

GENERAL

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E01CA--

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00-2

NOTES

HOW TO USE THIS MANUAL

E01BAAV

SCOPE OF MAINTENANCE, REPAIR AND SERVICING EXPLANATIONS

This manual provides explanations, etc. concerning procedures for the inspection, maintenance, repair and servicing of the subject model. Note, however, that for engine and transmission-related component parts, this manual covers only on-vehicle inspections, adjustments, and the removal and installation procedures for major components. For detailed information concerning the inspection, checking, adjustment, disassembly and reassembly of the engine, transmission and major components after they have been removed from the vehicle, please refer to the separate manuals covering the engine and the transmission.

SERVICE ADJUSTMENT PROCEDURES

"Service adjustment procedures" are procedures for performing inspections and adjustments of particularly important locations with regard to the construction and for maintenance and servicing, but other inspections (for looseness, play, cracking, damage, etc.) must also be performed.

INSPECTION

Under this title are presented inspection and checking procedures to be performed by using special tools and measuring instruments and by feeling, but, for actual maintenance and servicing procedures, visual inspections should always be performed as well.

DEFINITION OF TERMS

STANDARD VALUE

Indicates the value used as the standard for judging the quality of a part or assembly on inspection or the value to which the part or assembly is corrected and adjusted. It is given by tolerance.

LIMIT

Shows the standard for judging the quality of a part or assembly on inspection and means the maximum or minimum value within which the part or assembly must be kept functionally or in strength. It is a value established outside the range of standard value.

REFERENCE VALUE

Indicates the adjustment value prior to starting the work (presented in order to facilitate assembly and adjustment procedures, and so they can be completed in a shorter time).

CAUTION

Indicates the presentation of information particularly vital to the worker during the performance of maintenance and servicing procedures in order to avoid the possibility of injury to the worker, or damage to component parts, or a reduction of component or vehicle function or performance, etc.

INDICATION OF TIGHTENING TORQUE

The tightening torque shown in this manual is a basic value with a tolerance of $\pm 10\%$ except the following cases when the upper and lower limits of tightening torque are given.

- (1) The tolerance of the basic value is within $\pm 10\%$.
- (2) Special bolts or the like are in use.
- (3) Special tightening methods are used.

MODEL INDICATIONS

The following abbreviations are used in this manual for classification of model types.

M/T: Indicates the manual transmission, or models equipped with the manual transmission.

A/T: Indicates the automatic transmission, or models equipped with the automatic transmission.

2WD: Indicates the front wheel-drive vehicles.


4WD: Indicates the 4 wheel-drive vehicles.

MPI: Indicates the multi-point injection, or engines equipped with the multi-point injection.

EXPLANATION OF MANUAL CONTENTS

Indicates procedures to be performed before the work in that section is started, and procedures to be performed after the work in that section is finished.

Maintenance and Servicing Procedures

- (1) A diagram of the component parts is provided near the front of each section in order to give the reader a better understanding of the installed condition of component parts.
- (2) The numbers provided within the diagram indicate the sequence for maintenance and servicing procedures; the symbol  indicates a nonreusable part; the tightening torque is provided where applicable.

- Removal steps:
The part designation number corresponds to the number in the illustration to indicate removal steps.
- Disassembly steps:
The part designation number corresponds to the number in the illustration to indicate disassembly steps.
- Installation steps:
Specified in case installation is impossible in reverse order of removal steps. Omitted if installation is possible in reverse order of removal steps.
- Reassembly steps:
Specified in case reassembly is impossible in reverse order of disassembly steps. Omitted if reassembly is possible in reverse order of disassembly steps.

Classifications of Major Maintenance/Service Points






When there are major points relative to maintenance and servicing procedures (such as essential maintenance and service points, maintenance and service standard values, information regarding the use of special tools, etc.), these are arranged together as major maintenance and service points and explained in detail.

- ◆◆: Indicates that there are essential points for removal or disassembly.
- ◆◆: Indicates that there are essential points for installation or reassembly.

Indicates (by symbols) where lubrication is necessary. In this example, multipurpose grease is to applied (where indicated) to the steering gear box.

Symbols for Lubrication, Sealants and Adhesives

Information concerning the locations for lubrication and for application of sealants and adhesives is provided, by using symbols, in the diagram of component parts or on the page following the component parts page, and explained.

- : Grease (multipurpose grease unless there is a brand or type specified)
- : Sealant or adhesive
- : Brake fluid or automatic transmission fluid
- : Engine oil, gear oil or air conditioner compressor oil
- : Adhesive tape or butyl rubber tape

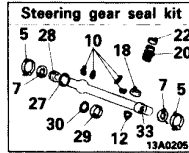
Indicates the group number. Indicates the page number. Indicates the group title. Indicates the section title.

This information is applicable for vehicles destined for Europe. This information is also applicable to vehicles (with specifications for Europe) that are shipped to General Export destinations.

37A-24 **STEERING - Power Steering Gear Box**
POWER STEERING GEAR BOX <VEHICLES FOR EUROPE>

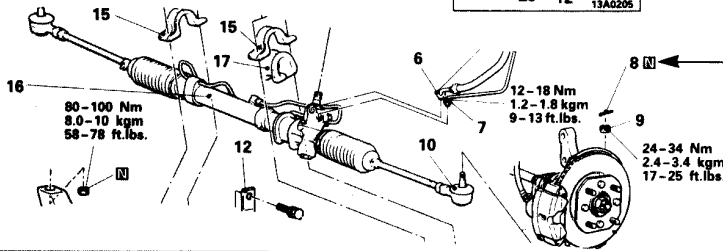
REMOVAL AND INSTALLATION

Pre-removal Operation
 • Draining of the Power Steering Fluid
 • Removal of the Air Cleaner <Vehicles with a Carburettor>



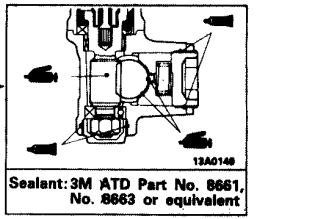
Repair kit or set parts are shown. (Only very frequently used parts are shown.)

<2WD>



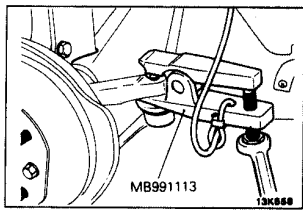
Denotes non-reusable part.

Denotes tightening torque.



- Removal steps**
1. Dust cover mounting bolts
 5. Connection for joint assembly and gear box
 6. Flare nut of return hose
 7. Flare nut of pressure hose assembly
 8. Split pins
 9. Tie-rod end and knuckle connecting nuts
 10. Tie-rod end ball joints
 11. Crossmember support bracket

Operating procedures, cautions, etc. on removal, installation, disassembly and reassembly are described.

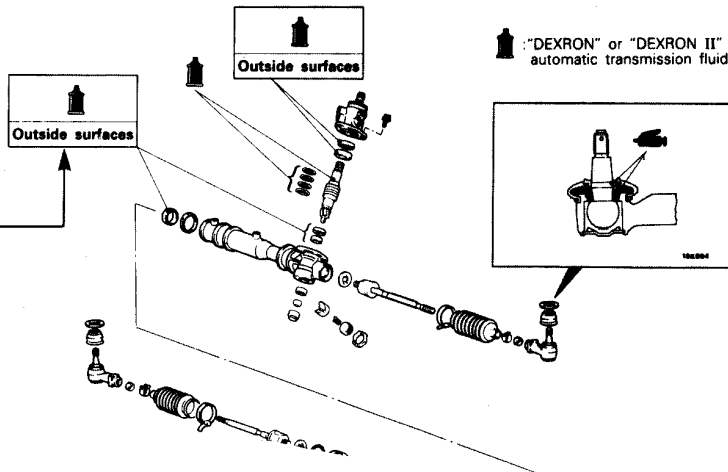


- SERVICE POINTS OF REMOVAL**
- 5. DISCONNECTION OF JOINT ASSEMBLY AND GEAR BOX**
 Before disconnecting the joint assembly from the gear box, loosen the steering column assembly mounting bolts.
- 10. REMOVAL OF TIE-ROD END BALL JOINTS**
Caution
 To prevent the special tool from jumping out, secure it by cord to a nearby part.

This number corresponds to the number appearing in "Removal steps", "Disassembly steps", "Installation steps" or "Reassembly steps".

37A-28 **STEERING - Power Steering Gear Box**

LUBRICATION AND SEALING POINTS



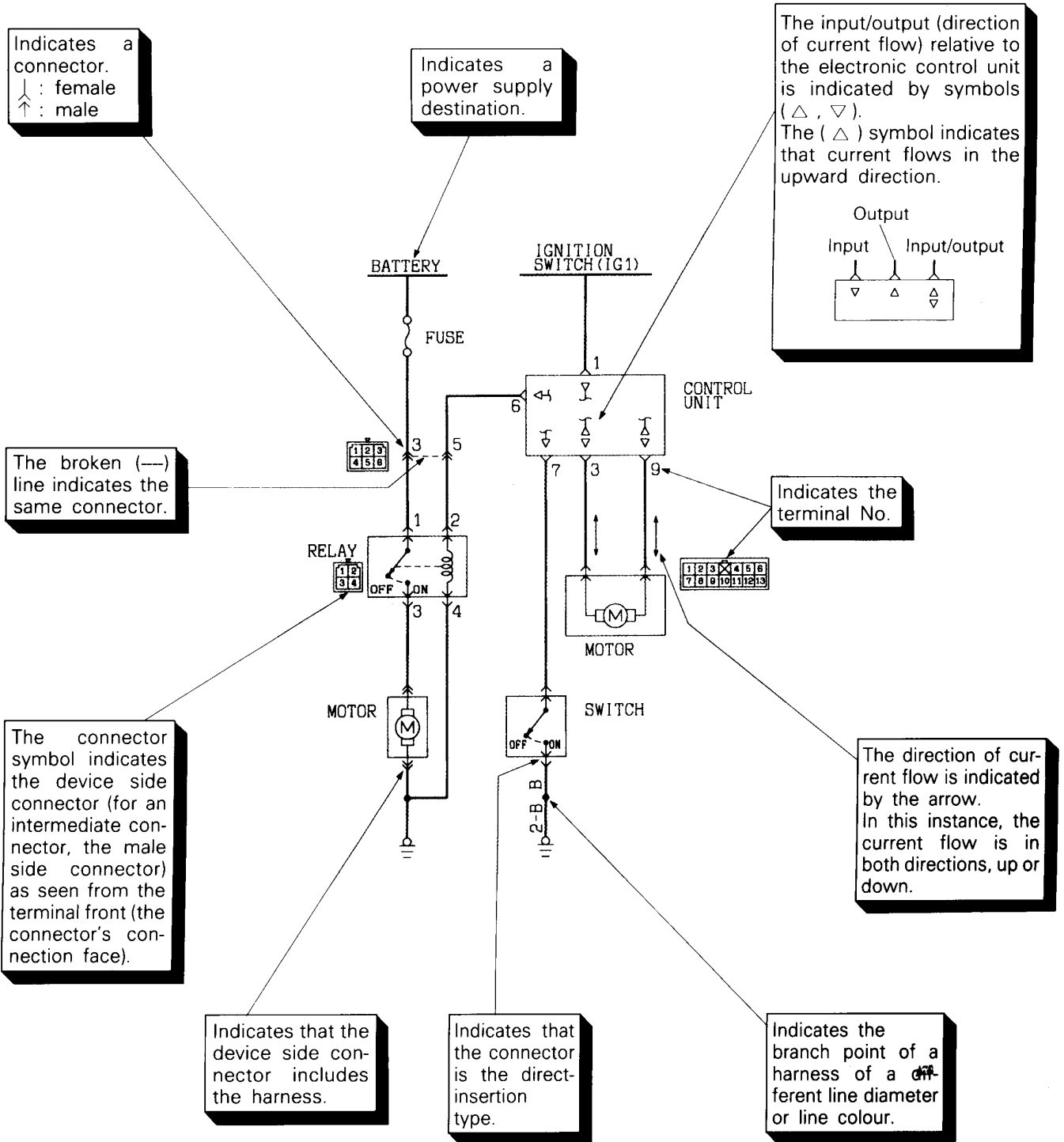
The title of the page (following the page on which the diagram of component parts is presented) indicating the locations of lubrication and sealing procedures.

