   NA01-32-118 1   32-119E   RACK.ST   NA01-32-119 1   32-12X   BOOT SE   NA01-32-12X 2   MA01-32-12X 2   MA01-32-12X 1   MA01-32-120 1   MA01-32-120 1   RUBBER.   NA01-32-123 1	/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-111   YUKE, SU   32-115   BEARING   G030-32-115   1   32-118E   COVER, D   NA01-32-118   1   32-12X   BOOT SE   NA01-32-12X   2   32-12X   HOUSING   NA01-32-12O   1   32-12C   PINION,   NA01-32-122   1   32-123   RUBBER,   NA01-32-123   1   32-124   RUBBER,   NA01-32-124   1   32-126   SEAL, SH   G030-32-126   1   132-129B   PLUG, PI	EERING			
GJ21-32-111 1 1   32-115   BEARING   G030-32-115   COVER, D   NA01-32-118   RACK.ST   NA01-32-119   NA01-32-12X   S2-120   HOUSING   NA01-32-120   NA01-32-120   NA01-32-120   NA01-32-120   NA01-32-123   RUBBER, NA01-32-123   RUBBER, NA01-32-124   RUBBER, NA01-32-124   SEAL.SH   G030-32-126   PLUG, PI   HE01-32-129   1				
32-115   BEARING   G030-32-115   1	PFORT			
G030-32-115 1   32-118E   COVER,D   NA01-32-118 1   32-119E   RACK,ST   NA01-32-119 1   32-12X   BOOT SE   NA01-32-12X   PINION,   NA01-32-120 1   32-122C   PINION,   NA01-32-123 1   32-123   RUBBER,   NA01-32-124 1   32-124   RUBBER,   NA01-32-124 1   32-126   SEAL,SH   G030-32-126 1   132-129B   PLUG,PI				<u> </u> 
32-118E   COVER, D   NA01-32-118	ST. GEAR			
NA01-32-118 1   32-119E   RACK, ST   NA01-32-119 1   32-12X   BOOT SE   NA01-32-12X   HOUSING   NA01-32-120   HOUSING   NA01-32-120   PINION,   NAC1-32-122   RUBBER,   NA01-32-123   RUBBER,   NA01-32-124   RUBBER,   NA01-32-124   PLUG, PI   32-129B   PLUG, PI   HE01-32-129   1				
32-119E   RACK.ST NA01-32-119   1   32-12X   BOOT SE NA01-32-12X   2   32-120   HOUSING NA01-32-120   PINION, NAC1-32-122   1   32-123   RUBBER, NA01-32-123   RUBBER, NA01-32-124   SEAL.SH   32-126   SEAL.SH   32-129B   PLUG,PI HE01-32-129   1	UST-ST. GEAR			
NA01-32-119 1   32-12X   BOOT SE   NA01-32-12X   CONTINUE     32-120   HOUSING     32-120   PINION,     32-122C   PINION,     32-123   RUBBER,     32-124   RUBBER,     32-124   SEAL, SH   32-126   PLUG, PIHEO1-32-129   P				
32-12X   BOOT SE NA01-32-12X   2   32-120   HOUSING NA01-32-120   PINION, NAC1-32-122   PINION, NAC1-32-123   RUBBER, NA01-32-123   RUBBER, NAO1-32-124   SEAL, SH   32-126   SEAL, SH   32-1298   PLUG, PI HE01-32-129   1	EERING GEAR			
NA01-32-12X 2   32-120   HOUSING NA01-32-120 1   32-122C   PINION, NAC1-32-122 1   32-123   RUBBER, NA01-32-123 1   32-124   RUBBER, NA01-32-124 1   32-126   SEAL, SH G030-32-126 1   32-1298   PLUG, PI HE01-32-129 1				
32-120   HOUSING   NA01-32-120   PINION,   32-122C   PINION,   NAC1-32-122   RUBBER,   NA01-32-123   RUBBER,   NA01-32-124   RUBBER,   NA01-32-124   SEAL, SH   G030-32-126   PLUG, PI   HE01-32-129   PLUG, PI	T.ST. GEAR			
NA01-32-120 1   32-122C   PINIUN, NAC1-32-122 1   32-123   RUBBER, NA01-32-123 1   32-124   RUBBER, NV-01-32-124 1   32-126   SEAL, SH G030-32-126 1   32-1298   PLUG, PI HE01-32-129 1				
32-122C   PINION, NAC1-32-122   1   32-123   RUBBER, NAO1-32-123   RUBBER, NAO1-32-124   RUBBER, NAO1-32-124   SEAL, SH   32-126   SEAL, SH   32-129B   PLUG, PI HEO1-32-129   1	, GEAR			
32-122C   PINION, NAC1-32-122   1   32-123   RUBBER, NAO1-32-123   RUBBER, NAO1-32-124   RUBBER, NAO1-32-124   SEAL, SH   32-126   SEAL, SH   32-129B   PLUG, PI HEO1-32-129   1				-
32-123   RUBBER, NA01-32-123   RUBBER,   32-124   RUBBER,   32-126   SEAL, SH   32-126   PLUG, PI   32-1298   PLUG, PI   HE01-32-129   1	STEERING GEAR			
32-123   RUBBER, NA01-32-123   RUBBER,   32-124   RUBBER,   32-126   SEAL, SH   G030-32-126   PLUG, PI   HE01-32-129   1				! <b>!</b>
32-124   RUBBER, NV-01-32-124   SEAL, SH   32-126   SEAL, SH   32-1298   PLUG, PI   HE01-32-129   1	MOUNTING			<u> </u>
NV-01-32-124 1   32-126   SEAL, SH G030-32-126 1   32-1298   PLUG, PI HE01-32-129 1				
32-126   SEAL, SH   G030-32-126   PLUG, PI   32-1298   PLUG, PI   HE01-32-129   1	MOUNTING			
G030-32-126 1   32-1298   PLUG, PI HE01-32-129 1				
32-129B   PLUG, PI HE01-32-129   1	AFT			
32-1298   PLUG,PI HE01-32-129   1				
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5083-32-137 1				
32-133   PLATE,C	LAMP			
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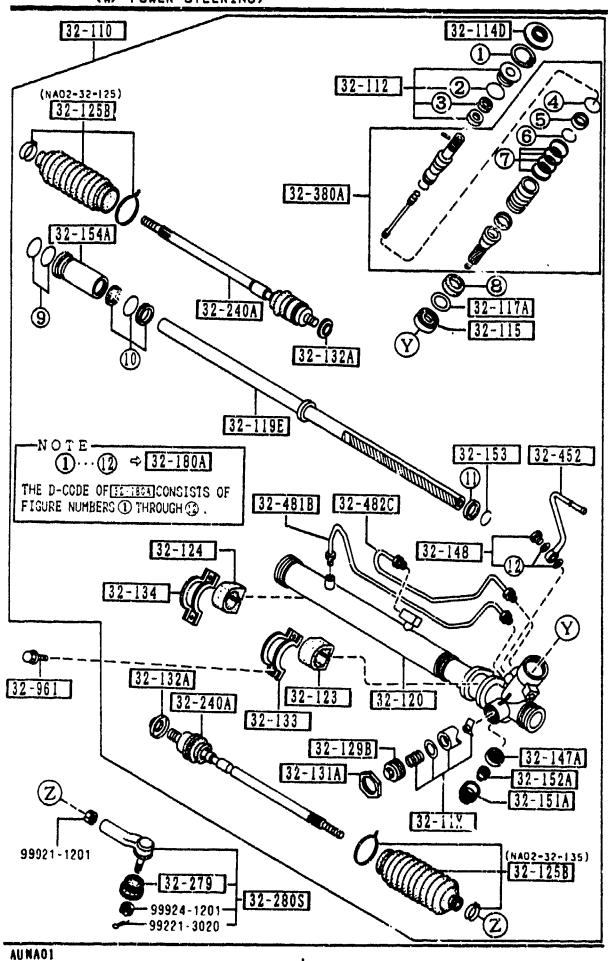
32-110
32-12X 32-137 32-136A 32-136A 32-115
32-147A 32-147A 32-147A (hE 09-32-201)
32-133 32-123 Y
32-124 32-124 32-134 32-130B 32-130B 32-111 (*E01-32-201)
32-130B 32-111 32-12X 99921-1201 99924-1201 32-20(S)
99221-3020

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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-134		PLATE, CLAMP			
NA01-32-134	1				
++   32-1240		COVED DEAD			j
32-136A   	1	COVER, REAR			]
+	•				
32-137		NUT, LOCK			
\$030-32-137	1				
1 32-146B		WASHER			
HA14-32-146	2				
++ 		OFANTNO OTNION	·		
1 32-147A   G030-32-147	1	BEARING, PINICN			
+=====+	•				
32-201A		BUSHING, RACK-ST. GEA			j
HE01-32-201	1	ļ			İ
HE09-32-201	1				
32-240A		JOINT, BALL			
NA01-32-240	2				
1 32-279		SEAL, UUST-BALL JOINT			
8455-32-279	2	İ		1	
<b>******</b>					
1 32-2805 1		JOINT SET, BALL			
8AN1-32-280	2				
32-961		BOLT			
G030-32-761	4				
		<u></u>	<del>ninga ang mangun kangankankankan penanganan</del> gan pangananan penanganangan penangan		1
A bajanda, or majara harawan maganga panagayan a					

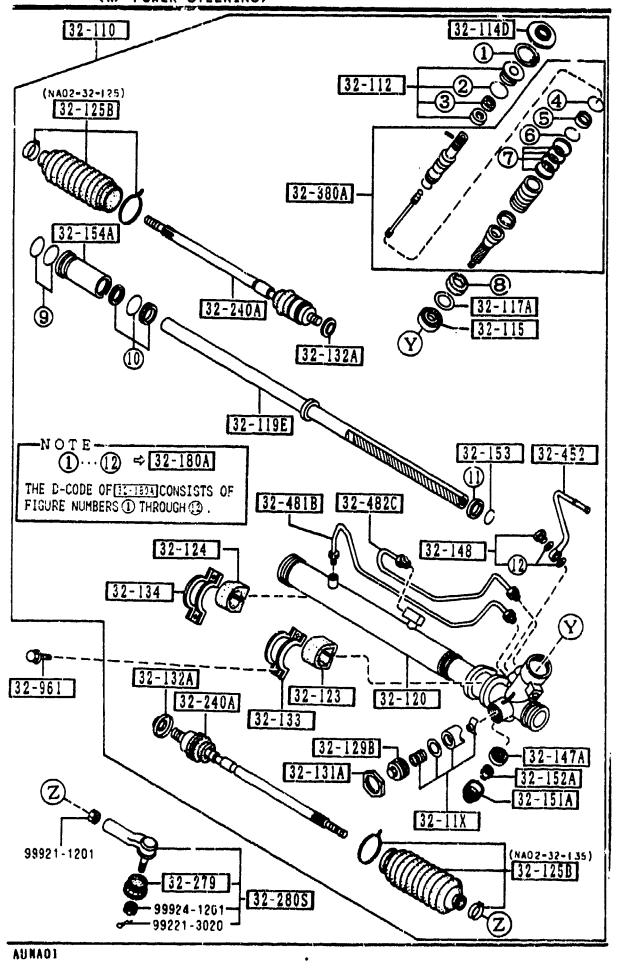
SECTION NAME INDEX (CHASSIS)

I.	.O.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	La.No	SEC.NO	SECTION NAME
ļ-	-C11		REAR PROPELLER SHAFT			PARKING BRAKE SYSTEM			
1	-011		REAR DRIVE SHAFT	1-L16	•	FUEL PIPINGS			
1	-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM			
1	-F11	2610	REAR BRAKE MECHANISMS			(AT)	ì		
1	l-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1	I-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1	-012	2800	REAR SUSPENSION MECHANISMS		: !				
1	1-E12	2801	REAR SPRING & DAMPER				1		
1	-F12	2810	REAR STABILIZER						
1	-G12	2830	REAR LOWER ARMS & SUB FRAME						
1	-112	3200	STEERING WHEEL				Ì		
1	1-L12	i	STEERING COLUMN & SHAFTS						
]	-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1	-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
3	-F13	3240	POWER STEERING SYSTEM						
. 1	-H13	3300	FRONT AXLE			•			
1	~I13	3310	FRONT BRAKE MECHANISMS						
1	-K13	3400	FRONT SUSPENSION MECHANISMS						
1	-M13	3401	FRONT SPRING & DAMPER	2	A3				
1	-N13	3410	CROSSMEMBER & STABILIZER	8					
1	-C14	3700	TIRES & JACK		7				
1	-C15	3901)	ENGINE & T/MISSION MOUNTINGS						
-	-015		EXHAUST SYSTEM						
	-F15		CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1	-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI SSION)						
1	I	4160	ACCELERATOR CONTROL SYSTEM		Į.				
1	-115	4200	FUEL TANK						
1	-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1	-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1	-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1	-H16	4360	BRAKE PIPINGS						

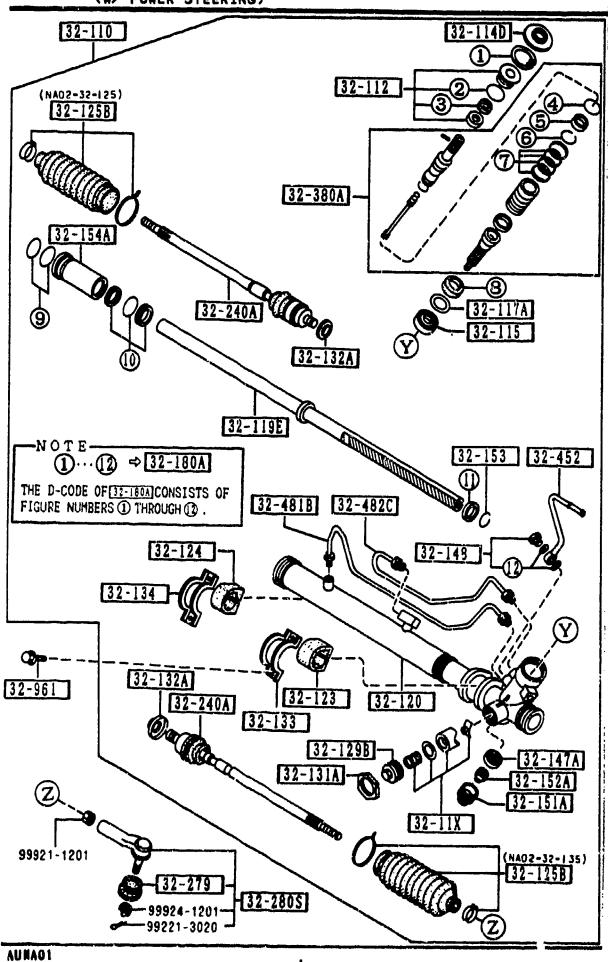
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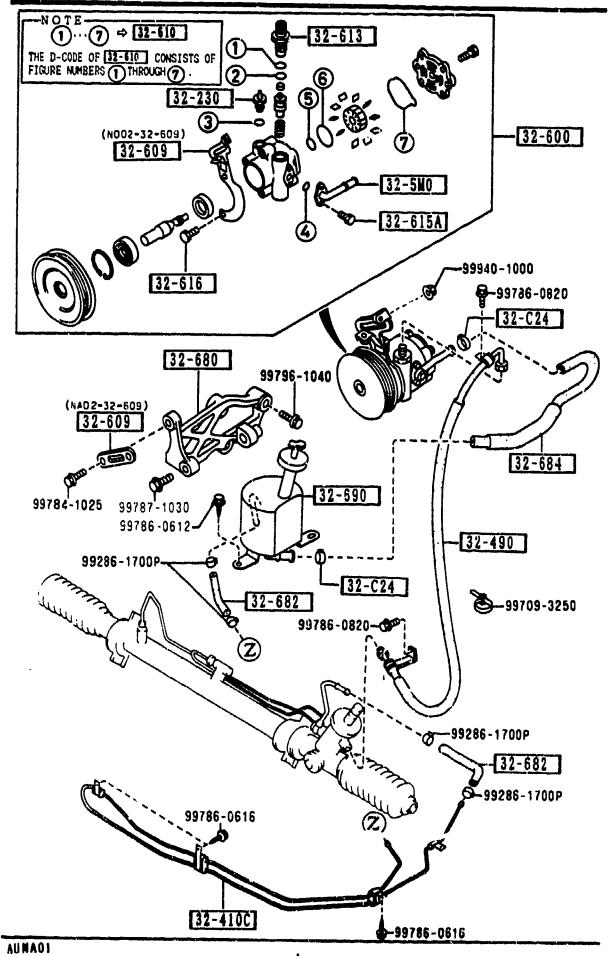
	·	WER STEERING)	MODEL (PECENTATION	T 100000 100000	Y
PART NO.	UIY	MODEL/RESTRICTION	MODEL/RESTPICTION	MGDEL/RESTRICTION	SROM-TO
32-11X   NA02-32-11X	1	YOKE SET, SUPPORT-ST. GEAR			
32-110   NAU2-32-110	1	GEAR, STEERING			
32-112 NA02-32-112	1	COVER, DUST	•		
32-114D   NA02-32-114	1	COVER,DUST-ST. GEAR			
32-115   NA02-32-115		BEARING,ST. GEAR			
32-117A   NA02-32-121	1	SPACER, STEERING GEAR			
32-119E   NA02-32-119	1	RACK, STEERING GEAR			
32-120   NA02-32-120	1	HOUSING, GEAR			
32-123     NA02-32-123	1	RUBBER, MOUNTING			
32-124   NA02-32-124	1	RUBBER, MOUNTING			
32-125B     MA02-32-125		BODT, RACK (FOR RIGHT)			
NA02-32-135		(FOR LEFT)			
32-1296   NA02-32-129		PLUG, PINION			
32-131A   NA02-32-131	1	NUT, LOCK-RACK			



PART NO.	QΤY	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
32-132A   NA02-32-126	2	WASHER			
32-133   NA02-32-133		PLATE, CLAMP			
32-134 NA02-32-134		PLATE, CLAMP			
32-147A   NA02-32-147		BEARING, PINION			
32-148     0002-32-148	1	EYE BOLT KIT,ST. GEA			
32-151A   NA02-32-151	1	PLUG, PINION-ST. GEAR			
32-152A   NA02-32-152	1	NUT,ADJUST			
32-153   NA02-32-153	1	RING, BACK UP			
32-154A   NA02-32-154	1	HOLDER, STEERING GEAR			
32-180A   NA02-32-180	1	SEAL KIT,ST. GEAR			
32-240A   NA02-32-240	2	JOINT, BALL			
32-279     32-279     8455-32-279	2	SEAL, DUST-PALL JOINT			
32-280S     32-280S     8AN1-32-280	2	JUINT SET, BALL			
32-380A   NA02-32-380	1	VALVE,ST. GEAR			
		, <del></del> :			



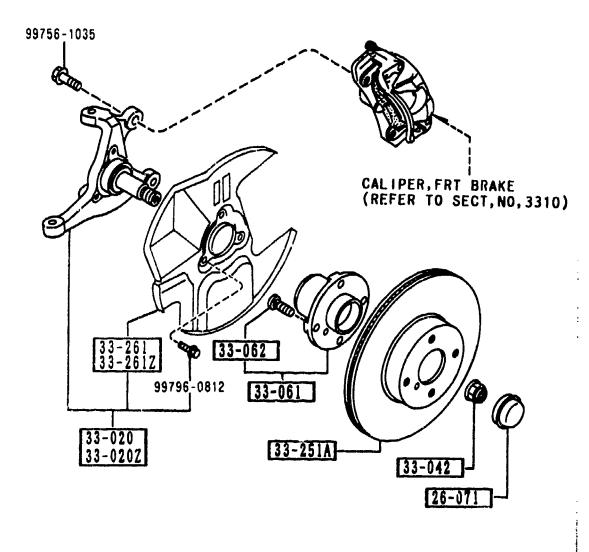
(W/ POWER STEERING)							
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO		
32-452 NA02-32-452	1	PIPE'B',ST. GEAR					
32-481B   NA02-32-481	1	PIPE'A', CYLINDER					
32-482C   NA02-32-482		PIPE'B', CYLINDER					
32-961   G030-32-961	4	BOLT					
AT. AUNA01-07					1992-02		



DADY 410 1071	4 400F; (DEC (DEC 10)			<del></del>
PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/PESTRICTION	FROM-TO
32-C24	CLAMP, HOSE-P.S.			
G238-32-C24 2				
1 32-230	CHITCH PRESSURE & C			
+	SWITCH, PRESSURE-P.S.			
8456-32-230 1				
	P TPE, RETURN		·	
NA02-32-410 1 AN(NA02-32-410A)				-0508
NA02-32-410A 1				
**************************************				0508-
32-490	HOSE, PRESSURE			
NA02-32-490A 1 A (NAC2-32-490B)				-0201
NA02-32-490B 1				
1002-32-490b 1				0201-
32-5M0	Plpe, SUCTION			
N002-32-5:10 1				
1 32-600	PUMP, VANE			
+				
N002-32-600A 1  AN(N002-32-600B)				-0301
N002-32-6008 1				0301-
32-609	BRACKET, VANE PUMP			
+	KUROISHI TEKKO			
1	RORDISHI TERRO			
N002-32-609	NIHON POWER STEERING			
+				
	SEAL KIT, VANE PUMP			
N002-32-610 1				
1 32-613	NIPPLE, VANE PUMP			
N002-32-613 1	THE PARTY OF THE			
+				
32-615A	BOLT			
8456-32-615 2				
1 32-616	BOLT, VANE PUMP			
B456-32-616 2				Ì
0201 NA35**-137	180			
0301 NA35##-141 0508 NA35##-150	901			
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99786-0820 32-C24
99784-1025 99787-1030 99786-1040 32-690
99786-0612 99286-1700P 32-682 99786-0820-99709-3250
99286-1700P 32-682 99786-0616 Z
32-410C) -99786-0616

	CTY MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 32-680	BRACKET, VANE PUMP			
HA02-32-680	1			
+======	•		1	
32-682	HOSE, RETURN			
NA02-32-682	2			
32-684	HOSE, RETURN			
NA02-32-684B	1			
+	<b>1</b>	1		
32-690	TANK, VANE PUMP			
NA02-32-690 A (NA02-32-690A)	, 1			-9B20
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NA02-32-690A	1			9820-
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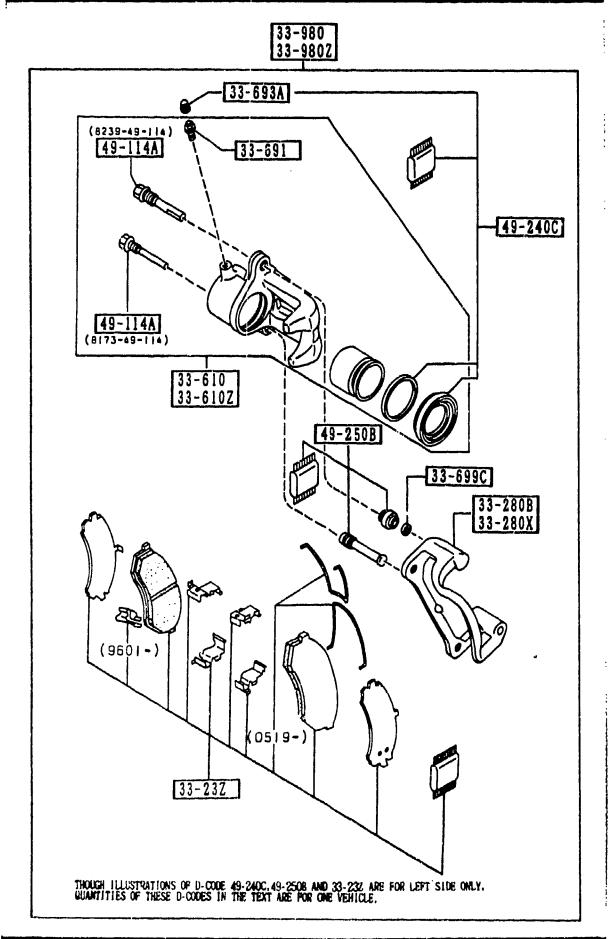


PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
26-071		CAP, HUB			
B455-26-071	2				
33-020		KNUCKLE(R),STEERING			
NA01-33-020A	1				
33-0202		KNUCKLE(L),STEERING			
NA01-33-030A	1				
33-042		NUT			
NA01-33-042A	2	W/WASHER			
+					
33-061   NA01-33-04X	2	HUB, WHEEL			
+	1				
33-062   8455-33-062	8	BOLT, HUB			
+		DIATE 0440			
33-251A   NA01-33-25X	2	PLATE, DISC			
33-261		COVED ( D.) DUCT			
1 33-261 NA01-33-261	1	COVER(R), DUST			
33-261Z		COVER(L), DUST			
NA01-33-271	1	OUTER(E) DOO!			
			ļ		

PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
33-232		PAD SET, FRT CALIPER			·
NAY1-33-23Z (NAY1-33-23ZA)	1				-960
NAY1-33-23Z4	1				9601-051
NAY0-33-23ZA	1	NON ASBESTOS			0519-
33-280B   	1	SUPPORT(R),MOUNTING			
33-280X     NA01-33-291	1	SUPPORT(L), MOUNTING			
33-610   NA01-33-61X	1	BODY & PISTON(R), CAL			
33-610Z NA01-33-71X	1	BODY & PISTON(L), CAL			
33-691   B001-33-691	2	SCREW, BLEEDER			
33-693A   0259-33-693	2	CAP, BLEEDER SCREW			
33-679C   NA91-33-695	2	PIN, LOCK			-961
33-980		CALIPER(R), FRT BRAKE			
MA01-33-980 (NA01-33-980A)	1				-051
NA01-33-980A	1				0519-
33-980Z I		CALIPER(L), FRT BRAKE			
NA01-33-990 (NA01-33-990A)	1				-051
NA01-33-990A	1				0519-
49-114A		PIN, SLIDER			
8173-49-114	5				
8239-49-114	2				
9601 NA35##- 9615 NA35##- 0519 NA35##-	109	485			

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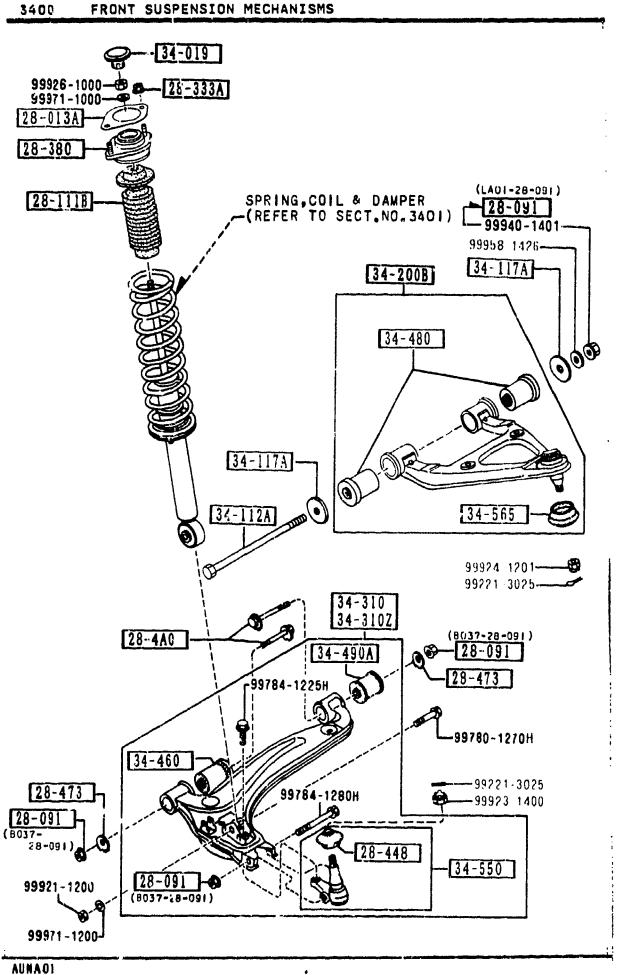


PART NO.	QTY	MODEL/RESTRICTION	MONEL /DECEMBERTON	HODEL/RESTRICTION	FROM-YO
PAKI NU.	ĮŲ I T	UNDERLYESIKICIIN	MODEL/RESTRICTION	UANET\KE21KICIIA	FKUN-10
49-240C		SEAL KIT, CALIPER-FRT			
NAY1-33-24Z	1				
49-2508		BOOT KIT, FRT CALIPER			
<b>+</b>	1				
NAY1-33-25Z	•				
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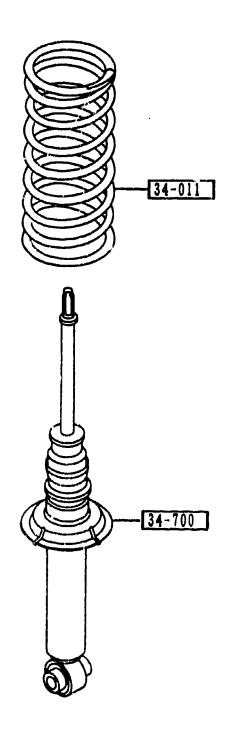
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CAT. AUNA01-07

PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
28-013A		SHEET, RUBBER			
G030-28-013A	2				9411-
28-091		NUT			
B037-28-091	6				
LA01-28-091	2				9405-
28-1118   NA01-28-111	2	STOPPER,BUMP			
28-333A   H001-28-333	4	NUT,FLANGE			
28-380   NA01-28-380A	2	RUBBER, MOUNTING			
28-4A0   NA01-28-4A0	4	BOLT, ADJUST			
28-448     28-448     H266-28-448	2	SEAL, DUST-BALL JOINT			
28-473   NA01-28-473	4	PLATE, CAM-SUB FRAME			
34-019     NA01-34-019	2	CAP, DAMPER			
34-112A   NA01-34-112	2	BOLT			
34-117A     34-117A     NA01-34-117A	4	WASHER			
34-200B   NA01-34-200	2	ARM, UPPER~FRT			-951
NA01-34-200A Na01-34-230A	2				9511-
1 34-310   NA01-34-300A	1	ARM(R),LOWER			
9405 NA35## 9411 NA35## 9511 NA35##	-100	333			



PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO	
34-310Z   NA01-34-350A	1	ARM(L),LOWER				
34-460   NA01-34-460A	2	BUSH, RUBBER-LWR ARM				
34-480   NA01-34-480	4	Bushing, Rubber-Lower Arra			-951	
NA01-34-480A 1 34-490A 1	4	BUSHING, RUBBER			9511-	
NA01-34-490	2					
34-550   NA01-34-550	2	BALL JOINT, LOWER				
34-565   NA01-34-548	2	SEAL, DUST				
	٠,,					
APIN LIATE						
9511 (JA35**-103176						



PART NO.	QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-011   NA01-34-011A	2	SPRING, COIL-FRONT			
NA03-34-011		(AT)			
34-700		DAMPER, FRONT			
NA01-34-700	2				
	!				
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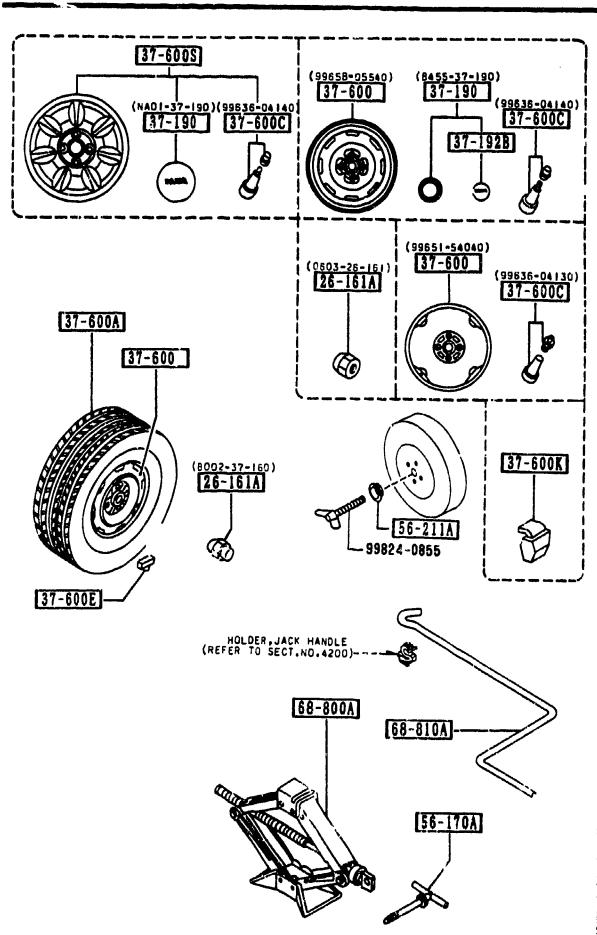
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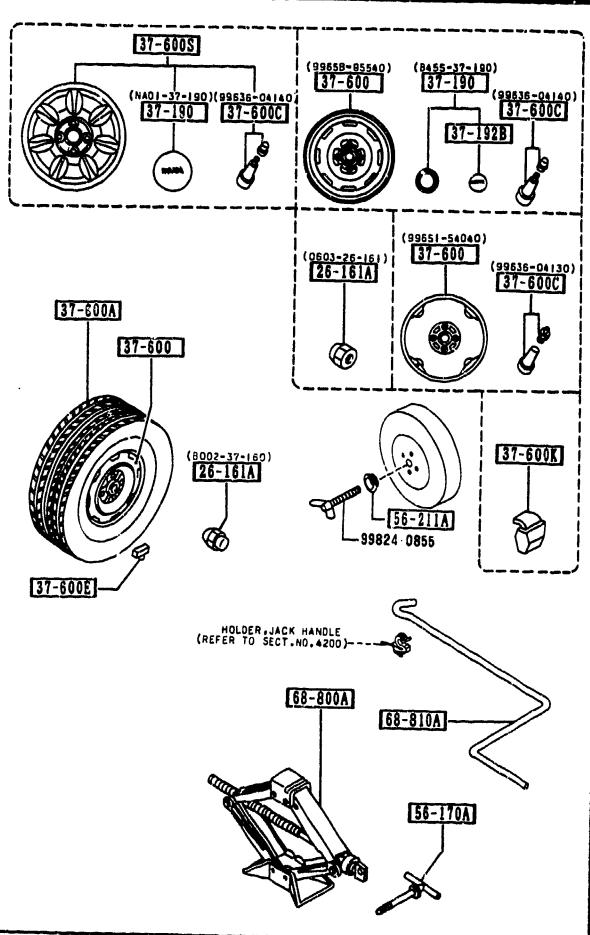
PART NO. OT	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO	
1 34-09X 1	BOLT				
NA01-34-09XA 4					
+***********					
34-091	NUT				
FB01-34-091 4					
34-151	STABILIZER, FRONT				
NA01-34-151A 1					
34-155	PLATE, STABILIZER				
FB01-34-155 2	ł				
+					
34-156A   NA01-34-156A 2	RUBBER, STAB - 2R1				
NA01-34-156A 2					
34-170A	LINK, CONTROL-STAB				
NA01-34-170 2					
34-800	MEMBER, CROSS				
NA01-34-800 1 A (NA01-34-800A)				-9330	
NA01-34-800A 1				933.1-	
		, <b>*</b>			
	,				
				1	
9330 NA35##-100072					

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LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	TION NAME INDEX (CHASSIS) SECTION NAME	10 40	1650 115	APATEM MANAGEMENT
1-C11	2505	REAR PROPELLER SHAFT		4400	PARKING BRAKE SYSTEM	LO.NO	SEC.NO	SECTION NAME
1-D11		REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	•		2-003	4600	CHANGE CONTROL SYSTEM			
1-F11		REAR BRAKE MECHANISMS	2 000	1000	(AT)			
1-H11		REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-D12	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-112	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE .						
1-113	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRUNT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK	B					
1-C15	3900	ENGINE & T/MISSION MOUNTINGS	B/	<b>7</b> ?				
1-D15	4000	EXHAUST SYSTEM		<b>y</b>				
1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI SSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-115	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-016	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

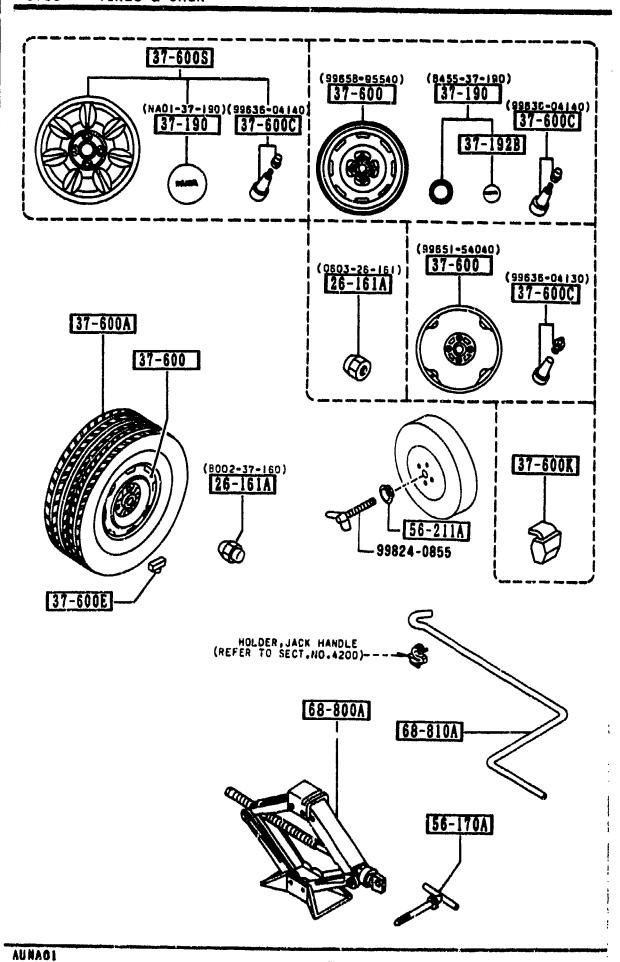


PART NO.	OTY	MODEL/RESTRICTION	HODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO		
26-161A		NUT, HUB					
0603-26-161	16	NGN BRIGHT					
8002-37-160	16	PLATED					
37-190		CAP, CENTER					
B455-37-190	4	CAP, CENTER					
NAC1-37-190	ý						
37-1928		EMBLEM, CENTER					
B001-37-192	4						
37-600		WHEEL, DISL STEEL					
9965B-95540	4	5.5JJX14 P=100/0=45					
99651-54040	1	4TX14 P=100/0=45					
37-600A		TIRE					
90620-47614	1	T155/70D14					
90623-06684	4	P185/60R14					
90624-26684	4	P185/60R14			9A01-		
1 37-600C I		VALVE,AIR					
99636-04130	1	TR413					
99636-04140	4	TR414					
37-600E   99655-30005	4	WEIGHT, DISC WHEEL-ST EEL SG					
99655-30010	4	106					
99655-30015	4	150					
99655-30020	4	200					
99655 30025	4	25G					
9AU1 NA35NH-122908							
9AU1 NA35HM-122908							



PART	NO.	OTY	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	EDOM-TO
CONT'D	110,		HUUEL REGINAGIAGE	HUUCL/RESINIUITUM	MORFTAKEPINTETION	FROM-TO
99655-3	0030	4	300	1		
99655-3(	0035	4	35G	1		
99655-36	0040	4	403	1		
99655-30	0045	4	450	1		
99655~30	0050	4	500	1	1	
99655-30	0055	4	55G	1	1	
99655-30	0060	4	600	1	!	
37-	600K	i	WEIGHT, DISC WHEEL-AL	1	!	
99655-90	1005	4	59 FOR 1-PIECE WHL	1		
99655-90		4	1	1		
99655-90		4		1	1	
99655-90		4	I I	1		
99655-90		4	1	1		
99655-90		4	1	1		
99655-90		4	1			
99655-90		4	1	1		
99655-90		*	45G FOR 1-PIECE WHL			
99655-90		4	55G FOR 1-PIECE WHL			
99655-90		4	60G FOR 1-PIECE WHL			
+	+			,		
+	6005	- 1	WHEEL SET, DISC-ALUMI	,	ı İ	1
6BN1~37-		•	5.5JJX14 NKK MAKE	,	1	
8BN3-37-	·	4	5.5JJX14 ENKEI MAKE			0201-
0501	NA35##	A-137	180			
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						1

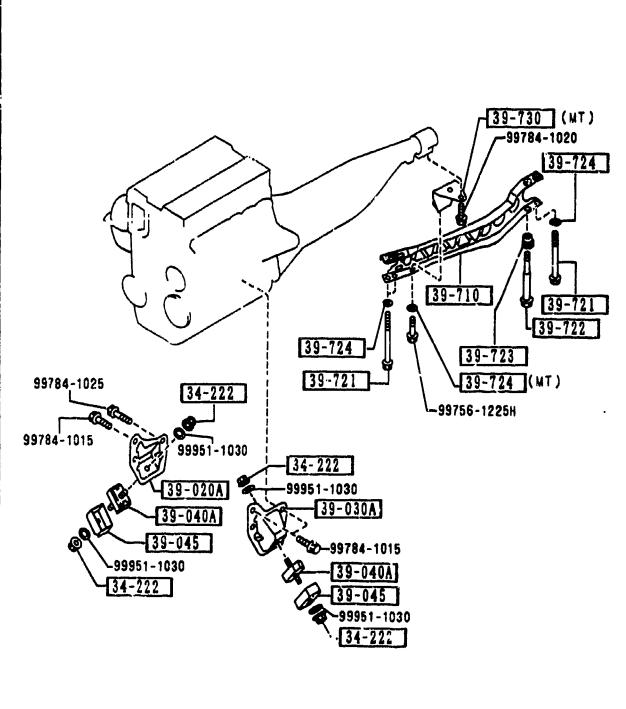
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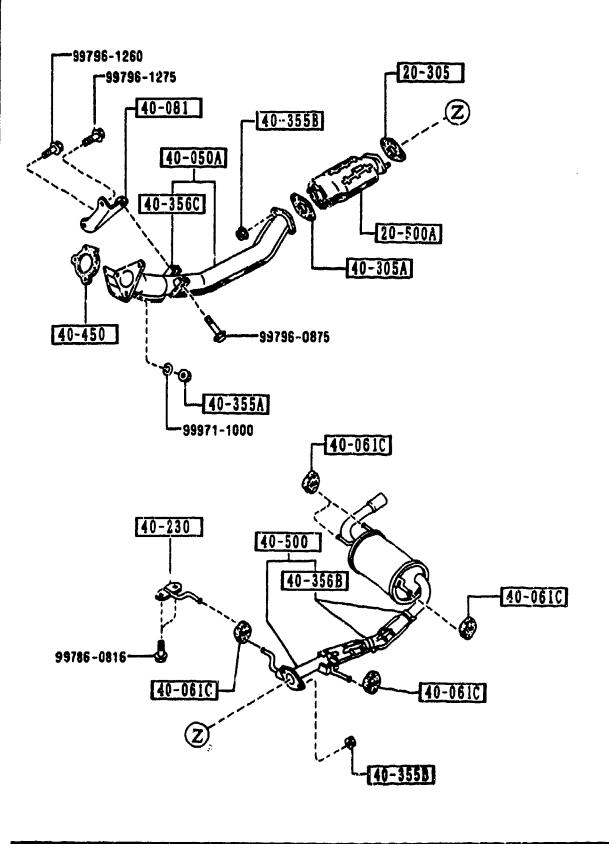
PART NO. GTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO				
56-170A	BOLT, JACK SET							
B001-56-170C 1								
ф=n=u=u=u+								
†======= <del>+</del>	PLATE, CLAMP-JACK							
1219-56-211 1								
	JACK							
8455-37-790 1 A (8455-37-790A)				-9901				
8455-37-790A 1								
++				9901-				
	HANDLE, JACK							
GJ21-37-810 1								
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	i	ļ						
	,							
9901 NA35HH-119257								
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SECTION NAME INDEX (CHASSIS)

LO.NO	SEC-NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NU	SEC.NO	SECTION NAME
1-611			1-J16	4400	PARKING BRAKE SYSTEM			
1-011			1-L16	4500	FUEL PIPINGS			
1-E11	1		2-C03	4600	CHANGE CONTROL SYSTEM			
1-F11	2610	REAR BRAKE MECHANISMS			(AT)			
1-H11	2710	REAR DIFFERENTIALS						
1-111	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-012	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER		ļ				
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-112	3200	STEERING WHEEL						
1-112	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE			•			
1-113	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-C14	3700	TIRES & JACK					:	
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-015	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)	•					
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI)	3					
1-H15	4160	ACCELERATOR CONTROL SYSTEM	<b>1</b>	9				
1-115	4200	FUEL TANK	9					
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-016	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

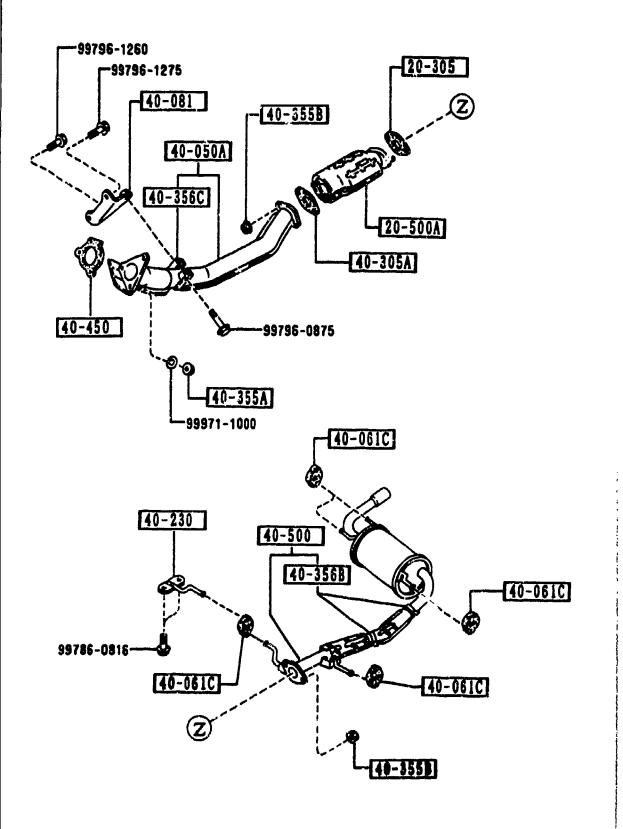


PART NO.	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
34-222	NUT			
8871-34-222	4			
+				}
39-020A	BRACKET(R), ENGINE			
NA01-39-020	1			
39-030A	BRACKET(L), ENGINE			
NA01-39-030	1			
39-040A	RUBBER, ENGINE MT.			
NA01-39-040	2			
4			•	
39-045	CASING, STOPPER			
NA01-39-041	2 (MT)			
S231-39-041	2 (AT)			
39-710	FRAME, POWER PLANT			
HA01-39-710	I (MT)			
NA03-39-710	1 (AT)			
39-721	BOLT, PLANT FRAME			
137-721 NA01-39-721	3			
+				
39-722	BOLT, PLANT FRAME			
NA01-39-722	1			
1 39-723	SPACER, PLANT TRAME			
	1			
++	İ			
39-724	WASHER, PLAIN-FRAME			
NA01-39-724	3 (AT)			
	4 (MT)			
39-730	BRACKET, PLANT FRAME			
NA01-39-730 (NA01-39-730A)	1			-941
NA01-39-730A	1 (MT)			9407 -
THE WE FULL	· North			7707
9407 NA35××-	100180	<u></u>		1

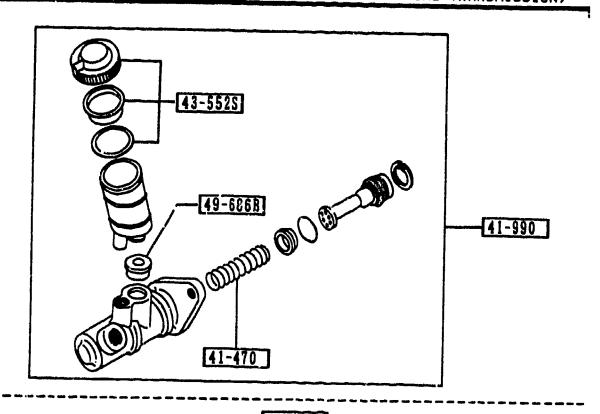


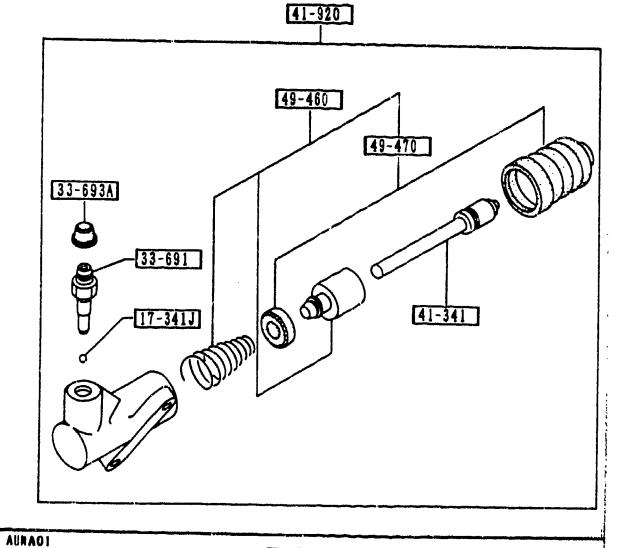
	_				<b>,</b>
PART HO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
20-305     8690-40-305	1	GASKET, EXH. PIPE-CONV ERTER NON ASSESTOS			
1 20-500A   B61P-20-670	1	CONVERTER, CATALYST			
40-050A     8690-40-500A	1	PIPL, EXHAUST-FRONT			
40-561C     RF03-40-061	5	HANGER, SILENCER			
40-081     8690-40-080A	1	GRACKET, HANGER			
40-230     690-40-690	1	BRACKET, HANGER			
40-305A     8322-40-305	1	GASKET NON ASBESTOS			
40-355A     40-355A     2158-40-355		NUT			
40-355B     40-355B     JE10-40-355		TUK			
40-356B     40-356B     40-356	2	BAND			
40-356C     8690-40-356	1	BAND			
40-450   B690-40-450		GASKET, CONVERTER NON ASBESTOS			
40-500     40-500     5690-40-100D	- 1	SILENCER, MAIN			
A (8690-40-100E	, 1				-9820
9B20 NA35##	-128	848			

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	OTY	HODEL/RESTRICTION	HODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
CONT'D B684-40-100A A (B684-40-100B	, 1				-040
8690-40-100E A (8690-40-100F)	, 1				9820-040
B6B4-40-100B	1	(AT)			0401-
8690-40-100F	1	(MT)			0401-
					[
		·			
					i 
	İ				
				i	
QB20 NARMM-	128	x68			
9820 NA35**- 0401 <b>NA35</b> **-	146	561			





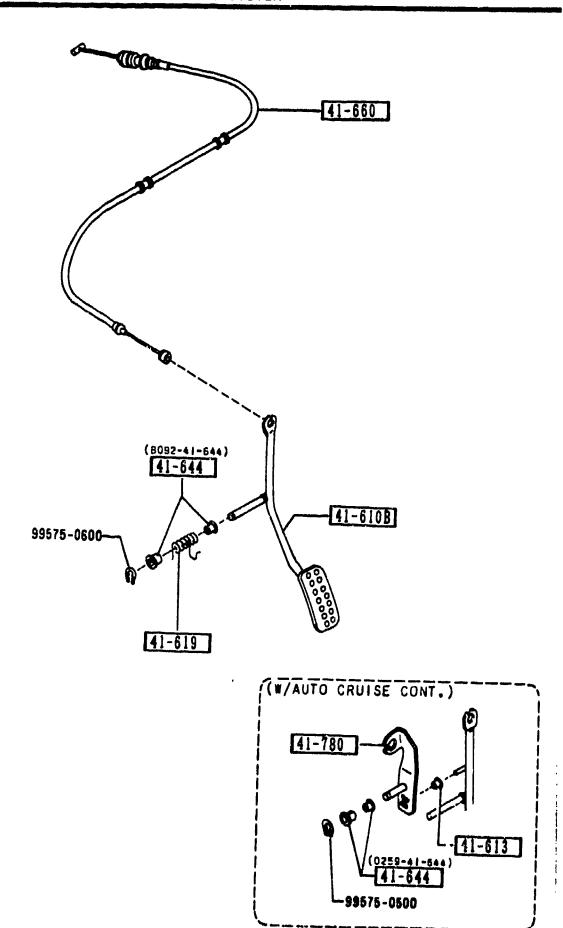
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
17-341J   99611-1500	1	BALL, STEEL			
33-691	1	SCREW, BLEEDER			
33-693A   0259-33-693	1	CAP, BLEEDER SCREW			
41-341     41-341     H266-41-341	1	ROD, PUSH			
41-470     8312-41-470	2	SPRING			
41-920     HE29-41-920A	1	CYL.,CLUTCH RELEASE			-9701
NA01-41-926	1	CYL.,CLUTCH MASTER			9701-
NA01-41-400A	1	CAP SET, RESERVE TANK			
8093-49-580   49-460		PARTS KIT, INNER			
H005-49-460   49-470     H005-49-470	i	SEAL KIT			
49-586B     49-586B     0305-49-686B	1	BUSH,ELBOW JOINT			
0303-47-6068	•				
9701 NA35#	111	940			
AINT WHODEN	-411	707			

4145

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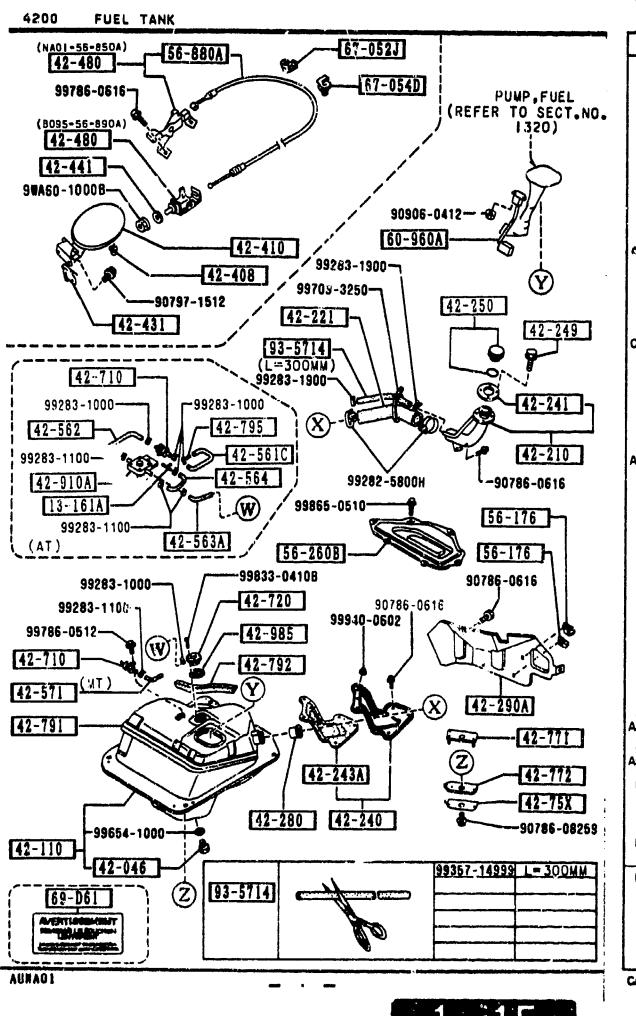
PART HO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
41-360		HOLDER, CLUTCH			
NA01-41-370A	1	SUMINO KOGYO			
8871-41-370	1				-070
NA02-41-370	1	MIDORI			0701-
41-370     NA01-41-369A	1	PIPE, CLUTCH			
41-380     GK67-41-380/	1	HOSE, FLEXIBLE			
41-390     NA01-41-390	1	HOLDER,PIPE			
1 43-635A   0136-43-635	2	CLIP, FLEXIBLE HOSE			
45-510     45-510     NA01-45-5108   AN(NA01-45-5100	, 1	PIPE, CLUTCH			-9601
NA01-45-510C	1				9601-
45-9190		CLIP, PIPE			
G030-45-919	1				
9601 NA35## 0701 NA35##	-106 -200	5797 0041			

CAT. AUNAGI-07

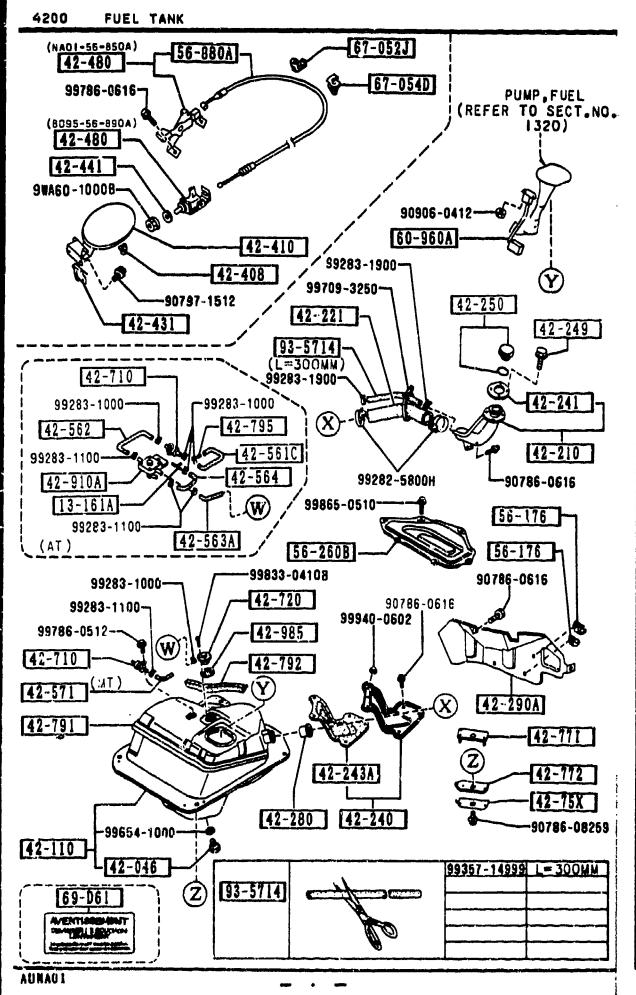


PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
41-6108		PEDAL & ARM			
NAD1-41-610 A (NAO1-41-610A)	1				-070
NAD2-41-610 A ( <b>NAD2-41-610A)</b>	1				-070
NA01-41-610A	1	BASE, (W/O AUTO CRUISE CON T.)			0701~
NA02-41-610A	- 1	PKG-OPT, (W/AUTO CRUISE CONT)			0701-
41-613	ı	ROLLER			
8104-41-114	1	PKG-OPT, (W/AUTO CRUISE CONT)			
41-619   NA01-41-619	1	SPRING, RETURN			
41-644		BUSH			
B092-41-644	2	OIRES KOGYO			
0259-41-644	2	ONDO KOSAKUSHO PKG-OPT, (W/AUTO CRUISE CONT)			
41-660   NA01-(\-660A	1	CABLE, ACCEL.			
1 41-780		LEVER, ACCELERATOR			
NA01-41-130A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
0701 NA35##-	200	041			

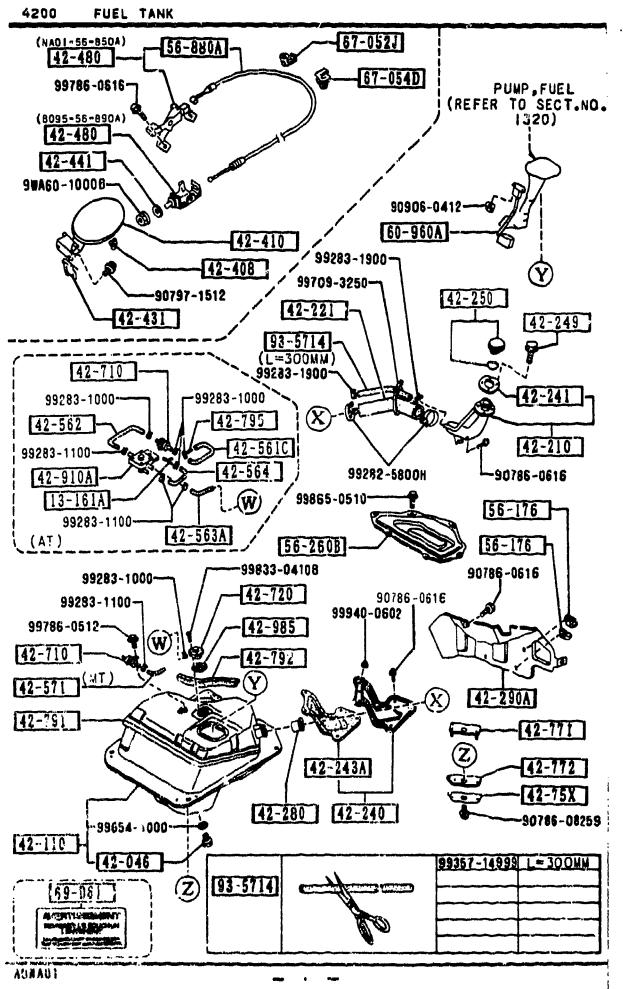
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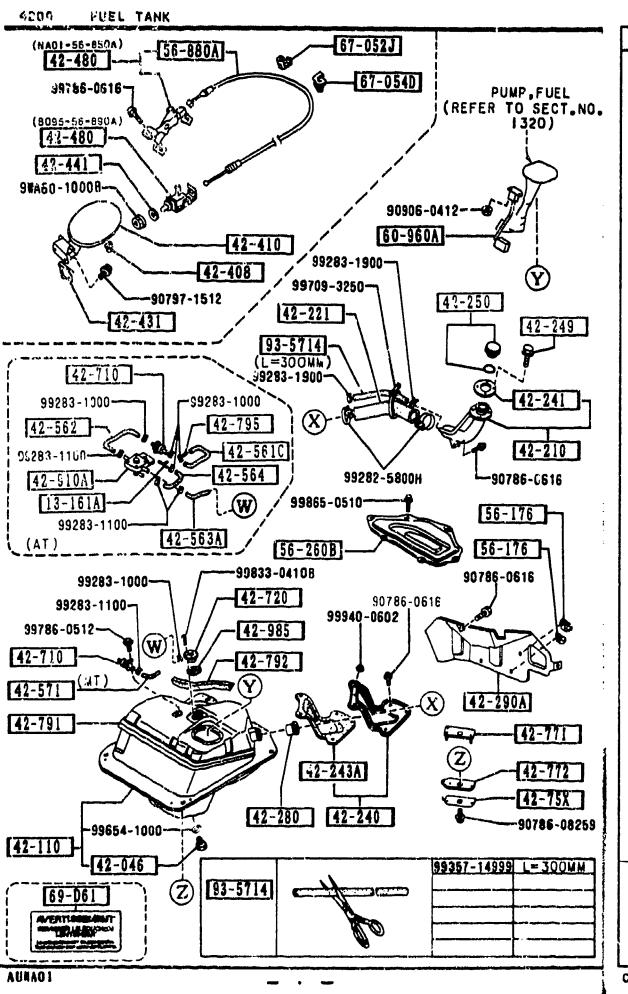
	_			.,
PART NO. QT	Y MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
13 161A	JOINT'T			
E580-15 .61	1 (AT)			
1 42-046	FLUG, DRAIN			
BC88-42-045	1			
1 42-110 1	TANK, FUEL			
+	(AT)			
NA01-42-110 C (NA01-42-110A)	1			-9601
NA01-42-110A	(MT)			9601-
42-210	PIPE, FILLER			
+	1			-9901
NA01-42-210A				9901-
+				7701-
42-221   	HOSE, FILLER			2002
NA01-42-241A				-9901 9901-0101
AN(NA01-42-241B)		·		
NA01-42-241B				0101-
42-240	COVER.DUST			
NA01-42-230				
42-241     48-42-3668   1	GASKET, FILLER PIPE			
++				
42-243A     ++   NA01-42-233	GASKET'A', DUST COVER			
1 42-249	BOLT, FILLER PIPE			
++ NA01-42-249 AN(NA01-42-249A)				-0222
NA01-42-249A AN(NA01-42-249B)	•			0222-0701
NA01-42-2498 4				0701-
42-250	CAP, FILLER			
NA02-42-250 1				
NAU1-42-210 CG NA01-42-210A H260-42-270	9601 NA35HH-10 9901 NA35HH-11 0101 NA35HH-13 0222 NA35HH-14 0701 NA35HH-20	.9257 33591 90861		
CAT. AUNAP1-07				1992-02



PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 42-280 1	VALVE, NON RETURN			
GB53-42-270 1				-990
H260-42-270 1				9901-
1 42-290A	PROTECTOR'A', FILLER			
NA01-42-291A 1	PIPE			
+				
+	STOPPER, FILLER LID			·
0187-70-491 2				
42-410	LID, FUEL FILLER			
NA01-42-410 1 N(NA01-42-410A)				-980
NA01-42-410A 1				9801-
+======+ 	0007100 1 7 5 7 1 7 0			
42-431   H043-42-4310	SPRING LIFT, LID			
+				
+	WASHER, LID OPENER			
NA01-56-896 1				
42-480	OPENER, FILLER LID			
NA01-56-850A 1				
B095-56-890A 1				
42-561C	HOSE NO 1, BREATHER			
NA03-42-561 1	(AT)			
+	HOSE NO.2, BREATHER			
+	(AT)			}
++ 1 42-5474 1	NOCE NO I PREATURE			
+	HOSE NO.3, BREATHER (AT)			
++	(AI)			
+	HOSE NO.4, BREATHER			
NA03-42-564 1	(AT)			
42-571	HOSE, VENT			
NA01-42-561 1	(TM)			
9901 NA35##-119				L
9801 NA35##-126	9440			



PART NO.	OTY	HODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
42-710     H260-42-910B	1	VALVE, CHECK			
1 42-720   FBC1-42-980	1	VALVE, FUEL VAPOR.			
42-75X   NA01-42-77X	4	REINF., FUEL TANK			
42-771   NA01-42-771	4	RUBBER(UP),MOUNT-TAN			
1 42-772   NA01-42-772	4	RUBBER(LWR),MOUNT-TA NK			
42-791   NA01-42-761	1	PAD, FUEL TANK			
42-792   NA01-42-762	1	PAD, FUEL TANK			
42-7°5   GN51-42-795	1	INSERT (AT)			
42-910A   NA03-42-910		VALVE'A', CHECK-BREAT HER (AT)			
42-985   FB01-42-985	1	GASKET, VAPOR VALVE			
56-176     0030-56-176	3	HOLDER, JACK HANDLE			
56-260B     NA01-56-260	1	COVER, GAUGE-FUEL TAN			
56-880A   NA01-56-89UA	1	CABLE, F/LID OPENER			
60-960A   NA01-60-960	1	GAUGE, FUEL TANK			
'AT. AUNA01-07	····				1992-02



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PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-052J		CLIP			
B001-67-051	1				
67-054D		CLIP			
H260-67-054	2		•		
+	_				
69-D61		LABEL, FUEL WARNING			
KA10-69-D61	1				
93-5714		HOSE			
99357-14999	1				
				·	
				,	
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
18-660B   LA01-66-490A	1	SWITCH, CLUTCH			
41-023A   0727-41-023		BUSh			
41-030   NA01-41-0308	1	PEDAL, CLUTCH			
41-061   0727-41-061	1	SPACER			
41-070     MA01-41-070A	i	BRACKET, MASTER CYL.			
41-081A   BR; 0-41-081	1	SPRING, RETURN			
0824-41-131	1	ROD, PUSH			
41-140   NA01-41-140B	1	FORK,CLUTCH			
41-443   NA01-41-443	1	gasket			; ; }
1456-41-682	1	RUBBER,STOP PKG-OPT, (W/AUTO CRUISE CONT)			
43-028     8092-13-028	2	PAD, PEDAL			
43-029   B001-43-029	5	RUBBER, STOPPER			-9901
B001-43-029 G030-43-029	4				9901-
43-030	•	PEDAL, BRAKE			
9901 NA35##	-119	9257	والمتعالية والمتعالية والمتعالية والمتعالية والمتعالية والمتعالية والمتعالية والمتعالية والمتعالية والمتعالية		·
CAT. AUNA01-07					1992-02

GEOTON & BRAKE P	EDALS (MANUAL TRANSMISSION)
	(W/AUTO CRUISE CONT.)
	67-210
	41-682
	43-070
43-302	43-029
41-443	99927-1000
41-07	99811-1030 (W/O AUTO CRUISE
	99940-0800 CONT.)
43-065A	67-210
66-4D0	
	90794-0820
	90794-0820
99946-0600	18-66CB
(B001-43-529) 43-029	: 99811-1070
68-615	
1	99232-08229
41-131	100 m
99922-0800	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	99971 - 1000
799972	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
43-029 (B001-43-029)	99921-1000 43-061A (8001-43-029)
46-6834	99971 1000
41-0231	46-085
	43-028
41-061	43-029
46-085	(9001-43-029) (9030-43-029)
99811-1055	
141-03	
	43-028
99932-06008	
AUM 101	
46. 141	· · · · · · · · · · · · · · · · · · ·

PART NO.	QTY	MODEL/RESTRICTION	HOUEL/RESTRICTION	MODEL_RESTRICTION	FROM-TO
CONT'D NA01-43-030	1				
43-041		REST, FOOT			
NA01-43-041	1	1			
1 43-061A I		DIOT DEDAL			
0866-43-062	1	PIPE, PEDAL			
++	•				
43-065A   ++ BR70-43-065	2	SPACER			
+	٤.				
43-070		BRACKET, MASTER CYL.			
NA01-43-070A	1	BASE, (W/O AUTO CRUISE CON T.)			
NA02-43-070A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
43-081A		SPRING,RETURN-BRAKE			
JU92-41-081	1	SPRING, RETURN-BROKE			
1 43-140		FORK, BRAKE			
1524-43-140	1				
43-152		Pin, Snap			nge G agricultura
D001-43-152	1				
1 43-302		GRUMMET, BRAKE PEDAL			1
B180-43-302	1				
46-085		BUSH			
1015-46-085	4				
46-683A		PIN			
0223-46-683	1		!		
66-400		SWITCH, CLUTCH CUT			
FB01-66-4D0	1				İ
67-210		SWITCH, LIGHT-BRAKE			
BR70-66-490A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
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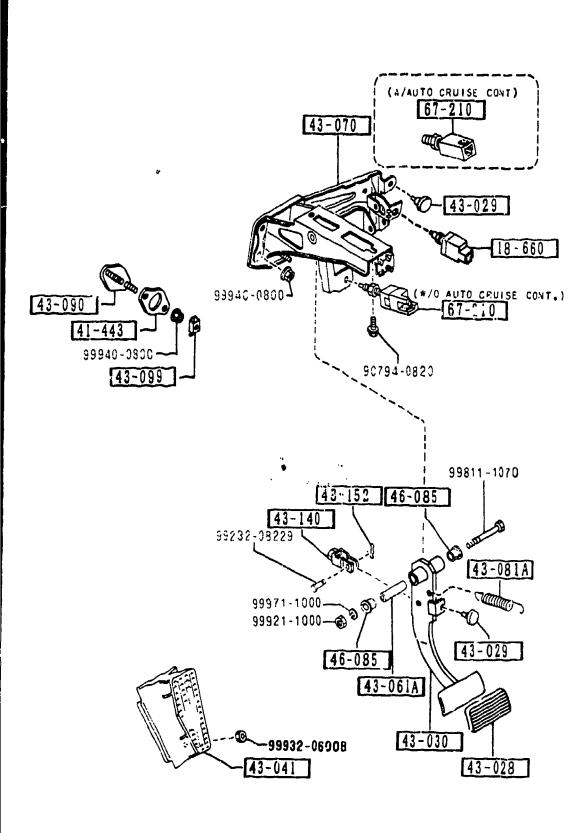
#### SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11		REAR PROPELLER SHAFT	1-J16	440C	PARKING BRAKE SYSTEM	~~~~		
1-011	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS	200		
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM	B	73	
1-611	2610	REAR BRAKE MECHANISMS		1	CAT	1		
1-#11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMSTED SLIP DIFF.)						
1-012	2800	REAR SUSPENSION MECHANISMS				i		
1-E12	2801	REAR SPRING & DAMPER				[		
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-112	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	A 0558	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM	ĺ					
1-H13	3300 .	FRONT AXLE	1					·
1-113	3310	FRONT BRAKE MECHANISMS	<u> </u>					
1-K13	3400	FRONT SUSPENSION MECHANISMS	  -  -					
1-M13	3401	FRONT SPRING & DAMPER	ŀ					
1-N13	3410	CROSSMEMBER & STABILIZER	}					
1-C14	3700	TIRES & JACK	<b>[</b>					
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-015	4000	EXHAUST SYSTEM	ļ					
1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI SSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM	ŀ					
1-115	4200	FUEL TANK	1					
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-016	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)	B					
1-F16	4340	BRAKE MASTER CYLINDER & POWER	4	9				
1-H16	4360	BRAKE PIPINGS						

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		T				
PART I	NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM·TO
CONT'D					1	
8001-66-6	490A	1	BASE, (W/O AUTO CRUISE CON T.)			
68-63   68-63	+	1	NUT, FLANGE-CAP			
		J				
<del></del>	*		· · · · · · · · · · · · · · · · · · ·	***************************************		·
AT. AUNA						1992-02

CAT. AUNA01-07



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
18-660		SWITCH, KICK DOWN			
H118-66-470	1				
1 41-443		GASKET	•		
NA01-41-443	1				
43-028		PAD, PEDAL			
0268-43-028	1				
1 43-029		RUDBER, STOPPER			
B001-43-029	2	No object to the last to the l			
1 43-930		PEDAL, BRAKE			
NA03-43-03J	1	1 CONC JORANG			•
++   43-041		REST.FOOT			
NA01-43-041	1	NEST, FOUT			
43-061A		PIPE, PEDAL			i i
0866-43-062	1	P1PE, PEUAL			
1 43-070 1		BRACKET MACTER OV.			
NA01-43-070A	- 1	BRACKET, MASTER CYL. BASE,			
00 10 01011	_	(W/O AUTO CRUISE CON			
NAU2-43-070A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
43-081A		SPRING, RETURN-BRAKE			
B092-41-081	1	i i			
43-090	Ì	PLATE			
+	1	FEME			
43-099		HOLDER, PLATE			
HF23-43-099	1	HULURNIFLMIE			
1 43-140 1		FORK, BRAKE			
1524-43-140	1	T UNK) DRAKE			
+					
43-152		PIN, SNAP			

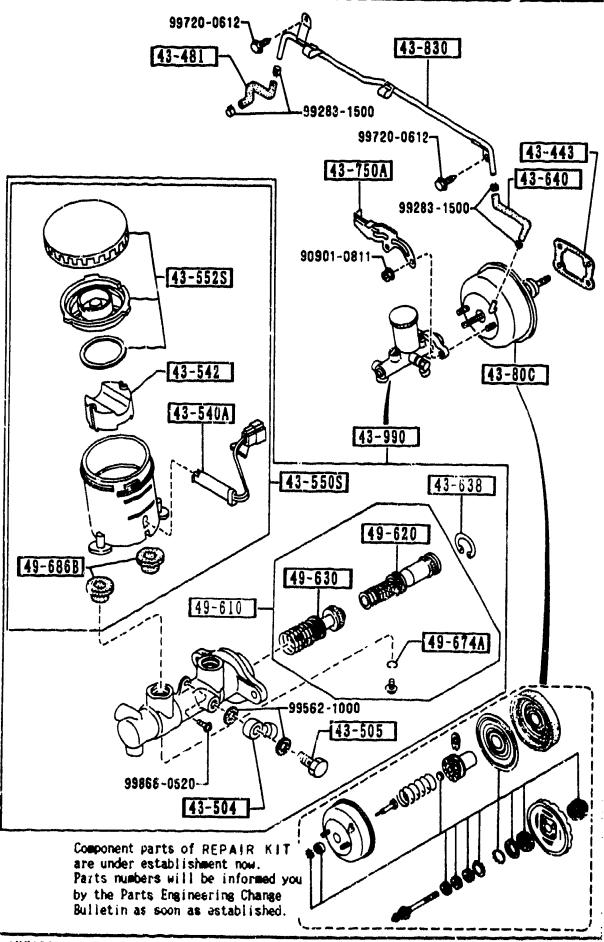
4300A -2 \* BRAKE PEDALS (AUTOMATIC TRANSMISSION)

PART NO. 0	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	EDON TO
CONT'D	1	TOOLET NESTRICITUR	HOURE/ RESIRICITON	FROM-TO
+				
1015-46-085	BUSH		·	
+=======+				
67-210	SWITCH, LIGHT-BRAKE			
BR70-66-490A	1 PKG-OPT, (W/AUTO CRUISE CONT)			
B001-66-490A	BASE,			
	(W/O AUTO CRUISE CON T.)			
				ı
				!

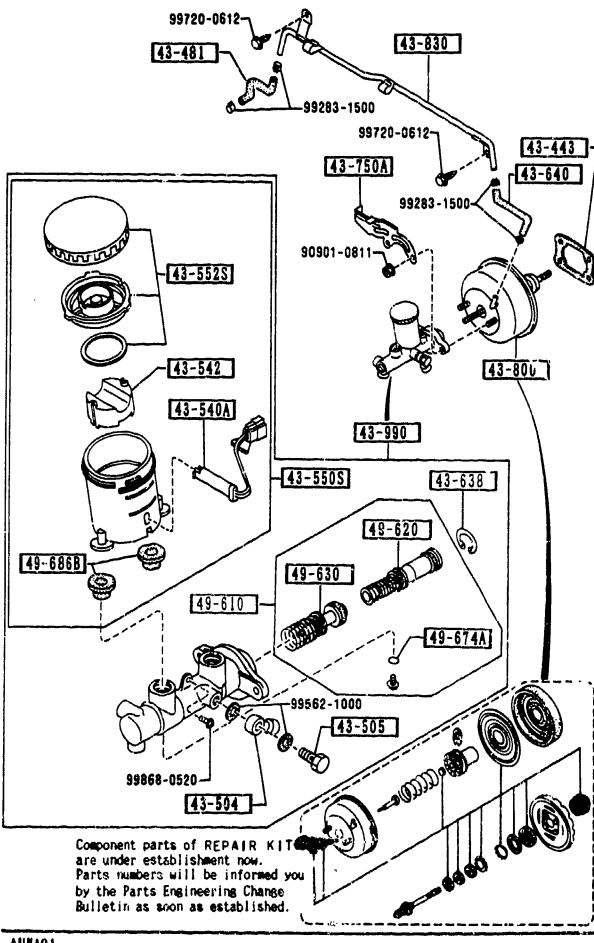
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PART NO. QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
43-443     H001-43-443	GASKET, VAC POWER AS SIST NON ASBESTOS			
43-481     NA01-43-481	HOSE, VACUU:			
43-504     W023-43-504	JOINT, PIPE			
42-505     42-505     W023-43-505	BOLT, CONNECTOR			
43-540A     43-540A     GA97-43-540	SENSOR, RESERVE TANK			
43-542     43-542     3597-43-542	FLOAT			
#+   43-550S     ++   B216-49-680   1   A (B216-49-680A)	TANK SET, RESERVE			-0701
8216-49-680A 1				0701-
1 43-5525   D001-49-650 1 A (D001-49-650A)	CAP SET, RESERVE TANK			-0701
D001-49-650A 1   43-638   GA02-49-638 1	RING, RETAINING			0701-
++	HOSE, VACUUM			
++	HOLDER, P.B. VALVE			
+	VACUUM POWER ASSIST			
0701 NA35##-200	na1			
0102 MAJJAR-200	· • • • • • • • • • • • • • • • • • • •			



PART NJ. OTY	MODEL/PESTRIC.JON	MODEL/RESTRICTION	MODEL/RESTRICTION	FRGM-TO
43-830	PIPE, VACUUM			
4A01-43-83CA 1				
43-990	CYL., TANDEM MASTER			
A01-43-400C 1 (NA01-43-400D)		2		-070
A01-43-400D 1				0701-
49-610	PARTS KIT, INNBRAKE			i
3J21-43-61Z 1				-980
BWOA-43-61Z 1				9801-
49-620	PISTON, PRIMARY			
3J21-43-62Z 1				-980
WOA-43-62Z 1				9801-
49-630	PISTON, FLOATING			
J14-43-63Z 1				-980
WOA-43-63Z 1				9801-
49-674A	RING, 'O'-MASTER CYL.			
9541-00403 1				
1 49-636B	BUSH, ELBOW JOINT			
305-49-6863 2				
9801 NA35##-116	316			L
0701 NA35×#-200	1041			

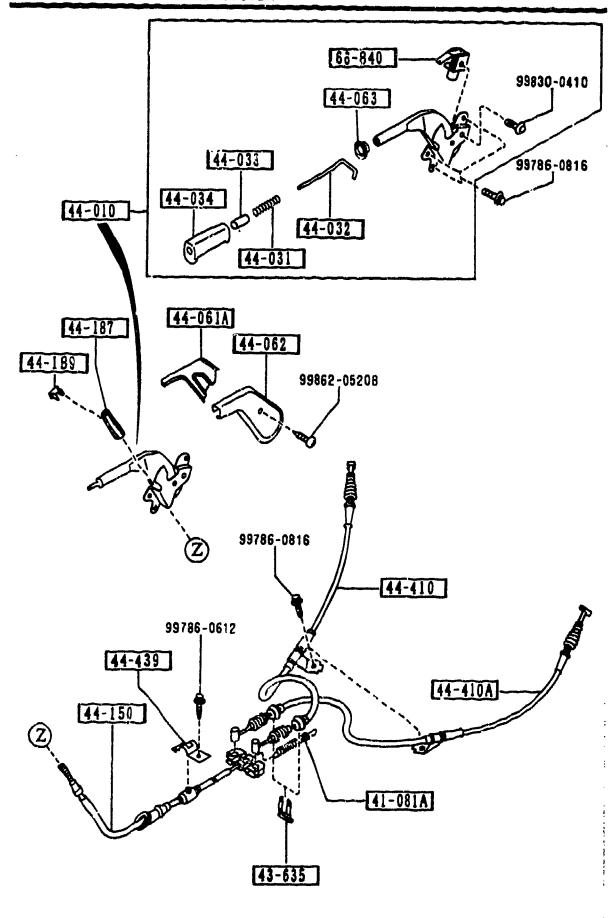
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
43-360		PIPE, BRAKE			
NA01-43-360A	1				
1 43-370	!	PIPE,BRAKE			
NA01-43-370	1				
43-635		CLIP, FLEXIBLE HOSE			
W023-43-635	3				
43-670		PIPE, BRAKE-REAR			
NA01-43-670A	1	TATES DIVINE NEAR			
++   43-694A		BOLT, CONNECTOR			
B001-43-694A	4	BUL I FOURNECTUR			
++ 1 67-000 1		VALUE DUAL DECENTA			
43-900   NA01-43-900	1	VALVE, DUAL PROPORTIONING			
<b>+</b>	_				
43-980A   NA01-43-810A	1	HOSE(R), FLEXIBLE-FRT			
<b>+</b>			:		
43-980B   NA01-43-980	1	HOSE(R), FLEXIBLE-RR			
+					
43-980X   NA01-43-990	1	HOSE(L), FLEXIBLE-RR			
+					
43-980Y	- 1	HOSE(L), FLEXIBLE-FRT	ı		
NA01-43-820A	2				
45-280		PIPE(R), BRAKE-FRONT			
NA01-45-2808	1				
1 45-320	- 1	PIPE(L), BRAKE-FRONT			
NA01-45-320B	1				
45-360		PIPE NO.2, BRAKE-REAR			
NA01-45-360B	1				
45-911C		CLIP, PIPE			
NA01-45-911	1				

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO		
45-915A		HOLDER, PIPE					
8001-45-915	2						
45-915B		HOLDER, PIPE					
NA01-45-915A	1						
+							
45-916     B001-45-916	1	HOLDER, PIFE					
***	•						
45-919		CLIP, PIPE					
NA01-45-916	1				-9801		
8001-45-919B 8001-45-919B	3				-9801		
UUU4~73~7178	•				9801-		
	j						
	İ						
					1		
9801 NA35#H-116316							
AMA IMAMANA 148948							
			·····				

44-010	66-840 99830-0410 99786-0816 44-061A
44-189	99786-0816 99786-0816 99786-0612
Z 44-150 Z	44-410A 43-635

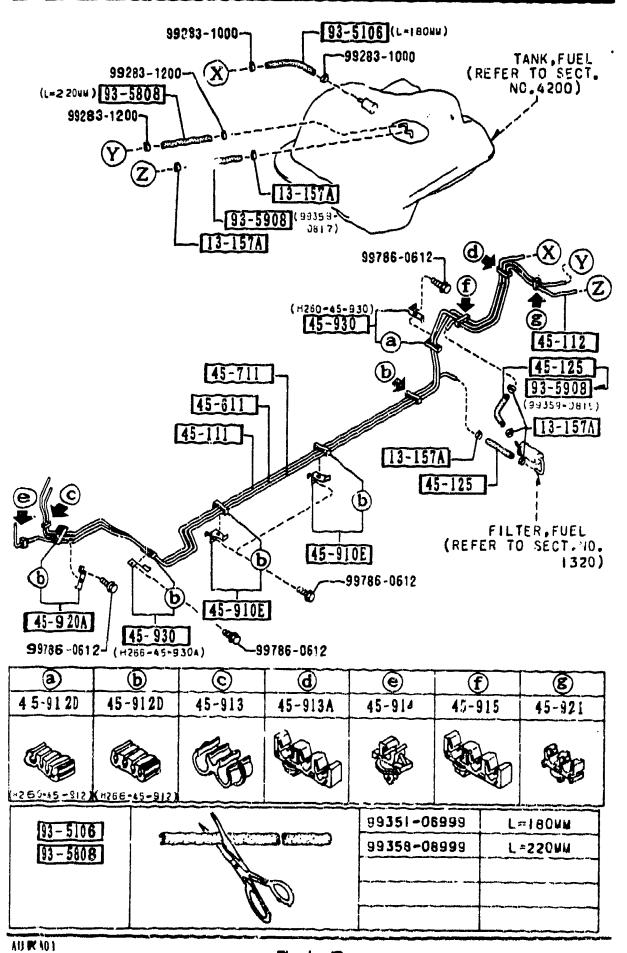
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
41-081A     0750-41-308	1	SPRING, RETURN			
43-635		CLIP, FLEXIBLE HOSE			
44-010   NA01-44-010	1	LEVER, PARKING BRAKE			
44-031   G030-44-031	1	SPRING, PARKING REVER			
44-032   NA01-44-032		ROD, RELEASE			
44-033   FB01-44-033	1	BUTTON, RELEASE			
40-034   FB01-44-034	1	CAP, PARK BRAKE LEVER			
44-061A   FB01-44-061B	1	COVER			
44-062     5801-44-062A	1	COVER			
44-063   FC01-44-063	1	SPACER			
44-150   NA01-44-1503	1	CABLE, PARKING-FRT			
44-187     0866-44-187A	1	SCREW, ADJUST			
44-189     0866-44-189	1	CLIP			
44-410     NA01-44-410B	1	CABLE(R),R.~PARK.			

