

ELECTRICAL SYSTEM

SECTION **EL**

When you read wiring diagrams:

- Read GI section, "HOW TO READ WIRING DIAGRAMS".

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WIRING DIAGRAM REFERENCE CHART

E.C.C.S.	EF & EC SECTION
AT CONTROL	AT SECTION
TRANSMISSION OIL COOLER	MT SECTION
DIFFERENTIAL OIL COOLER	PD SECTION
ADJUSTABLE SHOCK ABSORBER	RA SECTION
ANTI-LOCK BRAKING SYSTEM	BR SECTION
POWER STEERING, SUPER HICAS	ST SECTION
POWER WINDOW, POWER DOOR LOCK, POWER SEAT, DOOR MIRROR	BF SECTION
HEATER AND AIR CONDITIONER	HA SECTION

EL

HARNES CONNECTOR

Description

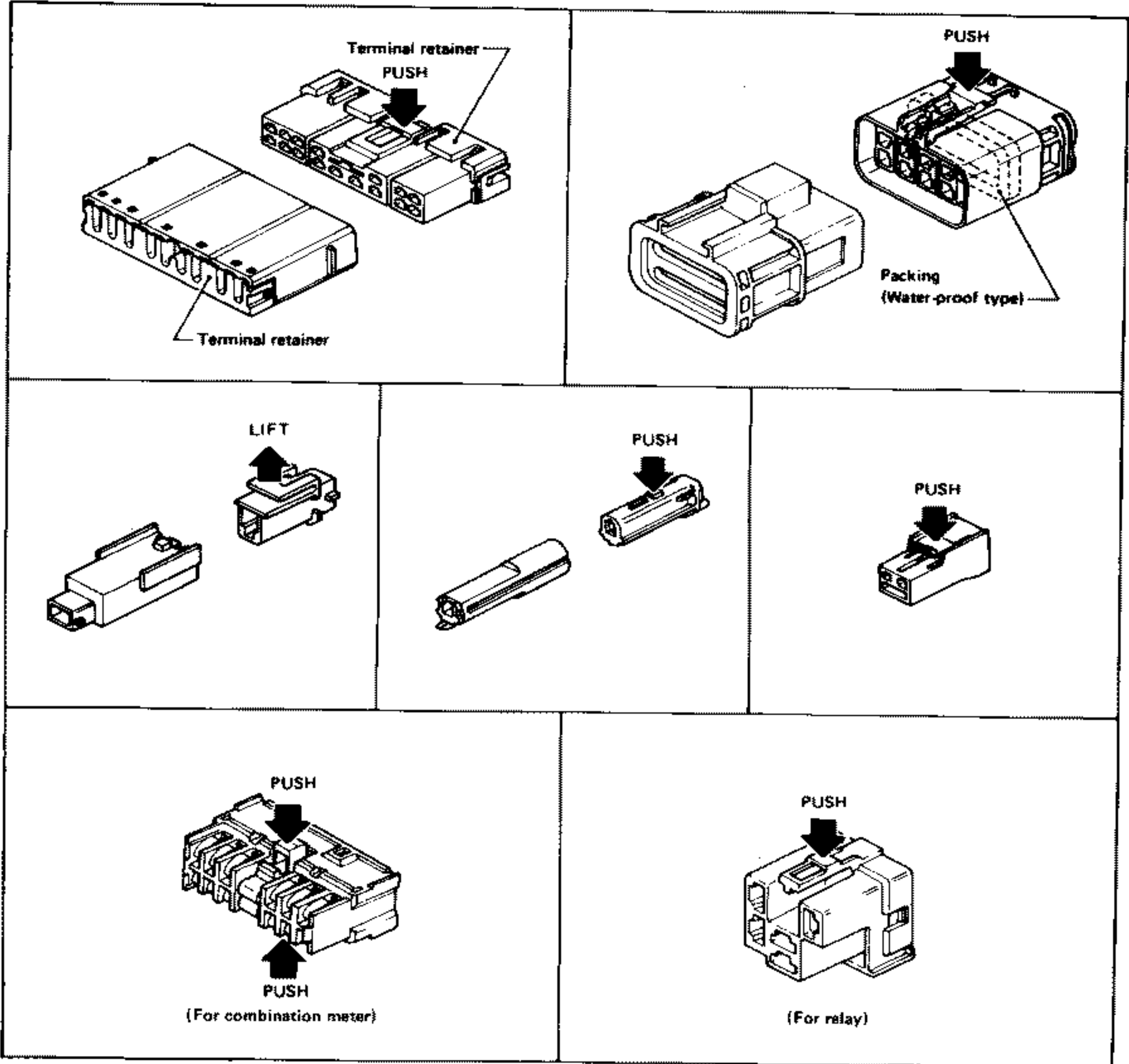
HARNES CONNECTOR

- All harness connectors have been modified to prevent accidental loosing or disconnection.
- The connector can be disconnected by pushing or lifting the locking section.

CAUTION:

Do not pull the harness when disconnecting the connector.

[Example]