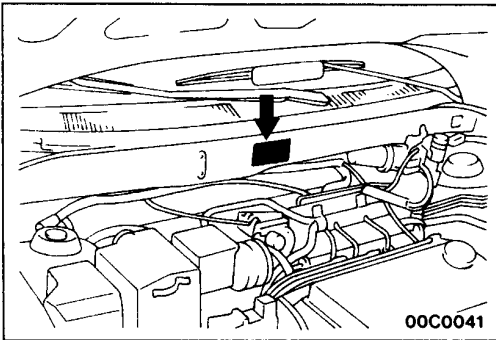
EXPLANATION OF CIRCUIT DIAGRAMS

The symbols used in circuit diagrams are used as described below.

NOTE

For detailed information concerning the reading of circuit diagrams, refer to the separate manual of "ELECTRICAL WIRING"

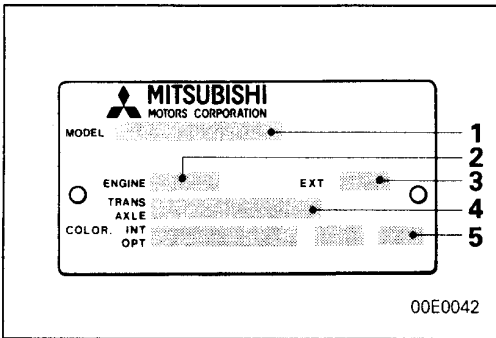




**VEHICLE IDENTIFICATION
VEHICLE INFORMATION CODE PLATE
LOCATION**

E01DD--

Vehicle information code plate is riveted on the upper frame outer panel (Centre).



CODE PLATE DESCRIPTION

The plate shows model code, engine model, transmission model, and body colour code.

1. MODEL

N31W LNUEL6

Model series
Vehicle model

2. ENGINE

4G93

Engine model

3. EXT

CA6

Exterior code

4. TRANSAXLE

F5M22 4592

Final gear ratio
Transmission model

5. COLOR, INT
OPT

R25 87V 03V

Equipment code
Interior colour code
Body colour code

For monotone colour vehicles, the body colour code shall be indicated. For two-tone or three-way two-tone colour vehicles, each colour code only shall be indicated in series.

MODELS <Vehicles built up to May, 1992>

E01DA--

<SPACE RUNNER>

Model Code		Engine model	Transmission model	Fuel supply system
N11W	SNJEL6/R6	4G93 [1,834 cm ³ (111.9 cu.in.)]	F5M22 (2WD-5M/T)	MPI
	SNUEL6/R6			
	SNUEBR6		F4A22 (2WD-4A/T)	
	SRUEL6/R6			
	SRUEBR6			
N21W	SNUEL6/R6	W5M31 (4WD-5M/T)		

<SPACE WAGON>

Model Code		Engine model	Transmission model	Fuel supply system
N31W	LNUEL6/R6	4G93 [1,834 cm ³ (111.9 cu.in.)]	F5M22 (2WD-5M/T)	MPI
	LNUEBL6/R6			
	LRUEL6/R6		F4A22 (2WD-4A/T)	
	LRUEBL6/R6			
N35W	LNUTL6/R6	4D65 with a turbocharger [1,795 cm ³ (109.5 cu.in.)]	F5M31 (2WD-5M/T)	Injection
N41W	LNUEL6/R6	4G93 [1,834 cm ³ (111.9 cu.in.)]	W5M31 (4WD-5M/T)	MPI
	LRUEL6/R6		W4A32 (4WD-4A/T)	

MODELS <Vehicles built from June, 1992>

E01DA--

<SPACE RUNNER>

Model Code		Engine model	Transmission model	Fuel supply system
N11W	SNJEL6/R6	4G93 [1,834 cm ³ (111.9 cu.in.)]	F5M22 (2WD-5M/T)	MPI
	SNUEL6/R6		F4A22 (2WD-4A/T)	
	SRUEL6/R6			
N18W	SNJTL6/R6	4D68 with a turbocharger [1,998 cm ³ (121.9 cu.in.)]	F5M31 (2WD-5M/T)	Fuel Injection Pump
N21W	SNUEL6/R6	4G93 [1,834 cm ³ (111.9 cu.in.)]	W5M31 (4WD-5M/T)	MPI

<SPACE WAGON>

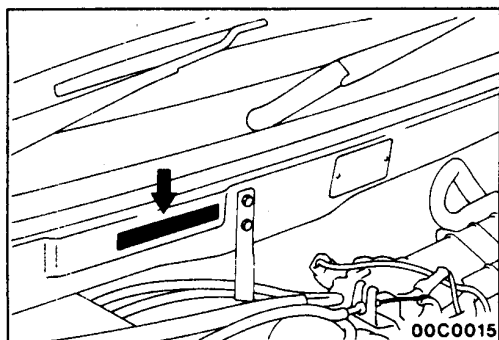
Model Code		Engine model	Transmission model	Fuel supply system
N33W	LNUEL6/R6	4G63 [1,997 cm ³ (121.9 cu.in.)]	F5M22 (2WD-5M/T)	MPI
	LRUEL6/R6		F4A22 (2WD-4A/T)	
	LNSEL6		F5M22 (2WD-5M/T)	
	LRSEL6		F4A22 (2WD-4A/T)	
N34W	LNUEL6	4G64 [2,350 cm ³ (143.4 cu.in.)]	F5M31 (2WD-5M/T)	MPI
	LRUEL6		F4A23 (2WD-4A/T)	
N38W	LNUTL6/R6	4D68 with a turbocharger [1,998 cm ³ (121.9 cu.in.)]	F5M31 (2WD-5M/T)	Fuel Injection Pump
N43W	LNUEL6/R6	4G63 [1,997 cm ³ (121.9 cu.in.)]	W5M31 (4WD-5M/T)	MPI
	LRUEL6/R6		W4A32 (4WD-4A/T)	
	LNSEL6		W5M31 (4WD-5M/T)	
	LRSEL6		W4A32 (4WD-4A/T)	

MODEL CODE



E01DB--

<u>N11</u>	<u>W</u>	<u>S</u>	<u>N</u>	<u>J</u>	<u>E</u>	<u>L</u>	<u>6</u>
1	2	3	4	5	6	7	8

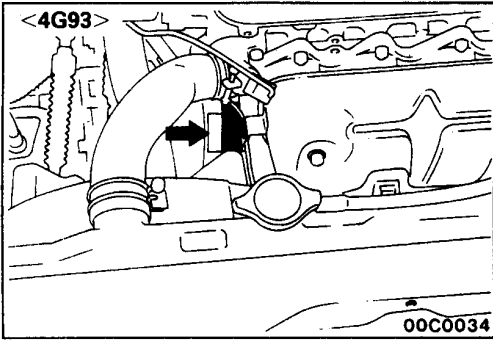
- | | |
|---|---|
| <p>1. Development order, driving wheels
 N11 – 1,834 cm³ (111.9 cu.in.), 2WD
 N18 – 1,998 cm³ (121.9 cu.in.), 2WD
 N21 – 1,834 cm³ (111.9 cu.in.), 4WD
 N31 – 1,834 cm³ (111.9 cu.in.), 2WD
 N33 – 1,997 cm³ (121.9 cu.in.), 2WD
 N34 – 2,350 cm³ (143.4 cu.in.), 2WD
 N35 – 1,795 cm³ (109.5 cu.in.), 2WD
 N38 – 1,998 cm³ (121.9 cu.in.), 2WD
 N41 – 1,834 cm³ (111.9 cu.in.), 4WD
 N43 – 1,997 cm³ (121.9 cu.in.), 4WD</p> <p>2. Sort
 W – Wagon</p> <p>3. Body style
 S – 3-door station wagon
 L – 4-door station wagon</p> <p>4. Transmission type
 N – 5-speed manual transmission
 R – 4-speed automatic transmission</p> | <p>5. Trim level
 J – GL
 U – GLX
 S – N1</p> <p>6. Specified engine feature
 E – Electronic injection
 T – Turbocharger</p> <p>7. Steering wheel location
 L, BL – Left hand
 R, BR – Right hand</p> <p>8. Destination
 6 – For Europe</p> |
|---|---|

**CHASSIS NUMBER**E01DCAW_a

The chassis number is stamped on the toeboard inside the engine compartment.