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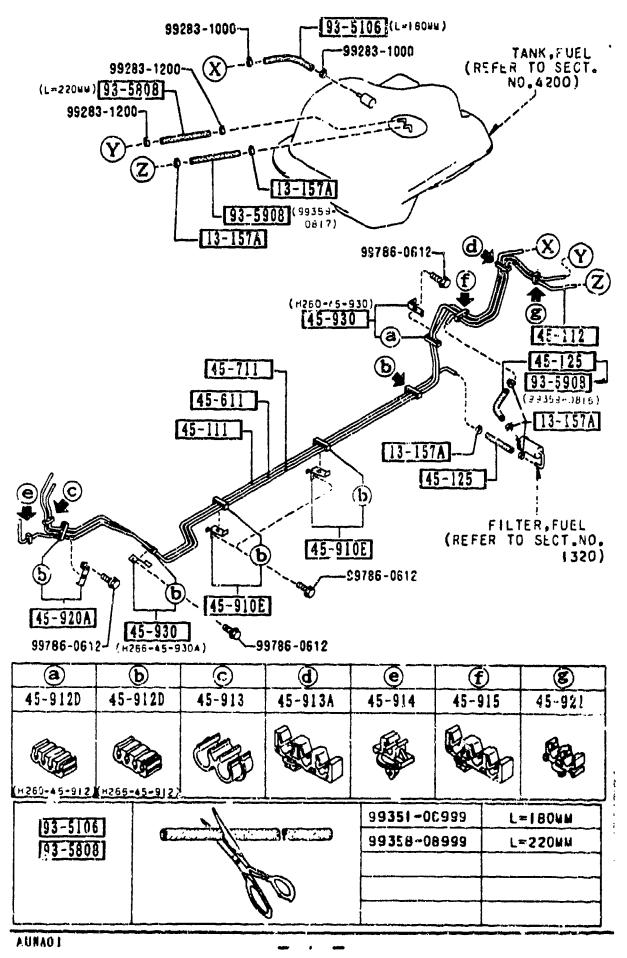
PART NO.	OTY	MODEL/RESTRICTION	WOREL PRESTRICTION	MODEL/RESTRICTION	FROM-TO
44-410A		CABLE(L),RPARK.			
NA01-44-420B	1				
+		d) 7m 440. h			
1011-44-439		CLIP, CABLE			ļ
1011-44-434	1				
66-840		SWITCH, PARKING LAMP			
GJ21-66-450A	1				
					į
					Ì
					1
					}
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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-157A   8574-13-157	6	CLIP			
45-111   NA01-45-111	1	P. PE, FUEL-MAIN			
45-112     NA01-45-112A	1	PIPE, FUEL-MAIN			
99359-0815	2	HOSE, FUEL			~9801
99359-0815	1				9801-
45-611   NA01-45-611	1	PIPE, FUEL-RETURN			
45-711   NA01-45-711A	1	PIPE, EVAPORATION			
45-910E   H266-45-910A	2	HOLDER, PIPE			· earlywayer a management of the party of th
45-9120     460-45-912	1	HOLDER'A'			
H266-45-912	5				
45-913   NA01-45-912	1	HOLDER, PIPE			
45-913A   NA01-45-913	1	CLIP, PIPE			
45-914	- 1	HOLDER, PIPE			
F501-45-914	1	NIFUKO			
45-915		CLIP, PIPE			
HA01-45-914   45-920A     H266-45-920A	ŀ	HOLDER'B'.PIPE			

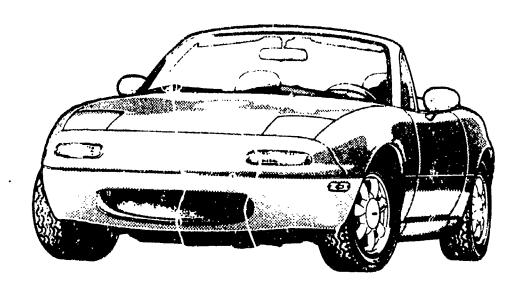
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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO			
45-921		CLIP, PIPE						
8210-45-917	1							
1 45-930		HOLDER'C', PIPE						
H260-45-930	1							
1266-45-930A	1							
93-5106	:	HOSE						
39351-06999	1							
<b>+</b> +								
93-5808		HOSE						
9358-08999	1				1			
1 93-5908 [		HUSE						
95359-0817	1							
9359-0816	1				9801-			
					į			
					İ			
					!			
9801 NA35##	-12	5490			<u> </u>			

# Parts Catalog

# Mazda MX-5 MIATA U.S.A. ('90)



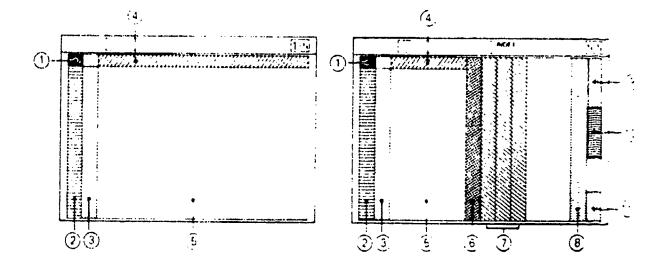
NA35 \*\*-100001-200000

Feb. 92 (FINAL)
Catalog No. AU-NA01-07



#### LAYOUT OF CONTENTS

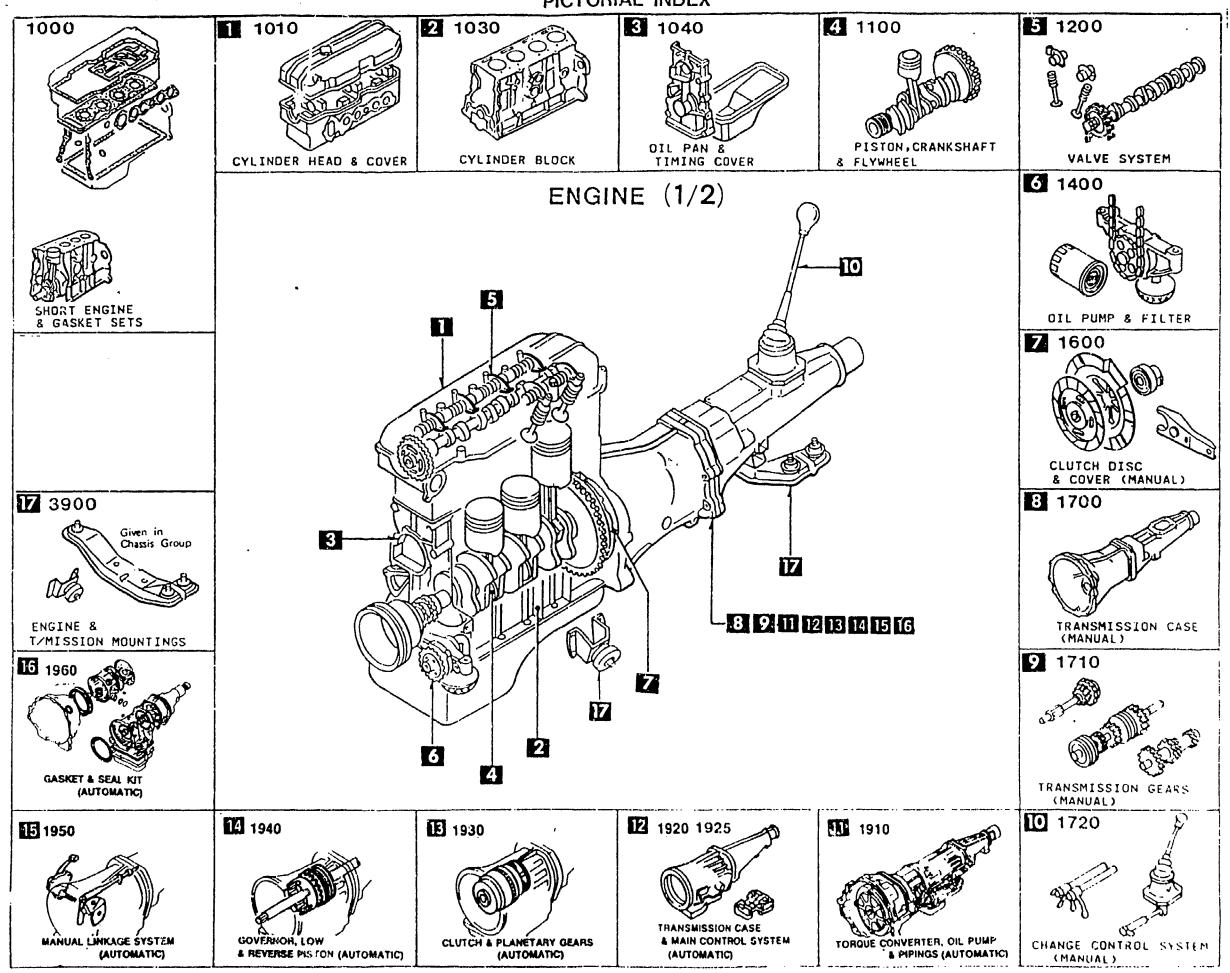
• The following is a typical example of the layout of contents on Mazda microfiche parts catalog

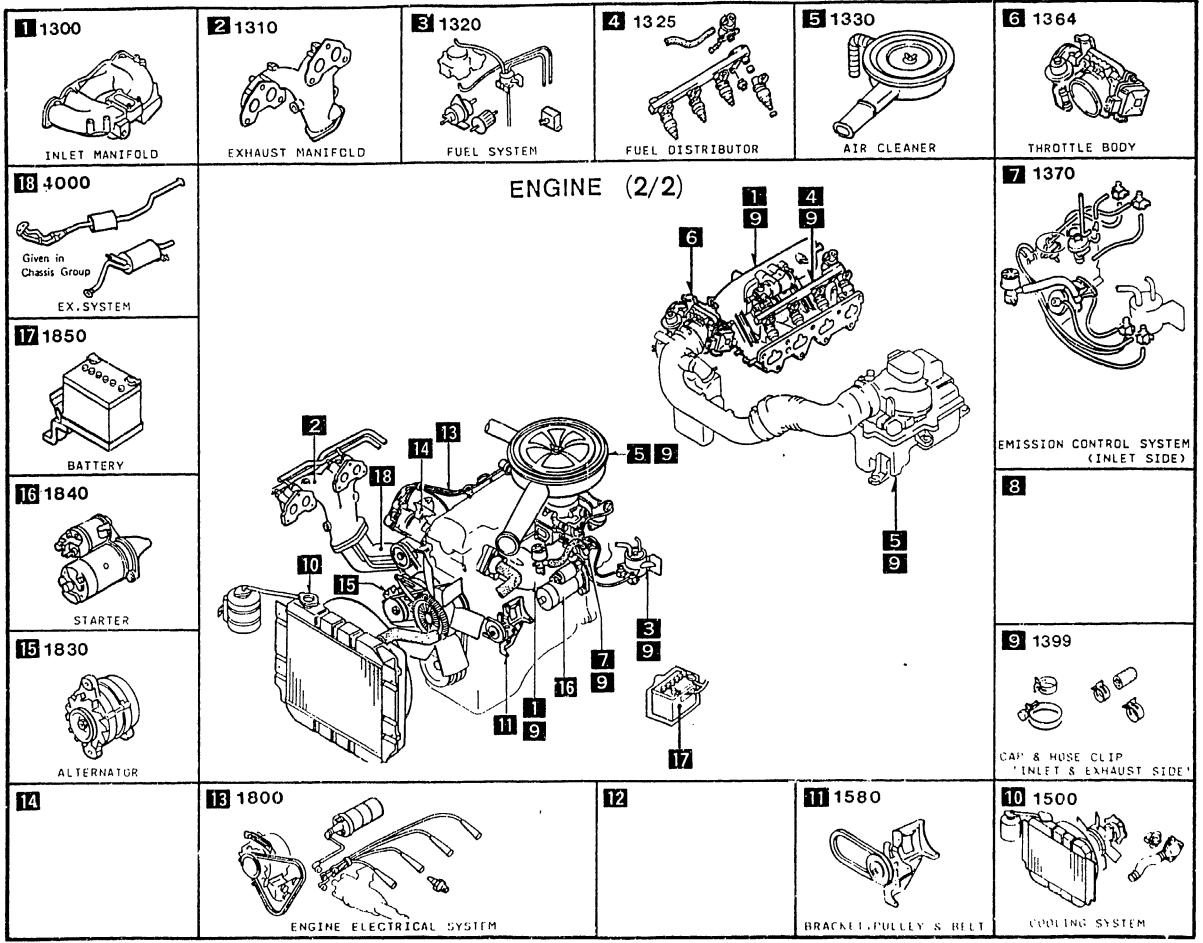


- (1 · Layout of contents
- 2 Pictorial Index
- (3 · Master Section No. Index

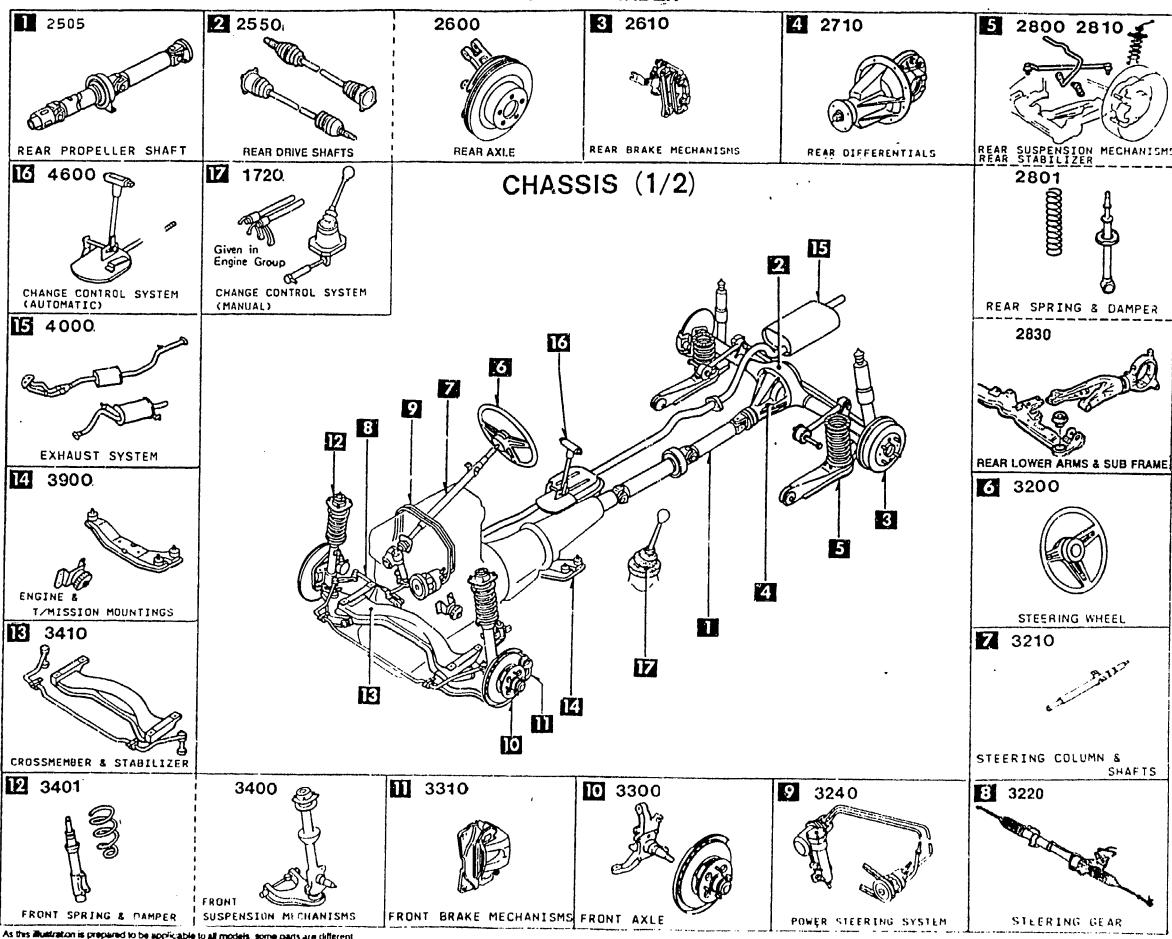
- Section No. Index for the Column
- (5) · Illustration & Text
- 6' Part No Index

- (7) \*Alphabetical index
- 385 Model Identification
- 9° Venicle Identification System

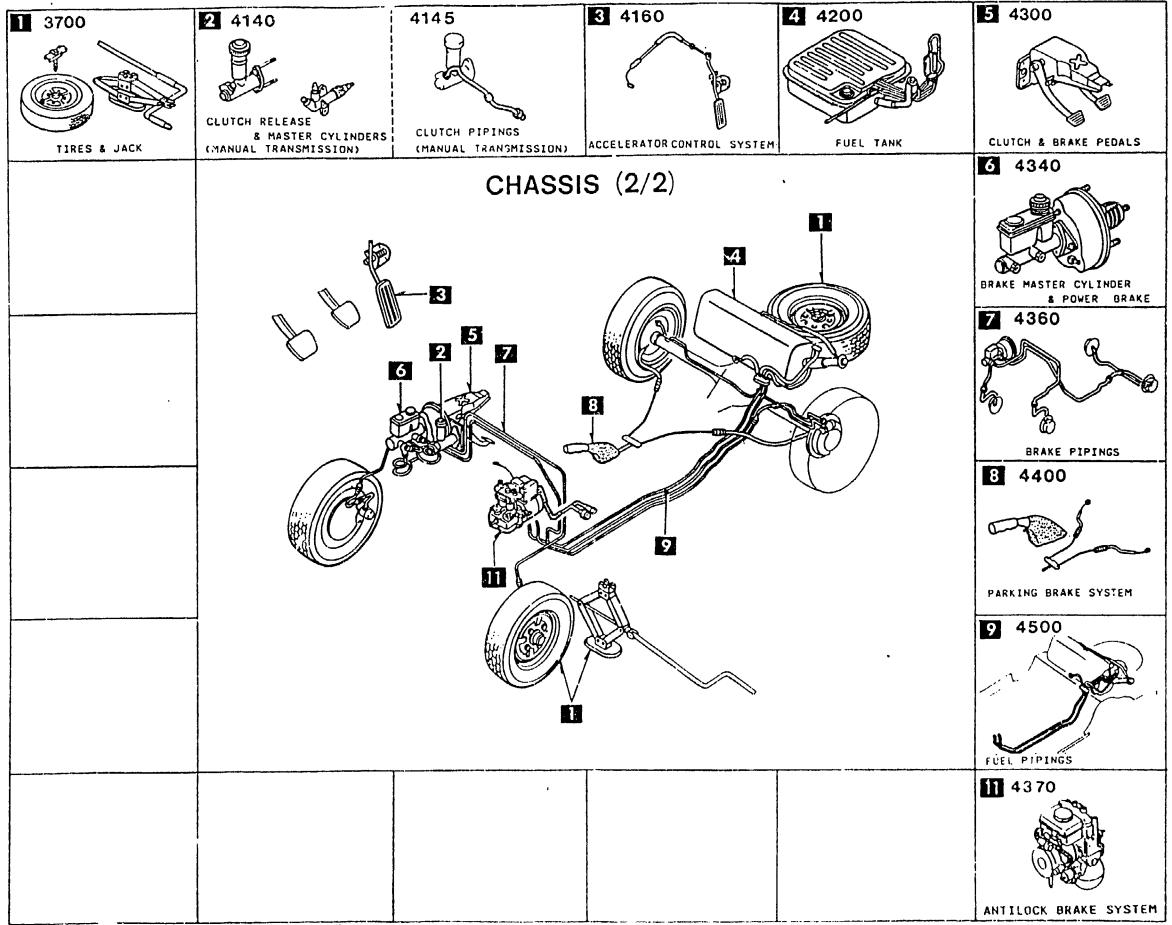




As this Kustration is prepared to be applicable to all models, some parts are diffrent in specifications from the parts listed in this parts Catalog.

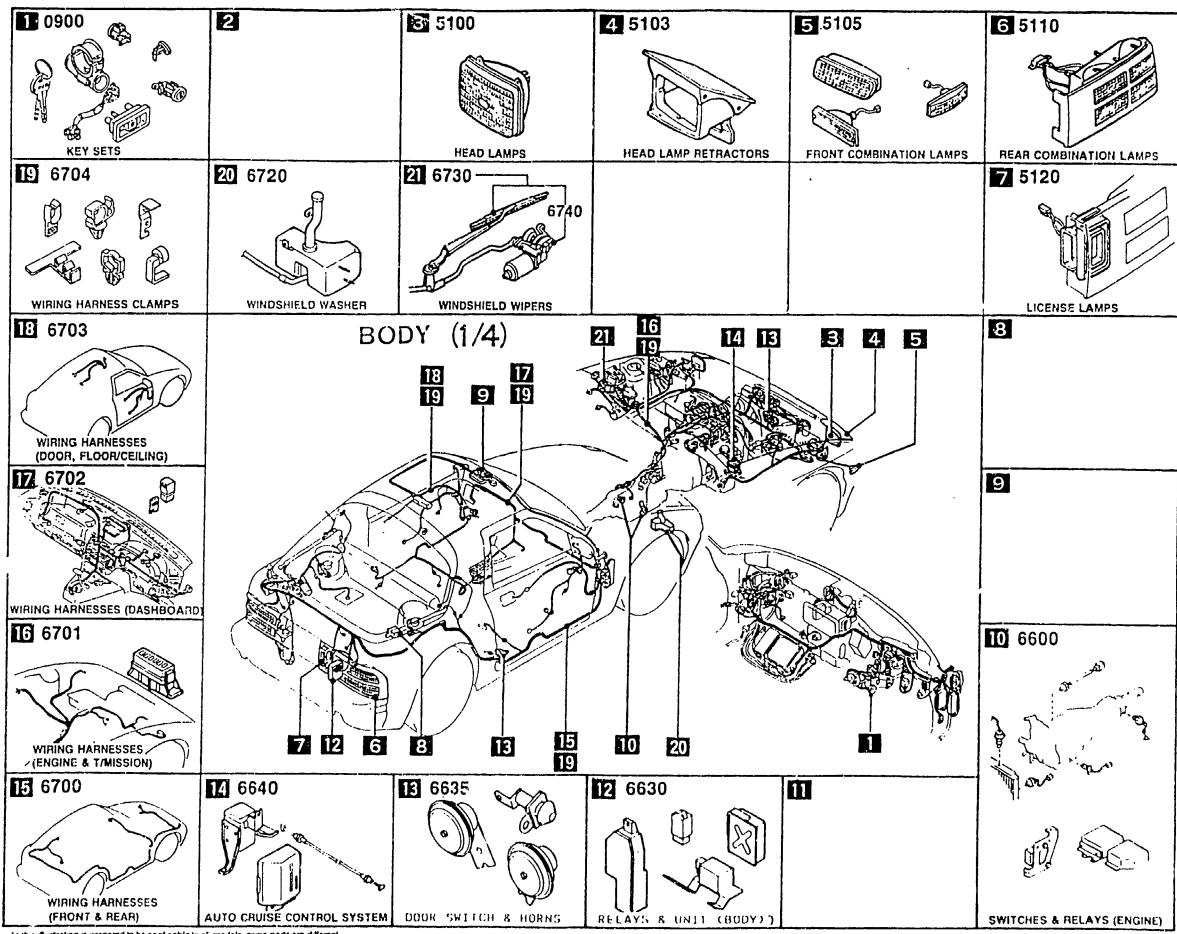


As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

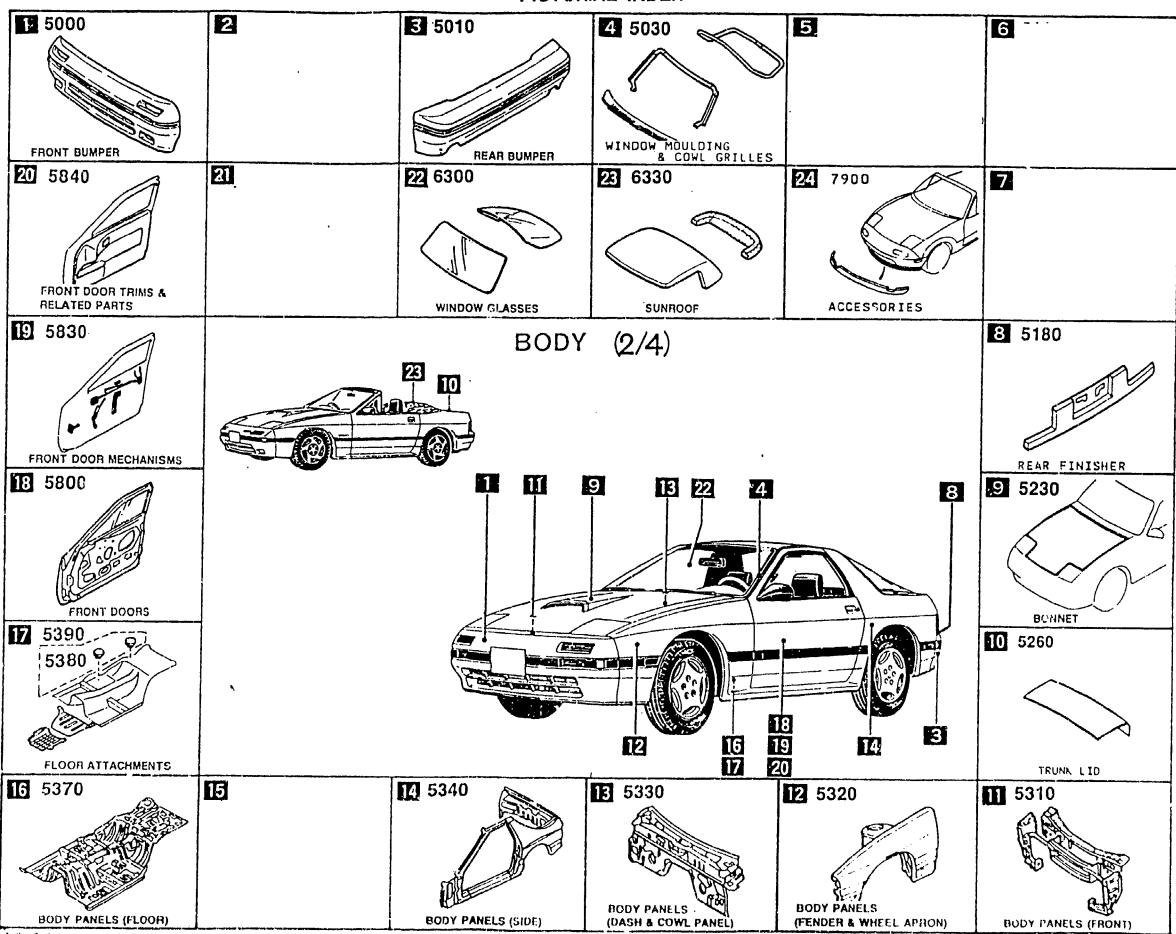


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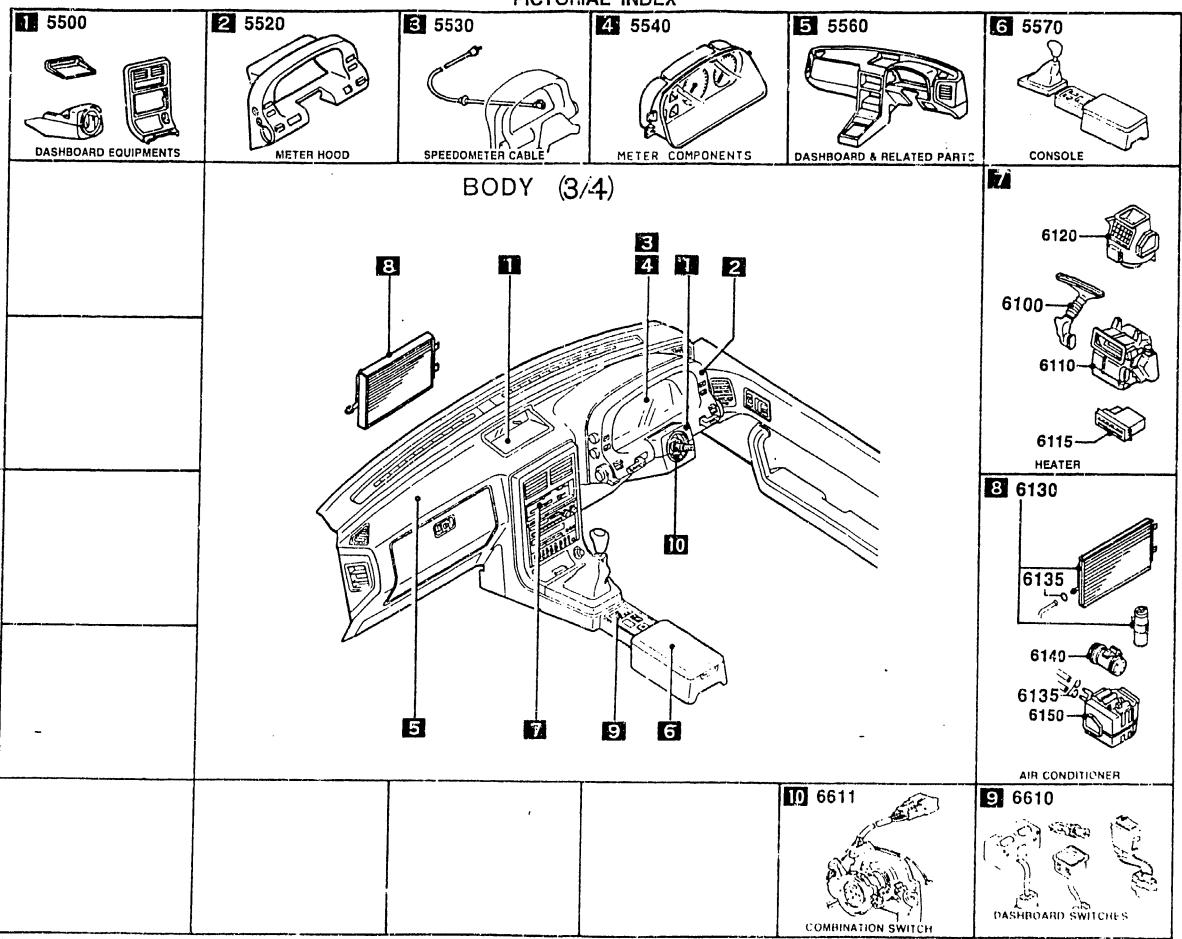


As this disstration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.

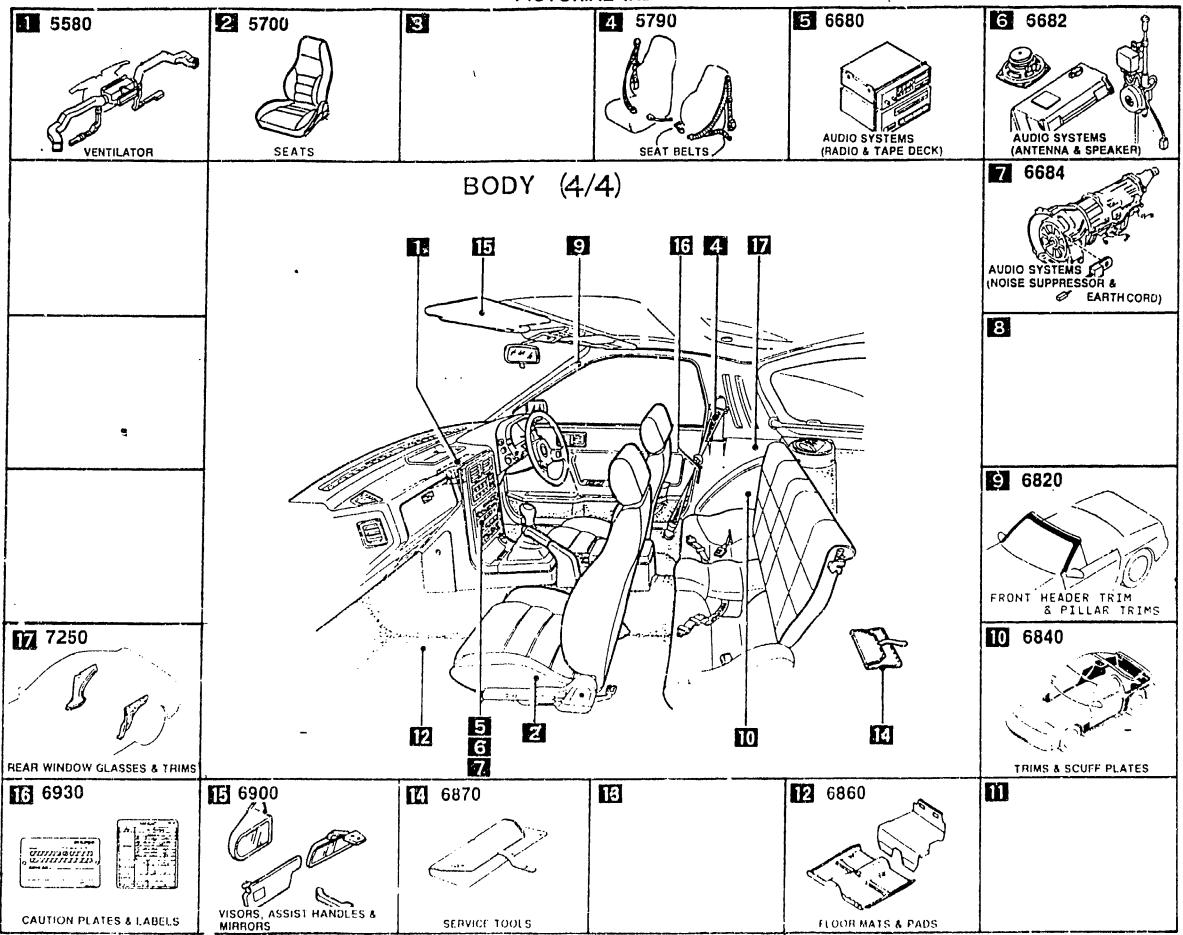


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in Specifications from the parts listed in this parts Catalog



As this illustration is prepared to be apply able to all models, some parts are different in specifications, from the corts listed in this pures. Catalog



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in specifications from the parts listed in this parts Catalog.

#### SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	· SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS					- 44 40 40 40 40 40	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
1-003	1010	CYLINDER HEAD & COVER		,				
1-G03	1030	CYLINDER BLOCK						
1-103	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON, CRANKSHAFT & FLYWHEEL						
1-NO3	1200	VALVE SYSTEM						
1-004	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						
1-F04	1320	FUEL SYSTEM						
1-H04	1325	FUEL DISTRIBUTOR						
1-104	1330	AIR CLEANER						
1-K04	1364	THROTTLE BODY						
1-604	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAU ST SIDE)						
1-004	1400	OIL PUMP & FILTER						
1-005	1500	COOLING SYSTEM						
1-G05	1580	BRACKET, PULLEY & BELT						
1-006	1600	CLUTCH DISC & COVER (MANUAL)						
1-006	1700	TRANSMISSION CASE (MANUAL)						
1-E06	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-MO6	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR					ļ	
1-E07	1840	STARTER						
1-G07	1850	BATTER'						
1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-108	1930	CLUTCHES & PLANETARY GEARS (AU TOMATIC)						
1-009	1940	GOVERNOR, LOW & REVERSE PISTON (AUTOMATIC)						
1-GD9	1950	MANUAL LINKAGE SYSTEM (AUTOMAT					1	
1-109	1960	GASKET & SEAL KIT (AUTOMATIC)						

#### SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.ND	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11		REAR PROPELLER SHAFT	1-J16		PARKING BRAKE SYSTEM			
1-D11		REAR DRIVE SHAFT		4500	FUEL PIPINGS			
1-E11			2-C03	4600	CHANGE CONTROL SYSTEM			
1-F11	2610	REAR BRAKE MECHANISMS			(AT)			
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-111	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-012	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-112	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)				;		
1-013	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-113	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-014	3700	TIRES & JACK						
1-015	3900	ENGINE & T/MISSION MOUNTINGS						
1-015	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI						
1-H15	4160	ACCELERATOR CONTROL SYSTEM						
1-115	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-016	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	436C	BRAKE PIPINGS						

#### SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CON			
2-M05	5103	HEAD LAMP RETRACTORS	2 1122	4150	DITIONER)			
5-006	5105	FRONT COMBINATION LAMPS	2-012	F	COOLING UNIT (AIR CONDITIONER)			
2-F06	5110	REAR COMBINATION LAMPS	2-C13 2-D13	6300	WINDOW GLASSES SUNROOF			
2-106	5120	LICENSE LAMPS	2-M13	6330 6600	SWITCHES & RELAYS (ENGINE)	i		
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-007	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS	i i		
2-E07	5320	BODY PANELS (FENDER & WHEEL AP	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL		6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK			
2-C08	5370	BODY PANELS (FLOOR)			ER)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR			
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI SSION)			
2-009	5500	DASHBOARD EQUIPMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)	:		
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR,FLOOR/CE			
2-F09	5530	SPEEDOMETER CABLE	2-F15	6704	WIRING HARNESS CLAMPS			
2-G09	5540	METER COMPONENTS	2-115	,	WINDSHIELD WASHER			
2-109	5560	DASHBOARD & RELATED PARTS	2-K15	6730	WINDSHIELD WIPERS			
2-L09	5570	CONSOLE	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
5-C10	5580	VENTILATOR	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI			
2-D10	5700	SEATS			MS			
2-K10	5790	SEAT BELTS	2-C16		TRIMS & SCUFF PLATES			
2-L10	5800		2-E16	6860	FLOOR MATS & PADS			
2-C11	5830		2-G16	6870	SERVICE TOOLS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PAR	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR S			
2-C12	6100	HEATER	2 <b>-</b> J16	6930	CAUTION PLATES & LABELS			
2-012	6110	HEATER MMIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS			

SECTION NAME INDEX (CHASSIS)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	1.0.ND	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
1-011	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM			
1-F11	2610	REAR BRAKE MECHANISMS			(87)	B		
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)				1		
1-111	2710 A	"EAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-012	2800	REAR SUSPENSION MECHANISMS				1		
1-E12	2801	REAR SPRING & DAMPER	!			j		
1-F12	2810	REAR STABILIZER		i				
1-G12	2830	REAR LOWER ARMS & SUB FRAME						
1-112	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-013	3220 A	STEERING GEAR (W/ POWER STEERING)						
1-F13	3240	POWER STEERING SYSTEM		:				
1-H13	3300	FRONT AXLE						
1-113	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER	-					
1-N13	3410	CROSSMEMBER & STABILIZER	į					
1-014	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-015	4000	EXHAUST SYSTEM						
1-F15	4140	CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPI 'S (MANUAL TRANSMI						
1-H15	4160	ACCELERATOR CL 'TROL SYSTEM					1	
1-115	4200	FUEL TANK					}	
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-D16	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1~H16	4360	BRAKE PIPINGS						

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PART NO. QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICT.ON	FROM-TO
43-152	PIN, SNAP			
0001-43-152 1				
FB02-43-152A 1				
+	ACTUATOR, SHIFT LOCK			
NA03-45-AT0A :	TAG, CAUTION-CHANGE			
GN52-46-AT1B 1				
++   46-AT8   ++ H338-46-AT8 2	SCREW			
4				
46-AT9     +	NUT			
46-010     46-010     NA03-46-100C   1	LEVER, SELECT			-0402
A (NA03-46-100E)				
NA03-46-100E 1				0402-
1 46-027	CAM, CHANGE LEVER			
H338-46-027 1				
46-030	KNOB, CHANGE LEVER			
NA03-46-030A 1 A (NA03-46-030B)				-0110
NA03-46-030B 1				0110-
i 46-040   NA03-46-040A 1	SWITCH, OVER DRIVE CO			-0110
A (NA03-46-040B)				
NA03-46-040B 1				0110-
46-058   F802-46-058C 2	SCREW, CHANGE LEVER K			
46-082C	COVER, SELECT LEVER			
NA03-46-088 1				
1 46-300	CABLE, INTER LOCK			
0110 NA35HH-13 0402 NA35HH-14				

CAT. AUNA01-07

(AI)				
PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA03-46-300A 1 AN(NA03-46-300B)				-0101
NA03-46-300B 1				0101-
46-302	CLIP			
NA03-46-302 1				-0501
NA16-46-302 1	ROD, SELECTOR-REAR			0501~
NA03-46-570 1				
1015-46-684A 1	виѕн			
55-280A     55-280A     NA03-55-280A	BULB & SOCKET			
64-340A     64-340A     NA03-64-350B 1	INDICATOR			-0110
A (NA03-64-350C)				
NA03-64-350C 1				0110-
f				
0101 NA35##-13	3K01			
0101 NA35HH-13 0110 NA35HH-13 0501 NA35HH-15	3859			
			البرادات برواني والتوادات ويوفقون البرية ويووان وينوان والموادية	

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BODN

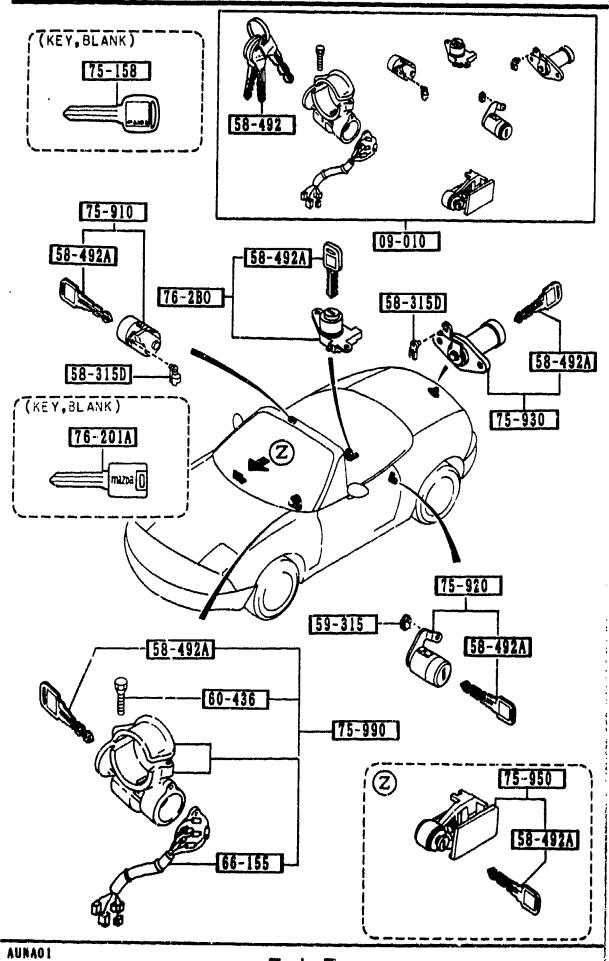
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BODW

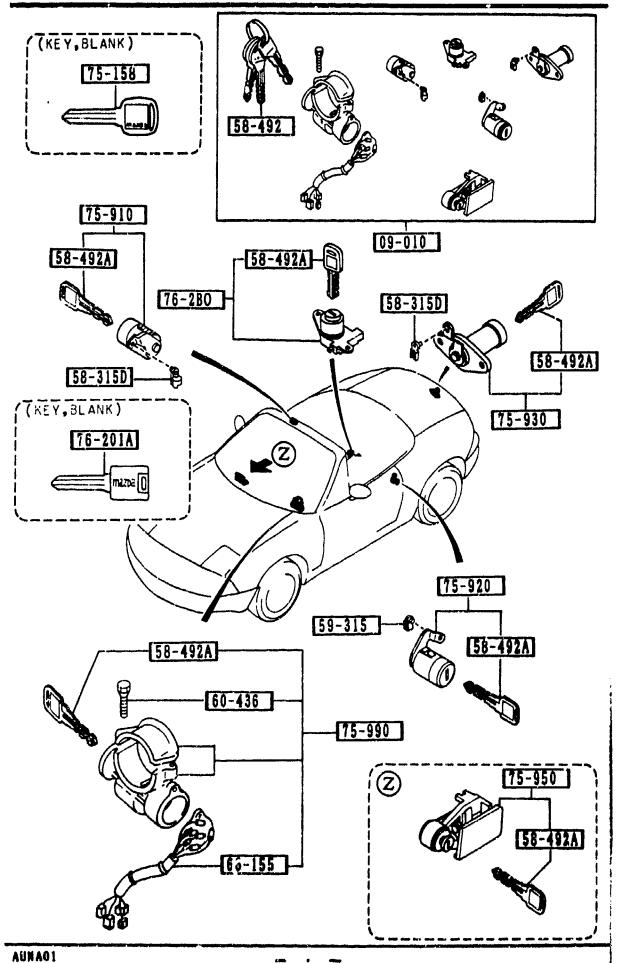
BODN

#### SECTION NAME INDEX (BODY)

2-C05 2-E05 2-H05	0900 5000	KEY SETS						
2-H05	5000		2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
1		FRONT BUMPER	2-512	6120	HEATER BLOWER COMPONENTS			
2-J05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER	1		
	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING	•		
2-L05	5100	HEAD LAMPS	The same	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-112	150	COOLING UNIT (AIR CONDITIONER)	<u> </u>		
S-006	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
5-k06	5110	REAR COMBINATION LAMPS	2-013	6330	SUNROOF			
5-106	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)		:	
S-106	5180	REAR FINISHER	2-014	6610	DASHBOARD SWITCHES			
5-r06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			
S-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-007	5310	BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS		·	
2-E07	5320	BODY PANELS (FENDER & WHEEL AP  RON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
Z-H07	5330	BODY PANELS (DASH & COWL PANEL		6680	AUDIO SYSTEMS (RADIO & TAPE DE			
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK ER)			r
S-C08	5370	BODY PANELS (FLOOR)	2-116	6700	WIRING HARNESSES(FRONT & REAR			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	8700	)			
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES(ENGINE & T/MI SSION)			
2~009	5500	DASHBOARD EQUIPMENTS	2-C15	6702	WIRING HARNESSES(DASHBOARD)			
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE			
2-F09	5530	SPEEDOMETER CABLE		4704	ILING)			
Z-G09	5540	METER COMPONENTS	2-F15		WIRING HARNESS CLAMPS			
2~109	5560	DASHBOARD & RELATED PARTS	2-115	6720	WINDSHIELD WASHER			
2-L09	5570	CONSOLE	2-K15	6730	WINDSHIELD WIPERS			
2-C10	£580	VENTILATOR	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
Z-010	5700	SEATS	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI MS			
2-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES			
Z-L10	5800	FRONT DOORS	2-E16	6860	FLOOR MATS & PADS			
2-C11	5830	FRONT DOOR MECHANISMS	2-G16	6870	SERVICE TOOLS			
z~F11	5840	FRONT DOOR TRIMS & RELATED FAR	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR	<del> </del>		
Z-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS			
2-012	6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS			



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
09-010     NA01-09-010B		KEY GET			-0201
AN(NA01-09-010C	, 1				-020
00		NAO BLACK			
NA03-09-010 AN(NA03-09-010A	, 1				-0201
00		NAO BLACK			
NA01-09-010C	1	(MT)			0201-
00		NAO NAI BLACK			
NA03-09-010A	1	(AT)			0201-
00		NAO NAI BLACK			
58-315D		CLIP (R)			
G030-58-315	2				
1 58-492		KEY, PRIMARY			
BR75-58-492		KEY NO.IS REQUIRED			
51175 50 472	2	1101100 1100011100			
1 58-492A		KEY, SECONDARY			
LA02-58-493	•	KEY NO.IS REQUIRED			
<b></b>	1				
59-315		CLIP			
G030-59-315	1				
60-436		BOLT, SET			
H043-66-154	2				
+		SWITCH, IGNITION			1
D001-66-151	1	SWITCH, IGNATION			
+	•				
75-158		KEY, BLANK			
LA02-76-202	1				
75-910		KEY SUB SET(R),DOOR			
NA01-76-210	1				
175~920		KEY SUB SET(L),DOOR			
NA01-76-220	1	ALI DOD GETTETTOOK			
1474-7-7-669	•				
0201 NA35##	-13				<u> </u>



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MART NO. QTY MODEL/REST	RICTION MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
75-930   KEY SUB SET,	TRUNK		
NA01-76-230 1			
75-950   KEY SUB SET,	GLOVE		
NA01-76-250 1			
00 NAO BLACK			
75-990   KEY SUB SET,	ST.LOCK		
++ NA01-76-290 1 AN(NA01-76-290A)			-0201
NA03-76-290 1			-0201
AN(NA03-76-290A)			
NA01-76-290A 1 (MT) NA03-76-290A 1 (AT)			0201-
+			
76-280   KEY SUB SET,   NA01-76-280   1	CUNSOL		
00 NAO NAI BLAC	*		
+   76-201A   KEY,BLANK-PR	TMADY		
BR75-76-201 1	APMRI		-9C01
B545-76-201 1			9C01-
9C01 NA35MM-130310 0201 NA35MM-137180			
			l l

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FRON-TO
1 33-693A I		CAP, BLEEDER SCREW			
0259-33-693	2				
50-A20	1	GUIDE,AIR	:		
NA01-50-A20A	1				
1 50-0G8A		SEAL, RUBBER-FRONT BU			
NA01-50-009	2	MPER			
50-0J1		RETAINER(R), FORNT BU			
NA01-50-0J1		MPER (AT)			
+	-				
50-0J5   	1	RETAINER(L), FRONT BU MPER			
<b>+</b>					
50-0K0	-	RETAINER, FASCIA			
NA01-50-0K0B	1				
50-015C		BOLT			
FB01-50-132	2				
50-015D		BOLT			
NA01-50-022	8				
50-030		HOLDER, NO. PLATE			
NA01-50-180 (NA01-50-1804	, 1				-9A0
NA01-50-180A	1				9A01-
50-031		BUMPER, FRONT			
NAY1-50-030	- 1	}			
1 50-036C		FASTL R			
BF67-50-033	2	1001			
1 50-0345 1		CLTB			
50-036E     +	6	CLIP			
<b>+</b>		DEVISOR COMPANY STATES			
50-040   ++	1	REINFORCEMENT, BUMPER			
NA01-50-070 NA07-50-070	- 1	(W/AIR BAG) (W/O AIR BAG)			0701-
9A01 NA35##	1				0/01-

9A01 NA35#H-122908 07C1 NA35#H-200041

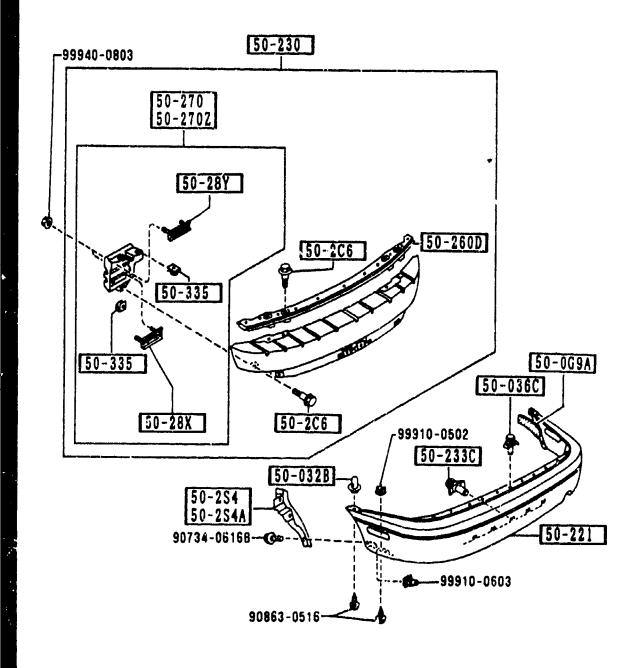
CAT. AUNA01-07

	50-101A 50-101A 50-036C 50-036C 50-068 50-068 (NAO1-50-1E 50-18X	50-318 50-015 50-335 90720-0616 99865-05168 99865-05168 90720-0616 99865-05168 50-180 50-031 50-036E	50-A20 50-160D 907 9940-0602 50-0J5 50-0J1 99769	86-0616 0-043E
	-50-18X -50-030 -99940-0603 -33-693A			
LOWIN				

	NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-	043E		SLIDE'A', BUMPER			
8092-50	-032	2				
<b>+</b>	+		o. •n			
50-	+	2	CLIP			
NA01-50	+	6				
	1AY		PLATE, SET NU.1			
NA01-50	-1AYA	1				-9912
NA01-50	-1AYB	1				9912-
50-	1B0		PLATE NO.2(R), SET-F.			
NA01-50	-1B0	1	BUMPER			
+	+					
<b>+</b>	1B0A		PLATE NO.2(L), SET-F. BUMPER			
NA01-50	-100	1				
50-	1E2		BOLT			
NA01-50	-1E2	2				
NA01-50	-1E3	4				
1 50-	1ZY		BRACKET, FENDER			
NA01-50	+ -1ZY	2				
	+		COVER ORTH			
NA01-50	101A	3	COVER, GRILLE			
MMU1-30	-101W	3				
50-	114A		SPACER, E.A. FOAM			
NA01-50	-114	1				
1 50-	160D I		BRACKET(L),F. BUMPER			
NA01-50	+	2	SIDE			
+	+					
50-1	+		BRACKET, LICENCE PLAT			
NA01-50-		2				
•	180E	İ	PROTECTOR, NO. PLATE			
FB01-50-	-144	1				
1 50-2	240		SET PLATE NO.1(R),RR			
NA01~50-	+	1	BUMPER			-9912
				<u> </u>	**************************************	-7716
9912	HKCEAN	•• . <b>.</b> द्वी	552			

ICANUA	90906-0602  90906-0602  50-068  90906-0602  50-068  50-080  90786-0616  90786-0616  50-180E  (NAO1-50-1E2)  50-180C  (NAO1-50-1E2)  50-180C  (NAO1-50-1E2)	6-0616 -043E
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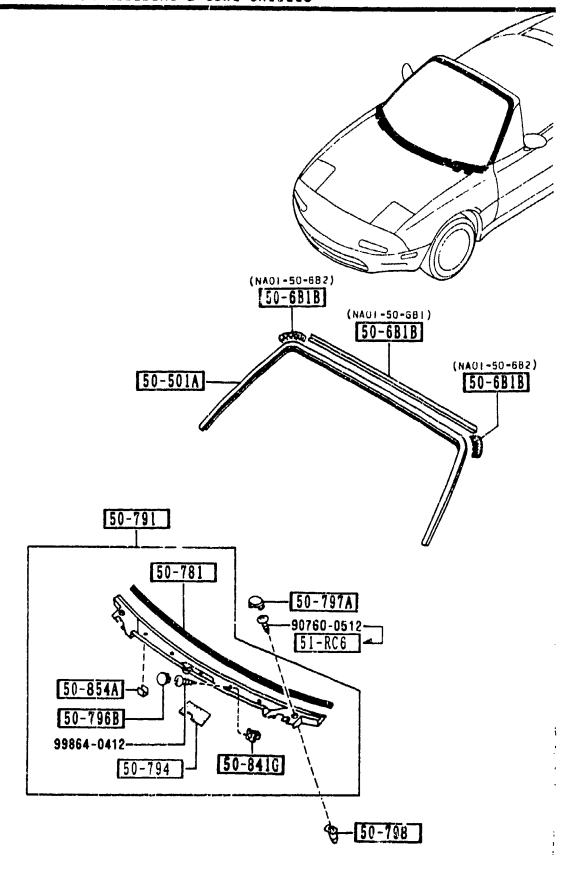
PART NG.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
CCNT'D NA01-50-2A0A	1				9914-
50-233C     BF82-50-233	3	FASTENER, REAR BUMBER			
50-318     50-318     NA01-50-318	2	TAPE, ENGY ABS.FORM-R R BUM			
50-335     50-335     FB01-50-133	4	NUT,CLIP			
51-711C   NA04-51-711	3	ORNAMENT, MAKER NAME- FRONT		,	
14		SU UC DU HU LIGHT GRAY			
18		3L DARK GRAY			
					i
			1		!
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9912 NA35HH	-120	552		A Third Bury of the Arthur addition and the upp may representatives and account and	



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-0G9A	_	SEAL, RUBBER-REAR BUM PER			
NA01-50-0G8	2				
50-032B		SLIDE'UP.', BUMPER			
GJ21-50-032	2				
50-036C		FASTENER			
BF67-50-033	11				
50-2C6		BOLT			
NA01-50-2C6	6				
50-254		SHILD(R),SPLASH-R.BU			
NA01-50-254	1	MPER			
1 50-254A 1		SHILD(L), SPLASH-R.BU			
NA01-50-2S5	1	MPER			
50-221		BUMPER, REAR			
NAY1-50-220 (NAY1-50-220A	, 1				-93
NAY1-50-220A	1				9330-
50-230		REINFORCEMENT, BUMPER			
++ NA01-50-260	1	(W/AIR BAG)			
NA07-50-260	1	(W/O AIR BAG)			0701-
50-233C		FASTENER, REAR BUMBER			
BF82-50-233	5				
50-260D		RETAINER, R. BUMPER			
NA01-50-2J0	1				
50-270		STAY(R),RR. BUMPER			
NA01-50-280A	1				
50-2702		STAY(L), RR. BUMPER			
NA01-50-290A	1				
50-28X		PLATE SET			
NA01-50-28XC	2				
9330 NA35** 0701 NA35**					

995	940-0803	50-230		
	50-270 50-2702			
•	50-28			
	50-335	50-206	50-260D	
	50-335		50	50-0G9A -036C
	50-28X	50-206	99910-0502 50-233C	
	50-2S 50-2S 90734-06			50-221
		20863-0516	99910-06	

	<b>_</b>				
PART NO.	QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-28Y		PLATE SET			
NA01-50-28YC	2			]	
************	_				
50-335		NUT,CLIP			1
NA01-50-133	6				
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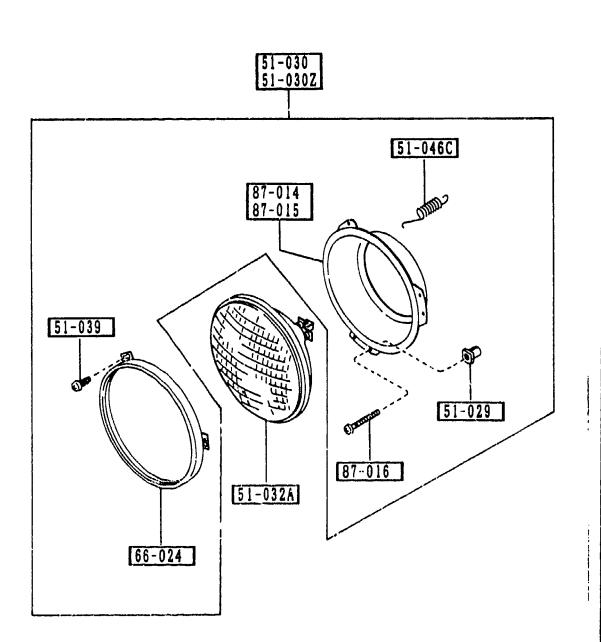
PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-501A	MOULD(UP),FRT.WINDOW			
NAY1-50-601 1	1			
+======+   E0_4010	DDDTECTOR MOULD FOR			
50-6B1B   +	PROTECTOR, MOULD-FRT WIND			
NA01-50-682 2	1			9421-
++   50-781	PROTECTOR, COWL GRILL			
NA01-50-792 1	1			-9701
A (NA01-50-792A)				
NA01-50-792A 1				9701-
+	GRILLE, COWL			
NA01-50-790A 1 A (NA01-50-790B)				-9412
NA01-50-790B 1 A (NA01-50-790C)				9412-9701
NA01-50-790C 1 A (NA01-50-790D)		٠		9701-9912
NA01-50-790D 1				9912-
50-794	PROTECTOR			
NA01-50-788 1	PROTECTOR			
+				
50-796B   ++ 8455-50-796 5	CAP			
+				
50-797A     ++   NA01-50-797 2	CAP			
+				
50-798   ++ NA01-50-798 2	SCREW, GRUMMET			
+				
+	GROMMET, SCREW			
F044-51-912 5 NA01-51-789 5				~9412 9412-
++				7446-
50-854A   ++ NA01-50-794 4	PROTECTOR			
+	}			
51-RC6	SCREW, SIDE GARNNISH			
9412 NA35#H-100 9421 NA35##-101	1369	<u> </u>		
9701 NA35**-111 9912 NA35**-120	1969			
				1

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(NAO)	-50-6B2) -6B1B
	(NAOI -50-681)
50-501A	(NAO1-50-6B2) 50-6B1B
•	
50-791	
50-781	
8	-50-797A -90760-0512 51-RC6
	[51-RC6]
50-854A - 50-796B	
99864-0412	
50-794 50-841G	
	50-798
	} 

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
CUNT'D H272-51-RC6	2				9418-
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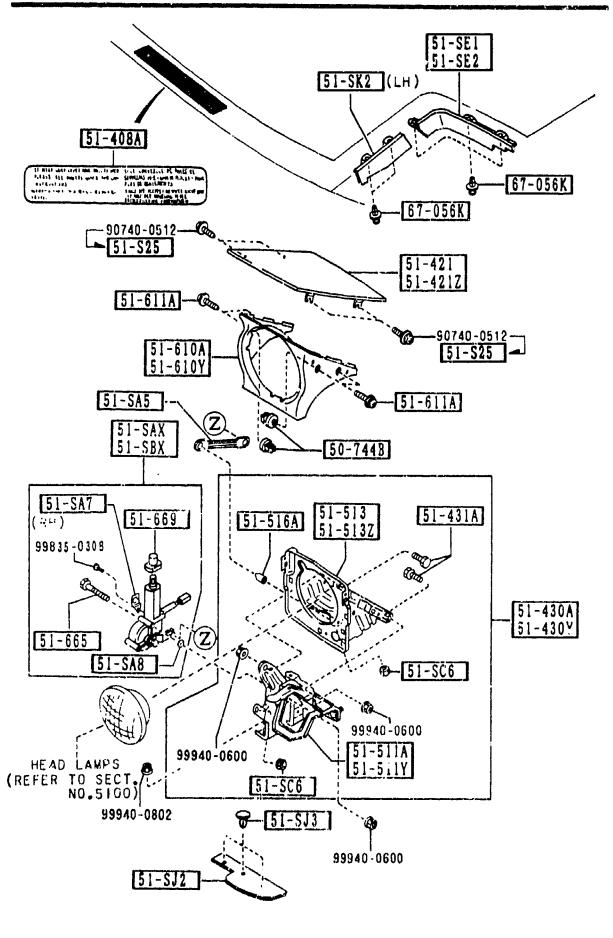
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PART N	10.	QTY	MODEL/RESTRICTION	MUDEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-02	29	!	GROMMET, SCREW			
0483-66-0	)61A	4	<u> </u>			
+   51-03		!	AMD SET/D) LIGAD			
# 8BN1~51~0	+	1	LAMP SET(R), HEAD			
+	+					
51-03	+		LAMP SET(L), HEAD			
8BN1-51-0	140	1				
51-03	32A	!	UNIT, HEAD LAMP			
NA02-51-0	131	2				
1 51-03	·+	1	SCREW			
B481-51-0		6				
+	+					
51-04 	+	!	SPRING			
NA01-51-0	46	2				
66-02	4	)	RING, RETAINING			
NA01-51-0	33	2		1		
87-01	4	1	RING(R)MOUNTING		!	
NA01-51-0	+	1	1			
1 87-01	+	ļ	RING(L)MOUNTING			
NA01-51-0	+	1	}	1		
<b>+</b>	+					!
87-01	+	- [	SCREW, ADJUST	ĺ		
NA01-51-0	37	4		1	1	
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PART NO.	YTÇ	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-T
50-7448		GROMMET, SCREW			
8481-50-744	8				
51-SAX		MOTOR(R), RETRACTABLE			
NA01-51-SAX	1	HEAD			
51-SA5		ROD, RETRACTABLE			
NA01-51-SA5	2				
51-SA7		BRACKET, CLIP			
NA01-51-SA7	1				
51-SA8		WASHER			
NA01-51-SA8	6				
51-SBX		MOTOR(L), RETRACTABLE			
NA01-51-SBX	1	HEAD			
51-SC6		NUT,STOPPER-LAMP HIN			
KA01-51-SC6		GE			
51-SE1		PRUTECTOR(R), RETRA H			
NA01-51-SE1	1	/L			
51-SE2		PROTECTOR(L), RETRA.			
NA 01-5)-SE2		HZL			
1 51-SJ2		PROTECTOR(L), RETRA.			
A01-51-SJ2	2	FRON			
51-SJ3		CLIP			
1-1-333 1401-51-SJ3	6	CLIF			
+		DDDTFOXDO(1) DTTD	-		}
51-SK2   NA01-51-SK2	1	PROTECTOR(L), RETRA. SIDE			
<u> </u>					
51-S25   	8	BOLT, LAMP LID			
+					
51-408A	ŀ	LABEL, COUTION-RETRAC			
NA04-51-502	1				

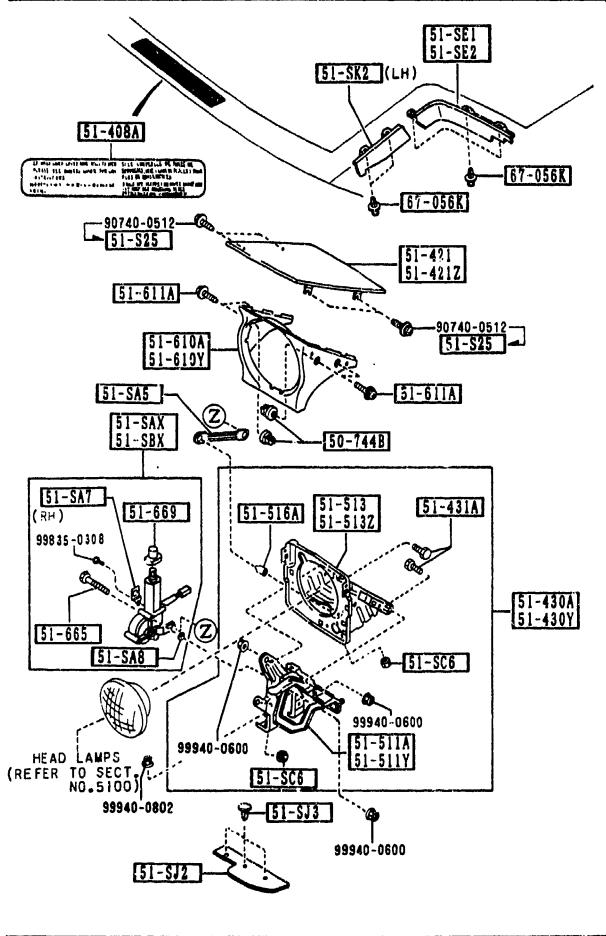
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51-SE2  51-SE2  51-SE2  51-SE2  51-SE2  51-SE2  51-SE2  51-SE3  51-SE2  51-SE2  51-SE2  51-SE2  51-SE2  51-SE2  51-SE2
51-610A 51-610Y 51-SAX 51-SBX 51-SBX 51-516A 51-513Z 51-431A 51-430A 51-430A
51-665 51-SAB 99940-0600 99940-0600 99940-0600 51-SIIN 51-SIIY 99940-0600

PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-421	LID(R),LAMP			
NA01-51-SH1A 1 (NA01-51-SH1B)				-960
NA01-51-SH1B 1				9601-
51-4212	LID(L).LAMP			
NA01-51-5H2A 1 (NA01-51-SH2B)				-960
NA01-51-SH2B 1				9601-
51-430A	HINGE(R), LID-LAMP			
NA01-5)-SC0A 1 (NA01-51-SC0B)				-992
NA0151-SC0B 1				9926-
51-430Y	HINGE(L),LID-LAMP			
NA01-51-SD0A 1 (NA01-51-SD0B)				-992
NA01-51-SD0B 1				1926-
51-431A	BOLT, HINGE			
KA01-51-SD7 4				
51-511A	BRACKET(R), HINGE-LAMP LID			
NA01-51-SC1A 1				
51-511Y	BRACKET(L), HINGE-LAMP LID			
NA01-51-SD1A 1				
+	HOUSING(R), LAMP-LID HINGE			
NA01-51-SC5A 1 (NA01-51-SC5B)		,		-992
NA01-51-SC5B 1		,		9926-
+	HOUSING(L), LAMP-LID HINGE			
NA01-51-SD5A 1 (NA01-51-SD5B)				-992
NAU1-51-SD5B 1				9925-
51-516A	CAP, HINGE-H.L.RETRAC			
KA01-51-SD6 2				
9601 NA354H-106 9926 NA35HH-122				
	- <del>-</del> : :			

SECTION NAME INDEX (BODY)

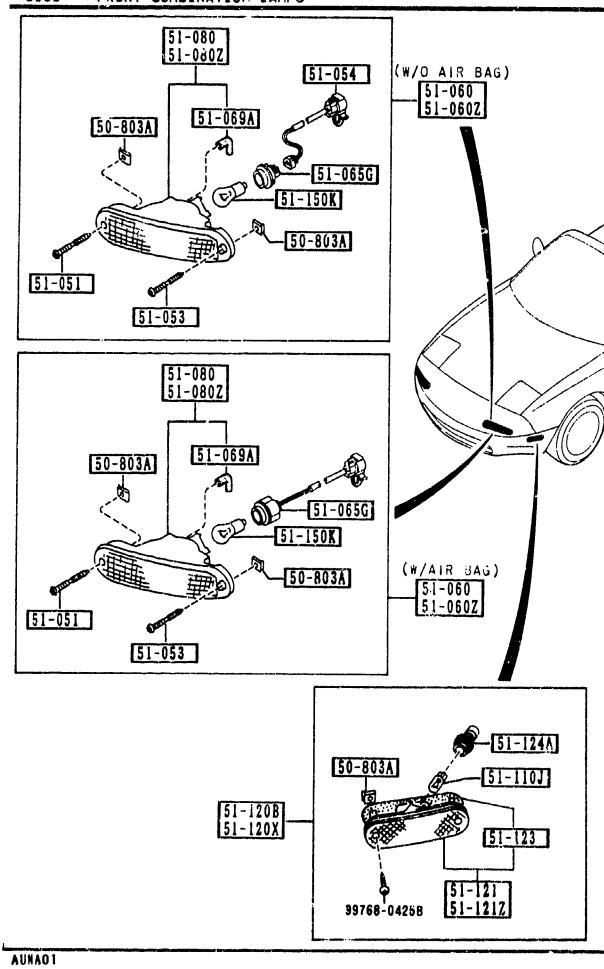
LO.NO	SEC.NO	SECTION NAME	110 110	<del></del>	TION NAME INDEX (BODY)		<u> </u>	
2-C05			<del></del>	SEC.NO		LO.NO	SEC.NO	SECTION NAME
	0900	KEY SETS	2-E12	ł		3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)	ļ	]	
2-D06	5105	FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-013	6330	SUNROOF	f 		
2-106	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-106	5180	REAR FINISHER			DASHBOARD SWITCHES			
2-L06	5230	BONNET						
2-N06	5260	TRUNK LID	2-2-0	7	COMBINATION SWITCH			
2-D07	5310	BODY PANELS (FRONT)	2-F14	6630	RELAYS & UNIT (BODY)			
2-E07	5320	BODY PANELS (FENDER & WHEEL AP	2-G14	6635	DOOR SWITCH & HORNS			
2_407	E770	RON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK			
2-C08	5370	BODY PANELS (FLOOR)		ء حدنه	ER)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR			
2-G08	5390	FLOOR ATTACHMENTS	2-N14		WIRING HARNESSES (ENGINE & T/MI			
2-009	5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES (DASHBOARD)	·	Ì	
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE			
2-F09	5530	SPEEDOMETER CABLE	2 535	Ì	ILING)			
2-G09	5540	METER COMPONENTS	2-F15		WIRING HARNESS CLAMPS	ļ		
2-109	5560	DASHBUARD & RELATED PARTS	2-115		WINDSHIELD WASHER			
2-L09	5570	CONSOLE	i	i	WINDSHIELD WIPERS			
2-010	5580	VENTILATOR		Ì	WIPER MOTOR COMPONENTS(FRONT)			
2-010	5700	SEATS	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI			
2-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES			
2-110	5800		· · · · · · · · · · · · · · · · · · ·		FLOOR MATS & PADS			
z-C11	5830		}	_	SERVICE TOOLS			
2-F11	Į.	FRONT DOOR TRIMS & RELATED PAR	f		VISORS, ASSIST HANDLES & MIRROR			
2-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS			
2-012	6110			1	QUARTER WINDOW & TRIMS			
					Annual Mannon & INTIG			



PART NO.	QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-610A     401-50-741	1	BEZEL(R), HEAD LAMP			
\$1-610Y   \$1-50-751	1	BEZEL(L), HEAD LAMP			
51-611A   3481-50-75X	8	SCREW, HEAD LAMP BEZE			
51-665 FB01-51-665	6	BOLT,MOTOR-RETRACT H /LAMP			
51-669 	2	BOOTS,MOTOR-RETRACT H/L			
67-056K     68-056K     1839-50-795	8	RIVET			
	:				

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PARI NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
	1011	HODEL/ RESTRICTION	HODEL/RESTRICTION	HODEL/KESIKIC/ION	PROII-10
50-803A		NUT, SIDE PROTECTOR			
G158-50-803	8				
51-051		SCREW			
NA01-51-051	2	i			-0301
1	-				-0301
51-053		SCREW			
NA01-51-053	2				-0301
+=+   F1 0F4		CORD FRONT COMP			
51-054		CORD, FRONT COMB.			
NA07-51-054	2	(W/O AIR BAG)			0701-
51-060		LAMP SET(R) FRT COMB			
8BN1-51-060	1	(W/AIR BAG)			
8BN2-51-U60	1	(W/O AIR BAG)			0701-
+					
51-0602		LAMP SET(L), FRT COMB			
88N1~51~070		(W/AIR BAG)			
8BN2-51-070	1	(W/O AIR BAG)			0701-
51-0650		SOCKET, F. COMB. LAMP			
NA01-51-064	2	(W/AIR BAG)			
NA07-51-064	2	(W/O AIR BAG)			0701-
+					
51-069A		TUBE, HEAD LAMP			
NA01-51-069	2				
1 51-080 1		LENS & HOUSING(R)			
NA01-51-06X	1				~9601
A (NA01-51-06XA					, , , ,
NA01-51-06XA	1				9601
51-080Z I		LENS & HOUSING(L)			j
NA01-51-07X	1				-9601
A (NA01-51-07XA					
NA01-51-07XA	1				9601-
+		BULB			
99701-6038		12V 3.8W			
	Z				
9601 NA35## 0301 NA35##					
0701 NA35##					
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51-080 51-080Z 51-069A 51-060Z 51-060Z 51-065G 51-065G
51-053
51-080 51-069A 51-065G 51-065G (W/AIR BAG) 51-060Z
\$1-120B \$1-120B \$9768-0425B \$1-121Z

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-120B		LAMP SET(R), SIDE TUR			
8BN1-51-120	1				
51-120X		LAMP SET(L), SIDE TUR			
# 8BN1-51-130	1	LAW DETTESTIBLE TOR			
<b>+</b> ======+					
51-121	- 1	LENS & BODY(R)			
NA01-51-5E1B (NA01-51-5E1C	, <sup>1</sup>				-940
NA01-51-5E1C	1				9401-990
NA01-51-5EX	1				9901-
51-1212		LENS & BODY(L)			
++ NA01-51-5F1B	1			į	-940
(NA01-51-5F1C					
NA01-51-5F1C NA01-51-5FX	1				9401-990
++					7701-
51-123		GASKET, SIDE TURN			
NA01-51-5D3	2				9901-
51-124A		SOCKET, SIDE TURN			
NA01-51-5E2	2				
++   51-150K		BULB			
99701-4278Y	-	A12V 27/8W			
	2				
	1				
	1				
	İ				
9401 1145	-100	nen			1
9401 NA35## 9901 NA35##	-119	257			

	[51-580 ]
	51-124A (99700-7180) —99874-04108 (51-070K) —51-599
51-153A 51-153Y	99940-0602 51-582
51-153Y (99701-3270)	51-070K 51-070K 51-173B 51-183C 
51-069G 51-164A 51-1	59 69A
51-550B 51-550C 51-110J 51-5G9 51-5H1 51-5J1A	51-161A 51-161Y
98768-04258 50-803A 51-5J2	51-150 51-150Z
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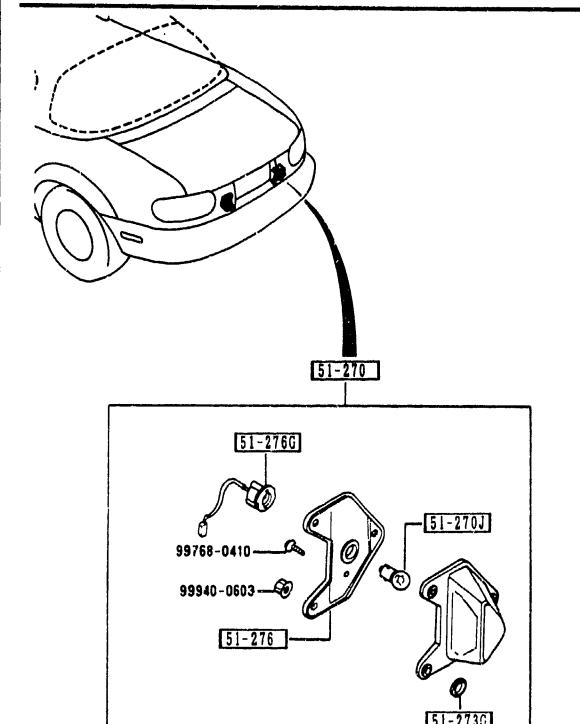
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-T
50-803A		NUT, SIDE PROTECTOR			
g158-50-803	4				
†======+   E1=0<00		DIN D			
51-060G   99701-4278		BULB			
77/01-42/0	2	12V 27W/8W			
51-064J		SCREW, TAPPING			
1 VA01-51-1E6	2				
<b>†</b>		<b>-</b>			
51-070K		BULB			
9700-7180	1	A12V 18.4W			
9701-3270	4	12V 27W			
++	Ĭ				
51-110J		BULB			
9701-6038	2	12V 3.8W			
51-124A		SOCKET, SIDE TURN			
J38-51-584	1	SUCKETY SIDE TORK			
++					
51-150		LAMP SET(R), RR.COMB.			1
BN1-51-150	1				
51-1502		LAMP SET(L), RR.COMB.			
BN1-51-160	1				
51-153A		SOCKET(R),RR.COMB.			
001-51-155A					
+   51-153Y		COCKETAL DE COME			
1 51-1531   ++  001-51-165A	1	SOCKET(L), RR. COMB.			
++					
51-159		PROTECTOR(R),'A'			
A01-51-159	1				
51-161		LENS(R),RR.COMB.			
A01-51-15XB	1				
51-161A		LENS & BODY(R).RR CO			
+		MB.			