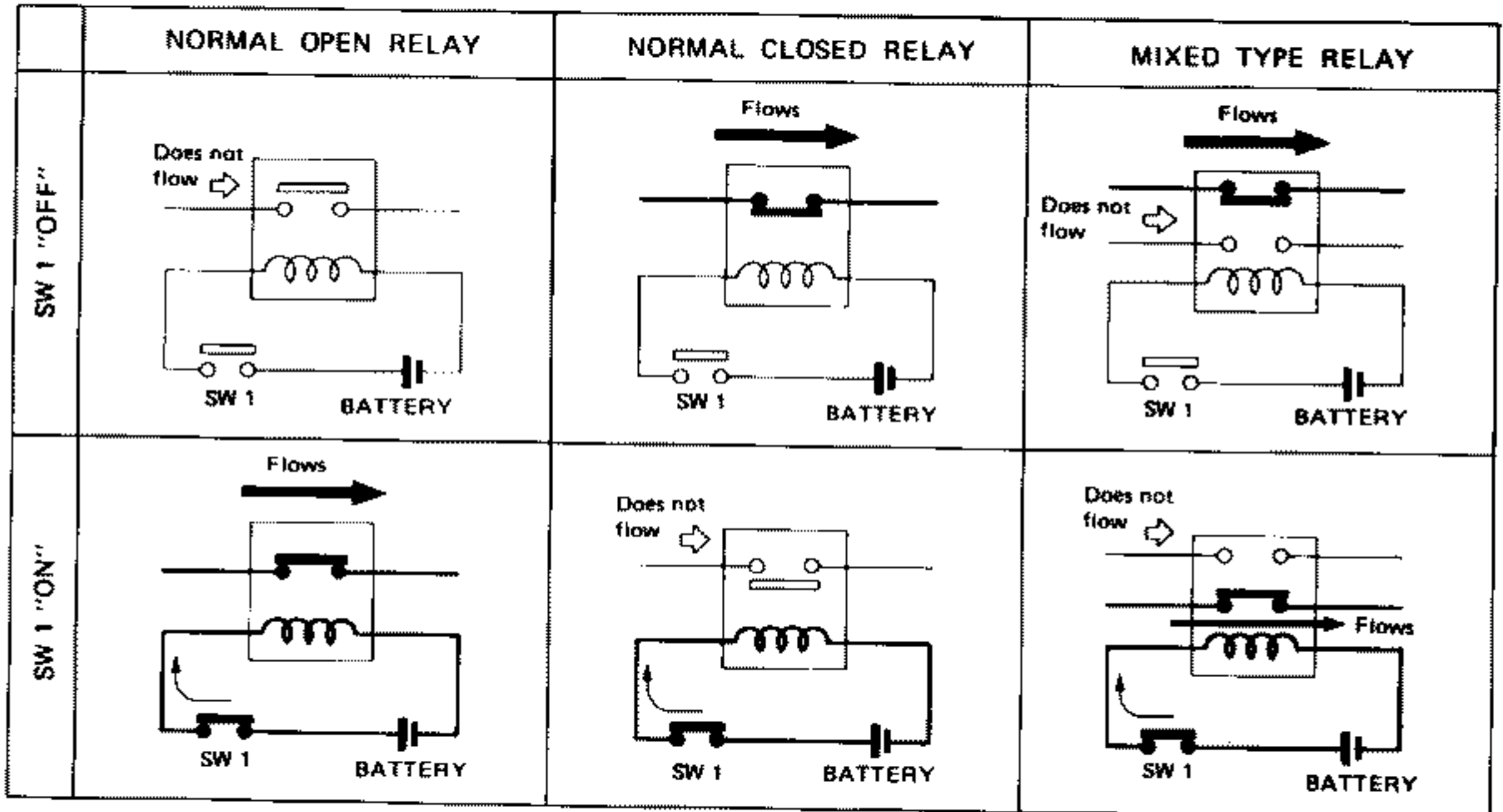
SEL769D

STANDARDIZED RELAY

Description

NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

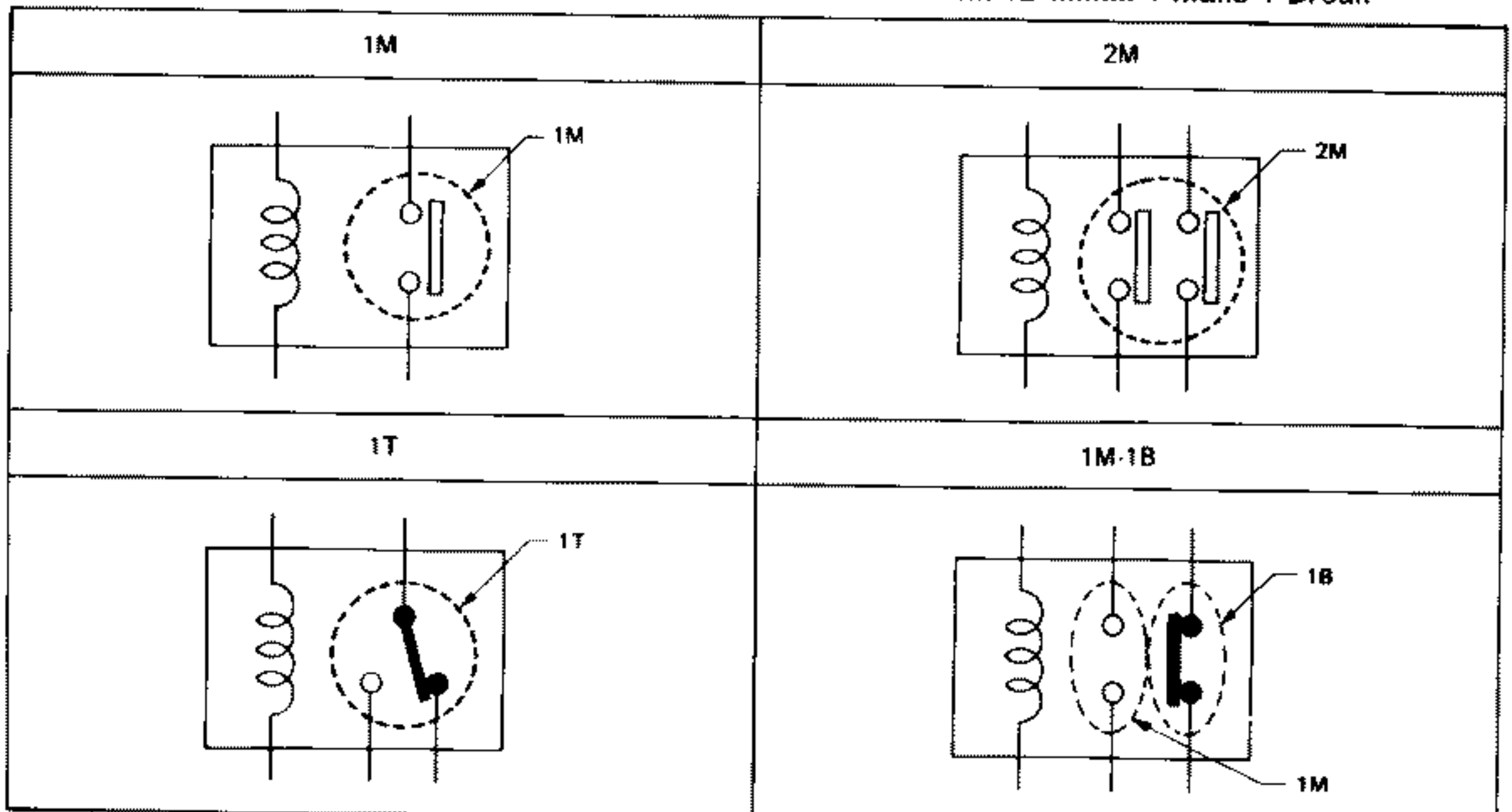
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

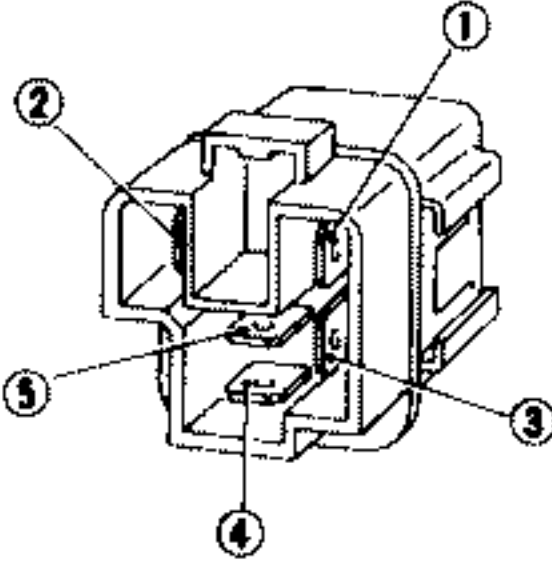
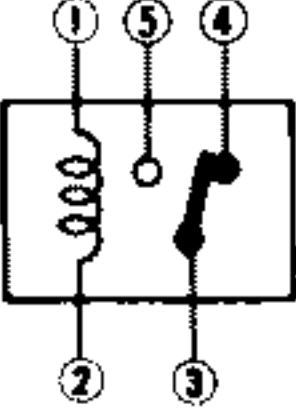
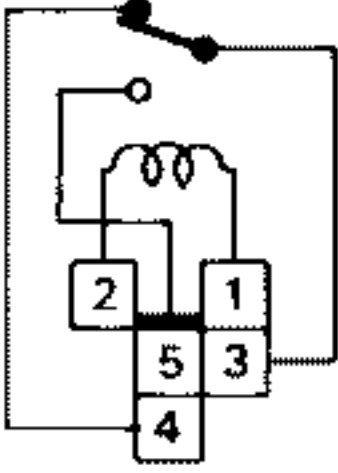
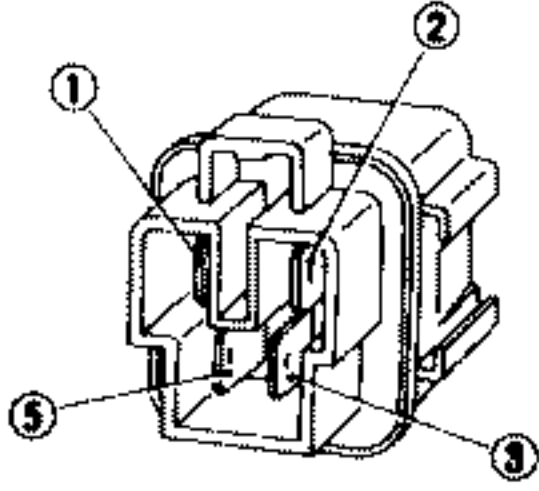
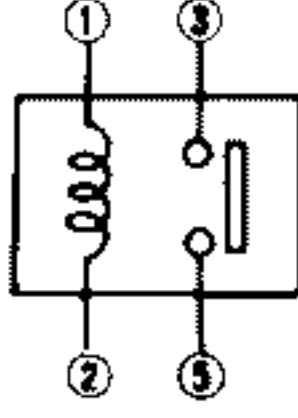
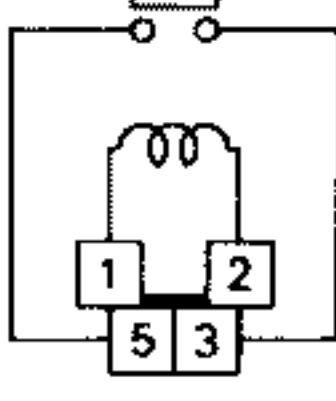
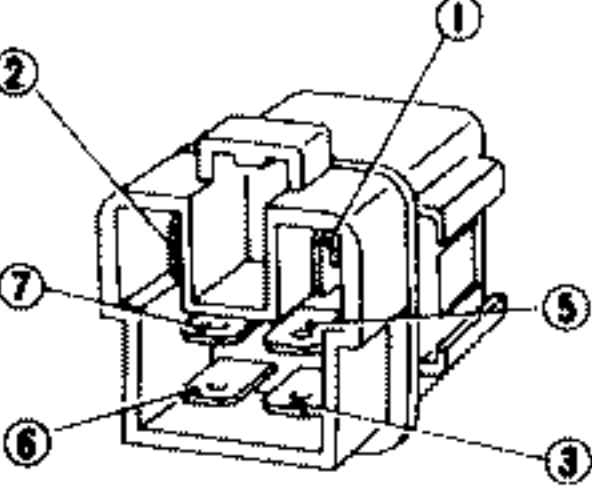
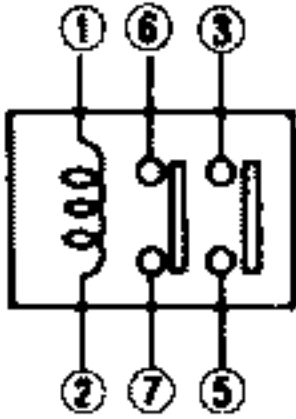
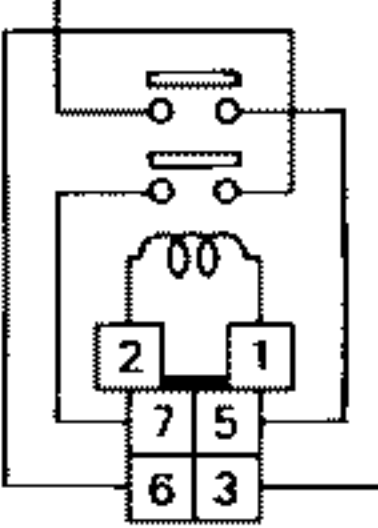
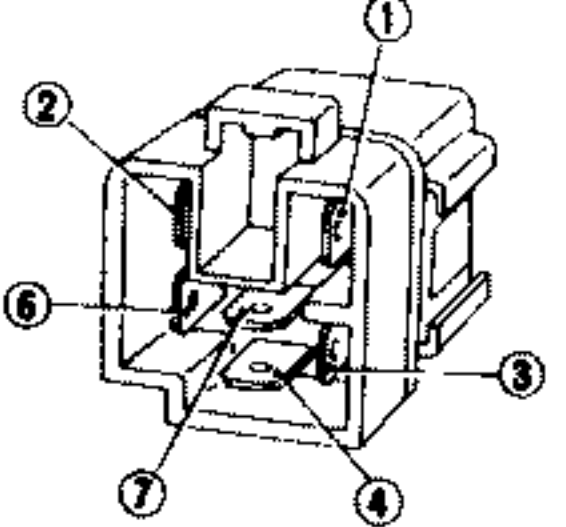
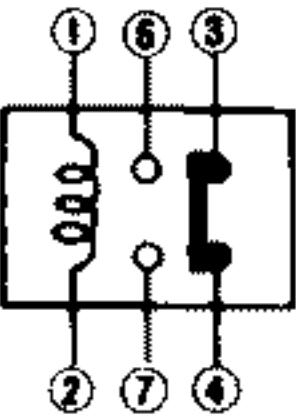
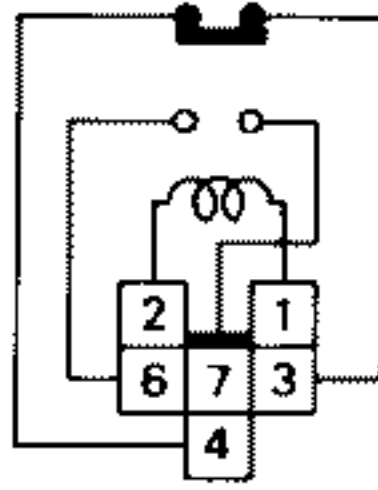
TYPE OF STANDARDIZED RELAYS