J M B S N N11W R Z 000001

 1 2 3 4 5 6 7 8 9 10

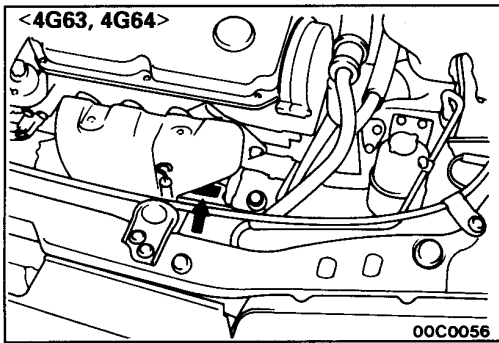
- | | |
|--|---|
| <p>1. Asia</p> <p>2. Japan</p> <p>3. MITSUBISHI
 A – For Europe, right hand drive
 B – For Europe, left hand drive</p> <p>4. Body style
 S – 3-door station wagon
 L – 4-door station wagon</p> <p>5. Transmission type
 N – 5-speed manual transmission
 R – 4-speed automatic transmission</p> | <p>6. Development order
 N11 – 1,800 cm³ (109.8 cu.in.)
 N18 – 2,000 cm³ (122.0 cu.in.), Diesel
 N21 – 1,800 cm³ (109.8 cu.in.), Full Time 4WD
 N31 – 1,800 cm³ (109.8 cu.in.)
 N33 – 2,000 cm³ (122.0 cu.in.)
 N34 – 2,400 cm³ (146.5 cu.in.)
 N35 – 1,800 cm³ (109.8 cu.in.), Diesel
 N38 – 2,000 cm³ (122.0 cu.in.), Diesel
 N41 – 1,800 cm³ (109.8 cu.in.), Full Time 4WD
 N43 – 2,000 cm³ (122.0 cu.in.), Full Time 4WD</p> <p>7. Body style
 W – Wagon</p> <p>8. Model year
 N – 1992
 P – 1993
 R – 1994</p> <p>9. Plant
 Z – Okazaki Plant of Nagoya Motor Vehicle Works</p> <p>10. Serial number</p> |
|--|---|



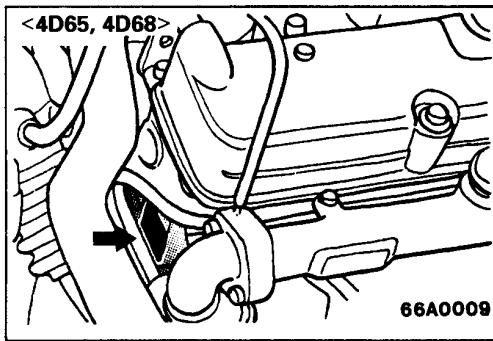
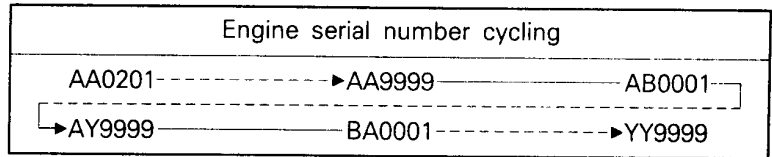
ENGINE MODEL NUMBER

1. The engine number is stamped on the engine cylinder block as shown in the illustration.

Engine model	Engine displacement cm ³ (cu.in.)
4G93	1,834 (111.9)
4G63	1,997 (121.9)
4G64	2,350 (143.4)
4D65	1,795 (109.5)
4D68	1,998 (121.9)



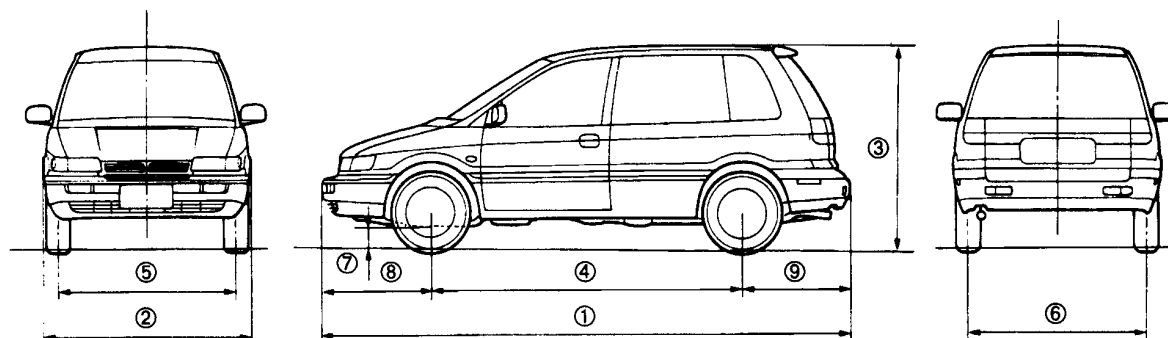
2. The engine serial number is stamped near the engine model number, and the serial number cycles, as shown belows.



MAJOR SPECIFICATIONS <Vehicles built up to May, 1992>

E01FA--

<SPACE RUNNER>



66C0031

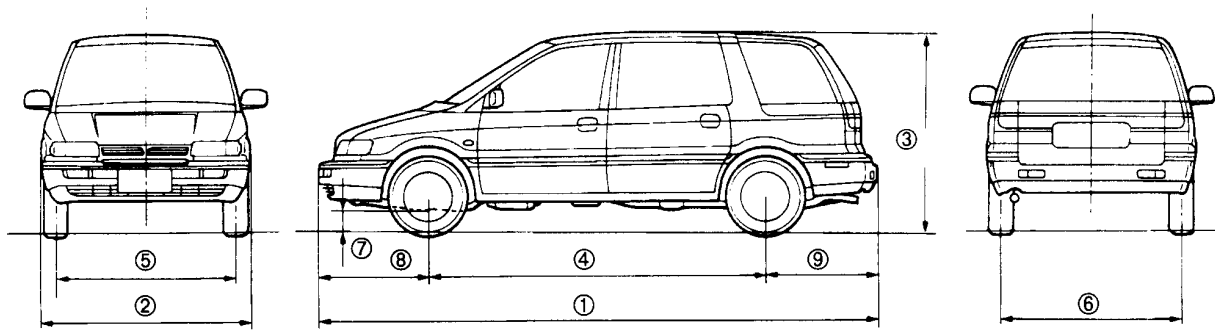
Items	Model	N11W			N21W
		SNJEL6/R6	SNUEL6/R6 SNUEBR6	SRUEL6/R6 SRUEBR6	SNUEL6/R6
Dimensions	mm (in.)				
Overall length	①	4,290 (168.9)			4,290 (168.9)
Overall width	②	1,695 (66.7)			1,695 (66.7)
Overall height (unladen)	③	1,625 (64.0) or 1,640 (64.6)* ¹			1,640 (64.6) or 1,680 (66.1)* ¹
Wheelbase	④	2,520 (99.2)			2,520 (99.2)
Track – front	⑤	1,460 (57.5)			1,455 (57.3)
Track – rear	⑥	1,460 (57.5)			1,460 (57.5)
Ground clearance (laden)	⑦	120 (4.7)			120 (4.7)
Overhang – front	⑧	895 (35.2)			895 (35.2)
Overhang – rear	⑨	875 (34.4)			875 (34.4)
Weight	kg (lbs.)				
Kerb weight* ²		1,175–1,279 (2,590–2,820)	1,185–1,288 (2,612–2,840)	1,205–1,308 (2,657–2,884)	1,280–1,379 (2,822–3,040)
Gross vehicle weight		1,720 (3,792)			1,800 (3,968)
Max. axle weight					
front		930 (2,050)			950 (2,094)
rear		910 (2,006)			980 (2,161)
Seating capacity		5			
Engine					
Model		4G93			
Total displacement cm ³ (cu. in.)		1,834 (111.9)			
Transmission					
Model		F5M22		F4A22	W5M31
Type		5-speed manual		4-speed automatic	5-speed manual

NOTE

*¹: with roof rail

*²: without optional parts – with full optional parts

<SPACE WAGON>



66C0032

Items	Model	N31W		N35W	N41W	
		LNUEL6/R6 LNUEBL6/R6	LRUEL6/R6 LRUEBL6/R6	LNUTL6/R6	LNUEL6/R6	LRUEL6/R6
Dimensions	mm (in.)					
Overall length	①	4,515 (177.8)			4,515 (177.8)	
Overall width	②	1,695 (66.7)			1,695 (66.7)	
Overall height (unladen)	③	1,580 (62.2) or 1,615 (63.6)* ¹			1,595 (62.8) or 1,630 (64.2)* ¹	
Wheelbase	④	2,720 (107.1)			2,720 (107.1)	
Track – front	⑤	1,460 (57.5)			1,455 (57.3)	
Track – rear	⑥	1,460 (57.5)			1,460 (57.5)	
Ground clearance (laden)	⑦	120 (4.7)			120 (4.7)	
Overhang – front	⑧	895 (35.2)			895 (35.2)	
Overhang – rear	⑨	900 (35.4)			900 (35.4)	
Weight	kg (lbs.)					
Kerb weight* ²		1,245–1,353 (2,745–2,983)	1,265–1,373 (2,789–3,027)	1,285–1,393 (2,833–3,071)	1,330–1,438 (2,932–3,170)	1,360–1,468 (2,998–3,236)
Gross vehicle weight		1,950 (4,299)	1,950 (4,299)	1,915 (4,222)	2,040 (4,497)	2,040 (4,497)
Max. axle weight front		1,010 (2,227)	1,010 (2,227)	1,010 (2,227)	1,020 (2,249)	1,020 (2,249)
rear		1,050 (2,315)	1,050 (2,315)	1,050 (2,315)	1,090 (2,403)	1,090 (2,403)
Seating capacity		7				
Engine						
Model		4G93		4D65 with a turbocharger	4G93	
Total displacement cm ³ (cu. in.)		1,834 (111.9)		1,795 (109.5)	1,834 (111.9)	
Transmission						
Model		F5M22	F4A22	F5M31	W5M31	W4A32
Type		5-speed manual	4-speed automatic	5-speed manual	5-speed manual	4-speed automatic