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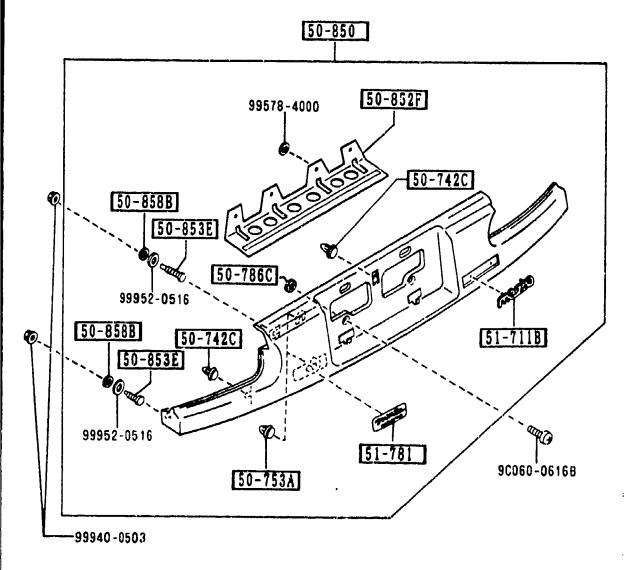
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-51-170B	1				
51-161Y   NA01-51-180B	1	LENS & BODY(L),RR CO			
51-1612   NA01-51-16XB	1	LENS(I.),RR.COMB.			
51-164A   NA01-51-158	2	GASKET, RR. COMB.			
51-169A   NA01-51-169	1	PROTECTOR(L),'A'			
51-1728     6030-51-172	3	CAP			
51-173B   NA01-51-173	1	PROTECTOR(R),'B'			
51-183C   NA01-51-183	1	PROTECTOR(L),'B'			
51-569   NA01-51-569	8	CLIP			
51-5H1     51-5H1     NA01-51-5H1A   (NA01-51-5H1B	1	LENS & BODY(R),RR SI DE TURN			-940
NA01-51-5H1B	1				9401-
51-5H2   NA01-51-5H2A	1	SOCKET(R),RR SIDE TU RN			
51-5J1A   NA01-51-5J1A (NA01-51-5J1B)	1	LENS & BODY(L),RR SI DE TURN			-940
NA01~51~5J1B	1				9401-
51-5J2     51-5J2     NA01-51-5J2A		SOCKET(L), RR SIDE TU			
9401 NA35##-	l	3090			
, in a largery		· • • •			
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-550B     51-550B     8BN1-51-550	1	LAMP SET(R), SIDE TUR N-RR			
51-550C   88N1-51-56U	1	LAMP SET(L),SIDE TUR N-RR			
51-580   NA01-51-5808	1	LAMP,STOP-HI.MOUNT.			
51-582   NA01-51-592B	1	GASKET,STOP LAMP-HI. MOUNT			
51-583   NA01-51-58XA	1	LENS,STOP LAMP-HI.MO UNT			
51-599   NA01-51-599	1	FASTENER,STOP LAMP-H I.			
			:		
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-270		LAMP, LICENSE			
8BF1-51-270	2				
51-270J		BULB			
99701-2070		12V 7.5W			
77702 2070	2	124 7.34			; !
51-273G		GASKET, LICENSE LAMP			
FB67-51-273	2				
*****					
51-276		SHADE, LAMP-LICENSE			
FB67-51-276	2				
51-2760		SOCKET, LICENSE LAMP			
FB67-51-272	2				
de ektivituskiumistussiumistussiumistussiumist					



PART NO.	0TY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-742C		CLIP			·-
G043-50-742	3				
+					
50-753A		FASTENER			
G043-50-753	4				
50-786C		GASKET			
G030-50-786	2				
50-850		FINISHER, REAR			
NA01-50-850A A (NA01-50-850C)	1				-9901
טט		DU MARINER BLUE			
SU		SU CLASSIC RED			
UC		UC CRYSTAL WHITE			
3L		3L SILVER STONE METALLI			
NA01-50-850C A (NA01-50-850D)	1				9901-9914
טם		DU MARINER BLUE			
su		SU CLASSIC RED			
UC		UC CRYSTAL WHITE			
3L		SILVER STONE METALLI			
NA01-50-850D	1				9914-
טם		DU MARINER BLUE			
HU	1	HU NEO GREEN			
su	- 1	SU CLASSIC RED			
UC	- 1	UC CRYSTAL WHITE			:
31		SILVER STONE METALLIC	:		
	ł	SILVER STONE METALLIC			
	j	SILVER STONE METALLIC			
		SILVER STONE METALLIC	· ·		
	- 1	ŠILVER STONE METALLIC 3L			
		SILVER STONE METALLIC			
50-852F		REINFORCEMENT			
NA01-50-852	1				

9901 NA35\*\*-119257 9914 NA35\*\*-120856

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50-850
99578-4000 50-852F 50-858B 50-742C 51-711B 50-853E 50-742C 51-711B 9C060-0616B

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PART NO.	OTY	HODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-853E		BOLT, GARNISH-RR			
LA01-50-853	4				
++					
50-8588		GASKET, REAR FINISHER			
B388-50-855	4				
51-7118		ORNAMENT, MAKER NAME-			
NA01-51-711	1	REAR			
51-781		ORNAMENT, REAR			
NA01-51-721	1	l i			
MU1-31-161	•				
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	52-310 <u>56-795B</u>
	90784-0820
	56-788 99940-0802 52-410 52-460
52-514 90720-0612B	2-510 
99940-06028	56-631 99289-1202 67-519
	99709-3140

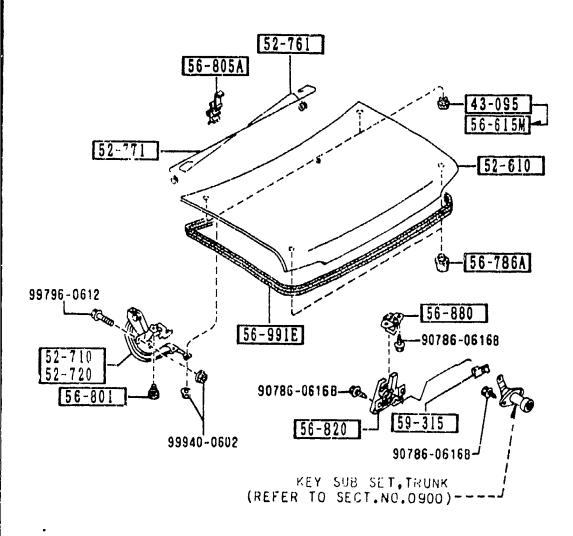
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
45-919A     45-916A	1	HOLDER, PIPE			
52-310   NAY1-52-310 A (NAY1-52-310A)	1	BONNET			-9406
NAY1-52-310A   52-410   NA01-52-410A	1	HINGE(R),BONNET			9406-
1 52-460   NA01-52-420A		HINGE(L), BONNET			Pro digitality and a second se
52-510     MA01-56-650	1	STAY, BONNET			
52-514 G030-56-693	1	HOLDER, ROD			
56-620   NA01-56-620A	1	LOCK, BONNET			
56-631 LA01-56-631	1	FASTENER, BONNET RELE ASE			
56-710   NA01-56-720A A (NA01-56-720B)	1	WIRE, RELEASE-BONNET			-9601
NA01-56-720B AN(NA01-56-720C) NA01-56-720C	1				9601-9C01 9C01-
56-786     NA01-56-787		RUBBER(C), CUSHION-BO NNET			
56-787B     56-787A		RUBBER, CUSHION-BONNE T FRT			
56-788     56-78X		RUBBER, CUSHION-BONNE T RR			
9406 NA35##- 9601 NA35##- 9C01 NA35##-	106	797			

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The Market States

52-514	52-310 56-787B	6	958 90784-0820 56-788 52-410 52-460
•	2-510 620 56-631 99289-1202 56-7	45-919A 10 9970	67-519 19-3140

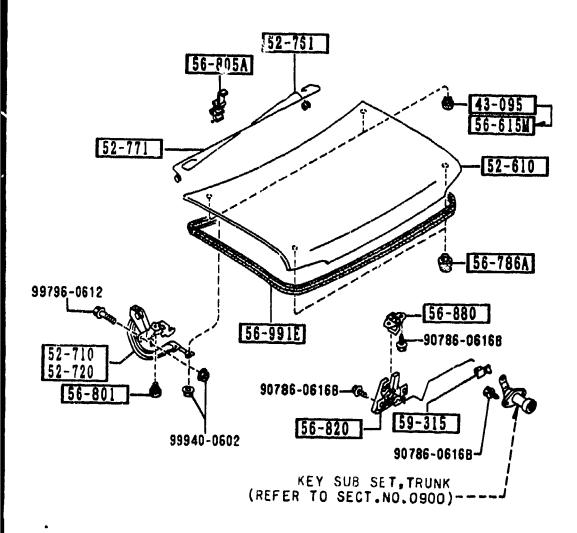
PART NO.	OTY	MODEL/RESTRICTION	MODEL /DESTRUCTION	MODEL /PECTATON	C004 **
<b>†</b> • • • • • • • • • <del>•</del>	1911		MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-7958	_	WEATHERSTRIP, BONNET-			
NA01-56-760	1				
67-519		CLIP, PIPE			
0030-67-519	1				
76-403E		HOLDER, ROD			
B092-52-518	1	1			
	1				
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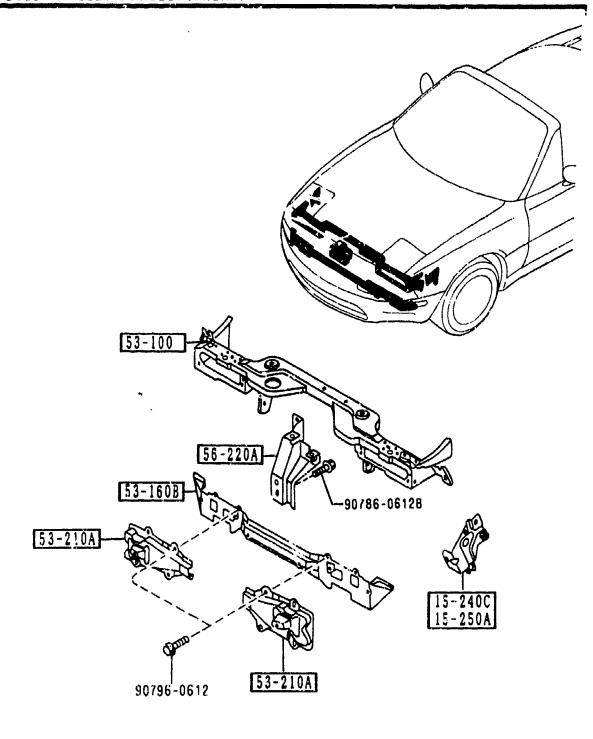
PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
43-095	GROMMET			
H001-43-095 2				-951
52-610	LID, TRUNK			
NAY1-52-610 1				
52-710	HINGE(R), TRUNK LID			
NA01-52-710 1 N(NA01-52-710A)				-990
NA01-52-710A 1				9901-
52-720	HINGE(L), TRUNK LID			
NA01-52-720 1 N(NA01-52-720A)		•		-990
NA01-52-720A 1				9901-
++   52-761	SPRING(R), BALANCE			
NA01-52-791A 1				
52-771	SPRING(L), BALANCE			
NA01-52-792A 1				
56-615M	PLUG, DRAIN			
NA01-56-051 2		•		9516-
56-786A	RUBBER, CUSHION			
NA01-56-784 2				-940
8481-56-786 2				9A04-
56-801	CUSHION, LID HINGE			
NA01-56-802 2				-9C0
NA01-56-803 2				7C01-
56-805A	HOLDER, BALANCE SPRIN			
NA01-56-805 1	G			
56-820	LOCK, LID			
NA01-56-82U 1 (NA01-56-82UA)				-990
NA01-56-820A 1				9901~
9516 NA35**-103 9901 NA35**-119	924	ato n a se ar prominer para y anagone proprio y alone a successo a successo a successo a successo a successo a		1
9A04 NA35HH-123 9C01 NA35HH-130	222			
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SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	נס.אט	SEC. NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2~C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS		7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLUWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING	į		
2-L05	5100	HEAD LAMPS	2-L12	4140	COMPRESSOR COMPONENTS (AIR CON			
2-M05	5103	HEAD LAMP RETRACTORS	2-112	<b>4350</b>	DITIONE?)			
2-D06	5105	FRONT COMBINATION LAMPS		6150	COOLING UNIT (AIR CONDITIONER)			
2-F06	5110	REAR COMBINATION LAMPS	2-013	6300	WINDOW GLASSES			
2-106	5120	LICENSE LAMPS	2-013	6330	SUNROOF			
2-J06	5180	REAR FINISHER	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-L06	5230	BONNET	2-014	6610	DASHBOARD SWITCHES			
2-N06	5260	TRUNK LID	2-E14 2-F14	6611	COMBINATION SWITCH			
2-D07	5310	BODY PANELS (FRONT)	2-G14	6630	RELAYS & UNIT (BODY)			
2-E07	5320	BODY PANELS (FENDER & WHEEL AP	2-614 2-H14	6635 6640	DOCR SWITCH & HORNS			
2-H07	5330	·			AUDIO CRUISE CONTROL SYSTEM			
		BODY PANELS (DASH & COWL PANEL BODY PANELS (SIDE)	B	<b>V</b> :	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
2-107	5340	BODY PANELS (SIDE)	2K	288	AUDIO SYSTEMS (ANTENNA & SPEAK			
2-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	WIRING HARNESSES(FRONT & REAR			•
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	6 647	6700	)			
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES(ENGINE & T/MI SSION)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES(DASHBOARD)			
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE			
2-F09	5530	SPEEDOMETER CABLE			ILING)	1		
2-G09	5540	METER COMPONENTS	2-F15	Į	WIRING HARNESS CLAMPS			
2-109	5560	DASHBUARD & RELATED PARTS	2-115		WINDSHIELD WASHER	Š		
2-L09	5570	CUNSULE	2-K15	Ĭ	WINDSHIELD WIPERS			
2-C10	5580	VENTILATOR		j	WIPER MOTOR COMPONENTS(FRONT)			
2-010	5700	SEATS	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI			
5-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES			
2-110	5800	FRONT DOORS	2-E16	6860	FLOOR MATS & P/JS			
2-C11	5830	FRONT DOOR MECHANISMS	2-G16	6870	SERVICE TOOLS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PAR	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR			
2-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS		<b>!</b>	
2-012	6110	HEATER UNIT COMPONENTS	2-L16	1	QUARTER WINDOW & TRIMS			



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PART NO.	OTY MODEL/RESTRICTION	N MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
1 56-880	STRIKER, LID			į
NA01-56-840	ı			
+=+				
56-991E	WEATHERSTRIP, LID			
NA01-56-951	1			
+========+   E0_716				
59-315	CLIP			]
G030-59-315	1			
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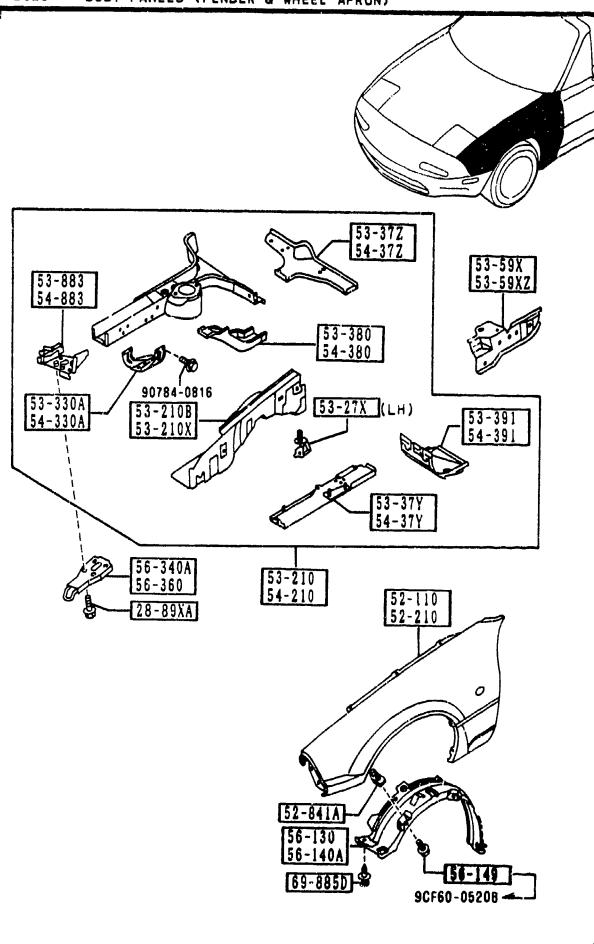


PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
15-240C	BRACKET(R), RADIATOR	node. Red in 2012 or	T. OSCET NIL OTTE GA	1 1 1 1 1 1 1
B61P-15-240 1				
15-250A	BRACKET(L), RADIATOR			
B61P-15-250 1				
53-100	PANEL, RAD. SHROUD			
NA01-53-100B 1 (NA01-53-100D)				-950
NA01-53-100D 1 N(NA01-53-160E)				9501-9B0
NA01-53-100E 1 (NA01-53-100F)				9801-040
NA01-53-100F 1				0401-
+	MEMBER, CROSS			
NA01-53-16XA 1 N(NA01-53-16XB)				-970
NA01-53-16XB 1 (NA01-53-16XC)				9701-070
VA01-53-16XC 1				0701-
53-210A	BRACKET, BUMPER			
4+				
56-220A   	STAY, LOCK-BONNET			-960
N(NA01-56-221B) NA01-56-221B 1				9601-
THE STATE OF THE S				7001
9501 NA35××-102 9607 NA35××-106	2613 5797			<u> </u>
9701 NA35*#-111 9801 NA35**-126 0401 NA35**-146	.969 5490			

ICANUA

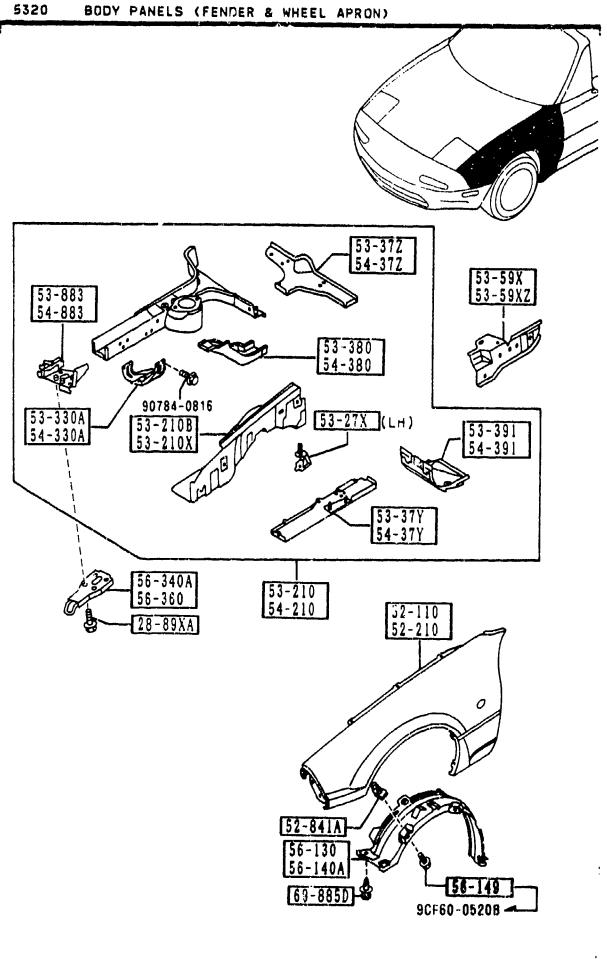
PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 28-89XA I	BOLT, CROSS MEMBER			
GJ21-28-89X 6				
+				
52-110	PANEL (R), FENDER-FRT.			
NAY1-52-110 1				
++   52-210	PANEL(L), FENDER-FRT.			
NAY1-52-210 1				
+				
52-841A	NUT, CLIP			
LA01-56-135 10				
+   53-210	PANEL(R), WHEEL APRON			
NAY1-53-200 1	1			-0601
AN(NAY1-53-200A)				1
NAY1-53-200A 1 C (NAY1-53-200B)				0601-0701
NAY1-53-2008 1				0701-
+				
53-2108	PANEL (R), WHEEL APRON			
NAH -53-219A 1 C (Nat -53-210B)				-r 31
NA01-53-210B 1		;		0701-
+======++				
53-210X   ++	PANEL(L), WHEEL APRON			
NA01-54-210A 1 C (NA01-54-210B)				-0701
NA01-54-210B 1				0701-
+				
53-27X	BRKT, AIR CLNR-WHL AP			
NA01-54-36X 1				
53-330A	BRACKET(R), STABILIZE			
NA01-53-330 1	R			
<b>+</b>	PROMPTING AS MARKET			
j 53-37Y	FRAME(UP.,R),FRONT-F			
NA01-53-37Y 1		!		
53-372	FRAME (UP.R) , FRONT-RE			
NA01-53-37Z	AR			-0701
NA01-53-37ZA 1				0701-
NAY1-53-200A	8001-56-051	1 0601 NA35XH	154752	<u> </u>
C NAY1-53-2008 B001-56-051	90786-0616	1 0701 NA35##~	₹UUU <b>41</b>	
MA01-53-210A NA01-53-210B	•			
8001-56-051 NA01-54-210A	1			
C NA01-54-210B				
CAT. AUNA01-07				1992-02

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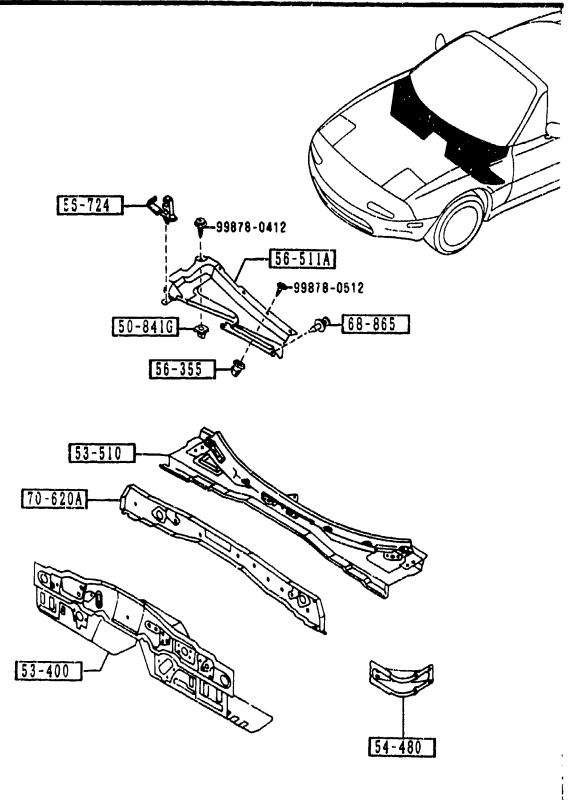
PART NO. QT	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-380	REINFORCEMENT(R)			
NA01-53-380 1				
53-391	BOX(R), TORQUE			
NA01-53-391 1	]			
++   53-59X	REINF (R), WHEEL APRO			
NA01-53-591 1	N I			
53-59XZ	REINF.(L), WHEEL APRO			
NA01-54-590 1	N			
53-883	REINF.(R), TIE DOWN H			
NA01-53-327A 1 AN(NA01-53-32XB)	00K			-9701
NA01-53-32XB 1				9701-
54-210	PANEL(L), WHEEL APRON			
NAY1-54-200 1 AN(NAY1-54-200A)				-0601
NAY1-54-200A 1 C (NAY1-54-200B)				0601-0701
NAY1-54-200B 1				0761-
54-330A	BRACKET(L), SYABILIZE			
NA01-54-330 1	R			
54-37Y	FRAME(UP.,L),FRONT-F			
NA01-54-37Y 1	RT			
54~37Z	FRAME(UP.L),FRONT-RE			
NA01-54-37ZA 1	AR			
1 54-380	FRAME(L), FRONT-REAR			
NA01-54-380 1				
54-391	BOX(L), TORQUE			
NA01-54-391 1				
54-383	REINF.(L), TIE DOWN H			
++ NA01-54-32XA 1 AN(NAU1-54-32XB)	OOK			-9701
NAY1-54-200A C NAY1-54-200B B001-56-051 90786-0616	9701 NA35HH-11 0601 NA35HH-15 0701 NA35HH-20	4752		
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CAT. AUNA01-07			~ · · · · · · · · · · · · · · · · · · ·	-

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-54-32XB (NA01-54-32X	C) 1				9701-060
NA01-54-32XC	1				0601-
56-130   NAU1-56-131A	1	GUARD(R),MUD			
56-140A   NA01-56-141A	1	GUARD(L),MUD			-070
(NA01-56-141) NA01-56-141C	C)				0703-
56-149		SCREW, TAPPING-MUD GU ARD			
8455-56-149   54-340A		HOOK(R), TIE DOWN-FRO			-9C2
NA01-56-34XA N(NA01-56-34X)					-968
NA01-56-34XC	1	HOOK(L),TIE DOWN-FRO			9621-
NA01-56-34YA N(NA01-56-34Y)	c) <sup>1</sup>	NT			-962
NAU1-56-34YC	1				9621-
69-885D   NAU1-56-145	10	FASTENER			
-					
9621 NA35*** 9701 NA35*** 9C20 ( 435*** 0601 NA35*** 0703 NA35*** NA35***	4-111 4-132 4-154 4-200	.969 !500 !752 !041			
AT. AUNA01-07					1992-02

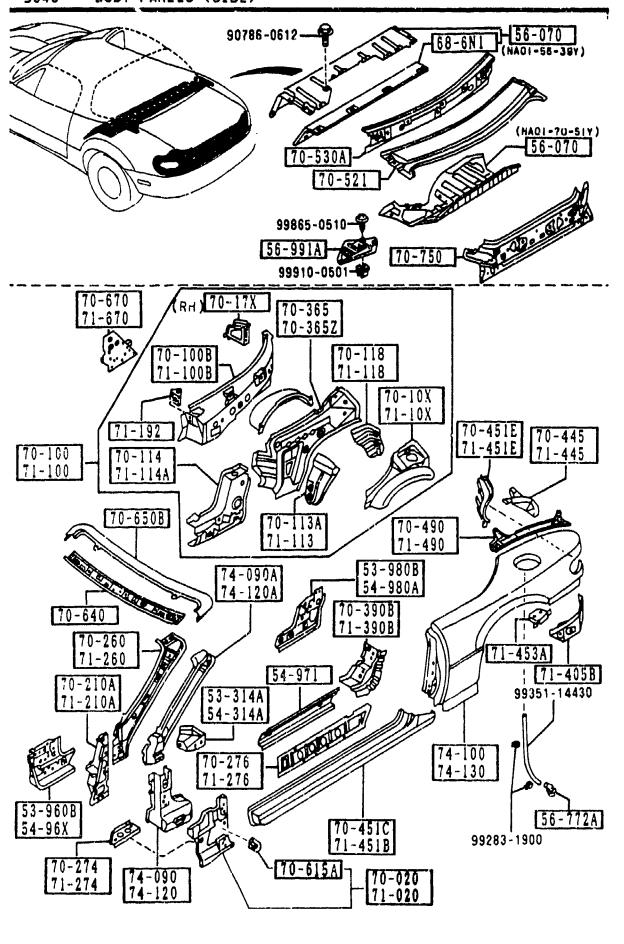
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PART NO. QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-8410     50-8410     F044-51-912	GROMMET, SCREW			
53-400     53-400     NA01-54-400B   1   A (NA01-54-400D)	PANEL, DASH-LOWER			-9401
NA01-54-400D 1 AN(NA01-54-400E)				9401-9601
NA01-54-400E 1 (NA01-54-400G)				9601-9801
NA01-54-400G 1				9801-
53-510     53-510     NA01-53-510   1   AN(NA01-53-510A)	PANEL, DASH-UPPER			-9413
NA01-53-510A 1 A (NA01-53-510D)				9413-9701
NA01-53-510D 1				9701-
1 54-480   NA01-54-480 2	JUNCTION, DASH SIDE-S			
56-355     56-355     G211-96-355A 4	GROMMET, SCREW-BAFFLE			
56-511A     56-511A     NA01-56-351   1	COVER, BAFFLE-COWL PA			
56-724     56-724     H260-56-724	CLIP'B',WIRE-BONNET			
68-865     68-865     040-68-865A 2	FASTENER			
00	NAO BLACK			
70-620A	PANEL, COWL-FRONT			
NA01-70-62YA 1 NA01-70-62YB 1				-0701 0701-
9401 NA35##-100	1090			
9413 NA35HH-100 9413 NA35HH-100 9601 NA35HH-101 9701 NA35HH-11 9801 NA35HH-110 0701 NA35HH-200	0500 6797 1969 6316			
				!

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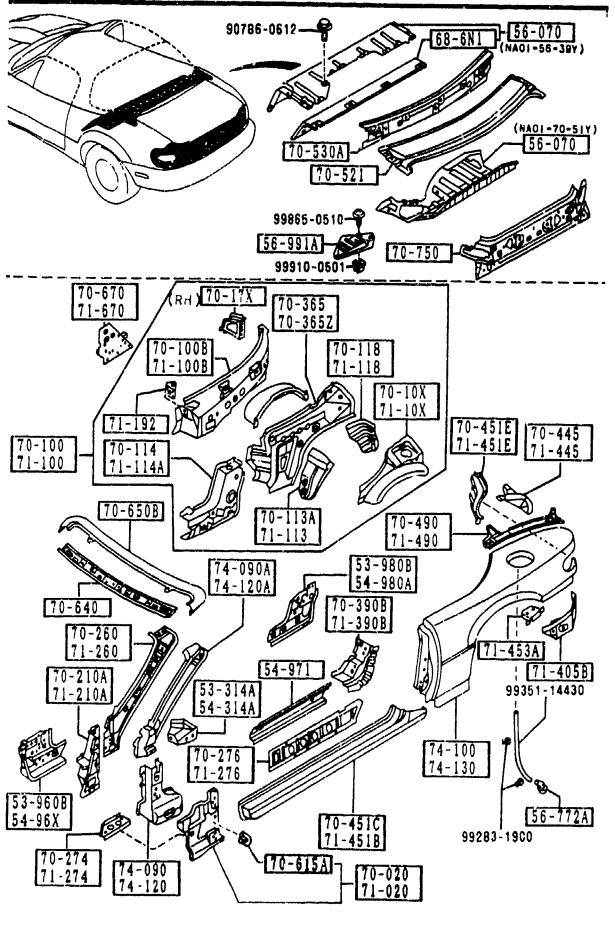
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PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-314A	BRACKET(R), INST.			
NA01-70-071 1 G (NA01-70-071A)				-990
NA01-70-071A 1				9901-
53-960B	SILL(FRT.R),SIDE-INN			
NA01-53-960A 1 A (NA01-53-960B)	ER			-0101
NA01-53-960B 1				0101
+   53-980B	SILL(RR.R), SIDE-INNE			
NA01-53-980 1 G (NA01-53-980B)	R			-980
NA01-53-980B 1				9801-
++   54-314A	BRACKET(L), INST.			
NA01-71-071 1 G (NA01-71-071A)	1			-9901
NA01-71-071A 1				9901-
++   54-96X	SILL(FRT.L),SIDE-INN			
++ NA01-54-96XA 1 A (NA01-54-96XB)	ER			-010
NA01-54-96XB 1				0101-
++   54-971	SILL(C),SIDE-INNER			
NA01-54-971 2	1			
1 54-980A I	SILL(RR.L),SIDE-INNE	<u>}</u>		
NA01-54-980 1 G (NA01-54-980B)	R			-9801
NA01-54-980B 1				9801-
1 56-070	PANEL, BULK HEAD			
NA01-56-39Y 1	1			
NA01-70-51Y 1				
56-772A	PIPE, DRAIN-RR FENDER			
NA01-56-772 1				
+	COVER, SERVICE HOLE			
NA01-56-971 1 9801 NA35##-11	<u> </u>			
9901 NA35**-11 0101 NA35**-13	9257			

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PART NO.	QTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-10
68-6N1     NA01-68-6N1	1	INSULATOR, BALK HEAD PANEL			
70-020     70-020   	1	PANEL(R), COWL SIDE			
70-10X     NA01-70-111		PANEL(R), QUARTER			
N(NA01-70-111A)	l				-970
NA01-70-111A	1				9701-
70-100 NA01-70-100D N(NA01-70-10 E)	1	PANEL(R), QUARTER			-970
NA01-70-100E (NA01-70-100F)	1				9701-990
NA01-70-100F W(NA01-70-100G)	1				9901-900
NA0170-100G	1				9001-
70-100B     NA01-70-19XB	1	PANEL(R), INSIDE			
70-113A     NA01-70-11Z		PLATE(R), SEAL			
70-114   NA01-70-12XA	-	PLATE(R), END			
70-118     NA01-70-15X		PROTECTOR(R), SPLASH			
170-17X     70-17X     10-17X     10-17X     10-17X     10-17X	1	BRKT.BATT.CLAMP-QTR PANEL			-900
NA01-70-17XA	1				9C01~
70-210A     70-210A     NA01-70-230		PILLAR(R), HINGE			
70-260		PILLAR(R), FRT.~INNER			
NA01-70-240A 9701 NA35**-	1	040			-9901
9901 NA35##~ 9001 NA35##~	119	257			

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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FPOM-TO
CONT'D G (NA01-70-240B	)				
NA01-70-240B	1				9901-
1 70-274   NA01-70-274	1	GUSSET(R),SIDE SILL OUTER			
70-276     NA01-70-275	1	REINF.(R),SIDE SILL			
70-365     NA01-70-116A	1	REINF.(R), BELT LINE- C.PIL			
1 70-365Z   NA01-71-116B	1	REINF.(L), BELT LINE- C.PIL			
70-390B   NA01-70-460	1	REINF.(R),STRIKER			
1 70-445 ! NA01-70-445	1	GUSSET(R),REAR FENDE R-RR			
70-451C     70-451C     NA01-70-270A   AN(NA01-70-270B	1	SILL(R),SIDE OUT.			-9801
NA01-70-270B	1				9801-
70-451E     70-451E     NA01-70-J30	1	HOUSING(R), LAMP-RR F ENDER			
170-490   NAJ1-70-440A	1	RAIL(R), RAIN-REAR			
70-521     70-521   	1	PANEL, REAR DECK			- 9330
NA01-70-521A	1				9330-
70-530A   NA01-70-530A	1	MEMBER, REAR DECK			
70-615A		BRACKET.FENDER			
9330 NA35** 9801 NA35** 9901 NA35**	-116	316			1

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54-971

70-451C 71-451B

70-020 71-020

70-615A

PART NU. QT	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B092-70-070A 2	2			
1 70-640 1 NA01-70-640 1	HEADER, FRONT			
70-650B     70-650B     NA01-70-650	HEADER, FRONT-UPPER			
70-670     70-670     NA01-70-670	PLATE(R), CLOSING-QTR PANEL			
1 70-750   1 70-750   1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PANEL, REAR END			-9501
NA01-70-750D 1 G (NA01-70-750E)				9501-9905
NA01-70-750E 1 AN(NA01-70-750F)				9905-0601
NA01-70-750F 1				0601-
71-020   NA01-71-020B 1	PANEL(L),COWL SIDE			
71-10X	PANEL(L), QUARTER			
NA01-71-11X 1 AN(NA01-71-11XA)				-0321
NA01-71-11XA 1				0321-
71-100   NA01-71-100E 1	PANEL(L), QUARTER			
NA01-71-100E 1 AN(NA01-71-100F)				-9701
NA01-71-100F 1 G (NA01-71-100G)				9701-9901
NA01-71-100G 1				9901-
71-1008	PANEL(L), INSIDE			
NA01-71-19XB 1				
71-113     NA01-71-11Z   1	PLATE(L), SEAL			
71-114A	JUNUTION(L), CORNER-Q /PANE			
9501 NA35##-10 9701 NA35##-11 9901 NA35##-11 9905 NA35##-11 0321 NA35##-14 0601 NA35##-15	1969 9257 9643 5170			

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53-960B 54-96X

70-274 71-274

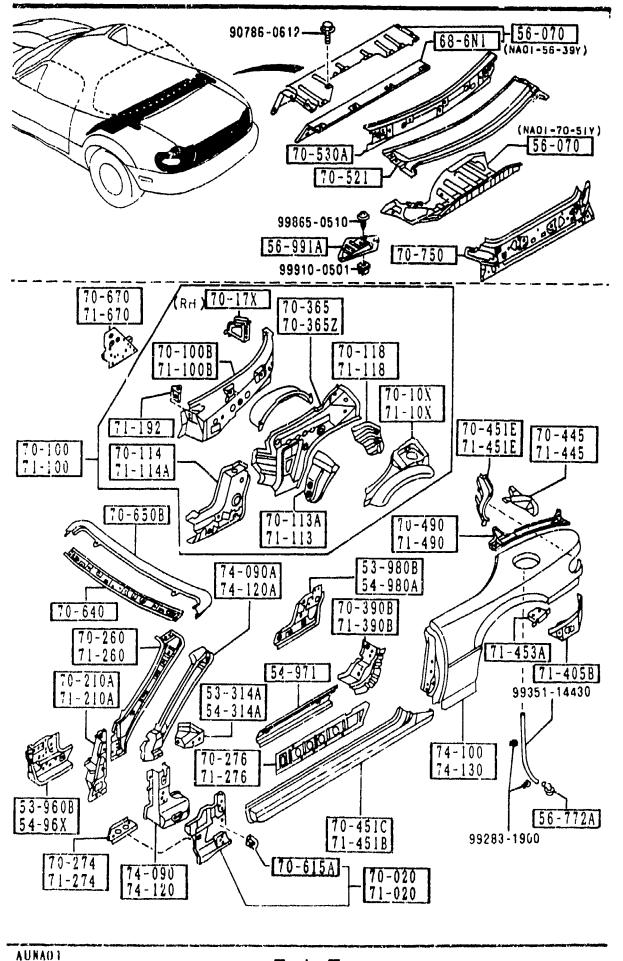
70-210A 71-210A

99283-1900

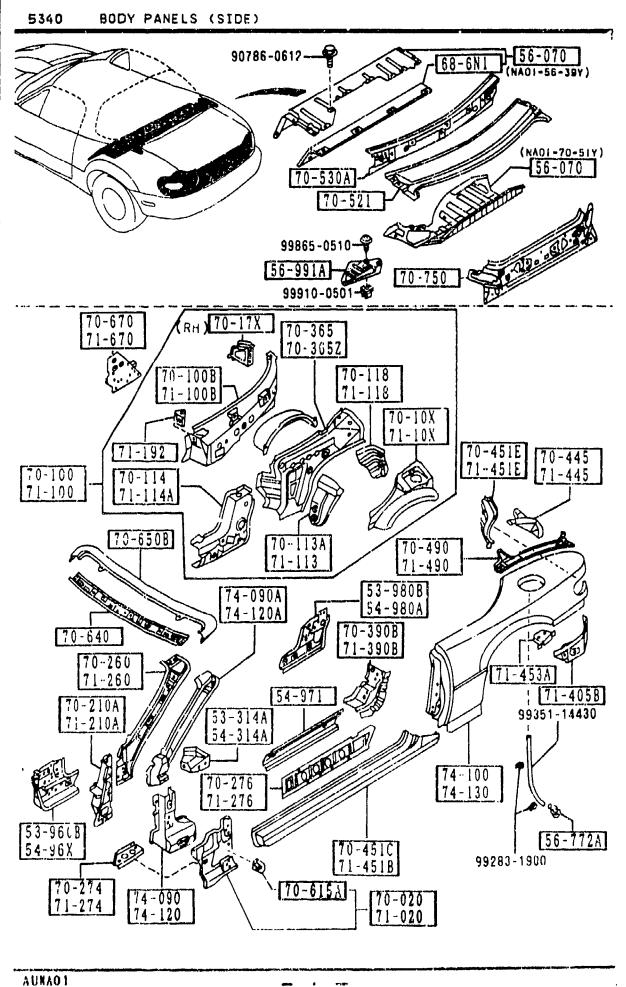
74-100 74-130

99351-14430

56-772A



PART NO. Q	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA01-71-12XA	1			
++   71-118	PROTECTOR(L), SPLASH			
+	1			-032
NA01-71-15XA	1			0321-
71-192 NA01-71-192	BRKT, CAP-QUARTER PAN			
71-210A   NA01-71-230	PILLAR(L), HINGE			
71-260   NA01-71-240A	PILLAR(L), FRTINNER			-990
(NA01-71-240B) NA01-71-240B	1			9901-
71-274   NA01-71-274	GUSSET(L), SIDE SILL OUTER			
71-276   NAU1-71-275	REINF.(L),SIDE SILL			
71-390B   NA01-71-460	REINF.(L).STRIKER			
71-4058     71-4058     NA01-71-421	PANEL(L), RR FENDER-L OWER			i i
71-445   NA01-71-445	GUSSET(L), REAR FENDE			
	SILL(L), SIDE OUT.			-980
N(NA01-71-270B) NA01-71-270B	1			9801-
71-451E     71-451E     NA01-71-J30	HOUSING(L), LAMP-RR F			
9801 NA35**-1 9901 NA35**-1 0321 NA35**-1	19257			



PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MUDEL/RESTRICTION	FROM-TO
71-453A   NA01-71-453 1	BRXT(L),TRK.BOARD-FE NDER			
71-490   NA01-71-440A 1	RAIL(L),RAIN-REAR			
1 71-670   NA01-71-670 1	PLATE(L),CLOSING-QTR PANEL			
74-090   NA01-70-280B 1	PILLAR(k),HINGE-OUT.			
1 74-09JA   NA01-70-210 1	PILLAR(R),FRONT-OUT.	:		
74-100   174-100   NAY1-70-400 1 A (NAY1-70-400A)	PANEL(R), FENDER-REAR			-9330
NAY1-70-400A 1				9330-
74-120   NA01-71-2808 1	PILLAR(L),HINGE-OUT.			
74-120A     NA01-71-210   1	PILLAR(L),FRONT-OUT.			
++ NAY1-71-4U0 1	PANEL(L), FENDER-REAR			-9330
NAY1-71-400A)				9330-
	·			
9330 NA35##-100	11 1072		L	<b>4</b>

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Contract Garage

## SECTION NAME INDEX (BODY)

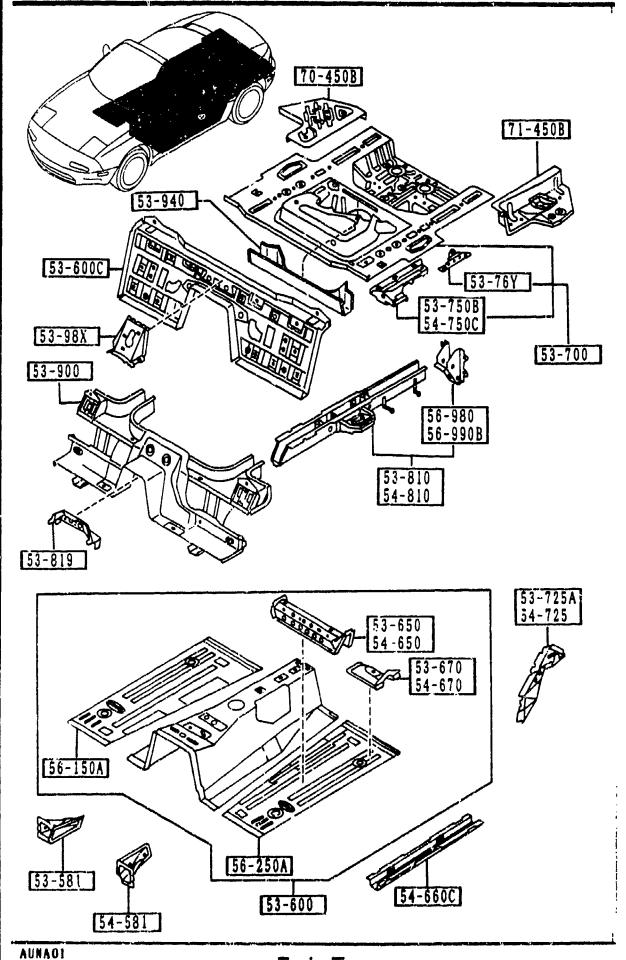
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2-E05 RODU   FRONT BUMPER   2-F12   6120   2-H15   COLOR ATTACHMENTS   2-H15   S700   S570   S570   SEAT BELTS   2-H15   S700   S700   S570   SEAT BELTS   2-H15   S700   SF00		LO.KO	SEC.NO	SECTION NAME	LG.NG	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-H05 E010 REAR BUMPER 2-B12 6130 AIR CONDITIONER O RINGS ET.PIPING COMMENSES SIDON HEAD LAMPS 2-H12 6135 COMMENSES COMPONENTS (AIR CUM DITIONER) FIND COMMENSES SIDON HEAD LAMPS 2-H12 6150 COULING UNIT (AIR CONDITIONER) FIND GOMEN SERVICES COMPONENTS (AIR CUM DITIONER) FIND GOMEN SERVICES COMPONENTS (AIR CUM DITIONER) FIND GOMEN SERVICES COMPONENTS (AIR CUM DITIONER) FIND GOMEN SERVICES COMPONENTS (AIR CUM DITIONER) FIND GOMEN SERVICES COMPONENTS (AIR CUM DITIONER) FIND GOMEN SUND GOMEN GOMEN SUND GOMEN SUND GOMEN SUND GOMEN SUND GOMEN SUND GOMEN GOMEN SUND GOMEN SUND GOMEN GOMEN SUND GOMEN GOMEN SUND GOMEN GOMEN GOMEN GOMEN GOMEN GOMEN GOMEN GOMEN GOMEN GOMEN GOMEN GOMEN G		2-C05	0900	KEY SETS	2-512	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSURIES
2-J03 8036 NINDJW MOULDING & COWL CRILLES 2-K12 6135 O RING SET,PJPING CCM+KSSON COMPONENTS (AIR CUM DITIONER) ALTER CONTROL CONTROL COMPONENTS (AIR CUM DITIONER) CCM+KSSON COMPONENTS (AIR CUM DITIONER) CCM+KSSON COMPONENTS (AIR CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM DITIONER) CCM-KSSON CCM-CUM D		2-E05	500V	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-L05 5100 HEAD LAMPS   2-L12 6140   CHMHASSEGON COMPONENTS (AIR CUN DITTORER)   COULING UNIT (AIR CUNDITIONER)   COULING UNIT (AIR	-	2-H05	£010	REAR BUMPFR	2-G12	6130	AIR CONDITIONER			
2-MOS 5102 HEAD LAMP RETRACTORS 2-DOS 5105 FRONT COMBINATION LAMPS 2-DOS 5105 REAR FORDY COMBINATION LAMPS 2-F16 5120 LICENSE LAMPS 2-J16 5120 LICENSE LAMPS 2-J16 5120 LICENSE LAMPS 2-J16 5120 LICENSE LAMPS 2-J16 5120 BONNET 2-J16 5120 BONNET 2-L16 5220 BONNET 2-L16 5220 BONNET 2-L16 5220 BONNET 2-L16 5220 BONNET 2-DOS 5220 BONNET 2-DOS 5220 BONNET 2-DOS 5220 BONNET 2-F16 6515 BODY PANELS (FRONT) 2-F17 5320 BODY PANELS (FRONT BODY PANELS (FRONT) 2-F17 5320 BODY PANELS (GENDER & WHEEL AP RELAYS & UNIT (BODY) 2-C08 5370 BODY PANELS (SIGE) 2-C08 5370 BODY PANELS (FRONT BODY PANELS (FRONT) 2-F17 5320 BONDY PANELS (FRONT) 2-F18 5320 BONDY PANELS (FRONT) 2-F19 5320 BODY PANELS (F		2-10ä	5030	WINDOW MOULDING & COWL CRILLES	2-K12	6135	O RING SET, PIPING			·
2-MOS 5102 HEAD LAMP RETRACTORS 2-DOS 5105 FRONT COMENTATION LAMPS 2-F06 5110 REAR COMBINATION LAMPS 2-F06 5110 REAR COMBINATION LAMPS 2-F06 5110 REAR COMBINATION LAMPS 2-F07 5120 REAR FINISHER 2-F08 5230 REAR FINISHER 2-F08 5230 REAR FINISHER 2-F08 5230 REAR FINISHER 2-F09 5200 REAR FINISHER 2-F09 5320 REAR FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT) REAR FORT FORT COMPANIES (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR RECHANISMS (FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR RECHANISMS (FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT DOOR FRONT D	١	2-L05	5100	HEAD LAMPS	2-L12	6140			i i	
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2	,	2-G08	5390	FLOOR ATTACHMENTS	(B)	701				
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2-G09 5540 METER COMPONENTS 2-I09 5560 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K15 6820 FRONT DOORS 2-L10 5800 FRONT DOORS 2-L10 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR S CAUTION PLATES & LABELS		2-F09	5530	SPEEDOMETER CABLE	2-F15	6704				
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2-C10 5580 VENTILATOR 2-D10 5700 SEATS  2-K10 5790 SEAT BELTS  2-L10 5800 FRONT DOORS  2-L10 5830 FRONT DOOR MECHANISMS  2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS  2-C12 6100 HEATER  2-N15 6820 FRONT HEADER TRIM & PILLAR TRI MS  TRIMS & SCUFF PLATES FLOOR MATS & PADS SERVICE TOOLS VISORS, ASSIST HANDLES & MIRROR S CAUTION PLATES & LABELS		2-L09	5570	CONSOLE						
2-D10 5700 SEATS  2-K10 5790 SEAT BELTS  2-L10 5800 FRONT DOORS  2-C11 5830 FRONT DOOR MECHANISMS  2-G16 6870 SERVICE TOOLS  2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS  2-C12 6100 HEATER  MS  TRIMS & SCUFF PLATES  SERVICE TOOLS  VISORS, ASSIST HANDLES & MIRROR SERVICE TOOLS  CAUTION PLATES & LABELS		2-C10	5580	VENTILATOR		i				
2-L10 5800 FRONT DOORS		2-010	5700	SEATS	- 176		MS The state of th			
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2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR S CAUTION PLATES & LABELS	1	S-F10	5800	FRONT DOORS	2-E16	586C	FLOOR MATS & PADS			
2-C12 6100 HEATER 2-J16 6930 CAUTION PLATES & LABELS		2-C11	5830			6870	SERVICE TOOLS			
		2-F11	5840		2-H16	6900	VISORS, ASSIST HANDLES & MIRROR S			
2-D12 6110 HEATER UNIT COMPONENTS 2-L16 7250 QUARTER WINDOW & TRIMS		2-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS			
		2-012	6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS			

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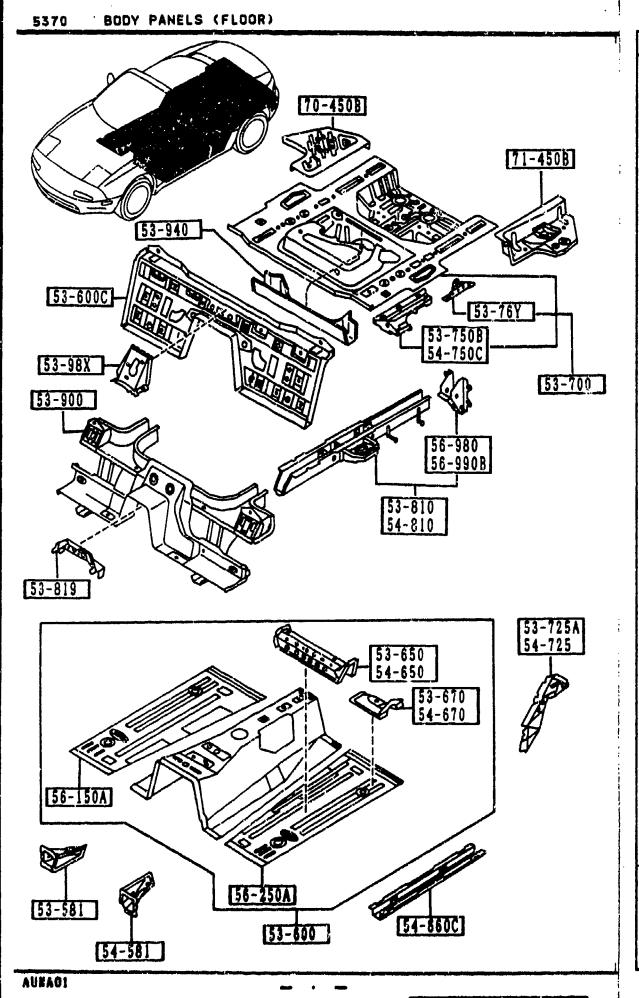
AUNAOL

PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-581	JUNCTION(R), FRT. FLO			
NA01-53-482 1				
53-600	PAN, FLOOR-FRONT			
NA01-53-600 1 A (NA0:-53-600A)				-0501
NA01-53-600A 1				0501-
53-600C   NA01-53-720 1	PAN, FLOOR-CENTER			
53-650   NA01-53-650 1	MEMBER NO.2(R),CROSS -FLOOR			
53-670   NA01-53-670 1	BRKT(R), SEAT-F.FLOOR PAN			
53-700	PAN, FLOOR-REAR			
NA01-53-710A 1 C (NA01-53-710B)				-0701
NA01-53-710B 1				0701-
53-725A     53-725A     NA01-53-725A	GUSSET NO.3(R),C.FLD OR PAN			
53-750B   NA01-53-750 1	PLATE(R),SIDS-REAR F			
	PLATE, NUT-TRUNK FLOD R PAN			
53-810	FRAME(R), REAR SIDE			
NA01-53-810C 1 (NA01-53-810D)				-9901
NA01-53-810D 1				9901-
53-819   NA01-53-819 1	BRACKET, PARKING CABLE-FLOOR			
53-900   NA01-53-900 1	MEMBER NO.3,CROSS			
NA01-53-710A C NA01-53-710B B001-56-051	9901 NA35#H-119 0501 NA35#H-150 2 0701 NA35#H-200	3679		

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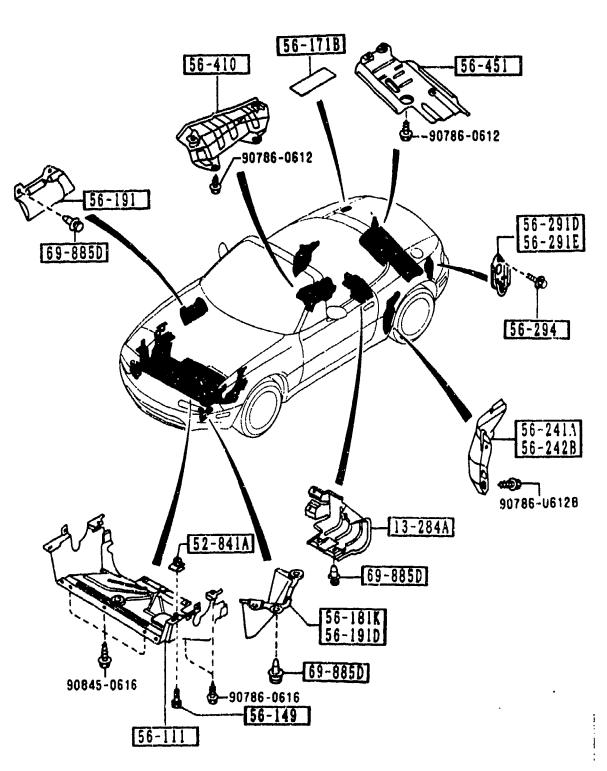
PART NO.	ΥŢÇ	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FRUM-TO
53-940     53-931	1	r:EMBER NO.4,CROSS			
53-98X   NA01-53-880	1	GUSSET, FRONT FLOOR P			
54-581     54-581     NA01-54-482	1	JUNCTION(L), FRT. FLO			
54-650     54-650     MA01-54-650	1	MEMBER NO.2(L), CROSS -FLOOR			
54-660C   NA01-54-66C		FRAME, FRONT-FRT FLOOR PAN			
54-670   NA01-54-670	1	BRKT(L), SEAT-F.FLOOR			
54-725     NA01-54-725A	1	GUSSET NO.3(L),C.FLO OR PAN			
54-750C   NA01-54-750	1	PLATE(L).SIDE-REAR F			
54-810     NA01-54-810C	1	FRAME(L), REAR SIDE			-9901
G (NA01-54-810C) NA01-54-810D	1				9901-
56-150A     56-150A     NA01-53-602	1	PAN(R), FLOOR			
56-250A     56-250A     NA01-54-610	1	PAN(L),FLOOR			
56-980 I NA01-53-830A	1	BRKT(R), BUMPER-RR SK			-9330
A (NA01-53-830C) NA01-53-830C	1				9330-
56-9908		BRKT(L), BUMPER-RR SK			
9330 NA35#H-1 9901 NA35#H-1	100	072 257	· · · · · · · · · · · · · · · · · · ·		<u> </u>



PART NO. OTY	HODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO				
CONT'D NAU1-54-830A 1 A (NAU1-54-830C)				-9330				
NA01-54-830C 1				9330-				
1 70-450B 1	PANEL(R), FLOOR SIDE							
NA01-53-740B 1	1							
171-450B	PANEL(L), FLOOR SIDE							
NA01-54-740 1 NA01-54-740A)				-9801				
NA01-54-740A 1				9801-				
	• • • • • • • • • • • • • • • • • • •							
9330 NA35#M-10 9801 NA35#H-11	0072 <b>6316</b>							
				1				
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5380	FLOOR ATTACHMENTS	(HOLE COVERS)
(h) (A)		
<b>f</b> .	56-051	(E) 56-615F
<b>(b)</b>	56-061A	(HOLE #40)
	(HOLE \$65)	(HOLE \$\Phi_5)
©	(HOLE \$30)	i 56-971 - O
<b>d</b> <b>e</b>	(HOLE \$29)	(HOLE #100)  [56-052] (8092-56-052)
		(k) [56-1128]
(f)	(HULE \$22)	(F801-56-055)
AUNAOI		•

56-241	PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1011-56-051 4   56-052   PLUG.DRAIN   D-12PM    F801-56-056 4   GOVER.HOLE    56-061A   8543-56-052 4   FLUG.DRAIN    D092-56-053 3   F6-241   FLUG.DRAIN    D118-56-241 6   FLUG.DRAIN    D118-56-241 6   FLUG.DRAIN    D118-56-241 0   FLUG.DRAIN    D118-56-241 0   FLUG.DRAIN    D118-56-241 0   FLUG.DRAIN    D118-56-242   PLUG.DRAIN    D118-56-242   PLUG.DRAIN    D118-56-242   PLUG.DRAIN    D118-56-242   PLUG.DRAIN    D118-56-242   PLUG.DRAIN    D118-56-242   S6-615F   PLUG.DRAIN    D118-56-242   S6-615F   PLUG.DRAIN    D118-56-242   S6-615   PLUG.DRAIN    D118-5		-	COVER, HOLE			
S6-052   PLUG.DRAIN   D=12MM	+	4				
B092-56-052 9 FB01-56-056 4    56-061A	•		PLUG.DRAIN			
F801-56-056 4   56-061A	++		D=12MM			
56-061A   COVER, HOLE     56-061A     COVER, HOLE     56-12B     PLUG, DRAIN     56-241     Oli8-56-241   6     56-241     PLUG, DRAIN     56-241   PLUG, DRAIN     56-241   PLUG, DRAIN     56-241   PLUG, DRAIN     56-242   PLUG, DRAIN     56-242   PLUG, DRAIN     56-615F   PL	FB01-56-056					0701-
8545-56-052 4   56-112B   PLUG, DRAIN     56-241   6       56-241   6       56-241   6       56-241   6       56-241   6       56-241   7   10     8477-56-241   6       56-242   7   10     56-242   7   10     18-56-242   7   10     18-56-242   7   10     18-56-356   7   10     18-56-356   7   10     18-56-357   10     18-56-357   10     18-56-357   2       18-56-357   3       18-56-3	+		COVER HOLE			
B092-56-053 3 -951    56-241	+	4				
B092-56-053 3 -951    56-241	56-112B		PLUG. DRATN			
56-241   0118-56-241   6	+	3	1			-9516
0118-56-241 6   56-241B   B001-56-051 6   56-241J   PLUG, DRAIN   8477-56-241 9   56-242   PLUG, DRAIN   156-242   PLUG, DRAIN   0118-56-242B   18   56-615F   PLUG, DRAIN   0208-56-615   2   56-615M   PLUG, DRAIN   NA01-56-051   2   56-971   8545-56-053   2			DI HG DRATH			
56-241B   B001-56-051 6     56-241J   8477-56-241 6   8477-56-241 9     56-242	+	6	<b>[</b>			
B001-56-051 6   56-241J   PLUG, DRAIN   -951 8477-56-241 6 8477-56-241 9   56-242   PLUG, DRAIN   9516-   56-242   PLUG, DRAIN   9516-   56-615F   PLUG, DRAIN   PLUG, DRAIN   PLUG, DRAIN   NA01-56-051 2   56-615M   PLUG, DRAIN   NA01-56-051 2   56-971   8545-56-053 2			PLUG			
8477-56-241 6 8477-56-241 9  1 56-242   PLUG, DRAIN  0118-56-242B 18  1 56-615F   PLUG, DRAIN  0208-56-615 2  1 56-615M   PLUG, DRAIN  NA01-56-051 2  1 56-971   COVER, HOLE  9516 NA35HH-103924	+					
8477-56-241 9   56-242	56-241J		PLUG, DRAIN			
56-242	8477-56-241	6				-9516
0118-56-242B 18   56-615F   PLUG, DRAIN 0208-56-615 2   56-615M   PLUG, DRAIN NA01-56-051 2   56-971   COVER, HOLE 9516 NA35**-103924	8477-56-241	9				9516-
56-615F   PLUG, DRAIN     56-615M   PLUG, DRAIN     56-615M   PLUG, DRAIN     56-615M   PLUG, DRAIN     56-971   COVER, HOLE     8545-56-053   2	56-242		PLUG, DRAIN			
0208-56-615 2   56-615M   PLUG, DRAIN NA01-56-051 2   56-971   COVER, HOLE 8545-56-053 2	0118-56-2428	18				
56-615M	++		PLUG, DRAIN			
NA01-56-051 2   56-971   COVER, HOLE 8545-56-053 2	0208-56-615	2				
156-971   COVER, HOLE 8545-56-053 2	+		•			
9516 NA35**-103924	NA01-56-051	2				
9516 NA35**-103924	+					
9516 NA35HH-103924 0701 NA35HH-200041	8545-56-053	2				
9516 NA35HH-103924 0701 NA35HH-200041						
9516 NA35##-103924 0701 NA35##-200041						
9516 NA35HH-103924 0701 NA35HH-200041						
0701 NA35MM~200041	9516 NA35##	-10	[			
	0701 NA35HH	-20ì	DO41			
		ميال بين الر				



PART NO. OT	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-284A	COVER, FUEL FILTER			
NA01-56-241A 1 (NA01-56-241B)				-980
NA01-56-241B 1				9801-
52-841A	NUT,CLIP			
1	1			9601-
†   56-111	COVER, UNDER			
+ VA01-56-111 1 V(NA01-56-111A)	]			-960
A01-56-111A 1				9601-962
V(NA01-56-111B)				
NA01-56-111B 1 N(NA01-56-111C)				9621-070
A01-56-111C 1				0701-
56-149	SCREW, TAPPING-MUD GU			
3455 <b>-</b> 56-149 1				9601-
56-1718	PROTECTOR(R), RR FEND			
A01-56-171A 1				
56-181K	COVER(R), SENSOR-AIR			
A01-56-181A 1				-950
56-191	SHIELD, SPLASH			
A01-56-112 1				
56-191D	COVER(L), SENSOR-AIR			
IA01-56-191A 1				-950
56-241A	SHIELD(R), SPLASH-REA			
IA01-56-311 1				
56-242B	SHIELD(L), SPLASH-REA			
A01-56-321 1				
56-291D	HOOK(R), TIE DOWN			
A01-56-29XC 1				
				<u> </u>
9501 NA35**-10 9601 NA35**-10 9621 NA35**-11	6797			
9801 NA35##-12 0701 NA35##-20	5490			

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-291E   NA01-56-270C	1	HOOK(L),TIE DOWN			
56-294   NA01-56-294	4	SCREW, TIE DOWN HOOK			
56-410 NA01-56-411	1	INSULATOR, HEAT-FRONT			
56-451   NA01-56-451	1	INSULATOR			
69-885D     NA01-56-145	15	FASTENER			-9501
NA01-56-145	7				9501-
9501 NA35##	-102	2613			<u> </u>

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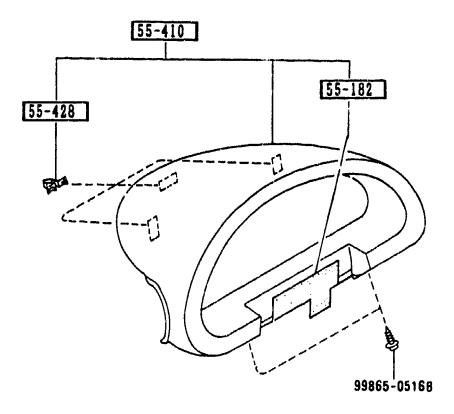
SECTION NAME INDEX (BODY)

T : A :	7 6-6 16	SECTION NAME	10 10	·	FION NAME INJEX (BODY)	10 10	SEU NU	SECTION NAME
1.0 N		SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1:-C0		KEY SETS	2-E12	6115		3-C03	7900	ACCESSORIES
2~E0	1	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H0		REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J0	ł	WINDOW MOULDING & COWL GRILLES		6135	O RING SET, PIPING			
2-L0	- 1	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M0		HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)	}		
2-D0		FRONT COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-F0	ļ	REAR COMBINATION LAMPS	2-013	6330	SUNROOF			
2-10	1	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J0		REAR FINISHER	2-014	6610	DASHBOARD SWITCHES			
2-L0		BONNET	2-E14	6611	COMBINATION SWITCH			
2-N0		TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)		:	
2-00		BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS			
2-E0	7 5320	BODY PANELS (FENDER & WHEEL AP	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H0	5330	BODY PANELS (DASH & COWL PANEL	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
5-10	7 5340	BODY FANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK			
5-C0	B 5370	BODY PANELS (FLOOR)	2.1.14	4700	ER)			
2-F0	538C	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR )			
2-G0	8 5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI SSION)			
2-C0	9 5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES(DASHBOARD)			
2-E0	9 5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CEILING)			
2-F0	9 5530	SPEEDOMETER CABLE	20515	4704	WIRING HARNESS CLAMPS			
2-G0	9 5540	METER COMPONENTS	<b>1</b> 26	7.720	WINDSHIELD WASHER			
2-10	9 5560	DASHBOARD & RELATED PARTS	2-K15	Y:/	WINDSHIELD WIPERS			
5-F0	9 5570	CONSOLE	2-M15		WIPER MOTOR COMPONENTS(FRONT)			
2-C1	0 5580	VENTILATOR	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI			
2-01	5700	SEATS	. 442	0020	MS HEADER TRIP & FILLAR TRI			
2-K1	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES			
2-L1	5800	FRONT DOORS	2-E16	6860	FLOOR MATS & PADS			
2-C1	1 5830	FRONT DOOR MECHANISMS	2-G16	6870	SERVICE TOOLS			
2-F1	1 5840	FRONT DOOR TRIMS & RELATED PAR	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR			
2-C1	2 6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS			
2-01	2 6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS			

PART NO. QT	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-330J	BULB			
99701-5050	12V 5W			
51-4900	LAMP, PERSONAL			
NA01-51-490 2 (NA01-51-490B)				-9902
00	NAO BLACK			
NA01-51-490B 2				9902-
++   51-491	NAO BLACK LENS, PERSONAL LAMP			
H197-51-491A 2		ı		
00	BLACK			
55-220     ++   NA01-55-210	PANEL, CENTER			-9801
(NAO1-55-210A) 00	NAO BLACK			,,,,,
NA01-55-210A 1				9801-
00	NAO BLACK			
55-428     55-428     GJ21-55-428   3	SPRING, METER HOOD			
55-431   BR70-55-431	BULB, RESISTER			
55-610     55-610     BR70-55-490   1	RESISTOR, PANEL LIGHT			
1 60-210   NA01-60-220 1	COVER, COLUMN-UPPER			
00	NAO BLACK			
60-210A   NA01-60-230A	COVER, COLUMN-LOWER			
50	NAO BLACK			
60-223C	CAP - COLUMN COVER			
9801 NA35**-11 9902 NA35**-11	6316 9435			L

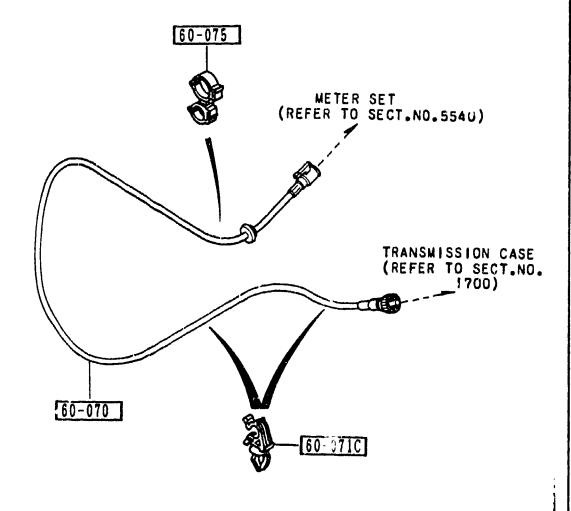
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PART NO.	YTÇ	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO	
CONT'D NA01-60-223	1					
00		NAO NAI BLACK				
64-271		PANEL, CENTER-LOWER				
NA01-64-270B	1				-9401	
00		NAO BLACK				
NA01-64-270C	1				9401-	
00		NAO BLACK				
64-235   NA01-64-612	2	SPRING,ASH TRAY				
64-613   NA01-64-6; \( \)	4	SCREW,ASH TRAY				
64-617A   NA01-64-617	1	LID,ASH TRAY				
00	_	NAO NAI BLACK				
64-618   NA01-64-618	1	PLATE,ASH TRAY				
1 64-620		TRAY,ASH				
NA01-64-610	1	NAU BLACK				
NA01-64-610A	1				0A01-0C01	
64-622   NA01-64-622	1	LIGHT,PLATE-ASH TRAY				
64-623   NA01-64-623	1	CASE'OUT', ASH TRAY		1		
00	*	NAD BLACK				
9401 NA35##-1000\$0 0A01 NA35##-213219 0C01 NA35##-220813						

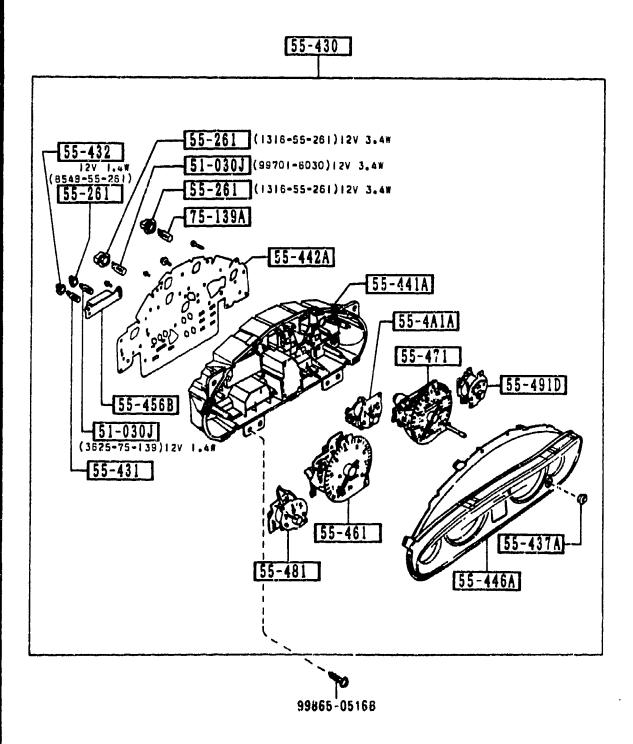


PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
55-182   NA01-55-182	1	RUBBER, BLIND			9609-
55-410     55-420A	1	HOOD, METER			-960
00		NAO NA1 BLACK			
NA01-55-420B	,	(STD COAT BLACK/BLAC			9609-
00   55-428     55-428     GJ21-55-428	3	NAO NAI BLACK SPRING,METER HOOD			
9609 NA35#	-10	3360	- <del> </del>	<u> </u>	<u> </u>

5530



PART NO. OTY	HODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 60-070	CABLE, SPEEDOMETER			
NA03-60-070 1	(AT)			
NA01-60-070A 1 (NA01-60-070B)				-9613
NA01-60-070B 1	(MT)			9613-
60-071C   UB40-60-071 2	CLIP			
NA03-60-071 2				-0201 0201-
60-075   NA01-60-075	CLIP'A', SPEEDOMETER CABLE			
9613 NA35##-109 0201 NA35##-137	1017 180		<b> </b>	J



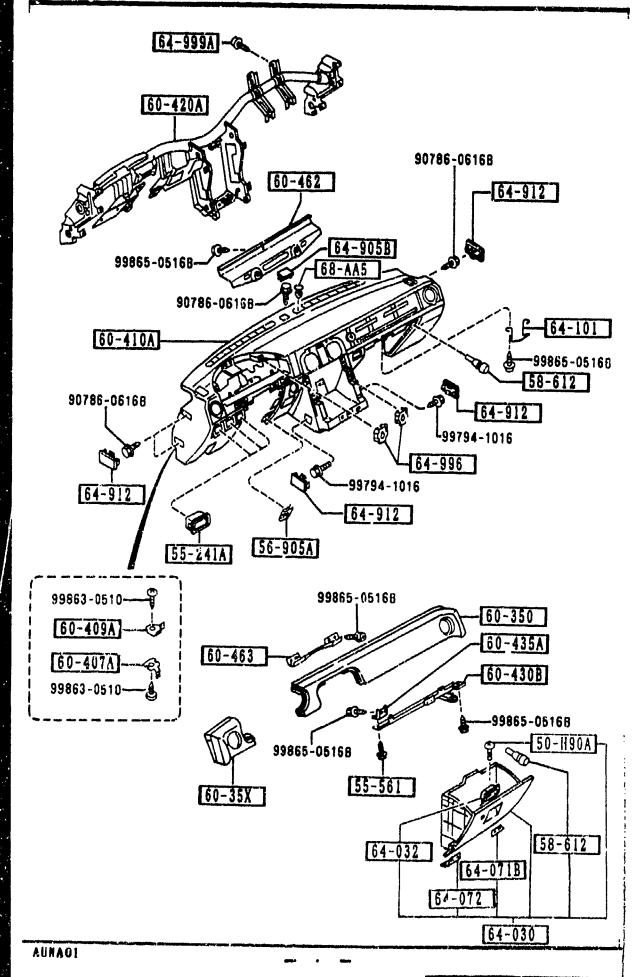
,					<del></del>
PART NO. 0	YĭÇ	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-030J		BULB			
3625-75-139	5	12V 1.4W, FOR WARNING (MT)			
	6	(AT)			
99701-6030	3	12V 3.4W			
++   55-261		SOCKET			
1316-55-261	- 1	12V 3.4W			
8548-55-261		12V 1.4W BLACK			
	6	(AT)			
55-4A1A   NA01-55-4A1	1	METER, OIL PRESSURE			
55-430	- 1	METER SET			
NA01-55-430A AN(NA01-55-430B)	1				-9B20
NA03-55-430A A (NA03-55-430B)	1				-0701
NA01-55-4308 A (NA01-55-430C)	1				9820-0701
NA01-55-430C	1	CTM			0701-
NA03-55-430B	1	(AT)			0701-
55-431   NA01-55-431	1	BULB, RESISTER			
55-432   NA01-55-432	1	SOCKET, METER SET			
1 J5-4374   NA01-55-437	1	GROMMET, KNOB-METER S			
55-441A		CASE, METER			
NAU1-55-441	1				-9820
NA01-55-441A	1				9820-0701
NA01-55-4418	1				0701-
9820 NA35##-1 0701 NA35##-2	128	848 041			

55-430				
55-432 12V 1.4F (8549-55-261) (8549-55-261) (55-261) (55-261) (55-441A) 55-441A 55-441A 55-441A 55-441A 55-441A 55-441A 55-441A 55-441A 55-441A 55-441A 55-441A				
99865-05168				

PART NO.	OTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 55-442A 1		PLATE, PRINT			
NA01-55-442	1	(MT)			-9820
NA03-55-442A G (NA03-55-442B)	1				-0701
NA01-55-442A G (NA01-55-442B)	1				9B20-0701
NA01-55-4428	1	(MT)			0701
NA03-55-442B	1	(AT)			0701-
55-446A		PLATE, WINDOW			
NA01-55-446	1				-0701
NA01-55-446A	1				0701-
55-456B		RESISTOR, METER			
NA01-55-476	1	(MT)			-9B20
55-461		TACHOMETER			
NA01-55-461 G (NA01-55-461A)	1				-0701
NA03-55-461 G (NA03-55-461A)	1				-0701
NA01-55-461A	1	(MT)			0701-
NA03-55-461A	1	(AT)			0701-
55-471		SPEEDMETER			
NA01-55-471 A (NA01-55-471A)	1				-0701
NA01-55-471A	1				0701-
++   55-481		METER, FUEL			
+	1	HEIBRIFUEL			
55-491D		METER, THERMO			
NA01-55-491	1				
75-139A		BUL8			
8491-55-431	4				
					}
		<u> </u>		-	

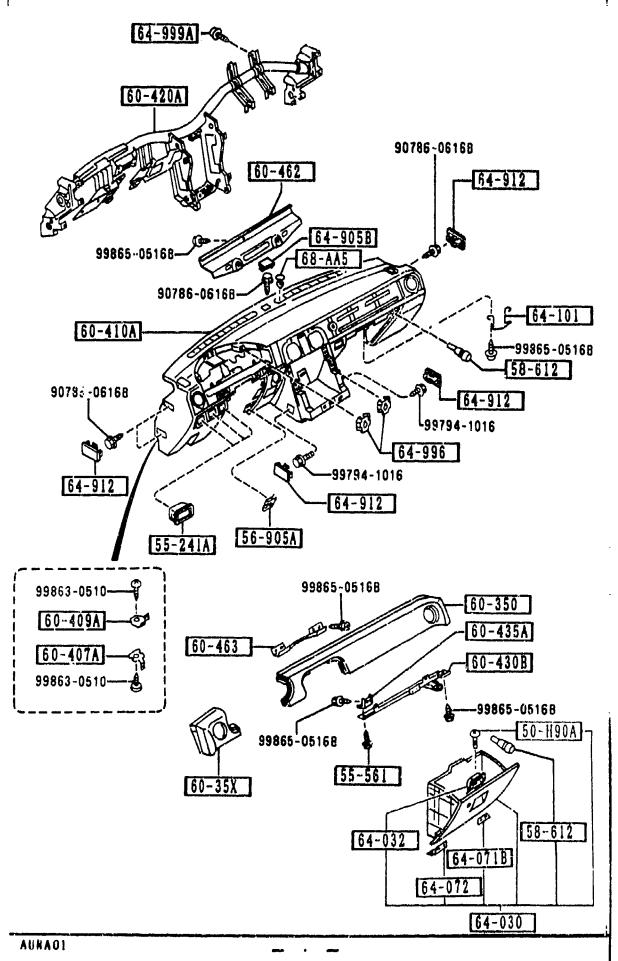
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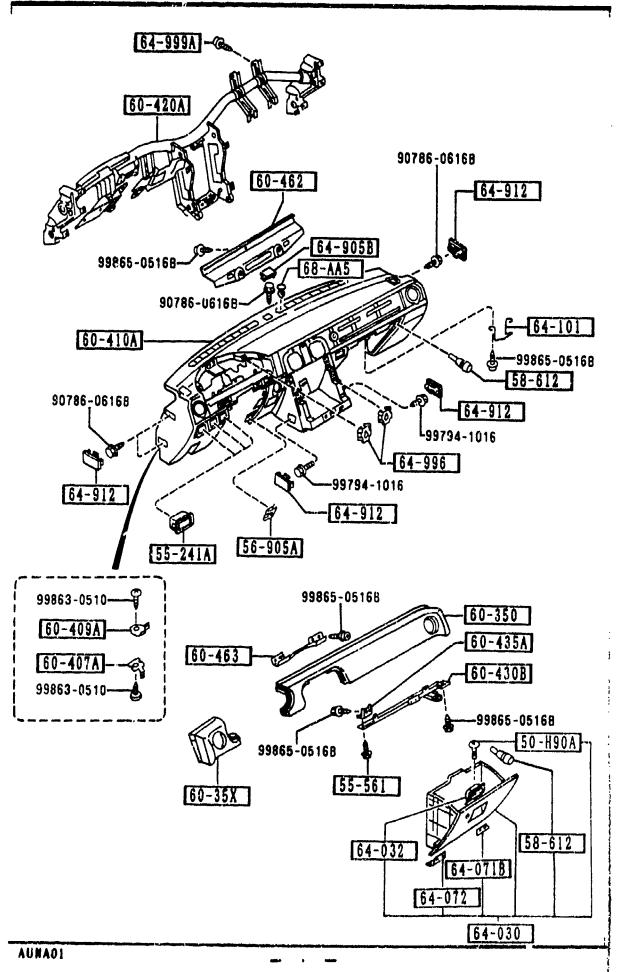


PART NO.	01Y	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
1 50-H90A	l	SCREW, MOULD-FRT WIND			
LA01-50-H90	1	•			9801-
+======+   EE		BAN THATPING ALIE			
55-241A   NA01-55-247A	3	BOX, INSTRUMENT PANEL			
00	- 1	NAO NAI BLACK			
+	1	ING INA DENGR			
55-561		BOLT, INST. PANEL			
8455-55-561	1				
56-905A		NUT, SPRING			
8092-60-408	4				
58-612		CUSHION, RUBBER			
B092-64-046	3	O O O O O O O O O O O O O O O O O O O			
++					
60-35X	- 1	PAD, INSTRUMENT PANEL			}
NA01-60-35X	1				
00		NAO BLACK			
60-350 i		PAD, CRUSH			
NA01-60-350	1				
00		NAO BLACK			
1 60-407A I		SPRING, NO.1			
NA01-60-407	2				
1 60-409A 1		SPRING, NO.2			
MA01-60-409	2	SPRING, NU. Z			
+					
60-410A		PANEL, INSTRUMENT			
NA01-6U-4018 (NA01-60-401C)	, 1				-980
00		NAO BLACK			
MA01-60-401C		STO COAT BLACK/BLAC			9807-
00	- 1	NAO BLACK			
<b>+</b>		THE BEACK			
60-420A	- [	FRAME, INST. PANEL			
NA01-60-420D	1				
9801 NA35××	-116	316			<u> </u>
9807 NA35××	-127	226			

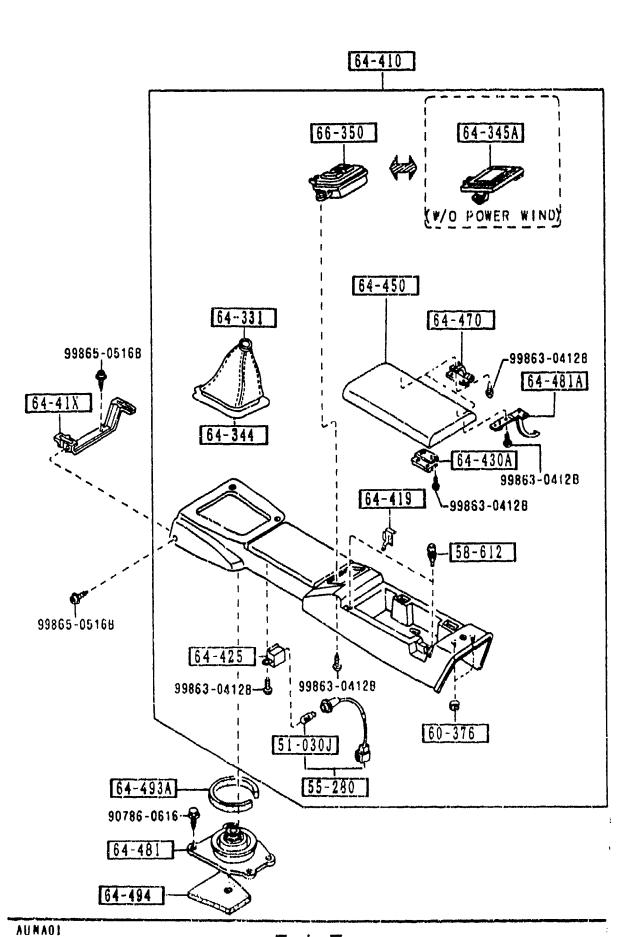
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PART NO. QT	MUDEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-10
1 60-4308	MEMBER(R), INST. PANE			
NA01-60-430A 1	L			-970
(NA01-60-430B) NA01-60-430B 1				9701020
(NAJ1-60-430C)				9701-020
NA01-60-430C 1				0202-
60-435A	BRACKET, MEMBER			
NA01-60-435 1				
1 60-462 1	BRACKET, INST. PANEL			
VA01-60-462 1	1			-980
(NA01-60-462A)				
VA01-60-462A 1				9801-
60-463	BRACKET, CRUSH PAD			
NA01-60-463 1				
64-030	BOX, GLOVE			
NA01-64-030C 1 (NA01-64-030D)				-280
00	NAD BLACK			
A01-64-030D 1				9801~
00	NAO BLACK			
64-032	COVER, GOX			
(NA01-64-032B)				-980
00	NAO BLACK			
A01-64-032B 1				9801-
00	NAO BILACK			
64-071B	HINGE(R), GLOVE LID			
IA01-64-03X 1				
1 64-072	HINGE(L),GLOVE LID			
IA91-64-03Y 1	1			
+				
64-101	STRIKER			
4A01-64-101 1				
9701 NA35*#-11	1969			<u> </u>
9801 NA35**-11 0202 NA35**-13	7 <b>39</b> 9			

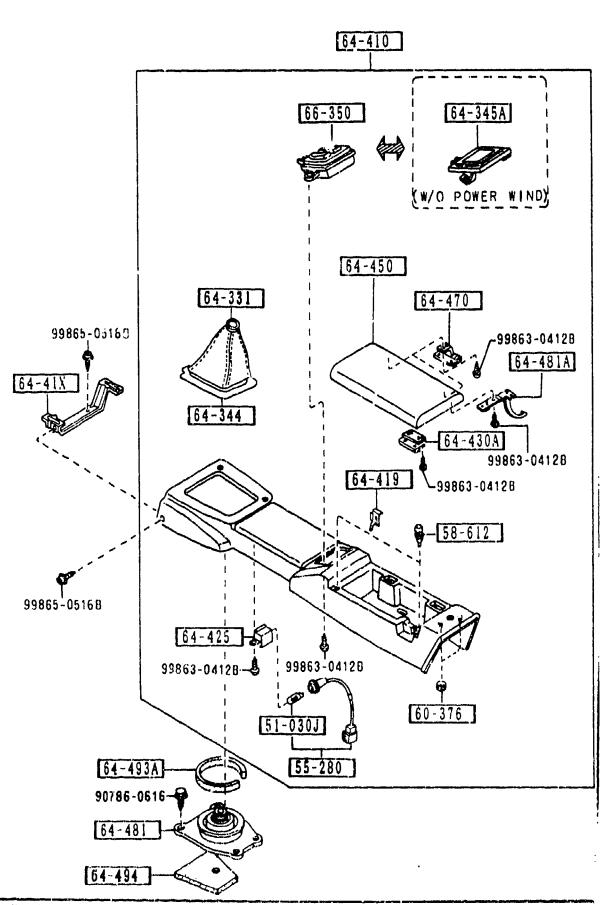


			e Marie Marie Marie Marie de La Companya de La Companya de La Companya de La Companya de La Companya de La Comp		<del></del>
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
64-905B		COVER, HOLE-(C)			
NA01-64-905	1	(STD COAT BLACK/BLAC			
00		NAO BLACK			
64-912		COVER, SIDE			
NA01-64-912	6	i i			
00		NAO BLACK			
1 64-996		NUT, EXPANSION			
GJ21-64-996	8				
+		CODELL TARRENO			
64-999A   ++ W201-64-999	37	SCREW, TAPPING			
+					
68-AA5   		FASTENER, DOOR TRIM			
00 WZU1-88-MAS	4	NAO BLACK			
	,				
			!		