1M 1 Make 2M 2 Make
 1T 1 Transfer 1M-1B 1 Make 1 Break



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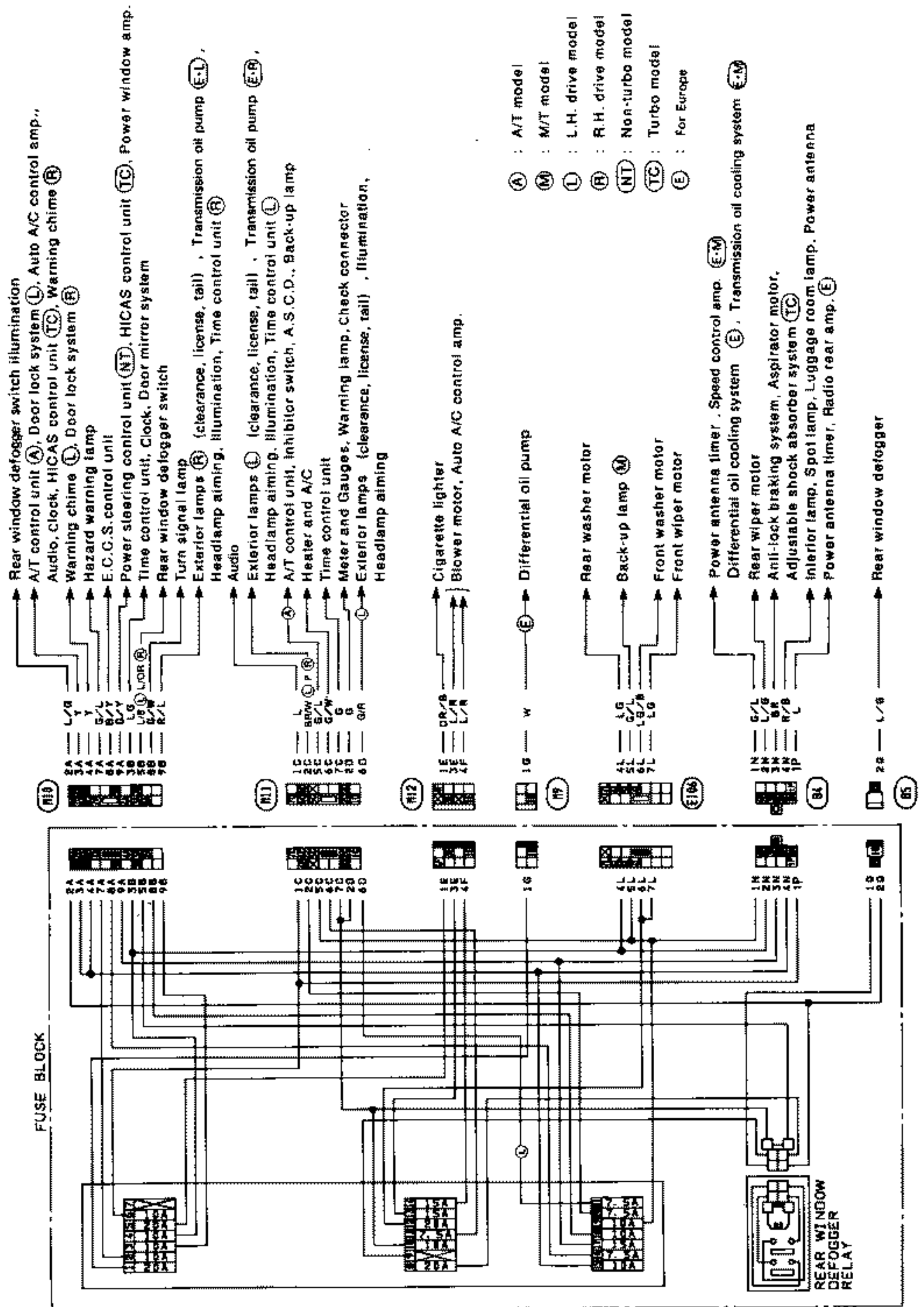
STANDARDIZED RELAY

Type	Outer view	Circuit	Connector symbol and connection	Case color
1T				BLACK
1M				BLUE or GREEN
2M				BROWN
1M-1B				GRAY

SE L883H

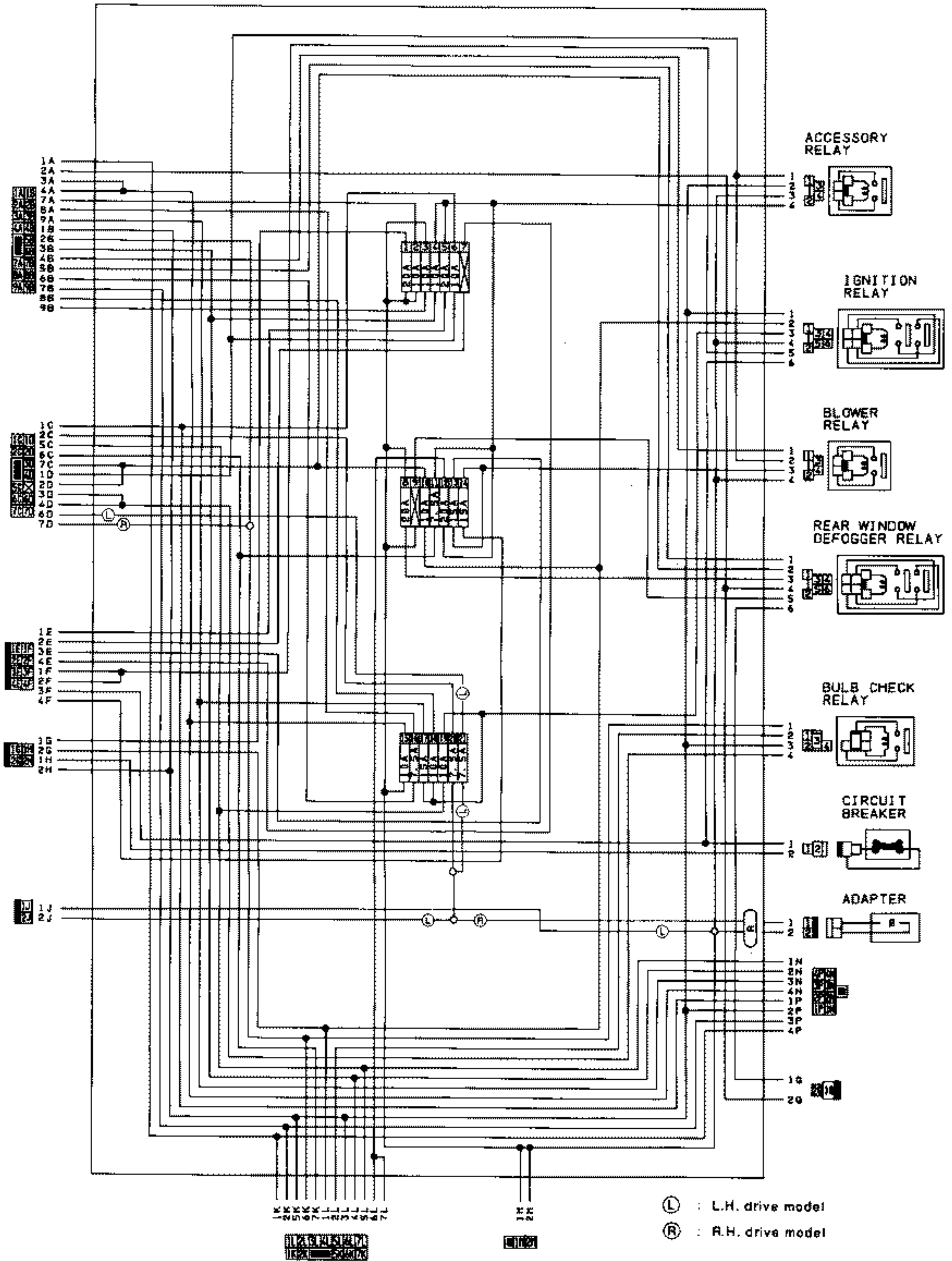
POWER SUPPLY ROUTING

Wiring Diagram (Cont'd)