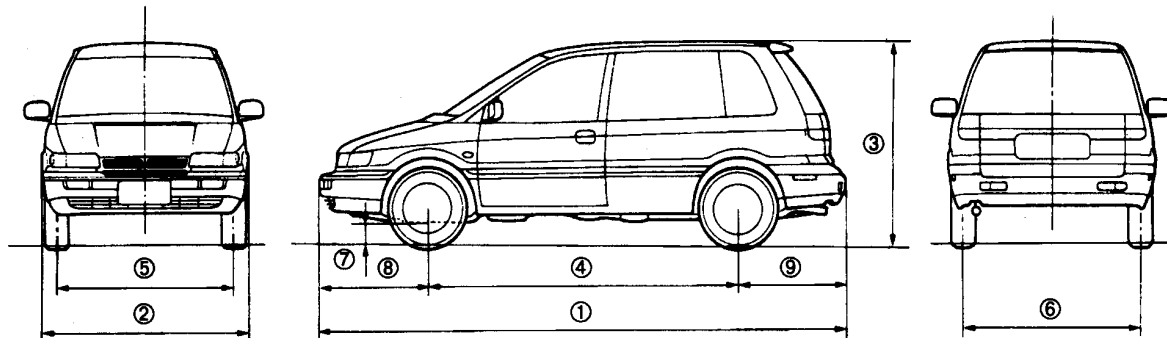
NOTE

*¹: with roof rail*²: without optional parts – with full optional parts

MAJOR SPECIFICATIONS <Vehicles built up to April, 1993>

E01FA-

<SPACE RUNNER>



66C0031

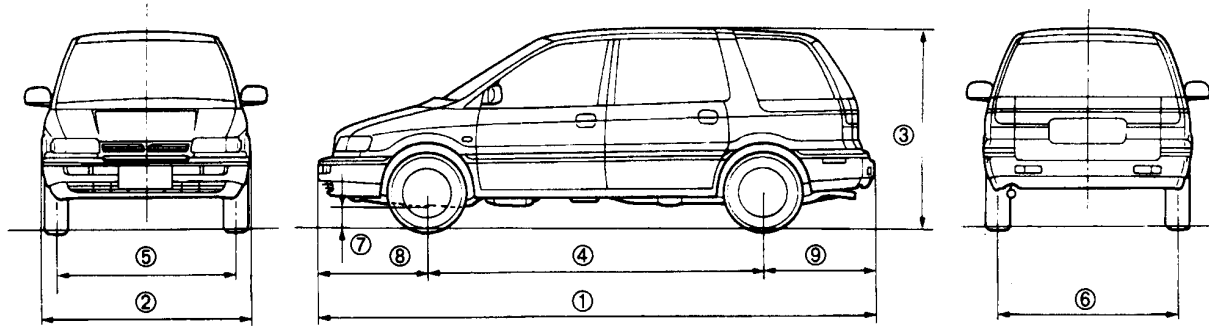
Items	Model	N11W			N18W	N21W
		SNJEL6/R6	SNUEL6/R6	SRUEL6/R6	SNJTL6/R6	SNUEL6/R6
Dimensions	mm (in.)					
Overall length	①	4,290 (168.9)			4,265 (167.9)	4,290 (168.9)
Overall width	②	1,695 (66.7)			1,695 (66.7)	1,695 (66.7)
Overall height (unladen)	③	1,625 (64.0) or 1,665 (65.6)* ¹			1,625 (64.0) or 1,665 (65.6)* ¹	1,640 (64.6) or 1,680 (66.1)* ¹
Wheelbase	④	2,520 (99.2)			2,520 (99.2)	2,520 (99.2)
Track – front	⑤	1,460 (57.5)			1,460 (57.5)	1,455 (57.3)
Track – rear	⑥	1,460 (57.5)			1,460 (57.5)	1,460 (57.5)
Ground clearance (laden)	⑦	120 (4.7)			120 (4.7)	120 (4.7)
Overhang – front	⑧	895 (35.2)			870 (34.3)	895 (35.2)
Overhang – rear	⑨	875 (34.4)			875 (34.4)	875 (34.4)
Weight	kg (lbs.)					
Kerb weight* ²		1,175–1,290 (2,590–2,844)	1,185–1,304 (2,612–2,875)	1,205–1,324 (2,657–2,919)	1,250–1,350 (2,756–2,976)	1,245–1,395 (2,745–3,075)
Gross vehicle weight		1,720 (3,792)	1,720 (3,792)	1,720 (3,792)	1,760 (3,880)	1,800 (3,968)
Max. axle weight						
front		930 (2,050)	930 (2,050)	930 (2,050)	970 (2,138)	950 (2,094)
rear		910 (2,006)	910 (2,006)	910 (2,006)	910 (2,006)	980 (2,161)
Seating capacity		5				
Engine		4G93			4D68 with a turbocharger	4G93
Model					1,998 (121.9)	
Total displacement	cm ³ (cu. in.)	1,834 (111.9)				1,834 (111.9)
Transmission		F5M22		F4A22	F5M31	W5M31
Model		5-speed manual		4-speed automatic	5-speed manual	5-speed manual
Type						

NOTE

*1: with roof rail

*2: without optional parts – with full optional parts

<SPACE WAGON>



66C0032

Items	Model	N33W				N34W	
		LNUEL6/R6	LRUEL6/R6	LNSEL6	LRSEL6	LNUEL6	LRUEL6
Dimensions	mm (in.)						
Overall length	①	4,515 (177.8)					
Overall width	②	1,695 (66.7)					
Overall height (unladen)	③	1,580 (62.2) or 1,615 (63.6)* ¹					
Wheelbase	④	2,720 (107.1)					
Track – front	⑤	1,460 (57.5)					
Track – rear	⑥	1,460 (57.5)					
Ground clearance (laden)	⑦	120 (4.7)					
Overhang – front	⑧	895 (35.2)					
Overhang – rear	⑨	900 (35.4)					
Weight	kg (lbs.)						
Kerb weight* ²		1,295–1,396 (2,855–3,078)	1,315–1,416 (2,899–3,122)	1,295–1,396 (2,855–3,078)	1,315–1,416 (2,899–3,122)	1,305–1,406 (2,877–3,100)	1,325–1,426 (2,921–3,144)
Gross vehicle weight		1,980 (4,365)	1,980 (4,365)	2,205 (4,861)	2,205 (4,861)	1,920 (4,233)	1,920 (4,233)
Max. axle weight		1,975 (4,354)* ³	1,975 (4,354)* ³				
front		1,010 (2,227)	1,010 (2,227)	1,120 (2,469)	1,120 (2,469)	1,010 (2,227)	1,010 (2,227)
rear		1,050 (2,315)	1,050 (2,315)	1,120 (2,469)	1,120 (2,469)	1,050 (2,315)	1,050 (2,315)
Seating capacity		7					
Engine		4G63				4G64	
Model		4G63				4G64	
Total displacement	cm ³ (cu. in.)	1,997 (121.9)				2,350 (143.4)	
Transmission		F5M22		F4A22		F5M31	
Model		F5M22		F4A22		F5M31	
Type		5-speed manual		4-speed automatic		5-speed manual	
		5-speed manual		4-speed automatic		4-speed automatic	

NOTE

*1: with roof rail

*2: without optional parts – with full optional parts

*3: vehicles for Denmark.

GENERAL – Major Specifications

00-12-3

Items	Model	N43W				
		N38W	LNUEL6/R6	LRUEL6/R6	LNSEL6	LRSEL6
Dimensions	mm (in.)					
Overall length	①	4,490 (176.8)		4,515 (177.8)		
Overall width	②	1,695 (66.7)		1,695 (66.7)		
Overall height (unladen)	③	1,580 (62.2) or 1,615 (63.6)* ¹		1,595 (62.8) or 1,630 (64.2)* ¹		
Wheelbase	④	2,720 (107.1)		2,720 (107.1)		
Track – front	⑤	1,460 (57.5)		1,455 (57.3)		
Track – rear	⑥	1,460 (57.5)		1,460 (57.5)		
Ground clearance (laden)	⑦	120 (4.7)		120 (4.7)		
Overhang – front	⑧	870 (34.3)		895 (35.2)		
Overhang – rear	⑨	900 (35.4)		900 (35.4)		
Weight	kg (lbs.)					
Kerb weight* ²		1,330–1,431 (2,932–3,155)	1,380–1,481 (3,042–3,265)	1,410–1,511 (3,109–3,331)	1,380–1,481 (3,042–3,265)	1,410–1,511 (3,109–3,331)
Gross vehicle weight		1,960 (4,321)	2,070 (4,564) 2,075 (4,575)* ³	2,070 (4,564) 2,075 (4,575)* ³	2,205 (4,861)	2,205 (4,861)
Max. axle weight						
front		1,010 (2,227)	1,020 (2,249)	1,020 (2,249)	1,120 (2,469)	1,120 (2,469)
rear		1,050 (2,315)	1,090 (2,403)	1,090 (2,403)	1,120 (2,469)	1,120 (2,469)
Seating capacity				7		
Engine						
Model		4D68 with a turbocharger		4G63		
Total displacement	cm ³ (cu. in.)	1,998 (121.9)		1,997 (121.9)		
Transmission						
Model		F5M31	W5M31	W4A32	W5M31	W4A32
Type		5-speed manual	5-speed manual	4-speed automatic	5-speed manual	4-speed automatic

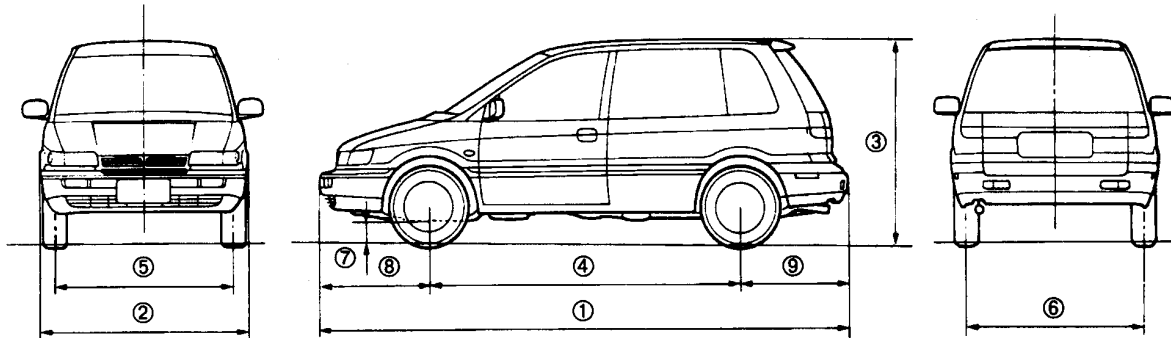
NOTE

- *¹: with roof rail
- *²: without optional parts – with full optional parts
- *³: vehicles for Denmark.

MAJOR SPECIFICATIONS <Vehicles built from May, 1993>

E01FA--

<SPACE RUNNER>



66C0031

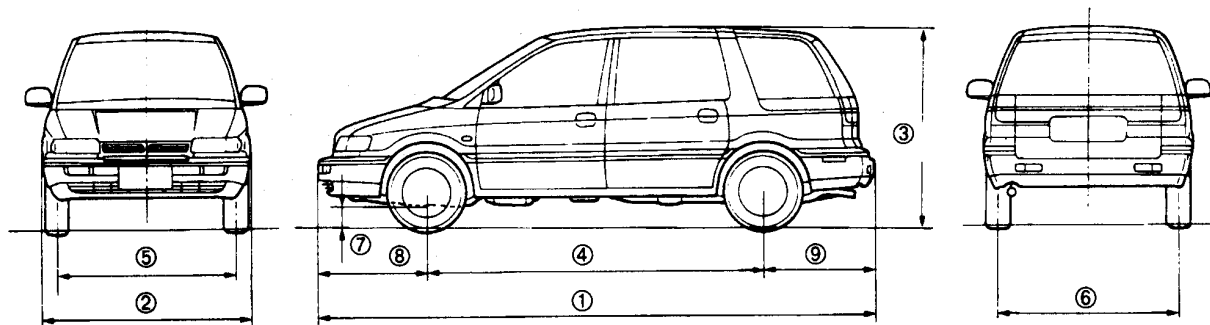
Items	Model	N11W			N18W	N21W
		SNJEL6/R6	SNUEL6/R6	SRUEL6/R6	SNJTL6/R6	SNUEL6/R6
Dimensions	mm (in.)					
Overall length	①		4,290 (168.9)		4,265 (167.9)	4,290 (168.9)
Overall width	②		1,695 (66.7)		1,695 (66.7)	1,695 (66.7)
Overall height (unladen)	③		1,625 (64.0) or 1,665 (65.6)*1		1,625 (64.0) or 1,665 (65.6)*1	1,640 (64.6) or 1,680 (66.1)*1
Wheelbase	④		2,520 (99.2)		2,520 (99.2)	2,520 (99.2)
Track – front	⑤		1,460 (57.5)		1,460 (57.5)	1,455 (57.3)
Track – rear	⑥		1,460 (57.5)		1,460 (57.5)	1,460 (57.5)
Ground clearance (laden)	⑦		160 (6.3)		160 (6.3)	160 (6.3)
Overhang – front	⑧		895 (35.2)		870 (34.3)	895 (35.2)
Overhang – rear	⑨		875 (34.4)		875 (34.4)	875 (34.4)
Weight	kg (lbs.)					
Kerb weight*2		1,190–1,290 (2,623–2,844)	1,205–1,304 (2,657–2,875)	1,225–1,324 (2,701–2,919)	1,250–1,350 (2,756–2,976)	1,300–1,395 (2,866–3,075)
Gross vehicle weight		1,720 (3,792)	1,720 (3,792)	1,720 (3,792)	1,760 (3,880)	1,800 (3,968)
Max. axle weight						
front		930 (2,050)	930 (2,050)	930 (2,050)	970 (2,138)	950 (2,094)
rear		910 (2,006)	910 (2,006)	910 (2,006)	910 (2,006)	980 (2,161)
Seating capacity		5				
Engine		4G93			4D68 with a turbocharger	4G93
Model					1,998 (121.9)	
Total displacement	cm ³ (cu. in.)	1,834 (111.9)			1,998 (121.9)	1,834 (111.9)
Transmission		F5M22		F4A22	F5M31	W5M31
Model		5-speed manual		4-speed automatic	5-speed manual	5-speed manual
Type						