2427.110	10.14	HODEL (DESTRUCTION		T	T
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
51-030J		BULB			
3625-75-139	1	12V 1.4W, FOR WARNING			
++	•				
55-280		BULB & SOCKET			
NA01-55-280	_	(MT)			
NA01-55-280		(AT)			-0125
NA06-55-280	1	(AT)			0125-
58-612		CUSHION, RUBBER			
B092-64-046	2				
60-376		NUT, TOP-CRUSH PAD			
B092-60-376	2	NOT; TOF-CRUSH PAD			
+	•				
64-331		BOOT, CHANGE			
NA01-64-331	1	(MT)			
00		NAO BLACK			
64-344		PLATE, BACK BOOTS RIN			
NA01-64-344B	1	G (MT)			
64-345A		BOX, COIN-CUNSOLE			
NA01-64-437	1				
		(W/O POWER WIND)			
00		NAO BLACK			
1 64-41X		BRACKET, REAR CONSOLE			
NA01-64-416	1				
1 64-410		CONSOLE BEAD			
NA01-64-410B		CONSOLE, REAR BASE,			
MADI-04-4105	1	(URETHANE KNOB, W/O POWER WIND.)			
1		(MT)			
00		NAO BLACK			
NA02-64-410B	1	PKG-OPT, (URETHANE KNOB, W/POW)			
		ER WIND.) (MT)			
oc.		NAO BLACK			
NA03-64-410A	1	BASE,			
	1	CURETHANE KNOB, W/O P			

0125 NA35\*\*-136059



PART NO.	ŲĮY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D					1
		OWER WIND.)			
00		NAO BLACK			
NA06-64-410B	1	PKG-OPT, (URETHANE KNOB, W/POW ER WIND.) (AT)			
00		NAO BLACK			
64-419   H260-64-419	1	CLIP, HARNESS-HAND BR AKE			
64-425   NA01-64-414	1	CASE, LAMP			
64-430A     64-430A     F801-64-430	1	LOCK, CONSOLE-REAR			
64-450   NA01-64-450A	1	LID, CONSOLE			
00		NAO BLACK			
64~470   NA01~64~45XA	2	HINGE			
00		NAO BLACK			
64-481     64-481     NA01-64-481   (NA01-64-481A)	1	INSULATOR NO.1,CHAN GE			-9610
NA01-64-481A	1	(MT)			9616~
64-481A   NA01-64-452	1	STOPPER, CONSOLE LID			
00		NAO NAO NAI BLACK			
64-493A		PACK, SILENT			
H001-64-493	1	(MT)			
64-494		PAD.CHANGE BOOT			
FB01-64-495	1	(MT)			
9616 NA35HH-	109	700			

	64-410
	66-350 64-345A (W/O POWER WIND)
99865-05168 99865-05168	64-331 64-470 99863-04128 99863-04128 99863-04128 99863-04128 58-612 99863-04128
64-49 90786-0	3A <u>55-280</u>
64-48	
AUNA01	J-•••

PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-350		SWITCH, POWER WINDOW			
1A01-66-350A	1	PKG-OPT, V-SPECIAL,			}
muz oo ooon	•	(W/POWER WIND)			
00		NAO BLACK			
A03-66-350	1	PKG-OPT, V-SPECIAL, (W/POWER WIND) (AT)			
00		NAD BLACK			
					ļ
					<u> </u>

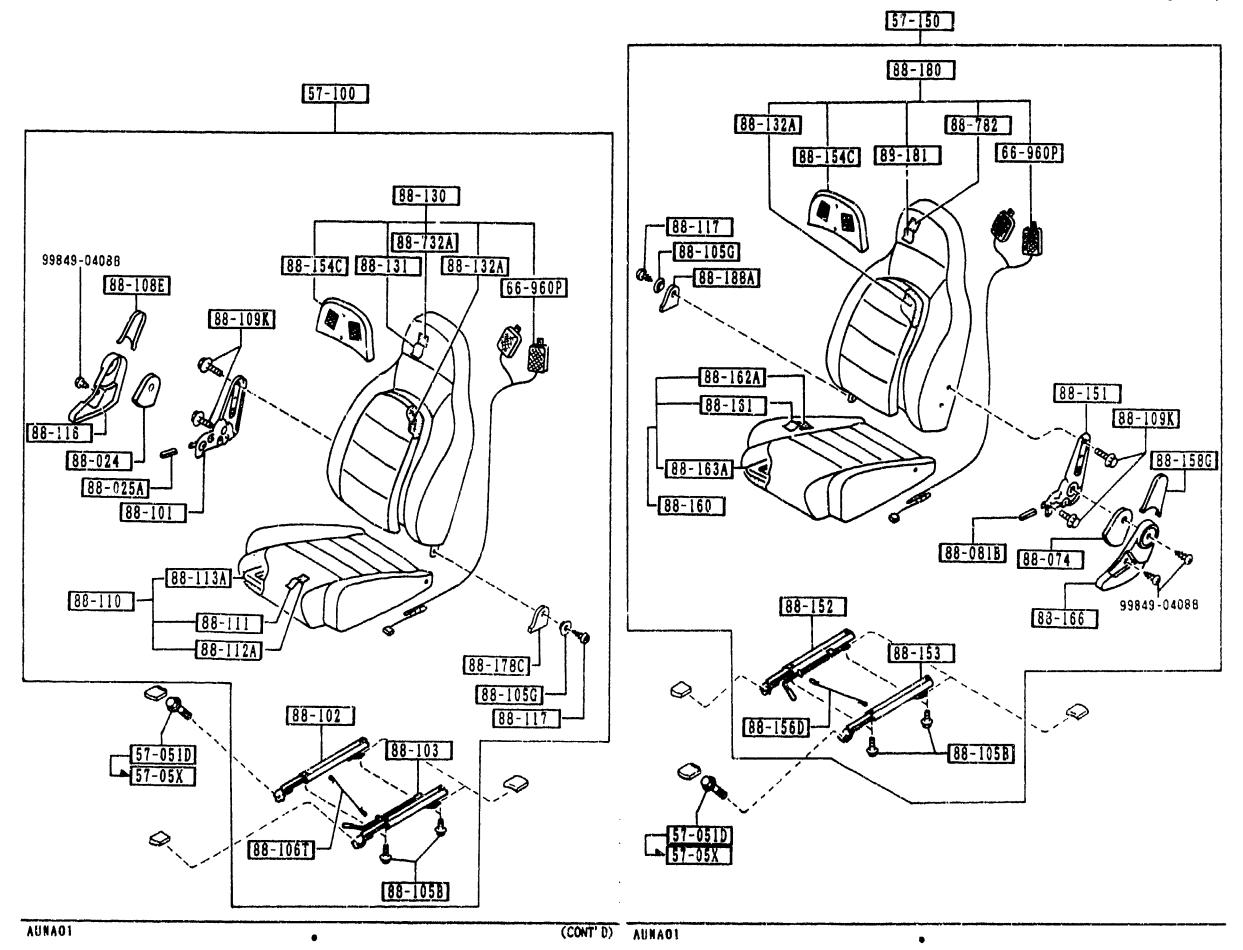
SECTION NAME INDEX (BOTY)

2-005   0900   KEY SETS   2-612   6115   MFATER CONTROLS COMPONENTS   3-COT   7900   ACCESSORIES   2-612   6120	LO.HO	SEC.NO	SECTION NAME	10 40		SECTION NAME	1.6.1.5	T = = ::=				
2-005 5000 PRONT NUMBER 2-012 6130 ALR COLDITIONER 2-015 6100 WINDOW OBLIGHER PARTS PRONT DURING SERVICE OF STORY SERVICE OF							}			NAME	~~~~~	
2-H05 5010 REAR EUMPER 2-D12 6130	1 1						3-C02	7900	ACCESSORIES			
2-J05 5000 WINDOW MOULDING & COWL GRILLES 2-K12 6138 D RING SET.PTP/NG COMPGNENTS (AIR CON DITIONER) S1C3 11630 LAMPS 2-L12 6140 COMPGNENTS (AIR CON DITIONER) COLLING UNIT (AIR GONDITIONER) COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES SIGNED COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITIONER) WINDOW GLASSES COLLING UNIT (AIR GONDITI	1 1	·			i							
2-LO5 5100 HEAD LAMPS 2-HO5 5103 HEAD LAMP RETRACTORS 2-HO6 5105 FRONT COMMINITION LAMPS 2-HO6 5105 FRONT COMMINITION LAMPS 2-HO6 5120 LICENSE LAMPS 2-HO6 5120 LICENSE LAMPS 2-HO6 5200 BONNET 2-HO6 5200 BONNET 2-HO6 5200 BONNET 2-HO6 5200 BONNET 2-HO7 5310 BODY PANELS (FRONT) 2-HO7 5320 BODY PANELS (FRONT) 2-	1 1				l							
2-MD5 5103   IRAD LAMP RETRACTORS   2-M12   6150   5100   REAR COMBINATION LAMPS   2-C13   6300   2-C106   51100   REAR COMBINATION LAMPS   2-C13   6300   2-C106   5120   LICENSE LAMPS   2-M14   6410   SWITCHES & RELAY (*ENGINE)   REAR F(MISHER   2-M14   6410   CMBHOARR SWITCHES   2-M14   CMBHOARR SWITCHES   2-M14   CMBHOARR SWITCHES   2-M14   CMBHOARR SWITCHES   2-M14   CMBHOARR SWITCHES   2-M14	1 1											
2-D06 5105 FRONT COMBINATION LAMPS 2-D13 6300 WINDOW GLASSES SUNROOF 2-D13 6330 SONNET 2-D14 6510 REAR FINISHER 2-D14 6610 DASHBOARP SWITCHES & RELAY SENGINE) DASHBOARD SWITCHES & RELAY SENGINE 2-D14 6610 DASHBOARP SWITCHES & RELAY SENGINE 2-D14 6610 DASHBOARP SWITCHES & RELAY SENGINE 2-D15 6300 BONNET 2-D14 6610 DASHBOARP SWITCHES & RELAY SENGINE 2-D15 6310 BONY PANELS (FENDER & WHEEL AP ROR) 2-D17 5310 BODY PANELS (FENDER & WHEEL AP ROR) 2-D17 5320 BODY PANELS (SIDE) 2-D16 5300 BODY PANELS (SIDE) 2-D16 5300 FLOOR ATTACHMENTS (HOLE COVERS 2-D17 5300 DASHBOARD EQUIPMENTS 2-D15 6702 WIRING HARNESSES(FRONT & REAR SIDE) 2-D15 5500 DASHBOARD EQUIPMENTS 2-D15 6702 WIRING HARNESSES(DASHBOARD) WIRING	1 1			2-L12	6140	COMPRESSOR COMPONENTS (AIR CON DITIONER)						
2-106 5120 REAR COMBINATION LAMPS 2-013 6300 WINDOW GLASSES SURROOF 2-106 5120 LICENSE LAMPS 2-013 6330 SURROOF 2-106 5120 BONNET 2-014 6610 DASHBOARR SWITCHES 2-016 6250 BONNET 2-014 6610 DASHBOARR SWITCHES 2-016 6260 TRUNK LID 2-014 6630 REARY 2 UNIT (800°C) DOWNSWITCH 2-017 5310 BODY PANELS (FENDER & WHEEL AP 2-014 6630 RELAYS & UNIT (800°C) DOWNSWITCH & HORNS 2-016 6435 DOWNS SWITCH 2-017 53-0 BODY PANELS (SIDE) 2-014 6640 AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM (AND SYSTEMS (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA TAPE DE CX TARENDA AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CX) TARENDA TAREN	i i			2-412	6150	COOLING UNIT (AIR CONDITIONER)						
2-106   5120	1 1			2-C13	6300							!
2-J06 5180 REAR FINISHER 2-D14 6610 2-L06 5230 BONNET 2-D14 6610 2-B07 5250 RUNK LID 2-F14 6610 2-B07 5320 BONNET 2-D14 6610 2-B07 5320 BONNET 2-D14 6630 2-B07 5320 BODY PANELS (FRONT) 2-B07 5320 BODY PANELS (FRONT) BODY PANELS (FRONT) BODY PANELS (JUSH & COML PANEL 2-J14 6630 2-H07 5330 BODY PANELS (JUSH & COML PANEL 2-J14 6680 AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CK) 2-L08 5370 BODY PANELS (SIDE) 2-L14 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CK) 2-C08 5370 BODY PANELS (FLOOR) 2-L14 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CK) 2-C08 5380 FLOOR ATTACHMENTS (HOLE COVERS S) 1-C08 5390 FLOOR ATTACHMENTS (HOLE COVERS S) 2-C09 5520 DASHBOARD GUIPHENTS 2-D15 6702 WIRING HARNESSES (ENGINE & T/MI SINN) 2-C19 5520 SPECDOMETER CABLE 2-F15 6703 LING) 2-C19 5520 DASHBOARD ARELATED PARTS 2-L15 6720 WIRING HARNESSES (LOBRE) FLOOR/CE ILING) 2-C10 5580 VENTILATOR 2-L15 6720 WIRING HARNESSES CLAMPS WIRIN	1 1			2-D13	6330	SUNROOF						;
2-0.6 5.80 SANDET 2-0.6 5260 TRUNK LID 2-0.7 5310 BODY PANELS (FRONT) 2-0.7 5320 BODY PANELS (FRONT) 2-0.7 5320 BODY PANELS (FRONT) 2-0.7 5320 BODY PANELS (FRONT) 2-0.7 5320 BODY PANELS (FRONT) 2-0.7 5320 BODY PANELS (FRONT) 2-0.7 5320 BODY PANELS (FRONT) 2-0.7 5320 BODY PANELS (SIDE) 2-0.7 5320 BODY PANELS (SIDE) 2-0.7 5320 BODY PANELS (SIDE) 2-0.8 5370 BODY PANELS (FLOOR) 2-0.8 5370 BODY PANELS (FLOOR) 2-0.8 5380 FLOOR ATTACHMENTS (HOLE COVERS 2-0.9 5500 DASHOAND EQUIPHENTS 2-0.9 5500 DASHOAND EQUIPHENTS 2-0.9 5500 BODY PANELS (BODY PANELS (FLOOR) 2-0.9 5500 BODY PANELS (FLOOR) 2-0.9 5500 DASHOAND EQUIPHENTS 2-0.9 5500 BODY PANELS (FLOOR) 2-0.9 5500 BODY PANELS (FLOOR) 2-0.9 5500 DASHOAND EQUIPHENTS 2-	1			2-M13	6600	SWITCHES & RELAYS (ENGINE)						!
2-NOG 5260 TRUNK LID 2-F14 6630 COMPINATION SWITCH RELAYS & UNIT (BDC*) 2-EO7 5310 BODY PANELS (FENDER & WHEEL AP 2-F14 6635 DOUR SWITCH & HORNS AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEMS (RADIO & TAPE DE CRUISE CONTROL SYSTEMS (ANTENNA & SPEAK FROM STATE CONTR	1 1	1		2-014	6610							Í
2-E07 5310 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FENDER & WHEEL AP RON) 2-H07 5330 BODY PANELS (GASH & COWL PANEL 2-114 6635 DOOR SWITCH & HORNS 2-H07 5330 BODY PANELS (GASH & COWL PANEL 2-114 6635 DOOR SWITCH & HORNS 2-H07 5330 BODY PANELS (GASH & COWL PANEL 2-114 6635 DOOR SWITCH & HORNS 2-L14 6635 DOOR SWITCH & HORNS 2-H15 6635 DOOR SWITCH & HORNS 2-H15 6635 DOOR SWITCH & HORNS 2-H16 6635 DO	1 1		•	2-E14	6611	COMBINATION SWITCH						1
2-607 5320 8007 PANELS (FENDER & WHEEL AP RON) 2-607 5320 8007 PANELS (GENDER & WHEEL AP RON) 2-H07 5330 8007 PANELS (GLOS) 2-107 533 8007 PANELS (GLOS) 2-108 5370 8007 PANELS (GLOS) 2-108 5370 8007 PANELS (GLOS) 2-109 5380 FLOOR ATTACHMENTS (HOLE COVERS EX) 2-101 533 8007 PANELS (GLOS) 2-608 5390 FLOOR ATTACHMENTS (HOLE COVERS EX) 2-102 5360 DASHBOAND EQUIPMENTS 2-019 5500 DASHBOAND EQUIPMENTS 2-109 5500 METER HOOD 2-109 5500 DASHBOAND ERLATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-109 5500 DASHBOAND & RELATED PARTS 2-115 6820 FRONT DOORS 2-116 6800 FRONT DOORS 2-117 6820 FRONT DOOR MECHANISMS 2-118 6860 2-119 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-111 5800 FRONT DOOR MECHANISMS 2-111 5800 FRONT DOOR MECHANISMS 2-112 6870 CAUTION PLATES & LABELS	1 1	j	·	2-F14	1							
2-H14 6640 AUTO CRUISE CONTROL SYSTEM 2-H07 5330 BODY PANELS (DASH & COWL PANEL 2-114 6680 AUDIO SYSTEMS (RADIO & TAPE DE CK) 2-107 5330 BODY PANELS (SIDE) 2-108 5370 BODY PANELS (FLOOR) 2-508 5390 FLOOR ATTACHMENTS (HOLE COVERS 2-608 5390 FLOOR A"TACHMENTS 2-N14 6701 WIRING HARNESSES(ENGINE & T/MI SION) 2-609 5590 DASHBOARD EQUIPHENTS 2-D15 6703 WIRING HARNESSES(DOBR, FLOOR/CE ILING) 2-109 5500 DASHBOARD & RELATED PARTS 2-H15 6720 WIRING HARNESSES (DOBR, FLOOR/CE ILING) 2-109 5500 DASHBOARD & RELATED PARTS 2-H15 6720 WIRING HARNESSES (DOBR, FLOOR/CE ILING) 2-109 5500 DASHBOARD & RELATED PARTS 2-H15 6720 WIRING HARNESSES (DOBR, FLOOR/CE ILING) 2-109 5500 DASHBOARD & RELATED PARTS 2-H15 6820 WIRING HARNESSES (DOBR, FLOOR/CE ILING) 2-109 5500 DASHBOARD & RELATED PARTS 2-H15 6820 WIRING HARNESSES (DOBR, FLOOR/CE ILING) 2-100 5500 VENTILLATOR 2-H15 6820 WIRING HARNESSES (DOBR, FLOOR/CE ILING) 2-110 5800 FRONT DOOR MECHANISMS 2-616 6870 SERVICE TOOLS 2-110 5800 FRONT DOOR MECHANISMS 2-616 6870 SERVICE TOOLS 2-110 5800 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR SERVICE TOOLS 2-110 5800 WEATER 2-J16 6930 CAUTION PLATES & LABELS				2-G14	6635							į
2-107 53	2-603	936U	RON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM						
2-C08 5370 BODY PAHELS (FLOOR) 2-F08 5380   FLOOR ATTACHMENTS (HOLE COVERS   2-L14 6700   WIRING HARNESSES(FRONT & REAR   5500   DASHBOARD EQUIPMENTS   2-D15 6702   WIRING HARNESSES(DASHBOARD)   2-E09 5500   DASHBOARD EQUIPMENTS   2-D15 6703   WIRING HARNESSES(DOUR, FLOOR, CE ILING)   2-E09 5550   SPECDOMETER CABLE   2-F15 6704   WIRING HARNESSES(DOUR, FLOOR, CE ILING)   2-E09 5550   DASHBOAND & RELATED PARTS   2-I15 6704   WIRING HARNESS CLAMPS   WINDSHIELD WASHER   2-I15 6700   WIRING HARNESS CLAMPS   WINDSHIELD WASHER   2-I15 6700   WIRING HARNESS CLAMPS   WINDSHIELD WASHER   2-I15 6700   WINDSHIELD WIPERS   2-M15 6820   WINDSHIELD WIPER MOTOR COMPONENTS (FRONT)   2-M15 6820   FRONT DOORS   2-I15 6860   FRONT DOORS   2-I16 6860   FRONT DOOR MECHANISMS   2-G16 6870   SERVICE TOOLS   SE	2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2714	6680	AUDIO SYSTEMS (PADIO & TAPE DE						
2-008 5370 BODY PARELS (FLORR) 2-608 5380 FLOOR ATTACHMENTS (HOLE COVERS) 2-008 5390 FLOOR ATTACHMENTS 2-019 5500 DASHBOARD EQUIPMENTS 2-019 5500 METER HOOD 2-609 5500 METER COMPONENTS 2-619 5540 METER COMPONENTS 2-109 5540 METER COMPONENTS 2-109 5540 METER COMPONENTS 2-109 5540 DASHBOARD & RELATED PARTS 2-109 5540 VENTILATOR 2-010 5700 SEATS 2-010 5700 SEATS 2-110 5800 FRONT DOORS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-111 5840 FRONT DOOR MECHANISMS 2-112 6930 CAUTION PLATES & LABELS	2-107	530	BODY PANELS (SIDE)	2-814	6682	AUDIO SYSTEMS (ANTENNA & SPEAK						
2-708 5380   CLOR ATTACHMENTS (HOLE COVERS   2-N14   6701   SSION)	2-008	5370	BODY PANELS (FLOOR)	2.11.	4700							
2-608 5390 FLOOR ATTACHMENTS 2-09 5500 DASHBOARD EQUIPMENTS 2-619 5520 METER HOOD 2-619 5530 SPECDOMETER CABLE 2-609 5540 METER COMPONENTS 2-109 5560 DASHBOARD & RELATED PARTS 2-109 5560 DASHBOARD & RELATED PARTS 2-109 5570 CONSOLE 2-010 5700 SEATS 2-110 5800 FRONT DOORS 2-110 5800 FRONT DOORS 2-110 5800 FRONT DOOR MECHANISMS 2-110 5800 FRONT DOOR MECHANISMS 2-111 5830 FRONT DOOR MECHANISMS 2-112 6400 MEATER 2-113 6400 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR SILLAR TRIMS 2-110 6400 MEATER 2-110 6400 MEATER 2-110 6400 MEATER 2-111 6400 CAUTION PLATES & LABELS	2-508	5380	FLOOR ATTACHMENTS (HOLE COVERS	6-F14	6/00	WIKING HARNESSES(FRONT & REAR						
2-E19 5520 METER HOOD 2-F09 5530 SPECDOMETER CABLE 2-F09 5540 METER COMPONENTS 2-I09 5560 DASHBOAND & RELATED PARTS 2-L09 5570 CONSOLE 2-M15 5740 WINDSHTELD WASHER 2-U10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEATS 2-K10 5800 FRONT DOORS 2-I10 5800 FRONT DOORS 2-I10 5800 FRONT DOOR MECHANISMS 2-I11 5840 FRONT DOOR TRIMS & RELATED PAR 2-I12 6100 MEATER 2-I13 6930 CAUTION PLATES & LABELS	2-G08	5390	FLOOR ATTACHMENTS	2-N14		WIRING HARNESSES(ENGINE & T/MI		1				
2-F09 5530 SPECDOMETER CABLE 2-G09 5540 METER COMPONENTS 2-I09 5560 DASHBOAND & RELATED PARTS 2-L09 5570 CONSOLE 2-U10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEATS 2-K10 5800 FRONT DOORS 2-C11 5830 FRONT DOORS 2-C11 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOK TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR 2-C12 6100 MEATER  ILING) WIRING HARNESS CLAMPS WINDSHTELD WASHER WINDSHIELD WIPERS WIPER MOTOR COMPONENTS (FRONT)  FRONT HEADER TRIM & PILLAR TRI MS  2-K10 5800 FRONT DOOR MECHANISMS 2-E10 6860 FLOOR MATS & PADS  2-E10 6870 SERVICE TOOLS S 2-C12 6100 MEATER 2-J16 6930 CAUTION PLATES & LABELS	209	5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES (DASHBOARD)						
2-F09 5530 SPECDOMETER CABLE 2-G09 5540 METER COMPONENTS 2-109 5560 DASHBOAND & RELATED PARTS 2-L09 5570 CONSOLE 2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEATS 2-K10 5790 SEAT BELTS 2-L10 5800 FRONT DOORS 2-C11 5830 FRONT DOORS 2-C11 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOK TRIMS & RELATED PAR TS 2-C12 6100 MEATER 2-J16 6930 CAUTION PLATES & LABELS	2-E09	5520	METER HOOD	2-E15		WIRING HARNESSES (DOUR, FLOOR/CE						
2-109 5560 DASHBOAND & RELATED PARTS 2-L09 5570 CONSOLE  2-L10 5580 VENTILATOR 2-D10 5700 SEATS  2-K15 6730 WINDSHIELD WASHER WINDSHIELD WIPERS  2-M15 6730 WINDSHIELD WIPERS  2-M15 6730 WINDSHIELD WASHER WINDSHIELD WIPERS  2-M15 6730 WINDSHIELD WIPERS  2-M15 6730 WINDSHIELD WASHER  WINDSHIELD WASHER  WINDSHI	2-F09	5530		2-515	1							
2-109 5560 DASHBOAND & RELATED PARTS 2-L09 5570 CONSOLE  2-C10 5580 VENTILATOR 2-D10 5700 SEATS  2-K15 6730 WINDSHIELD WIPERS WIPER MOTOR COMPONENTS (FRONT) FRONT HEADER TRIM & PILLAR TRI MS  2-K10 5790 SEAT BELTS 2-L10 5800 FRONT DOORS  2-E16 6860 FLOOR MATS & PADS 2-C11 5830 FRONT DOOR MECHANISMS 2-G16 6870 SERVICE TOOLS 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR 2-C12 6100 MEATER  2-J16 6930 CAUTION PLATES & LABELS	2-909	5540	METER COMPONENTS									
2-L10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEAT BELTS 2-L10 5800 FRONT DOORS 2-C11 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TRIMS & SCUFF PLATES 2-L10 5840 FRONT DOOR TRIMS & RELATED PAR TRIMS & SCUFF PLATES 2-G16 6870 SERVICE TOOLS VISORS, ASSIST HANDLES & MIRROR S CAUTION PLATES & LABELS	2-109	5560	DASHBUARD & RELATED PARTS		į							İ
2-D10 5700 SEATS  2-K10 5790 SEAT BELTS  2-L10 5800 FRONT DOORS  2-C11 5830 FRONT DOOR MECHANISMS  2-F11 5840 FRONT DOOK TRIMS & RELATED PAR TS SCUFF PLATES  2-C12 6100 MEATER  2-N15 6820 FRONT HEADER TRIM & PILLAR TRI MS  TRIMS & SCUFF PLATES  FLOOR MATS & PADS  SERVICE TOOLS  VISORS, ASSIST HANDLES & MIRROR  SCORP PLATES  CAUTION PLATES & LABELS	2-109	5570	CONSOLE	1		j						
2-K10 5790 SEATS  2-K10 5790 SEATS  2-K10 5800 FRONT DOORS  2-E10 6860 FLOOR MATS & PADS  2-C11 5830 FRONT DOOR MECHANISMS  2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS  2-C12 6100 MEATER  2-J16 6930 CAUTION PLATES & LABELS	2-010	5580	VENTILATOR		1	į.						1
2-1.10		5700	SEATS		}	MS TENDER TRIP & FILLAR TRI						l
2-1.10	2-K10	5790	SEAT BELTS	クな	3840	TRIMS & SCUFF PLATES		,				
2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR S CAUTION PLATES & LABELS	2-1.10	5800	FRONT DOORS			FLOOR MATS & PADS						
2-C12 6100 HEATER 2-J16 6930 CAUTION PLATES & LABELS	S-C11	5830	FRONT DOOR MECHANISMS	2-G16	6870	SERVICE TOOLS		j				
The state of the s	2-F11	5840	FRONT DOOR TRIMS & RELATED PAR	2~H16	6900	VISORS, ASSIST HANDLES & MIRROR						
2-D12 6110 HEATER UNIT COMPONENTS 2-L16 7250 QUARTER WINDOW & TRIMS	2-C12	6100	MEATER	2-J16	6930	CAUTION PLATES & LABELS						1
The state of the s	2-012	6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS	Ì					

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
60-120   NA01-60-121	1	NOZZLE(R),DEFROSTER			
60-120Z   NA01-60-141	1	NOZZLE(L),DEFROSTER			
60-161   NA01-60-161		GRILLE(R), DEMISTER (STD COAT BLACK/BLACK)			
00		NAG BLACK			
60-161Z   NA01-60-171	į	GRILLE(L), DEMISTER (STD COAT BLACK/BLACK)			
00		NAO BLACK			
60-181A   NA01-60-183	1	DUCT(R),SIDE DEMIST.			
60-181Y   NA01-60-193	1	DUCT(L), SIDE DEMIST.			
61-161   NAC1-61-161	1	DUCT, CENTER			
61-253C   NA01-61-253	1	HOSE(C), DEFROSTER		•	
64-771A   NA01-64-741	1	DUCT NO.1(R)			
64-771Y   NA01-64-841	1	DUCT NO.1(L)			
64-815B   	4	LOUVER, VENTILATOR			
00		NAO BLACK			

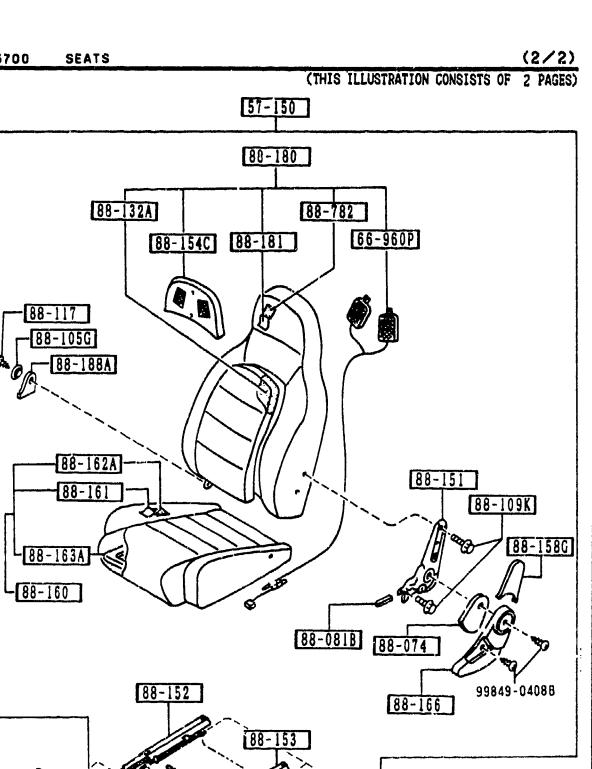
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PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
57-05X	BOLT, LINK			
8455-57-05X 8				9401-
+   57-051D	BOLT, SET			
UB40-57-05X &				-9401
++				
57-100	SEAT(R), FRONT			
NA01-57-100B 1 A (NA01-57-100D)				-9701
00	NAO BLACK			
NA02-57-100B 1 A (NA02-57-100D)				-9701
00	NAO BLACK			
NA01-57-1000 1				9701-0201
A (NA01-57-100E)	NAO BLACK			
NA02-57-100D 1				9701-0201
A (NA02-57-100E)				
00	NAO BLACK			
NA01-57-100E 1 A (NA01-57-100F)				0201-0601
00	NAD BLACK			
NA02-57-100E 1 A (NA02-57-100F)				nS01-0601
00	NAO BLACK			
NA01-57-100F 1	BASE, (CLOTH, W/O HEAD SPK.			0601-
ου	A? BLACK			
NA02-57-100F 1	PKG-OPT, (CLOTH, W/HEAD SPK.)			0601-
00	NAO BLACK			
57-150	SEAT(L), FRONT			
NA01-57-150B 1 A (NA01-57-150D)				-9701
00	NAD BLACK		\   •	
NA02-57-150B 1 A (NA02-57-150D)			<b>Á</b>	-9701
00	NAO BLACK			
NA01-57-150D 1 A (NA01-57-150E)				9701-0201
9401 NA35HH-10 9701 NA35HH-11 0201 NA35HH-13 0601 NA35HH-15	1969 7180			
CAT. AUNA01-07				1992-02



88-105B

PART NO.	OTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D	<u> </u>				1
00		NAO BLACK			
NA02-57-150D A (NA02-57-150E	) 1				9701-0201
00		NAG BLACK			
NA01-57-150E A (NA01-57-150F	, 1				0201-0601
00		NAU BLACK			
NA02-57-150E A (NA02-57-150F	, 1				0201-0601
00		NAO BLACK			
NA01-57-150F	1	BASE, (CLOTH, W/O HEAD SPK. )			0601-
on		NAO BLACK			
NA02-57-150F	1	PKG-OPT, (CLOTH,W/HEAD SPK.)			0601-
00		NAO BLACK			
66-960P		SPEAKER, PILLOW-SEAT			
NA04-66-960A	2	PKG-OPT, (W/HEAD SPEAKER)			
88-024     NAC1-88-033	1	PROTR(R), SEAT BELT			
88-025A     88-025A     NA01-88-034	1	KNOB(R),KNUCKLE			
00	į	NAD BLACK			
88-074     88-074     NA01-88-083	1	PROTR(L), SEAT BELT			
88-081B     NA01-88-084	1	KNOB(L),KNUCKLE			
00		NAO BLACK			
88-101		KNUCKLE(R), RECLINING			
++ NA01-88-101 A (NA01-88-101A	1				-0601
NA01-88-101A	1				0601-
9701 NA35## 0201 NA35## 0601 NA35##	-137	180			
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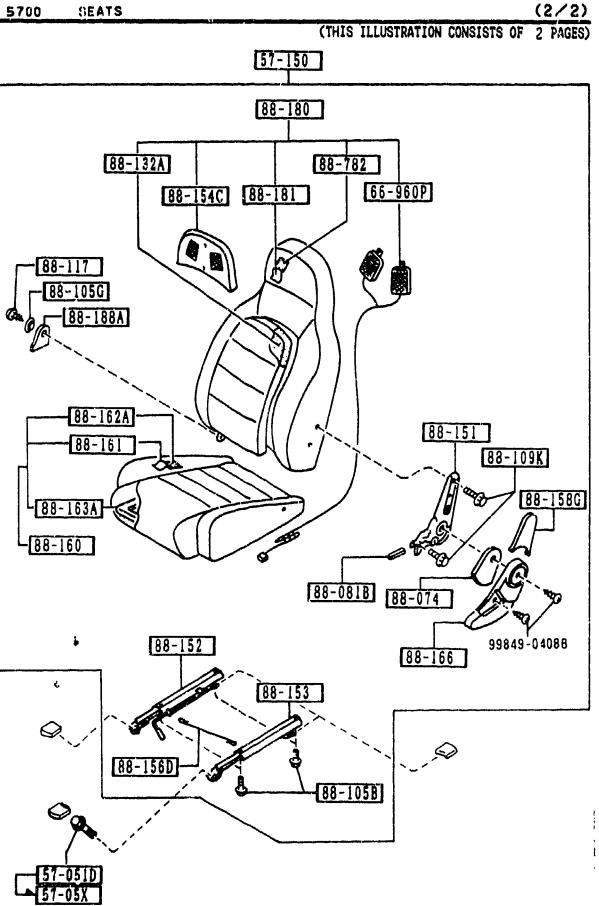
88-156D

AUNA01

PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
88-102	ADJUSTER, NO.1			
NA01-88-102 1 A (NA01-88-102A)				-020
NA01-88-102A 1				0201-
88-103	ADJUSTER, NO. 2			
NA01-88-103 1 A (NA01-88-103A)				-020
NA01-88-103A 1				0201-
+	BOLT, LINK			
H260-88-105 8				
++	BUSH, HINGE			
H260-88-108 2	NAD BLACK			
+	NAU BLACK			
88-106T   NA01-88-106 1	WIRE, CONNECT			
88-108E	COVER(R), SEAT BACK			
NA01-88-036 1	NAO BLACK			
+	NAO BLACK			
85-109K     +	SCREW, KNUCKLE			
88-110	CUSHION(R).FRT SEAT			
	BASE, PKG-OPT, (CLOTH)			
00	NAO BLACK			
88-111	TRIM(R), SEAT CUSHION			<u> </u>
NA01-88-111 1	BASE, PKG-OPT, (CLOTH)			
00	NAO BLACK			
88-112A	PAD(R), CUSHION-FRT			
NA01-88-112 1				
88-113A	FRAME(R), CUSHION-FRT			

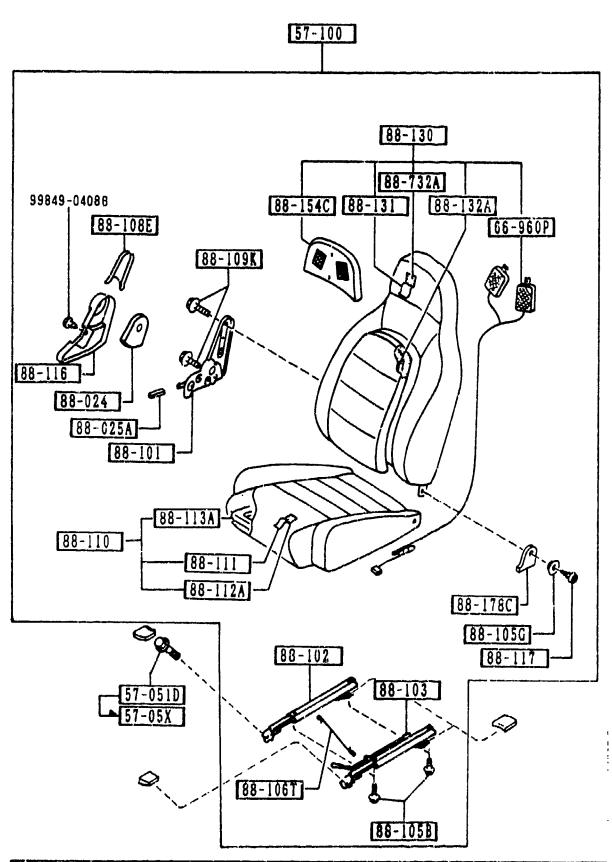
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
CONT'D NA01-88-113	1				
88-116	•	COVER(R),KNUCKLE			
NA01-88-031 00	1	NAO BLACK			
88-117     88-117     H260-88-107	2	SCREW, KNUCKLE			
88-130		BACK(R), FRONT SEAT			
NA01-88-130	1	BASE, (CLOTH, W/O HEAD SPK.			
00		NAO BLACK			
NA02-88-130	. 1	PKG-OPT, (CLOTH,W/HEAD SPK.)			
00		NAO BLACK			
88-131		TRIM(R), SEAT BACK			
NA01-88-131	1	BASE, PKG-OPT, (CLOTH)			
00		NAO BLACK			
88-132A     NA01-88-132	2	PAD(R), BACK-FRT			
88-151	1	KNUCKLE(L), RECLINING			
NA01-88-151 A (NA01-88-151A)	, 1				-0601
NA01-88-151A	1				0601-
88-152   NA01-88-152	1	ADJUSTER NO.3			-0201
(NA01-88-152A)					Ì
NA01-85-152A	1				0201-
88-153   NA01-88-153	1	ADJUSTER NO.4			-0201
(NA01-88-153A)	'				
NA01-88-153A ++   88-154C	1	COVER, HEAD REST			0201-
0201 NA35HH- 0601 NA35HH-	137	180			
	- المراجعة				

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	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-T
NNECT			
SEAT BACK			
CK			
(L),FRT SEAT			
(G-OPT,			
ж			
SEAT CUSHION			
G-OPT,			
CK			
CUSHION-FRT			
(G-OPT,			
,CUSHION-FRT			
KNUCKLE			
CK			
HINGE			
ж			
FRONT SEAT			
I∕O HEAD SPK.			
ж			
/HEAD SPK.)			
K			
//HE	(AD SPK.)	(AD SPK.)	(AD SPK.)

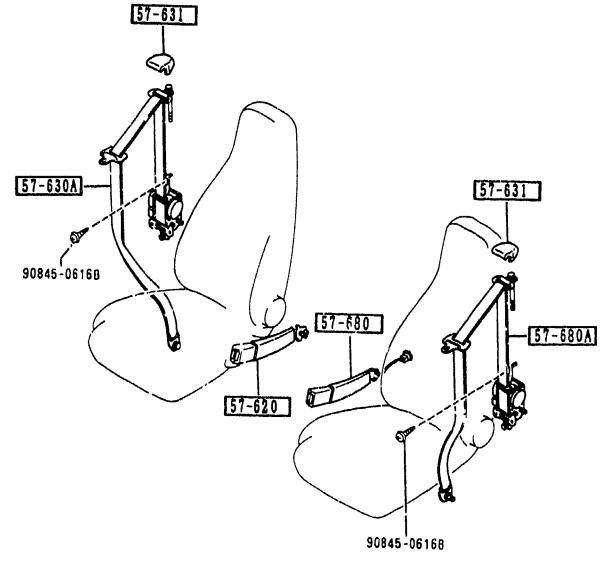
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57-150
88-180
88-132A 88-782 88-181 66-960P
88-105C -88-188A
88-162A 88-161 88-163A 88-163A 88-160 88-1580
88-081B 38-074 99849-0408B
88-156D 88-105B
57-05X 57-05X

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-1
88-181		TRIM(L), SEAT BACK			
A01-88-181	1	BASE, PKG-OPT, (CLOTH)			
00		NAO BLACK			
85-188A     86-188A    A01-88-085	1	COVER(L),HINGE			
00	•	NAO BLACK			
88-732A     88-732A   	1	PAD'B'(R),BACK-FRT			
88-782		PAD'B'(L),BACL-FRT			
A01-88-782	1				
					<u></u>

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PART NO.	ÇTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
57-620   VA01-57-620	•	BELT'A', FRONT SEAT			
00 4401-21-650	1	NAO BLACK			
57-6SOA		BELT'B'(R), FRT SEAT			
A01-57-630C	1	A140 B1 A G1			ļ
00		NAU BLACK			
57-631   IA01-57-631B	2	COVER, ANCHOR			
00		NAU BLACK			
57-680 (A01-57-680	1	BELT'A', FRONT SEAT			
00		NAO NAI BLACK			
57-680A		EELT'B'(L),FRT SEAT			
IA01-57-690A	1	(W/AIR BAG)			
00	i	NAO BLACK			
IA07-57-690 00	i	(W/O AIR BAG) NAO BLACK			0701-
00		NAU BLACK			
	ł				
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	}				
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	l				

0701 NA35xx-200041

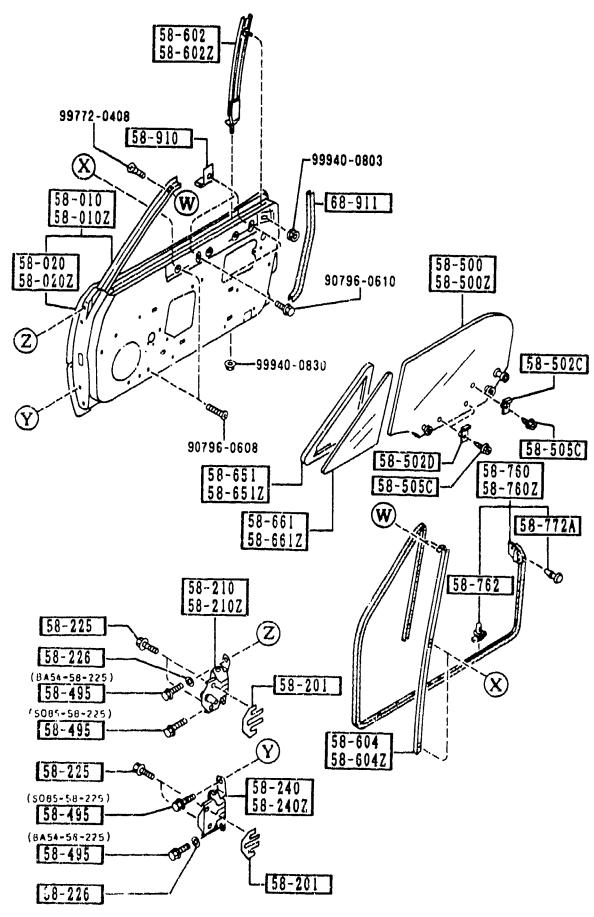
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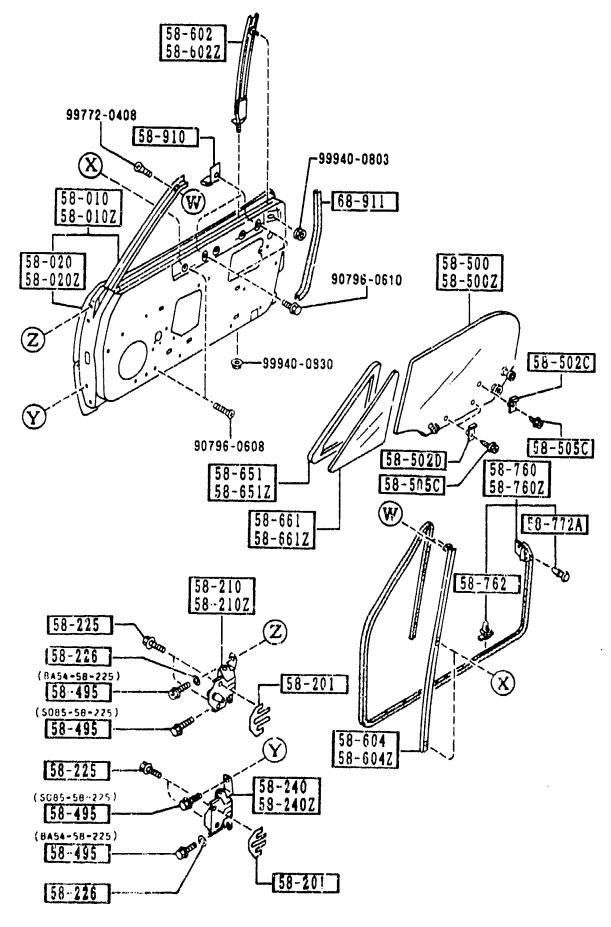
PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
58-010     58-020     NAY1-58-020	BODY(R), FRONT DOOR			
58-010Z     NAY1-59-020 1	BODY(L), FRONT DOOR			
58-020     58-020     +	PANEL(R),OUTFRT DO			-9413
NA01-58-030A 1				9413-
58-020Z     58-020Z     +	PANEL(L), OUTFRT DO			-9413
NA01-59-030A 1				9413-
58-201     8092-58-201   4	SHIM, HINGE-DOOR			-9901
N(B092-58-201A) B092-58-201A 4				9901-
58-210     58-210     FB01-58-210   1	HINGE(R),DOOR-UPPER			
58-210Z     58-210Z     ++   FB01-59-210   1	HINGE(L),DOOR-UPPER			
58-225     58-225     8455-58-225   8	BOLT, SETTING-HINGE L OWER			
58-226   BA56-72-226 4	WASHER, SETTING			-9510
GJ21-58-226 4   58-240   8156-58-240 1	HINGE(R),DOOR-LOWER			9510-
58-2402     58-2402     156-59-240	HINGE(L),DOOR-LOWER			
58-495	BOLT, SET			

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PART NO.	Q1Y	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/PESTRICTION	FROM-TO
CONT'D BA54-58-225	4				
S085-58-225	4				
58-500		GLASS(R),DOOR-FRT			
NA01-58-510	1	CLASSIN FOOD FRI			
+   58-5002		GLASS(L),DOOR-FRT			
NA01-59-510	1	GLASS(L), DUUR-PRI			
++					
58-502C   	2	GROMMET, SCREW			
++					
58-502D	- 1	GROMMET, SCREW-DOOR G			
UB39-58-502A	4				
58-505C		SCREW, WINDOW REGULAT			
8092-58-505	6				
58-602		GUIDE'B'(R), GLASS			
NA01-58-603A	1				
58-602Z		GUIDE'B'(L),GLASS			
NA01-59-603A	1				
58-604		CHANNEL (R) DIVISION-			
NA01-58-604B	1	DOOR			
58-6042	Ì	CHANNEL(L), DIVISION-		i I	
NA01-59-604B	1	DOOR		! !	
1 58-651		WEATHERSTRIP(R)		)   	
NA01-58-651A	1				
++   58-651Z		WEATHERSTRIP(L)		1	
NA01-59-651A	1				
++   58-661		GLASS(R), VENTILATOR			
NA01-58-661	1	OEMSSCR/) VENTILATUR			
+		OLACCAL VENTTI ATOM			
58-661Z   ++ NA01-59-661	1	GLASS(L), VENTILATOR			
	1				



PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	NODEL/PESTRICTION	F20M-T0
58-760	WEATHERSTRIP(R),DOOR			
NA01-58-760C 1 A (NA01-58-760D)				-9403
NA01-58-760D 1				9403-
58-760Z	WEATHERSTRIP(L),DOOR			
NA01-59-760C 1 A (NA01-59-760D)				-9403
NA01-59-760D 1				9403-
58-762   G031-58-762 42	FASTENER			
58-772A     1011-58-772 4	FASTENER			
+	STOPPER.GLASS			
++   68-911   + NA01-68-911 2	WELF, SEAMING			
00	NAO BLACK			
	To any the second of the secon			
9403 NA35##-100	1090			

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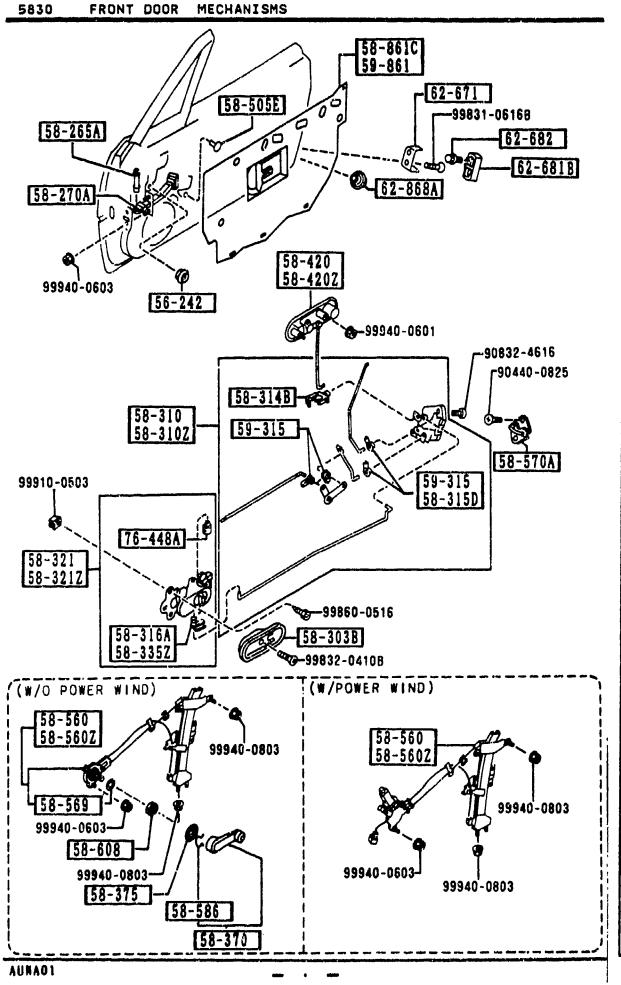
## SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.ND	SEC.NO	SECTION NAME
2-C05		KEY SETS		6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING	! {		
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CON			
2-M05	£103	HEAD LAMP RETRACTORS	2-N12	6150	DITIONER) COOLING UNIT (AIR CONDITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-013	6300	WINDOW GLASSES	1		
2-F06	5110	REAR CUMBINATION LAMPS	2-D13		SUNROOF			
2-106	5120	LICENSE LAMPS	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-J06	5180	REAR FINISHER	2-014	661U	DASHBOARD SWITCHES			
2-L06	5230	BONNET	2-E14	6611	COMBINATION SWITCH			; 
5-1:06	ŀ	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-007		BODY PANELS (FRONT)	2-G14	6635	DOOR SWITCH & HORNS	 		
2-E07	5320	BODY PANELS (FENDER & WHEEL AP	2-414	664C	AUTO CRUISE CONTROL SYSTEM	ļ		
2-HQ7	5330	BODY PANELS (DASH & COWL PANEL	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE			
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK			
2-008	5370	BODY PANELS (FLOOR)	2-114	4700	ER)	1		
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR			
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI SSION)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE ILING)			
2-F09		SPEFDOMETER CABLE	2-F15	6704	WIRING HARNESS CLAMPS			
2-G09	<u> </u>	METER COMPONENTS	2-115		WINDSHIELD WASHER			
2-109	1	DASHBOARD & RELATED PARTS	2-K15		WINDSHIELD WIPERS			
2-L09		CONSOLE	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)			
2-C10	5580	VENTILATOR	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI			
2D10	1	SEATS			MS			
2-K10			2-C16		TRIMS & SCUFF PLATES			
2-L10		FRONT DOORS	2-E16	6860	FLOOR MATS & PADS			
2-C11	5830	FRONT DOOR MECHANISMS	2-G16	6870	SERVICE TOOLS		:	
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS HEATER	TH	6400	VISORS, ASSIST HANDLES & MIRROR			
2-C12	6100	HEATER	2-5-7	6930	CAUTION PLATES & LABELS			
2-012		HEATER UNIT COMPONENTS	2-L16		QUARTER WINDOW & TRIMS			

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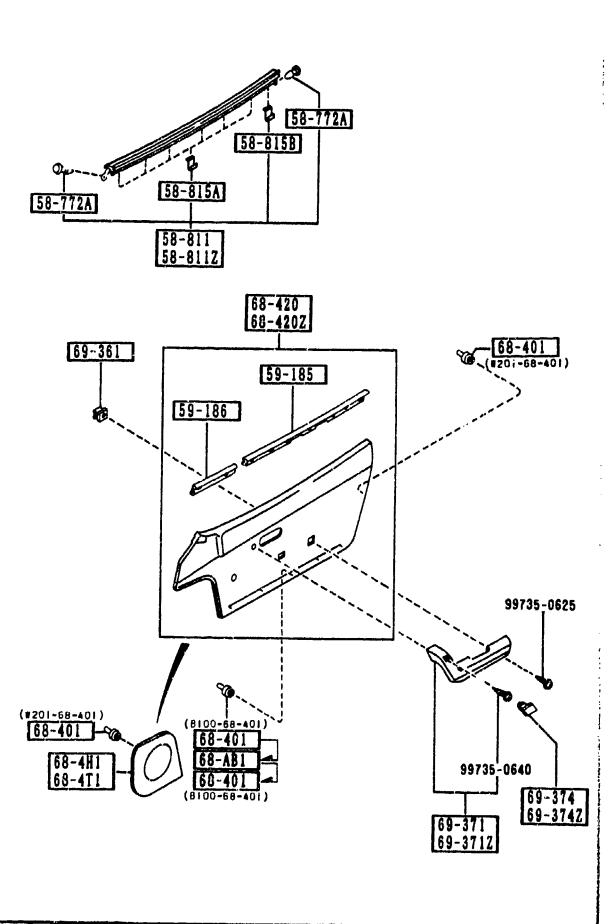
DADY NA	071	MODEL (DECEDENTS)	HODEL (DECTRICATION	400FL /0FG 2010110	500:: 55
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
56-242		PLUG, DRAIN			
0118-56-242B	2				
58-265A		DIN CUECKED			
H260-58-265C	2	PIN, CHECKER			
1	2				
58-270A		CHECKER, DOOR			
NA01-58-270A	2				
58-303B		COVER, INNER HANDLE			<u> </u>
NA01-58-303	2	i i			
00		NAO NAI BLACK			
<b>+</b>		HAN HAT BEWON			
58-310		LOCK(R),DOOR			
NA01-58-310B	1				
+   58-310Z		LOCK(L),DOOR			
NA01-59-310B	1	LUCK(L),DUCK			
+======+	•				
58-3148		JOINT			
H043-72-411	2				
58-3150		CLIP (R)			
G030-58-315	4				
+	1				
58-316A		CLIP			
B001-59-335	1				
58-321		HANDLE(R), INNER			
NA01-58-330A					
00	[	NAU NAI BLACK	ļ		
++		THE THIRD WASTERN			
58-3212	ĺ	HANDLE(L), INNER			
NA01-59-330A	1				
00		NAO NA1 BLACK			
58-335Z		CLIP(L), INNER HANDLE			
FB01-58-335	1				
++					
58-370	Ì	HANDLE, REGULATOR			
	1				

PART NO. Q	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D 8092-58-580	2 BASE, (W/O POWER WIND)			
00	NAO NAI BLACK			
58-375	ESCUSTCHEON			
B001-58-582A	2 BASE, (W/O POWER WIND)			
00	NAU ''^1 BLACK			
58-420   NA01-58-410A	HANDLE(R), OUT.			-941
N(NA01-58-410B) NA01-58-410B	1			9413-962
(NA01-58-410C)				
NA01-58-410C	1			9627~
58-4202   ++ NA01-59-410A N(NA01-59-410B)	HANDLE(L), OUT.			-941
NA01-59-410B (NA01-59-410C)	1			9413-962
NA01-59-410C	1			9627-
58-505E	CAP			
B092-58-355	2 BASE, (W/O POWER WIND)			
58-560	REGULATOR(R), WINDOW			
NA01-58-5608	1 BASE, (W/O POWER WIND)			
NA02-58-560B	PKG-OPT, V-SPECIAL, (W. POWER WIND)			
58-560Z	REGULATOR(L).WINDOW			
NA01-59-560B	1 BASE, (W/O POWER WIND)			
NA02-59-560B	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
58-569	GASKET, WINDOW REGULA			
8092-58-569	2 BASE, (W/O POWER WIND)			
58-570A	STRIKER			



		·			
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D B001-58-361A	2				
58-586		ring, snap			
8001-58-585	2	BASE, (W/O POWER WIND)			
58-608 B092-58-863A		PAD BASE, (W/O POWER WIND)			
58-861C		SCREEN(R), FRONT DOOR			
NA01-58-861A	1	BASE, (W/O POWER WIND)			
NA02-58-861A	1	PXG-OPT, V-SPECIAL, (W/POWER WIND)			
59-315     6030-59-315	4	CLIP			
59-861		SCREEN(L), FRONT DOOR			
NA01-59-861A	1	BASE, (W/O POWER WIND)			
NA02-59-861A	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
62-671     684-62-671	2	DOVETAIL, LIFT GATE			
62-681B   NA01-62-681	2	WEDGE, DOOR-FRONT			
62-682     B216-62-682		SCREW, WEDGE-LIFT GAT			
62-868A     62-868A     8499-62-868	2	COVER, HOLE-LIFT GATE			
76-448A     76-448A     0030-76-448	2	CLIP			
AT AIMAD1-07	······································				lice and the second control of

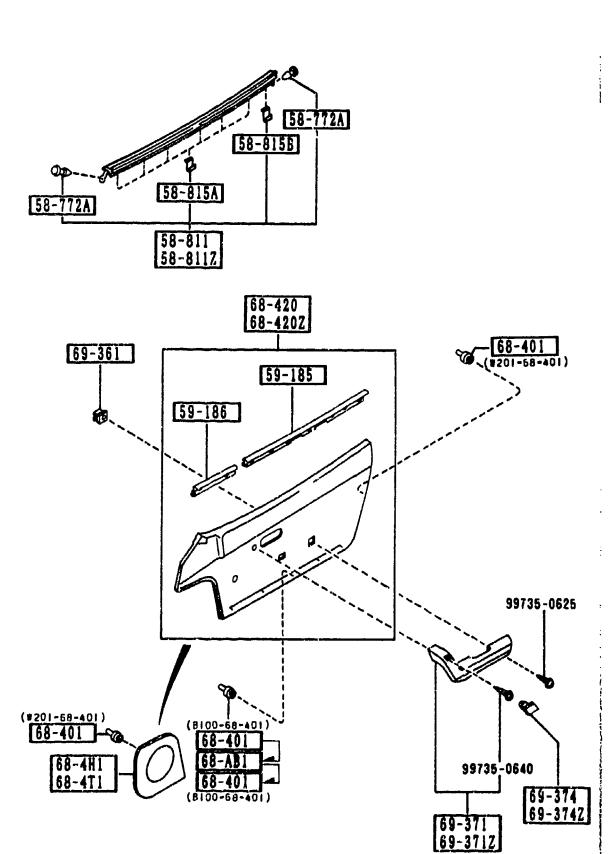
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158-772A   1011-58-772	FASTENER		1
+	. 1		
	4		
58-811	WEATHERSTRIP(R), OUT.		
NA01-58-810B N(NA01-58-810C	» <sup>1</sup>		-960
NA01-58-810C N(NA01-58-810D	» <sup>1</sup>		9607-030
NA01-58-810D	1		0306-
58-8112	WEATHERSTRIP(L),OUT.		
NA01-59-810B	1		-960
N(NA01-59-810C	» <sup>-</sup>		
NA01-59-810C N(NA01-59-810D	,, 1		9607-030
NA01-59-810D	1		<b>3306-</b>
<b>+</b>			
58-815A	CLIP, WEATHERSTRIP-OU	1	
D156-58-815	12		-961
NA01-58-815	12		9607-
58-8158	CLIP'A', WEATHERSTRIP	)	
B157-58-815	2 -001		
59-185	WEATHERSTRIP NO.1		
HA01-58-821	2		
+			
59-186	WEATHERSTRIP NO.2		
NA02-58-821	2		
68-AB1	FASTENER		
G351-68-ABX	10		9001-06
<b>+</b>			
68-4H1	GRILLE(R), SPEAKER		
NA01-68-4H0 00	NAO NAI BLACK		
<b>+</b>	INTO IMAL BEACK		
68-471	GRILLE(L), SPEAKER		
NA01-68-4W0	1		
00	NAO NAI BLACK		
9607 NA35HH 9C01 NA35HH 0306 NA35HH 0601 NA35HH	i-130310 i-142598	<u> </u>	 1

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PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-401		FASTENER, DOOR TRIM			
W201-68-401	12				
B100-68-401	10				-9C0
B160-68-401	10				0601-
68-420		TRIM(R),DOOR			
NA01-68-420B	1	BASE, (W/O POWER WIND)			
00		NAO BLACK			
NA02-68-420B	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
00		NAO BLACK			
68-420Z		TRIM(L),DOOR			
NA01-68-450B	1	BASE, (W/O POWER WIND)			
00		NAO BLACK			
NA02-68-450B	1	PKG-OPT, V-SPECIAL, (W/POWER WIND)			
00		NAD BLACK			
69-361		GROMMET, SCREW			
B316-69-361	6				
69-371		REST(R),ARM			
BF70-69-370C	1				
00		NAO NAI BLACK			
69-3712		REST(L),ARM			
BF70-69-390C	1				
00		NAO NAI BLACK			
69-374		CAP(R), PULL HANDLE			
BF70-69-372	1				
00		NAO NAI BLACK			
69-3742		CAP(L), PULL HANDLE			
BF70-69-392	1				
00	j	NAO NAI BLACK			

SECTION NAME INDEX (BODY)

10.10   SECTION NAME	10 10	SEC NO	CECTION NAME	10 15		TION NAME INDEX (BODY)	T			
2-E05   SOOD   FRONT BUMPER   2-F12   6120   HEATER BLOWER COMPONENTS   2-012   6130   AIR CONDITIONER   2-015   5030   WINDOW MOUDING & COWL GRILLES   2-12   6140   COMPONENTS   6170	10.00	SEC.NO			<del></del>		LO.NO	SEC.NO	SECTION	NAME
2-HOS 5010 REAR BUMPER 2-G12 6130 AIR CONDITIONER COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPONENTS (AIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPONENTS CAIR COMPRESSOR COMPONENTS (AIR COMPONENTS CAIR COMPONENTS (AIR COMPONENTS CAIR COMPONENTS CAIR COMPONENTS (AIR COMPONENTS CAIR COMPONENTS CAIR COMPONENTS CAIR CAIR CAIR CAIR CAIR CAIR CAIR CAIR	1 1						3-C03	7900	ACCESSORIES	
2-JOS 5000 WINDOW MOULDING & COWL GRILLES 2-K12 6135 D RING SET.PIPING COMPRESSOR COMPONENTS (AIR CONDITIONER) FIRST LEAD LAMPS 2-L12 6140 COMPRESSOR COMPONENTS (AIR CONDITIONER) FRONT COMBINATION LAMPS 2-L13 6150 COULTS UNIT (AIR CONDITIONER) REAR FINISHER 2-D13 6200 WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES SURROUP COULTS WINDOW GLASSES WINDOW	1 1					· · · · ·				
2-006 5103 HEAD LAMP RETRACTORS 2-016 5110 REAM COMBINATION LAMPS 2-106 5110 REAM COMBINATION LAMPS 2-016 5110 REAM COMBINATION LAMPS 2-016 5120 LILLENSE LAMPS 2-018 6330 SWINDOW 2-019 5110 REAM FINISHER 2-019 5120 BONNET 2-019 6610 DASHBOARD SWITCHES RELAYS (ENGINE) 2-010 5220 TRUNK LID 2-010 5220 RONY PANELS (FRONT) 2-017 5310 BODY PANELS (FRONT) 2-017 5310 BODY PANELS (FRONT) 2-018 5370 BODY PANELS (FLOR) 2-019 5500 BODY PANELS (FLOR) 2-019 5500 BODY PANELS (FLOR) 2-019 5500 METER HOOD 2-019 5500 METER HOOD 2-019 5500 DASHBOARD EQUIPMENTS 2-015 5300 SPEEDOMETER CABLE 2-019 5500 DASHBOARD RELATED PARTS 2-015 5700 SEATS 2-015 6800 FRONT COOR TRIMS & RELATED PARTS 2-016 5800 FRONT COOR TRIMS & RELATED PARTS 2-017 5840 FRONT COOR TRIMS & RELATED PARTS 2-011 5800 FRONT COOR TRIMS & RELATED PARTS 2-011 5800 FRONT COOR TRIMS & RELATED PARTS 2-011 5800 FRONT COOR TRIMS & RELATED PARTS 2-012 6100 METER COOR TRIMS & RELATED PARTS 2-011 5800 FRONT COOR TRIMS & RELATED PARTS 2-012 6100 METER COOR TRIMS & RELATED PARTS 2-011 5800 FRONT COOR TRIMS & RELATED PARTS 2-012 6100 METER COOR TRIMS & RELATED PARTS 2-011 5800 FRONT COOR TRIMS & RELATED PARTS 2-012 6100 METER COOR TRIMS & RELATED PARTS 2-015 5800 FRONT COOR TRIMS & RELATED PARTS 2-016 5800 FRONT COOR TRIMS & RELATED PARTS 2-017 5840 FRONT COOR TRIMS & RELATED PARTS 2-018 5840 FRONT COOR TRIMS & RELATED PARTS 2-019 5840 FRONT COOR TRIMS & RELATED PARTS 2-010 5800 FRONT COOR TRIMS & RELATED PARTS 2-011 5800 FRONT COOR TRIMS & RELATED PARTS 2-012 6100 MEATER 2-013 6800 FRONT COOR TRIMS & RELATED PARTS 2-014 6900 FRONT COOR TRIMS & RELATED PARTS 2-015 6800 FRONT COOR TRIMS & RELATED PARTS 2-016 6800 FRONT COOR TRIMS & RELATED PARTS 2-017 6800 FRONT COOR TRIMS & RELATED PARTS 2-018 6800 FRONT COOR TRIMS & RELATED PARTS 2-019 5840 FRONT COOR TRIMS & RELATED PARTS 2-019 5840 FRONT COOR TRIMS & RELATED PARTS 2-010 5800 FRONT COOR TRIMS & RELATED PARTS 2-011 5840 FRONT COOR TRIMS & RELATED PARTS 2-012 6100 MEATER 2-013 6800 FRONT COOR TRIMS & RELATED PARTS 2-014 6800 FRONT	1 1				6130	AIR CONDITIONER				
2-006 5103 HEAD LAMP RETRACTORS 2-016 5110 REAR COMBINATION LAMPS 2-016 5110 REAR COMBINATION LAMPS 2-016 5110 REAR COMBINATION LAMPS 2-016 5120 LIGENSE LAMPS 2-018 6330 SWITCHES RELAYS (ENGINE) 2-018 6320 SWITCHES RELAYS (ENGINE) 2-019 5200 BONNET 2-010 5220 TRUNK LID 2-014 6610 DASHBOARD SWITCHES 2-015 6635 SWITCHES RELAYS (ENGINE) 2-016 5220 RODY PANELS (FRONT) 2-017 5310 BODY PANELS (FRONT) 2-018 800Y PANELS (FRONT) 2-019 5320 BODY PANELS (FRONT) 2-019 5340 BODY PANELS (FLORE) 2-02 8 5370 BODY PANELS (FLORE) 2-03 5370 BODY PANELS (FLORE) 2-03 5370 SOV PANELS (FLORE) 2-04 5520 METER HOOD 2-05 5520 METER HOOD 2-05 5520 METER HOOD 2-05 5520 METER HOOD 2-05 5520 DASHBOARD RELATED PARTS 2-019 5550 DASHBOARD RELATED PARTS 2-019 5570 CONSOLE 2-010 5580 VENTILATOR 2-010 5700 SEAT BELTS 2-015 6800 FRONT BOON MECHANISMS 2-016 680 FRONT DOOR TRIMS & RELATED PARTS 2-017 5840 FRONT DOOR TRIMS & RELATED PARTS 2-018 5800 FRONT DOOR TRIMS & RELATED PARTS 2-019 5500 FRONT DOOR TRIMS & RELATED PARTS 2-011 5830 FRONT DOOR TRIMS & RELATED PARTS 2-011 5830 FRONT DOOR TRIMS & RELATED PARTS 2-012 6100 HEATER 2-013 6400 FRONT DOOR TRIMS & RELATED PARTS 2-016 5870 FRONT DOOR TRIMS & RELATED PARTS 2-017 5840 FRONT DOOR TRIMS & RELATED PARTS 2-018 5800 FRONT DOOR TRIMS & RELATED PARTS 2-019 5600 FRONT DOOR TRIMS & RELATED PARTS 2-010 5800 FRONT DOOR TRIMS & RELATED PARTS 2-011 5840 FRONT DOOR TRIMS & RELATED PARTS 2-016 6790 VISION PLATES & LABELS 2-017 6400 HEATER				2-K12	6135	O RING SET, PIPING	进	١		
2-016 5109 FRONT COMBINATION LAMPS 2-106 5110 REAR COMBINATION LAMPS 2-106 5120 ILLICENSE LAMPS 2-106 5120 REAR FINISHER 2-106 5220 BONNET 2-06 5220 BONNET 2-07 5310 BODY PANELS (FRONT) 2-08 520 BODY PANELS (FRONT) 2-097 5320 RODY PANELS (FRONT) 2-017 5320 RODY PANELS (FRONT) 2-018 5350 BODY PANELS (SIDE) 2-107 5350 BODY PANELS (SIDE) 2-108 5370 BODY PANELS (FLORR) 2-08 5370 BODY PANELS (FLORR) 2-09 5500 DASHBOARD EQUIPMENTS 2-09 5520 METER HOOD 2-09 5520 DASHBOARD EQUIPMENTS 2-09 5520 DASHBOARD EQUIPMENTS 2-09 5520 DASHBOARD EQUIPMENTS 2-09 5520 DASHBOARD EQUIPMENTS 2-09 5500 DASHBOARD EQUIPMENTS 2-115 6700 WIRTING HARNESS CLORRY FLORRY WI	1 1			2-L12	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)	<b>P</b>	<b>\</b>		
2-106 5109 REAR COMBINATION LAMPS 2-103 6300 WINDOW GLASSES SURROUF 2-106 5120 LILENSE LAMPS 2-103 6330 SURROUF 2-104 6510 REAR FINISHER 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 DASHBOARD SWITCHES 2-104 6610 PARELS (FRONT) 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6635 RELAYS & UNIT (EDDY) DOOR SWITCH & HORNS 2-104 6630 RELAYS & UNIT (EDDY) DOOR SWITCH & TAPE DE CONTROL SYSTEM RADIO & TA	1			2-N12	6150				1	
2-106 5120; LICHNSE LAMPS 2-J06 5180 2-L06 5220 BONNET 2-D06 5260 TRUNK LID 2-D07 5310 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (CONTROL PANEL) 2-H07 5330 BODY PANELS (FRONT) 2-E08 5370 BODY PANELS (FLOOR) 2-F00 5380 FLOOR ATTACHMENTS (HOLE COVERS 2-E09 5520 METER HOOD 2-E09 5520 METER HOOD 2-E09 5520 METER HOOD 2-E09 5520 METER CABLE 2-E09 5520 METER CABLE 2-E09 5520 METER CABLE 2-E09 5520 METER CABLE 2-E09 5520 METER CABLE 2-E09 5520 DASHBOARD & RELATED PARTS 2-E09 5520 DASHBOARD & RELATED PARTS 2-E09 5520 CONSOLE 2-E09 5520 CONSOLE 2-E09 5520 CONSOLE 2-E09 5520 DASHBOARD & RELATED PARTS 2-E09 5520 CONSOLE 2-E09 5520 C	1						1			
2-106 512: LILENSE INSHER 2-106 5230 BONNET 2-106 5250 BONNET 2-007 5310 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FENDER & WHEEL AP RON) 2-H07 5330 BODY PANELS (CASHBORN SWITCHES COMBINATION SWITCH & 6630 RELAYS & UNIT (GODY) 2-E07 5330 BODY PANELS (CASHBORN SWITCH & 6630 RELAYS & UNIT (GODY) 2-E07 5330 BODY PANELS (SIDE) 2-L08 5370 BODY PANELS (SIDE) 2-C08 5370 BODY PANELS (FRONT) 2-E07 5380 FLOOR ATTACHMENTS (HOLE COVERS 2-E08 5370 DASHBOARD EQUIPMENTS 2-E09 5500 DASHBOARD EQUIPMENTS 2-E09 5500 DASHBOARD EQUIPMENTS 2-E15 560 DASHBOARD & RELATED PARTS 2-E19 5560 DASHBOARD & RELATED PARTS 2-L10 5570 CONSOLE 2-L10 5700 SEATS 2-C11 5880 FRONT DOOR TRIMS & RELATED PARR 2-C12 6100 HEATER 2-C12 6100 HEATER 2-113 5840 FRONT DOOR TRIMS & RELATED PARR 2-C12 6100 HEATER 2-114 6630 COMBINATION SWITCHES COMBINATION SWITCH COMBINATION COMBINED COMBINATION SWITCH COMBINATION SWITCH COMBINATION SWITCH COMBINATION SWITCH COMBINATION COMBINED AUTOCOMY WIRING HARNESSES(ENGINE B I/MIN WIRING HARNESSES(ENGINE B I/MIN WIRING HA	1 1									
2-106 5180 2-106 5250 2-N06 526C 2-N07 5310 2-E07 5320 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200 2-E07 5200	1	!								
2-106 526C TRUNK LID 2-514 6611 COMBINATION SWITCH 2-517 5310 BODY PANELS (FRONT) 2-607 5320 BODY PANELS (FENDER & WHEEL AP RON) 2-614 6635 DOOR SWITCH & HORNS 2-614 6630 AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM (RADIO & TAPE DE CR) 2-114 6680 AUTO CRUISE CONTROL SYSTEM AUTO CRU	!	1					l			
2-007 5310 BODY PANELS (FRONT) 2-E07 5320 BODY PANELS (FENDER & WHEEL AP RON) 2-H07 5330 BODY PANELS (GASH & COWL PANEL   2-H14 6680 AUTO CRUISE CONTROL SYSTEM AUTO CRUISE CRUIT CRUISE CONTROL SYSTEM AUTO CRUISE CRUISE AUTO CRUISE CRUIS	1 1	1	BONNET	·			l			
2-007 5320 BODY PANELS (FENDER & WHEEL AP RON) 2-H07 5320 BODY PANELS (FENDER & WHEEL AP RON) 2-H07 5330 BODY PANELS (DASH & COWL PANEL) 2-H07 5330 BODY PANELS (SIDE) 2-L08 5370 BODY PANELS (SIDE) 2-F07 5380 FLOOR ATTACHMENTS (HOLE COVERS ER) 2-F08 5390 FLOOR ATTACHMENTS 2-G08 5390 FLOOR ATTACHMENTS 2-C09 5500 DASHBOARD EQUIPMENTS 2-C19 5530 SPEEDMETER CABLE 2-F09 5530 SPEEDMETER CABLE 2-F09 5530 METER HOOD 2-E15 6702 2-G09 5540 METER COMPONENTS 2-L09 5550 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-L09 5570 CONSOLE 2-L09 5570 SEATS 2-N15 6820 WINDSHIELD WASHER 2-L10 5700 SEATS 2-L10 5700 SEATS 2-L10 5800 FRONT DOORS 2-L10 5800 FRONT DOORS 2-L10 5800 FRONT DOORS 2-L10 5800 FRONT DOORS 2-L10 5800 FRONT DOOR MECHANISMS 2-L10 5800 FRONT DOOR TRIMS & RELATED PAR SPONT SERVICE TUOLS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR SPONT SERVICE TUOLS 2-L10 5800 FRONT DOOR TRIMS & RELATED PAR SPONT SERVICE TUOLS 2-L11 5840 FRONT DOOR TRIMS & RELATED PAR SPONT CAUTION PLATES & LABELS 2-L12 6400 HEATER 2-L13 6400 HEATER	!		TRUNK LID							
2-H07 5320 BDDY PANELS (FENDER & WHEEL AP RDY) PANELS (DASH & COWL PANEL 2-114 6680 AUDIO SYSTEMS (RADIO & TAPE DE CX) 2-H07 5340 BODY PANELS (SIDE) 2-K14 6682 AUDIO SYSTEMS (ANTENNA & SPEAK EX) 2-G08 5370 BODY PANELS (FLOOR) 2-F07 5380 FLOOR ATTACHMENTS (HOLE COVERS FLOOR ATTACHMENTS (HOLE COVERS FLOOR ATTACHMENTS 2-N14 6700 WIRING HARNESSES(FRONT & REAR SISION) 2-G08 5390 FLOOR ATTACHMENTS 2-N14 6701 WIRING HARNESSES(ENGINE & T/MI SSION) 2-G09 5500 DASHBOARD EQUIPMENTS 2-D15 6702 WIRING HARNESSES(DOOR, FLOOR/CE TLING) 2-F09 5520 METER HOOD 2-E15 6703 WIRING HARNESSES(DOOR, FLOOR/CE TLING) 2-F09 5540 METER COMPONENTS 2-F15 6704 WIRING HARNESSES (LAMPS WIRING HARNESSES	1 1		BODY PANELS (FRONT)							
2-H07 5330 80DY PANELS (DASH & COWL PANEL   2-114   6680   AUDIO SYSTEMS (RADIO & TAPE DE   2-107 5340   BODY PANELS (SIDE)   2-K14   6682   AUDIO SYSTEMS (ANTENNA & SPEAK ER)   2-K14   6682   AUDIO SYSTEMS (ANTENNA & SPEAK ER)   2-K14   6700   WIRING HARNESSES(FRONT & REAR   YIRING HARNESSES(FRONT & REAR   YIRING HARNESSES(FRONT & REAR   YIRING HARNESSES(ENGINE & T/MI   SION)   SION)   SION	2-E07	5320	BODY PANELS (FENDER & WHEEL AP						I	
2-107 5340 BODY PANELS (SIDE) 2-C08 5370 BODY PANELS (FLOOR) 2-FOC. 5380 FLOOR ATTACHMENTS (HOLE COVERS) 2-L14 6700 WIRING HARNESSES(ERGINE & T/MI SSION) 2-G08 5390 FLOOR ATTACHMENTS 2-N14 6701 WIRING HARNESSES(ERGINE & T/MI SSION) 2-C09 5500 DASHBOARD EQUIPMENTS 2-D15 6702 WIRING HARNESSES(DOOR, FLOOR, CE TLING) 2-E09 5520 METER HOOD 2-E09 5530 SPEEDOMETER CABLE 2-F15 6703 WIRING HARNESSES(DOOR, FLOOR, CE TLING) 2-G09 5540 METER COMPONENTS 2-L19 5560 DASHBOARD & RELATED PARTS 2-L19 5570 CONSOLE 2-L19 5570 CONSOLE 2-D10 5700 SEATS 2-N15 6720 WIPPER MOTOR COMPONENTS(FRONT) 2-C10 5790 SEATS 2-L10 5800 FRONT DOORS 2-E16 6860 FLOOR MATS & PADS 2-C11 5830 FRONT DOOR MECHANISMS 2-G16 6870 SERVICE TUOLS 2-C12 6100 HEATER 2-J16 6930 CAUTION PLATES & LABFLS	2-H07	5330				AUDIO SYSTEMS (RADIO & TAPE DE				
2-C08 5370 BDDY PANELS (FLODR) 2-FOC. 5380 FLODR ATTACHMENTS (HOLE COVERS)  2-G08 5390 FLODR ATTACHMENTS 2-C09 5500 DASHBOARD EQUIPMENTS 2-E09 5520 METER HOOD 2-E09 5530 SPEEDOMETER CABLE 2-G09 5540 METER COMPONENTS 2-L19 5560 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEAT BELTS 2-K10 5800 FRONT DOORS 2-E16 6840 FRONT DOORS 2-E17 5840 FRONT DOOR TRIMS & RELATED PAR 2-C12 6100 HEATER  2-C12 6100 HEATER  2-C14 6930 CAUTION PLATES & LABELS 2-L16 6930 CAUTION PLATES & LABELS	2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK				
2-FOC 5380   FLOOR ATTACHMENTS (HOLE COVERS   2-N14   6701   WIRING HARNESSES(ENGINE & T/MI   SSION)   2-C09 5500   DASHBOARD EQUIPMENTS   2-D15   6702   WIRING HARNESSES(DASHBOARD)   2-E09 5520   METER HOOD   2-E15   6703   WIRING HARNESSES(DOOR, FLOOR, CE   ILING)   2-FO9 5530   SPEEDOMETER CABLE   2-F15   6704   WIRING HARNESSES (LAMPS   2-ID9   5560   DASHBOARD & RELATED PARTS   2-I15   6720   WINDSHIELD WASHER   2-K15   6730   WINDSHIELD WIPERS   2-L09 5570   CONSOLE   2-M15   6740   WINDSHIELD WIPERS   2-M15   6740   WIPER MOTOR COMPONENTS (FRONT)   2-D10 5700   SEATS   2-M15   6820   FRONT HEADER TRIM & PILLAR TRIM   MS   SCUFF PLATES   2-L10 5800   FRONT DOORS   2-E16   6860   FLOOR MATS & PADS   2-C11 5830   FRONT DOOR MECHANISMS   2-G16   6870   SERVICE TUOLS   2-F11 5840   FRONT DOOR TRIMS & RELATED PAR   2-H16   6900   VISORS, ASSIST HANDLES & MIRROR   2-C12   6100   HEATER   2-J16   6930   CAULTION PLATES & LARFIS	2-08	5370				ER)				
2-G08 5390 FLOOR ATTACHMENTS 2-C09 5500 DASHBOARD EQUIPMENTS 2-E09 5520 METER HOOD 2-E15 6703 WIRING HARNESSES (DOOR, FLOOR, CE ILING) 2-F09 5530 SPEEDOMETER CABLE 2-F09 5540 METER COMPONENTS 2-I09 5560 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-K15 6730 WINDSHIELD WASHER 2-L19 5570 CONSOLE 2-M15 6740 WIPER MOTOR COMPONENTS (FRONT) 2-C10 5580 VENTILATOR 2-N15 6820 FRONT HEADER TRIM & PILLAR TRIMS 2-K10 5790 SEATS 2-C16 6840 TRIMS & SCUFF PLATES 2-C16 6860 FLOOR MATS & PADS 2-C11 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR 2-C12 6100 HEATER 2-J16 6930 CAULTION PLATES & LABFLS	2-F08	1		2-L14	6700	WIRING HARNESSES(FRONT & REAR				
2-E09 5520 METER HOOD 2-F09 5530 SPEEDOMETER CABLE 2-G09 5540 METER COMPONENTS 2-I09 5560 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEAT BELTS 2-K10 5800 FRONT DOORS 2-L16 6860 FLOOR MATS & PADS 2-L10 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS 2-C12 6100 HEATER 2-L16 6930 CAUTION PLATES & LARFLS 2-L16 6930 CAUTION PLATES & LARFLS	2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI SSION)				
2-F09 5530 SPEEDOMETER CABLE 2-G09 5540 METER COMPONENTS 2-109 5560 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEAT BELTS 2-L10 5800 FRONT DOORS 2-L10 5800 FRONT DOORS 2-L10 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS  2-G16 6870 SERVICE TUOLS 2-G16 6930 CAUTION PLATES & LABELS	2-009	5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES(DASHBOARD)				
2-F09 5530 SPEEDOMETER CABLE 2-G09 5540 METER COMPONENTS 2-I09 5560 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K1S 6740 WIPER MOTOR COMPONENTS(FRONT) 2-NIS 6820 FRONT DOORS 2-L10 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR 2-C12 6100 HEATER  2-F15 6704 WIRING HARNESS CLAMPS WINDSHIELD WASHER WIND	2-E09	5520	METER HOOD	2-E15		WIRING HARNESSES(DOOR, FLOOR/CE				
2-I09 5560 DASHBOARD & RELATED PARTS 2-K15 6730 WINDSHIELD WASHER 2-K15 6730 WINDSHIELD WIPERS 2-K15 6730 WINDSHIELD WIPERS 2-K15 6730 WINDSHIELD WIPERS 2-K15 6730 WINDSHIELD WIPERS 2-K15 6730 WIPER MOTOR COMPONENTS (FRONT) 2-N15 6820 FRONT HEADER TRIM & PILLAR TRIM MS 2-K10 5790 SEATS 2-C16 6840 TRIMS & SCUFF PLATES 2-L10 5800 FRONT DOORS 2-E16 6860 FLOOR MATS & PADS 2-C11 5830 FRONT DOOR MECHANISMS 2-G16 6870 SERVICE TUOLS 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR SCUTTON PLATES & LABELS	1	1		2-F15	]					
2-109 5560 DASHBOARD & RELATED PARTS 2-L09 5570 CONSOLE 2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEAT BELTS 2-L10 5800 FRONT DOORS 2-L10 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS 2-L10 6900 VISORS, ASSIST HANDLES & MIRROR S 2-L10 6930 CAUTION PLATES & LABELS	2-G09	5540	METER COMPONENTS	i	į					
2-C10 5580 VENTILATOR 2-D10 5700 SEATS 2-K10 5790 SEAT BELTS 2-L10 5800 FRONT DOORS 2-C11 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS  2-C12 6100 HEATER  2-M15 6740 WIPER MOTOR COMPONENTS (FRONT) 6820 FRONT HEADER TRIM & PILLAR TRI MS 4 SCUFF PLATES 7-C16 6860 FLOOR MATS & PADS 7-C17 5840 FRONT DOOR TRIMS & RELATED PAR TS 8 SCUFF PLATES 7-C16 6870 SERVICE TUOLS 7-C17 6900 VISORS, ASSIST HANDLES & MIRROR 7-C18 6100 HEATER  2-J16 6930 CAUTION PLATES & LABELS	2-109	5560	DASHBUARD & RELATED PARTS	i	ı			!		
2-C10 5580 VENTILATOR 2-D10 5700 SEATS  2-K10 5790 SEAT BELTS  2-L10 5800 FRONT DOORS  2-E16 6860 FLOOR MATS & PADS  2-C11 5830 FRONT DOOR MECHANISMS  2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS  2-H16 6900 VISORS, ASSIST HANDLES & MIRROR S  2-J16 6930 CAUTION PLATES & LARFLS	2-L09	5570	CONSOLE	İ	_	•		1		
2-D10 5700 SEATS  2-K10 5790 SEAT BELTS  2-L10 5800 FRONT DOORS  2-E16 6860 FLOOR MATS & PADS  2-C11 5830 FRONT DOOR MECHANISMS  2-F11 5840 FRONT DOOR TRIMS & RELATED PAR TS  2-L16 6900 VISORS, ASSIST HANDLES & MIRROR S  2-L16 6930 CAUTION PLATES & LABELS	2-C10	5580	VENTILATOR	1	1					
2-L10 5800 FRONT DOORS 2-C11 5830 FRONT DOOR MECHANISMS 2-G16 6870 SERVICE TUOLS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 7-H16 6900 VISORS, ASSIST HANDLES & MIRROR S 2-L10 6100 HEATER 2-L10 6860 FLOOR MATS & PADS 2-G16 6870 SERVICE TUOLS 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR S 2-J16 6930 CAUTION PLATES & LABELS	2-010	5700	SEATS	- 17.23						
2-C11 5830 FRONT DOOR MECHANISMS 2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR S 2-C12 6100 HEATER 2-J16 6930 CAUTION PLATES & LABELS	2-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES				
2-F11 5840 FRONT DOOR TRIMS & RELATED PAR 2-H16 6900 VISORS, ASSIST HANDLES & MIRROR S 2-J16 6930 CAUTION PLATES & LARFLS	2-L10	5800	FRONT DOORS	2-E16	6860	FLOOR MATS & PADS				
2-C12 6100 HEATER 2-J16 6930 CAUTION PLATES & LABELS	2-C11	5830	FRONT DOOR MECHANISMS	2-G16	6870	SERVICE TUOLS				
	2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR				
2-D12 6110 HEATER UNIT COMPONENTS 2250 QUARTER WINDOW & TRIMS	2-C12	6100		2-J16	6930	CAUTION PLATES & LABELS				
	2-012	6110	HEATER UNIT COMPONENTS	B	7250	QUARTER WINDOW & TRIMS				