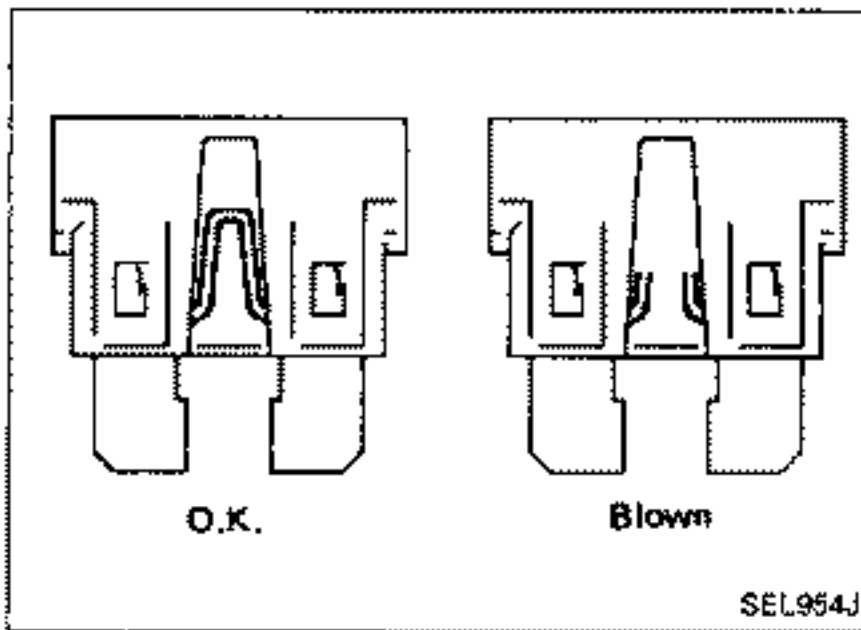


POWER SUPPLY ROUTING

Fuse Block Internal Circuit

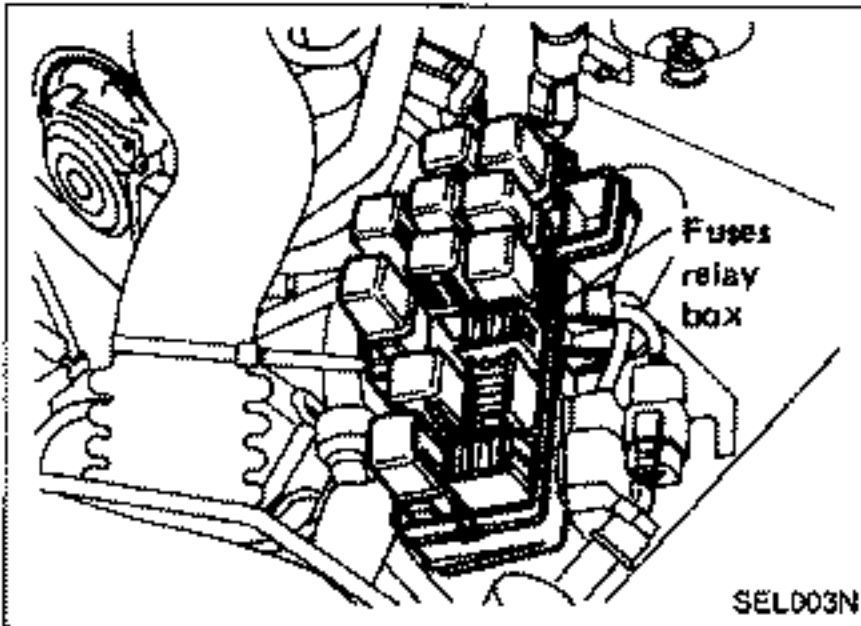


POWER SUPPLY ROUTING



Fuse

- If fuse is blown, be sure to eliminate cause of problem before installing new fuse.
- Use fuse of specified rating. Never use fuse of more than specified rating.
- Do not install fuse in oblique direction; always insert it into fuse holder properly.
- Remove fuse for clock if vehicle is not used for a long period of time.

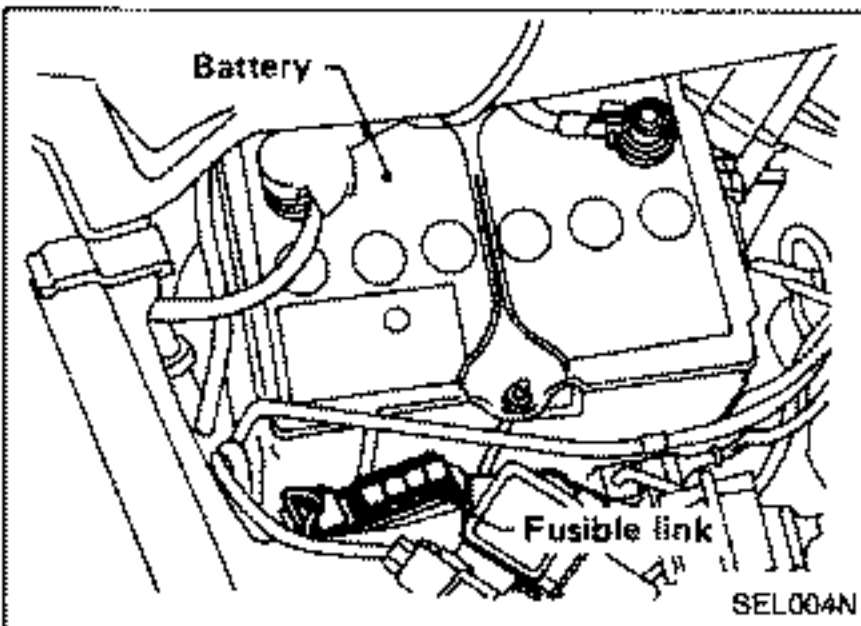


Fusible Link

A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

CAUTION:

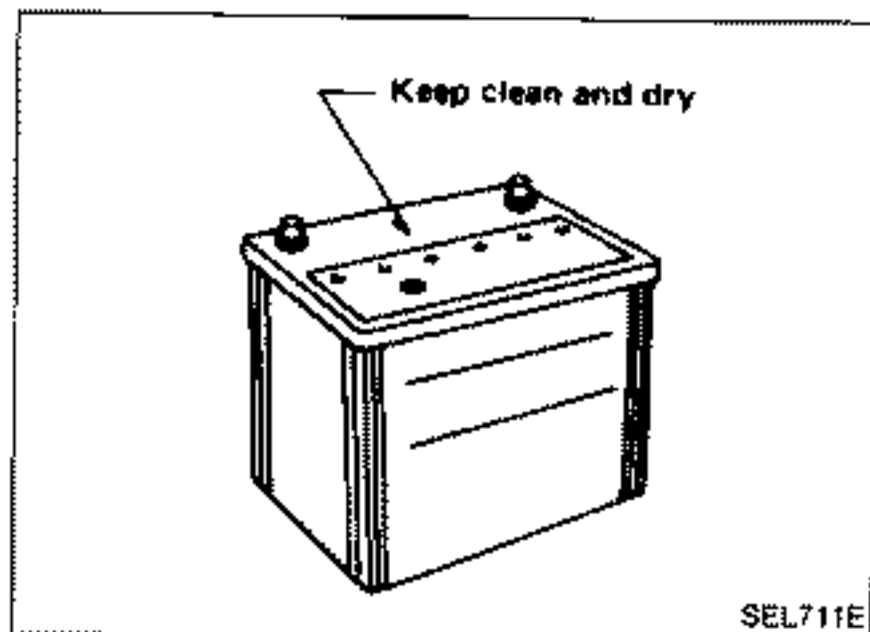
- If fusible link should melt, it is possible that a critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check these circuits and eliminate cause of problem.
- Never wrap periphery of fusible link with vinyl tape. Extreme care should be taken with this link to ensure that it does not come into contact with any other wiring harness, or vinyl or rubber parts.



BATTERY

CAUTION:

- a. If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.
- b. After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.
- c. Never add distilled water through the hole used to check specific gravity.