NOTE

*1: with roof rail

*2: without optional parts – with full optional parts

<SPACE WAGON>



66C0032

Items	Model	N33W				N34W	
		LNUEL6/R6	LRUEL6/R6	LNSEL6	LRSEL6	LNUEL6	LRUEL6
Dimensions	mm (in.)						
Overall length	①	4,515 (177.8)					
Overall width	②	1,695 (66.7)					
Overall height (unladen)	③	1,580 (62.2) or 1,615 (63.6)* ¹					
Wheelbase	④	2,720 (107.1)					
Track – front	⑤	1,460 (57.5)					
Track – rear	⑥	1,460 (57.5)					
Ground clearance (laden)	⑦	160 (6.3)					
Overhang – front	⑧	895 (35.2)					
Overhang – rear	⑨	900 (35.4)					
Weight	kg (lbs.)						
Kerb weight* ²		1,295–1,396 (2,855–3,078)	1,315–1,416 (2,899–3,122)	1,295–1,396 (2,855–3,078)	1,315–1,416 (2,899–3,122)	1,305–1,406 (2,877–3,100)	1,325–1,426 (2,921–3,144)
Gross vehicle weight		1,980 (4,365) 1,975 (4,354)* ³	1,980 (4,365) 1,975 (4,354)* ³	2,205 (4,861)	2,205 (4,861)	1,980 (4,365)	1,980 (4,365)
Max. axle weight							
front		1,010 (2,227)	1,010 (2,227)	1,120 (2,469)	1,120 (2,469)	1,010 (2,227)	1,010 (2,227)
rear		1,050 (2,315)	1,050 (2,315)	1,120 (2,469)	1,120 (2,469)	1,050 (2,315)	1,050 (2,315)
Seating capacity		7					
Engine		4G63				4G64	
Model							
Total displacement	cm ³ (cu. in.)	1,997 (121.9)				2,350 (143.4)	
Transmission		F5M22		F4A22		F5M31	
Model							
Type		5-speed manual		4-speed automatic		5-speed manual	
						F4A23	
						4-speed automatic	

NOTE

- *1: with roof rail
- *2: without optional parts – with full optional parts
- *3: vehicles for Denmark.

Items	Model	N43W				
		N38W	LNUEL6/R6	LRUEL6/R6	LNSEL6	LRSEL6
Dimensions	mm (in.)					
Overall length	①	4,490 (176.8)		4,515 (177.8)		
Overall width	②	1,695 (66.7)		1,695 (66.7)		
Overall height (unladen)	③	1,580 (62.2) or 1,615 (63.6)* ¹		1,595 (62.8) or 1,630 (64.2)* ¹		
Wheelbase	④	2,720 (107.1)		2,720 (107.1)		
Track – front	⑤	1,460 (57.5)		1,455 (57.3)		
Track – rear	⑥	1,460 (57.5)		1,460 (57.5)		
Ground clearance (laden)	⑦	160 (6.3)		160 (6.3)		
Overhang – front	⑧	870 (34.3)		895 (35.2)		
Overhang – rear	⑨	900 (35.4)		900 (35.4)		
Weight	kg (lbs.)					
Kerb weight* ²		1,330–1,431 (2,932–3,155)	1,380–1,481 (3,042–3,265)	1,410–1,511 (3,109–3,331)	1,380–1,481 (3,042–3,265)	1,410–1,511 (3,109–3,331)
Gross vehicle weight		1,960 (4,321)	2,070 (4,564) 2,075 (4,575)* ³	2,070 (4,564) 2,075 (4,575)* ³	2,205 (4,861)	2,205 (4,861)
Max. axle weight						
front		1,010 (2,227)	1,020 (2,249)	1,020 (2,249)	1,120 (2,469)	1,120 (2,469)
rear		1,050 (2,315)	1,090 (2,403)	1,090 (2,403)	1,120 (2,469)	1,120 (2,469)
Seating capacity				7		
Engine						
Model		4D68 with a turbocharger		4G63		
Total displacement	cm ³ (cu. in.)	1,998 (121.9)		1,997 (121.9)		
Transmission						
Model		F5M31	W5M31	W4A32	W5M31	W4A32
Type		5-speed manual	5-speed manual	4-speed automatic	5-speed manual	4-speed automatic

NOTE

*¹: with roof rail*²: without optional parts – with full optional parts*³: vehicles for Denmark.

PRECAUTIONS BEFORE SERVICE

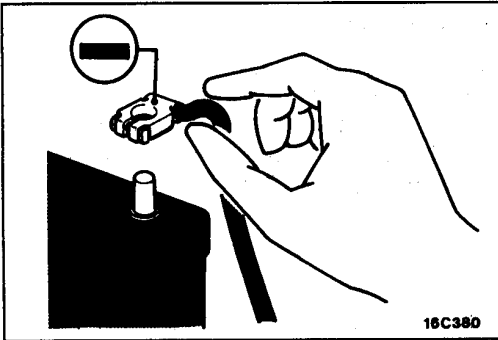
E01GA-

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

1. Items to follow when servicing SRS
 - (1) Be sure to read GROUP 52B – Supplemental Restraint System (SRS).
For safe operations, please follow the directions and heed all warnings.
 - (2) Always use the designated special tools and test equipment.
 - (3) Wait at least 60 seconds after disconnecting the battery cable before doing any further work.
The SRS system is designed to retain enough voltage to deploy the air bag even after the battery has been disconnected. Serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cable is disconnected.
 - (4) Never attempt to disassemble or repair the SRS components, (SRS diagnosis unit, air bag module and clock spring). If faulty, replace it.
 - (5) Warning labels must be heeded when servicing or handling SRS components. Warning labels are located in the following locations.
 - Hood
 - Sun visor
 - Glove box
 - SRS diagnosis unit
 - Steering wheel
 - Air bag module
 - Clock spring
 - Steering gear and linkage clamp
 - (6) Store components removed from the SRS in a clean and dry place.
The air bag module should be stored on a flat surface and placed so that the pad surface is facing upward.
Do not place anything on top of it.
 - (7) Be sure to deploy the air bag before disposing of the air bag module or disposing of a vehicle equipped with an air bag. (Refer to GROUP 52B – Air Bag Module Disposal Procedures.)
 - (8) Whenever you finish servicing the SRS, check the SRS warning lamp operation to make sure that the system functions properly.
2. Observe the following when carrying out operations on places where SRS components are installed, including operations not directly related to the SRS air bag.
 - (1) When removing or installing parts do not allow any impact or shock to the SRS components.
 - (2) SRS components should not be subjected to heat over 93°C (200°F), so remove the SRS components before drying or baking the vehicle after painting.
After re-installing them, check the SRS warning lamp operation to make sure that the system functions properly.

00-12-8

NOTES



SERVICING THE ELECTRICAL SYSTEM

Before replacing a component related to the electrical system and before undertaking any repair procedures involving the electrical system, be sure to first disconnect the negative (-) cable from the battery in order to avoid damage caused by short-circuiting.

Caution

Before connecting or disconnecting the negative cable, be sure to turn off the ignition switch and the lighting switch.

(If this is not done, there is the possibility of semiconductor parts being damaged.)

IN ORDER TO PREVENT VEHICLES FROM FIRE

"Improper installation of electrical or fuel related parts could cause a fire. In order to retain the high quality and safety of the vehicle, it is important that any accessories that may be fitted or modifications/repairs that may be carried out which involve the electrical or fuel systems, MUST be carried out in accordance with MMC's Information/Instructions".

ENGINE OILS

Health Warning

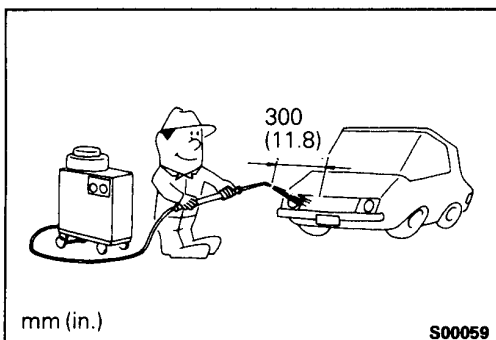
Prolonged and repeated contact with mineral oil will result in the removal of natural fats from the skin, leading to dryness, irritation and dermatitis. In addition, used engine oil contains potentially harmful contaminants which may cause skin cancer. Adequate means of skin protection and washing facilities must be provided.

Recommended Precautions

The most effective precaution is to adapt working practices which prevent, as far as practicable, the risk of skin contact with mineral oils, for example by using enclosed systems for handling used engine oil and by degreasing components, where practicable, before handling them.

Other precautions:

- Avoid prolonged and repeated contact with oils, particularly used engine oils.
- Wear protective clothing, including impervious gloves where practicable.
- Avoid contaminating clothes, particularly underpants, with oil.
- Do not put oily rags in pockets, the use of overalls without pockets will avoid this.
- Do not wear heavily soiled clothing and oil-impregnated foot-wear. Overalls must be cleaned regularly and kept separate from personal clothing.
- Where there is a risk of eye contact, eye protection should be worn, for example, chemical goggles or face shields; in addition an eye wash facility should be provided.
- Obtain First Aid treatment immediately for open cuts and wounds.
- Wash regularly with soap and water to ensure all oil is removed, especially before meals (skin cleansers and nail brushes will help). After cleaning, the application of preparations containing lanolin to replace the natural skin oils is advised.
- Do not use petrol, kerosine, diesel fuel, gas oil, thinners or solvents for cleaning skin.
- Use barrier creams, applying them before each work period, to help the removal of oil from the skin after work.
- If skin disorders develop, obtain medical advice without delay.

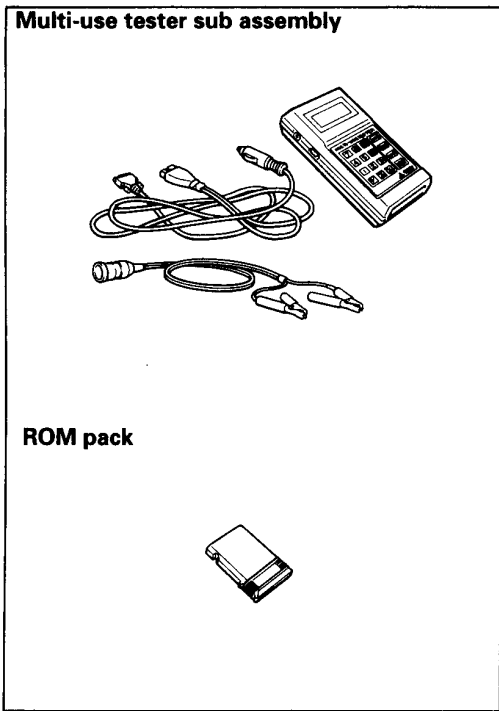


VEHICLE WASHING

E01GA-

If high-pressure car-washing equipment or steam car-washing equipment is used to wash the vehicle, be sure to note the following information in order to avoid damage to plastic components, etc.