Color   Colo	PART NO.	OTY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
AGD1-61-150A   1	+=======+	VII HOULE/RESTRICTION	HODELYNESIKICITAN	HOUSE/RESIRICIION	rkun-iu
MA01-61-150A 1	61-150	DUCT, AIR			]
MA01-61-150A 1	NA01-61-150 G (NA01-61-150A)	1			-9A01
61-211	ſ				0401-
MA01-61-212   HOSE NO.2, WATER	j .				777
61-212	+	HOSE NO.1, WATER			
61-212   HOSE NO.2, WATER	NA01-61-211	1			
NA01-61-212A 1 -9601 NA01-61-212A 2 GROWMET  GROWMET  GROWMET  GROWMET		HOSE NO.2.WATER			
NA01-61-212A 1   GROPMET   9601-	NA01-61-212	1			-9601
61-479   GROMMET	A (NA01-61-212A)				
8871-61-219A 2 GROWMET		1			9601-
		GROMMET			
9601 NA35NH-106797	8871-61-219A	2			
9401 NA35HM-106797					
9401 NA35HH-106797					
9601 NA35MH-106797					
9601 NA35HH-106797					
9601 NA35HH-104797					
9603. NA35HH-106797	1				
9603 NA35HH-106797					
9601 NA35HH-106797					
9601 NA35HH-106797					i <b>[</b>
9603 NA35HH-106797					
9603 NA35HH-106797					
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9603 NA35**-106797					
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9601 NA35##-106797					
9601 NA35M#-106797					
9601 NA35MH-106797					
9601 NA35MH-106797					
9601 NA35##-106797					!
rmue tambumm"asayuu	9601 NA35HH- 9A01 NA35HH-	106797 122908	· · · · · · · · · · · · · · · · · · ·		

AUNAOL

1992-02

HEATER CONTROL (REFER TO SECT.NO. 6115)

AUNAOI

<u>61-130</u>
61-A20 61-A20 61-A30
99940-0603

			1	<del>,</del>
PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-A01	CASE'A', HEATER UNIT			
NA01-61-A01 1				
61-A02	CASE'B', HEATER UNIT			
NA01-61-A02 1	1			
61-A10	CORE, HEATER UNIT			
NA01-61-A10 1	1			
<b>+</b>	ļ			
61-A20   NA01-61-A20 1	LINK SET, TEMP			
+======+				
+	LINK SET, MODE			
NA01-61-A30 1				
61-130	HEATER UNIT			
NA01-61-130 1 3 (NA01-61-130A)				-9A0
NA01-61-130A 1				9A01-
		!		
GAGI MATEUM SO	7000			
9A01 NA35##-12	£7U0			

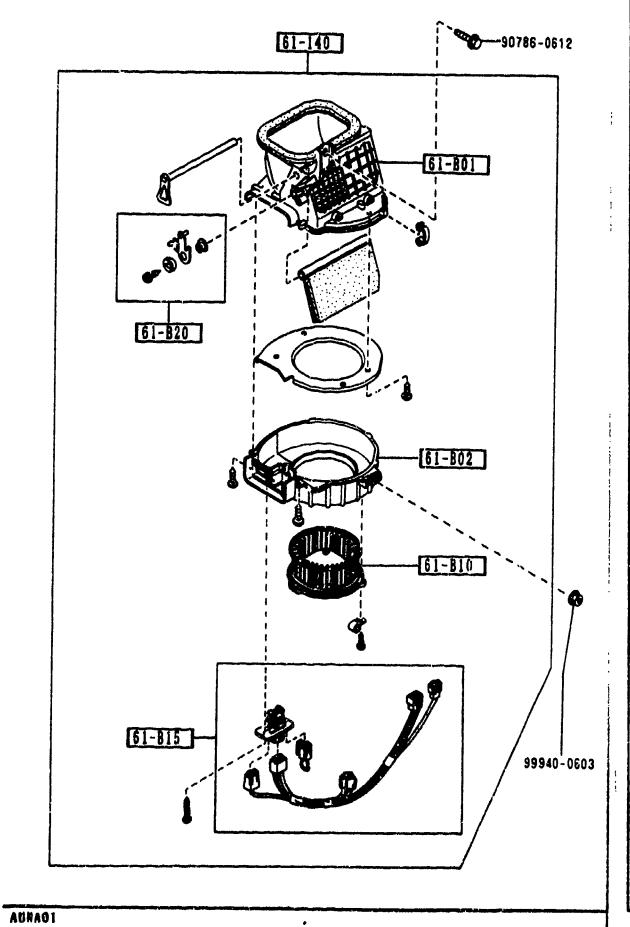
CAT. AUNA01-07

6115

-	-				
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
61-C04     NA01-61-C04	1	PANEL, PLATE-MODE CON TROL			
61-C09     H260-61-C09	1	CLIP, HEATER CONTROL			
61-C25     NA01-61-C25	1	WIRE, TEMP. CONTROL			
1 61-C35 NA01-61-C35	1	WIRE, MODE CONTROL			
61-C45   NA01-61-C45	1	WIRE, RECYCLE & FRESH			
61-C50   NA01-61-C50	1	SWITCH, FAN-HEATER CO NTROL			
61-C95   NA01-61-C95	2	BULB, MODE CONTROL			
NA02-61-C95 NA03-61-C95	1				
61-D22 NA01-61-D22	3	SCREW, RR HEATER UNIT			
61-190   	1	CONTROL, HEATER			
61-191A     MA01-61-191	3	KNOB NO.1			
61-1958     HAD1-61-195	1	KNOB, FAN SWITCH			
1 76-514   B001-76-526	2	CLIP			
		***************************************			

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CAT. AUNA01-07



PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-801		CASE'A', BLOWER UNIT			
NA01-61-B01	1				
1 41		CASSIBL BLOWER INITS			
1 61-B02   NA01-61-B02	1	CASE'B', BLOWER UNIT			
+	•				
j 61-810 j		MOTOR, FAN-BLOWER UNI			
NA01-61-810	1	•			
61-815		RESISTOR, BLOWER UNIT			
NA01-61-B15	1				
+					
1 61-B20   NA01-61-B20	1	LINK, RECYCLE & FRESH			
##==##==##	•				
i 61-140 i		BLOWER UNIT			
NA01-61-140A	1				

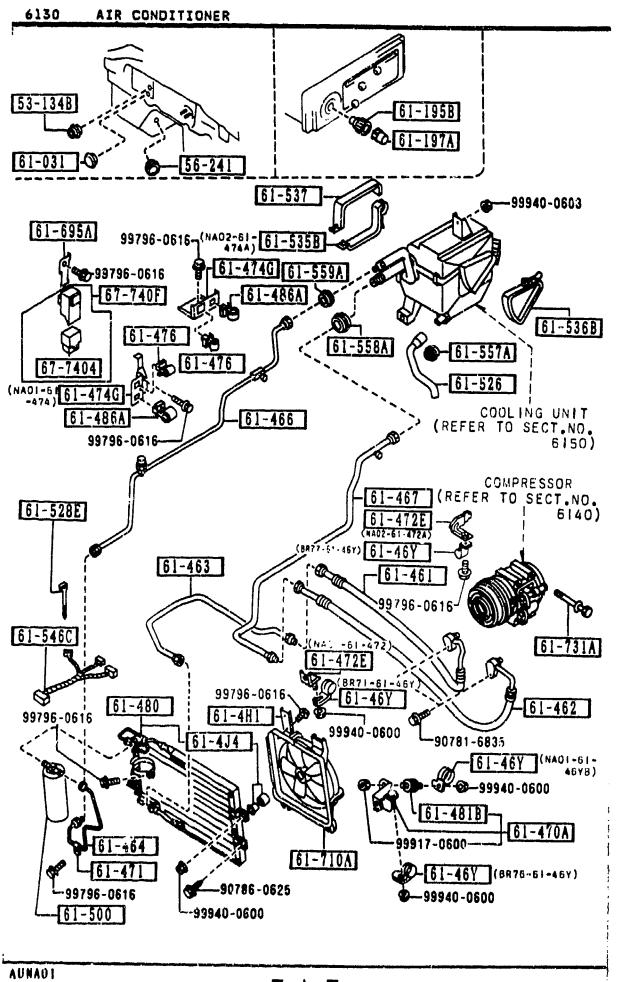
6130 AIR CONDITIONER
53-134B 61-031 56-241
99796-0616-1003 99796-0616-1003 99796-0616-1003
99796-0616 61-474G 61-559A 61-536B 61-476 61-476 61-476 61-486A 61-536B COOLING UNIT (REFER TO SECT.NO. 6150)
61-528E  COMPRESSOR (REFER TO SECT.NO. 61-467)  61-463  (BR77-61-467)  61-461  99796-0616  61-731A
99796-0616  99796-0616  61-480  61-480  61-480  61-480  61-480  99940-0600  90781-6835  61-464  99940-0600  61-4818  61-470A
99796-0616 99940-0600 AUNA01

PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
53-134B		RUBBER, DUST SEAL			
0187-53-134	1				
56-241		PLUG, DRAIN			
0118-56-241	1			,	
61-031		PLUG, HOLE			
1708-61-031	1				1
61-1958		KNOB, FAN SWITCH			
NA01-61-193	1				
61-197A		KNOB, AIR CON.			
NA01-61-197	1				
61-4H1		BRACKET, HOSE			
NA01-61-4H1	1	(A)			
61-434	_	PURES THE COURS			
NA01-61-4J4		RUBBER, INSCONDR (A)			
<b>+</b>	4				
61-46Y		CLIP, PIPE			
BR71-61-46Y	1	(A)			
BR76-61-46Y	1	(A)			
BR77-61-46Y	1	(A)			
NAD1-61-46YA AN(NAD1-61-46YB)	, 1	(A)			-0116
NA01-61-46YB		(A)			
******	1				0116-
61-461   NA01-61-461B	- 1	HOSE, FLEXIBLE-HIGH (A)			
MAU1-01-4010	1	(A)			
61-462		HOSE, FLEXIBLE-LOW			
NA01-61-462C	1	(A)			
0116 NA35##-	-134	600			L

\$\frac{53-134\b}{61-655\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-97\b}\$ \$\frac{55-241}{61-557\b}\$ \$\frac{51-557\b}{61-557\b}\$ \$\frac{51-557\b}{61-557\b}\$ \$\frac{51-476}{61-557\b}\$ \$\frac{51-476}{61-476}\$ \$\frac{51-486\b}{61-557\b}\$ \$\frac{51-465}{61-472\b}\$ \$\frac{51-467}{61-467}\$	
61-695A 99796-0616 (NAO2-61-61-535B) 99796-0616 (61-474G) (61-555A) 61-4740 (61-474G) (61-555A) 61-4740 (61-474G) (61-555A) 61-526E (7-7404) (8877-61-61-467) (8877-61-61-467) 99796-0616 (8877-61-61-467) (8877-61-61-467) 99796-0616 (61-467) (8877-61-61-467) 99796-0616 (61-467) (8877-61-61-467) 99796-0616 (61-467) (8878-61-467) 99796-0616 (61-467) (8878-61-467) 99796-0616 (61-467) (8878-61-467) 99796-0616 (61-467) (8878-61-467) 99796-0616 (61-467) (8878-61-467) 99796-0616 (61-470A) 99796-0616 (61-470A) 99796-0616 (61-470A) 99796-0616 (61-470A) 99796-0616 (61-470A) 99796-0616 (61-470A) 99796-0616 (61-470A)	61-031 - 56-241
COMPRESSOR  (REFER TO SECT.NO.  (B1-472E)  (B1-461)  (B1-461)  (B1-462)  (B1-470A)  (B1-	99796-0616 (NA02-61-61-535B) 99796-0616 (S-535B) 99796-0616 (S-535B) 61-476 (S-535B) 61-476 (S-535B) (NA01-6 61-474G) 61-476 (S-535B) (NA01-6 61-474G) 61-476 (REFER TO SECT.NO.)
<u> </u>	99796-0616  61-467  (REFER TO SECT.NO. 61-467)  61-469  99796-0616  99796-0616  61-462  99796-0616  61-461  99796-0616  61-462  99940-0600  90781-6835  61-462  99940-0600  90781-6835  61-464  99940-0600  90781-6835

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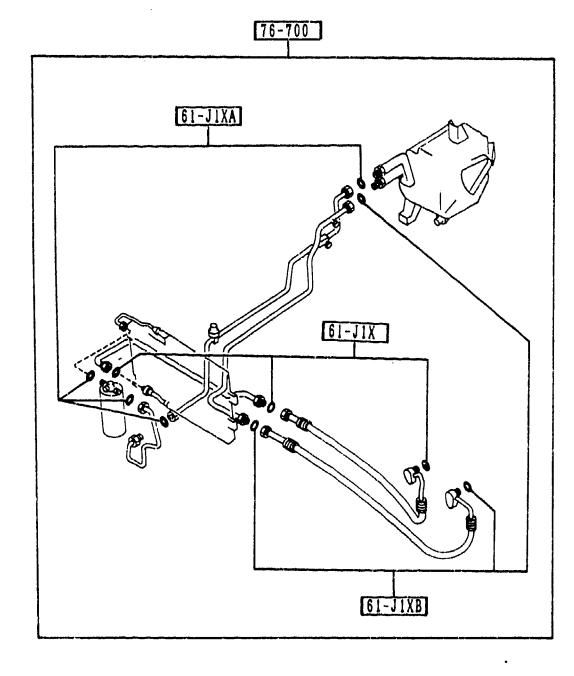
ART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-10
61-463		PIPE NO.1,COOLER			
NA02-61-4668 AN(NA02-61-4660		(A)			-0116
NA02-61-466C		(A)			
******	1				0116-
61-464		PIPE NO.2, COOLER			
NA01-61-466	1	(A)	1		
61-466		PIPE NO.4,CUOLER			
NA01-61-467A	1	(A)			-0529
NA01-61-4678		(A)			
C (NA01-61-467C NA01-61-467C	, 1	(A)			0529-0615
4-	1				0615-
61-467		PIPE NO.5, COOLER			
NA01-61-468A	1	(A)			
1 61-470A I		BRACKET, HOSE			
++ NA02-61-470A NN(NA02-61-470B	, 1				-0116
NA02-61-470B		(A)			
++	1				0116-
61-471   BF67-61-471	- 1	CLIP, PIPE (A)			
0/0/-02-4/2	1	\n'			
61-4726		BRACKET, CLAMP			
NA01-61-472	1	(A)			
NA02-61-472 A (NA02-61-472A		(A)			
NA02-61-472A		(A)			-9731
<b>+</b>	1				9731~
61-4740	i	BRACKET, PIPE			
NA01-61-474	1	(A)			
NA02-61-4/4A	1	(A)			
9731 NA35## 0116 NA35## 0529 NA35## 0615 NA35##	-134 -154	600 173			



EL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
NSER			
NSER			
NSER			
	1		
R, INSULATOR			
R) INSULMIUR			
LIQUID			
DRAIN			
			<u> </u>
!			
NO.1,SEAL			
NO.2, SEAL			
NO.3,SEAL			
SS,WIRE			
ŧΤ			
ET	WIRE	WIRE	WIRE

6130 AIR CONDITIONER	
53-134B 61-031 56-241 61-197A	
61-695A 99796-0616 (NAO2-61-61-535B) 99796-0616 61-474G 61-535B 61-476 61-476 61-558A 61-557A 61-476 61-476 61-466 COOLING UNIT (REFER TO SECT.NO. 99796-0616 61-466)	
\$\frac{61-467}{61-462}\$\$\frac{1-467}{61-462}\$\$\frac{61-467}{61-462}\$\$\frac{61-467}{61-461}\$\$\frac{61-467}{61-462}\$\$\frac{61-467}{61-461}\$\$\frac{61-467}{61-462}\$\$\frac{61-467}{61-461}\$\$\frac{61-467}{61-461}\$\$\frac{61-467}{61-461}\$\$\frac{61-467}{61-462}\$\$\frac{61-467}{61-461}\$	
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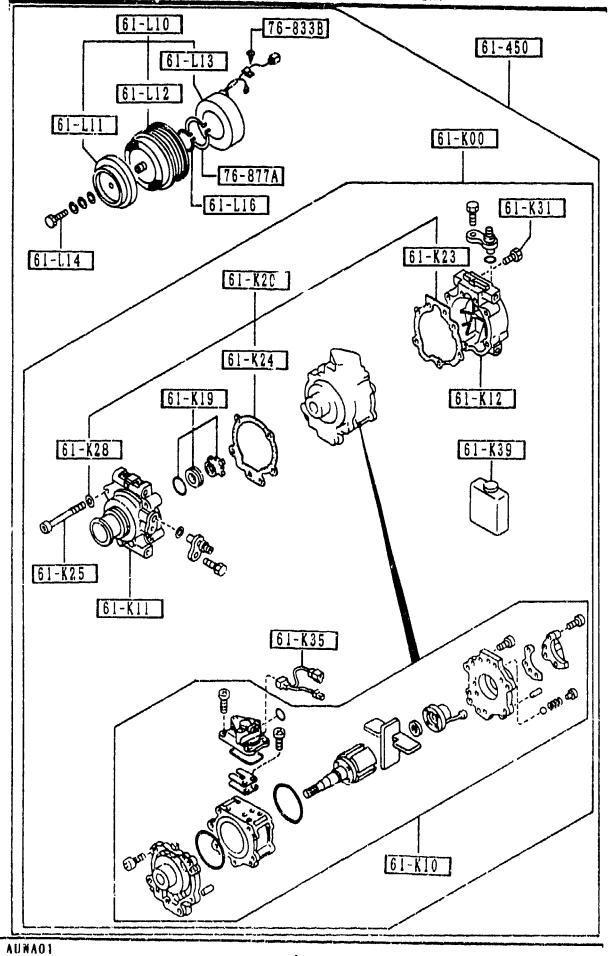
PART NO.	OTY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-558A	GRONMET			
BF67-61-558	1 (A)			
61-559A   BF67-61-559	GROMMET			
++	1			
61-695A   NA01-61-695	BRACKET, RELAY (A)			
61-710A	FAN, CONDENSER			
NAC1-61-710	1 (A)			
61-731A     B111-61-731	BOLT, AIR CON.			
1 67-740F	RELAY. COOLING FAN			
B462-67-740	20A TR			
67-7404     68-67-740	RELAY, TRANSFER			
0430-07-740	20A TR			



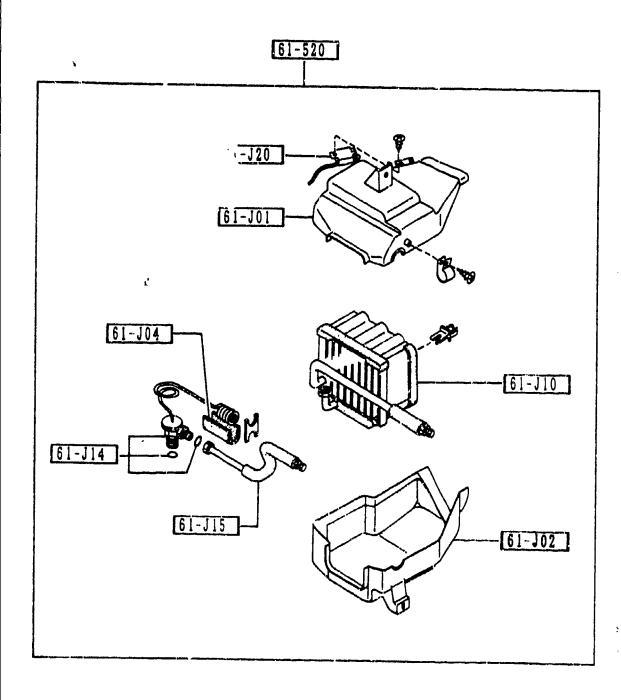
PART NO.	OTY	MODEL/RÉSTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
0JY1-61-J1X	1	RING,'0'-ND.1 (A)	,		
61-J1XA     61-J1XA	1	RING,'0' <del>-N</del> 0.2 (A)			
61-J1XB   GJY3-61-J1X	1	RING,'0'-N0.3 (A)			
76-700   NA01-76-700	1	RING SET,'O'-AIR CON (A)			
	•				

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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-K00		COMPRESSOR, AIR CON.			
NA02-61-K00		(A)			
	1				
61-K10		SHAFT, CYL -COMPRESSO			1
NA02-61-K10		R (A)			}
	1				
61-K11		HEAD, CYL COMPRESSOR			
NA02-61-K11		(A)			
	1				
61-K12		HEAD, CYLCOMPRESSOR			
NA02-61-K12	_	(A)			
	1				
61-K19		SEAL, SHAFT-COMPR.			
F065-61-K19	1				Í
61-K20		CACKET KIT COMPDERED			•
NA02-61-K2X		GASKET KIT, COMPRESSO R			
HOLE E-GI-KEX	1	(4)			
1 61-K23		PLUG, COMPRESSOR			
NA02-61-K23		(A)			
	1				
1 61-K24		GASKET, COMPRESSOR			
NA02-61-K24		(A)			
	1				
1 61-K25		BOLT, COMPRESSOR-AIR			
F065-61-K25	5	CON.			
<b>.</b>					
61-K28		WASHER, COMPRESSOR			
NA02-61-K28	5	(A)			
+~~~~~~		BOLF COMPANIES			
61-K31		BOLT.COMPRESSOR			
F065-61-K31	2				
61-K35		HARNESS COMPRESSOR			
NA02-61-K35	1	(A)			



DART NO	0.14	MODEL (heathterton	MODEL /BERTRICE	HADEL JORGEN TO TO THE	
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
61-K39		OIL, COMPRESSOR			}
NA02-61-K39	1	(A)			1
61-110	į	CLUTCH MACHET			
NA02-61-L10		CLUTCH, MAGNET			
	1				
61-L11		ARMATURE, MAGNET CLUT			
F065-61-L11	1	CH			
61-L12		PULLEY, MAGNET CLUTCH			
NA02-61-L12		(A)			
	1				
61-L13		COIL, FIELD-MAGNET CL			
F065-61-L13	1				1
61-L14		BOLT, MAGNET CLUTCH			
F065-61-L14	1				
61-1.16		RING, SNAP-MAGNET CLU			
F065-61-L16	1	TCH			
<b>+</b> +		204025252			
61-450   NA02-61-450A		COMPRESSOR (A)			
NACE OF TOOM	1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
76-833B		WASHER			
B001-76-734	1				
76-877A		RING, SNAP			
B001-76-725	1				
		<u> </u>			
			والمستناد والمرافق والمراوا المراوا المراوا والمستناد والمستنا المراوا المراوا والمراوا والمراوا والمراوا		



PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-T
61-J01		CASE'A', COOLING UNIT			
VA01-61-J01	1	(A)			
61-J02		CASE'B', COOLING UNIT			
NA01-61-J02	1	(A)			
61-J04		SEAL, COOLING UNIT			
M01-61-J04	1	(A)			
61-J10		EVAPORATOR			
A01-61-J10	1	(A)			
61-J14		VALVE, EXPANSION			
IA01-61-J14	1	(A)			
61-J15		PIPE, COOLING UNIT			
A01-61-J15	1	(A)			
61-J20		THERMOSTAT, COOLING U			
A01-61-J20	1	(A)			
61-520		UNIT, COOLING			
A01-61-520B	1	(A)			
	!				

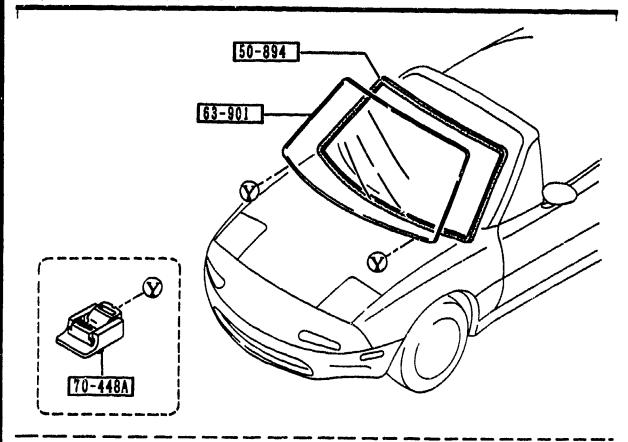
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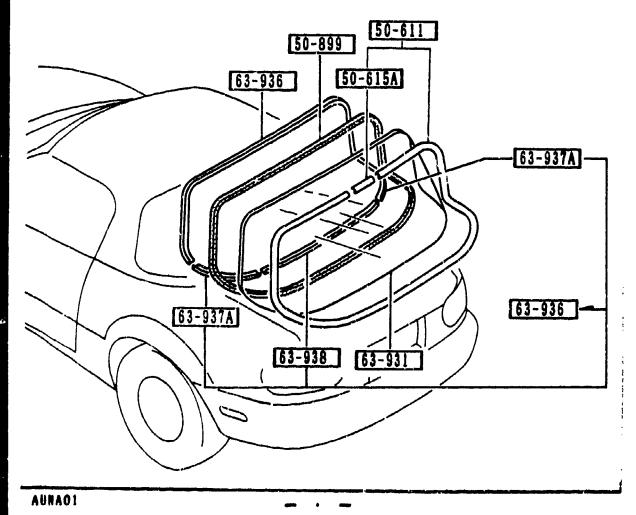
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SECTION NAME INDEX (BODY)

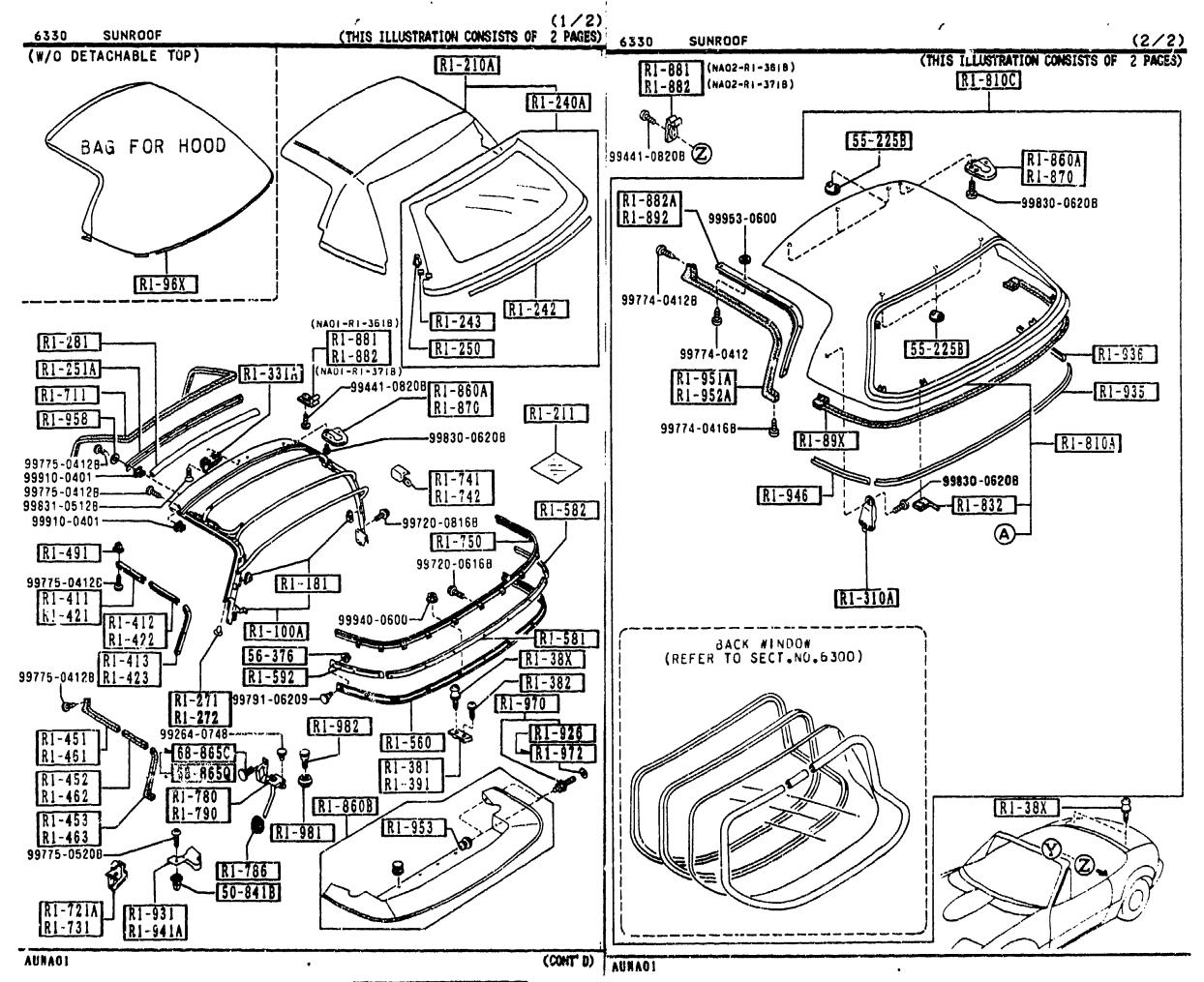
			_	SEC	TION NAME INDEX (BODY)			
LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS		İ	
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6235	O RING SET, PIPING			
2~L05	5100	HEAD LAMPS	2-L12	6340	COMPRESSOR COMPONENTS (AIR CON			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	41:0	DITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS			COOLING UNIT (AIR CONDITIONER)			
2-F06	5110	REAR COMBINATION LAMPS			WINDOW GLASSES			
5-106	5120	LICENSE LAMPS	2-D13		SUNROOF	1		
2-J06	5180	REAR FINISHER	2-M13		SWITCHES & RELAYS (ENGINE)	8/		
2-L06	5230	BONNET	2-014	6610	DASHBOARD SWITCHES	7	<b>y</b>	
2-N06	5260	TRUNK LID	2-E14	6611	COMBINATION SWITCH		-	
2-007	5310	BODY PANELS (FRONT)	2-F14	6630	RELAYS & UNIT (BODY)			
2-E0;	5320	BODY PANELS (FENDER & WHEEL AP	2-G14	6635	DOOR SWITCH & HORNS			
2-407	E770	RON)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK			
2-C08	5370	BODY PANELS (FLOOR)	2	4700	ER)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR			
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI SSION)			
2-009	5500	DASHBOARD EQUIPMENTS	2-D15	6702	WIRING HARNESSES (DASHBOARD)			
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE			
2-F09	5530	SPEEDOMETER CABLE	0 615	i	ILING)		1	
2-G09	5540	METER COMPONENTS	2-F15	1	WIRING HARNESS CLAMPS	İ	l	
2-109	5560	DASHBOARD & RELATED PARTS	2-115	i	WINDSHIELD WASHER		Ì	
2-L09	5570	CONSOLE	2-K15	- 1	WINDSHIELD WIPERS		}	
2-010	5580	VENTILATOR		1	WIPER MOTOR COMPONENTS(FRONT)		ļ	
2-010	5700	SEATS	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI			
2-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES		ĺ	
2-110	5800	FRONT DOORS	2-E16	1	FLOOR MATS & PADS			
2-C11	5830	FRONT DOOR MECHANISMS	2-G16		SERVICE TOOLS	ļ	ļ	
2-F11	5840	FRONT DOOR YRIMS & RELATED PAR	2-H16	i	VISORS, ASSIST HANDLES & MIRROR			
2-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS	İ		
2-012	6110		1	ì	QUARTER WINDOW & TRIMS			
			<del></del>					

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PART NO.	ŶĬŶ	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
50-611		MOULD, RR. WINDOW			
NAY1-63-930	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			
50-615A	-	JOINT, BACK WIND MOUL			
NA01-63-934	1)	OPTION, (W/DETACHABLE TOP-B. COLOR,)			
50-894	1	DUM, FRONT-WIND.	l '		
NA01-50-894	1		1		
50-899		DUM, REAR-WIND.	1		
NA01-63-895	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)			
63-901	,	GLASS, WINDSHIELD	1		
NA01-63-901	1	1	1		
63-931	,	GLASS, BACK WINDOW	!		
NA01-63-931C	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)	1		
63-936	i	PROTR, BACK WINDOW-UP	1	1	
NA01-63-936A	1	OPTION, (W/DETACHABLE TOP-B. COLOR,)	1		-9916
NA01-63-936A	_ [	OPTION, (W/DETACHABLE TOP-B. COLOR,)			9916-
63-937A	- 1	PROTR, BACK WINDOW-SI	1		
NA01-63-937	2	OPTION, (W/DETACHABLE TOP-B. COLOR,)			-9916
63-938	1	PROTR, BACK WINDOW-LO		1	
NA01-63-938	1	OPTION, (H/DETACHABLE TOP-B. COLOR,)			-9916
70-448A		SPACER'B'	,	1	
GJ21-50-891	2	1	,	1	
9916 NA35##	<del></del> 121	1163		<u> </u>	
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6330 SUNROOF	(1/2) (THIS ILLUSTRATION CONSISTS OF 2 PAGES)
(W/O DETACHABLE TOP)	R1-210A
	R1-240A
BAG FOR HOOD	
DAG TON HOOD	
R1-96X	1 1 242
R1-281	(NADI-RI-361B) R1-242
R1-251A R1-33	R1-882 (R1-250)
R1-711	99441-08208 RI-860A
R1-958	99830-06208 R1-211
99775-04128-199910-0401	
99775-04128 29831-05128	R1-742
99910-0401	99720 -08168 RI - 750
R1-491	99720-06168
R1-411	R1-181
R1-421 R1-412 R1-12	99940-0600 RI-581
99775-04128 R1-413 R1-51	RI - 38X
R1-271 99791-00	101-304
R1-451 99264-0748-	R1-982 R1-560
R1-461 R1-452 68-8650	R1-381
R1-462 R1-780	R1-860B
R1-463	1-981 R1-953
99775-05208 R1-786	8 ///
R!-721A R1-931	
R1-731 R1-941A	
AUNAOI	· (CONT' D)

PART NO. OTY MODEL/RES	STRICTION MOR	DEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
R1-100A   LINK,SOFT	TOR			
NA01-R1-100C 1				-9701
N(NA01-R1-100D)		,		
(4A01-R1-100D 1		,		9701-
R1-181 STOPPER, LI	NK-HOOD	;		
NA01-R1-181 2		,		9701-
R1-210A   FABRIC, TOP-	-SOFT TOP	,		
NA01-R1-210D 1 A (NA01-R1-210E)		,		-9522
NA01-R1-210E 1 A (NA01-R1-210F)		1		9522-9620
NA01-R1-210F 1		!		9620-0201
NA01-R1-210G) NA01-R1-210G 1		!		0201-
+=		!		J GEG-
R1-211   CLOTH, REPAI	IR-TOP	!		
R1-240A   WINDOW, BACK	K-D. TOP	!		
NAY1-R1-240C BLACK		!		
1		1		
R1. 242   TAPE, SEAL-F	RAIN RAIL	!		
NAY1-R1-242 1		1		
R1-243   STOPPER, 2IF	PPER-BACK	!		İ
NAY1-R1-243 2		•	1	
R1-250   HEAD, ZIPPER	R-BACK WIN	1		
++ NA01-R1-250 1 NN(NA01-R1-250A)		1	1	-0201
NA01-R1-250A 1		1		0201-
<b>***</b>		1		0201
R1-251A   PLATE(FRT), ++ NAU1-R1-251	SET-ROOF	,		
<b>+</b>				
R1-271   CLIP(R), FOR	M PLATE		İ	
NA01-R1-271 1			1	0601-
R1-272   CLIP(L), FOR	M PLATE		1	
9522 NA35HH-104861 9620 NA35HH-110236	Processor Control of the Control of	******	***************************************	<u></u>
9701 NA35##-111969 0201 NA35##-137180				
0601 NA35#N-154752				
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CAT. AUNA01-07				1992-02

6330 SUNROOF	(2/2)			
R1-881 (NAOZ-R1-361B)	(THIS ILLUSTRATION CONSISTS OF 2 PAGES)	PART NO. QT	Y MODEL/RESTRICTION	HODEL/RESTRICTION
R1-882 (NAO2-R1-371B)	R1-810C	CONT'D NA01-R1-272	ı	
<b>155-225</b>		† † R1-281	WELT CEAMING COST TO	
99441-08208 ②		NA01-R1-281	WELT, SEAMING-SOFT TO	
	R1-860A R1-870	++		
R1-882A	99830-06208	R1-310A	LOCK, DETACHABLE TOP	
R1-892 99953-0600		A (NA02-R1-310B)		
		NA02-R1-310B	OPTION, (W/DETACHABLE TOP-B.	
		*****	COLOR,)	
99774-04128		R1-331A	HANDLE, SOFT TOP	
		NA01-R1-331		
99774-0412	55-225B R1-936	R1-38X	HOOK, SOFT TOP-REAR D	
R1-951A	R1-935	NA01-7:1-38XA A (NA01-R1-38XB)		
R1-952A	R1-300	NA01-R1-38XB		
99774-04168 RI-89X	R1-810A	Ri-381	PLATE(R),HOOK-REAR D	
		NA01-R1-381A	ECK	
R1-946	99830-06208	C (NA01-R1-381B) NA01-R1-381B		
	RI-832	++		
	(A)	R1-382     NA01-R1-382   2	SCREW, HOOK-REAR DECK	
		A (NA01-R1-382A)		
R1-310A		NA01-R1-382A 2		
/		R1-391	PLATE(L), HOOK-REAR D	
BACK MINDOM   (REFER TO SECT.NO.6300)		NA01-R1-391A 1 C (NA01-R1-391B)		
		NA01-R1-391B 1		
		R1-411	REYAINER'A'(R), WTHST	
		NA01-R1-461 1	P	
		R1-412	RETAINER'B'(R), WTHST	
		NA01-R1-462 1	P	
	R1-38X	++   R1-413	RETAINER'C'(R),WTHST	
	No.	NA01-R1-463 1	P	
		NA01-R1-381A C NA01-R1-381B	9609 NA35∺∺-10 9801 NA35⊭∺-12	8360
		NA01-R1-382A	0101 NA35HH-13 0601 NA35HH-15	3591
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MODEL/RESTRICTION

FROM-TO

-0101

-9801

-9609

-9609

-9609

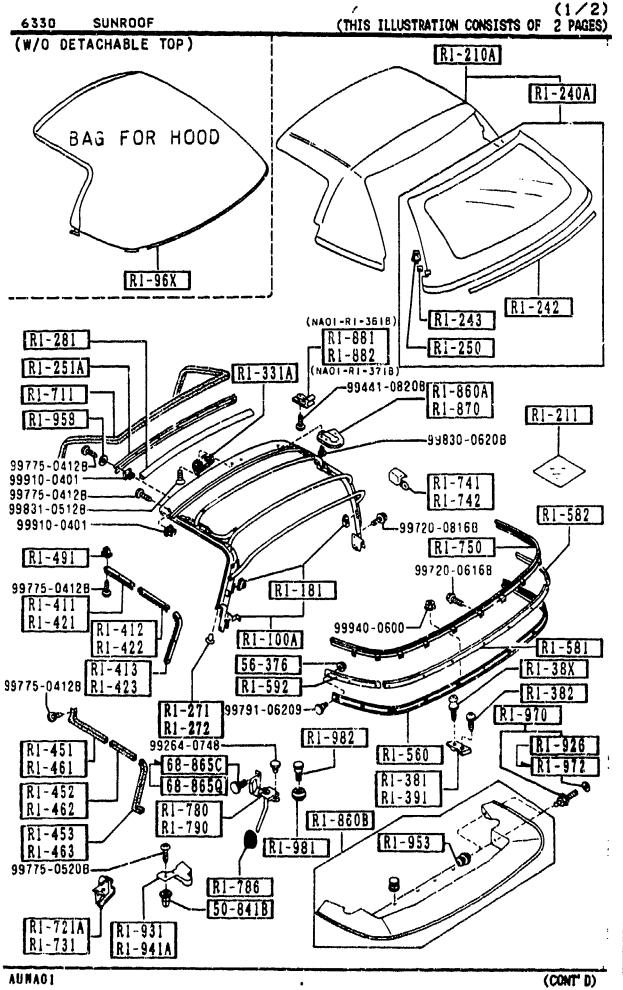
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0101-

9801-

9609-

9609-



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
R1-421     R01-R1-471	1	RETAINER'A'(L), WTHST			
R1-422   NA01-R1-472	1	RETAINER'B'(L),WTHST			
R1-423   NA01-R1-473	1	RETAINER'C'(L),WTHST			
R1-451   NA01-R1-411B	1	WTHSTP NO.1(R),LINK			
R1-452   NA01-R1-412B	1	WTHSTP NO.2(R),LINK			
R1-453   NA01-R1-413B	1	WTHSTP NO.3(R),LINK			
R1-461   NA01-R1-421B	1	WTHSTP :(0.1(L),LINK			
R1-462   NA01-R1-422B	1	WTHSTP NO.2(L),LINK			
R1-463   NA01-R1-423B	1	WTHSTP NO.3(L),LINK			
R1-491     NA01-R1-491	16	OROMMET, SCREW-R' .4IN ER			
R1-560     R0-560     R1-560C	1	RAIL, RAIN-SOFT TOP R			
R1-581    A01-R1-581B	1	PLATE(C), SET-TOP FAB			
R1-582    AC1-R1-582A		PLATE(R), SET-TOP FAB			
R1-592     R01-R1-592A	1	PLATE(L), SET-TOP FAB			

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		6330 -4 SUNROO	F			
6330 SUNROOF	(2/2)					
R1-881 (NAO2-R1-3618) R1-882 (NAO2-R1-3718)	(THIS ILLUSTRATION CONSISTS OF 2 PAGES)	PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
( <u></u> )	R1-810C	R1-711	WTHSTP, FRONT HEADER			
		NA01-R1-711B 1				
99441-08208 ②	55-225B	++   R1-721A	WTHSTP(R), CAB SIDE			
	R1-860A R1-870	+	MINSTRUM, CAB SIDE			-0116
R1-882A	99830-06208	NA01-R1-721A 1 A (NA01-R1-721B)				
<u>R1-892</u> 99953-0600		NA01-R1-721B 1				0116-
		R1-731	WTHSTP(L),CAB SIDE			
		NAU1-R1-731A 1 A (NA01-R1-731B)				-0116
99774-04128		NA01-R1-731B 1				0116-
		++   R1-741	PROTR(R),MOULD-BELT			
99774-0412	55-225B R1-936	NA01-R1-741A 1	LINE			-9601
R1-951A		A (NA01-R1-741B)				
R1-952A	R1-935	NA01-R1-741B 1				9601-
99774-04168	1-89X	R1-742	PROTR(L),MOULD-BELT			
	1-89X R1-810A	NA01-R1-742A 1 A (NA01-R1-742B)				-9601
[D] 046	99830-06208	NA01-R1-742B 1				9601-
R1-946	R1-832	++   R1-750	MOULD, BELTLINE-REAR			
	<b>A</b>	NA01-R1-750B 1				-9601
		A (NA01-R1-750C) NA01-R1-750C 1				0401 0407
	R1-310A	AN(NA01-R1-750D)				9601-0403
	KI-SION]	NA01-R1750D 1				0403-
BACK NI VOON		R1-780	COVER(R), DRAIN-SOFT			
(REFER TO SECT.NO	.6300)	NA01-R1-780C 1	TOP			
		+   R1-786	GROMMET, DRAIN HOSE-T			
		NAG1-R1-786 2	OP			-9420
		AN (NA01-R1-786A) NA01-R1-786A 2				9420-
		++				7420-
		+	COVER(L), DRAIN-SOFT			
	RI-38X	NA01-R1-790C 1				
			PANEL, ROOF			
		9420 NA35HH-101	1198			1
		9420 NA35HH-101 9601 NA35HH-106 0116 NA35HH-136 0403 NA35HH-146	4600 4744			
AUNAOI						į
AURAVI		CAT. AUNA01-07				1992-02

6330 SUNROOF	(1/2) (THIS ILLUSTRATION CONSISTS OF 2 PAGES)
(W/O DETACHABLE TOP)	R1-210A
	R1-240A
BAG FOR HOOD	
)	
R1-96X	
INT SON	R1-242
R1-281	(NAOI-RI-361B) RI-243 RI-250
R1-251A R1-3	11A (NA) -RI-371B)
R1-711 R1-958	99441-0820B R1-860A R1-870 R1-211
	99830-06208
99775-04128- 99910-0401 99775-04128-	RI-741
99831-05128- 99910-0401	99720-08168 R1-582
R1-491	R1-750
99775-04128	99720-0616B R1-181
R1-411 R1-421 R1-412	99940-0600
R1-422 R1-413 56-3	11. 301
99775-0412B R1-423 R1-5	92 RI-382
R1-272	R1-970
R1-451 R1-461	R1-560 R1-972
R1-452 R1-462 R1-780	R1-381 R1-391
R1-453 R1-790	R1-860B R1-981 R1-953
99775-05208	
R1-786 50-841B	
R1-721A R1-731 R1-931 R1-941A	
AUKAO1	· (CONT' D)

		T	Ţ	7	<del>-,</del>
	QTY	Y MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA02-R1-82X A (NA02-R1-82XA)	, 1				-0101
NA02-R1-82XA	1	OPTION, (W/DETACHABLE TOF-B. COLOR.)			0101-
NA03-R1-82X	1	OPTION, (W/DETACHABLE TOP,BL UE)			0401-
NA04-R1-82X	1	OPTION, (W/DETACHABLE TOP,WH ITE)			0401-
R1-819C   NA02-R1-819C A (NA02-R1-810E)	1	ROOF, DETACHABLE TOP			-0101
NA02-R1-810E AN(NA02-R1-810F)	1		1		0101-0201
NA02-R1-810F	}	OPTION, (W/DETACHABLE TOP-B. COLOR,)	1		0201-
NA03-R1-810	- 1	OPTION, (W/DETACHABLE TGP,BL UE)	1		0401-
NA04-R1-810	1	OPTION, (W/DETACHABLE TOP,WH ITE)			0401-
R1-832 NA01-R1-832A	2	PLATE, CUSHION-D. TOP			
R1-860A   NA01-R1-310A	1	LOCK(R),TOP			-0101
A (NA01-R1-310B) NA01-R1-310B	1		1		0101-
R1-860B     N1-860B     N1-81-960B	1	BOOT, TOP			
66		NAO BLACK	1		
R1-870   NA01-R1-320A	1	LOCK(L),TOP			-0101
A (NAO)-R1-320B) NAO1-R1-320B					0101-
R1-881   NA01-R1-361A		STRIKER(R), LOCK-TOP			
0101 NA35HH- 0201 NA35HH- 0401 NA35HH-	·133	7180			-0201
CAT. AUNA01-07				-	1992-02

6330 S	UNROOF		(2/2)
R1-881 R1-882	(NAO2-RI-3618) (NAO2-RI-3718)	(THIS ILLUSTRATION CONSISTS OF R1-810C)	2 PAGES)
RI-	99953-0600		936
(REFE	BACK WINDOW FR TO SECT.NO.6	5320)	
		R1-38X	
AUNAOI	·		

PART N	0.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FRUH-TO
CONT'D A (NA01-R1	-361B)					
NA02-R1-36 A (NA02-R1-		1				-020
NA01-R1-3	61B	1				0201-
NA02-R1-3	61B	1				0201-
R1-88	+		STRIKER(L),LOCK-TOP			
NA01-R1-37 A (NA01-R1-	-371B)	1				-0201
NA02-R1-37 A (NA02-R1-	71A -3718)	1				-0201
NA01-R1-37	718	1				0201-
NA02-R1-37	718	1.				0201-
R1-882	2A	1	RETAINER(R), WTHSTP-D			
R1-89>	+		WEATHERSTRIP, D. TOP-R			
R1-892	2		RETAINER(L), WTHSTP-D			
R1-926   +	·÷		WASHER, HOOK-HOOD COVER			-9701
R1-931   R0-931	+	1	COVER(R), BELT LINE			
R1-935	j	1	PROTECTOR(C).EDGE-D.			
R1-936	+		PROTECTOR(R),EDGE-D.			
R1-941 NA01-R1-94	+	1	COVER(L), BELT LINE			
R1-946	+	1	PROTECTOR(L),EDGE-D.			
9701 NA 0201 NA	35##- 35##-	111	969 1 <b>80</b>			

FROM-TO

-9C01

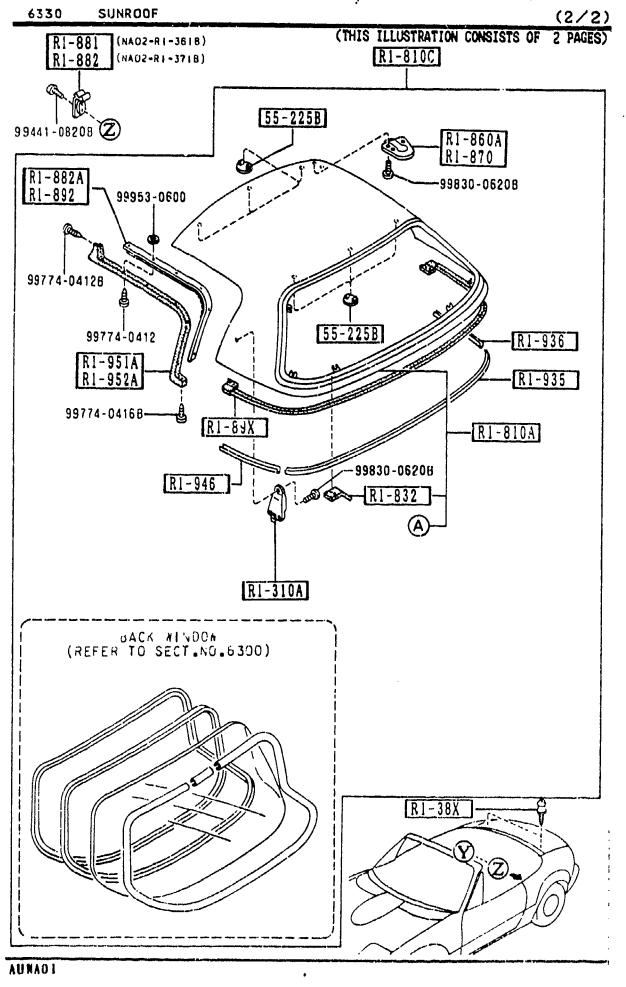
-9701

9C01-

9701-

9701-

	(1/2)	6330 -7 SU	NROOF		
6330 SUNROOF	(THIS ILLUSTRATION CONSISTS OF 2 PAGES)				
(W/O DETACHABLE TOP)	R1-210A	PART NO.	QTY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION
		R1-951A	WTHSTP(R), ROOF PANEL		
	R1-240A	NA01-R1-881B	1		
BAG FOR HOOD		R1-952A	WTHSTP(L), ROOF PANEL		
		NA01-R1-891B	1		
/		<b>†</b>	_		
		R1-953     ++   B235-R1-953	HOOK, HOOD-REAR CORNE		
		#======	"		
		R1-958	WASHER, HOOK'A'&'B'		
R1-96X		B235-R1-958A	7		
	(NAOI-RI-3618) R1-242	R1-96X	COVER, TOP FABRIC		
R1-281	R1-881	NA01-R1-96XA A (NA01-R1-96XE	3) 1		
R1-251A R1-3	31A (NAO1-R1-3718)	NA01-R1-96XB	1		
R1-711	99441-0820B RI-860A RI-870	+	HOUK, REAR DECK		
R1-958		NA01-R1-970	4		
00275 0400	99630-06208	A (NA01-R1-970A NA01-R1-970A			
99775-04128 99910-0401	RI-741	+	4		
99775-04128————————————————————————————————————	R1-742	R1-972	WASHER, HOOK'A'		
99910-0401	99720-08168	NA01-R1-926	4		
R1-491	99720-0616B	R1-981	STOPPER, SOFT TOP		
99775-04128	R1-181	NA01-R1-981A	2		
		R1-982	BOLT, STOPPER-SOFT TO		
R1-421 R1-412 R1-422 R1-1	99940-0600 R1-581	NA01-R1-982A	2   r		
R1-413	76 RI-38X	1 50-8418	GROMMET, SCREW		
99775-04128 R1-423 R1-5	92 RI-382	H260-50-841	2		
RI-271 99791-0 RI-272	R1-970	55-2258	COVER.HOLE		
RI-451 99264-0748	RI-982 RI-550 RI-926	G030-55-225	6		
R1-461 R1-452 R1-452	IRI-381	00	NAO NAI BLACK		
R1-452 R1-462 R1-780	R1-391	56-376	NUT-SELF LOCK		
R1-453 R1-790	R1-860B	B001-56-376	13		
R1-463	R1-981 R1-953				
<b>₹</b>	9///	9701 NA35## 9C01 NA35##	-111969 -130310		
50-841B		1000			
R1-721A R1-731 R1-931 R1-941A					
AUNAO1	· (CONT' D)	CAT. AUNA01-07			



PART NO. OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-T
68-865C	FASTENER			
U32-68-865A 2				9301-
00	HAO BLACK			
1 68-8650	FASTENER			
J21-68-885A 2				-95
(GJ21-68-885B)	NAG BLACK			
J21-68-885B 2	NAO BLACK			9526~98
00	NAO BLACK			7520-70
	TWO BENON			
				1
				1
				1
4524 MAYEMM 105	742			<u> </u>
9526 NA35*#-105 9801 NA35*#-116	316			

OU SWITCHES & RELA	IS (ENGINE)
HOSE (REFER TO SECT.	67-7403 [18-81]
99940-0600	
66-991	-99940-0600
[13-363H]	-[14-910]
	99940-0600
[18-882]	99940-0602
[8-880A]	[18-82] (AT)[18-7012]
18-884	18-885A 90794-0820
	[ <u>18-230</u> ]
(N350-18-840)	TO GAR IST AND 2ND SWITCH
[18-840C] [18-741 [18-501]	99564-1200
(CALIF)	
	99562 1800 17-640 SBITCH, BACK UP LAMP [18-8618]
	(AT).
	19-446 19-444
; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	11-11
1 1 1	03:3
; ; ; ;	12-21
	TEMENT OF THE PARTY OF THE PART
1401	

PART NO.	PTC	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
11-373J		RING,'O'			
99541-03801	1				
13-363N		RUBBER, MOUNTING			
0222-13-363	1				
++   17,470   (		CHITCH			
17-630   8118-17-640A	1	SWITCH			-9501
4 (8118-17-640B)					7501
8118-17-640B	1	(MT)			9501-
17-640		SWITCH, BACK UP LAMP			
1391-17-640	1	(MT)			-9831
M506-17-640	1	(TM)			9831-
18-T41		RING, 'O'-WATER THERM			
F885-18-T41	1	U Sm.			
18-113		BOLT			
H366-18-1A5	1				
1 18-230		SENSOR, CRANK ANGLE			
B61P-18-230	1				
+		SWITCH, OIL PRESSURE			
18-501   	1	SWITCH, UIL PRESSURE			
<b></b>					
18-510		UNIT, HEAT GAUGE			
8541-18-51X					
18-7012	- 1	UNIT, CONTROL			
864J-18-780A (864J-18-780B)	1				-0401
B64J-18-7808	1	(AT)			0401-
18-741A		VALVE, THREE WAY			
JE16-18-741		NIHCH OIL SEAL			
*****					
18-772		BRACKET, IGNITER			
B61P-18-2F0A	1				-9AU1
9501 NA35H#-1 9831 NA35HH-1 9801 NA35HH-1 0401 NA35HH-1	119 122	088 908			<u> </u>

SWITCHES & RECATS CENSINE?
(REFER TO SECT\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
99940-0600
99940-0600
[13-363H] 24-910
99940-0600
——99940-0602 [8-862] [8-821]
(AT) [18-7012]
18-883 90794-0820 18-885A)
[18-230] [11-373] (8574-18-800)
(N350-18-840) [18-510] [18-510] [18-630] [17-630] [17-630]
99564-1200
(CALIF)
[57-132A]
99562-1800 17-640 SUITCH, BACK UP LAMP [18-8618]
[19-838] (AT)
19-444
09:-111
21-111
[2]-294
[2]-298
A 0.1

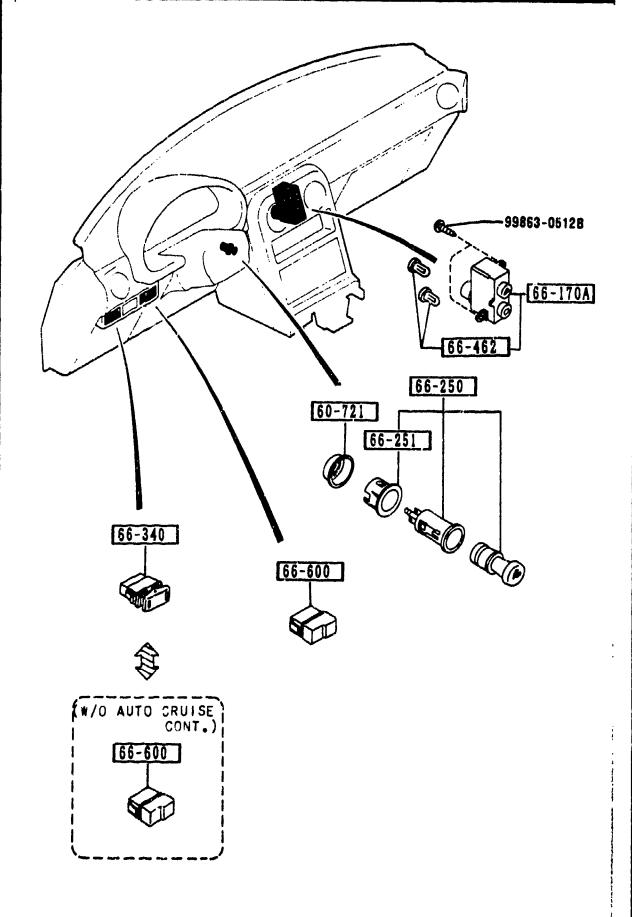
PART NO.	QΤΥ	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FPOM-TO
CONT'D B61 <b>P-18-</b> 2F0B	1				9A01-
18-811     18-811     B6S8-18-811	1	RELAY, MAIN			
1 18-821   18-821   4236-18-821	1	RELAY, CIRCUIT OPEN			
18-840C     N350-18-840		SENSOR, WATER TEMP. DENSO			
8574-18-840	).	NIHON THERMOSTAT			
18-861B     18-861A	1	SENSOR, OXYGEN			
1 18-867 FE30-18-867A	2	CLIP		·	
18-88Z     B61P-18-889A	1	COVER, CONTROL UNIT			:
18-880A   B61P-18-881A		CONTROL UNIT, E.G.I.			
B64J-18-88]		(AT)			
18-882   B61P-18-882	1	BRACKET, CONTROL UNIT			
18-883     18-883     18-883	1	BRACKET, CONTROL UNIT		•	
18-884 661P-18-884	1	BRACKET, CONTROL UNIT			
18-885A     ++   B61P-18-885	1	BRACKET, CONTROL UNIT			
19-444   		SWITCH, INHIBITOR (AT)			
9A01 NA35#H	-127	?908			

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900		2-E12			3-C03	7900	ACCESSORIES
2-E05	5000		2-F12	6120	HEATER BLOWER COMPONENTS		, , , ,	
2-H05	5010		2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CON			
2-M05	5103	HEAD LAMP RETRACTORS			DITIONER)			
2-D06	5105	FRONT COMBINATION LAMPS	2-412	6150	COOLING UNIT (AIR CONDITIONER)			
2-F06	5110	REAR COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
S-106	5120	LICENSE LAMPS	2-013	6330	SUNROOF			
2-J06	5180	REAR FINISHER	2-M13	6600	SWITCHES & RELAYS (ENGINE)			
2-L06	5230	BONNET	2-014	6610	DASHBOARD SWITCHES			
2-N06	5260	TRUNK LID	2-E14	6611	COMBINATION SWITCH			
2-007	5310	BODY PANELS (FRONT)	2-F14	6630	RELAYS & UNIT (BODY)			
2-E07	5320	BODY PANELS (FENDER & WHEEL AF	2-G14 2-H14	6635	DOOR SWITCH & HORNS			
2-H07	5330	BODY PANELS (DASH & COWL PANEL)		6640	AUDIO CRUISE CONTROL SYSTEM			
2-1101	5550	)	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK ER)	_		
2-C08	5370	BODY PANELS (FLOOR)	2-L14	470n	WIRING HARNESSES(FRONT & REAR	B	<b>5</b>	
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS		0,00	)	<b>B</b>		
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/M) SSION)			
2-C09	5500	DASHBOARD EQUIPMENTS	2-D13	6702	WIRING HARNESSES(DASHBOARD)			
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE			
2-F09	5530	SPEEDOMETER CABLE	2-F15	4704	ILING) WIRING HARNESS CLAMPS			
2-G09	5540	METER COMPONENTS	2-115		WINDSHIELD WASHER			
2-109	5560	DASHBOARD & RELATED PARTS	2-115 2-K15		WINDSHIELD WIPERS			
2-L09	5570	CONSOLE		i	WIRDSHIELD WIPERS WIPER MOTOR COMPONENTS(FRONT)			
2-C10	5580	VENTILATOR	<b>.</b>	6820	FRONT HEADER TRIM & PILLAR TRI			
2-010	5700	SEATS	- 1123	3020	MS TEADER TRIP & PILLAR TRI			
2-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES			}
2-L10	5800	FRONT DOORS	2~E16	6860	FLOOR MATS & PADS		1	
2-C11	5830		1	6870	SERVICE TOOLS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PAR	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR S			
2-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS			
2-012	6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS			

CATLOG-NO= AUNAU1-07

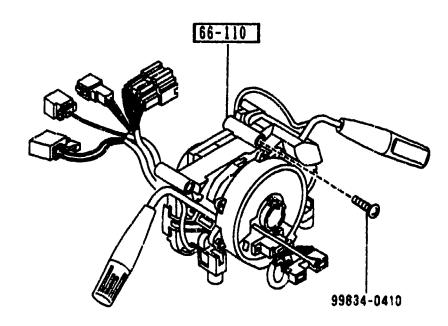
PART NO.			1				<del>, , , , , , , , , , , , , , , , , , , </del>
0338-19-446 1 (AT)  19-821   SOLENDID, DOWN SHIFT (AT)  19-838   2  1758-19-828   SWITCH, DIL PRESSURE (AT)  8U55-21-201   (AT)  21-292   RIN' 'O'  8U01-21-294   RING, 'O'  8U01-21-294   RING, 'O'  8U01-21-295   RING, 'O'  8U01-21-295   RING, 'O'  601-21-295   RING, 'O'  AT)  21-296   RING, 'O'  AT)  21-296   RING, 'O'  AT)  66-991F   SOLENDID, LOCK UP CON (AT)  1	PART	NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
19-621   19-621   1	19-	446		RING,'O'			
19-821   SOLENOID, DOWN SHIFT   (AT)     19-838   BOLT-HEX, HD WASHER     1758-19-838   BOLT-HEX, HD WASHER     21-291   SWITCH, OIL PRESSURE     8U55-21-211   (AT)     21-292   RING 'O' (AT)     21-293   SOLENOID, OVER DRIVE     21-294   RING, 'O' (AT)     21-295   RING, 'O' (AT)     21-295   RING, 'O' (AT)     21-296   BU01-21-295   (AT)     21-296   SOLENOID, LOCK UP CON (RD)     24-910   BU55-21-JA5   IGNITER SET     66-991F   B376-66-991   CONDENSER     67-132A   CONNECTOR, SHORT     67-7403   RELAY, N. O.     10A	0338-19	-446	1	(AT)			
19-838   2   21-291   SWITCH, OIL PRESSURE     21-292   RINC 'O'	•	•		SOLENOID, DOWN SHIFT			
17-838   2   3   3   3   3   3   3   3   3   3	BU55-19	-821	1	(AT)			
21-291   SWITCH, OIL PRESSURE     21-292   RIN' 'O'     21-293   SOLENOID, OVER DRIVE     21-293   RING, 'O'     21-294   RING, 'O'     21-295   RING, 'O'     21-295   RING, 'O'     21-296   SOLENOID, LOCK UP CON TROL     21-296   TROL     21-296   ROLENOID, LOCK UP CON TROL     24-910   IGNITER SET     66-991F   CONDENSER     6376-66-991   CONNECTOR, SHORT     HB23-67-741   CONNECTOR, SHORT     167-7403   RELAY, N. O.     LANO-67-740   10A				BOLT-HEX, HD WASHER			
21-291   SWITCH, OIL PRESSURE     21-292   RINC 'O'     BU01-21-292A   (AT)     21-293   SOLENOID, OVER DRIVE     BU05-21-2J3   (AT)     21-294   RING, 'O'     BU01-21-294   (AT)     21-295   RING, 'O'     BU01-21-295   (AT)     21-296   SOLENOID, LOCK UP CON TROL     BU05-21-3A5   (AT)     22-910   IGNITER SET     66-991F   CONDENSER     B376-66-991   CONNECTOR, SHORT     HB23-67-741   (CALIF.)     67-7403   RELAY, N. O.     LA10-67-740   10A	1758-19	-838	2				
21-292				SWITCH, OIL PRESSURE			
21-292	BU55-21	-2J1	1	(AT)			
21-293				RINC 'O'			
21-293	BU01-21	-292A	1	(AT)			
21-294				SOLENOID, OVER DRIVE			
21-294   RING, '0'     21-295   RING, '0'     21-295   RING, '0'     21-296   RING, '0'     21-296   RING, '0'     21-296   RING, '0'     21-296   RING, '0'     21-296   RING, '0'     21-296   RING, '0'     21-296   RING, '0'     21-295   RING, '0'     21-296   RING, '0'	BU55-21	-2J3	1	(AT)			
BU01-21-294 1 (AT)    21-295   RING,'O'    21-296   SOLENOID,LOCK UP CON   TROL   TROL   CAT)    24-910   IGNITER SET    66-991F   CONDENSER   B376-66-991 1   CONNECTOR,SHORT   HB23-67-741 1   CALIF.)    67-7403   RELAY,N.O.   LA10-67-740 10A	21-			RING,'O'			
21-295	•	-294	1	(AT)			
21-296   SOLENOID, LOCK UP CON TROL (AT)    24-910   IGNITER SET	•	•		RING, 'O'			
21-296	BU01-21	-295 <sup>°</sup>	1	(AT)			
BU55-21-3A5 1 (AT)    24-910				SOLENOID, LOCK UP CON			
B61P-18-251 1   66-991F   CONDENSER   67-132A   CONNECTOR, SHORT   67-7403   RELAY, N.O.   LA10-67-740 10A	BU55-21	-3A5	1	(AT)			
66-991F   CONDENSER	24-	910		IGNITER SET			
B376-G6-991 1   67-132A   CONNECTOR, SHORT   HB23-67-741 1 (CALIF.)   67-7403   RELAY, N.O. LA10-67-749 10A	B61P-18	-251	1				
67-132A   CONNECTOR, SHORT   HB23-67-741	66-	991F		CONDENSER			
67-132A			1				
1 67-7403   RELAY, N.O. LA10-67-740   10A				CONNECTOR, SHORT			
LA10-67-749 10A	HB23-67	-741	1	(CALIF.)			
	+	+		RELAY, N.O.			
	LA10-67	-740		10A			



	<del></del>	<del>,</del>		<del>,</del>	
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
60-721		PROTECTOR			
B092-66-241A	1				
<b>+</b>					
66-170A		SWITCH(R), CLUSTER			
NA01-66-170	1				
66-250		LIGHTER, CIGAR			
B150-66-250	1				
ф========					
66-251		RING, ILLUMINATION			
B001-66-251	1				
66-340		SWITCH, MAIN			
NA01-66-340A	1	PKG-OPT,			
	;	(W/AUTO CRUISE CONT)			
+		BIN BIBL ALIVEAU			
66-462	2	BULB'B',SWITCH-RR DE FOGER			
NA01-66-462	۷				
66-600		COVER, HOLE			
8481-55-225	1	PKG-OPT, (W/AUTO CRUISE CONT)			
		CHYADIO CROISE CONTY			
	2	BASE, (W/O AUTO CRUISE CON			
		T.)			
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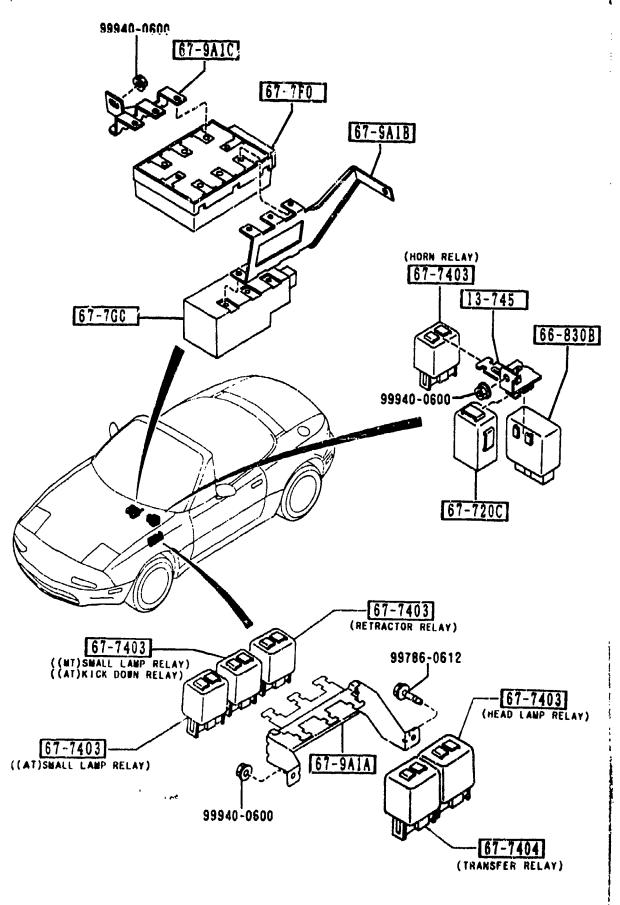
CAT. AUNA01-07



Component parts of COMBINATION SWITCH are under establishment now.
Parts numbers will be informed you by the Parts Engineering Change
Bulletin as soon as established.

PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-110     NA01-66-120A	1	SWITCH, COMBINATION BASE, (W/O AUTO CRUISE CON T.)			
NA02-66-120A	1	PKG-OPT, (W/AUTO CRUISE CONT)			
				•	
				الأخور منهم	٠
	. <u>.</u>		أحريب في حقيق المنظونية والمنظم المنظم المنظم المنظم المنظم المنظم المنظم المنظم المنظم المنظم المنظم المنظم ا	Material de Maria de como minimo de composito de como	

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NA01-67-7F0A 1 9A01-	PART NO.	7.10	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-830	13-745	1	BRACKET, RELAY			
67-7F0	66-830B	1	UNIT, FLASHER			
67-7GD	67-7F0	1				-9A01
BAG	+	1				9A01-
67-720C   TIMER & BUZZER     67-7403   RELAY, N.O.     30A	NA01-67-7G0					-0302
67-720C	NA01-67-7G0A	1				0302-
67-7403   H300-67-740   RELAY, N.O.   30A (HEAD LAMP RELAY)   10A (HORN RELAY) (SMALL LAMP RELAY) (SMALL LAMP RELAY) (SMALL LAMP RELAY) (KAT)   CFOR RETRACTOR RELAY) (AT)   CFOR RETRACTOR RELAY)   CFOR RETRACTOR RELAY   CFOR RETRACTOR RETRACTOR RELAY   CFOR RETRACTOR RELAY   CFOR RETRACTOR RELAY   CFOR RETRACTOR RELAY   CFOR RETRACTOR RELAY   CFOR RETRACTOR RELAY	67-720C		TIMER & BUZZER			
H300-67-740  LA10-67-740  2 (HORN RELAY) (SMALL LAMP RELAY) (SMALL LAMP RELAY) (KICK DOWN RELAY) (KICK DOWN RELAY) (KT)  467-7404  HD22-67-740  RELAY, TRANSFER (W/AIR BAG)  67-9A1A  BRACKET, RELAY  BRKT, DIAGNOSIS UNIT	67-7403		RELAY, N.O.			
2 10A (HORN RELAY) (SMALL LAMP RELAY) (SMALL LAMP RELAY) (SMALL LAMP RELAY) (SMALL LAMP RELAY) (KICK DOWN RELAY) (KICK DOWN RELAY) (AT)  LA12-67-740 1 (FOR RETRACTOR RELAY)    67-7404   RELAY, TRANSFER (W/AIR BAG)    67-9A1A   BRACKET, RELAY  NA01-67-9A1 1    67-9A1B   BRKT, DIAGNOSIS UNIT	, ,	1				
(SMALL LAMP RELAY) (KICK DOWN RELAY) (AT)  (FOR RETRACTOR RELAY)  (FOR RETRACTOR RELAY)  (FOR RETRACTOR RELAY)  (FOR RETRACTOR RELAY)  (FOR RETRACTOR RELAY)  RELAY, TRANSFER  (W/AIR BAG)  BRACKET, RELAY  BRACKET, RELAY  BRACKET, DIAGNOSIS UNIT	LA10-67-740		10A (HORN RELAY) (SMALL LAMP RELAY)			
67-7404   RELAY, TRANSFER   HD22-67-740     W/AIR BAG)     67-9A1A   BRACKET, RELAY     67-9A1B   BRKT, DIAGNOSIS UNIT		3	(SMALL LAMP RELAY) (KICK DOWN RELAY)			
HD22-67-740 1 (W/AIR BAG)    67-9A1A   BRACKET, RELAY    67-9A1B   BRKT, DIAGNOSIS UNIT	LA12-67-740	1				
67-9A1A   BRACKET, RELAY   NA01-67-9A1	67-7404		RELAY, TRANSFER			
67-9A1A   BRACKET, RELAY	HD22-67-740	1	(W/AIR BAG)			
+	67-9A1A	1	BRACKET, RELAY			
MAU0-01-7A10 1	+		BRKT, DIAGNOSIS UNIT			
67-9A1C   BRKT, DIAGNOSIS/POWER UNIT	67-9A1C					

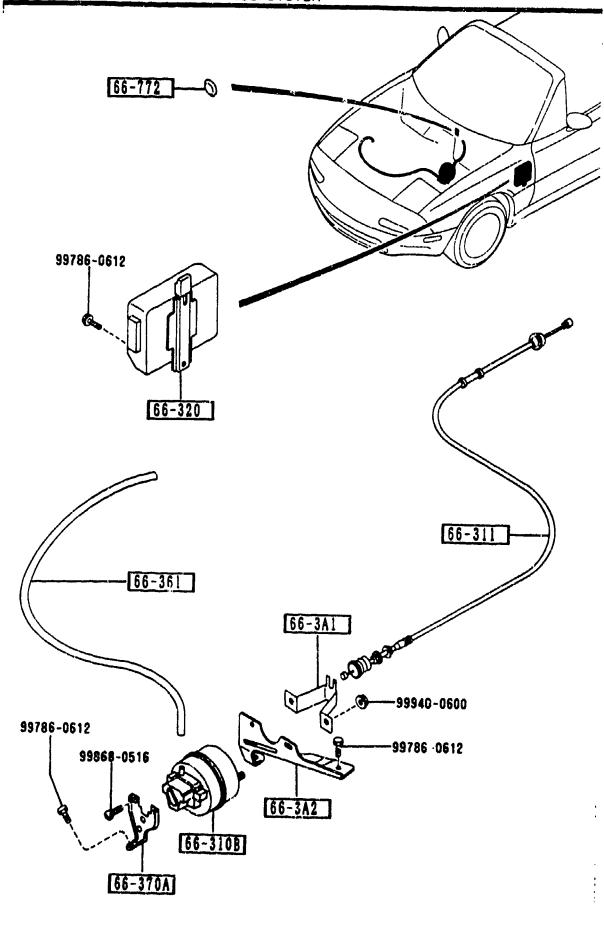
9A01 NA35HX-122908 0302 <del>NA35HX-</del>142105

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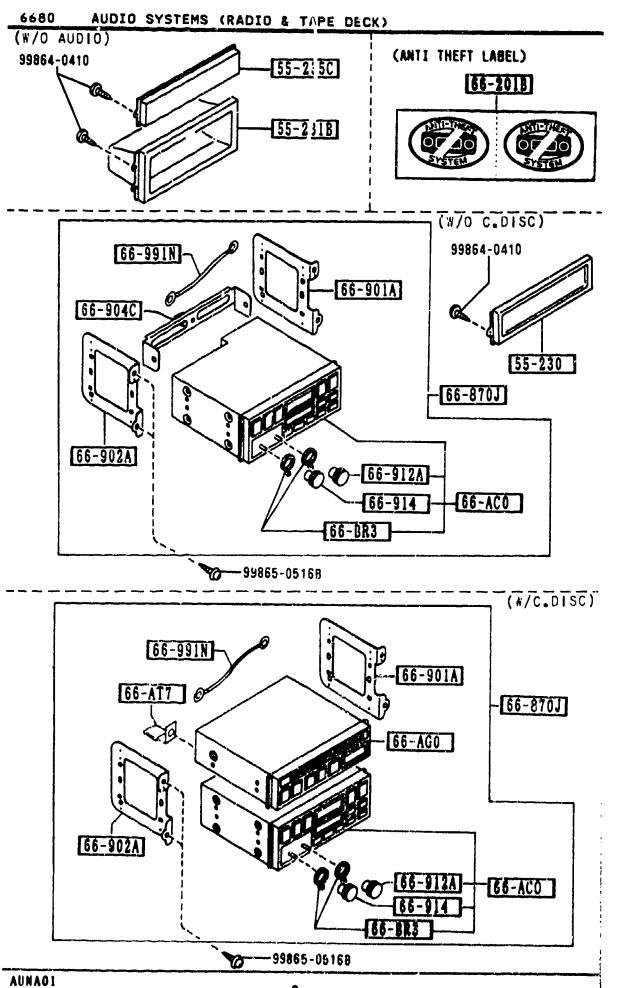
PART HO.	OTY	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-546		SCREW, DOOR SWITCH			
LA01-66-546	2				
66-790		HORN, LOW TONE			
SA59-66-790	1				
66-820		SWITCH, DOOR			
B455-66-540	2				
	:				
					<u></u>

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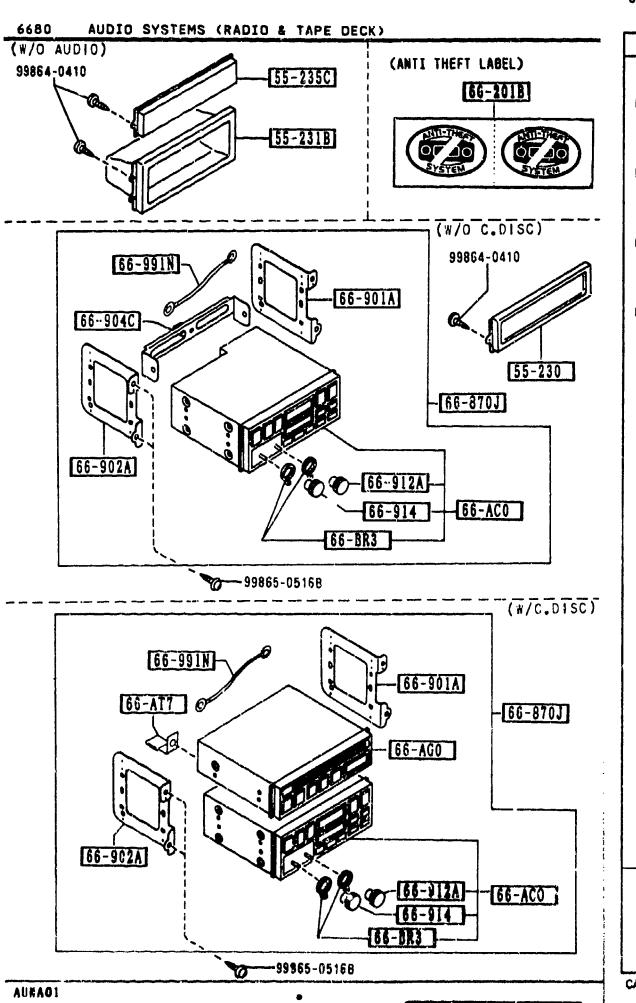
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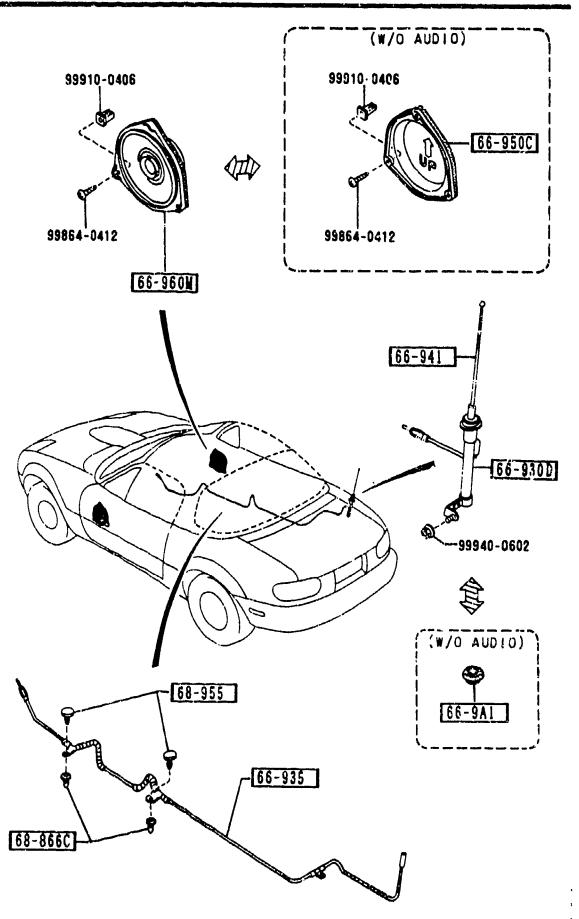
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-3A1   LA01-66-3A1	1	BRACKET, ACTUATER-A.C			TRON TO
66-3A2   NA01-66-3A2A	1	BRACKET, ACTUATOR-FRO			
66-310B     66-310A	1	ACTUATOP.A.C.C.			
66-311   NA01-66-311A	1	WIRE,A.C.C.			
66-320   NA01-66-320	1	BOX,A.C.C.			
NA03-66-320   66-361   NA01-66-361		PIPE, AUTO CRUISE CON TROL			
66-370A   NA01-66-3A3A	1	BRACKET, ACTUATER			
66-772   		GROHMET BASE, (W/O AUTO CRUISE CON T.)			
		,			
	i				



PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
55-230		PANEL, AUDIO			
NA01-55-231	1	PKG-OPT, (W/AUDIO)			
55-2318		ORNAMENT, STEREO			
FC02-55-235 A (FC02-55-235A	o 1				-9801
FC02-55-235A	1	BASE, (H/O AUDIO)			9801-
55-235C		ORNAMENT, STEREO-LOWE			
LA02-55-235	1	BASE, (W/O AUDIO)			
66-AC0		TUNER & DECK, COMB.			
NA01-66-AC0	1	PKG-OPT, (W/AUDIO)			
66-AG0		PLAYER, COMPACT DISC			
NA01-66-AG0	1	OPTION, (W/C.DISC)			
66-AT7		BRACKET(RR),AUDIO			
NA03-66-AT7	1	OPTION, (W/C.DISC)			
66-BR3		KNOB, BALANCE-TUNER			†   
NA01-66-BR3	2	PKG-OPT, (W/AUDIO)			
66-201B		LABEL, ANTI THEFT-AUD			
NA01-66-201	1	PKG-OPT, (W/AUDIO)			
66-8701		AUDIO SET			
NA02-66-9C0	1	PKG-OPT, (W/O C.DISC)			
NA03-66-9W0	1	OPTION, (W/C.DISC)			
66-901A		BRACKET(R), TUNER			
NA01-66-AT1	1				
66-902A	1	BRACKET(L), TUNER			
9801 NA35HH	1	116		······································	
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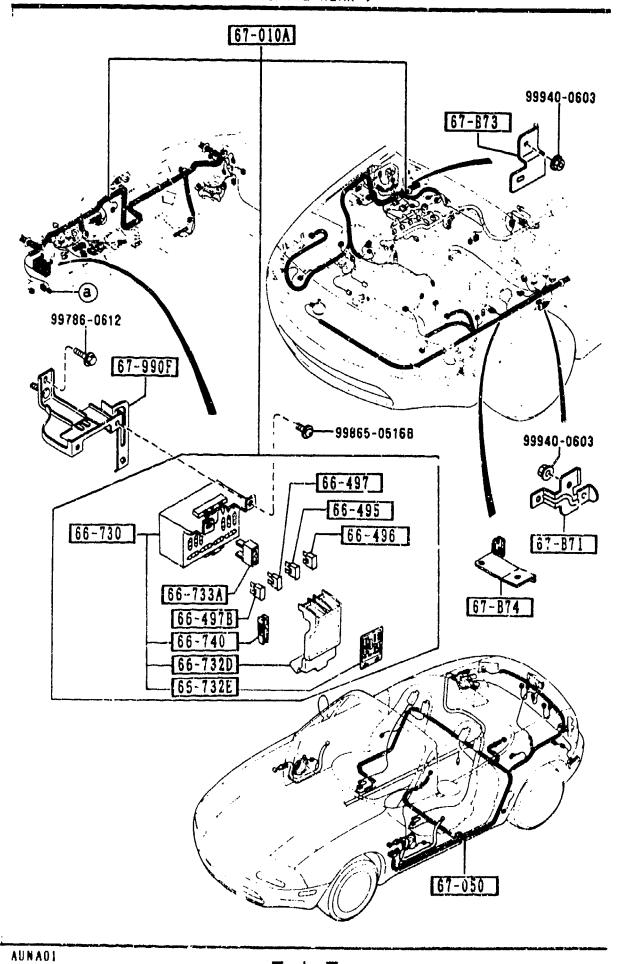
PART NO.	QTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-904C   NA01-66-AT6		BRACKET, LOW  BASE, PKG-OPT, (W/O C.DISC)			
66-912A     66-912A     NA01-66-BR2		KNOB, TONE-TUNER PKG-OPT, (W/AUDIO)			
\$ 66-914   NA01-66-BR1		KNOB, VOLUME-TUNER PKG-OPT, (N/AUDIO)			
66-991N   	1	CURD, EARTH			
			: :		
CAT. AUNA01-07					1992-02



PART	иn	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	TRON TO
<del></del>	+	IA	HODEL/RESIRIUITUR	HODELAKESIKICIION	I HONETAKEZIKITIAN	FROM-TO
64-			COVER, HOLE-ANTENNA			
FB01-64	-9A1A	1	BASE, (W/O AUDIO)			
+	<b>+</b>		1111			
+	930D		HODY, LOW-RADIO ANTEN			
NAG1-66	-A3X	1	PKG-OPT, (H/ANTENNA)			
<b>4</b>	+	İ				
66-	+		FEEDER-ANTENNA			
NA01-66	-940	1				
66-	941		POLE, ANTENNA			
NC01~66	-A30	1	PKG-OPT,			
<b></b>	+		(W/ANTENNA)			
	950C		BRACKET, LOUD SPEAMER			
NA01-66	-980A	2	BASE, (W/O AUDIO)			
+m===	+		0051450 5005			
4		_	SPEAKER, DOOR			
NA03-66 A (NA03-	-400 66-96X	, 2				-0702
NA03-66	-96X	2	PKG-DPT, (W/ANTENNA)			0702~
+	+	į	THE PROPERTY OF THE PROPERTY O			
68-	866C		FASTENER, SEAL			
B?35-68	-8.5A	ž				
68-	755		FASTENER, LIFT GATE T			
GJ37-68	-955	2	RIM			
00		į	NAC BLACK			
		)				
		ļ			1	
					( 	
0702	NA35HH	l	)195			!
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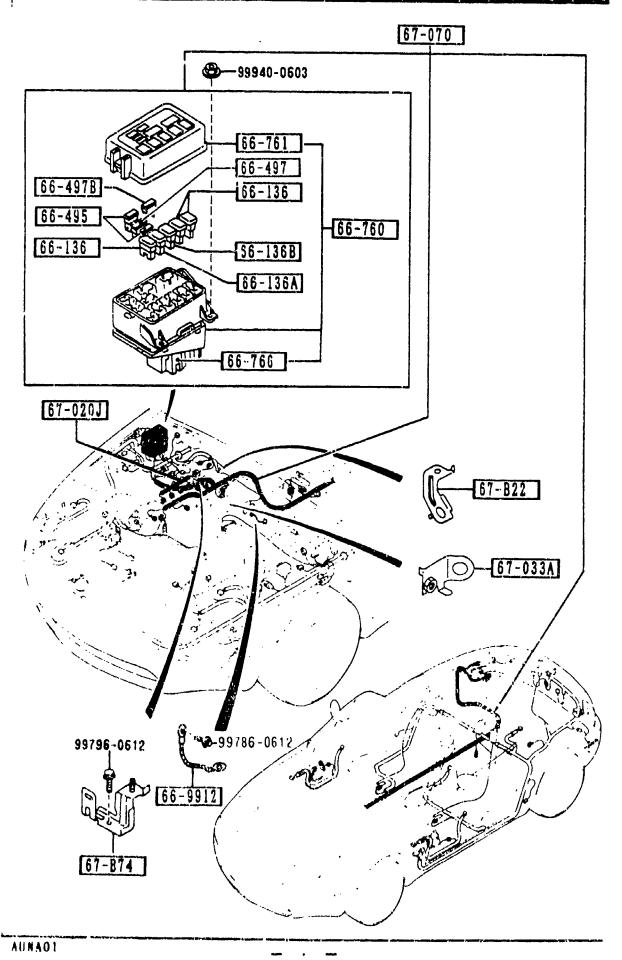
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
66-495		FUSE(10A)			
99705-1110	2				
66-496		FUSE (15A)		,	
99705-1115	6				
66-497		FUSE (20A)			<u> </u>
99705-1120	1				
60-4978	i	FUSE(30A)			
9970!-1130	1				
66-730   NA01-66-730C	1	BLOCK, FUSC			
++					
66-732D   		COVER.FUSE BLUCK FURUKAWA			
	1				
56-732E		LABEL, CAUTION-FUSE COVER			
NA01-66-732A	1				
66-733A   H001-66-733	1	BREAKER			
++		1101 OF D. 51105			
66-740   ++ H001-66-739	1	HOLDER, FUSF			
67-B71	ļ	BRACKET, HARNESS			
NA05-67-8W13	(	(W/AIR BAG)			
67-B73		BRACKET, HARNESS			
NA05-67-BW2	1	(W/AIR BAG)			
1 67-874 1		BRACKET, HARMESS			i 1
NA05-67-8W0A	1				) 
67-910A		HARNESS, FRONT			
NA03-67-010D	1	(W/AIR BAG) (AT)			
NA01-67-010J AN(NA01-67-010L	, 1				-9701
9701 NA35##	-111	1969		L	L

	67-	010A	
a 99786-06			99940-0600 67-B73
66-7	30 66-733A	95865-0516 66-497 66-495 66-496	B 99940-0603 67-B71
	66-497B 66-740 66-732D 66-732E		67-050

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
CONT'D NA02-67-010J N(NA02-67-010L	, 1				-970
NA01-67-010L	1	BASE, (W/O HEAD SPEAKER) (MT)			9701-990
NA02-67-010L	1	PKG-OPT, (W/HEAD SPEAKER) (MT)			9701-990
NA01-67-010U N(NA01-67-010W	, 1				9901-9A0
NA02-67-010U N(NA02-67-010W	1				9901-9A0
NA01-67-010W N(NA04-67-010	1				9401-900
NA02-67-010W N(NA05-67-010	1				9A01-9C0
NA04-67-010 N(NA04-67-010A	1				9C01-040
NA05-67-010 N(NA05-67-010A	1				9001-040
NA04-67-010A	1	BASE, (W/O HEAD SPEAKER) (MT)			0401
NA05-67-010A	1	PKG-OPT, (W/HEAD SPEAKER) (MT)			0401-
NA08-67-010	1	(W/C AIR BAG) (MT)			0701-
NA09-67-010D	1	(W/O AIR BAG) (AT)			0701-
67-050		HARNESS, REAR			
NA01-67-050C N(NA01-67-050D)	ני				-9A0
NA02-67-050C N(NA02-67-050D)	, 1				-9A0
NA01-67-050D	1	BASE, (W/O HEAD SPEAKER)			9A01-
NA02-67-050D	1	PKG-OPT, (W/HEAD SPEAKER)			9A01-
67-990F		BRACKET, HARNESS			
NA01-67-BJ0	1				
0701 MATEUR		040	The same of the sa		
9701 NA35×H- 9901 NA35×H- 9A01 NA35×H- 9C01 NA35×H- 0401 NA35×K- 0701 NA35×H-	119 122 130	257 908 310 561			



PART NO.	QTY	MUDEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESIPICTION	FROM-TC
	1	THE PROPERTY OF THE PROPERTY O	HOUSE REGINIEGIA	HODEF RESTITION	1 1 10
66-136		FUSE(30A)			
H315-67-099	3				
66-136A		FUSE(40A)			
H116-67-099	1				
+					
66-136B		FUSE (80A)			
H117-67-099	1				
66-495		FUSE(10A)			
99705-1110	2				
<b>+</b>		F1.6F4004\			
1 66-497		FUSE(20A)			
99705-1120	1				
66-497B	ļ	FUSE (30A)			
99705-1130	1				
66-760		BLOCK, MAIN FUSE			
NA01-66-760B	1				
<b>+</b> ======+					
66-761		COVER, MAIN FUSE BLOK			
NA02-66-762B	1	YAZAKI			
<b></b>			:		
1 66-766		COVER, UNDER-MAIN FUS E BLK			
B465-66-767	1				9701-
66-9912		WIRE, EARTH			
NA01-67-EW1A	<b>1</b>				-9601
N(NA01-67-EW1B NA01-67-EW1B	,				9601-
Annual of Tening	•				7001-
67-822		BRACKET, HARNESS			1
MA01-67-B20A	1				-9A1
1 67-874		BRACKET, HARNESS			
NA01-67-880A	1	-			
*****					1
67-020J		HARNESS, INJECTOR			
NA01-67-080B N(NA01-67-080C)	, 1				-970
9601 NA35** 9701 NA35**				t tari in industria galen ustituun tuju ustaa daagaay aataa oo in i	***************************************
9A13 HA35##	-124	217			
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SECTION NAME INDEX (BODY)

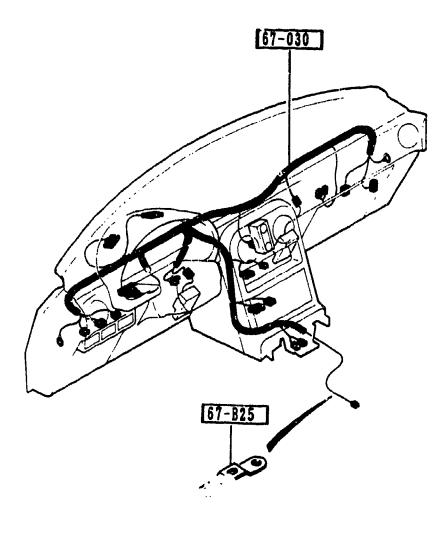
LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
2-C05	0900	KEY SETS	2-E12	6115	HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-E05	5000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER			
2-J05	5030	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING			
2-L05	5100	HEAD LAMPS	2-112	6140	COMPRESSOR COMPONENTS (AIR CONDITIONER)			
2-M05	5103	HEAD LAMP RETRACTORS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			
2-006	5105	FRONT COMBINATION LAMPS	2-013	6300	WINDOW GLASSES			
2-F06	5110	REAR COMBINATION LAMPS	2-D13	6330	SUNROOF			
2-106	5120	LICENSE LAMPS		6600	SWITCHES & RELAYS (ENGINE)		ļ	
2-J06	5180	REAR FINISHER	2-D14	6610	DASHBOARD SWITCHES			tr.
2-L06	5230	BONNET		6611	COMBINATION SWITCH			
2-N06	5260	TRUNK LID	2-F14	6630	RELAYS & UNIT (BODY)			
2-007	5310	BODY PANELS (FRONT)		6635	DOOR SWITCH & HORNS			
2-E07	5320	BODY PANELS (FENDER & WHEEL AP	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07	5330	BODY PANELS (DASH & COWL PANEL	'	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
2-107	5340	BGDY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK			{ 
2-C08	5370	BODY PANELS (FLOOR)	2-116	4700	ER)			
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR	İ	[	
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI SSION)	Ì		
2-009	5500	DASHBOARD EQUIPMENTS	2-D15	6702	WIRING HARNESSES(DASHBOARD)			
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES(DOOR, FLOOR/CE			
2-F09	5530	SPEEDOMETER CABLE	2-F15	4704	WIRING HARNESS CLAMPS			
2-G09	5540	METER COMPONENTS	2-115		WINDSHIELD WASHER	9-		
2-109	5560	DASHBOARD & RELATED PARTS		6730	WINDSHIELD WIPERS	[ 6P/	הצ	
2-L09	5570	CONSOLE	2-M15	6740	WIPER MOTOR COMPONENTS(FRONT)	1		
2-C10	5580	VENTILATOR	2-115	6820	FRONT HEADER TRIM & PILLAR TRI			
2-D10	5700	SEATS			MS	ļ		
2-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES			
2-L10			S-E16	6860	FLOOR MATS & PADS	1		
2-C11			2-G16	6870	SERVICE TOOLS			
2-F11	5840	FRONT DOOR TRIMS & RELATED PAR TS	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR	1		
2-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS			
2-012	6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS			
l						<u></u>	<u></u>	

AUHAOI

		67-	070
	99940-0603		
66-497B 66-495 66-136	66-136A	66-760	
67-0201			67-B22
			67-033A
99796-0612	99786-0612		
67-874			

PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TI
CONT'D 4A01-67-080C	1				9701-
67-033A		BRACKET, WIRING			
1A01-67-810B	1				
67-070		HARNESS, ENGINE			;
IA03-67-070C	1	(W/AIR BAG) (AT)			
MO1-67-070F KNA01-67-070H	. 1				-97
A01-67-070H  (NA01-67-070J)	1				9701-98
M01-67-070J	1	(W/AIR BAG) (MT)			9801-
A07-67-070J	1	(W/O AIR BAG)			0701-
Au9-67-070C	1	(W/O AIR BAG)			0701-
9701 NA35##- 9801 NA35##-	·116	316		·	<del></del>
0701 NA35##-	200	041			

CAT. AUNA01-07



PART NO.	OTY	HODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-825	_	BRACKET, HARNESS	·		
NA01-67-B31	1	(MT)			
67-030		HARNESS, INSTRUMENT			
NA03-67-030C	1	(AT)			
NA01-67-030D A (NA01-67-030H)	, 1				-970
NA02-67-030D A (NA02-67-030H)	, 1				~970
NA01-67-030H AN(NA01-67-030K)	1				9701-9A01
NA02-67-030H AN(NA02-67-030K)	1				9701-9A0
NA01-67-030K	1	BASE, (W/O HEAD SPEAKER) (MT)			9A01-
NA02-67-030K	1	PKG-OPT, (W/HEAD SPEAKER) (MT)			9A01~
	İ				
	-				
9701 NA354H-	111	969			

9701 NA354X-111969 9A01 NA3574-122908

CAT. AUMADI-07

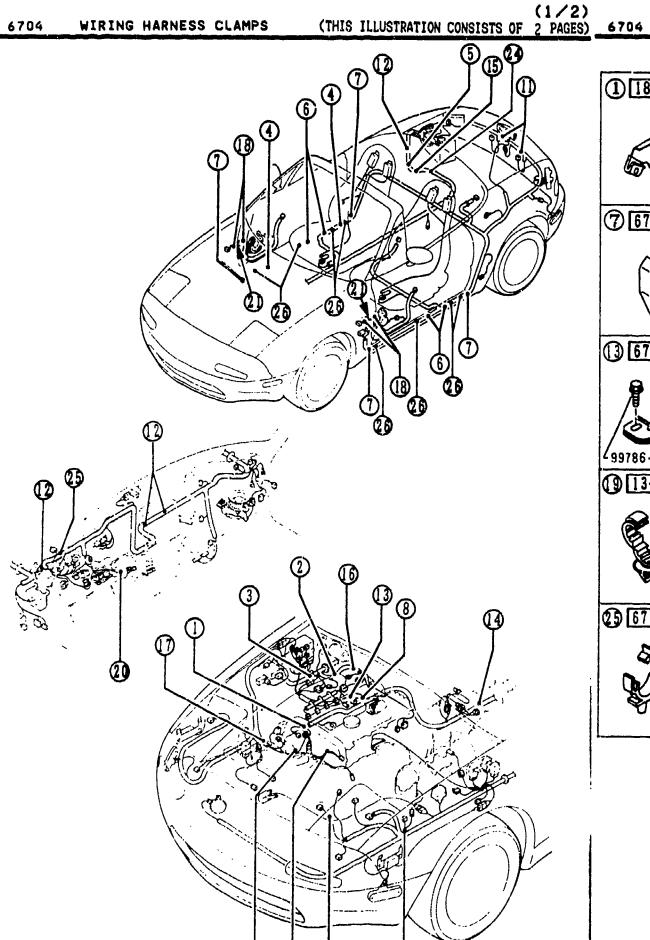
67-190G	
	67-190G

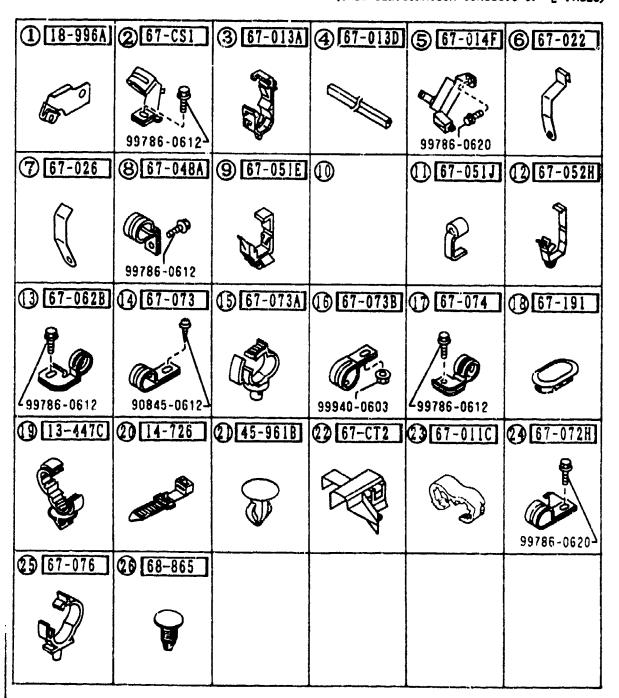
0407 40	u	MADEL INCOME			<del></del>	
	YTÇ	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO	
67-1900		HARNESS, DOOR				
NA01-67-190 AN(NA01-67-190A)	2				-9701	
NA02-67-190 AN(NA02-67-190A)	2				-9701	
NA01-67-190A	2	PKG-OPT, (W/O POWER WIND,W/AU DID)			9701-	
NA02-67-190A	2	PKG-OPT, V-SPECIAL, (W/POWER WIND)			9701-	
9701 NA35HH-111969						

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CAT. AUNA01-97

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(3)

PART NO.	917	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
13-447C		CLAMP, HOSE			
B61P-13-447	1				9701
14-726	•	BAND			
N304-14-726	1				
18-996A		CLIP			
BF67-67-996	1				
45-961B		CAP			
H002-45-961	2				9401-
67-CS1		CLIP, HARNESS			
N001-37-CS1B AN(N001-67-CS1	1				-9601
N001-67-CS1C	1				9601~
67-CT2		CI TO MADNECC			
NA01-67-CH5	1	CLIP, HARNESS			
+		0.78			
67-011C   ++ E356-18-141	1	CLIP			9701-
j+		CLIP			
67-013A   ++ UB42-67-013	1	CLIP			
<b>+</b>		POOTFOTOD HADNECE			
67-013D   ++ NA01-67-P54	3	PROTECTOR, HARNESS			
+		POSTECTOR MARNECO			
1 67-014F   NA01-67-P71	1	PROTECTOR, HARNESS			
1 67-022 1		CI TO MADNECC			
NA01-67-CW5A	4	CLIP, HARNESS			
1 67-026		CLIP, HARNESS			
NA02-67-CW5A	4	CLIP, MARNESS			
+		CLTB HADNECE			
67-048A     HAD1-67-CS1	1	CLIP, HARNESS			
9401 NA35HI 9601 NA35HI	×-106	5797			
9701 NA35×	# <b>~</b> 111	.969			

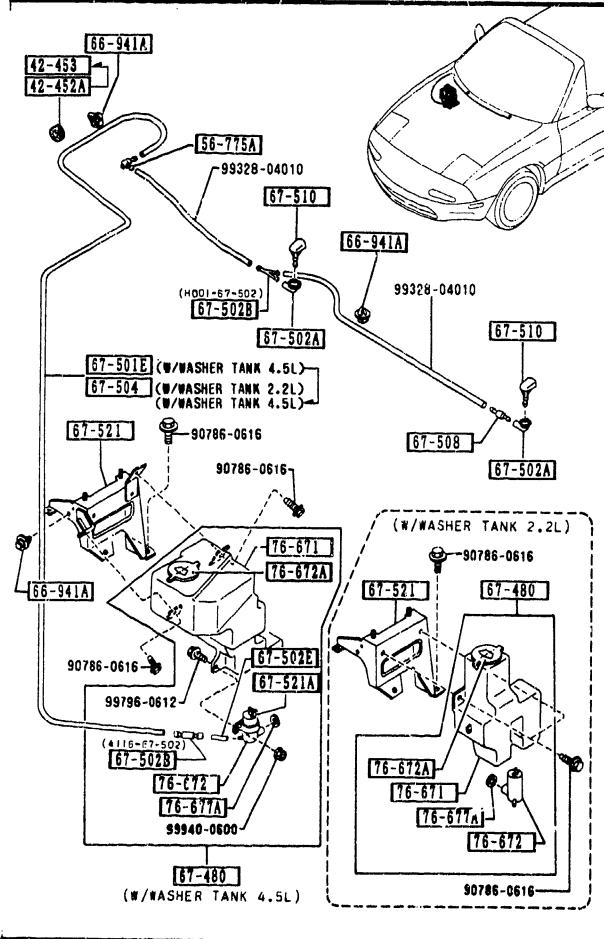
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			(THIS ILLUS	STRATION CONSIS	TS OF 2 PAGES
1 18-996A	267-CSI	3 67-013A	4 67-013D	\$ 67-014F	<b>6</b> 67-022
600	99786-0612			99786-0620	
7 67-026	<b>8</b> 67-048A	9 67-051E	<b>(1)</b>	(1) 67-051J	(2) 67-052H
	99786-0612	(Kara)			
[3] 67-062B	(4) 67-073	(5) 67-073A	(6) 67-073B	(f) 67-074	(8) 67-191
99786-C612	90845-0612		99940-0603	99786-0612	9
(9 13-447C)	20 14-726	2)45-961B	22 67-CT2	23 67-011C	29 57-072H
	Company (II)				99786-0620
25 67-076	26 68-865				

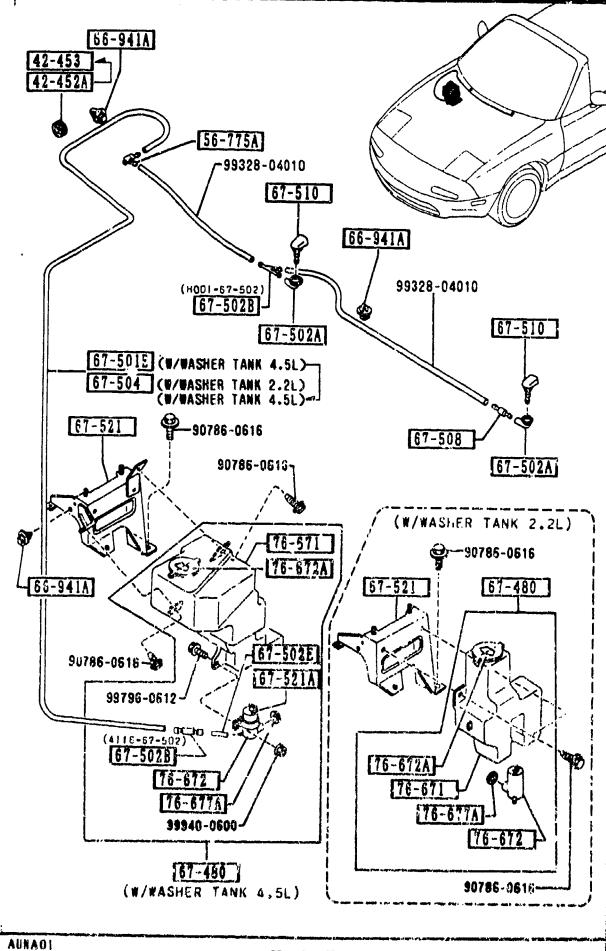
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
+					TRUNTIU
67-051E		CLIP			
UB4267-051	1				
67-051J		CLIP			
G031-67-053A	2				
67-052H		CLIP			
G030-67-018A	4				-0701
G030-67-018A	3				-9701 9701-
++					7701-
67-062B		CLIP, HARNESS			
NA02-67-CS1A	1				
67-072H		CLIP, ENGINE HARNESS			
NA01-67-CS6	1				
1 67-073		CLIP			
UB73-67-073A	1	J. 1.			
+	-				
67-073A		CLIP			
NA01-67-UH7	1				
67-073B		CLIP			
H261-67-073	1				j
1 67-074	i	CLIP, HARNESS			
NA01-67-CS5	2	CLIF, MAKNESS			
++					
1 67-076	ł	CLIP, ENGINE HARNESS			
NA01-67-CH8	1				
67-191		GROMMET			
8300-67-HD1	4				1
+		EACTENED			
68-865   	8	FASTENER			
00	- 1	NAO BLACK			
81	- 1	NA1 BEIGE			
9701 NA35×H-	-111	969			<u> </u>
					1

•••••



PART NU.	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
42-452A	GRUPE .T			
0111-41-692	1			-090
42-453	PROTECTOR, CABLE			
6048-42-453	1			0904-
56-775A	CLIP, WASHER HOSE			
LA01-67-505A	1			
66-941A	CLIP			
GB08-66-941	4			
67-480	TANK, WASHER-FRONT			
NA01-67-480	BASE, (W/WASHER TANK 2.2L)			
NA04-67-480A	1 PKG-OPT, (W/WASHER TANK 4.5L)			
	TO THE THE THE			
67-501E	PIPE, NOZZLE-FRONT WA	<b>\</b>		
NA04-67-501A N(NA01-67-501A)	1			-960
67-502A	JOINT, HOSE			
NA0167-502	2			
67-502B	JOINT, HOSE			
HD01~67-502	1			
4116-67-502	1 PKG-OPT, (W/WASHER TANK 4.5L)			
1 67-502E	JOINT, ELBOW-W. TANK			
5084-67-502	1 PKG-OPT, (W/WASHER TANK 4.5L)			
67-504	HOSE'C', WASHER			
NA01-67-591A	1			9601-
1 67-508	VALVE, CHECK			
A54-67-508	1			
9601 NA35##-1 0904 NA35##-2	06797 09115			
	- <del></del>			

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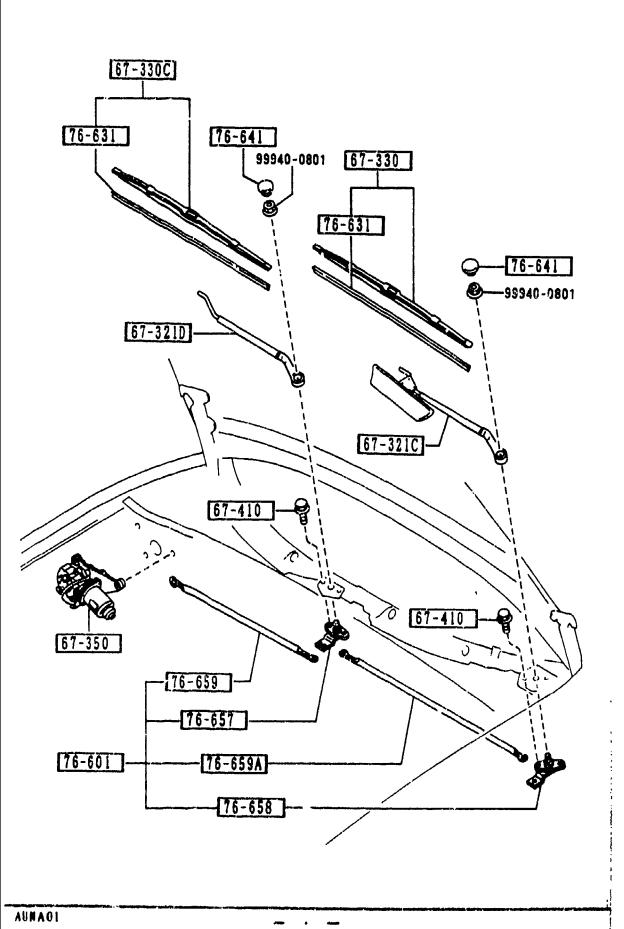
DADE NO	lo-	HODEL ASSESSED			<del>,</del>
PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-510		NOZZLE, WASHER-F. WIND			
NA01-67-510	2				
67-521		BRACKET, WASHER TANK			
NA01-67-520	1	BASE, (W/WASHER TANK 2.2L)			İ
NA04-67-520					
USC-18-10WN	•	PKG-OPT, (W/WASHER TANK 4.5L)			
+					
6'-521A   	•	PKG-OPT,			
3073 -07-321	4	(W/WASHER TANK 4.5L)			
<b>+</b>					
76-671   NA01-67-481		TANK, WASHER BASE,			
NAME OF AGE	•	(W/WASHER TANK 2.2L)			
NA04-67-481	1	PKG-OPT,			
		(W/WASHER TANK 4.5L)			
76-672		PUMP, WASHER			
5084-76-672	1				
1 76-672A 1		CAP, TANK			
UB39-51-815	1				
75-677A		GROMMET, WASHER TANK			
S084-76-677	3	OND ET HASILE TAIK			
				-	
					!

<u>76-641</u> 99940-0801 <u>67-330</u> <u>76-641</u> ⊕ 99940-0801
67-321D 67-321C
67-350 

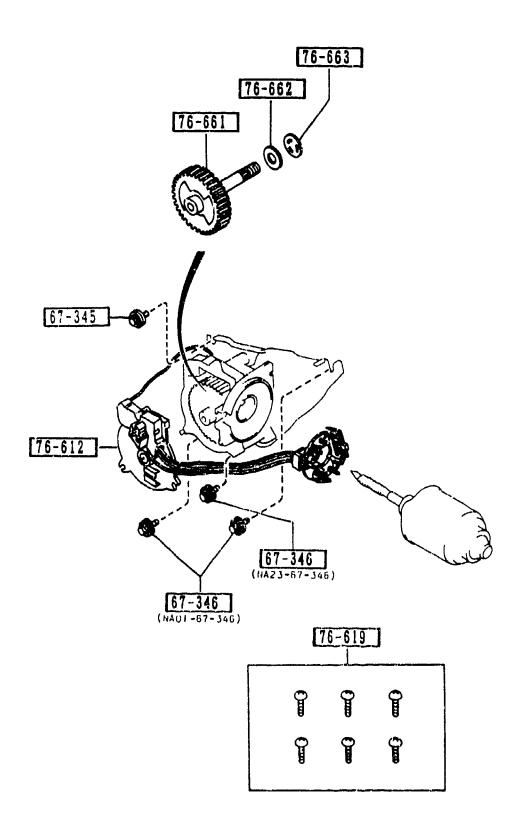
PART NO.	01Y	MODEL/RESTRICTION	MOUEL/RESTRICTION	MODEL/RESTRICTION	FROM-TI
67-321C   NA01-67-321	1	ARM, WIPER-ORIVER SID			
67-3210   NAG2-67-321	1	ARM, WIPER-CO DRIVER SIDE			
# 67-330   # 67-330   # 67-330   # 68490-67-330A	1	BLADE, WIPER-FRONT			-941
BM90-67-330A	1				19401-
67-330C   BR71-67-330	1	BLADE(P), WIPER-FRONT			-9A0
1 67-350		MATOR LIBER			
NA01-67-340A	- 1	MOTOR, WIPER (EXC COLD SPEC.)			-07
NA04-67-340	1	(COLD SPEC.)			-07
NA01-67-340B	1	(EXC.COLD SPEC.)			0701-
NA04-67-340A	1	(H/AIR BAG+COLD SPEC			0701-
NA12-67-340A	1	(W/D AIR BAG+COLD SP			0701-
67-410	4	BOLT			
76-601   NA01-67-360A	1	LINK, WIPER			
76-631   B-190-67-331	1	RUBBER, BLADE-FRONT			-9AI
(BM90-67-331A) KA02-67-331A	1	(PASSENGER SIDE)			
BMY0-67-331A	- 1	(DRIVER SIDE)			-9AI
NA02-67-331	- 1	(PASSENGER SIDE)			9A01-
76-641		COVER, WIPER ARM-FRON			
LA01-67-395 (LA01-67-395A)	s				-960
LA01-67-395A	2				9601-
9601 NA35##- 9A01 NA35##- G701 NA35#*-	122	9 V <b>5</b>	أسين واستناده واستناده والمنافية والمنافية والمنافية والمنافية والمنافقة والمنافقة والمنافقة والمنافقة والمنافقة		*

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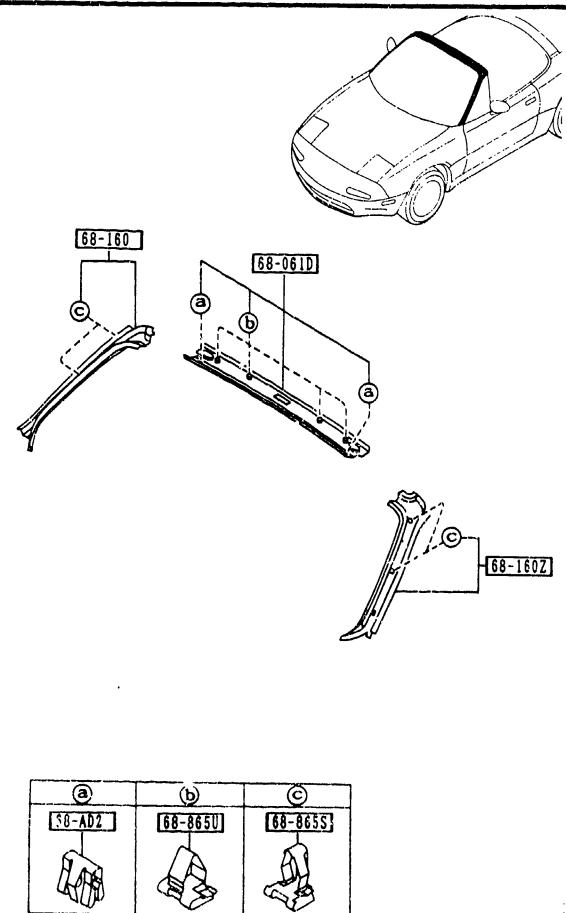
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PART NO.	017	MODEL/RESTRICTION	MODEL / RESTRICTION	MODEL/RESTRICTION	FROM-TO
76-657		SHAFT, DRIVE NO.1			
101-67-363	1	ļ'			
76-658	1	SHAFT, DRIVE NO.2			
101-67-364	1	}			
+	- 1				İ
76-659   	1	ARM NO.1,LINK			
++	- 1				
76-659A	- 1	ARM NO.2, LINK			
01-67-362	1				
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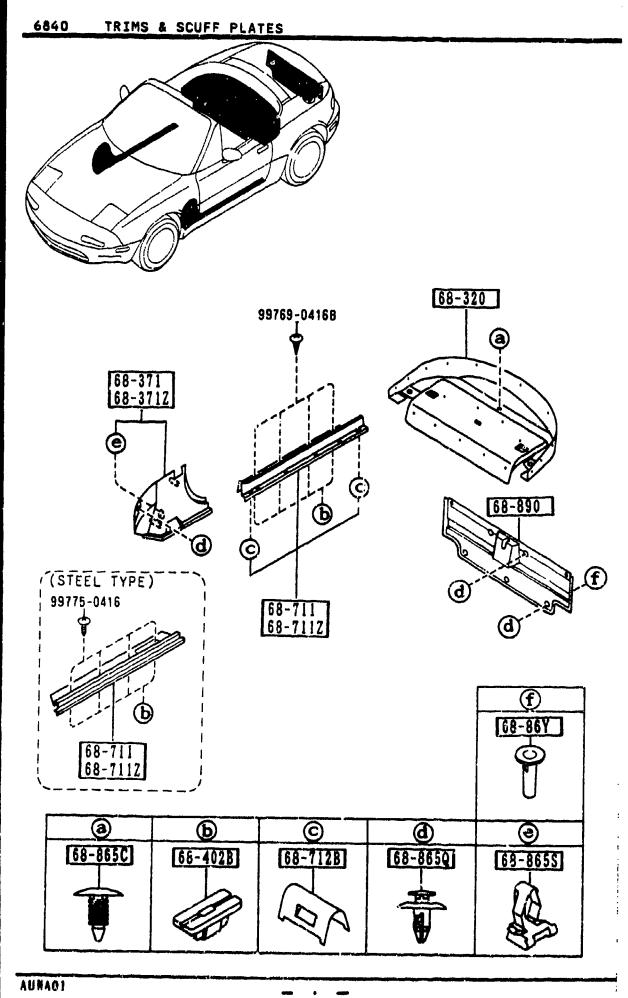
PART NO.	QTY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
67-345	SCREW, EARTH SET-MOTO			
NA01-67-345	R BRK			
+				
67-346	SCREW, BRACKET-WIPER MOTOR			
NA01-67-346	2			
NA23-67-346	1			0701-
76-612	PLATE, HOLDER-BRUSH			
NA01-67-351	1 (EXC.COLD SPEC.)			~0701
NA04-67-351	1 (COLD SPEC.)			-0701
NA17-67-351	1 (W/O AIR BAG+COLD SE			0701-
NA23-67-351	1 (EXC.COLD SPEC.)			0701-
NA26-67-351	1 (W/AIR BAG+COLD SPEC			0701-
76-619	PARTS SET			
H043-76-619A	1			
76-661	GEAR, SHAFT			
8455-67-354	1 (EXC.COLD SPEC.)			-9801
NA04-67-354	1 (COLD SPEC.)			-9801
B455-67-354	1			9801-0701
GJ21-67-354	1 (W/O AIR BAG+COLD SP			0701-
NA23-67-354	1 (EXC.COLD SPEC.) (W/AIR BAG+COLD SPEC			0701-
1 76-6ú2	WASHER			
8094-76-662	1		<b>,</b>	
1 76 64 7	WASHED TOOTHED			
1 76-663 1 8094-76-663	WASHER, TOOTHED			1
0014-10-663	•			
		<i>i</i>		
		·		
9801 NA35##				1



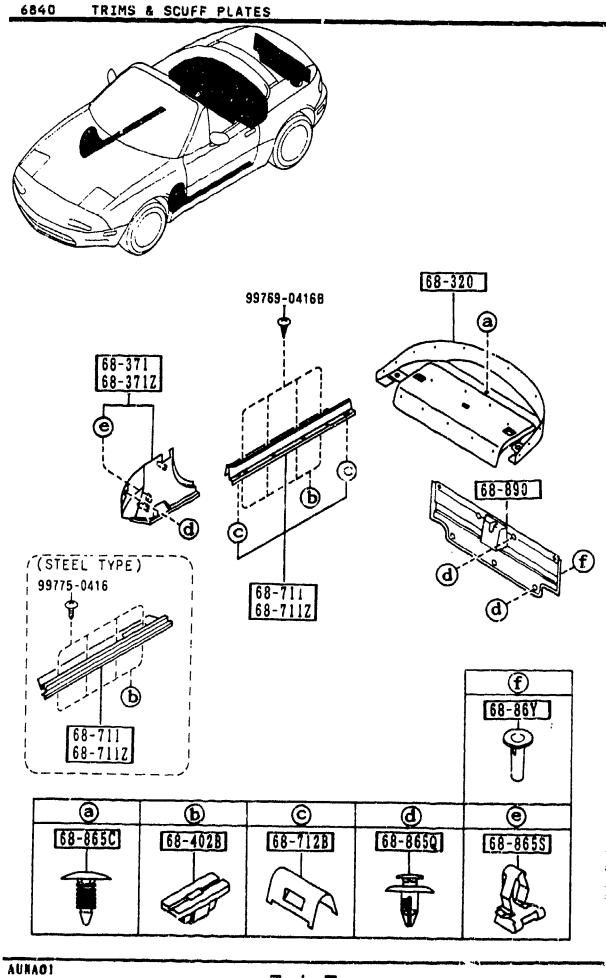
					T-2-2
PART NO.	Uly	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-AD2		CLIP			
B455-68-AD2	2				
+					
68-0610		TRIM, FRONT HEADER			
NA01-68-090	1				-9330
00		NAO BLACK			
NA01-68-090A	1				9330-
00		NAO BLACK			
68-160		TRIM(R), 'A'PILLAR			
NA01-68-160	1				
00		NAO BLACK			
1 48-3407		TOTALL			
68-1602	i	TRIM(L), 'A'PILLAR			
NA01-68-170	1	NAD BLACK			
<b></b>		NAD BLACK			
68-8655		CLIF TRIM			
GJ12-68-865	4				
! 68-865U		CLIP, TRIM			
GJ21-68-865	4			·	
0021 00 003	7				
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					!
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	į				
9330 NA35HH	·-10(	3072		1.	<u> </u>
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SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION	NAME
2-C05	0900	KEY SETS	~~	6115		3-C03	7900	ACCESSORIES	
2-E05	S000	FRONT BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS			AGGESSOR123	
2-H05	5010	REAR BUMPER	2-G12	6130	AIR CONDITIONER				
2-,'05	5030	WINDOW MOULDING & COLL GRILLES	2-K12	6135	O RING SET, PIPING	•			
2-L05	5100	HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CON				
2-M05	5103	HEAD LAMP RETRACTORS			DITIONER)				
2-006	5105	FRONT COMBINATION LAMPS	2-N12		COOLING UNIT (AIR CONDITIONER)				
2-FC4	5110	REAR COMBINATION LAMPS	S-C13	6300	WINDOW GLASSES	<u> </u> 			
2-106	5120	LICENSE LAMPS		6330	SUNRODF				
2-106	5180	REAR FINISHER	2-M13	6600	SWITCHES & RELAYS (ENGINE)				•
2-106	5230	BONNET	2-D14	6610	DASHEOARD SWITCHES				
2-N06	5260	TRUNK LID	2-E14	6611	COMBINATION SWITCH				
2-007	5310	BODY PANELS (FRONT)	2-F14	6630	RELAYS & UNIT (BODY)				
2-E07	5320	BODY PANELS (FENDER & WHEEL AP	2-G14	6535	DOOR SWITCH & HORNS				
			2-H14	6640	AUTO CRUISE CONTROL SYSTEM				
2-H07	5330	BODY PANELS (DASH & COWL PANEL	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)				
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK				
2-C08	5370	BODY PANELS (FLOOR)	2-116	<b>4700</b>	ER)				
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVELS	2-L14	6700	WIRING HARNESSES (FRONT & REAR				
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES (ENGINE & T/MI SSION)				
2-009	5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES (DASHBOARD)				
2-609	5520	METER HOOD	2-E15	6703	WIRING HARNESSES (DOOR, FLOOR/CE				
2-F09	5530	SPEEDOMETER CABLE			ILING)				
2-G09	5540	METER COMPONENTS	2-F15		WIRING HARNESS CLAMPS				
2-109	5560	DASHBUARD & RELATED PARTS	2-115	ì	WINDSHIELD WASHER				
2-109	5570	CONSOLE	2-K15		WINDSHIELD WIPERS				
2-C10	5580	VENTILATOR	2-M15	i	WIPER MOTOR COMPONENTS(FRONT)				
2-010	5700	SEATS	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI	!			
2-K10	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES	į			
2-110	5800	FRONT DOORS	2-E16	6860	FLOOR MATS & PADS				
2-C11	5830	FRONT DOOR MECHANISMS	2-G16	6870	SERVICE TOOLS				
2-F11	5840	FRONT DOOR TRIMS & RELATED PARTS	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR	B	<b>1</b>		
2-C12	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS	2			
2-012	6110	HEATER UNIT COMPONENTS	2-L16	i	QUARTER WINDOW & TRIMS				



PART NO.	014	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
1 68-320		TRAY, REAR PACKAGE			
NA01-68-3F1B	1	1	1		
00		NAO BLACK	1		
+======			1		
68-371		TRIM(R), FRONT SIDE	1		
NA01-68-370	1	i i	,		
00	1	NAO BLACK	,		}
68-3712	1	TRIM(L), FRONT SIDE	,		
NA01-68-390	1	]	1		
00	1	NAD BLACK			
+=====+ !		3.00 mm 3.00 mm. 1			
68-4028   ++	}	GROMMET, SCREW		1	
FA54-68-719B	8	i l	ļ		
68-711		PLATE(R), FRONT SCUFF			
NA01-68-710	1	BASE, (PLASTIC TYPE)		1	
00	- 1	NAO BLACK		1	
<b>4</b>		NAU BLACK		<b> </b>	
68-7112	}	PLATE(L), FROMT SCUFF		1	
NA01-68-720	1	BASE, (PLASTIC TYPE)		ĺ	
00	- 1	NAO BLACK		į	
68-7128		CLIP		· [	
8235-68-712	4	BASE, (PLASTIC TYPE)			
1 68-86Y		CAP, SEAL-TRUNK END T		!	
KA01-68-86Y		RIM		1	
++	١			1	
68-865C		FASTENER		1	
	20			i	ĺ
00		NAO BLACK		,	1
68-8650		FASTENER		,	1
 GJ21-68-885A N(GJ21-68-885B)	9			,	-952
00		NAO BLACK			
GJ21-68-8858	9				9526-
9526 NA35##-	-105	742			
AT. AUNA01-07	-				1992-02



PART NO.   OTV   MODEL/RESTRICTION   MODEL/RESTRICTION   FR  CONT'D  OO    68-8655   CLIP, TRIM   NAO1-68-891   NAO BLACK  TRIM, TRUNK END  NAO BLACK  AND BLACK	M-TO
68-865S   CLIP, TRIM   GJ12-68-865   2   68-890   TRIM, TRUNK END   NA01-68-891   1	
GJ12-68-865 2   68-890   TRIM, TRUNK END NA01-68-891 1	
GJ12-68-865 2   68-890   TRIM, TRUNK END NA01-68-891 1	
168-890   TRIM, TRUNK END   NA01-68-891 1	
NA01-68-891 1	
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CAT. AUNAD1-07	-02

PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
68-6L1A     NA01-68-6L1	1	COVER(R),HOLE			
68-6L6A     NA01-68-6L6	1	COVER(L),HOLE			
68-6N2     NA01-68-6N2	2	INSULATOR, RR FLOOR			
68-6N4     NA01-68-6N4	1	PAD,RR FENDER			
68-615B     68-615B     B100-68-615	5	NUT, FLANGE-CAP			
NA01-68-615   68-630A     HAC1-68-631A   (NA01-68-631B	1	INSULATOR, DASHBOARD			-0701
NA01-68-631B	1				0701-
68-651F     68-652	1	PAD, FRONT FLOGR			
68-664     NA01-68-664A	1	CUSHION,UNIT COVER			07 <b>01</b> -
68-671A     68-671A     HA01-68-671   A (NA01-68-67XB	1	MAT,FLOOR			-0401
00		NAO BLACK			
NA01-68-67XB	1				0401-
00		BLACK			
68-693D		MAT.REAR END			
NA01-68-693	1	(BLACK-USA)			
00		NAO BLACK			
68-695   NA01-68-811	1	MAT,TRUNK ROOM			
0401 NA35** 0701 NA35**	-146 -200	5561 1041			

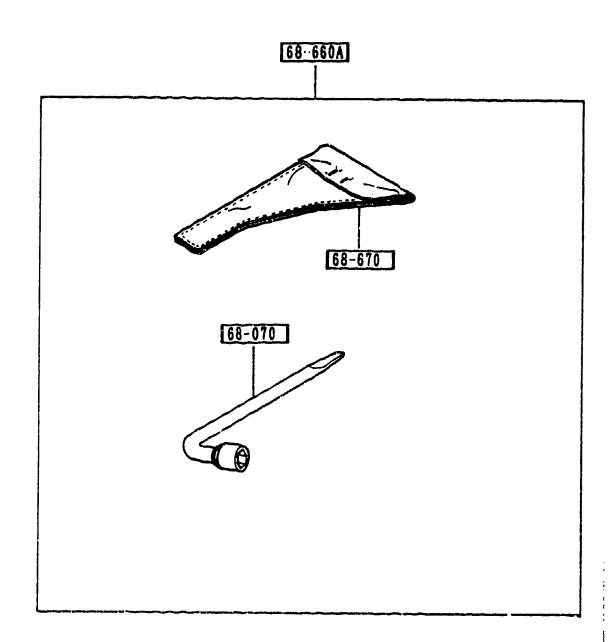
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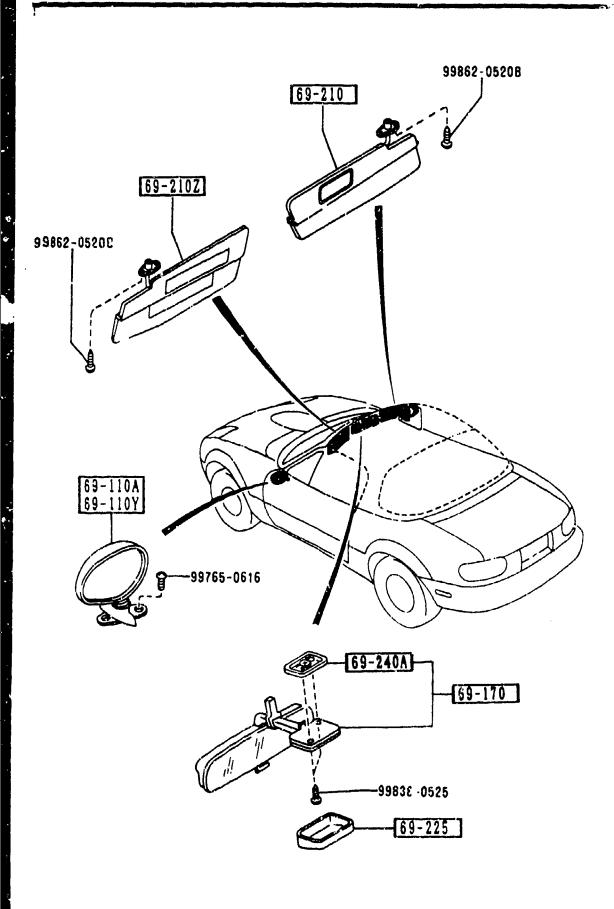
PART NO.	QTY	MOUEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-T
CONT'D 00		NAO BLACK			
68-819	•	COVER, BATTERY		1	
NA01-68-819B OU	1	NAO BLACK			
68-820A   NA01-68-8P9A	1	COVER, SPARE TIRE			
68-865     68-865	2	FASTENER			
00		NAO BLACK			
68-865C   3032-68-865A	4	FASTENER			
00		NAO BLACK			
68-865D   683-68-865A	6	FASTENER			
00		NAO BLACK			
68-866C   3235-68-865A	6	FASTENER, SEAL			
76-071	- 1	SILENCER, FLOOR 30CMX30CM			
		·			
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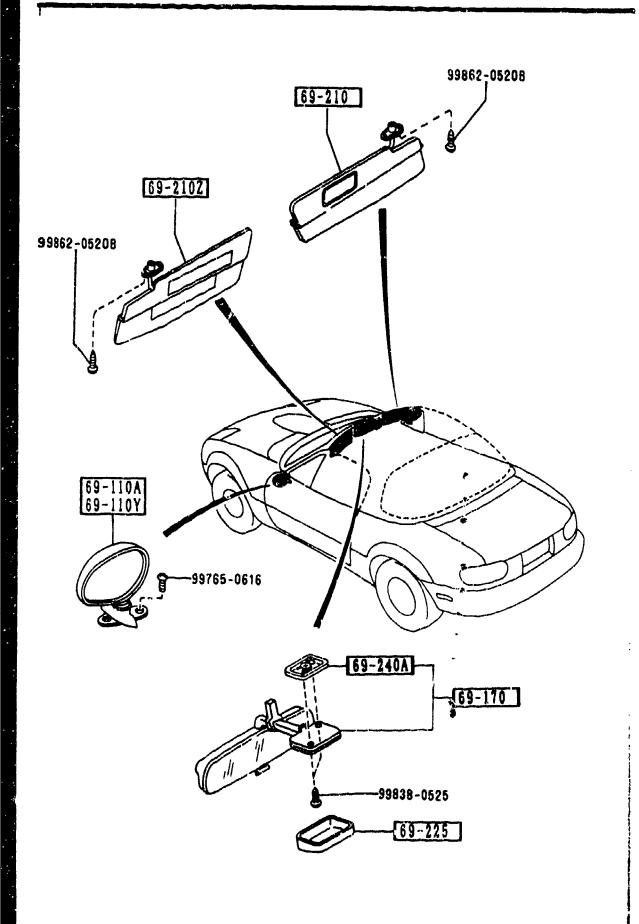
PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MUDEL/RESTRICTION	FROM-10
68-070   0810-68-070D	1	ł			-9421
NA01-68-070	1				9421-
68-660A   NA01-69-650	1	TOOL SET			
68-670   8173-69-670	1	BAG, TOOL			~9601
NA01~69~670	1				9601-
9421 NA35** 9601 NA35**	-101 -106	369 797			<del></del>



PART NO. QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	HODEL/RESTRICTION	FROM-TO
69-110A	MIRROR(R),DOOR			
NA05-59-120 1				
DU	DU MARINER BLUE			
HU	HU NEO GREEN			
su	SU CLASSIC RED			
UC	UC URYSTAL WHITE	:		
3L	3L SILVER STUDE METALLIC	:		
C9-110Y     NA05-69-180 1	MIRROR(L),DOOR			
טם	DU MARINER BLUE			
HU	HU NEO GREEN			
su	SU CLASSIC RED			
UC	UC CRYSTAL WHITE			
3L	3L SILVER STONE METALLIC	:		
69-170     69-170     NA01-69-220   1	MIRROR, INTERIOR			
00	NAO BLACK			
69-210     69-210     NA01-69-270A   1   AN(NA01-69-270B)	SUN VISOR(R)			-9601
02	NAO BLACK			
NA01-69-270B 1				9601-
02	NAO BLACK			
69-210Z     69-210Z     NA01-69-320B   1   AN(NA01-69-320C)	SUN VISOR(L)			-9601
02	NAO BLACK			
NA01-69-320C 1	(W/AIR BAG)			9601-
02	NAO BLACK			
NA07-69-320B 1	(W/O AIR BAG)			0701-
02	NAO BLACK			
9601 NA35##-106 0701 NA35##-200	3797 9041			

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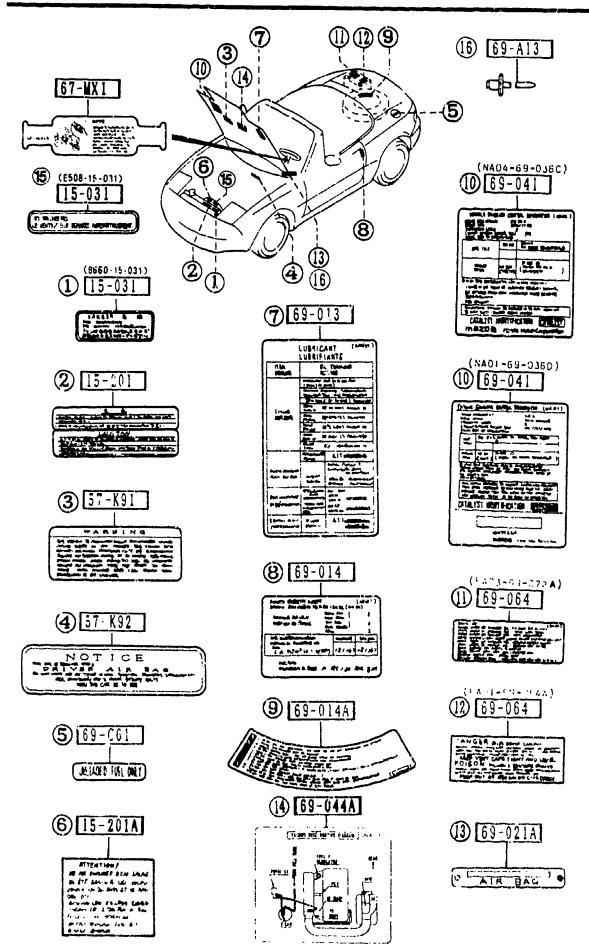
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PART NO	QTY	HODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
69-225		COVER, INTERIOR MIRRO			
GJ21-69-225	1				
00		NAO BLACK			
1 69-240A		BASE, INTERIOR MIRROR			<u> </u>
NA01-69-240	1	1			}
	Ì				
			•		ir ·
T. AUNA01-07	-				1902-02

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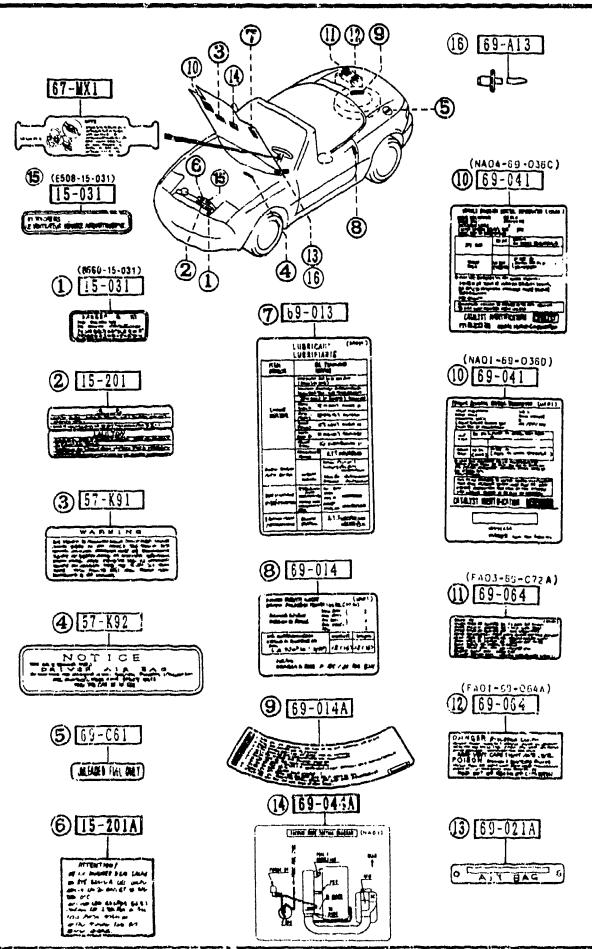
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PART NO.	QTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FPOM-TO
15-031		LABEL, CAUTION			
8660-15-031	1				
E508-15-031	1				
1 15-201		PLATE, CAUTION			
0488-15-201	1	PLATE; CAUTION			
++					
15-201A		LABEL, CAUTION-RADTOR			1
8791-15-201	1				
57-K91		LABEL'A', CAUTION-A/B			
NA01-57-K91	1	(W/AIR BAG)			-0701
57-K92		LABEL'B', CAUTION-A/B			
NA01-57-K92	1	(W/AIR BAG)			-0701
67-MX1		LABEL, CAUTION-AIR BA			:
+		G (W∕AIR BAG)			
1 69-A13		RIVET,BUND-MODEL PLA			
GJ21-69-A13	2	TE TE			10701-
+	_				0.01
69-0-1		LABEL, UNLEADED FUEL			
UB40-69-C61	1				
69-013		LABEL, OIL			
NA01-69-021A A (NA01-69-021C	) 1		9		-0201
NA01-69-D21C	1				0201-
1 69-014		LABEL, TIRE			
NA01-69-014	1				
<b>*******</b>		LANDI TRUBUNATURA			i
69-014A     ++   BF68-69-073	1	LABEL. TEMPORARY TIRE ENGLISH	ļ		
0,00 0,00	1	LINGE 4011			
69-021A	Ì	PLATE. CAUTION			
NA01-69-0(3)	1	(VIN PLATE-USA)			
1 69-041		LABEL, EMISSION			
0201 NA35** 070) NA35**	-137	180	etteni tillari lingin linur et gʻathirasis samari sisa and ressa i e cance d	و قام المحمد و المحمد و المحمد و المحمد و المحمد و المحمد و المحمد و المحمد و المحمد و المحمد و المحمد و المحمد	L·
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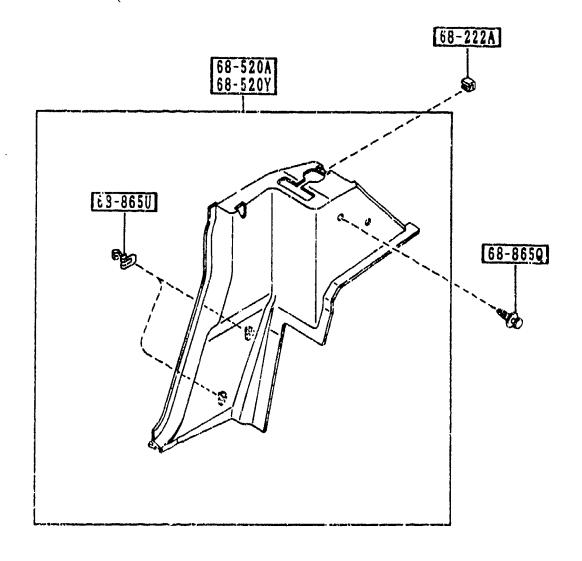
CAT. AUNA01-07



PART NO.	01Y	MODEL/RESTRICTION	HODEL/RESTRICTION	MODEL/RESTRICTION	FROM-13
CONT'D NA01-69-036A A (NA01-69-036)	; (3)				-9020
NA04-69-036 A (NA04-69-036)	1				-9020
NA01-69-036C	1	(CALIF)			9020-0701
NA04-69-036B	1	(FED)			9020-0701
NA01-69-036D	1	(CALIF)			0701-
NA04-69-036C	1	(FED)			0701-
69-044A		LABEL, VAC. DIAPHRAGM			
NA01-69-044	1	(CALIF)			-0701
69-064		LABEL, BATTERY			
FA01-69-064A	1	(W/BATTERY LABEL)			
FA03-69-C72 A (FA03-69-C72	) <sup>1</sup>				-9728
FA03-69-C744	1	(W/BATTERY LABEL)			9728-
	Ì			,	
					[ ]
9728 NA35##	-115	823			
9020 NA35HH 0701 NA35HH	-132 -132	570 041			

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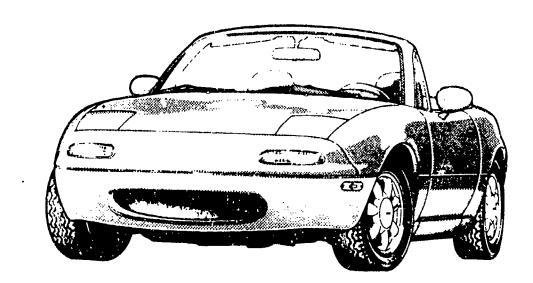


PART NO.	TY MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-T
68-222A	COVER, HOLE			
NA01-68-222A	2			
00	NAD NAI BLACK			
68-520A	TRIM(R), QUARTER			
NA01-68-52JA	1 BASE, (W/O DETACHABLE TOP)			i   
00	NAO NAI BLACK			
NA02-68-520A	1 OPTION, (W/DETACHABLE TOP)			
00	NAO NAL BLACK			
68-520Y	TRIM(L), QUARTER			<u> </u>
VA01-68-550A	1 BASE / DETACHABLE TOP)			
00	NAO NAI BLACK			
1A02-68-550A	1 OPTION, (W/DETACHABLE TOP)			
00	NAO NAI BLACK			
68-8650	FASTENER			
3J21-68-885A N(GJ21-68-885B)	2			~95
00	NAC BLACK			: 
3J21-68-885B	2			9526-
00	NAC BLACK			ļ
68-865U	CLIP, TRIM			
3J21~68~865	4			}
				1
				İ
9526 NA35##- 1	05742			<u>.</u>

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# Parts Catalog

# Mazda MX-5 MIATA U.S.A. ('90)



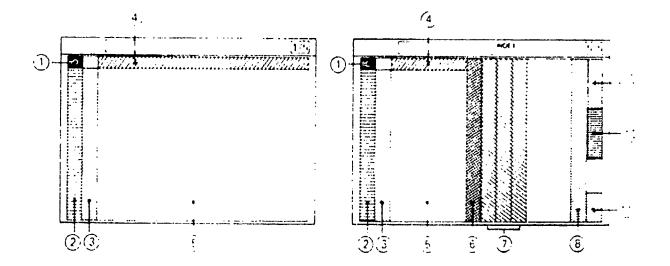
NA35\*\*-100001-200000

Feb. 22 (FINAL)
Catalog No. AU-NA01-07



### LAYOUT OF CONTENTS

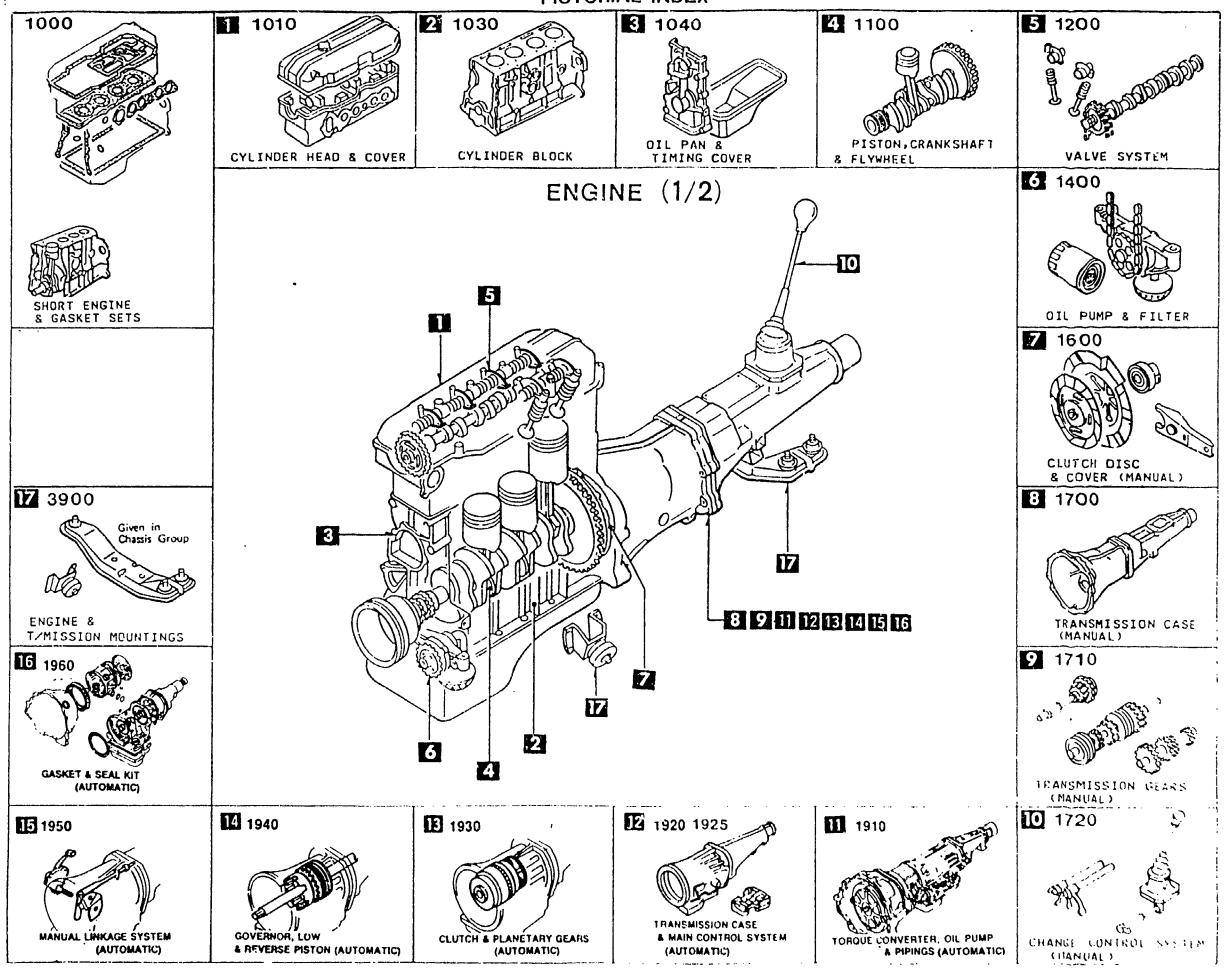
• The following is a typical example of the layout of contents on Mazda microfiche parts cata on

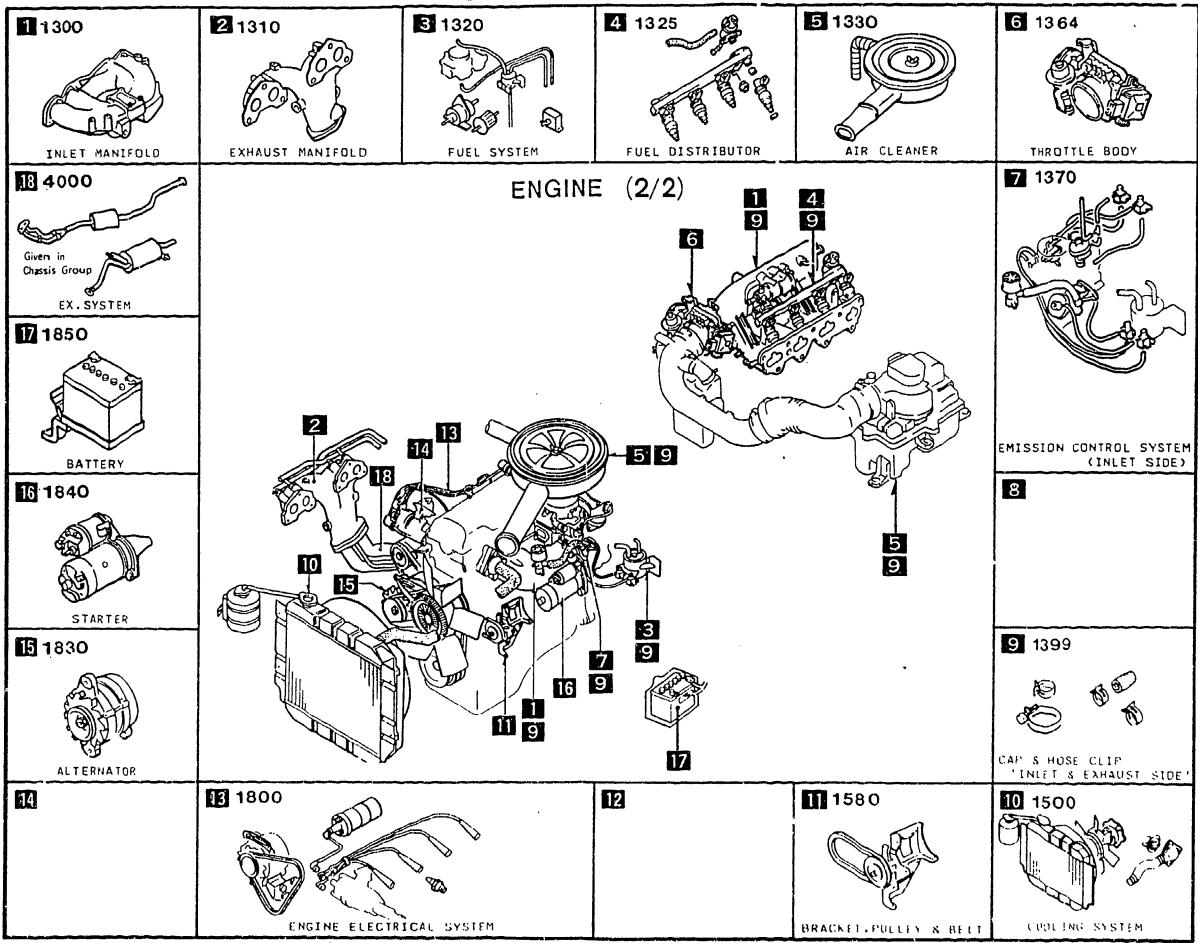


- (1 · Layout of contents
- 2 Pictorial Index
- 3 Master Section No. Index

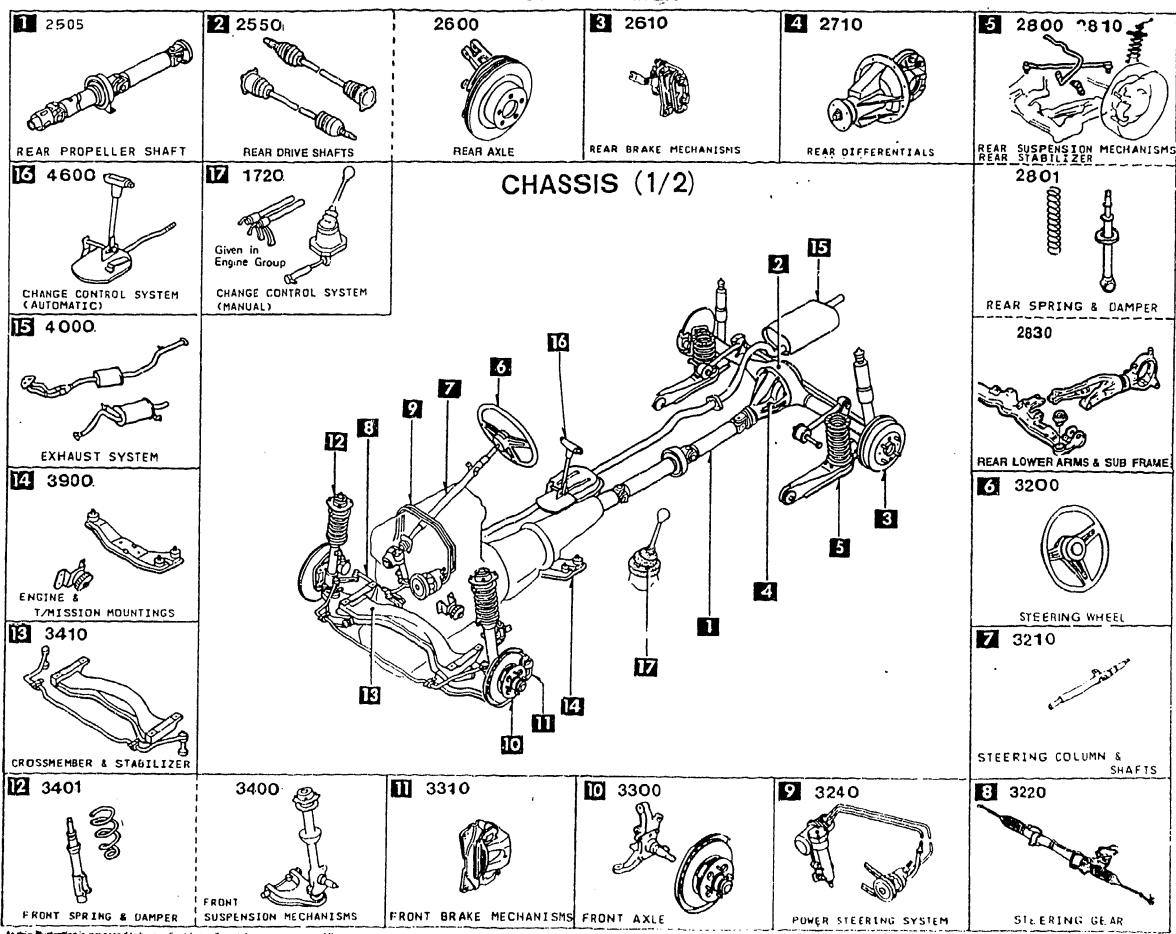
- (4) Section for Index for the Column
- (5) Illustration & Text
- 6 Part No Index

- Q Alphabetical Index
- (8) Model Ident-fication
- 9<sup>N</sup> Vehice Identification System

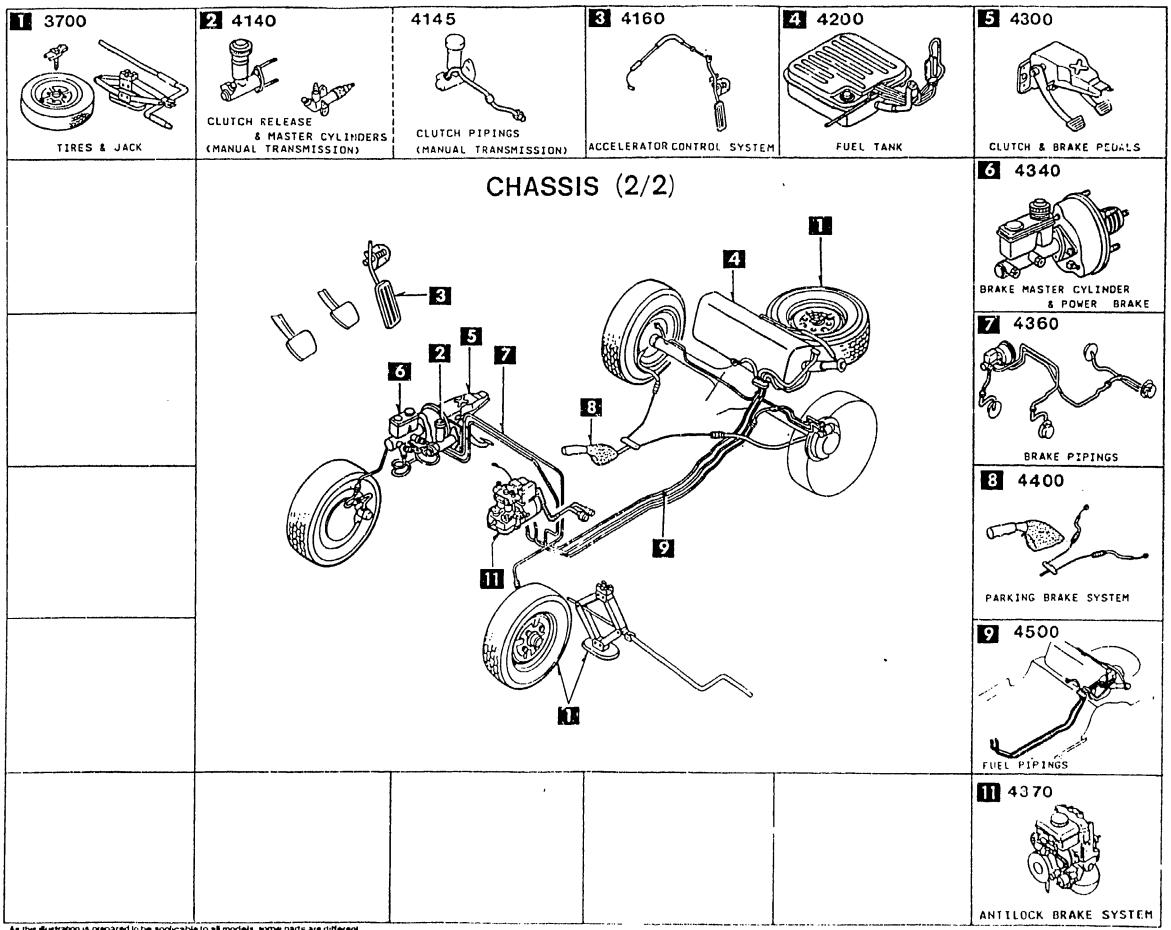




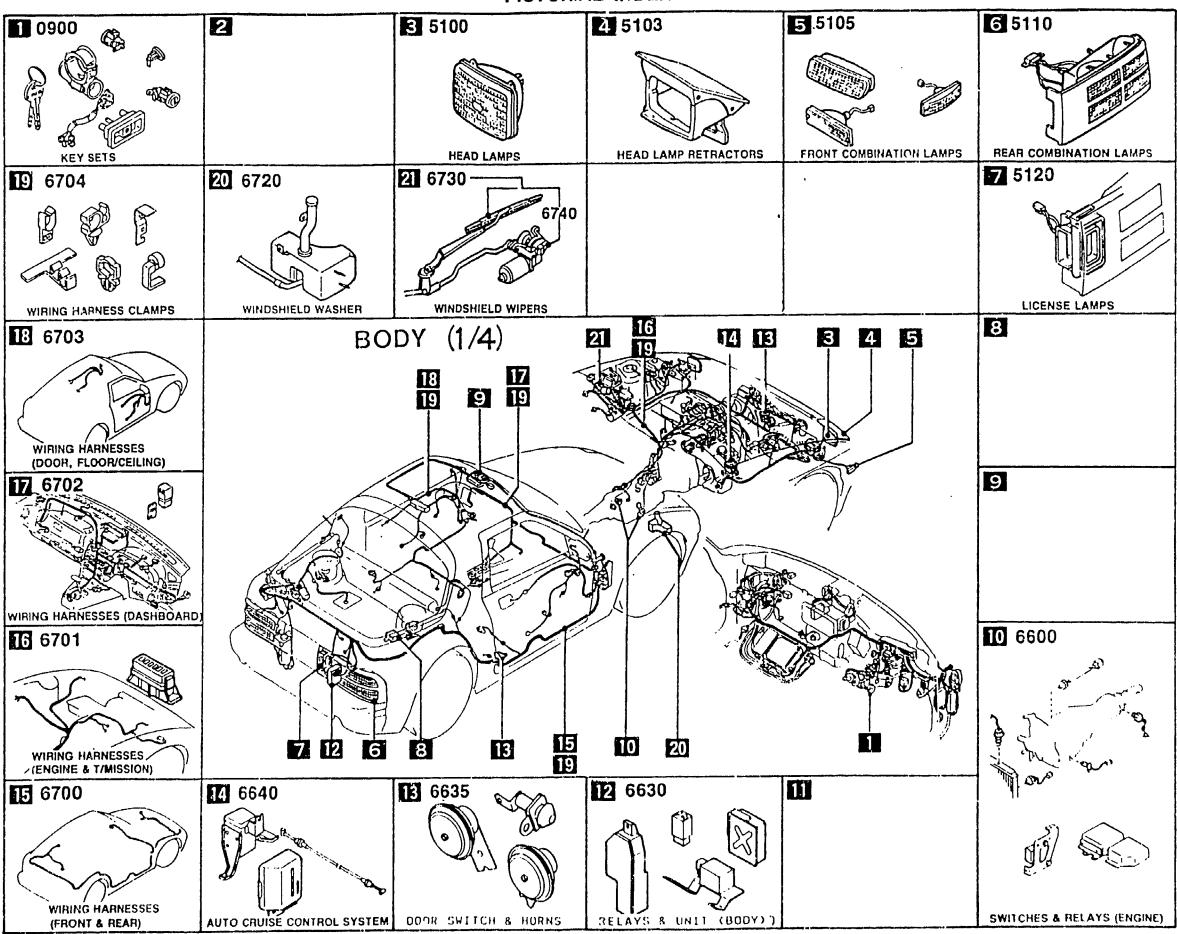
As this Silustration is prepared to be applicable to all models, some parts are diffrent in specifications from the parts listed in this parts Catalog.