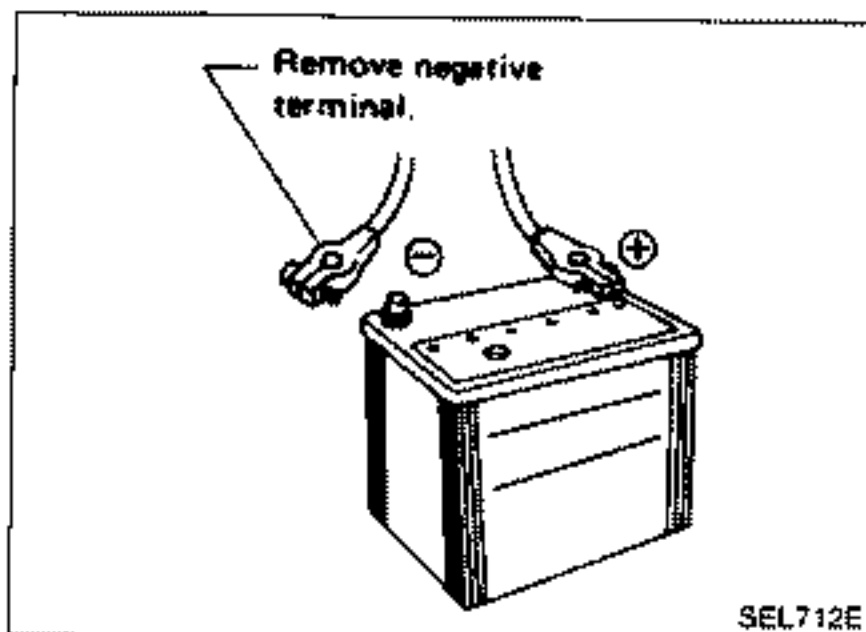
How to Handle Battery

METHODS OF PREVENTING OVER-DISCHARGE

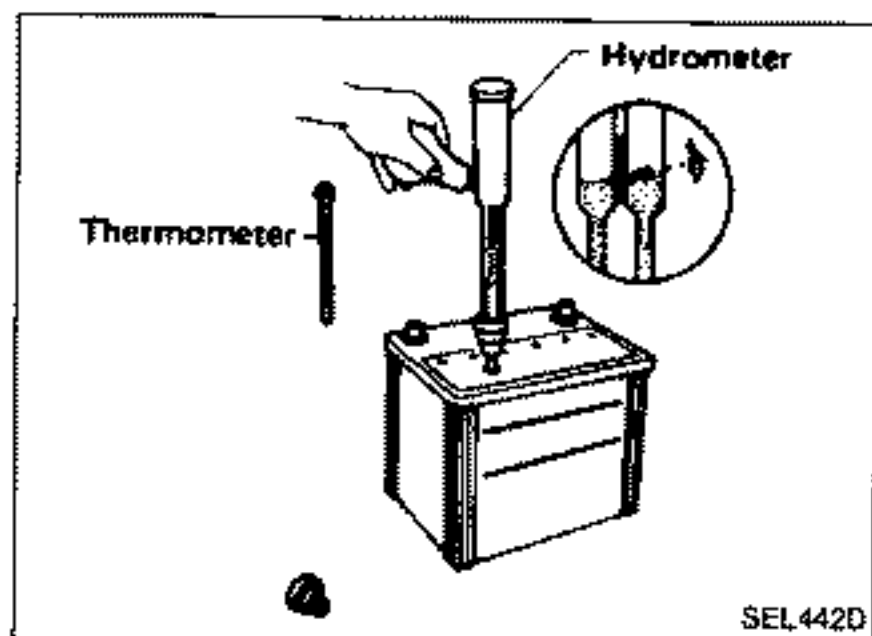
The following precautions must be taken to prevent over-discharging a battery.

- The battery surface (particularly its top) should always be kept clean and dry.

If the top surface of a battery is wet with electrolyte or water, leakage current will cause the battery to discharge. Always keep the battery clean and dry.



- When the vehicle is not going to be used over a long period of time, disconnect the negative battery terminal. (If the vehicle has an extended storage switch, turn it off.)



- Check the charge condition of the battery. Periodically check the specific gravity of the electrolyte. Keep a close check on charge condition to prevent over-discharge.

CHECKING ELECTROLYTE LEVEL

WARNING:

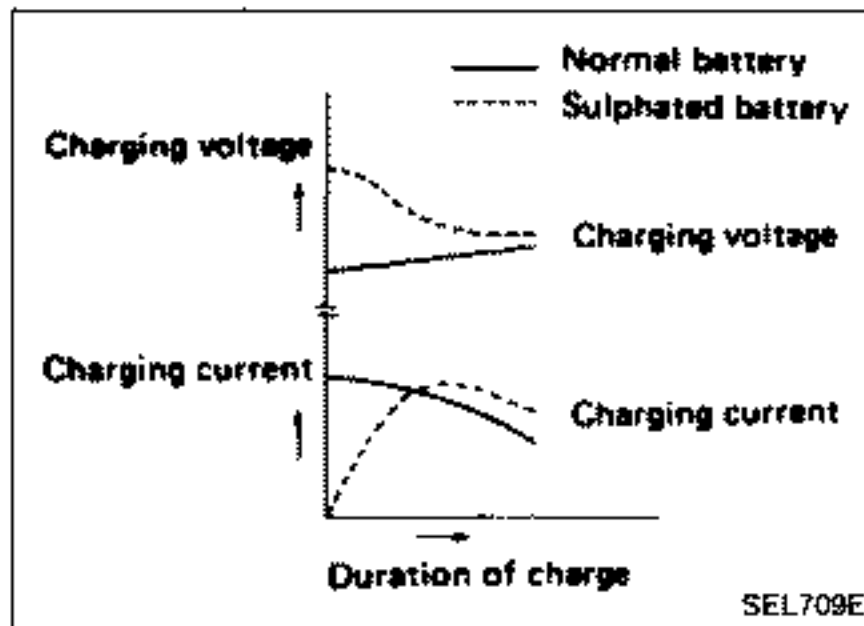
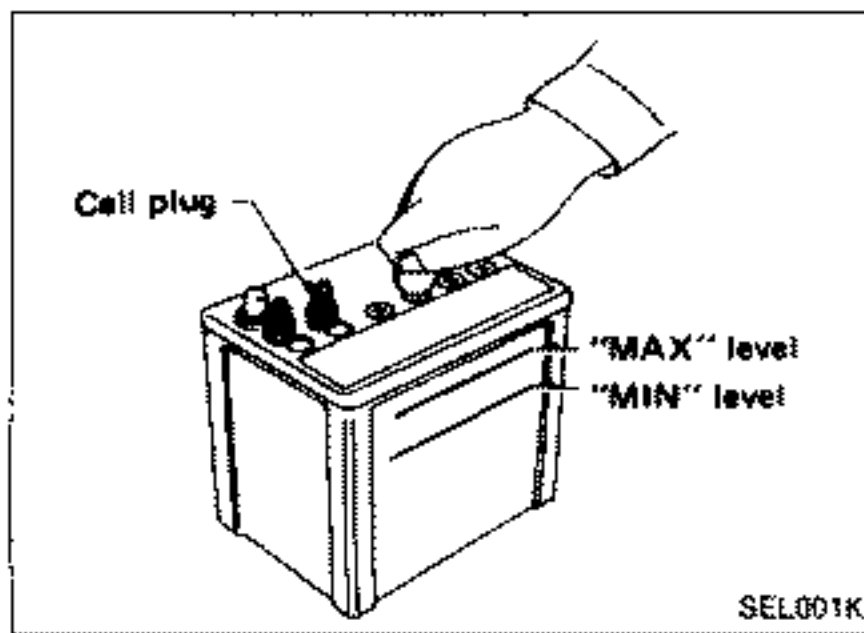
Do not allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, do not touch or rub your eyes until you have thoroughly washed your hands. If the acid contacts the eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention.

Normally the battery does not require additional water. However, when the battery is used under severe conditions, adding distilled water may be necessary during the battery life.

BATTERY

How to Handle Battery (Cont'd)

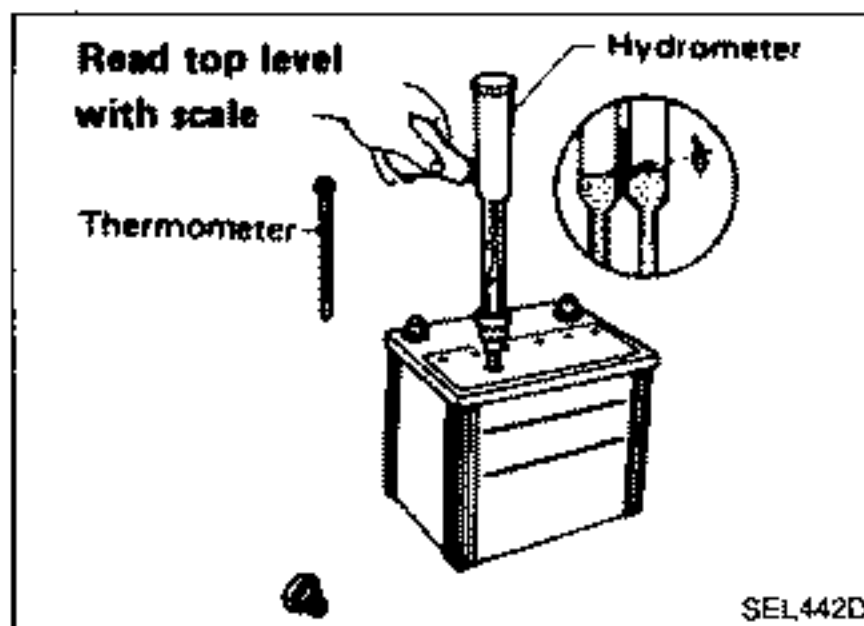
- Remove the cell plug using a suitable tool.
- Add distilled water up to the MAX level.