- Spray nozzle distance: 300 mm (11.8 in.) or more
- Spray pressure: 4 MPa (40 kg/cm², 569 psi) or less
- Spray temperature: 82°C (180°F) or less
- Time of concentrated spray to one point: within 30 sec.



MULTI-USE TESTER <Up to 1993 models>

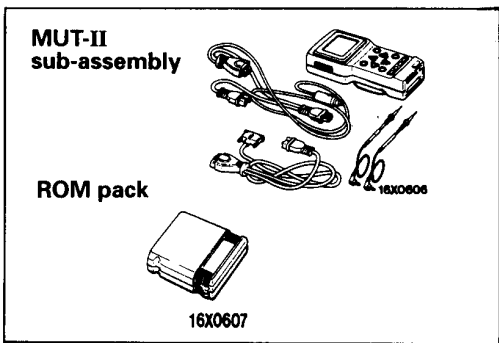
(1) To operate the MUT, refer to the "Multi-use Tester Operation Instructions".

Caution

Connection and disconnection of the MUT should always be made with the ignition switch in the OFF position.

(2) Always use a ROM pack that is appropriate for the vehicle.

ROM pack	Applicable models
MB991419	1992 models
MB991481	1993 models



MUT-II <All models>

Refer to the MUT-II OPERATING INSTRUCTIONS for instructions on handling the MUT-II.

Caution

Connection and disconnection of the MUT-II should always be made with the ignition switch in the OFF position.

NOTES

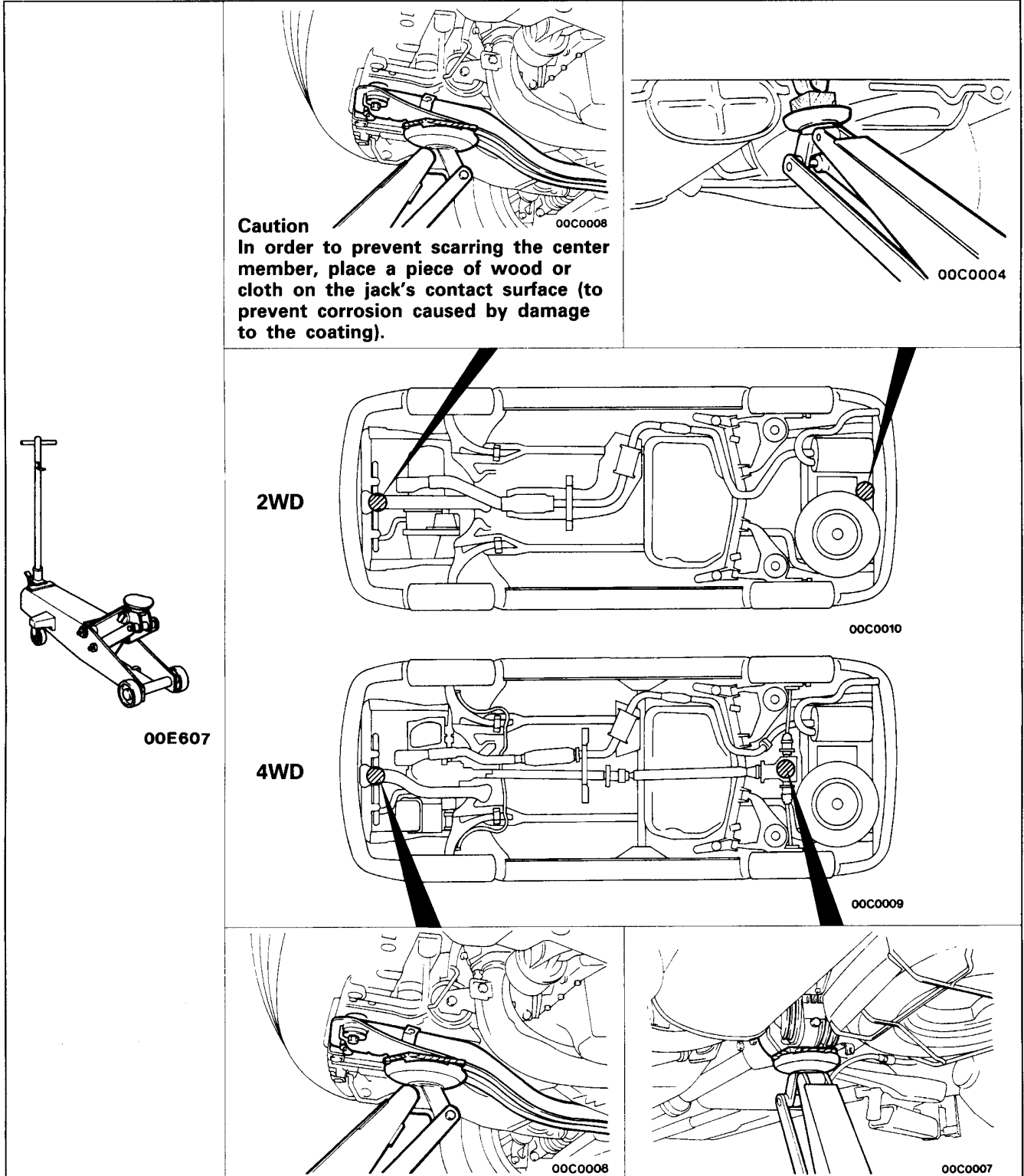
SUPPORT LOCATIONS FOR LIFTING AND JACKING

E01LB--

Caution

Do not support the vehicles at locations other than specified supporting points. If do so, this will cause damage etc..

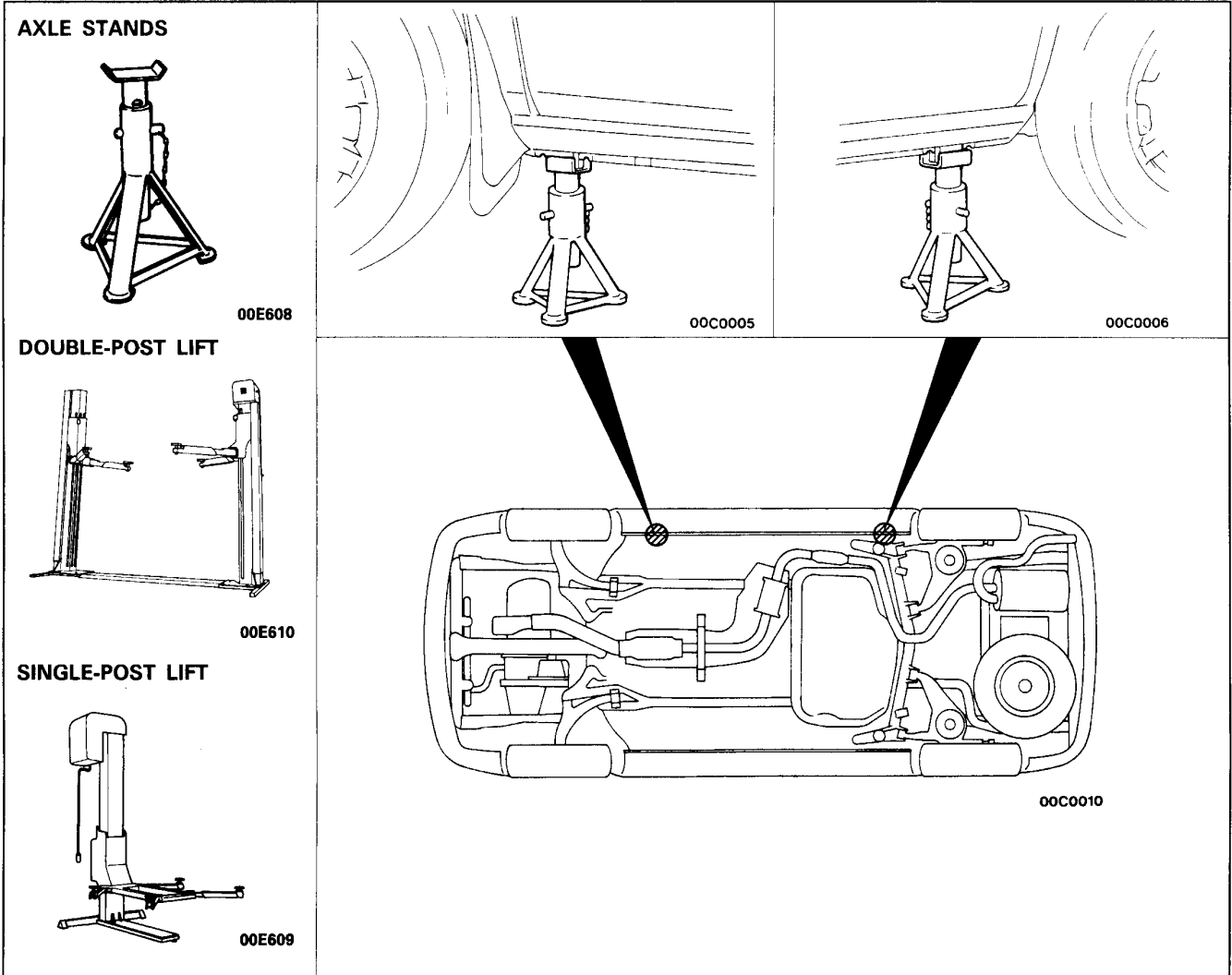
SUPPORT POSITIONS FOR A GARAGE JACK

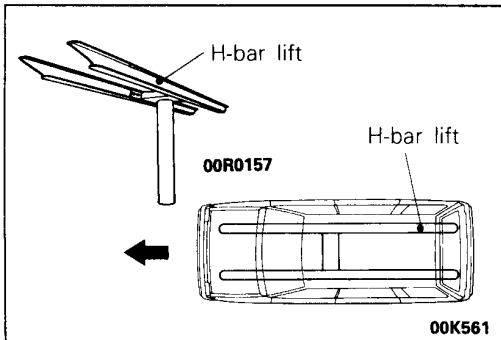


SUPPORT POSITIONS FOR AXLE STANDS, A SINGLE-POST LIFT OR DOUBLE-POST LIFT

Caution

When service procedures require removing rear suspension, fuel tank, spare tyre and rear bumper, place additional weight on rear end of vehicle or anchor vehicle to hoist to prevent tipping of centre of gravity changes.





SUPPORT POSITIONS AND SUPPORT METHOD FOR AN H-BAR LIFT

Caution

When service procedures require removing rear suspension, fuel tank, spare tyre and rear bumper, place additional weight on rear end of vehicle or anchor vehicle to hoist to prevent tipping of centre of gravity changes.