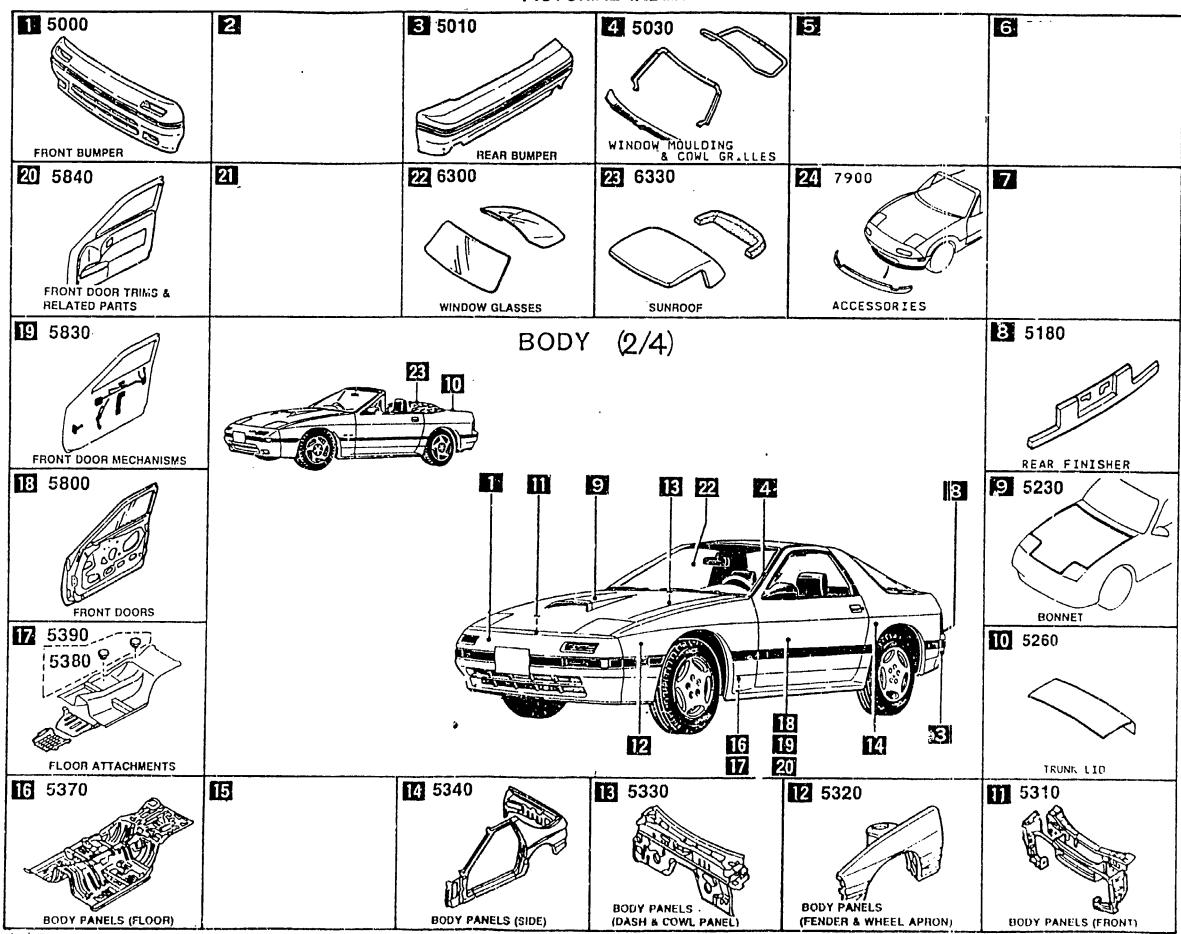
As this illustration is prepared to be applicable to all models, some parts are different in specifications from the loans listed in this parts Catalog.



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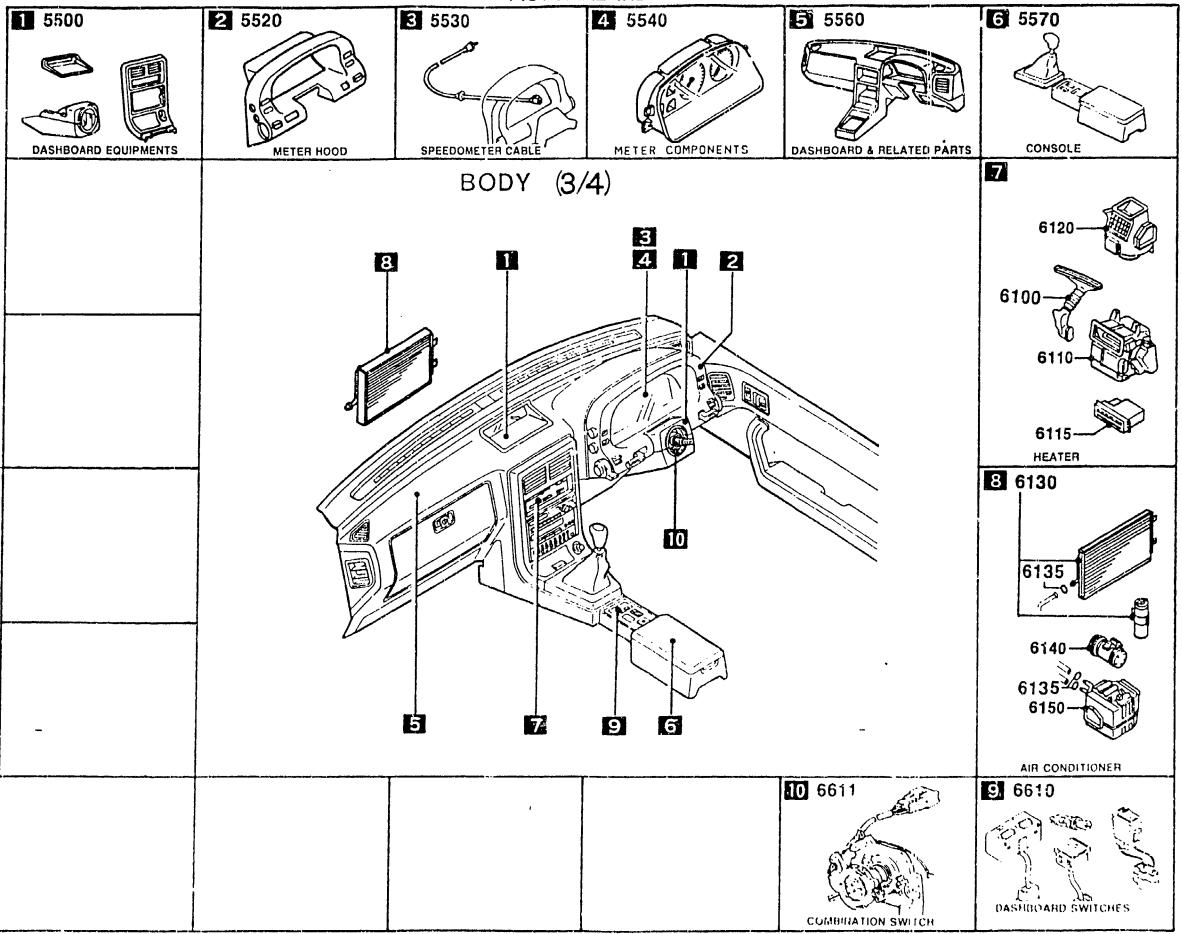


As this illustration is prepared to be applicable to all models, some parts are different in specifications from the parts listed in this parts Catalog.



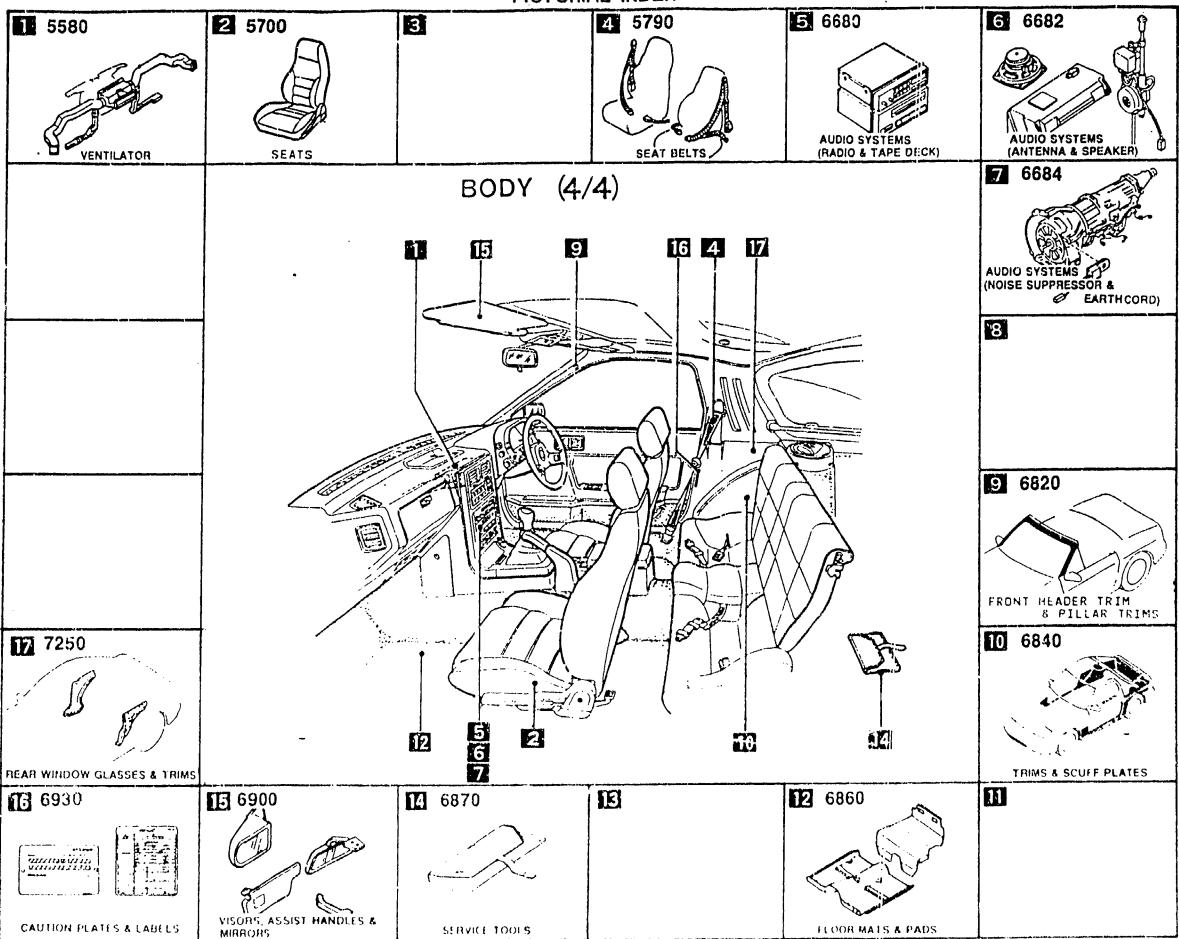
As this illustration is prepared to be applicable to all models, some parts are different

in specifications from the parts fisted in this parts Catalog



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in equilibrations from the parts listed in this parts, Catalog.



As the silvinitrate ends pregioned to be applied tile to all models, some parts are different in specifications from the parts, listed on this parts. Catalong

### SECTION NAME INDEX (ENGINE)

LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C03	1000	SHORT ENGINE & GASKET SETS			,			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
1-003	1010	CYLINDER HEAD & COVER						
1-G03	1030	CYLINDER BLOCK						
1-103	1040	OIL PAN & TIMING COVER						
1-K03	1100	PISTON, CRANKSHAFT & FLYWHEEL						
1-N03	1200	VALVE SYSTEM						
1-004	1300	INLET MANIFOLD						
1-E04	1310	EXHAUST MANIFOLD						;
1-F04	1320	FUEL SYSTEM		•				
1-H04	1325	FUEL DISTRIBUTOR						
1-104	1330	AIR CLEANER						
1-K04	1364	THROTYLE BODY						
1-L04	1370	EMISSION CONTROL SYSTEM (INLET SIDE)						
1-M04	1399	CAP & HOSE CLIP (INLET & EXHAU ST SIDE)						
1-104	1400	OIL PUMP & FILTER						
1-C05	1500	COULING SYSTEM	1					
1-G05	1580	BRACKET, PULLEY & BELT				ļ		
1-006	1600	CLUTCH DISC & COVER (MANUAL)						
1-006	1700	TRANSMISSION CASE (MANUAL)						
1-206	1710	TRANSMISSION GEARS(MANUAL)						
1-J06	1720	CHANGE CONTROL SYSTEM (MANUAL)						
1-M06	1800	ENGINE ELECTRICAL SYSTEM						
1-C07	1830	ALTERNATOR	ļ					
1-E07	1840	STARTER						
1-G07	1850	BATTERY						
1-H07	1910	TORQUE CONVERTER, OIL PUMP & PI PINGS (AUTOMATIC)						
1-K07	1920	TRANSMISSION CASE & MAIN CONTR OL SYSTEM (AUTOMATIC)						
1-E08	1925	CONTROL VALVE (AUTOMATIC)						
1-108	1930	CLUTCHES & PLANETARY GEARS (AU TOMATIC)						
1-009	1940	GOVERNOR, LOW & REVERSE PISTON (AUYOMATIC)						
1-G09	1950	MANUAL LINKAGE SYSTEM (AUTOMAT						
1-109	1960	GASKET & SEAL KIT (AUTOMATIC)						

### SECTION NAME INDEX (CHASSIS)

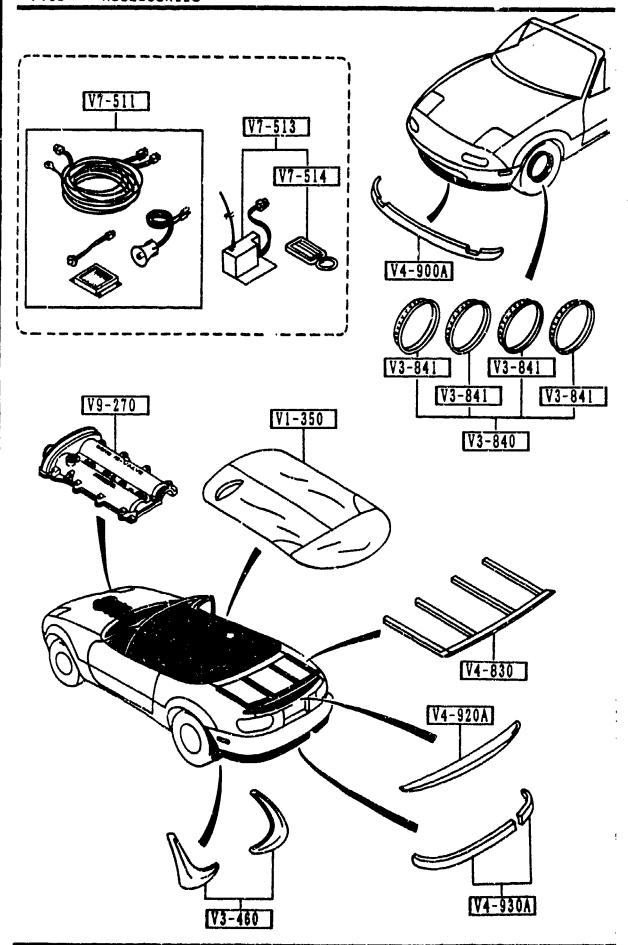
LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION NAME
1-C11	2505	REAR PROPELLER SHAFT	1-J16	4400	PARKING BRAKE SYSTEM	<b> </b>	<b>†</b>	
1-011	2550	REAR DRIVE SHAFT	1-L16	4500	FUEL PIPINGS			
1-E11	2600	REAR AXLE	2-C03	4600	CHANGE CONTROL SYSTEM			
1-F11	2610	REAR BRAKE MECHANISMS			(AT)			
1-H11	2710	REAR DIFFERENTIALS (NORMAL DIFF.)						
1-L11	2710 A	REAR DIFFERENTIALS (LIMITED SLIP DIFF.)						
1-012	2800	REAR SUSPENSION MECHANISMS						
1-E12	2801	REAR SPRING & DAMPER						
1-F12	2810	REAR STABILIZER						
1-G12	2830	REAR LOWER ARMS & SUB FRAME	:					
1-112	3200	STEERING WHEEL						
1-L12	3210	STEERING COLUMN & SHAFTS						
1-M12	3220	STEERING GEAR (W/O POWER STEERING)						
1-C13	3220 A	STEERING GEAR (W/ Power Steering)						
1-F13	3240	POWER STEERING SYSTEM						
1-H13	3300	FRONT AXLE						
1-113	3310	FRONT BRAKE MECHANISMS						
1-K13	3400	FRONT SUSPENSION MECHANISMS						
1-M13	3401	FRONT SPRING & DAMPER						
1-N13	3410	CROSSMEMBER & STABILIZER						
1-014	3700	TIRES & JACK						
1-C15	3900	ENGINE & T/MISSION MOUNTINGS						
1-015	4000	EXHAUST SYSTEM						
1-F15		CLUTCH RELEASE & MASTER CYLIND ERS (MANUAL TRANSMISSION)						
1-G15	4145	CLUTCH PIPINGS (MANUAL TRANSMI SSION)						
1-H15	4160	ACCELERATOR CONTROL SYSTEM					İ	
1-115	4200	FUEL TANK						
1-M15	4300	CLUTCH & BRAKE PEDALS (MANUAL TRANSMISSION)						
1-016	4300A	BRAKE PEDALS (AUTOMATIC TRANSMISSION)						
1-F16	4340	BRAKE MASTER CYLINDER & POWER BRAKE						
1-H16	4360	BRAKE PIPINGS						

SECTION NAME INDEX (BODY)

LO.NO	SEC.NO	SECTION NAME	LOIND	SEC.NO	SECTION NAME	LO.NO	SEC.NO	SECTION	NAME	
2-C05	0900	KEY SETS	2-E12			3-C03		ACCESSORIES		
2-E05	5000	FRONT BUMPER	2-F12		HEATER BLOWER COMPONENTS		1,55	A0000000000000000000000000000000000000		
2~H05		REAR BUMPER	2-G12	1	AIR CONDITIONER					
2-J05	5030	WINDOW MOULDING & COWL GRILLES	i		O RING SET, PIPING					
2-L05	5100	HEAD LAMPS	2-L12		COMPRESSOR COMPONENTS (AIR CON					
2-M05	5103	HEAD LAMP RETRACTORS			DITIONER)					
2-006	5105	FRONT COMBINATION LAMPS	2-N12		COOLING UNIT (AIR CONDITIONER)					
2-F06	5110	REAR COMBINATION LAMPS	2-013	6300	WINDOW GLASSES					
2-106	5120	LICENSE LAMPS	2-013	6330	SUNROOF					
2-J06	5180	REAR FINISHER			SWITCHES & RELAYS (ENGINE)					
2-L06	5230	BONNET	2-014	6610	DASHBOARD SWITCHES					
5-N06	5260	TRUNK LID	2-E14	6611	COMBINATION SWITCH					
2-D07	5310	BODY PANELS (FRONT)	2-F14	6630	RELAYS & UNIT (BODY)					
2-E07	5320	BODY PANELS (FENDER & WHEEL AP	2-G14	6635	DOOR SWITCH & HORNS					
2-407	C 7 1 D	RON)	2-H14		AUTO CRUISE CONTROL SYSTEM					
2-H07	5330	BODY PANELS (DASH & COWL PANEL)	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)					
2-107	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK					
S-C08	5370	BODY PANELS (FLOOR)	2-L14	6700	ER)					
2-F08	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-614	6700	WIRING HARNESSES(FRONT & REAR					
2-G08	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES(ENGINE & T/MI SSION)					
2-C09	5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES (DASHBOARD)					
2-E09	5520	METER HOOD	2-E15	6703	WIRING HARNESSES (DOOR , FLOOR / CE					
2-F09	5530	SPEEDOMETER CABLE	2-F15	4706	ILING)		İ			
2-G09	5540	METER COMPONENTS	2-115		WIRING HARNESS CLAMPS					
2-109	5560	DASHBOARD & RELATED PARTS	2-115 2-K15	ļ	WINDSHIELD WASHER WINDSHIELD WIPERS					
5-F03	5570	CONSOLE	2-M15		WIPER MOTOR COMPONENTS(FRONT)					
2-C10	5580	VENTILATOR			FRONT HEADER TRIM & PILLAR TRI	: i				
2-D10	5700	SEATS	112.25	3020	MS TEADER TRIP & PILLAR TRI					
2-K10	į		2C16	6840	TRIMS & SCUFF PLATES	į				
5-F10	5800	FRONT DOORS	2-E16	6860	FLOOR MATS & PADS		ļ			
5-C11			2-G16	6870	SERVICE TOOLS		ļ			
2-F11	5840	FRONT DOOR TRIMS & RELATED PAR	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR		1			
S-C15	6100	HEATER	2-J16	6930	CAUTION PLATES & LABELS					
5-015	6110	HEATER UNIT COMPONENTS	2-L16	7250	QUARTER WINDOW & TRIMS		į			

SECTION NAME INDEX (BODY)

2-E05 ! 2-H05 ! 2-J05 ! 2-L05 ! 2-M05 ! 5	0900 5000 5010 5030 5100	KEY SETS FRONT BUMPER REAR BUMPER	2-E12	SEC.NO 6115		LO.NO	SEC.NO	SECTION NAME
2-H05 5 2-J05 5 2-L05 5 2-M05 5	5010 5030		i		HEATER CONTROLS COMPONENTS	3-C03	7900	ACCESSORIES
2-J05 ! 2-L05 ! 2-M05 !	5030	REAR BUMPER	2-F12	6120	HEATER BLOWER COMPONENTS		1700	HOURSSURIES
2-L05 5			2-G12	6130	AIR CONDITIONER			
2-M05	5100	WINDOW MOULDING & COWL GRILLES	2-K12	6135	O RING SET, PIPING			2
1		HEAD LAMPS	2-L12	6140	COMPRESSOR COMPONENTS (AIR CON			<b>8</b>
2-D06 5	5103	HEAD LAMP RETRACTORS	_		DITIONER)			
	5105	FRONT COMBINATION LAMPS	2-N12	6150	COOLING UNIT (AIR CONDITIONER)			C. C.
2-F06	5110	REAR COMBINATION LAMPS	2-C13	6300	WINDOW GLASSES			
2-106	5120	LICENSE LAMPS	2-013	6330	SUNROOF			
2-J06 5	5180	REAR FINISHER	2-M13	6600	SWITCHES & RELAYS (EMGINE)			
2-106	5230	BONNET	2-014	6610	DASHBOARD SWITCHES			
2-1106 5	5260	TRUNK LID	2-E14	6611	COMBINATION SWITCH	ļ		
2-007   5	5310	BODY PANELS (FRONT)	2-F14	6630	RELAYS & UNIT (BODY)			
2-EC7 5	5320	BODY PANELS (FENDER & WHEEL AP	2-G14	i	DOOR SWITCH & MORHS			
3-110-2		RUN)	2-H14	6640	AUTO CRUISE CONTROL SYSTEM			
2-H07 5	5330	BODY PANELS (DASH & COWL PANEL)	2-114	6680	AUDIO SYSTEMS (RADIO & TAPE DE CK)			
2-107 5	5340	BODY PANELS (SIDE)	2-K14	6682	AUDIO SYSTEMS (ANTENNA & SPEAK	}		
2-C08 5	5370	BODY PANELS (FLOOR)	2 1 2 4	4700	ER)			
2-F08 5	5380	FLOOR ATTACHMENTS (HOLE COVERS	2-L14	6700	WIRING HARNESSES(FRONT & REAR			
2-G08 5	5390	FLOOR ATTACHMENTS	2-N14	6701	WIRING HARNESSES(ENGINE & T/MI			
2-C09 5	5500	DASHBOARD EQUIPMENTS	2-015	6702	WIRING HARNESSES (DASHBOARD)			
2-E09 5	5520	METER HOOD	2-E15	6703	WIRING HARNESSES COOR . FLOOR CE	į		
2-F09 5	5530	SPEEDOMETER CABLE	3-535		ILING)	ŀ		
2-G09 5	5540	METER CUMPUNENTS	2-F15		WIRING HARNESS CLAMPS			
2-109 5	5560	DASHBUAKU & KELATED PARTS	2 -115	Į.	WINDSHIELD WASHER	1		
2-L09 5	5570	COUPULE	2-K15	- 1	WINDSHIELD WIPERS			
2-C10 5	5580	VEN:ILATUR	_		WIPER MOTUR COMPONENTS(FRONT)			
2-010 5	5700	SEATS	2-N15	6820	FRONT HEADER TRIM & PILLAR TRI		1	
2-K10 5	5790	SEAT BELTS	2-C16	6840	TRIMS & SCUFF PLATES			
2-L10 5	800	FRONT DOORS	2-516	i	FLOOR MATS & PADS	Ì	ļ	
2-C11 5	830	FRONT DOOR MECHANISMS	2-G16	1	SERVICE TOOLS	İ		
2-F11 5	840	FRONT DOOR TRIMS & RELATED PAR	2-H16	6900	VISORS, ASSIST HANDLES & MIRROR			
2-012 6	100	HEATER	2-J16	6930	CAUTION PLATES & LABELS			
2-012 6	110	HEATER UNIT COMPONENTS	2-L16		QUARTER WINDOW & TRIMS		1	



PART NO.	OTY	MODEL/RESTRICTION	MODEL/RESTRICTION	MODEL/RESTRICTION	FROM-TO
V1-350		COVER, TONNEAU			
0000-88-5590	1				
V3-460		FLAP, REAR-MUD			
NA01-V3-460	1				
V3-840		TRIM RING SET			
0000-88-0014	1				
M5					
V3-841		TRIM RING			
0000-88-0014	4				
01					
V4-830		DECK RACK			
000 <b>0-88-5305</b> 8K	1	BLACK			
CM		CHROME			
V4-900A		AIRDAM SKIRT, FRONT			
0000-86-510A	1				
1 V4-920A I		REAR SPOILER			
0000-86-2290	1				
V4-930A		REAR UNDER SKIRT			
0000-86-710A	1				
V7-511		SECURITY SYSTEM			
0000-88-1905	1				
V7-513		REMOTE VPGRADE KIT			
0000-88-1905	1				
RC +					
V7-514		REMOTE TRANSMITTER			
0000-88-1905 RR	1				
MA					
	······································				<u> </u>

AUMAGI

CAT. AUNA01-07

	10.50		T	T	
PART NO.	OTY	MODEL/RESTRICTION  CHROME VALVE COVER	MODEL/RESTRICTION	MODEL/RESTRICTION	FOUM-TO
NA01-V9-270	1				
				,	
	ļ				
CAT. AUNA01-07					1992-02

## PART NUMBER INDEX

This index is listed in the following sequence.

# selon la sequence suivante.

NOMBRES DE PIECES

Cet index a été it ripose

INDEX DES

# DE PIEZA Eaty indice se ordena en la

siguiente secuencia.

NUMERO INDICE

# TEILENUMMERN

Die Teilenummern setzen sich wie folgt zusammen.

### GENERAL PARTS

EXAMPLE

- Model/Type Third, in the sequence of model/typs (1st-4th digits)
- **€** Group First, in the sequenece of group (5th & 6th digits)
- 9 Part Second, in the sequence of part (7th-9th digits)

### PIECES GENERALES

EXEMPLE

- Moděle/type Troisiemement, sequence du modele/type (ler & 4ème chiffres)
- @ Groupe Premierement, sequence du groupe (5ème et 6ème chiffres)
- Douxiemement, séquence de la pièce (7ème à 9ème chritres)

### PIEZAS GENERALES

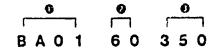
EJEMPLO

- Tipo de modelo Tercern, en la secuencia de tir., de modelo (entre tas cifras Iro-4to lugar)
- **⊙** Grupo Primero, en la secuencia de grupo (las cifras en Sto y 6to lugar)
- O PHZE Segundo, en la secuencia de pieza (entre las cifras 7mo-9no lugar)

### ALLGEMEINE TEILE

BEISPIEL

- Modell/Typ Angabe des Modelis bzw. Typs (1 bis 4, Ziffer)
- **⊘** Baugruppe Angabe der Baugruppe (5. und 6 2 ffer)
- Angabe des Teils (7. bis 9. Ziffer)



### STANDARD PARTS

Standard Parts are listed in numerical sequence after General Parts.

(Note: Those parts whi 'i do not have 0-Code are not listed in the index.)

### PIECES STANDARD

Les pièces standard sont énumérées selon une séquence numérique, sorès les pièces générales

(Remarque: Les pièces qui ne possèdent pas de code D ne sont pas mentionnées dans cet index.)

### PIEZAS NORMALES

Las piezas normales se numeran secuencialmente despues de las Piezas genorales.

(Note: Las piezas que no tienen un codigo Dino astan en Cecioni le

### STANDARDTEILE

Die Standersreile sind nech den attgemeinen Teilen mit fortlaufender Numerierung eufaefúrrt.

(Hinweis: Teile ohne D-Code sind mind nicht aufgeführt.)

						<del></del>
**************************************	* NA02-R1-810F 2-I * NA03-R1-810 2-I * NA04-R1-810 2-I * NA04-R1-82X 2-I 13 NA03-R1-82X 2-I 13 NA04-R1-82X 2-I 13 NA01-R1-832A 2-I 13 NA01-R1-881B 2-K 13 NA01-R1-892A 2-J 13 NA01-R1-891B 2-K 13 NA01-R1-892A 2-J 13 NA01-R1-892A 2-J 13 NA01-R1-931A 2-J 13 NA01-R1-935A 2-J 13 NA01-R1-935A 2-J 13 NA01-R1-935A 2-J	B630-10-138A	B6Y3-11 SCO 1-L3 B6Y4-11-SCO 1-L3 B6Y4-11-SCGA 1-L3 B6Y3-11-SDX 1-L3 B6Y4-11-SDX 1-L3 B6Y4-11-SDX 1-L3 B6Y4-11-SDX 1-L3 B6Y4-11-SD0 1-L3 B6Y4-11-SD0 1-L3 B6Y1-11-SEO 1-L3 B6Y1-11-SFX 1-L3 B6Y1-11-SFY 1-L3 B6Y1-11-SFY 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SFO 1-L3 B6Y1-11-SHX 1-L3 B6Y1-11-SHX 1-L3 B6Y1-11-SHX 1-L3 B6Y1-11-SHX 1-M3 B6Y1-11-SKX 1-M3	B6S7-13-ZC7 1-L4 B61P-13-ZE0 1-F4 B61P-13-ZE1 1-F4 FEH2-13-ZE5 1-F4 B61P-13-ZE5 1-F4 B61P-13-ZE5 1-F4 B61P-13-Z01 1-J4 B61P-13-100B 1-D4 B61P-13-100B 1-D4 B61P-13-100B 1-D4 B61P-13-100B 1-D4 B551-13-104 1-E3 F667-13-104 1-E3 F667-13-104 1-E3 F667-13-104 1-E3 F667-13-104 1-E3 F667-13-104 1-E3 F667-13-104 1-D4 B61P-13-111 1-D4 B61P-13-121 1-D4 B61P-13-140 1-D4 FE4J-13-146 1-D3 B61P-13-150 1-H4	B61P-13-681B 1-L4 B61P-13-682A 1-L4 B61P-13-685A 1-L4 B61P-13-691A 1-L4 B61P-13-735 1-M4 B630-13-736 1-M4 F249-13-736 1-M4 B61P-13-74XA 1-E3 B61P-13-74VA 1-F3 B61P-13-742A 1-F3 B61P-13-742A 1-F3 B61P-13-745 1-F3 B61P-13-745 1-F4 B61P-13-970 1-F4 B61P-13-970 1-F4 B61P-13-971 1-F4 B61P-13-972A 1-G4 B61P-13-973A 1-G4	E501-15-202 1-J4 N326-15-203 1-E5 D316-15-205 1-D5 B61P-15-210A 1-E5 B61P-15-240 2-D7 B61P-15-261A 1-C5 E301-15-287 1-E5 B61P-15-290A 1-E5 B61P-15-290B 1-E5 B61P-15-350A 1-E5 B61P-15-350B 1-E5 B61P-15-350C 1-E5 B61P-15-350C 1-E5 B61P-15-355A 1-E5 B61P-15-355A 1-E5 F201-15-388A 1-E5 JF02-15-538 JF55
NA01-R1-271 2-E NA01-R1-272 2-E NA01-R1-281 2-F NA01-R1-291 2-E NA01-R1-310A 2-I NA01-R1-310A 2-F NA01-R1-310B 2-F NA02-R1-310A 2-F NA01-R1-320A 2-I NA01-R1-320A 2-I NA01-R1-361A 2-I NA01-R1-361A 2-J NA01-R1-361A 2-J NA01-R1-361B 2-J NA01-R1-361B 2-J NA01-R1-361B 2-J NA01-R1-361B 2-J NA01-R1-361B 2-J NA02-R1-361B 2-J NA01-R1-371A 2-J NA01-R1-371A 2-J NA01-R1-371B 2-J NA01-R1-371B 2-J NA01-R1-371B 2-J NA01-R1-371B 2-J NA01-R1-371B 2-J	13	3 B366-10-305 1-G3 3 B630-10-305 1-G3 3 B630-10-306 1-G3 3 B654-10-308 1-I3 3 B660-10-319 1-G3 3 B660-10-327 1-G3 3 B660-10-328 1-G3 3 B630-10-352 1-G3 3 B690-10-353 1-H7 3 B6P-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3 B6Y0-10-407A 1-I3	B6Y0-11-SKY 1-M3 B6Y0-11-SKY 1-M3 B6Y0-11-SK0 1-M3 B6Y1-11-SK0 1-M3 0221-11-205 1-K3 B6S7-11-210D 1-K3 B6S7-11-215A 1-K3 B616-11-300B 1-K3 B616-11-300B 1-L3 B366-11-310 1-J3 B366-11-310 1-J3 B366-11-310 1-J3 B366-11-312 1-J3 B630-11-317 1-K3 B630-11-317 1-K3 B630-11-317A 1-K3 B630-11-321A 1-K3 B641-11-404A 1-K3 B641-11-404A 1-K3 B641-11-404A 1-K3 B641-11-404A 1-K3 B641-11-404A 1-K3 B641-11-404A 1-K3 B641-11-404A 1-K3 B641-11-404A 1-K3	8574-13-157	**************	1-M4 R230-15-538 1-H3 B61P-15-547 1-E5 SE01-15-612 1-H3 B61P-15-810A 1-G5 B61P-15-907 1-G5 B61P-15-907 1-G5 B63H-15-909 1-G5 B63H-15-930 1-G5 B63H-15-930 1-G5 BP01-15-933 1-G5 BP01-15-934 1-G5 BP01-15-940 1-G5 BP01-15-940 1-G5 BP01-15-940 1-G5 E564-15-940 1-G5 E564-15-940 1-G5 E564-15-940 1-G5 FE38-15-966 1-M6
NA01-R1-38XB 2-F NA01-R1-381A 2-F NA01-R1-381B 2-F NA01-R1-382A 2-F NA01-R1-391A 2-F NA01-R1-391B 2-F NA01-R1-411B 2-G NA01-R1-411B 2-G NA01-R1-412B 2-G NA01-R1-421B 2-G NA01-R1-421B 2-G NA01-R1-461 2-F NA01-R1-461 2-F NA01-R1-461 2-F NA01-R1-462 2-F NA01-R1-463 NA01-R1-463 NA01-R1-463 NA01-R1-463 NA01-R1-463 2-G NA01-R1-463 2-G NA01-R1-463 2-G NA01-R1-463 2-G NA01-R1-463 2-G NA01-R1-463 2-G NA01-R1-463 2-G NA01-R1-463 2-G NA01-R1-463 2-G	13	# B6S7-10-465 1-I3 # B660-10-501D 1-I3 # B660-10-502B 1-I3 # B61P-10-510 1-I3 # B61P-10-513 1-I3 # B61P-10-514 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-521A 1-J3 # B660-10-522 1-J3 # B660-10-540B 1-J3 # B660-10-561 1-E3 # B660-10-565 1-E3 # B660-10-565 1-E3 # B660-10-565 1-I-I-I-I-I-I-I-I-I-I-I-I-I-I-I-I-I-I-I	B631-11-414 1-K3 B61P-11-500 1-K3 B367-11-502 1-L3 F201-11-511 1-L3  ***********************************	8574-13-253 1-H4 JE06-13-257 1-H4 B61P-13-280 1-H4 JE16-13-298 1-F4 F201-13-302A 1-I4 B61P-13-311B 1-I4 B61P-13-320 1-I4 SLA1-13-320 1-I4 SLA1-13-320 1-I4 SLA1-13-320 1-I4 SLA1-13-330E 1-I4 B61P-13-331B 1-I4 B61P-13-331B 1-I4 B61P-13-331B 1-I4 E301-13-348 1-H6 V115-13-348 1-J4 S501-13-348 1-J4 B61P-13-350B 1-F4 B61P-13-363A 1-M6 FE51-13-363 1-J4	N304-14-726 2-G15  **********************  * 15-000	######################################
NA01-R1-560C 2-G NA01-R1-581B 2-G NA01-R1-582A 2-G NA01-R1-7592A 2-G NA01-R1-71B 2-H NA01-R1-721A 2-H NA01-R1-721B 2-H NA01-R1-731B 2-H NA01-R1-731B 2-H NA01-R1-741A 2-H NA01-R1-741A 2-H NA01-R1-742A 2-H NA01-R1-742A 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-750C 2-H NA01-R1-766A 2-H NA01-R1-766A 2-H	13	B64J~10-903 1-J3  ***********************************	######################################	N326-13-363B 1-F4 0222-13-363 2-M13 B61P-13-366 1-E3 B61P-13-380B 1-E4 B61P-13-428 1-F4 B61P-13-447 1-M4 2-G15 B61P-13-450 1-E4 B61P-13-450 1-E4 2306-13-456 1-E4 B695-13-460 1-E4 B695-13-460 1-E4 B695-13-460 1-E4 B695-13-465 1-E4 B61P-13-665 1-E4 B61P-13-665 1-K4 B64J-13-665 1-K4 B64J-13-665 1-D4	B61P-15-160 1-C5 B621-15-165 1-C5 B61P-15-170A 1-C5 B61P-15-170B 1-C5 B61P-15-171 1-C5 B61P-15-172 1-D5 B61P-15-173 1-D5 B61P-15-176A 1-D5 B61P-15-176B 1-D5 B61P-15-179A 1-D5 B61P-15-179A 1-D5 B61P-15-182 1-D5 B61P-15-184 1-D5 B61P-15-185 1-D5 B61P-15-186 1-D5 B61P-15-186 1-D5 B61P-15-180 1-D5 B61P-15-190 1-D5 B61P-15-200 1-D5 B64J-15-200 1-D5 B64J-15-201 2-J16	M526-17-100 1-D6 H501-17-103 1-C6 0810-17-121 1-D6 1-H11 1-L11 8086-17-140A 1-H6 M516-17-201 1-E6 M503-17-204 1-E6 M501-17-205 1-E6 M501-17-210 1-E6 M505-17-221B 1-E6 0317-17-225 1-E6 M513-17-221B 1-E6 M502-17-240B 1-E6 M502-17-240C 1-E6 M502-17-240C 1-E6 M501-17-241B 1-E6 F401-17-242A 1-E6 F401-17-243A 1-E6 F401-17-243A 1-E6 M515-17-251 1-F6 M505-17-260A 1-F6

M502-17-261 1-F6 M503-17-262 1-F6 F401-17-264A 1-F6 G401-17-265A 1-F6 M502-17-265A 1-F6 M502-17-265A 1-F6 M504-17-265A 1-F6 M504-17-271 1-F6 M516-17-271 1-F6 8540-17-275A 1-G6 0259-17-276 1-F6 0259-17-277 1-F6 0259-17-278 1-G6 0259-17-278 1-G6 0259-17-281 1-G6 M509-17-281A 1-G6 4069-17-283A 1-F6 4069-17-284E 1-F6	M502-17-476A 1-K6 M514-17-480 1-K6 M514-17-480A 1-K6 M505-17-482 1-L6 M504-17-490A 1-L6 0183-17-491 1-L6 M501-17-501 1-L6 M505-17-520 00 1-L6 M509-17-540 1-D6 M509-17-540 1-D6 M501-17 1-L6 M501-17 1-L6 M505-1, 1-L6 M505-1, 1-L6 M505-1, 1-L6 M505-1, 1-L6 M505-1, 1-L6 M505-1, 1-L6 M5084-17-621 1-L6 M5084-17-621 1-L6 M5084-17-633B 1-L6 0884-17-633B 1-L6	B61P-18-10XB 1-M6 B61P-18-10XC 1-M6 BP01-18-110 1-M6 BP02-18-110 1-M6 BP03-18-110 1-M6 BP04-18-110 1-M6 BP05-18-110 1-M6 BP06-18-110 1-M6 B61P-18-140B 1-M6 B61P-18-140B 1-M6 B61P-18-160B 1-M6 B61P-18-170B 1-M6 B61P-18-180B 1-M6 B61P-18-250B 2-M13 B61P-18-250B 2-M13 B61P-18-251 2-C14 B61R-18-266	BU01-19-256 1-1 BU01-19-257 1-1 0338-19-258 1-1 BV11-19-3C4 1-1 BU55-19-3C8 1-1 BU55-19-3C8 1-1 BU55-19-3F3 1-1 BU55-19-3F3 1-1 0338-19-336 1-1 0338-19-337 1-1 0338-19-338 1-1 0338-19-361 1-1 BU12-19-363 1-1 BU12-19-368 1-1 BU06-19-381 1-1 BV03-19-381 1-1	87 8U03-19-534 17 0338-19-534 17 8V01-19-540A 17 8V04-19-565 17 8V04-19-565 18 8V04-19-566 19 8V01-19-570A 19 8V01-19-581 19 0338-19-590 10 0338-19-591 10 0338-19-593 17 0338-19-595 18 0338-19-596 19 0338-19-596 19 0338-19-596 10 0338-19-596 10 0338-19-596 11 0338-19-596 12 0338-19-596 13 0338-19-596	1-L8 1-L8 1-L8 1-L8 1-L8 1-L8 1-L8 1-L8	0338-19-768	B61P-20-361 1-G4 B61P-20-371 1-L4 B61F-20-490 1-F4 B61P-20-600 1-D15 B61P-20-660 1-K4  ***********************************
M502-17-295C 1-E6  M502-17-297A 1-G6 M502-17-298A 1-G6 M502-17-299A 1-H6 M502-17-309 1-G6 M512-17-302 1-G6 M512-17-302A 1-G6 M512-17-304B 1-G6 M501-17-304B 1-G6 M504-17-305B 1-G6 R502-17-305B 1-H6 M501-17-308 1-H6 M501-17-308 1-H6 M501-17-310 1-H6 M509-17-310 1-H6 M509-17-310 1-H6 M509-17-310 1-H6 M501-17-313 1-H6 M501-17-315 1-H6 M504-17-316 1-H6 M504-17-316 1-H6	0884-17-634B 1-16  0884-17-635B 1-16  M506-17-640 2-M13 1391-17-640A 2-M13 8118-17-640B 2-M13 M501-17-651 1-16 M501-17-652 1-16 M501-17-653 1-16 M501-17-654 1-16 M501-17-655 1-16 W501-17-724 1-16 W501-17-724 1-16 W501-17-732A 1-16 W501-17-732A 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16 W501-17-732B 1-16	B61R-18-266A 1-N6 B61P-18-300D 1-C7 B64J-18-300A 1-C7 B61P-18-360 1-N6 B61P-18-360A 1-N6 F201-18-363 1-G5 1-N6 B657-18-381A 1-N6 B657-18-381B 1-N6 B61R-18-400 1-E7 B61R-18-400 1-E7 B61R-18-400A 1-E7 B61R-18-410 1-N6 B660-18-411C 1-N6 B660-18-411C 1-N6 B61P-18-501 2-M13 B541-18-51X 2-M13 B61R-18-520A 1-G7 B61P-18-526 1-G7 B61P-18-526 1-G7 JE16-18-741 2-M13 B64J-18-780A 2-M13	BU10-19-384 1-1 BU55-19-384 1-1 FT03-19-385 1-1 0842-19-385 1-1 0338-19-386A 1-1 0338-19-389 BU06-19-391 1-1 1758-19-392A 1-1 0842-19-394 1-1 0338-19-395 1-1 0338-19-397 1-1 0338-19-397 1-1 0338-19-397 1-1 0338-19-397 1-1 0338-19-444  1-1 0338-19-444  1-1 0338-19-444  1-1 0338-19-444  1-1	0338-19-604 0338-19-606 0338-19-607 0338-19-607 0338-19-609 0338-19-610 1758-19-613 1758-19-614 1758-19-615 1758-19-616 1758-19-617 1758-19-618 0338-19-619 0338-19-621 FT01-19-622 0338-19-623 0338-19-623 0338-19-624 0338-19-624	1	0338-19-797	BU01-21-273 1-C8  BU01-21-274 1-C8  BU01-21-277 1-C8  BU01-21-292A 2-C14  BU55-21-293 1-C8  BU01-21-295 2-C14  BU55-21-3A5 2-C14  BU55-21-3A5 1-C8  BU55-21-3A5 1-C8  BU55-21-3B1 1-C8  BU55-21-320 1-C8  BU01-21-322 1-C8  BU01-21-322 1-C8  BU01-21-330 1-C8  BU01-21-390 1-D8  BU01-21-390 1-D8  BU01-21-390 1-D8  BU01-21-5A0 1-N8  BV01-21-5A2 1-N8  BV01-21-5A3 1-N8  BV01-21-5A4 1-N8  BV01-21-5A5 1-N8  BV01-21-5A5 1-N8  BV01-21-5A5 1-N8  BV01-21-5A5 1-N8  BV01-21-5A5 1-N8
4077-17-316 1-H6  8086-17-326 1-D6  0305-17-327 1-H6  0305-17-328 1-H6  M507-17-335 1-D6  M507-17-335 1-D6  M503-17-341 1-H9  0114-17-361 1-J6  M503-17-402 1-J6  M503-17-404B 1-J6  M503-17-411 1-J6  M503-17-411 1-J6  M503-17-411 1-J6  M507-17-412 1-J6  M507-17-415 1-J6  M504-17-416 1-J6  M504-17-416 1-J6	F885-18-T41 2-M13 B366-18-W10 1-D7 RF71-18-W20 1-D7 B61P-18-W25 1-C7 RF71-18-W26 1-D7 F811-18-W27 1-C7 B366-18-W35 1-D7 B366-18-W35 1-D7 N336-18-W35 1-D7 N336-18-W35 1-C7 B61P-18-W50 1-C7 B6608-18-W45 1-C7 B61P-18-W50 1-C7 B64J-18-W50 1-C7 B64P-18-W50 1-C7 B61P-18-W50 1-C7 B61P-18-W50 1-C7 B61P-18-W50 1-C7 B61P-18-W50 1-C7 B61P-18-W50 1-C7	B64J-18-780B 2-M13 B6S8-18-811 2-N13 N236-18-821 2-N13 N350-18-840 2-N13 B574-18-840 2-N13 B61R-18-861A 2-N13 B61R-18-881A 2-N13 B64J-18-881 2-N13 B64J-18-881 2-N13 B61P-18-882 2-N13 B61P-18-882 2-N13 B61P-18-885 2-N13 B61P-18-885 2-N13 B61P-18-889A 2-N13 B61P-18-889A 2-N13 B61P-18-889A 1-K4 B630-18-911 1-K4	BU17-19-450 1-6 BU55-19-460 1-8 BU55-19-470 1-9 0338-19-475 1-9 0338-19-476 1-9 0338-19-480 1-9 0338-19-480 1-9 0338-19-487 1-9 0338-19-488 1-9 0338-19-488 1-9 0338-19-498 1-9 BU55-19-499 1-9 BU55-19-499 1-9 BU55-19-500 1-9 BU17-19-500 1-9 BU17-19-500 1-9 BU17-19-500 1-9 BU17-19-500 1-9 BU17-19-500 1-9 BU17-19-500 1-9 BU55-19-503 1-9	0338-19-633 0338-19-634 0338-19-635 038-19-636 038-19-636 038-19-641 0338-19-642 0338-19-642 0338-19-645 0338-19-645 0338-19-646 0338-19-646 0338-19-646 0338-19-646 0338-19-666 0338-19-666 0338-19-661 0338-19-661	1-M8 1-M8 1-M8 1-M8 1-M8 1-M8 1-M8 1-M8	BU55-19-825 1-M7 0338-19-825 1-M7 0338-19-826 1-M7 0338-19-827 1-N7 0338-19-828 1-N7 0338-19-831 1-N7 0338-19-832 1-N7 0338-19-835 1-N7 0338-19-836 1-N7 0338-19-836 1-N7 0338-19-837 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7 0338-19-838 1-N7	BU55-21-510 1-N8 BU05-21-528 1-K8 BV01-21-533 1-C9 BV01-21-534 1-N8 BV01-21-535 1-N8 BV01-21-536 1-N8 BU03-21-540 1-N8 BU03-21-560 1-N8 BU03-21-560 1-N8 BU03-21-567 1-N8 BU01-21-631 1-C9 BU01-21-633 1-C9 BU01-21-634 1-C9 BU01-21-635 1-C9 BU01-21-636 1-C9 BU01-21-636 1-J7 BU01-21-666 1-J7 BU01-21-666 1-J7 BU01-21-666 1-J7 BU01-21-666 1-J7 BU01-21-666 1-J7 BU01-21-666 1-J7
M503-17-421	N337-18-W80 1-D7 B61R-18-X00 1-E7 F210-18-X01 1-F7 E356-18-X05 1-E7 E356-18-X30 1-E7 B630-18-X45 1-E7 B630-18-X60 1-E7 B61R-18-X60 1-E7 B61R-18-X65 1-E7 B61R-18-X65 1-E7 B630-18-X66 1-F7 B61R-18-X65 1-E7 B630-18-X66 1-F7 B61R-18-X70 1-F7 E356-18-X80 1-E7 E356-18-X80 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7 E356-18-X90 1-E7	**************************************	1758-19-504 3959-19-504 BV02-19-505 1758-19-505 1-1 3959-19-505 BV02-19-506 BV02-19-507 BV02-19-507 BV02-19-507 BV02-19-508 BV02-19-508 BV01-19-509 0338-19-509 1-1 BV01-19-510 1758-19-511 BV04-19-531 BV04-19-533 BV04-19-533	88 BU55-19-666 88 0338-19-667 88 BU55-19-676 88 BU55-19-676 88 BUY2-19-7A0 88 0338-19-701A 88 0338-19-702A 88 0338-19-706 88 BU55-19-710 88 0338-19-736 88 BU55-19-731 88 BU17-19-732 88 0338-19-733C 89 0338-19-737 89 0338-19-737	1-F9 1-F9 1-F9 1-F9 1-G9 1-G9 1-G9 1-G9 1-G9 1-H9 1-H9 1-M7 1-M7 1-E8	BU55-19-9208 1-I7 BU55-19-920C 1-I7 BU55-19-9308 1-I7 BU55-19-930C 1-I7 BU55-19-933A 1-I7 BU55-19-934A 1-I7 BU55-19-934A 1-I7 BU55-19-980 1-J7 BU55-19-980 1-J7 BU55-19-980 1-J7 BU55-19-980 1-N7 BU55-19-985 1-J7 BU55-19-985 1-J7 BV01-19-986 1-N7	BU01-21-677 1-J7 BU55-21-678 1-I7 BU01-21-679 1-C9 BU35-21-681A 1-G8 BU35-21-682 1-G8 BU03-21-683A 1-G8 BU03-21-684 1-H8 BU17-21-815 1-H8 BV01-21-821A 1-C9 ************************************