SULPHATION

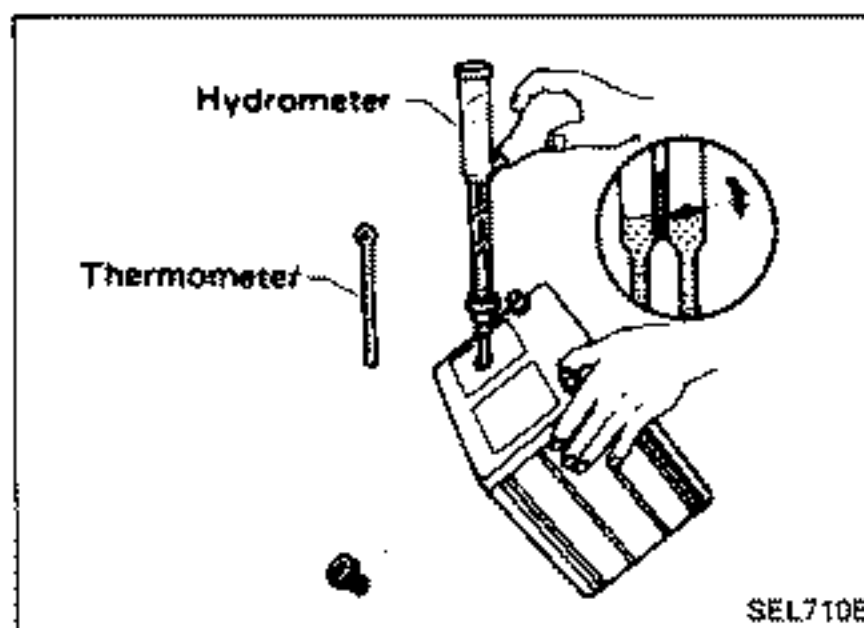
When a battery has been left unattended for a long period of time and has a specific gravity of less than 1.100, it will be completely discharged, resulting in sulphation on the cell plates.

Compared with a battery discharged under normal conditions, the current flow in a "sulphated" battery is not as smooth although its voltage is high during the initial stage of charging, as shown in the figure at the left.



SPECIFIC GRAVITY CHECK

1. Read hydrometer and thermometer indications at eye level.



- When electrolyte level is too low, tilt battery case to raise it for easy measurement.

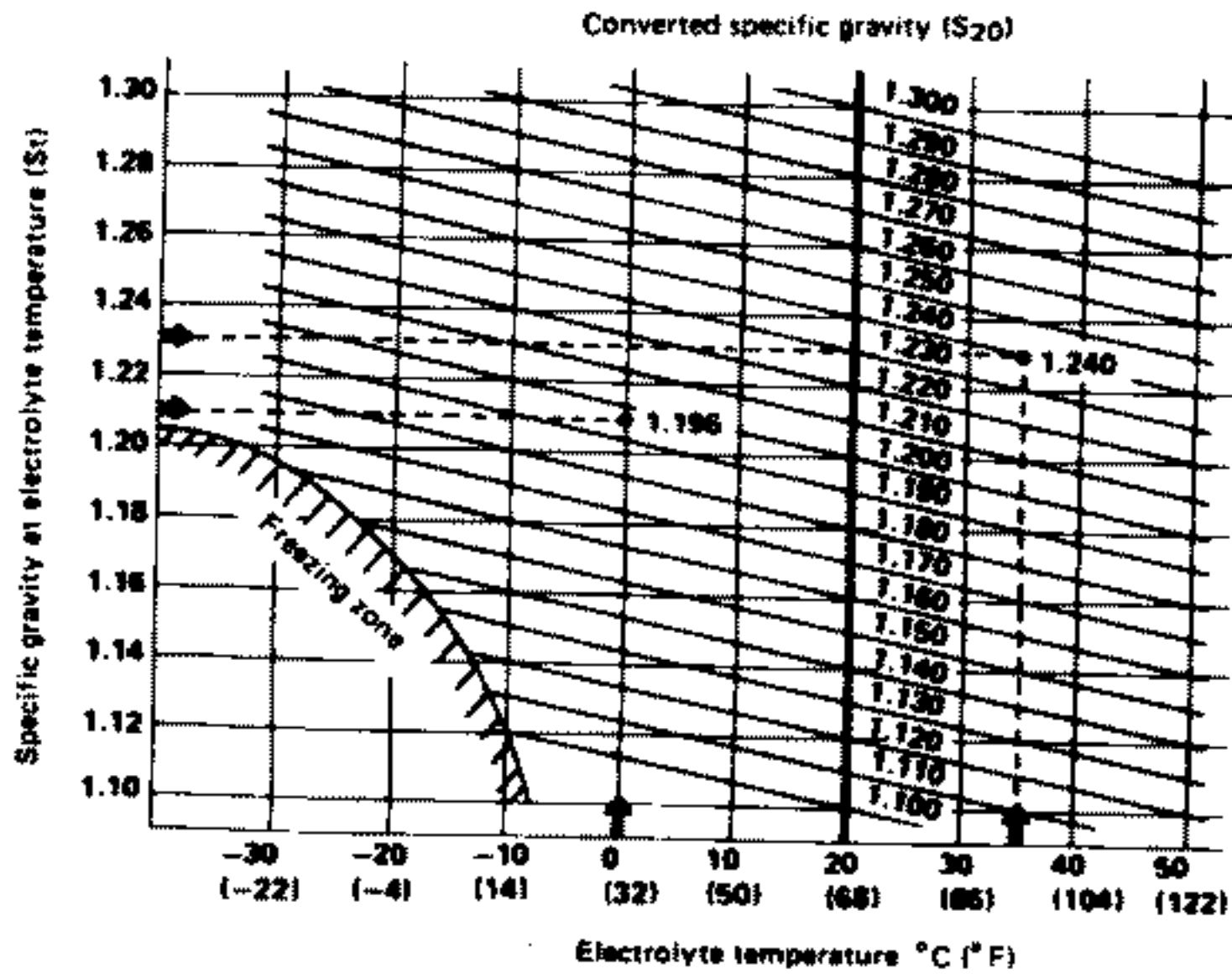
2. Convert into specific gravity at 20°C (68°F).

Example:

- When electrolyte temperature is 35°C (95°F) and specific gravity of electrolyte is 1.230, converted specific gravity at 20°C (68°F) is 1.240.
- When electrolyte temperature is 0°C (32°F) and specific gravity of electrolyte is 1.210, converted specific gravity at 20°C (68°F) is 1.196.

BATTERY

How to Handle Battery (Cont'd)