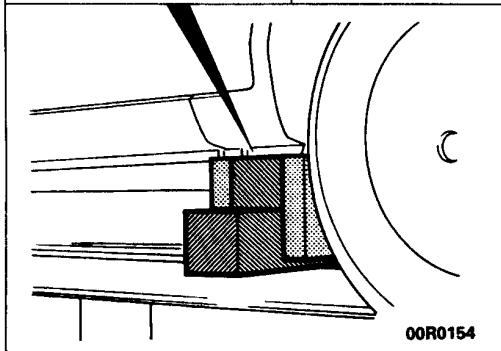
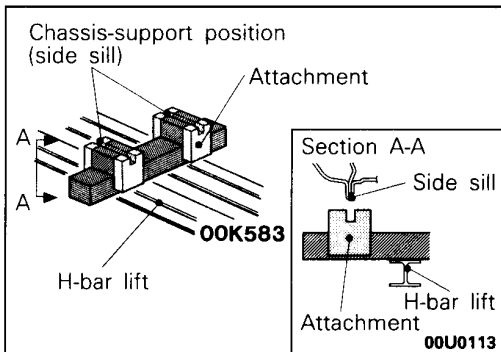
When H-bar lift is used to lift up vehicles, use of metallic attachment attached to the H-bar lift may cause damage to the suspension arm etc. Therefore, lift up the vehicle by the following procedure.

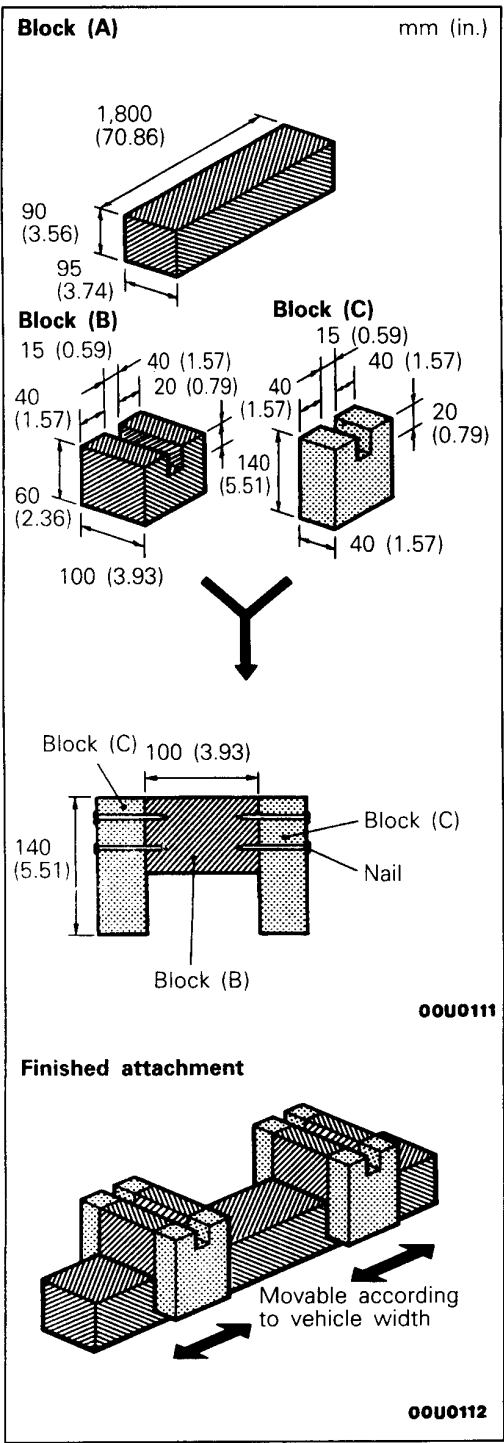
- (1) Place the vehicle on the H-bar lift (same direction).
- (2) Place attachments on the H-bar lift at the designated chassis-support positions. When making the attachments, refer to the section concerning making them.

Caution

If support is at any location other than the designated positions, the body or suspension might be deformed or otherwise damaged, so care should be taken to support only at the correct (designated) positions.

- (3) Raise the H-bar lift to the height at which the vehicle is slightly raised and check to be sure that the vehicle is correctly and sufficiently secured; then raise the vehicle.





PREPARATION OF "ATTACHMENTS"

(1) Prepare the blocks (wooden) and nails as shown in the figure.

Item	Dimensions	mm (in.)	Q'ty
Block (A)	90 × 95 × 1,800 (3.54 × 3.74 × 70.86)		2
Block (B)	60 × 100 × 95 (2.36 × 3.93 × 3.74)		4
Block (C)	140 × 40 × 95 (5.51 × 1.57 × 3.74)		8
Nail	70 (2.76) or more		32

Caution

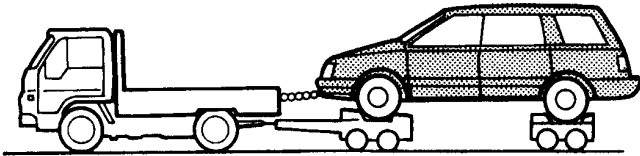
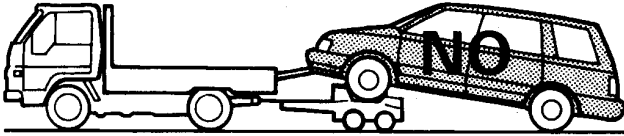
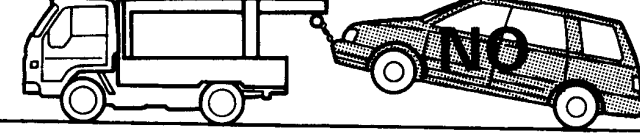
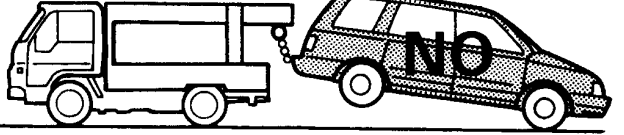
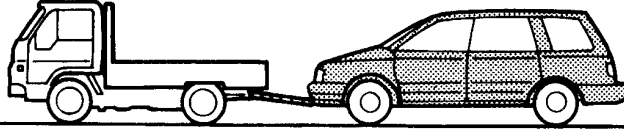
The wood selected for the blocks must be hard.

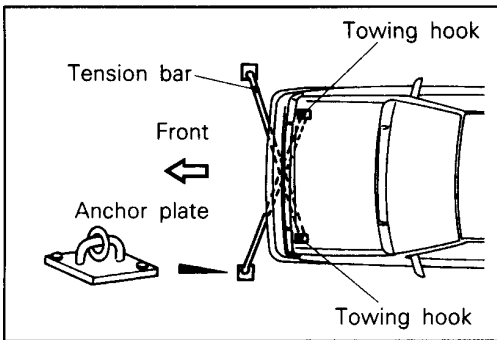
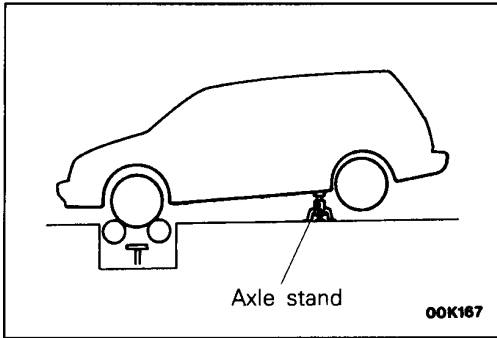
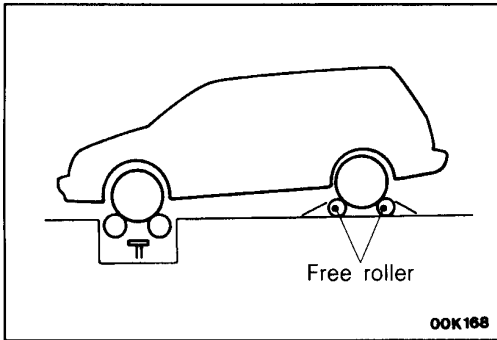
- (2) For the (B) blocks and (C) blocks, use a saw and chisel or similar tool to make grooves of the dimensions shown in the figure.
- (3) Make four "ATTACHMENTS" such as shown in the figure, nailing (B) and (C) blocks so that each (B) block is sandwiched between (C) blocks.

SPECIAL HANDLING INSTRUCTIONS FOR 4WD MODELS

E01QAAB

TOWING

Towing methods	Remarks
<p>If a tow truck is used Lifting method for 4 wheels – Good</p>  <p style="text-align: right;">00K161</p>	<ul style="list-style-type: none"> • For 4WD models, the basic principle is that all four wheels are to be raised before towing. • Move the shift lever to 1st (manual transmission) or the selector lever to the "P" position (automatic transmission). • The parking brake should be applied.
<p>Front wheels lifted – No good</p>  <p style="text-align: right;">00K162</p>	<ul style="list-style-type: none"> • The vehicle must not be towed by placing only its front wheels or only the rear wheels on a rolling dolly, because to do so will result in deterioration of the viscous coupling and result in the viscous coupling causing the vehicle to jump forward suddenly.
<p>Front wheels lifted – No good</p>  <p style="text-align: right;">00K163</p>	<ul style="list-style-type: none"> • If only the front wheels or only the rear wheels are lifted for towing, the bumper will be damaged. In addition, lifting of the rear wheels causes the oil to flow forward, and may result in heat damage to the rear bushing of the transfer, and so should never be done.
<p>Rear wheels lifted – No good</p>  <p style="text-align: right;">00K164</p>	
<p>Towing by rope or cable – Good</p>  <p style="text-align: right;">00K165</p>	<ul style="list-style-type: none"> • The front and rear wheels must rotate normally. • The various mechanisms must function normally. • Move the shift lever to neutral (manual transmission) or the selector lever to the "N" position (automatic transmission). • The ignition key must be set to "ACC". <p>Caution The towing speed for vehicles with automatic transmission should be 50 km/h (31 mph) or less, and the towing distance should be 50 km (31 miles) or less.</p>



SPEEDOMETER TEST

IF A FREE ROLLER IS USED

1. Set the free roller on the floor (at the rear wheels) so that it is aligned with the vehicle's wheelbase and the rear tread.
2. Carefully move the vehicle onto the tester and free roller.
3. Set the speedometer tester in place.
4. Perform the speedometer test.

For information concerning the measurement speed and the allowable error, refer to GROUP 54 – Meters and Gauges.

Caution

Do not operate the clutch suddenly, or increase or reduce speed suddenly during the work.

IF THE REAR WHEELS ARE JACKED UP

1. Move the vehicle onto the speedometer tester.
2. Jack up the rear wheels, and place axle stands at the designated part of the side sill.
3. Perform the speedometer test.

For information concerning the measurement speed and the allowable error, refer to GROUP 54 – Meters and Gauges.