M090-22-550 1-D11	T025-27-100J	1-111	0259-27-408	1-J11	NA01-32-AZZA	1-112	NA02-32-609	1-F13	NA01-34-170	1-H12		
******	T020-27-110B	1-H11 1-L11	T020-27-409A	1-N11 1-C12	G238-32-C24 NA01-32-019	1-F13 1-J12	N002-32-609 N002-32-610	1-F13 1-F13	NA01-34-200	1-N13 1-K13	*************	**************************************
* 24-000 *	T002-27-120A	1-H11 1-L11	0259-27-409	1-K11 1-J11	8461-32-020 8461-32-030	1-J12 1-J12	N002-32-613 B456-32-615	1-F13 1-F13	NA01-34-200A 8871-34-222	1-K13 1C15	× 41-000	*
H X	T002-27-120B	1-H11		1-N11	B461-32-040	1-J12	B456-32-616	1-F13	1	1-H12	***********	KXXXX
*******	3919-27-130	1-L11 1-H11	0259-27-411	1-J11 1-N11	NA01-32-049 NA01-32-090A	1-J12 1-L12	NA02-32-680 NA02-32-682	1-G13 1-G13	NA01-34-300A NA01-34-350A	1-K13 1-L13	0727-41-023	1-M15
8599-24-521 1-C7 8028-24-533 1-D7	T020-27-150C	1~L11 1~H11	0259-27-412	1-J11 1-N11	NA01-32-090B NA02-32-090A	1-l 12 1-l 12	NA02-32-684B NA02-32-690	1-G13 1-G13	NA01-34-460A NA01-34-480	1-1.13 1-1.13	NA01-41-030B	1-M15 1-M15
0222-24-752A 1-F7	T020-27-150D	1-M11 1-I11	0259-27-413	1-J11 1-N11	NA02-32-090B NA07-32-090A	1-112 1-112	NA02-32-690A B461-32-740	1-G13 1-J12	NA01-34-480A NA01-34-490	1-113 1-113	NA01-41-070A BR70-41-081	1-M15 1-M15
******		1~M11	0259-27-414	1-J11	NA08-32-090A	1-112	B461-32-750	1-J12	NA01-34-548	1-113	8092-41-081	1-016
* 25-000 *	T020-27-158A	1-I11 1-M11	0259-27-415	1-N11 1-J11	B455-32-099 NA01-32-100B	1-L12 1-L12	NA01-32-750 B461-32-800A	1-J12 1-J12	NA01-34-550 NA01-34-700	1-L13 1-M13	B104-41-114	1-N15 1-H15
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M091-25-100 1-C11	T020-27-165	1-H11 1-L11	T020-27-600D	1-K11 1-C12	NA01-32-110 NA02-32-110	1-M12 1-C13	B461-32-980	1-N12 1-J12	******		NA01-41-140B 0750-41-308	1-M15 1-J16
N010-25-123 1-C11	T020-27-171	1-111	1020 2. 0000	î-Kîî	GJ21-32-111	1-M12	NA01-32-980B	1-J12	* 37-000	¥	H266-41-341	1-F15
1368-25-124 1-011		1-M11	T020-27-600E	1-C12	NA02-32-112	1-C13	NA02-32-980B	1-J12	×	# #	NA01-41-360A	1-G15
1456-25-125 1-C11 F001-25-421A 1-H11	T016-27-200A T016-27-200B	1-M11 1-M11	T020-27-600F	1-K11 1-C12	NA02-32-114 G030-32-115	1-C13 1-M12	******	*****	*********	KKKKKK	NA01-41-370A NA02-41-370	1-G15 1-G15
M090-25-500 1-D11	0755-27-210	1-H11 1-L11	G0A0-27-604A	1-K11 1-C12	NA02-32-115 NA01-32-118	1-C13 1-M12	* 33-000	×	8002-37-160 8455-37-190	1-C14 1-C14	8871-41-370 GK67-41-380A	1-G15 1-G15
İ	3919-27-220	1~Hll		1-K11	NA01-32-119	1-M12	×	×	NA01-37-190	1-C14	NA01-41-390	1-G15
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* 26-000 *	3919-27-235	1-I11 1-M11	********	*****	NA01-32-120 NA02-32-120	1-M12 1-C13	NA01-33-020A NA01-33-030A	1-H13 1-H13	88N3-37-600 8455-37-790	1-014 1-E14	B312-41-470	1-M15 1-F15
*******	3919-27-236	1-111 1-M11	* 28~000	* *	NA02-32-121 NA01-32-122	1-C13 1-M12	NA01-33-04X NA01-33-042A	1-H13 1-E11	18455-37-790A -J21-37-810	1-E14 1-E14	NA01-41-610 NA01-41-610A	1-H15 1-H15
0730-26-060 1-H11	T020-27-238	1-111		*	NA01-32-123 NA02-32-123	1-M12	B455-33-047A	1-H13 1-E11	*********		NA02-41-610 NA02-41-610A	1-H15
B455-26-071 1-H13	F035-27-251	1-M11 1-I11			NA01-32-124	1-C13 1-M12	H260-33-048	1-E11	×	×	NA01-41-619	1~H15 1~H15
NA01-26-130 1-E11 NA01-26-130A 1-E11	F001-27-252 F001-27-253	1-III 1-III	NA01-28-011B NA03-28-011	1-E12 1-E12	NA02-32-124 NA02-32-125	1-C13 1-C13	B455-33-061 B455-33-062	1-E11 1-E11	* 39-000 *	¥	B092-41-644 0259-41-644	1-H15 1-H15
NA01-26-140 1-E11 NA01-26-140A 1-E11	F001-27-254 T020-27-255	1-111 1-111	G030-28-013A	1-D12 1-K13	G030-32-126 NA02-32-126	1-M12 1-D13	G304-33-065	1-H13 1-E11	**********	*****	NA01-41-660A   B092-41-661	1-H15 2-H14
0603-26-161 1-014	F001-27-261A	1-111	B037-28-091	1-G12	HE01-32-129	1-M12	NAY0-33-23ZA	1-113	NA01-39-020	1-C15	1456-41-682	1-M15
NA01-26-251A 1-E11	0114-27-262	1-111		1-K13	NA02-32-129	1-C13	NAY1-33-23Z	1-113	NA01-39-030	1-C15	0111-41-692	2-115
NA01-26-261 1-E11 NA01-26-261A 1-E11	T005-27-270B	1-J11 1-M11	LA01-28-091 NA01-28-092	1-K13 1-G12	NA02-32-131 BC51-32-133	1-C13 1-M12	NAY1-33-23ZA NAY1-33-24Z	1-113 1-J13	NA01-39-040 NA01-39-041	1-C15 1-C15	HE29-41-920A	1-F15 1-F15
NA10-26-28X 1-F11 NA10-26-29X 1-F11	T015-27-280 0180-27-301A	1-M11 1-J11	NA01-28-111	1-D12 1-K13	NAU2-32-133 NAU1-32-134	1-013 1-N12	NA01-33-25X NAY1-33-25Z	1-H13 1-J13	S231-39-041 NA01-39-710	1-015 1-015	*****	ţ
NAY1-26-43Z 1-F11		1-M11	NA01-28-113	1-G12	NA02-32-134	1-013	NA01-33-261	1-H13	NA03-39-710	1-C15	×	*
NAY1-26-44Z 1-G11 BWrH-26-45Z 1-G11	0290-27-302	1-J11 1-M11	NA01-28-151A FB01-28-155	1-F12 1-F12	NA02-32-135 G030-32-136	1-C13 1-N12	NA01-33-271 NA01-33-281	1-H13 1-I13	NA01-39-721 NA01-39-722	1-C15 1-C15	× 42-000	*
BWOH-26-668 1-F11 BWOH-26-669 1-F11	0249-27-350	1-J11 1-M11	FB01-28-156 NA01-28-2A0B	1-F12 1-G12	S030-32-137 S083-32-137	1-N12 1-M12	NA01-33-291 NA01-33-61X	1-I13 1-I13	NA01-39-723 NA01-39-724	1-C15 1-C15	**********	*****
BWOH-26-68C 1-F11 BWOH-26-683 1-F11	T020-27-401A	1-J11 1-N11	NA01-28-300 H001-28-333	1-G12 1-D12	HA14-32-146 G030-32-147	1-N12 1-N12	B001-33-691 0259-33-691	1-113 1-F15	NA01-39-730 NA01-39-730A	1-C15 1-C15	BC88-42-045 NA01-42-110	1-I15 1-I15
BWOH-26-691 1-G11	0259-27-401	1-J11	1	1-K13	NA02-32-147	1-D13	0259-33-693	1-F15			NA01-42-110A	1-115
BWOH-26-700 1-F11 BWOH-26-731 1-F11	T020-27-402A	1-N11 1-K11	NA01-28-350 NA01-28-380A	1-G12 1-D12	D002-32-148 NA02-32-151	1-D13 1-D13		1-G11 1-I13	**********	¥	NA03-42-110 NA01-42-210	1-I15 1-I15
BWOH-26-733	0259-27-402	1-N11 1-J11	NA01-28-4A0	1-K13 1-G12	NA02-32-152 NA02-32-153	1-D13 1-D13	NA01-33-699	2-E5 1-I13	* 40-000	¥	NA01-42-210A NA01-42-230	1-I15 1-I15
BW0H-26-810 1-F11 BW0H-26-812 1-F11	T020-27-403A	1-N11 1-K11	NA01-28-4B0	1-K13 1-G12	NA02-32-154 NA02-32-180	1-D13 1-D13	NA01-33-71X NA01-33-980	1-113 1-113	*******	*****	NA01-42-233 NA01-42-241	1-115 1-115
BW0H-26-816 1-F11	10E0-E1-403M	1-N11	NA01-28-401	1-G12	HE01-32-201	1-N12	NA01-33-980A	1-113	RF03-40-061	1-015	NA01-42-241A	1-115
BWOH-26-851 1-G11	0259-27-403	1-J11	H266-28-448	1-K13	HE09-32-201	1-N12	NA01-33-990	1-113	B690-40-080A	1-015	NA01-42-241B	1-115
BWOH-26-861 1-G11 NAO1-26-980A 1-G11	T020-27-404A	1-N11 1-K11	NA01-28-460 NA01-28-473	1-G12 1-G12	NA01-32-217 B456-32-230	1-L12 1-F13	NA01-33-990A	1-113	8684-40-100A 8684-40-100B	1-E15 1-E15	NA01-42-249 NA01-42-249A	1-I15 1-I15
NAU1-26-990A 1-G11 BWOH-26-998A 1-G11	0259-27-404	1-N11 1-J11	NA01-28-700	1-K13 1-E12	NA01-32-240 NA02-32-240	1-N12 1-D13	******	******	B690-40-190D B690-40-100E	1-D15 1-E15	NA01-42-249B NA02-42-250	1-115 1-115
		1-N11	NA01-28-8C0B	1-G12	B455-32-279	1-D13	34-000	*	8690-40-100F	1-E15	GB53-42-270	1-J15
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* 27-000 *	0259-27-405	1-J11 1-N11	GJ21-28-89X NA01-28-890	2-E7 1-C12	NA02-32-380	1-N12 1-D13	NA01-34-011A	1-M13	JE10-40-355 2158-40-355	1-015 1-015	0223-42-307 0866-42-366B	1-M4 1-I15
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3919-27-012 1-H11	0259-27-406	1-111	*******	*****	NA02-32-452	1-E13	NA01 - 34-09XA	1-N13	8690-40-450	1-015	NA01-42-410A H043-42-431D	1-J15 1-J15
T020-27-100H 1-H11	T020-27-407A	1-N]1 1-K]1	× 32-000	*	NA02-32-481 NA02-32-482	1-E13 1-E13	FB01-34-091	1~H12 1-N13	B690-40-500A B690-40-690	1-015 1-015	8048-42-453 NA01-42-561	2-115 1-J15
' T020-27-100J 1-H11   1020-27-100K 1-H11	0259-27-407	1-N11 1-J11	************	* *******	NA02-32-490A NA02-32-490B	1-F13 1-F13	NA01-34-112 NA01-34-117A	1-K13 1-K13			NA03-42-561 NA03-42-562	1-J15 1-J15
T025-27-100F 1-L11 T025-27-100G 1-L11	T020-27-408A	1-N11 1-K11	NA01-32-AZ0A		N002-32-5M0 N002-32-600A	1-F13 1-F13	NA01-34-151A F801-34-155	1-N13 1-N13			NA03-42-563	1-J15
T025-27-100H 1-L11	100-21-400A	1-N11	NA01-32-AZ1B	1-L12 1-L12	N002-32-600B	1-F13	NA01-34-156A	1-N13			NA03-42-564 NA01-42-761	1-J15 1-K15
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NA01-42-762	1-K15	G030-44-031	1-116			0043-50-742	2-J6	NA01-51-034 2-L5		
NA01-42-77X NA01-42-771	1-K15 1-K15	NA01-44-032 FB01-44-033	1-J16 1-J16	**************************************	*#XXXXX	8481-50-744 8481-50-75X	2-M5 2-C6	NA01-51-037 2-L5 8BN1-51-040 2-L5	***************************************	***************************************
NA01-42-772 GN51-42-795	1-K15 1-K15	FB01-44-034 FB01-44-061B	1-J16 1-J16	× 49-000	×	NA01-50-751 G043-50-753	2C6 2-J6	NA01-51-046 2-L5 NA01-51-051 2-D6	* 52-000 *	X 54-000
H260-42-910B	1-K15	FB01-44-062A	1-116	***********	*****	G030-50-786	2-16	NA01-51-053 2-D6	*****************	***********
NA03-42-910 FB01-42-980	1-K15 1-K15	FC01-44-063 NA01-44-150B	1-J16	8173-49-114	1-113	NA01-50-788 NA01-50-790A	2-J5 2-J5	NA07-51-054 2-D6 NA01-51-06X 2-D6	NAY1-52-110 2-E7	NA01-54-180 2-D7
FB01-42-985	1-K15	0866-44-187A 0866-44-189	1-J16 1-J16	8239-49-114  H005-49-460	1-113 1-F15	NA01-50-790B NA01-50-790C	2-J5 2-J5	NA01-51-06XA 2-D6 88N1-51-060 2-D6	NAY1-52-210 2-E7 NAY1-52-310 2-L6	NAY1-54-200 2-F7 NAY1-54-200A 2-F7
*********	××××××	NA01-44-410B NA01-44-420B	1-J16 1-K16	H005-49-470 B093-49-580	1-F15 1-F15	NA01-50-790D NA01-50-792	2-J5	8BN2-51-060 2-D6	NAY1-52-310A 2-L6	NAY1-54-200B 2-F7
× 43-000	*		1-K16	GA02-49-638	1-F16	NA01-50-792A	2-J5 2-J5	NA07-51-064 2-D6	NA01-52-410A 2-L6 NA01-52-420A 2-L6	NA01-54-210A 2-E7 NA01-54-210B 2-E7
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B092-43-028	1-M15	¥ 45-000	*	B216-49-680 B216-49-680A	1-F16 1-F16	B455-50-796 NA01-50-797	2−J5 2−J5	NA01-51-07XA 2-D6 8BN1-51-070 2-D6	NA01-52-710 2-N6 NA01-52-710A 2-N6	NA01-54-32XB 2-G7 NA01-54-32XC 2-G7
0268-43-028 8001-43-029	1-D16	*	**************************************	0305-49-686B	1-F15	NA01-50-798	2-J5	8BN2-51-070 2-D6	NA01-52-720 2-N6	NA01-54-330 2-F7
0001-45-029	1-D16 1-M15	**********	******		1-616	G158-50-803	2-D6 2-F6	NA01-51-1E6 2-F6 8BN1-51-120 2-E6	NA01-52-720A 2-N6 NA01-52-791A 2-N6	NA01-54-36X 2-E7 NA01-54-37Y 2-F7
G030-43-029	1-M15	NA01-45-111	1-116	**************************************	**************************************	H260-50-841	2-K13	8BN1-51-130 2-E6	NA01-52-792A 2-N6	NA01-54-37ZA 2-F7
NA01-43-030 NA03-43-030	1-M15 1-D16	NA01-45-112A NA01-45-280B	1-L16 1-H16	* 50-000 *	×	NA01-50-850ADU NA01-50-850ASU	2-J6	NA01-51-15XB 2-F6 8BN1-51-150 2-F6	*********	NA01-54-380 2-F7 NA01-54-391 2-F7
NA01-43-041	1-D16	NA01-45-320B	1-H16	*****	*****	NA01-50-850AUC	2-J6	N001-51-155A 2-F6	*	NA01-54-400B 2-H7
0866-43-062	1-N15 1-D16	NA01-45-3608 NA01-45-5108	1-H16 1-G15	NA01-50-A20A	2-E5	NA01-50-850A3L NA01-50-850CDU	2-J6	NA01-51-158 2-G6 NA01-51-159 2-F6	× 53-000 ×	NA01-54-400D 2-H7 NA01-54-400E 2-H7
BR70-43-065	1-N15 1-N15	NA01-45-510C NA01-45-611	1-G15 1-L16	LA01-50-H90 NA01-50-0G8	2-19 2-H5	NA01-50-850CSU NA01-50-850CUC		NA01-51-16XB 2-G6 8BN1-51-160 2-F6	*************	NA01-54-400G 2-H7 NA01-54-480 2-H7
NA01-43-070A	1-D16 1-N15	NA01-45-711A H266-45-91UA	1-116 1-116	NA01-50-0G9 NA01-50-0J1	2-E5 2-E5	NA01-50-850C3L NA01-50-850D0U	2-J6	N001-51-165A 2-F6 NA01-51-169 2-G6	NA01-53-100B 2-D7 NA01-53-100D 2-D7	NA01-54-482 2-D8
NA02-43-070A	1-016	NA01-45-911	1-H16	NA01-50-0J5	2-E5	NA01-50-850DHU	2-J6	NA01-51-170B 2-F6	NA01-53-100E 2-D7	NA01-54-610 2-D8
NA03-43-090	1-N15 1-D16	H260-45-912 H266-45-912	1-L16 1-L16	NA01-50-0K08 NA01-50-0Z2	2-E5 2-E5	NA01-50-850DSU NA01-50-850DUC	2-J6	G030-51-172 2-G6 NA01-51-173 2-G6	NA01-53-100F 2-D7 0187-53-134 2-G12	NA01-54-650 2-D8 NA01-54-660 2-D8
H001-43-095 HF23-43-099	2-N6 1-D16	NA01-45-912 NA01-45-913	1-L16 1-L16	NAY1-50-030   B092-50-032	2-E5 2-F5	NA01-50-850D3L NA01-50-852	2-J6 2-J6	NA01-51-180B 2-G6 NA01-51-183 2-G6	NA01-53-16XA 2-D7 NA01-53-16XB 2-D7	NA01-54-670 2-D8 NA01-54-725A 2-D8
1524 -140	1-D16 1-N15	FB01-45-914 NA01-45-914	1-L16	GJ21-50-032	2-H5	LA01-50-853 B388-50-855	2-K6	8BF1-51-270 2-16	NA01-53-16XC 2-D7	NA01-54-740 2-E8
D001-43-152	1-D16	B001-45-915	1-L16 1-I16	BF67-50-033	2-E5 2-H5	GJ21-50-891	2-K6 2-C13	FB67-51-272 2-16 FB67-51-273 2-16	NAY1-53-200A 2-E7	NA01-54-740A 2-E8 NA01-54-750 2-D8
	1-N15 2-C3	NA01-45-915A B001-45-916	1-116 1-116	NA01-50-068 NA01-50-070	2-F5 2-E5	NA01-50-894	2-013	FB67-51-276 2-16 NA01-51-490 00 2-C9	NAY1-53-200B 2-E7 NA01-53-210A 2-E7	!NA01-54-810C 2-D8  NA01-54-810D 2-D8
FB02-43-152A	2-C3	Hi15-45-916A	2-16	NA07-50-070	2-E5	*********	**************************************	NA01-51-490800 2-C9	NA01-53-210B 2-E7	NA01-54-830A 2-D8
B180-43-302 NA01-43-360A	1-N15 1-H16	NA01-45-916 B210-45-917	1-116 1-M16	NA01-50-1ATA NA01-50-1ATB	2-F5 2-F5	× 51-000	¥	H197-51-491A00 2-C9 NA01-51-5D3 2-E6	NA01-53-32XA 2-F7 NA01-53-32XB 2-F7	NA01-54-830C 2-E8
NA01-43-370	1-H16	8001-45-919B	1-116	NA01-50-180	2-F5	**********	*****	NA01-51-5EX 2-E6	NA01-53-330 2-E7	NA01-54-96XB 2-17
NA01-43-400C NA01-43-400D	1-G16 1-G16	G030-45-919 H266-45-920A	1-G15 1-L16	NA01-50-1C0 NA01-50-1E2	2-F5 2-F5	H272-51-RC6	2-J5	NA01-51-5E1B 2-E6 NA01-51-5E1C 2-E6	NA01-53-37Y 2-67 NA01-53-37Z 2-67	NA01-54-971 2-17 NA01-54-980 2-17
H001-43-443 NA01-43-481	1-F16 1-F16	H260-45-930 H266-45-930A	1-M16 1-M16	NA01-50-1E3  KA01-50-1G2	2-F5 2-E5	NA01-51-SAX NA01-51-SA5	2-M5 2-M5	NA01-51-5E2 2-E6 NA01-51-5FX 2-E6	NA01-53-37ZA 2-E7 NA01-53-380 2-F7	NA01-54-9808 2-17
W023-43-504 W023-43-505	1-F16 1-F16		2-G15	NA01-50-1ZY NA01-50-101A	2-F5 2-F5	NA01-51-SA7 NA01-51-SA8	2-M5 2-M5	NA01-51-5F1B 2-E6 NA01-51-5F1C 2-E6	NA01-53-391 2-F7	******
GA97-43-540	1-F16	********	KKKKK	NA01-50-114	2-F 5	NA01-51-58X	2-M5	NA01-51-5G9 2-G6	NA01-53-482 2-C8 NA01-53-510 2-H7	* * 55-000 *
3597-43-542 BW0A-43-61Z	1-F16 1-G16	× 46-000	* *	FB01-50-132 FB01-50-133	2-65 2-65	NA01-51-SC0A NA01-51-SC0B	2-N5 2-N5	NA01-51-5H1A 2-G5 NA01-51-5H1B 2-G6	NA01-53-510A 2-H7 NA01-53-510D 2-H7	* *
GJ21-43-61Z BW0A-43-62Z	1-G16 1-G16	*	**************************************	NA01-50-133 FB01-50-144	2-15 2-F5	NA01-51-5C1A NA01-51-5C5A	2-N5 2-N5	NA01-51-5H2A 2-G6 NA01-51-5J1A 2-G6	NA01-53-591 2-F7 NA01-53-600 2-C8	NA01-55-182 2-E9
GJ21-43-62Z BJ14-43-63Z	1-G16 1-G16			NA01-50-160	2-F5	NA01-51-SC5B KA01-51-SC6	2-N5	NA01-51-5J1B 2-G6	NA01-53-600A 2-C8	NA01-55-210 00 2-C9
BW0A-43-63Z	1-G16	GN52-46-AT1B	5-C3	NA01-50-18X NA01-50-180	2-F5 2-E5	NAL1-51-500A	2-M5 2-N5	NA01-51-5J2A 2-G6 8BN1-51-550 2-H6	NA01-53-602 2-D8 NA01-53-650 2-C8	NA01-55-210A00 2-C9 B481-55-225 2-D14
W023-43-635	1-H16 1-J16	H338-46-AT8 H338-46-AT9	5-C2 5-C3	NA01-50-180A NA01-50-240	2-E5 2-F5	NA01-51-SD0B NA01-51-SD1A	2-N5 2-N5	88N1-51-560 2-H6 NA01-51-58XA 2-H6	NA01-53-670 2-C8 NA01-53-710A 2-C8	G030-55-225 00 2-k13 NA01-55-231 2-I14
0136-43-635	1-G15	į		NA01-50-2A0A	2-65	NA01-51-SD5A	2-N5	NA01-51-580B 2-H6	NA01-53-710B 2-C8	FC02-55-235 2-I14
NA01-43-640 NA01-43-670A	1-F16 1-H16	NA03-46-030A NA03-46-030B	5-C3 5-C3 5-C3	NA01-50-2C6 NA01-50-2J0	2-H5 2-H5	NA01-51-505B KA01-51-506	2-N5 2-N5	BJ38-51-584 2-F6 NA01-51-592B 2-H6	NA01-53-720 2-C8 NA01-53-725A 2-C8	FC02-55-235A 2-114 LA02-55-235 2-114
B001-43-694A	1-H15	NA03-46-040A	5-C3	NA01-50-254	2-H5	KA01-51-SD7	2-N5	NA01-51-599 2-H6	NA01-53-740B 2-E8	NA01-55-241AD0 2-19
NA01-43-750 NA01-43-800	1-F16 1-F16	FB02-46-058C	5-C3 5-C3	NA01-50-255 NAY1-50-220	2-H5 2-H5	NA01-51-SE1 NA01-51-SE2	2-M5 2-M5	FB01-51-565 2-C6 NA01-51-669 2-C6	NA01-53-750 2-C8 NA01-53-760 2-C8	1316-55-261 2-G9 8548-55-261 2-G9
NA01-43-810A NA01-43-820A	1-H16 1-H16	1015-46-085	1-E16 1-N15	NAY1-50-220A BF82-50-233	2-H5 2-G5	NA01-51-SH1A NA01-51-SH1B	2-N5 2-N5	NA01-51-711 2-K6 NA04-51-711 14 2-G5	NA01-53-810C 2-C8 NA01-53-810D 2-C8	NA01-55-280 2-L9 NA03-55-280A 2-D3
NA01-43-830A NA01-43-900	1-G16 1-H16	NA03-46-088	5-C3	NA01-50-260	2-H5	NA01-51-SH2A NA01-51-SH2B	2-N5	NA04-51-711 18 2-05	NA01-53-819 2-C8	NA06-55-280 2-L9
NA01-43-980	1-H16	NA03-46-100E	2~C3	NA07-50-260	2-H5 2-H5	NA01-51-SJ2	2-N5 2-M5	NA01-51-721 2-K6 NA01-51-789 2-J5	NA01-53-830A 2-D8 NA01-53-830C 2-D8	NA01-55-4A1 2-G9 NA01-55-420A00 2-E9
NA01-43-990	1-416	NA03-46-300B	5-D3 5-C3	NA01-50-28XC NA01-50-28YC	2-H5 2-I5	NA01-51-SJ3 NA01-51-SK2	2-M5 2-M5	UB39-51-815 2-J1 F044-51-912 2-H7	NA01-53-900 2-C8	NA01-55-420B00 2-E9 GJ21-55-428 2-C9
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¥ 44-000	 ¥ ⊭	NA03-46-570	2-03 1-N15	NA01-50-318 NA01-50-681	2-G5 2-J5	8481-51-0E3 88N1-51-030	2-15 2-15		NA01-53-9608 2-17 NA01-53-980 2-17	NA01-55-4308 2-G9
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NA01-44-010	1-J16			NAY1-50-601 NA01-50-741	2-J5 2-C6	NA01-51-032 NA01-51-033	2-L5 2-L5	}		NA03-55-430B 2-G9 BR70-55-431 2-C9
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NA01-66-980A 2-K14 NA02-66-9CU 2-I14 NA03-66-9WU 2-I14 NA01-66-94U 2-K14 GB08-66-941 2-I15 NA03-66-96X 2-K14 NA03-66-960 2-K14 NA04-66-960A 2-F10 B376-66-991 2-C14 NA01-66-997 2-J14  ***********************************	NA09-67-070C 2-C15 H261-67-073A 2-H15 UB73-67-073A 2-H15 NA01-67-080B 2-N14 NA01-67-080C 2-C15 H115-67-099 2-N14 H117-67-099 2-N14 NA01-67-190 2-E15 NA01-67-190 2-E15 NA01-67-190A 2-E15 NA02-67-190A 2-E15 NA02-67-331 2-K15 BM90-67-330 2-K15 BM90-67-330 2-K15 BM90-67-331 2-K15 BM90-67-331 2-K15 BM90-67-331 2-K15	######################################	######################################	NA01-70-270A 2-K7 NA01-70-270B 2-K7 NA01-70-270B 2-K7 NA01-70-275 2-K7 NA01-70-280B 2-N7 NAV1-70-400 2-N7 NAV1-70-440A 2-K7 NA01-70-445 2-K7 NA01-70-445 2-K7 NA01-70-445 2-K7 NA01-70-51Y 2-I7 NA01-70-521 2-K7 NA01-70-521 2-K7 NA01-70-521A 2-K7 NA01-70-521A 2-K7 NA01-70-62YA 2-H7 NA01-70-62YA 2-H7 NA01-70-62YA 2-H7 NA01-70-640 2-L7 NA01-70-650 2-L7 NA01-70-650 2-L7	3625-75-139 2-G9 2-L9 ************************************	NA01-88-110 00 2-G10 NA01-88-111 00 2-G10 NA01-88-112 2-G10 NA01-88-113 2-G10 NA01-88-130 00 2-H10 NA01-88-130 00 2-H10 NA01-88-131 00 2-H10 NA01-88-137 2-H10 NA01-88-137 2-H10 NA01-88-151 2-H10 NA01-88-151A 2-H10 NA01-88-151A 2-H10 NA01-88-152A 2-H10 NA01-88-153A 2-H10 NA01-88-153A 2-H10 NA01-88-156 NA01-88-160 00 2-I10 NA01-88-161 00 2-I10 NA01-88-162 2-I10 NA01-88-162 2-I10 NA01-88-163 2-I10
NA05-67-BW2 NA01-67-B10B NA01-67-B20A NA01-67-B20A NA01-67-B31 NA01-67-B80A NA01-67-B80A NA01-67-CH5 NA01-67-CH5 NA01-67-CH5 NA01-67-CH7 NA01-67-CS1 NA01-67-CS1 NA01-67-CS1B NO01-67-CS1C NA01-67-CS1C NA01-67-CS1C NA01-67-CS1C NA01-67-CS5 NA01-67-CS5 NA01-67-CS5 NA01-67-CS5 NA01-67-CS6 NA01-67-CS6 NA01-67-CS6 NA01-67-CS6 NA01-67-CW5A	KA02-67-331A 2-K15 NA01-67-340A 2-K15 NA01-67-340B 2-K15 NA01-67-340B 2-K15 NA04-67-340A 2-K15 NA04-67-340A 2-K15 NA01-67-345 2-M15 NA01-67-346 2-M15 NA01-67-351 2-M15 NA01-67-351 2-M15 NA01-67-351 2-M15 NA04-67-351 2-M15 NA023-67-351 2-M15 NA026-67-351 2-M15 NA026-67-354 2-M15 NA023-67-354 2-M15 NA03-67-354 2-M15 NA03-67-354 2-M15 NA03-67-354 2-M15 NA03-67-354 2-M15 NA03-67-354 2-M15	NA01-68-390 00 2-C16 NA01-68-4H0 00 2-F11 NA01-68-4W0 00 2-F11 B100-68-401 2-G11 W201-68-401 2-G11 NA01-68-420800 2-G11 NA01-68-420800 2-G11 NA01-68-450800 2-G11 NA01-68-520A00 2-L16 NA01-68-550A00 2-L16 NA01-68-550A00 2-L16 NA01-68-611 2-E16 NA01-68-6L1 2-E16 NA01-68-6L1 2-E16 NA01-68-6N1 2-E16 NA01-68-6N2 2-E16 NA01-68-6N4 2-E16	NA04-69-036C 2-K16 NA01-69-044 2-K16 FA01-69-064A 2-K16 FA01-69-068 2-J16 BF68-69-073 2-J16 NA05-69-120 DU 2-H16 NA05-69-120 SU 2-H16 NA05-69-120 UC 2-H16 NA05-69-120 UC 2-H16 NA05-69-120 UC 2-H16 NA05-69-120 UC 2-H16 NA05-69-180 DU 2-H16 NA05-69-180 DU 2-H16 NA05-69-180 UC 2-H16 NA05-69-180 SL 2-H16 NA05-69-180 3L 2-H16 NA05-69-180 3L 2-H16 NA05-69-180 3L 2-H16 NA01-69-220 0D 2-H16 NA01-69-220 D2 2-H16 NA01-69-240 2-H16 NA01-69-270A02 2-H16 NA01-69-270B02 2-H16 NA01-69-270B02 2-H16	NA01-70-750C 2-L7 NA01-70-750D 2-L7 NA01-70-750E 2-L7 NA01-70-750F 2-L7 ************************************	NA03-76-290 2-D5 NA03-76-290A 2-D5 G030-76-448 2-E11 B001-76-526 2-E12 H043-76-619A 2-M15 B094-76-662 2-M15 B094-76-663 2-M15 S084-76-672 2-J15 S084-76-672 2-J15 NA01-76-700 2-K12 B001-76-725 2-M12 B001-76-734 2-M12 ************************************	NA01-88-180 00 2-110 NA02-88-180 00 2-110 NA01-88-181 00 2-J10 0000-88-1905 3-C3 0000-88-1905RR 3-C3 0000-88-53058K 3-C3 0000-88-5305CM 3-C3 0000-88-5505CM 3-C3 NA01-88-732 2-J10 NA01-88-782 2-J10 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
NA01-67-MX1 2-J16 NA01-67-P54 2-G15 NA01-67-P71 2-G15 NA01-67-010J 2-L14 NA01-67-010U 2-M14 NA01-67-010W 2-M14 NA01-67-010U 2-M14 NA02-67-010U 2-M14 NA02-67-010U 2-M14 NA02-67-010U 2-M14 NA02-67-010U 2-M14 NA02-67-010W 2-M14 NA03-67-010W 2-M14 NA04-67-010W 2-M14 NA04-67-010W 2-M14 NA04-67-010W 2-M14 NA05-67-010W 2-M14	NA01-67-361 2-L15 NA01-67-362 2-L15 NA01-67-363 2-L15 NA01-67-364 2-L15 NA01-67-364 2-K15 LA01-67-395A 2-K15 LA01-67-395A 2-K15 NA01-67-480 2-I15 NA04-67-481 2-J15 NA01-67-481 2-J15 NA04-67-501A 2-I15 NA04-67-501A 2-I15 NA04-67-502 2-I15 NA01-67-502 2-I15 NA01-67-502 2-I15 NA01-67-502 2-I15 NA01-67-502 2-I15 NA01-67-502 2-I15 NA01-67-502 2-I15 NA01-67-503A 2-I15 NA01-67-508 2-I15 NA01-67-510 2-J15	NA01-68-615 2-E16 NA01-68-631A 2-E16 NA01-68-631B 2-E16 FB01-68-652 2-E16 NA01-68-664A 2-E16 NA01-68-67XB00 2-E16 NA01-68-671 00 2-E16 NA01-68-693 00 2-E16 NA01-68-710 00 2-C16 B235-68-712 2-C16 B235-68-712 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-C16 NA01-68-719B 2-F16 NA01-68-719B 2-F16 NA01-68-719B 2-F16 NA01-68-719B 2-F16 NA01-68-719B 2-F16 NA01-68-719B 2-F16 NA01-68-719B 2-F16	NA01-69-320802 2-H16 NA01-69-320C02 2-H16 NA07-69-320802 2-H16 B316-69-361 2-G11 BF70-69-370C00 2-G11 BF70-69-370C00 2-G11 BF70-69-390C00 2-G11 NA01-69-650 2-G16 NA01-69-670 2-G16 8173-69-670 2-G16 ************************************	NA01-71-11Z 2-L7 NA01-71-116B 2-K7 NA01-71-12XA 2-L7 NA01-71-15X 2-M7 NA01-71-15X 2-M7 NA01-71-19XB 2-L7 NA01-71-192 2-M7 NA01-71-210 2-N7 NA01-71-210 2-M7 NA01-71-240A 2-M7 NA01-71-240B 2-M7 NA01-71-240B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-M7 NA01-71-270B 2-N7 NA01-71-280B 2-N7 NA01-71-440A 2-N7	**************************************	90624-26684 1-C14  ******************  * 99-000
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**************************************	BODY & PISTON(L), CALIPER- 1-113 BODY & PISTON(R), CALIPER- 1-113	BOLT, SHAFT 1-L12 BOLT, STOPPER-SOFT TOP 2-K13 BOLT, VANE PUMP 1-F13	BRACKET, REAR CONSOLE 2-L9 BRACKET, RELAY 2-F14 2-J12	CAM, CHANGE LEVER 2-C3 CAMSHAFT
* A * * * * ***************************	BODY(L),FRONT DOOR 2-L10 BODY(R),FRONT DOOR 2-L10 BODY,CONTROL VALVE-UP 1-E8	BONNET 2-L6 BOOT KIT.FRT CALIFER 1-J13 BOOT KIT.RR CALIPER 1-G11	BRACKET, STARTER 1-N6 BRACKET, STOPPER-BATTERY 1-G7 BRACKET, VANE PUMP 1-F13	CANISTER 1-N3 CAP 1-N4 CAP 1-M4
ACTUATOR, A.C.C 2-H14 ACTUATOR, SHIFT LOCK 2-C3 ADAPTER, DRIVE PLATE 1-H7	BODY,LOW-RADIO ANTENNA 2-K14 BODY,THROTTLE 1-K4 BODY,VALVE LWR 1-G8 BOLT 1-C8	BOOT SET, INNER JOINT 1-D11 BOOT SET, OUTER JOINT 1-D11 BOOT SET, ST. GEAR 1-M12 BOOT CHANGE 2-L9	BRACKET, WASHER TANK 2-J15 BRACKET, WIRING 2-C15 BREAKER 2-L14	2-D11 2-G6 2-G15 2-J5
ADJUSTER NO.3 2-H10 ADJUSTER NO.4 2-H10 ADJUSTER,HrDRAULIC LASH 1-N3	1-C11 1-D9 1-E3	BOOT.DUST-CHANGE LEVER 1-K6 BOOT.RACK 1-Cl3 BOOT.TOP	BREATHER 1-H11 1-J7 1-L11	CAP SET, RESERVE TANK 1-F13 1-F16 CAP(L), PULL HANDLE 2-G11
ADJUSTER.NO.1 2-G10 ADJUSTER.NO.2 2-G10 AIRDAM SKIRT,FRONT 3-C3	1-E13 1-F11 1-F13	BOOTS, MOTOR-RETRACT H/L 2-C6 BOSS, STEERING WHEEL 1-J12 BOX(L), TORQUE 2:F7	BREATHER,AIR-T/MISSION 1-06 BRKT(L),BUMPER-RR SKIRT 2-D8 2-E8	CAP(R), PULL HANDLE 2-G11 CAP, BLEEDER SCREW 1-F15 1-G11
ALTERNATOR	1-G8 1-G9 1-G12	BOX(R).TORQUE 2-F? BOX.A.C.C 2-H14 BOX.COIN-CONSOLE 2-L9	BRKT(L),SEAT-F.FLOOR P/N- 2-D8 BRKT(L),TRK.BOARD-FENDER- 2-N7 BRKT(R),BUMPFR-RR SKIRT 2-D8	1-I13 2-E5 CAP, BLIND1-E3
ARM(L),LOWER	1-H7 1-I3 1-I7	BOX,GLOVE2-J9 BOX,INSTRUMENT PANEL 2-I9 BRACKET1-C8	BRKT(R),SEAT-F.FLOOR PAN- 2-C8 BRKT,AIR CLNR-WHL APRON 2-E7 BRKT,AIR FLOW METER 1-I4	1-K4 1-M4 CAP, CENTER 1-C14
ARM(R).LOWER-REAR 1-G12 ARM,UPPER-FRT 1-K13 ARM,UPPER-REAR 1-G12	1-J7 1-K13 1-M6	1-J7 1-14 1-N7	BRKT.BATT.CLAMP-QTR PANEL 2.J7 BRKT,CAP-QUARTER PANEL 2-M7 BRKT.DIAGNOSIS UNIT 2-F14	CAP, COLUMN COVER 2-D9 CAP, DAMPER 1-K:3 CAP, FILLER 1-I:5
ARM.WIPER-CO DRIVER SIDE- 2-K15 ARM.WIPER-DRIVER SIDE 2-K15 ARMATURE 1-E7	1-M7 1-N12 1-N13	BRACKET SET, DASH POT-THRO 1-k4 BRACKET(L), CABLE 1-G11	BRKT,DIAGNOSIS/POWER UNIT 2-F14 BRKT,SURGE TANK 1-D4 BRUSH 1-C7	CAP, HINGE-H.L.RETRACTABLE 2-N5 CAP, HORN
ARMATURE, MAGNET CLUTCH 2-M12 AUDIO SET 2-I14	2-E5 2-F5 2-H5	BRACKET(L), ENGINE 1-C15 BRACKET(L), F. BUMPER SIDE 2-F5 BRACKET(L), HINGE-LAMP LID 2-N5	BRUSH, YOKE 1-F7   BULB 2-C9	CAP, OIL FILLER 1-E3 CAP, PARK BRAKE LEVER 1-J16 CAP, RADIATOR 1-D5
*********** * B *	2-K15 2-M13 BOLT SET	DRACKET(L), INST 2-17 BRACKET(L), RADIATOR 2-D7 BRACKET(L), STABILIZER 2-F7	2-D6 2-E6 2-F6	CAP, SEAL-TRUNK END TRIM 2-C16 CAP, SEALING 1-E3 CAP, SPRING 1-K6
BACK(L), FRONT SEAT 2~Il0	BOLT-HEX.HD WASHER 2-C14 BOLT,ADJUST 1-G5 1-G12	BRACKET(L), TUNER 2-I14 BRACKET(R), CABLE 1-G11 BRACKET(R), ENGINE 1-C15	2-G9   2-H9   2-I6	CAP. SUB TANK
BACK(R),FRONT SEAT 2-H10 BAG,TOOL2-G16 BALL JOINT,LOWER 1-L13	1-K13 1-M6 BOLT,AIR CLEANER 1-I4 BOLT,AIR CON 2-J12	BRACKET(R), HINGE-LAMP LID 2-N5 BRACKET(R), INST 2-I7 BRACKET(R), RADIATOR 2-D7 BRACKET(R), STABILIZER 2-E7	2-L9 BULB & SOCKET 2-D3 2-L9 BULB, MODE CONTROL 2-E12	CARRIER, DIFFERTIAL-FRT 1-Hill 1-III 1-MII
BALL, STEEL 1-F15 BAND 1-D15 2-G15	BOLT, ANCHOR END 1-K7 BOLT, BEARING CAP 1-G3 BOLT, BUFFLE PLATE 1-Y7	BRACKET(R), TUNER 2-I14 BRACKET(R), AUDIO 2-I14 BRACKET, ACCEL WIRE 1-D4	BULB, RESISTER	CARRIER, FRONT 1-L8 CARRIER, OVER DFIVE 1-N8 CARRIER, REAR 1-L8 CARTRIDGE, OIL FILTER 1-N4
2-112 BAND, BRAKE 1-J8 BASE, INTERIOR MIRROR 2-116	BOLT, CAMSHAFT CAP 1-D3 BOLT, CARRIER 1-C12 1-K11	BRACKET, ACTUATER 2-H14 BRACKET, ACTUATER-A.C.C 2-H14 BRACKET, ACTUATOR-FRONT 2-H14	BUMPER, FRONT 2-E5 BUMPER, REAR 2-H5 BUSH 1-E16	CASE.CHANGE CONTROL 1-K6 CASE.LAMP
BATTER: 1-G7 BEARING 1-G6 1-J11	BOLT, CLAMP 1-37 BOLT, COMPRESSOR 2-L12 BOLT, COMPRESSOR-AIR CON 2-L12	BRACKET.AIR CLEANER 1-J4 BRACKET.BATTERY CLAMP 1-G7 BRACKET.BUMPER 2-D7	1-H15 1-M15 1-N15	CASE METER 2-G9 CASE OVER DRIVE 1-C8
BEARING.BALL	BOLT, CONNECTOR 1-F16 1-H16 1-J7	BRACKET, CANISTER 1-F4 BRACKET, CLAMP 2-H12 BRACKET, CLIP 1-K12	BUSH SET.CHANGE LEVE 1-K6 BUSH,ELBOW JOINT 1-F15	1-K7 CASE, THERMOSTAT 1-D5
BEARING, BALL-ALT. REAR 1-C7 BEARING, BALL-COUNTER SHAF 1-G6 BEARING, BALL-FLY WHEEL 1-L3	BOLT, CONTROL LINK 1-G12 BOLT, CONTROL VALVE 1-N7 BOLT, CROSS MEMBER 2-E7	BRACKET, COMPRESSOR 1-G5 BRACKET, CONTROL UNIT 2-N13	BUSH, HINGE 2-G10 BUSH, RUBBER 1-N7	CASE'A', COOLING UNIT 2-N12
BEARING, BALL-MAIN DRIVE G 1-E6 BEARING, BALL-MAIN SHAFT 1-E6 BEARING, NEEDLE 1-E6	BOLT, CYLINDER HEAD 1-D3   BOLT, CYLINDER HEAD COVER- 1-E3   BOLT, FILLER PIPE 1-I15	BRACKET.COUPLER 1-J12 BRACKET.CRUSH PAD 2-J9 BRACKET,EX.MANIFOLD 1-E4	BUSH.RUBBER-LWR ARM 1-L13 BUSH.STABILIZER-RR 1-F12 BUSHING.LUWER ARM 1-G12	CASE'B', COULING UNIT 2-N12 CASE'B', HEATER UNIT 2-D12 CASE'OUT', ASH TRAY 2-D9
1-E9 1-F6 1-M8	BOLT, FUEL DISTRIBUTOR 1-H4 BOLT, GARNISH-RR 2-K6 BOLT, HINGE 2-N5	BRACKET.FRONT 2-F5 2-K7 BRACKET.FRONT 1-E7	BUSHING.RACK-ST. GEAR 1-N12 BUSHING.RUBBER 1-G12 1-L13	CASING.DTFFERNTIAL 1-C12 1-K11 CASING.STOPPER 1-C15
BEARING, PINION 1-D13   1-H11   1-L11   1-N12	BOLT, HUB 1-E11 1-H13 BOLT, INST. PANEL 2-19 BOLT, JACK SET 1-E14	BRACKET, HANGER 1-015 BRACKET, HARNESS 2-D15 2-L14	BUSHING, RUBBER-LOWER ARM- 1-G12 1-L13 BUTTON, RELEASE1-J16	CHAMBER.RESONANCE 1-14 CHANNEL(L).DIVISION-DOCR- 2-M10 CHANNEL(R).DIVISION-DOOR- 2-M10
BEARING, ROLLER	BOLT, LAMP LID2-M5 BOLT, LINK2-E10	2-M14  2-N14  BRACKET,HOSE	ж жимининининини ж ж	CHECKER.DOOR 2-C11 CHROME VALVE COVER 3-D3 CLAMP.BATTERY 1-G7
BEARING, WHEEL 1-511 BELT, TIMING 1-N3 BELT'A', FRONT SEAT 2-K10	BOLT, LOCK	BRACKET, IDLE PULLEY 1-G5 BRACKET, IGNITER 2-M13 2-N13	* C * * * * * * * * * * * * * * * * * *	CLAMP, HOSE
BELT'B'(L), FRT SEAT 2-K10 BELT'B'(R), FRY SEAT 2-K10 BELT'V' 1-G5	BOLT, MAGNET CLUTCH 2-M12 BOLT, MOTOR-RETRACT H/LAMP 2-C6 BOLT, DIL PAN 1-N7	BRACKET, INST. PANEL 2-19 BRACKET, LICENCE PLATE 2-F5 BRACKET, LOUD SPEAKER 2-K14	CABLE(L).RPARK 1.K16 CABLE(R).RPARK 1-J16 CABLE.ACCEL 1-H15	2-G15 CLAMP.HJSE-A.I.P. A. CLNR 1-M4 CLAMP.HJSE-F.S 1-F13 CLAMP.WATER HOSE 1-F3
1-N6 BEZEL(L), HEAD LAMP 2-C6 BEZEL(R), HEAD LAMP 2-C6	BOLT, PLANT FRAME 1-C15 BOLT, PULLEY 1-K3 BOLT, RING GEAR 1-I11	BRACKET, LOW 2-J14 BRACKET, MASTER CYL 1-D16 1-M15	CABLE, F LID OPENER 1-K15 CABLE, INTER LOCK 2-C3	1-F5 1-F5 1-M4 CLEANER, AIR
BLADE(R), WIPER-FRONT 2-K15 BLADE, WIPER-FRONT 2-K15 BLOCK, CYLINDER 1-G3	BOLT, SET	1-N15 BRACKET, MEMBER2-J9 BRACKET, PARKING CABLE-FLO 2-C8	CABLE, PARKING-FRT 1-J16 CABLE, SPEEDOMETER 2-F: CALIPER(L), FRT BRAKE 1-I13	CLIP
BLOCK, FUSE 2-L14 BLOCK, MAIN FUSE 2-N14 BLOWER UNIT 2-F12	2-L10 2-M10 BOLT, SETTING-HINGE LOWER- 2-L10	BRACKET, PIPE2-H12 BRACKET, PLANT FRAME1-C15 BRACKET, REAR1-E7	CALIPER(L), RR BRAKE 1-G11 CALIPER(R), FRT BRAKE 1-I13	1-K3 1-L11
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CLIP 1-L16	CONVERTER, TORQUE 1-H7	COVER, SPARE TIRE 2-F16	FASTENER 2-E5	GASKET, FRONT COVER 1-C6
1-M4	CORD NO.1, HI. TENSION 1-M6	COVER, ST. WHEEL BOSS 1-J12	2-F1	GASKET, GUIDE SEAL-SPEEDO. 1-D6
2-05	CORD NO.2, HI. TENSION 1-M6	COVER, THERMOSTAT 1-D5	2-F16	GASKET, HEAD COVER 1-D3
2-C7 2-C11	CORD NO.3,HI.TENSION 1-M6 CORD NO.4,HI.TENSION 1-N6	COVER, TIMING BELT-C 1-J3 COVER, TIMING BELT-LWR 1-I3	2-G7 2-H5	GASKET, IN. MANIFOLD 1-D4
2-016		COVER, TONNEAU 3 C3	2-H <sub>2</sub>	GASKET,LIJENSE LAMP 2-16 GASKET,D/DRIVE CAST 1-C8
2-03	CORD, EARTH 2-J14		Ž- <sup>1</sup> 18	GASKET, OIL JET 1-03
2-65	CORD, FRONT COMB 2-D6	COVER, UNDER 2-G8	2-H15	GASKEY, DIL PAN 1-13
2-E11 2-E12	CORE, HEATER UNIT 2-D12 COTTER, VALVE 1-N3	COVER, UNDER-MAIN FUSE BLK 2-N14 COVER, WHEEL CORE 1-J12	2-J6 2-L13	GASKET OTI DIMP
2-85	COVER		2-116	GASKET, OIL PUMP 1-H7
2-59	COVER(C), SENSOR 1-K12	COWLING, RADIATOR 1-E5	2-N10	GASKET, DIL STRAINER 1-N4
2-G6 2-015	COVER(L), BELT LINE 2-J13	CRANKSHAFT 1-K3	FASTENER, BONNET RELEASE 2-L6	GASKET, REAR F. NISHER 2-K6
2-G15 2-H15			FASTENER, DOOR TRIM 2-G11 2-K9	GASKET,RR.COMB2-G6 GASKET,SIDE TURN2-E6
2-112	GEOGGITI'SCSS		FASTENER, LIFT GATE TRIM 2-K14	GASKET, SPRING CAP 1-K6
2-115			FASTENER, KEAR BUMBER 2-G5	GASKET, STOP LAMP-HI, MOUNT 2-H6
2-J6 2-M5	COVER(L), KNUCKLE 2-I10 COVER(L), SEAT BACK 2-I10		2-H5	GASKET, T.B. COVER LWR 1-13
2-113			FASTENER, SEAL 2-F16 2-K14	GASKET,T.BELT COVER-C 1-J3 GASKET,THERMO 1-K4
2-N15				GASKET, THERMOSTAT COVER 1-05
CLIP (R) 2-C5	2-G8	CYL., TANDEM MASTER 1-G16	FEEDER-ANTENNA 2-K14	GASKET, VAC POWER ASSIST- 1-F16
2-C11 CLIP SET, DRIVE SHAFT 1-D11	COVER(R), BELT LINE 2-J13		FILTER, FUEL 1-F4	GASKET, VAPOR VALVE 1-K15
CLIP(L), FORM PLATE 2-E13	COVFR(R), DRAIN-SOFT TOP 2-H13 COVER(R), DUST 1-H13	***********	FILTER,FUEL PUMP 1-F4 FINISHER,REAR 2-J6	GASKET,W.PUMP INLET 1-C5 GASKET,WATER PUMP 1-C5
CLIP(L), INNER HANDLE 2-C11	COVER(R), HINGE 2-110	$\hat{\mathbf{x}}$ o $\hat{\mathbf{x}}$	FLANGE 1-D9	GASKET, WINDOW REGULATER 2-D11
CLIP(R), FORM PLATE 2-E13	,	* *	FLANGE, COMPANION 1-H11	GASKET'A', DUST COVER 1-115
CLIP, CABLE 1-K16 CLIP, COUPLER 1-N6	r danabibingbianata wa mas	**********	1-11	GAUGE, FUEL TANK 1-K15
CLIP, ENGINE HARNESS 2-H15	COVER(R),SEAT BACK 2-G10 COVER(R),SENSOR 1-K12	DAMPER, FRONT 1-M13	FLAP,REAR-MU^ 3-C3 FLOAT 1-F16	GAUGE, OIL LEVEL 1-03
CLIP, FLEXIBLE HOSE 1-015			FORK, BRAKE 1-D16	1-N7 GEAR SET,FINAL 1-H11
1-H16	2-G8	DECK RACK 3-C3	1-N15	1-111
1-J16	I EENEU TELET I EURUS EUROS E	DIAPHRAGM, VACUUM 1-M;	FORK, CLUTCH 1-M15	GEAR ADJUST 1-111
CLIP, HARNESS 1-J4 2-G15	COVER,AIR CLEANER 1-J4 COVER,ANCHOR 2-K10	DIFFERENTIAL 1-M11 DISC,CLUTCH 1-C6	FORK, CLUTCH RELEASE 1-C6	GEAR, COUNTER 1-H6
2-H15	,	DISTRIBUTOR, FUEL 1-H4	FORK,SHIFT 1-J6   FORK,SHIFT(1ST&2ND) 1-J6	GEAR, COUNTER REVERSE 1-G6 GEAR, COUNTER SHAFT 1-G6
CLIP, HARNESS-HAND BRAKE 2-M9	COVER, BATTERY 2-F16	DISTRIBUTOR, OIL 1-F9	FORK, SHIFT (JRD&4TH) 1-J6	GEAR, DIFF. SIDE 1-111
CLIP, HEATER CONTROL 2-E12		DOVETAIL, LIFT GATE 2-E11	FRAME(L), CUSHION-FRT 2-110	GEAR DRIVEN 1-D6
CLIP, HOSE-SUB T.& WATER H 1-E5 CLIP, OIL PIPE 1-J7	COVER, BLIND 1-H7	DRIVING & DIFF 1-H11	FRAME(L), FRONT-REAR 2-F7	1-K7
CLIP, PIPE 1-615		1-L11 DRUM,CLUTCH 1-J8	FRAME(L),REAR SIDE 2-D8 FRAME(R),CUSHION-FRT 2-G10	GEAR, INNER 1-N4 GEAR, INTERNAL 1-D9
1-416	COVER, BOX 2-J9	DRUM, CONNECT ING 1-D9	FRAME(R), REAR SIDE 2-C8	1-18
1-116		DRUM, DIRECT 1-N8	FRAME (UP.,L), FRONT-FRT 2-F7	GEAR, MAIN DRIVE 1-E6
1-L16 1-M16	1_1EEE1155551.iii	DRUM, REAR CLUTCH 1-L8 DUCT NO.1(L) 2-C10	FRAME(UP.,R),FRONT-FRT 2-E7 FRAME(UP.L),FRONT-REAR 2-F7	GEAR, OUTER 1-N4
2-612			FRAME(UP.R), FRONT-REAR 2-E7	GEAR, OVER DRIVE 1-N8 GEAR, OVER TOP 1-H6
2-H12		DUCT(L),SIDE DEMIST 2-C10	FRAME FRONT-FRT FLOOR PAN 2-08	GEAR, REVERSE 1-G6
2-M6 CLIP, TRIM 2-D16	COVER, DUST 1-C13			GEAR, REVERSE IDLE 1-H6
2-116	1-E11 1-I15	DUCT,AIR 2-C12 DUCT,CENTER 2-C10	FRAME, POWER PLANT 1-C15 FUSE(30A) 2-L14	GEAR, RING-FLY WHEEL 1-L3
2-N15		DUCT.FRUSH AIR 1-14	2-N14	GEAR, SHAFT 2-M15 GEAR, SPEEDO . DRIVE 1-D9
CLIP, VALVE GUIDE 1-D3	COVER, DUST-ST. GEAR 1-C13	DUM, FRONT-WIND 2-C13	FUSE(404) 2-N14	1-H6
CLIP, WASHER HOSE 2-115 CLIP, WEATHERSTRIP-OUTER 2-F11	1-M12 COVER,END PLATE 1-J3	DUM, REAR-WIND 2-C13	FUSE(80A) 2-N14	GEAR, STEERING 1-C13
CLIP'A', SPEEDOMETER CABLE 2-F9	COVER, FRONT CLUTCH 1-C6	***********	***********	1-M12 GEAR.SUN
CLIP'A', WEATHERSTRIP-OUT- 2-F11		X H	* *	GEAR, 1 T 1-F6
CLIP'B', WIRE-BONNET 2-H7	COVER, FUEL FILTER 2-G8	X E X	* G *	GEAR, 2ND 1-F6
CLOTH,REPAIR-TOP 2-E13 CLUTCH,DIRECT 1-N8	COVER,FUSE BLOCK 2-L14 COVER,GAUGE-FUEL TANK 1-K15	* ************************************	*	GEAR. 3RD 1-E6
CLUTCH, FRONT 1-J8	COVER, GRILLE 2-F5	***********	***************************************	GLASS(L),DOOR-FRT 2-M10 GLASS(L),VENTILATOR 2-M10
CLUTCH, MAGNET 2-M12	COVER, HEAD REST 2-H10		GASKCT 1-D15	GLASS(R), DOOR-FRI 2-M10
CLUTCH, ONE WAY 1-C9	COVER, HOLE 2-D14		1-016	GLASS(R) . VENTILATOR 2-M10
1-D9 CLUTCH, OVER RUNNING 1-E7	2-F8 2-K13	END,CONTROL LEVER 1-K6 END,S/ROD(1ST82ND) 1-J6	1-E3	GLASS BACK WINDOW 2-C13
CLUTCH, REAR 1-L8	2-116		1-G4 1-14	GLASS.WINDSHIELD 2-C13 GRILLE(L),DEMISTER 2-C1u
COCK, DRAIN 1-E5	COVER, HOLE-(C) 2-K9	END, SHIFT ROD(0/TOP&REV.) 1-K6	1-1.4	GRILLE(L), SPEAKER 2-F11
COLL & IGNITER 1-M6	COVER, HOLE-ANTENNA 2-K14	ENGINE, SHORT 1-C3	1-M7	GRILLE(R).DEMISTER 2-C10
COIL, FIELD-MAGNET CLUTCH- 2-M12 COLLAR 1-G5	COVER, HOLE-LIFT GATE 2-E11 COVER, INNER HANDLE 2-C11	ESCUSTCHEON 2-D11 EVAPORATOR 2-N12	1-M15	GRILLE (R), SPEAKER 2-F11
COLLAR, CLUTCH REL 1-C6	COVER, INTERIOR MIRROR 2-116		2-J6   GASKET & SEAL KIT 1-I9	GRILLE,COWL: 2-J5 GROMMET 1-H4
COMPRESSOR 2-M12			GASKET KIT.COMPRESSOR 2-112	1-112
COMPRESSOR, AIR CON 2-L12 CONDENSER 2-C14		*********	GASKET SET.CYL. HEAD 1-C3	2-012
2-I12		7 H	GASKET SET, ENGINE 1-C3 GASKET(C), TIMING BELT(L)- 1-J3	2-414
CONNECTING, SHELL 1-N8	COVER, DIL PUMP 1-17	; ' ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	GASKET(INN), TIMING BELT(L 1-13	2-H15 2-I12
CONNECTOR 1-F4	1-N4	**********	GASKET(L) 1-13	2-112 2-115
CONNECTOR, SHORT 2-C14 CONNECTOR, STRAIGHT 1-K7		EARDIC TOD CORT TOD	GASKEY, COMPRESSOR 2-112	ž-Ĵiž
CONNECTOR, TUBE-BATTERY 1-G7	1-N12 COVER,REAR-ALTERNATOR 1-C7	FABRIC, TOP-SOFT TOP 2-E13 FAN DRIVE 1-E5	GASKET, CONVERTER 1-D15 GASKET, CYLINDER HEAD 1-E3	GROWMET BRAKE BERAL 2-NO
CONSOLE, REAR 2-L9	COVER, ROD 1-L6	FAN, CONDENSER 2-J12	GASKET, DRUM SUPPORT 1-C8	GROMMET BRAKE PEDAL 1-N15 GROMMET.DRAIN HOSE-TOP 2-H13
2-M9	COVER, SELECT LEVER 2-C3	FAN, COOLING 1-05	GASKET, EX. MANIFOLD 1-E4	GROMMET, KNOB-METER SET 2-09
CONTROL UNIT, E.G. I 2-N13		FASTENER 1-K12	GASKET, EXH. PIPE-CONVERTER 1-D15	GRUMMET, SCREW 2-C16
CONTROL, HEATER 2-E12 CONVERTER, CATALYST 1-015		2-C16  2-D14	GASKET, EXTENSION 1-M7	2-611
CONTENT ON THE TOT	COVERY STOR	2-016	GASKET.FILLER PIPE 1-115	2-H7

GROMMET, SCREW 2-J5 2-K13 2-L5	HOLDER'B',PIPE	INJECTOR, FUEL 1-H4 INLET, WATER PUMP 1-C5 INSERT1-K15	************	ниминининини
2-M5 2-M10 GROMMET, SCREW-BAFFLE 2-H7	HOOK(L), TIE DOWN 2-H8 HOOK(L), TIE DOWN-FRONT 2-G7 HOOK(R), TIE DOWN 2-G8	INSULATOR1-J4 2-H8 INSULATOR NO.1, CHANGE 2-M9	*	
GROMMET, SCREW-DOOR GLASS- 2-M10 GROMMET, SCREW-RETAINER 2-G13 GROMMET, WASHER TANK 2-J15 GUARD(L), MUD	HOOK(R),TIE DOWN-FRONT 2-G7 HOOK,HOOD-REAR CORNER 2-K13 HOOK,REAR DECK	INSULATOR, BALK HEAD PANEL 2-J7 INSULATOR, CHG LEVER 1-L6 INSULATOR, DASHBOARD 2-E16 INSULATOR, FUEL DIST 1-H4 INSULATOR, HEAT 1-E4 INSULATOR, HEAT-FRONT 2-H6 INSULATOR, INJECTION 1-H4 INSULATOR, RR FLOOR 2-E16	LABEL, ANTI THEFT-AUDIO 2-114 LABEL, BATTERY 2-K16 LABEL, CAUTION 2-J16 LABEL, CAUTION-AIR BAG 2-J16 LABEL, CAUTION-FUSE COVER- 2-L14 LABEL, CAUTION-RADTOR 2-J16 LABEL, COUTION-RETRACTABLE 2-M5 LABEL, EMISSION 2-J16	MANIFOLD, EXHAUST
GUSSET NO.3(L),C.FLOOR PA 2-D8 GUSSET NO.3(R),C.FLOOR PA 2-C8 GUSSET(L),REAR FENDER-RR- 2-M7 GUSSET(L),SIDE SILL OUTER 2-K7 GUSSET(R),REAR FENDER-RR- 2-K7 GUSSET(R),SIDE SILL OUTER 2-K7 GUSSET,FRONT FLOOR PAN 2-D8	1-L15 1-M16 HOSE NO.1, BREATHER 1-J15 HOSE NO.1, WATER 2-C12 HOSE NO.2. BREATHER 1-J15 HOSE NO.3, BREATHER 1-J15	**************************************	LABEL, FUEL WARNING 2-K16 LABEL, OIL 2-J16 LABEL, TEMPORARY TIRE 2-J16 LABEL, TIRE 2-J16 LABEL, UNLEADED FUEL 2-J16 LABEL, VAC. DIAPHRAGM 2-K16	MEMBER NO. 4, CROSS 2-D8 MEMBER(R), INST. PANEL 2-J9 MEMBER, CROSS 1-G12 1-N13 2-D7 MEMBER, REAR DECK 2-K7 METAL SET, CONN, ROD 1-L3
***********	HOSE NO.4.BREATHER 1-J15 HOSE(C).DEFROSTER 2-C10	JET,01L1-G3 JOINT1-G3	LABEL'A'.CAUTION-A/B 2-J16 LABEL'B',CAUTION-A/B 2-J16	METAL SET, MAIN BRG 1-13
# H # # # # # # # # # # # # # # # # # #	HOSE(L),FLEXIBLE-FRT 1-H16 HOSE(L),FLEXIBLE-RR 1-H16 HOSE(R),FLEXIBLE-FRT 1-H16 HOSE(R),FLEXIBLE-RR 1-H16 HOSE,AIR 1-I4	JOINT SET, BALL 1-D13 1-N12	LAMP SET(L), FRT COMB 2-D6 LAMP SET(L), HEAD 2-L5 LAMP SET(L), RR. COMB 2-F6 LAMP SET(L), SIDE TUR 2-E6 LAMP SET(L), SIDE TURN-RR- 2-H6	METAL SET, THRUST 1-M3 METER SET 2-G9 METER, AIR FLOW 1-14 METER, FUEL 2-H9 METER, DIL PRESSURE 2-G9
HANDLE(L), INNER 2-C11 HANDLE(L), OUT 2-D11 HANDLE(R), INNER 2-C11	1-J4 HOSE,DRAIN1-G4 2-I12	JOINT SET, OUTER 1-D11 JOINT, BACK WIND MOULD 2-C13 JOINT, BALL 1-D13	LAMP SET(R), FRT COMB 2-D6 LAMP SET(R), HEAD 2-L5 LAMP SET(R), RR, COMB, 2-F6	METER, THERMO 2-H9 MIRROR(L), DOOR 2-H16 MIRROR(R), DOOR 2-H16
HANDLE(R), OUT 2-D11 HANDLE, JACK 1-E14	HOSE, EVAPORATION 1-F4 1-G4	1-N12 JOINT.ELBOW-W.TANK 2-115	LAMP SET(R), SIDE TUR 2-E6 LAMP SET(R), SIDE TURN-RR- 2-H6	MIRROR, INTERIOR 2-H16 MODULE, AIR BAG 1-K12
HANDLE, REGULATOR 2-D11 HANDLE, SOFT TOP 2-F13 HANGER, ENGINE 1-E3 HANGER, ENGINE-REAR 1-D15 HANGER, SILENCER 2-L12 HARNESS, COMPRESSOR 2-L12 HARNESS, DOOR 2-E15 HARNESS, ENGINE 2-C15	HOSE, FILLER	JOINT, PIPE 1-F16 JOINT, RUBBER 1-I4 JOINT, STEERING 1-L12 JOINT'T' 1-I15 JUNCTION(L), CORNER-O PANE 2-L7 JUNCTION(L), FRT. FLOOR 2-D8	LAMP, LICENSE 2-16 LAMP, PERSONAL 2-C9 LAMP, STOP-HI MOUNT 2-H6 LENS & BODY(L) 2-E6 LENS & BODY(L), RR COMB 2-G6 LENS & BODY(L), RR SIDE TU 2-G6 LENS & BODY(R) 2-E6	MOTOR(L), RETRACTABLE HEAD 2-M5 MOTOR(R). RETRACTABLE HEAD 2-M5 MOTOR, FAN-BLOWER UNIT 2-K15 MOTOR, WIPER 2-K15 MOULD(UP), FRT. WINDOW 2-J5 MOULD, BELTLINE-REAR 2-H13 MOULD, RR. WINDOW 2-C13
HARNESS, FRONT 2-L14 2-M14	HOSE, RETURN 1-G13 HOSE, VACUUM 1-F4	JUNCTION, DASH SIDE-5. SILL 2-H7	LENS & BODY(R),RR COMB 2-F6 LENS & BODY(R),RR SIDE TU 2-G6 LENS & HOUSING(L) 2-D6	**************************************
HARNESS, INJECTOR 2-C15 2-N14	1-F16 1-I7	* ***********	LENS & HOUSING(R) 2-06 LENS(L), RR. COMB 2-GG	* N *
HARNESS, INSTRUMENT 2-D15 HARNESS, REAR 2-M14 HARNESS, WIRE 2-I12 HEAD, CYLCOMPRESSOR 2-L12	HOSE, VENT 1-J15 HOSE, VENTPURGE CONT. V. 1-F3 HOSE, VENTILATION 1-F3 HOSE, WATER 1-D5	* K * * *******************************	LENS(R),RR.COMB 2"F6 LENS.PERSONAL LAMP 2"C9 LENS.STOP LAMP-HI.MOUNT 2-H6 LEVER 1-E7	NIPPLE, VANE PUMP 1-F13
HEAD, CYL INDER 1-D3 HEAD, ZIPPER-BACK WINDOW 2-E13 HEADER, FRONT 2-L7 HEADER, FRONT-UPPER 2-L7 HEATER UNIT 2-D12	1-F5 1-L4 BY-PASS 1-C5 h 4SHER 2-I15 HL ),LAMP-LID HINGE 2-N5	KEY SUB SET, GLOVE 2-D5	LEVER(L), OPERATING 1-F11 LEVER(R). OPERATING 1-F11 LEVER, ACCELERATOR 1-H15 LEVER, CHANGE 1-L6 LEVER, PARKING BRAKE 1-J16	NOZZLE(L), DEFROSTER 2-C10 NOZZLE(R), DEFRUSTER 2-C10 NOZZLE, WASHER-F. WIND 2-J15 NUT 1-C11 1-C15 1-D11
HINGE 2-M9 HINGE(L),BONNET 2-L6 HINGE(L),DOOR-LOWER 2-L10 HINGE(L),DOOR-LOPER 2-L10 HINGE(L),GLOVE LID 2-J9 HINGE(L),LID-LAMP 2-N5	HOUSING(L), LAMP-RR FENDER 2-M7 HOUSING(R), LAMP-LID HINGE 2-N5 HOUSING(R), LAMP-RR FENDER 2-K7 HOUSING, CONVERTER 1-H7 HOUSING, EXTENSION 1-D6 1-M7	KEY SUB SET, ST. LOCK 2-D5 KEY SUB SET, TRUNK 2-D5 KEY, BLANK 2-C5 KEY, BLANK-PRIMARY 2-C5 KEY, PRIMARY 2-C5 KEY, SECONDARY 2-C5	LEVER, SELECT	1-015 1-E11 1-G8 1-G12 1-H7 1-H12
HINGE(L), TRUNK LID 2-N6 HINGE(R), BONNET 2-L6 HINGE(R), DOOR-LOWER 2-L10 HINGE(R), DOOR-UPPER 2-L10 HINGE(R), GLOVE LID 2-J9 HINGE(R), LID-LAMP 2-N5	HOUSING, GEAR 1-C13 1-M12 HUB SET, CLUTCH-O.T. & REV 1-I6 HUB SET, CLUTCH-1ST & 2ND- 1-F6 HUB SET, CLUTCH-3RD & 4TH- 1-E6 HUB, CLUTCH	KEY,SYNCHRONIZER	LID.FUEL FILLER 1-J15 LID.TRUNK 2-N6 LIGHT.PLATE-ASH TRAY 2-D9 LIGHTER,CIGAR 2-D14 LINK SET.MODE 2-D12 LINK SET.TEMP 2-D12	1-H13 1-K13 1-L7 1-N13 2-C3 NUT SET
HINGE(R), TRUNK LID 2-N6 HOLDER, BALANCE SPRING 2-N6 HOLDER, BRUSH 1-F7	1F6 1F6 1F6 HUB, DRIVE 19	KNOB, BALANCE-TUNER 2-114 KNOB, CHANGE LEVER 1-L6 2-C3	LINK, CONTROL-STAB 1-H12 1-N13 LINK, RECYCLE & FRESH 2-F12	NUT.ADJUST
HOLDER, CLUTCH 1-G15 HOLDER, FUSE 2~L14 HOLDER, JACK HANDLE 1-K15	HUB, O'DRIVE CLUTCH 1-N8 HUB, REAR CLUTCH 1-L8 HUB, WHEEL 1-E11	KNOB, FAN SWITCH 2-E12 2-G12 KNOB, TONE-TUNER 2-J14	LINK, SOFT TOP 2-E13 LINK, WIPER 2-K15 LOCK(L), DOOR 2-C11	2-03 2-08 2-15 NUT.CONNECTING ROD 1-K3
HOLDER, NO. PLATE 2-E5 HOLDER, P. B. VALVE 1-F16 HOLDER, PIPE 1-G15	1-Н13	KNOB, VOLUME - TUNER 2-J14 KNUCKLE(L), REAR 1-E11 KNUCKLE(L), RECLINING 2-H10	LOCK(L),TOP2-II3 LOCK(R),DOOR2-CI1	NUT.EX.MANIFOLD 1-E4 NUT.EXPANSION 2-K9
1-I16 1-L16	* I *	KNUCKLE(L), STEERING 1-H13 KNUCKLE(R), REAR 1-E11	LOCK(R).TOP 2-113 LOCK.BONNET 2-L6 LOCK.CONSOLE-REAR 2-M9	NUT.FLANGE
2-L6 HOLDER, PLATE 1-D16 HOLDER, ROD 2-L6	* * **********************************	KNUCKLE(R), RECLINING 2-F10 KNUCKLE(R), STEERING 1-H13	LOCK, DE TACHABLE TOP 2-F13 LOCK, LID 2-N6	2-É16 NUT, HUB1-C14
HOLDER, STEERING GEAR 1-D13 HOLDER'A' 1-L16	IDLER, TIMING BELT 1-C4 IGNITER SET 2-C14 INDICATOR 2-D3		LOUVER, VENTILATOR 2-C10	NUT.LOCK 1-H11 1-L11 1-M12 1-N12
CAT.AUNA01-07	المرين المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع	E-003	er de part en de la participa de la participa de describa de la participa del la participa de la participa de la participa de la participa de la participa de la participa de la participa de la participa de	

NUT, LOCK-CLUTCH HUB 1-16 NUT, LOCK-COUNTER SHAFT BR 1-H6	PANEL, REAR DECK 2-K7 PANEL, REAR END 2-L7	PISTON, PRIMARY 1-016 PLATE 1-016	PLUG, DRAIN 2-C11 2-F8	RAIL(L), RAIN-REAR 2-N7 RAIL(R), RAIN-REAR 2-K7
NUT, LOCK-RACK 1-C13 NUT, SELF LOCK 2-K13	PANEL, ROOF 2-H13	PLATE NO.1, SEAL 2-112 PLATE NO.2(L), SET-F. BUMPE 2-F5		RAIL, RAIN-SOFT TOP REAR- 2-G13 REAR SPOILER3-C3
NUT,SIDE PROTECTOR 2-D6 2-F6	PARTS KIT, INNBRAKE 1-G16 PARTS KIT, INNER 1-F15	PLATE NO.2(R), SET-F. BUMPE 2-F5	PLUG, HOLE 2-G12 PLUG, MAGNET 1-D6	REAR UNDER SKIRT 3-C3 RECE, SIDE-ONE WAY CLUTCH- 1-N8
NUT, SPRING	PARTS SET 2-M15 PARTS SET, HORN CAP 1-J12	PLATE SET 2-H5	1-H11 1-L11	RECTIFIER
NUT, TOP-CRUSH PAD 2-L9	PARTS SET,ST. WHEEL 1-J12 PASS,OIL 1-D6 PAWL,PARKING 1-G9	PLATE(C), SET-TOP FABRIC 2-G13	PLUG, OIL CONTROL 1-G3 PLUG, PINION 1-C13	REGULATOR(L), WINDOW 2-D11 REGULATOR(R), WINDOW 2-D11
* O *	PEDAL & ARM 1-H15 PEDAL BRAKE 1-D16	PLATE(FRT).SET-ROOF PANEL 2-E13 PLATE(L).CLOSING-QTR PANE 2-N7 PLATE(L).FRONT SCUFF 2-C16	1-M12 PLUG,PINIDN-ST.GEAR 1-D13 PLUG.REGULATER 1-E8	REINF.(L),BELT LINE-C.PIL 2-K7 REINF.(L),SIDE SILL 2-M7 REINF.(L),STRIKER 2-M7
* ***********	1-M15 PEDAL, CLUTCH 1-M15	PLATE(L), HOOK-REA. DECK 2-F13 PLATE(L), SEAL 2-L7	PLUG, SCREW 1-F11 PLUG, SPARK 1-M6	REINF (L), TIE DOWN HOOK 2-F7
OIL,COMPRESSOR 2-M12	PIECE, DISTANCE 1-111	PLATE(L),SET-TOP FABRIC 2-G13 PLATE(L),SIDE-RE, FLOOR- 2-D8	PLUG, SQUARE HEAD 1-K7 PLUG, 2-3 SHIFT 1-F8	REINF.(L), WHEEL APRON 2-F7 REINF.(R), BELT LINE-C.PIL 2-K7
OPENER, FILLER LID 1-J15 ORIFICE 1-F3	PILLAR(L), FRONT-OUT 2-N7 PILLAR(L), FRTINNER 2-M7	PLATE(OUT), TIMING BELT 1-K3 PLATE(R), CLOSING-OTR PANE 2-L7	PLUG,3-4 SHIFT 1-G8 PLUNGER,CONTROL 1-N4	REINF.(R), SIDE SILL 2-K7 REINF.(R), STRIKER 2-K7
ORNAMENT.MAKER NAME-FRONT 2-G5 ORNAMENT.MAKER NAME-REAR- 2-K6 ORNAMENT.REAR 2-K6	PILLAR(L), HINGE 2-M7 PILLAR(L), HINGE-DUT 2-N7	PLATE(R), END 2-J7 PLATE(R), FRONT SCUFF 2-C16	POLE, ANTENNA 2-K14 PRESSURE RG., FUEL 1-H4	REINF.(R), TIE DOWN HOOK 2-F7 REINF.(R), WHEEL APRON 2-F7
ORNAMENT, REAR 2-K6 GRNAMENT, STEREO 2-I14 ORNAMENT, STEREO-LOWER 2-I14	PILLAR(R),FRONT-OUT 2-N7 PILLAR(R),FRTINNER 2-J7 2-K7	PLATE(R),HOOK-REAR DECK 2-F13 PLATE(R),SEAL 2-J7 PLATE(R),SET-TOP FABRIC 2-G13	PROTECTOR	REINF.,FUEL TANK 1-K15 REINFORCEMENT 2-J6 REINFORCEMENT(R) 2-F7
OUTLET, WATER 1-05	PILLAR(R),HINGE 2-J7 PILLAR(R),HINGE-OUT 2-N7	PLATE(R),SIDE-REAR FLOOR- 2-C8 PLATE,ASH TRAY 2-D9	2-J5 PRUTECTOR(C), EDGE-D.TOP 2-J13	REINFORCEMENT, BUMPER 2-E5
жижжийнийн жийн ж ж	PIN 1-Y11 1-N15	PLATE, BACK-BOOTS RING 2-19 PLATE, BACKING 1-H7	PROTECTOR(L), 'A' 2-G6 PROTECTOR(L), 'B' 2-G6	RELAY, CIRCUIT OPEN 2-N13 RELAY, COOLING FAN 2-J12
* P * * *	PIN,CHECKER 2-C11 PIN,GUIDE1-G11	PLATE, BAFFLE 1-D3 PLATE, BAFFLE-DIFF CASING- 1-C12	PROTECTOR(L), EDGE-D.TOP 2-J13 PROTECTOR(L), RETRA. FRONT 2-M5	RELAY, MAIN 2-N13 RELAY, N.O 2-C14
**************************************	PIN.INTER LOCK 1-J6 PIN.LOCK 1-I13 PIN.PIVOT-CLUTCH REL.FORK 1-C6	1-K11 PLATE,CAM-SUB FRAME 1-G)2 1-K13	PROTECTOR(L), RETRA. H/L 2-M5   PROTECTOR(L), RETRA. SIDE- 2-M5   PROTECTOR(L), SPLASH 2-M7	Z-F14 RELAY, TRANSFER 2-F14 2-J12
PAD SET, FRT CALIPER 1-113	PIN, SLIDER 1-113 PIN, SNAP 1-D16	PLATE, CAUTION 2-J16	PROTECTOR(R), 'A'	REMOTE TRANSMITTER 3-C3 REMOTE VPGRADE KIT 3-C3
PAD SET,RR CALIPER 1-F11 PAD(L).CUSHION-FRT 2-I10	1-N15 2-C3	1-M12 1-N12	PROTECTOR(R), EDGE-D.TOP 2-J13 PROTECTOR(R), RETRA H/L 2-M5	RESISTOR, BLOWER UNIT 2-F12 RESISTOR, METER 2-H9
PAD(R), BACK-FRT 2-H10 PAD(R), CUSHION-FRT 2-G10	PIN, TUBULAR 1-G3	PLATE, CLAMP-JACK 1-E14 PLATE, CONTACT 1-J12	PROTECTOR(R), RR FENDER 2-G8 PROTECTOR(R), SPLASH 2-J7	RESISTOR, PANEL LIGHT 2-C9 RESI(L), ARM 2-G11
PAD,CHANGE BOOT 2-M9 PAD,CRUSH 2-I9 PAD,FRONT FLOOR 2-E16	1-I11 1-M11 PINION.DIFFERENTIAL 1-I11	PLATE,CRANKSHAFT PULLEY 1-K3 PLATE,CUSHION-D. TOP 2-113 PLATE,DISC 1-E11	PROTECTOR, CABLE 2-115 PROTECTOR, COWL GRILL 2-J5 PROTECTOR, HARNESS 2-G15	REST(R),ARM 2-G11 RESY,F00T 1-D16
PAD.FUEL TANK 1-K15 PAD.INSTRUMENT PANEL 2-19	PINION, STEERING GEAR 1-M12 PIPE NO.1, COOLER 2-H12	1-H13 PLATE, DISHED 1:J8	PROTECTOR, HARNESS 2-G15 PROTECTOR, HT. CORD-S. TANK- 1-E3 PROTECTOR, MOULD-FR: WIND- 2-J5	1-N15 RETAINER 1-G9 RETAINER(L),FRONT BUMPER- 2-E5
PAD, PEDAL 1-016 1-M15	PIPE NO.2, BRAKE-REAR 1-H16	PLATE, DRIVE 1-H7	PROTECTOR, NO. PLATE 2-F5 PROTECTOR'A', FILLER PIPE- 1-J15	RETAINER(L), WTHSTP-D.TOP- 2-J13 RETAINER(R), FORNT BUMPER- 2-E5
PAD,RR FENDER 2-E16 PAD'B'(L),BACL-FRT 2-J10	PIPE NO.5, COOLER 2-H12	1-J8 1-K8	PROTR(L), MOULD-BELT LINE- 2-H13 PROTR(L), SEAT BELT 2-F10	RETAINER(R).WTHSTP-D.TOP- 2-J13 RETAINER,FASCIA 2-E5
PAD'B'(R), BACK-FRT 2-J10 PAN(L), FLOOR 2-D8	PIPE(R),BRAKE-FRONT 1-H16	PLATE, HOLDER-BRUSH 2-M15	PROTR(R), MOULD-BELT LINE- 2-H13 PROTR(R), SEAT BELT 2-F10	RETAINER. SERVO 1-L7
PAN(R),FLOOR 2-D8 PAN,FLOOR-CENTER 2-C8 PAN,FLOOR-FRONT 2-C8	PIPE,AIR INTAKE 1-14 PIPE,AUTO CRUISE CONTROL 2-H14 PIPE,BRAKE 1-H16	PLATE, LOCK 1-J11 1-M11 PLATE, MANUAL 1-G9	PROTR,BACK WINDOW-LOWER 2-C13 PROTR,BACK WINDOW-SIDE 2-C13 PROTR,BACK WINDOW-UPPER 2-C13	
PAN,FLOOR-REAR 2-C8 PAN,OIL 1-I3	PIPE, BRAKE-REAR 1-H16 PIPE, BY PASS 1-E5		PULLEY	RETAINER'B'(L), WTHSTP 2-G13 RETAINER'B'(R), WTHSTP 2-F13
PANEL(L), COWL_SIN 2-L7	PIPE, CLUTCH 1-G15 PIPE, COOLING UNIT 2-N12	PLATE, OIL BAFFLE-EX 1-03	PULLEY, CRANKSHAFT 1-K3 PULLEY, IDLE 1-G5	RETAINER'C'(L).WTHSTP 2-G13 RETAINER'C'(R).WTHSTP 2-F13
PANEL(L), FENDER: 2-E7 PANEL(L), FENDER- R 2-N7	PIPE, DRAIN-RR FENDER 2-17 PIPE, EVAPORATION 1-116		PULLEY, MAGNET CLUTCH 2-M12 PULLEY, TIMING BELT 1-K3	RING
PANEL(L),FLOOR S12, 2-E8 PANEL(L),INSIDE 2-L7 PANEL(L),OUTFRT DOOR 2-L10	PIPE,EXHAUST-FRONT 1-D15 PIPE,FILLER 1-I15 PIPE,FUEL-MAIN 1-L16		PULLEY, WATER PUMP 1-C5 PUMP SET, WATER 1-C5 PUMP, FUEL 1-F4	RING SET, PISTON 1-L3 RING(L)MOUNTING 2-L5 RING(R)MOUNTING 2-L5
PANEL(L),QUARTER 2-L7 PANEL(L),RR FENDER-LOWER- 2-M7	PIPE,FUEL-RETURN 1-116 PIPE,NOZZLE-FRONT WASHER- 2-115	Î-G9 1-K8	PUMP, OIL 1-H7 1-N4	RING, '0'
PANEL(L), WHEEL APRON 2-E7 2-F7	PIPE,OIL 1-17 PIPE,OIL LEVEL GAUGE 1-G3	PLATE, SEAL-T.BELT COVER U 1-J3 PLATE, SEPARATOR 1-G8	PUMP, VANE 1-F13 PUMP, WASHER 2-J15	1-D8 1-G3
PANEL(R),COWL SIDE 2-J7 PANEL(R),FENDER-FRT 2-E7	PIPE, PEDAL 1-D16 1-N15 PIPE, RETURN 1-F13	PLATE, SIDE 'A' 1-F8	***************************************	1-09 1-44
PANEL(R), FENDER-REAR 2-N7 PANEL(R), FLOOR SIDE 2-E8 PANEL(R), INSIDE 2-J7	PIPE, SUCTION 1-F13 PIPE, VACUUM 1-G16	PLATE, SIDE 'D' 1-E8	R R	1-J7 1-K7 1 <b>-M7</b>
PANEL(R), OUTFRT DOOR 2-L10 PANEL(R), QUARTER 2-J7	1-17 PIPE, VENTILATION 1-E3	PLATE, STABILIZER-RR 1-F12 PLATE, TIMING BELT GUIDE 1-K3		1-N7 2-C14
PANEL (R), WHEEL APRON 2-E7 PANEL, AUDIO 2-I14	PIPE,WATER 1-D5 PIPE,WATER PUMP 1-C5	PLATE, WINDOW 2-47 PLAYER, COMPACT DISC 2-114	RACE, BEARING 1-M8 RACE, BRG, HUB GLUTCH 1-C9	2-M13 RING. 'O'-AIR VALVE 1-L4
PANEL, BULK HEAD 2-17 FANEL, CENTER 2-C9	PIPE'A', CYLINDER 1-E13 PIPE'B', CYLINDER 1-E13	1-G3	RACE, BRG, PUMP COVER 1-M8 RACE, INNER 1-D9	RING.'O'-FUEL PUMP 1-F4 RING.'O'-MASTER CYL 1-G16
PANEL, CENTER-LOWER 2-D9 PANEL, COWL-FRONT 2-H7 PANEL DASH-LOWER 2-H7	PIPE'B',ST. GEAR 1-E13 PISTON SET 1-M3 PISTON,ACCUMLATOR 1-C8	1-H3 2-F8 PLUG,ACCUMLATGR 1-C8	RACE, DUTER 1-D9	RING.'0'-NO.1
PANEL,DASH-LOWER 2-H7 PANEL,DASH-UPPER 2-H7 PANEL,INSTRUMENT 2-I9	PISTON, BAND SERVO 1-L7 PISTON, CLUTCH 1-J8	PLUG, BLIND 1-G3 PLUG, COMPRESSOR 2-L12	RACE, OUTER-ONE WAY CLUTCH 1-N8 RACE, SHELL BEARING 1-L8 RACK, STEERING GEAR 1-C13	RING,'0'-NO.3 2-K12 RING,'0'-WATER BY-PASS 1-E5 RING,'0'-WATER PUMP 1-C5
PANEL, PLATE-MODE CONTROL- 2-612 PANEL, RAD. SHROUD 2-D7		PLUG, DRAIN 1-13 1-115	1-M12 RADIATOR 1-05	RING, 'O'-WATER (HERMO SW. 2-M13 RING, BACK UP 1-013

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RING, IL_UMINATION		SCREEN(R), FRONT DOOR 2-E11	SENSOR(C), AIR BAG	1-K12	SPACER	1-H6	STEM, PISTON 1-L7
RING, RETAINING		SCREW1-E8	SENSOR(L), AIR BAG			1-14	STEM, PISTON BAND 1-D8
	1-F16 1-K6	1-G8 2-C3	SENSOR(R),AIR BAG   SENSOR,AIR BAG-INNER			1-J6 1-J11	STOPPER SET 1-E7 STOPPER, BUMP 1-D12
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RING, RETAINING-DISC PLATE		SCREW & WASHER SET 1-K4	SENSOR, RESERVE TANK			1-M6_	STOPPER, FILLER LID 1-J15
RING, RETAINING-SHIFT ROD- RING, SEAL		SCREW SET 1-D7	SENSOR, THROTTLE			1-M15 1-N11	STOPPER,GLASS 2-N10 STOPPER,LINK-HOOD 2-E13
7110) 3142	1-F9	SCREW SET, IDLE ADJUST-THR 1-K4	SERVO, OVER DRIVE			1-N15	STOPPER, SOFT TOP 2-K13
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	1-E9 1-G9	2-L5 SCREW.ASH TRAY 2-D9	SHAFT		SPACER, PLANT FRAME SPACER, STEERING GEAR		STRAP,ALTERNATOR 1-N6 STRIKER 2-D11
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RING, SNAP-RR CALIPER RING, SYNCHRONIZER		SCREW, HEAD LAMP BEZEL 2-C6 SCREW, HOOK-REAR DECK 2-F13	SHAFT, INTERMED		SPRING		STUD, EX. MANIFOLD 1-D3
INTIAO) O HAOHIMOHATEEV.	1-16	SCREW, KNUCKLE 2-G10				1-F15	SUN VISOR(L) 2-H16 SUN VISOR(R) 2-H16
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ROD, CONTROL		SCREW, RR HEATER UNIT 2-E12	SHAFT, PULLEY		SPRING(L), BALANCE		SUPPORT, DRUM 1-C8
ROD, DIAPHRAGM		SCREW, SIDE GARNNISH 2-J5	SHAFT, REV. IDLE GEAR		SPRING(L), LEVER		SUPPORT, OIL PIPE 1-J7
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ROD, PUSH-FRT CALIPER		SCREW, TIE DOWN HOOK 2-H8	SHELL, CONNECTING			1-C7	SWITCH(R), CLUSTER 2-D14
ROD, RELEASE		SCREW, WEDGE-LIFT GATE 2-E11	SHIELD(L), SPLASH-REAR			1~F7	SWITCH. BACK UP LAMP 2-M13
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RUBBER(C), CUSHION-BONNET-		1-E9 1-J8	SILENCER, MAIN		SPRING.MODIFIERSPRING.NO.1		SWITCH, KICK DOWN 1-D16 SWITCH, LIGHT-BRAKE 1-C16
RUBBER(LWR), MOUNT-TANK		1-M7	0120110011111111111	1-E15	SPRING, NU. 2		1-E16
RUBBER (UP) MOUN -TANK					SPRING,OUTVALVE	1-N3 .	1-N15
RUBBER, BLADE-FRONT RUBBER, BLIND				2-17			SWITCH, MAIN 2-D14
RUBBER, CUSHION		1-K7 SEAL,DUST 1-L13	SILL(FRT.R),SIDE-INNER SILL(L),SIDE OUT		SPRING, PAWL RETURN SPRING, PISTON		SWITCH, OIL PRESSURE 2-C14
RUBBER, CUSHION-BONNET FRT	2-L6	SEAL, DUST-BALL JOINT 1-D13		2-K7	SPRING, PISTON RETURN		SWITCH. OVER DRIVE CONTROL 2-C3
RUBBER, CUSHION-BONNET RR-	2-L6	1-K13	SILL(RR.L),SIDE-INNER	2-17		1-L7	SWITCH. PARKING LAMP 1-K16
RUBBER, DUST SEAL		1-N12			SPRING, PRESSURE		SWITCH. POWER WINDOW 2-N9
RUBBER, ENGINE MT RUBBER, INS CONDR	2-612	SEAL, LATHE CUT 1-J8	SLEEVE.BEARING-FRONT SLEEVE.BEARING-REAR		SPRING.REGULATER	1-68 1-H15	SWITCH, PRESSURE-P.S 1-F13
RUBBER, INSULATION	1-F4	SEAL, OIL 1-C6	SLEEVE, CLUTCH HUB	1-E6		1-J16	并有关格别等并并被附近的所有
RUBBER, INSULATOR	2-I12	1-D6		1-F6		1-M15	* ×
RUBBER, MOUNT		1-411	SLEEVE, GEAR	1-16	SPRING, RETURN-BRAKE		H T H
KOBBEK MOON I TUG	1-012	1-17 1-111	SLEEVE, REGULATER PLUG		SPRING.SECOND LOCK	1-N15  1-E8	失 好多英雄女女女女女女女女女女女女
	1-J4	1-J3	SLEEVE, SPEEDOMETER		SPRING. SHIFT ROD		***********
	1-K13	1-K7		1-K7	SPRING, SHIFT ROD END	1-16	T MISSION CPT 1-H7
	1-M6	1-11	SLEEVE, 3-4 SHIFT		SPRING SHIFT ROD-REVERSE-		TACHOMETER 2-H9
	1-M12	1-M11 1-N4	SLIDE'A',BUMPER SLIDE'UP.',BUMPER		SPRING,SYNCHRO. KEY SPRING,SYNCHRO.KEY		TAG.CAUTION-CHANGE 2-C3 TANK SET.RESERVE 1-F16
RUBBER, SEAL	Ī-D6	SEAL, OIL-AXLE 1-E11	SOCKET	2-69	SPRING, SYNCRONIZER		TANK . FUEL 1-115
	1-E5	SEAL, OIL-CRANKSHAFT 1-J3	SOCKET(L), RR SIDE TURN	2-06	SPRING, TENSIONER	1-C4	TANK . LIQUID 2-112
RUBBER, SEAL -SEAL PLATE		SEAL, PISTON 1-E9	SOCKET(L), RR.COMB,		SPRING, THROTTLE BACK-UP		TANK . SUB-RADIATOR 1-E5
RUBBER,STAB -FRT		1-L7 SEAL, RUBBER 1-E3	SOCKET(R),RR SIDE TURN   SOCKET(R),RR.COMB		SPRING, VALVE		TANK, VANE ['MP 1-G1] TANK, WASHER 2-J1
RUBBER, STOPPER	1-D16	SEAL, RUBBER-FRONT BUMPER- 2-E5	SOCKET, F. COMB. LAMP		SPRING, 2-3 SHIFT		TANK.WASHER-FRONT 2-11
	1-M15	SEAL, RUBBER-REAR BUMPER 2-H5	SOCKET, LICENSE LAMP	2-16	SPRING, 3-2 TIMING	1-38	TAPE ENGY ABS FORM-RR BUM 2-65
RUBBER, SUB FRAME MTG		SEAL, SHAFT 1-M12	SOCKET, METER SET		SPRING, 3-4 SHIFT		TAPE . SEAL-RAIN RAIL 2-E13
	1-K11	SEAL, SHAFT-COMPR 2-1.12 SEAL, VALVE 1-N3	SOCKET, SIDE TURN		STABILIZER, FRONT		TENSIONER.T.BELT 1-C4
***********		SEAT(L), FRONT 2-E10	SOLENOID.DOWN SHIFT	2-F6 2-C14	STABILIZER, RRSTARTER		TERMINAL SET
*		2-F10	SOLENOID, LOCK UP CONTROL-		STATOR		THERMOSTAT COOLING UNIT 2-N12
* S *		SEAT(R), FRONT 2-E10	SOLENOID, OVER DRIVE	2-C14	STAY(L), RR. BUMPER	2-H5	TIMER & BUZZER 2-F14
# # # # # # # # # # # # # # # # # # #		SEAT, REGULATER SPRING 1-E8	SPACE		STAY(R), RR. BUMPER		T1RE 1-C14
***************		SEAT, VALVE SPOLWR 1-N3 SEAT, VALVE SPG-UP 1-N3	SPACER	1-M11	STAY, BONNET		TOOL SET 2-G16 TRAY, ASH 2-D9
SCREEN(L), FRONT DOOR	2-E11	SECURITY SYSTEM 3-C3	O HOUR	1-G6	STAY, MANIFOLD		TRA1, BATTER1 1-G7
						'	

Ĩ-	CCNGCLJINGCLHGNDIA77673474	WASHER SET	-H11 	**************************************	
TUNER & DECK, COMB 2-	114	Ĩ	I-H7 I-L7		
VALVE, BY-PASS AIR CONTROL 1- VALVE, CHECK1-	######################################	VASHER, PLAIN CYL. HEAD VASHER, PLAIN-FRAME VASHER, SEAL	-C15 -J7 2-L102 -G6 -G6 -H6 -H6 -H6 -H6 -H10		
VALVE, CONTROL	TERRINGKENSERJHORGESSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	VEIGHT, DISC WHEEL-ALUMI 1 VEIGHT, DISC WHEEL-STEEL 1 VELT, SEAMING 2 VELT, SEAMING-SOFT TOP 2 VHEEL SET, DISC-ALUMI 1 VHEEL, DISC-STEEL 1 VHEEL, FLY 1 VINDOW, BACK-D. TOP 2 VIRE, A.C.C 2 VIRE, CONNECT 2	1-D14 1-C14 1-D14 1-N13 1-D14 1-C14 1-K3 1-C14 1-K3 1-C14 1-K3 1-C14 1-K3 1-C14		

# **MODEL IDENTIFICATION**

This parts catalog has been compiled to cover the following models.

(1/1)

		Specifications of vehicles																				
	Ba:	sic ec	Eng eni	СС	Com mba/	T. mis	sior	AT cont rol	Sp	ed	Door	Bra ke	Di	ıı.		Produ		1	del		Remarks	
Model No.	California	Federal	Gasoline engine	1600cc	ронс	Manual T/mission	Automatic T/mission	Hydraulic control	₹ speed	5 speed	2 door	4 disc	Normal diff	Limited Slip diff.	2 W D	From	То	1990		VIN (Chassis No.)		
	(CT)	(FD)	(GE)	(1.6)	(DH)	(NT)	(AT)	HC)	(¢S)	(5 5)	(2 D)	(4DS)	(D)	เร	(217)							
NAOI	CL		GΕ	1.6	ДH	MT				58	<b>2</b> D	4DS	ND		2W	Mar. '89		-		MA35**-100001~ 200000		
N A O 2	CL		GΕ	1.6	DH	MT				<b>5</b> S	<b>2</b> D	4DS		LS	2 W	Ma.r. '89	Jul 90	-		NA35**-100001~ 200000		
NA 03	CL		GE	1.6	DН		AT	HC AT	4 S		2 D	4DS	ND		2 W	Dec. '89	Jul. 90	-		NA35**−100001~ 200000		
NA 0 4		FD	GE	i.6	DH	MT				58	2 D	4DS	ND		2 W	Mar.	Ju!	-		NA35**-100001~ 200000		
NA 0 5		FD	GE	1.6	DH	MT				58	2 D	4DS		L,S	2 W	Mar. '89		-		NA35**-100001~- 200000		
N A O 6		FD	GE	1.6	DН		AT	HC AT	45		2 D	4DS	ND		2 W	Dec. '89	Jul 190	>		NA35**-100001~ 200000		

AUNA01 07

1992 02

## **BODY PAINTS AND INTERIOR COLORS**

THIS LIST SHOWS COMBINATION OF BODY PAINT AND INTERIOR COLOR. USING THIS LIST YOU WILL BE ABLE TO FIND OUT NECESSARY COLOR CODE OF PART YOU NEED IN THE TEXT

BODY PAINT						
NAME	CODE	INTERIOR COLOR CODE				
MARINER BLUE	טט	N A O				
CLASSIC HED	SU	NAO				
CRYSTAL WHITE	UC	NAO				
SILVER STONE METALLIC	ЭL	NAO				

NOTE:1)
COLORS OF INTERIOR CODES
ARE AS FOLLOWS

NAO BLACK

## **COMPLETE ASSEMBLY PARTS NUMBERS**

			_	~	<del></del> -	5	pec:	ific	atio	ons	05	veh	icl	es		T			(1/1)
	Ba sp	sic ec.	ine	CC	120	T,	sion	1385	Spe	eed	Door	Bra ke	Di	ff.	drive		Parts number		
Model No.	California	Federal	Gasoline engine	1800cc	ронс	Manual T/mission	Automabic T/mission	Hydraulic control	4 speed	5 speed	2 door	4 disc	Normel diff	Limited slip diff.	2 W D	Engino	T/mission	Cabin	Acmarks
	(CL)	(FD)	(ED)	(1.5)	Фю	(KT)	(AT)	HC)	(45)	(55)	(20)	(405	(Q K)	ແສ	(219)				
NAO 1	CL		GE	1.6	DH	MT				<b>5</b> S	20	4DS	ИВ		2W	B61P-02-000	M50S-03-000	NA01-07-00G	
NAO 2	CL		GE	1.6	DH	MT				58	20	4DS		LS	2W	B61P-02-000	M 5 0 S - 0 3 - 0 0 0	NA01-07-000	
NAO 3	CL		GE	1.6	DH		77	HA	45		20	4DS	ND		2₩	B64J-02-000	BUY2-19-090A	HA01-07-000	
NA04		FD	GE	1.6	DH	HT		$\sim$		55	2 D	4DS	ND		27	B61P-02-000	M50S-03-000	NA01-07-000	
NAO 5		۲D	GE	1.6	DH	TK	~	$\sim$		58	2 D	4DS		LS	2₩	B61P-02-000	M 5 0 S - 0 3 - 0 0 0	NA01-07-000	
NAOS		סיו	GR	1.6	рн		TA.	AH	45		20	4D5	ND		2 W	B 6 4 J - 0 2 - 0 0 0	BUY2-19-090A	MA01-07-000	

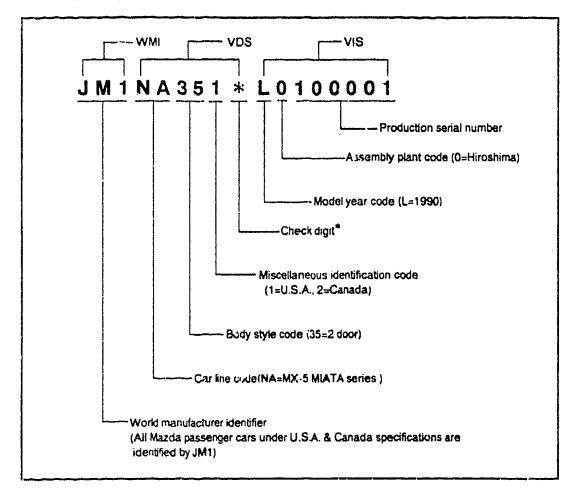
Complete assemblies are available and manufactured in accordance with current production specifications only.

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1992 02

### VEHICLE IDENTIFICATION SYSTEM FOR MX-5 MIATA SERIES (1990)

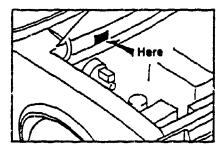
VIN (= Vehicle Identification Number) for MX-5 M:ATA series (1990 Year Model) consists of WMI(= World Manufacturer Identifier), VDS(= Vehicle Description Section) and VIS(= Vehicle Identification Section). VDS consisting of six alphanumeric characters denotes the "MODEL SERIES". VIS consisting of eight alphanumeric characters denotes the serial unit number of vehicle and is sequentially numbered within each VDS.



<sup>\*</sup> Check digit is included as a VIN security feature to permit law enforcement verification of the authenticity of a suspected illegal VIN plate. This single digit number is determined, based upon a complex mathematical formula which is applied to each vehicle's VIN number.

### LOCATION OF VIN PLATE

The plate is attached to the top ledge of the dash panel under the bonnet(engine hood), refer to the illustration shown right.



### [Note]

if the VIN(Chassis) reference number in the PCM(Parts Catalog Microfiche) appeared as:

NA35 + + - 100001

...the vehicle's VIN would be a g. JM1NA351 \* L0100001

### **ABBREVIATIONS**

The following abbreviations are used throughout Mazda Microfiche parts catalog: in the illustration, tex, section number index, alphabetical index.

Abbreviation	Defination	Abbereviation	Detrotion	Abbievia on	Delivition	Abbrevation	Detinizan			<u> </u>	
157	•	1	•	1	•		•	Abborevation	Definition	Attrevator	Defense
SND	Firs	BSV BTHR	: Bless Solenou Valve	DIFF	Differential	11 14	E Mead	LHD	Last Harris Drive	6.8	Proportioning Brave
20	Second	1 "	Breather	D:SC/B	Drum Brake	HARN	Hainess	LH SIDE	Left Harld Side	PC.	Post le Cranicase
25EA'	2 Deor 2 Seater	BUMP BURG	Bumper	DIST	Distributor	HAC	High Atti de	LKOUT	LOCKOUP		rent valor
30	3 Door		Burgia	DMPR	Dumper	11	Conpensator	L NOSE	Long Note	PH_PPHS	Philopres
3RD	*h/a	BYACV	Bypass Air Control	DOHC	Double Overhead	H A CONPENSATOR	High Altride	ANVG - CPU	Less Navgækn	ទក្ខន	بوء ٥
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45 SP	4 Speed 5 Speed	CAREA	Cold Area	TRAME OF DIME	Double Tre	HC A/T	Hydro Cor. or	L PARTITION	Less Park or	PHI.	( angr
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5 NK	5 Link Suspension	CA'	Catansi	Dx	Deluxe	I HI -	Heater	LSD or S DIFF	. ess Su Dillerers	POW MINDOW	Sower & noon
5 5P or 5 SPC	5 50000	CDISC	Compact Disc	DYLW	Dark Yellow	HI ALTI	, High - F High Altrude	i tu oure	James, Tare	F P	FORDWINE Pages
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400	Automatic Cruise	C.*R	Cigarete cighter	ELECT	Electric	HWI	. Herding	WA SUSP	Must Adjustable	P <sub>2</sub>	Posic
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