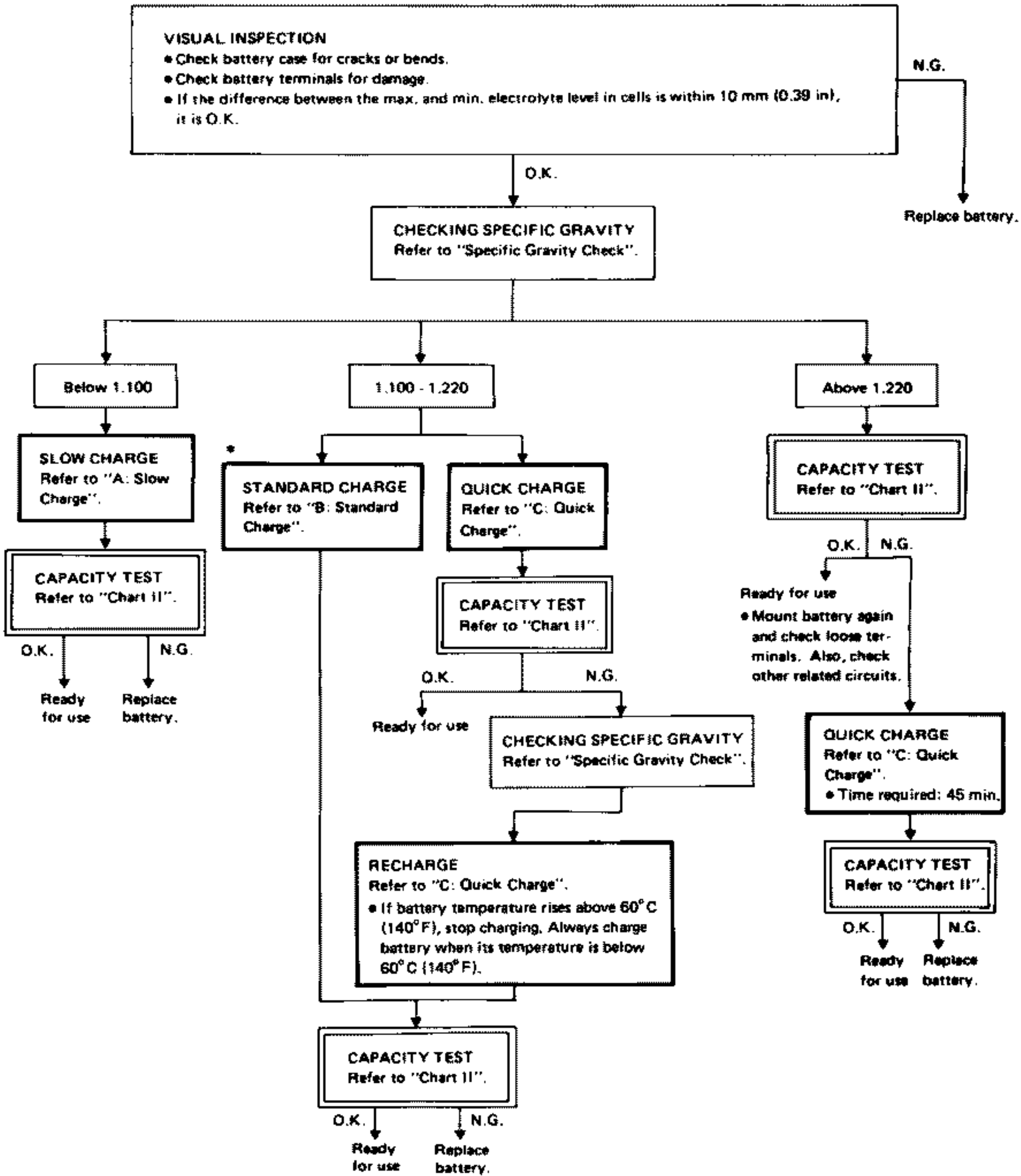


SEL042D

BATTERY

Battery Test and Charging Chart

Chart I

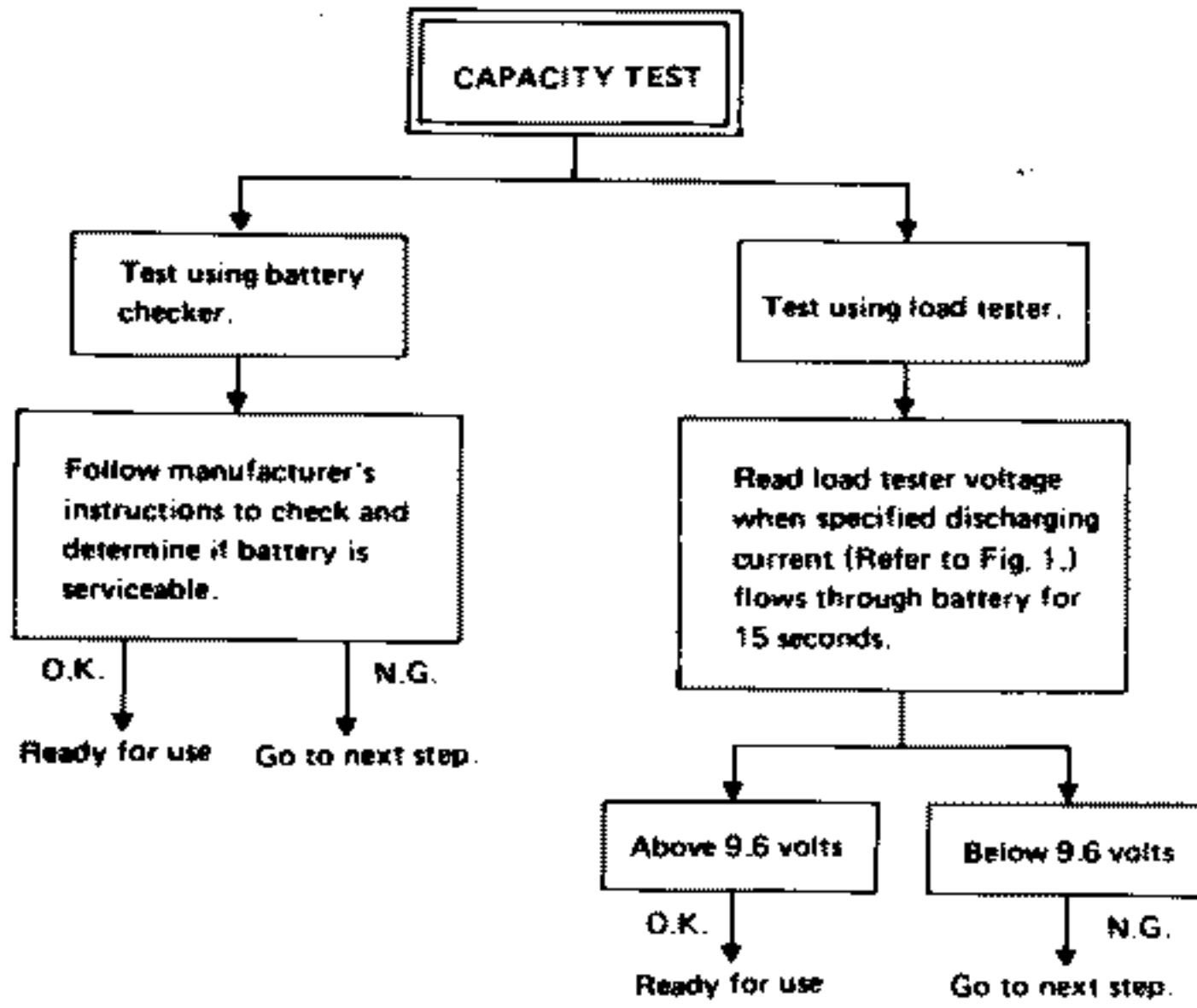


* "STANDARD CHARGE" is recommended in case that the vehicle is in storage after charging.

BATTERY

Battery Test and Charging Chart (Cont'd)

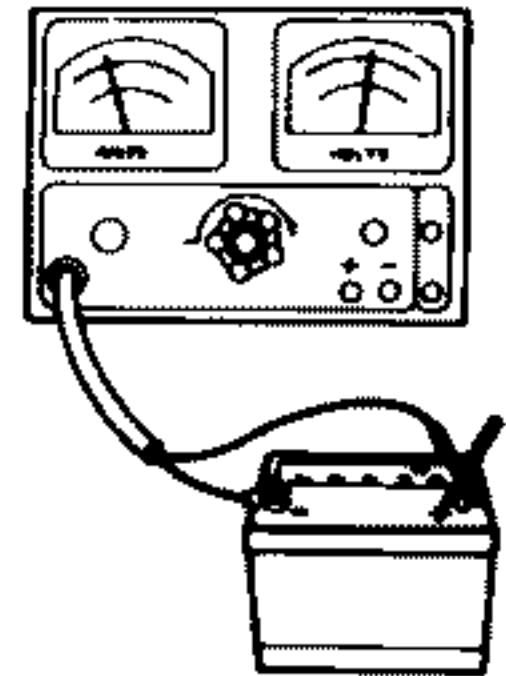
Chart II



- Check battery type and determine the specified current using the following table.

Fig. 1 DISCHARGING CURRENT (Load tester)

Type	Current (A)
28B19R(L)	90
34B19R(L)	99
46B24R(L)	135
55B24R(L)	135
50D23R(L)	150
55D23R(L)	180
65D26R(L)	195
80D26R(L)	195
75D31R(L)	210
95D31R(L)	240
95E41R(L)	300
130E41R(L)	330



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BATTERY

Battery Test and Charging Chart (Cont'd)