Caution

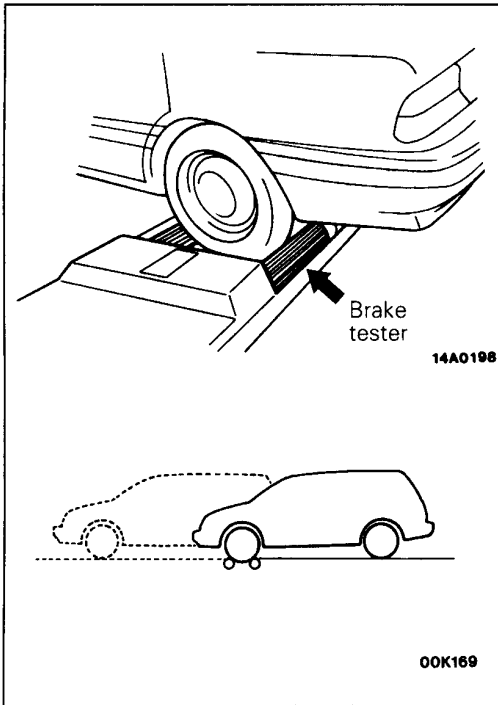
Do not operate the clutch suddenly, or increase or reduce speed suddenly during the work.

Front wheel side slip

To prevent the front wheels from moving from side to side, attach tension bars to the towing hooks, and secure both ends at anchor plates.

Accident prevention procedures

- (1) Attach a chain or wire to the rear traction hook. Make sure the end of the wire or chain is secured firmly.
- (2) Take all other necessary precautions.



BRAKE TEST

In order to stabilize the viscous coupling's dragging force, the brake test should always be conducted after the speedometer test.

FRONT WHEEL MEASUREMENTS

1. Place the front wheels on the brake tester.
2. Perform the brake test.

Caution

The rear wheels should remain on the ground.

3. If the brake dragging force exceeds the specified value, jack up the vehicle and manually rotate each wheel to check the rotation condition of each wheel.

NOTE

If the brake dragging force exceeds the specified value, the cause may be the effect of the viscous coupling's dragging force, so jack up the front wheels and check the rotation condition of the wheels in this state for no effect by the viscous coupling's dragging force.

REAR WHEEL MEASUREMENTS

After placing the rear wheels on the brake tester, follow the same procedures as for the front wheel measurements.

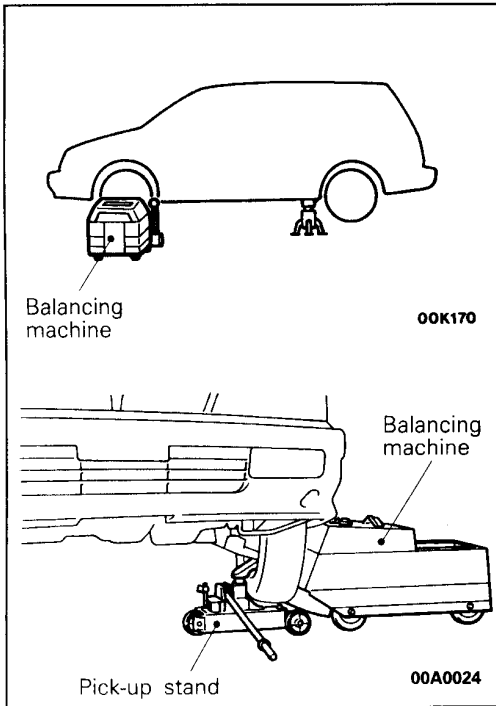
Brake force of 4WD models with VCU

If both front wheels are locked and rear wheel measurement is difficult, the measurement in this condition can be considered to comprise the total.

		Brake force	
Rear wheel	Left/right sum	At 90 kg (198 lbs.) pedal depression force	20% or more of rear axle weight
	Left/right difference	8% or less of rear axle weight	
Total		At 90 kg (198 lbs.) pedal depression force	50% or more of vehicle weight

or...

Braking-stop distance	At primary velocity of 50 km/h (31 mph) : Within 15.0 m (49.2 ft.)
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WHEEL BALANCE

FRONT WHEEL MEASUREMENTS

1. Jack up the rear wheels, and place an axle stand at the designated part of the side sill.
2. Jack up the front wheels and set a pick-up stand and balancing machine in place.

Caution

1. **Set so that the front and rear of the vehicle are at the same height.**
 2. **Release the parking brake.**
 3. **Rotate each wheel manually and check to be sure that there is no dragging.**
3. Use the engine to drive the tyres, and then make the measurement.

Caution

1. **If an error is indicated in the state of engine drive, motor drive can be used concurrently.**
2. **Do not operate the clutch suddenly, or increase or reduce speed suddenly during the work.**

REAR WHEEL MEASUREMENTS

1. Jack up the front wheels, and place an axle stand at the designated part of the side sill.
2. Jack up the rear wheels, and then, after setting a pick-up stand and balancing machine in place, follow the same procedure as for front wheel measurements.

STANDARD PARTS-TIGHTENING-TORQUE TABLE

E01MA--

Each torque value in the table is a standard value for tightening under the following conditions.

- (1) Bolts, nuts and washers are all made of steel and plated with zinc.
- (2) The threads and bearing surface of bolts and nuts are all in dry condition.

The values in the table are not applicable:

- (1) If toothed washers are inserted.
- (2) If plastic parts are fastened.
- (3) If bolts are tightened to plastic or die-cast inserted nuts.
- (4) If self-tapping screws or self-locking nuts are used.

Standard bolt and nut tightening torque

Bolt nominal diameter (mm)	Pitch (mm)	Torque Nm (kgm, ft.lbs.)		
		Head mark ④	Head mark ⑦	Head mark ⑧
M5	0.8	2.5 (0.25, 1.8)	5 (0.5, 3.6)	6 (0.6, 4.3)
M6	1.0	5 (0.5, 3.6)	9 (0.9, 6.5)	10 (1.0, 7.2)
M8	1.25	12 (1.2, 8.7)	22 (2.2, 16)	25 (2.5, 18)
M10	1.25	24 (2.4, 17)	45 (4.5, 33)	53 (5.3, 38)
M12	1.25	42 (4.2, 30)	83 (8.3, 60)	98 (9.8, 71)
M14	1.5	73 (7.3, 53)	140 (14.0, 101)	160 (16.0, 116)
M16	1.5	113 (11.3, 82)	210 (21.0, 152)	240 (24.0, 174)
M18	1.5	170 (17.0, 123)	310 (31.0, 224)	350 (35.0, 253)
M20	1.5	230 (23.0, 166)	420 (42.0, 304)	490 (49.0, 354)
M22	1.5	310 (31.0, 224)	570 (57.0, 412)	660 (66.0, 477)
M24	1.5	400 (40.0, 289)	750 (75.0, 542)	870 (87.0, 629)

Flange bolt and nut tightening torque

Bolt nominal diameter (mm)	Pitch (mm)	Torque Nm (kgm, ft.lbs.)		
		Head mark ④	Head mark ⑦	Head mark ⑧
M6	1.0	5 (0.5, 3.6)	10 (1.0, 7.2)	12 (1.2, 8.7)
M8	1.25	13 (1.3, 9.4)	24 (2.4, 17)	28 (2.8, 20)
M10	1.25	26 (2.6, 19)	50 (5.0, 36)	58 (5.8, 42)
M10	1.5	24 (2.4, 17)	45 (4.5, 33)	55 (5.5, 40)
M12	1.25	47 (4.7, 34)	95 (9.5, 69)	105 (10.5, 76)
M12	1.75	43 (4.3, 31)	83 (8.3, 60)	98 (9.8, 71)

Taper thread tightening torque

Thread size	Torque Nm (kgm, ft.lbs.)	
	Female thread material: Light alloy	Female thread material: Steel
NPTF 1/6	7 (0.7, 5.0)	10 (1.0, 7.2)
PT 1/8	10 (1.0, 7.2)	18 (1.8, 13)
PT 1/4, NPTF 1/4	25 (2.5, 18)	40 (4.0, 29)
PT 3/8	48 (4.8, 35)	68 (6.8, 49)

NOTE: NPTF is dry seat pipe thread, while PT is pipe thread.

MAIN SEALANT AND ADHESIVE TABLE

E01RA--

Application	Recommended brand
1. Sealants for engine accessories	
(1) Sealing between rocker cover and camshaft bearing cap (4G6 DOHC and 6G7 engines only)	3M ATD Part No. 8660 or equivalent
(2) ● Sealing between semi-circular packing and rocker cover and between semi-circular packing and cylinder head ● Oil pressure switch (except 4G1 and 6G7 engines)	3M ATD Part No. 8660 or equivalent
(3) Engine coolant temperature switch, Engine coolant temperature sensor, Thermo valve, Thermo switch, Joints, Engine coolant temperature gauge unit (large size)	3M Nut Locking Part No. 4171 or equivalent
(4) Engine coolant temperature gauge unit (small size, MD091056 only)	3M ATD Part No. 8660 or equivalent
(5) Oil pan (except 4G5 engine)	mitsubishi GENUINE Part No. MD997110 or equivalent
2. Sealing between glass and weatherstrip	
(1) ● Sealing between tempered glass and weatherstrip	3M ATD Part No. 8513 or equivalent
● Sealing between body flange and weatherstrip	3M ATD Part No. 8509 or equivalent
(2) Sealing between laminated glass and weatherstrip	3M ATD Part No. 8509 or equivalent

Application	Recommended brand
3. Adhesion with ribbon sealer	
● Waterproof film for door ● Fender panel ● Splash shield ● Mud guard ● Rear combination lamp	3M ATD Part No. 8625 or equivalent
4. Adhesives for interior trim	
(1) Adhesion of polyvinyl-chloride sheet	3M Part No. EC-1368 or equivalent
(2) Adhesion of door weatherstrip to body	3M ATD Part No. 8001 or 3M ATD Part No. 8011 or equivalent
(3) Sealing between grommet or packing and metal seal	3M ATD Part No. 8513 or equivalent
(4) ● Adhesion of headlining and other interior trim materials ● Adhesion of fuel tank to pad	3M Part No. EC-1368 or 3M ATD Part No. 8080 or equivalent
5. Body sealant	
● Sealing of sheet metal, drip rail, floor, body side panel, trunk, front panel and the like joints ● Sealing of tailgate hinges	3M ATD Part No. 8531 or 3M ATD Part No. 8646 or equivalent

Application	Recommended brand
6. Chassis sealant	
(1) ● Sealing of flange surfaces and threaded portions ● Fuel gauge unit packing	3M ATD Part No. 8659 or equivalent
(2) Sealing of flange surfaces, threaded portions, packing and dust cover ● Differential carrier packing ● Dust covers for ball joint and linkage ● Steering gear box packing and shims ● Steering gear housing rack support cover and top cover ● Mating surface of knuckle arm flange	3M ATD Part No. 8663 or equivalent
(3) Sealing between accelerator arm bracket and toeboard	Drying sealant
(4) Sealant for drum brake shoe hold-down pin and wheel cylinder	3M ATD Part No. 8513 or equivalent
7. Fast bonding adhesive	
Adhesion of all materials except polyethylene, polypropylene, fluorocarbon resin or other materials with highly absorbent surface	3M ATD Part No. 8155 or equivalent
8. Anaerobic fast bonding adhesives	
(1) Fixing of bolts and screws ● Tightening of drive gear to differential case ● Bolts for coupling tilt steering upper column with lower column	3M Stud locking Part No. 4170 or equivalent
(2) Fixing of bearing, fan, pulley and gear connections	
(3) Sealing of small recess or flange surface	
9. Undercoat	3M ATD Part No. 8864 or equivalent