A: SLOW CHARGE

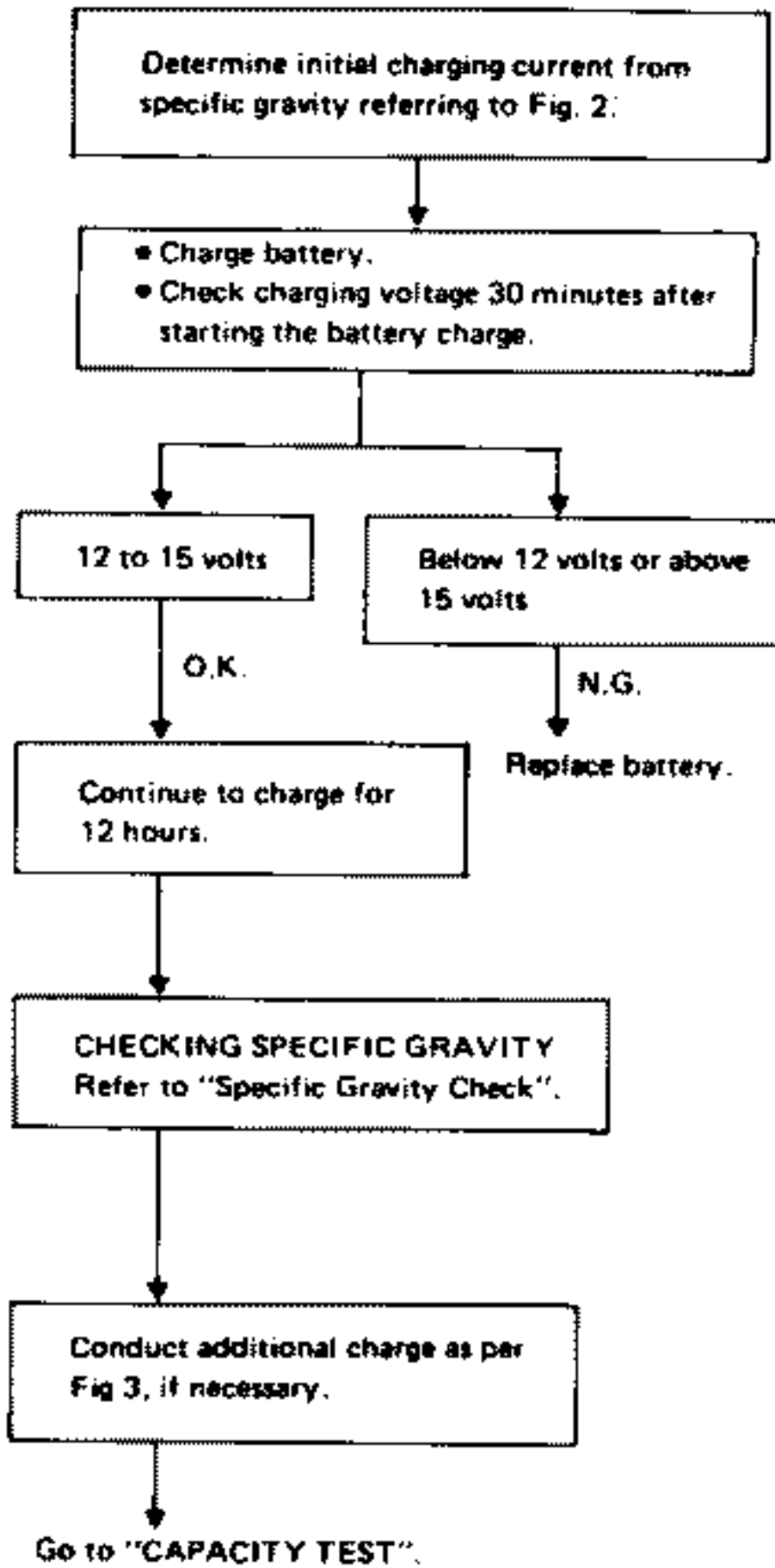
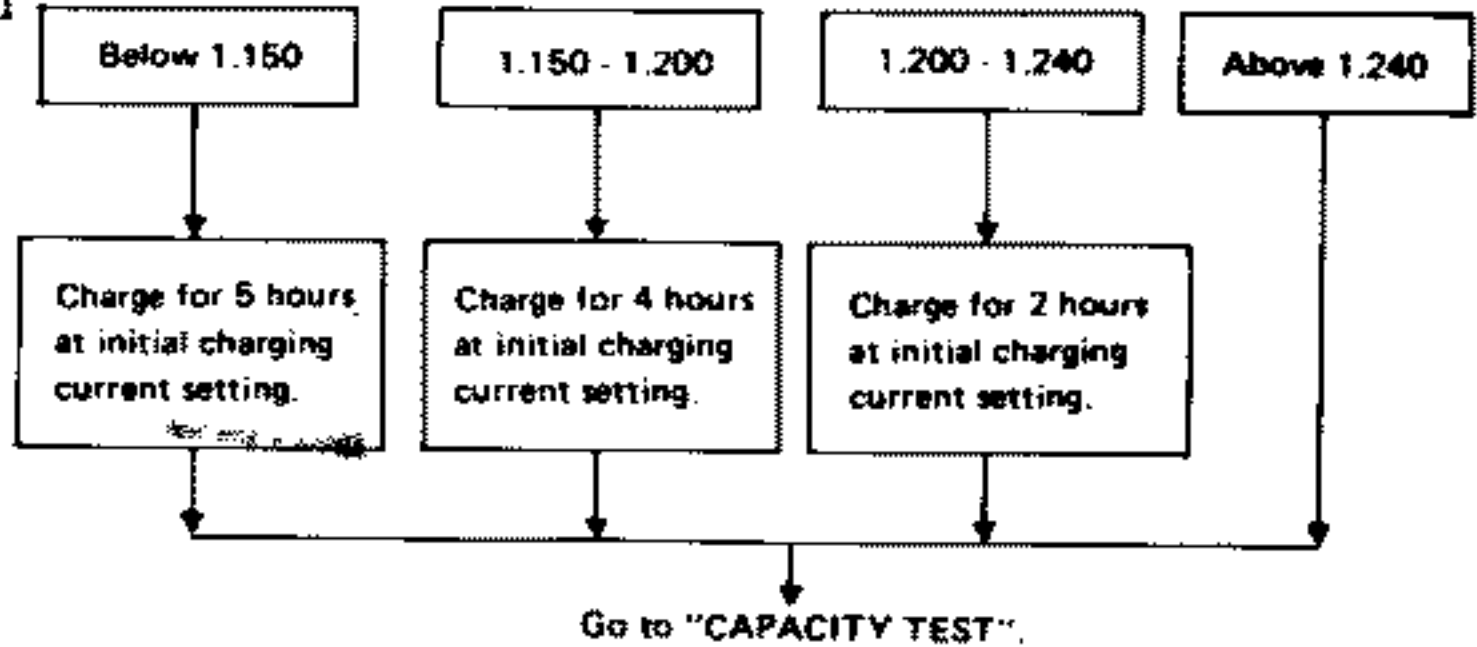


Fig. 2 INITIAL CHARGING CURRENT SETTING (Slow charge)

BATTERY TYPE CON- VERTED SPECIFIC GRAVITY	28B19R(L) 34B19R(L)		46B24R(L) 55B24R(L)		50D23R(L) 55D23R(L)		66D26R(L) 80D26R(L)		75D31R(L)	95D31R(L) 95E41R(L)		130E41R(L)
	Below 1.100	4.0 (A)		5.0 (A)		7.0 (A)		8.0 (A)		9.0 (A)	10.0 (A)	

- Check battery type and determine the specified current using the table shown above.
- After starting charging, adjustment of charging current is not necessary.

Fig. 3 ADDITIONAL CHARGE (Slow charge)



CAUTION:

- Set charging current to value specified in Fig. 2. If charger is not capable of producing specified current value, set its charging current as close to that value as possible.
- Keep battery away from open flame while it is being charged.
- When connecting charger, connect leads first, then turn on charger. Do not turn on charger first, as this may cause a spark.
- If battery temperature rises above 60°C (140°F), stop charging. Always charge battery when its temperature is below 60°C (140°F).

BATTERY

Battery Test and Charging Chart (Cont'd)

B: STANDARD CHARGE

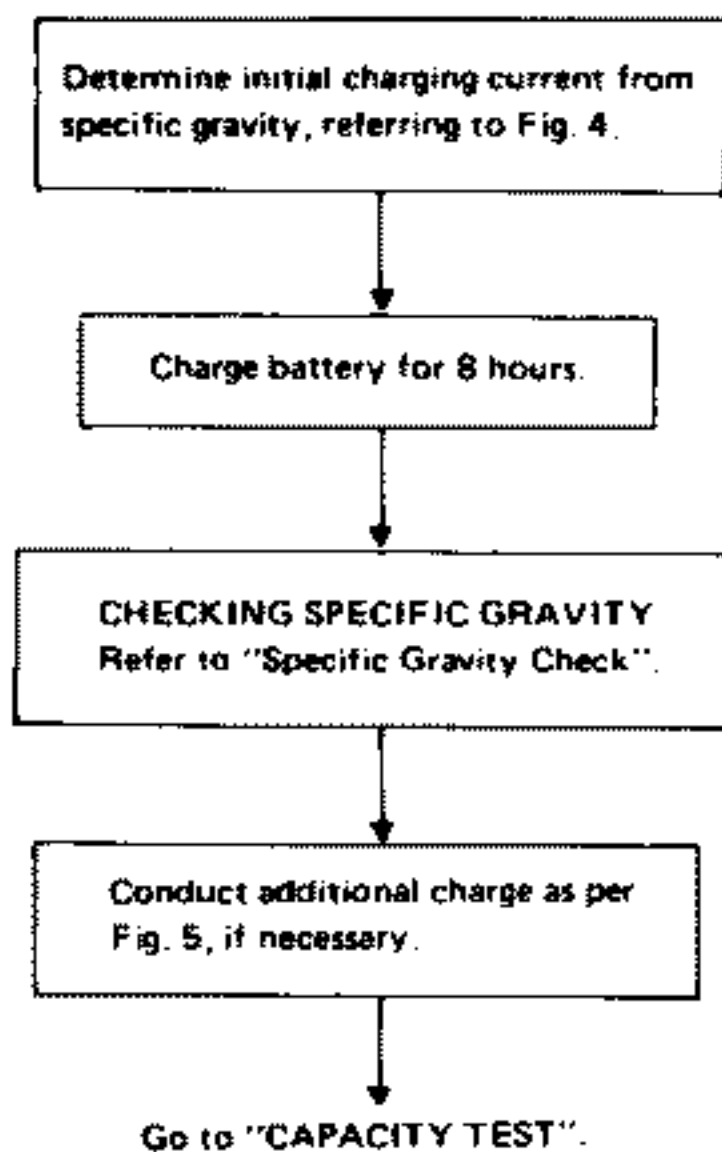
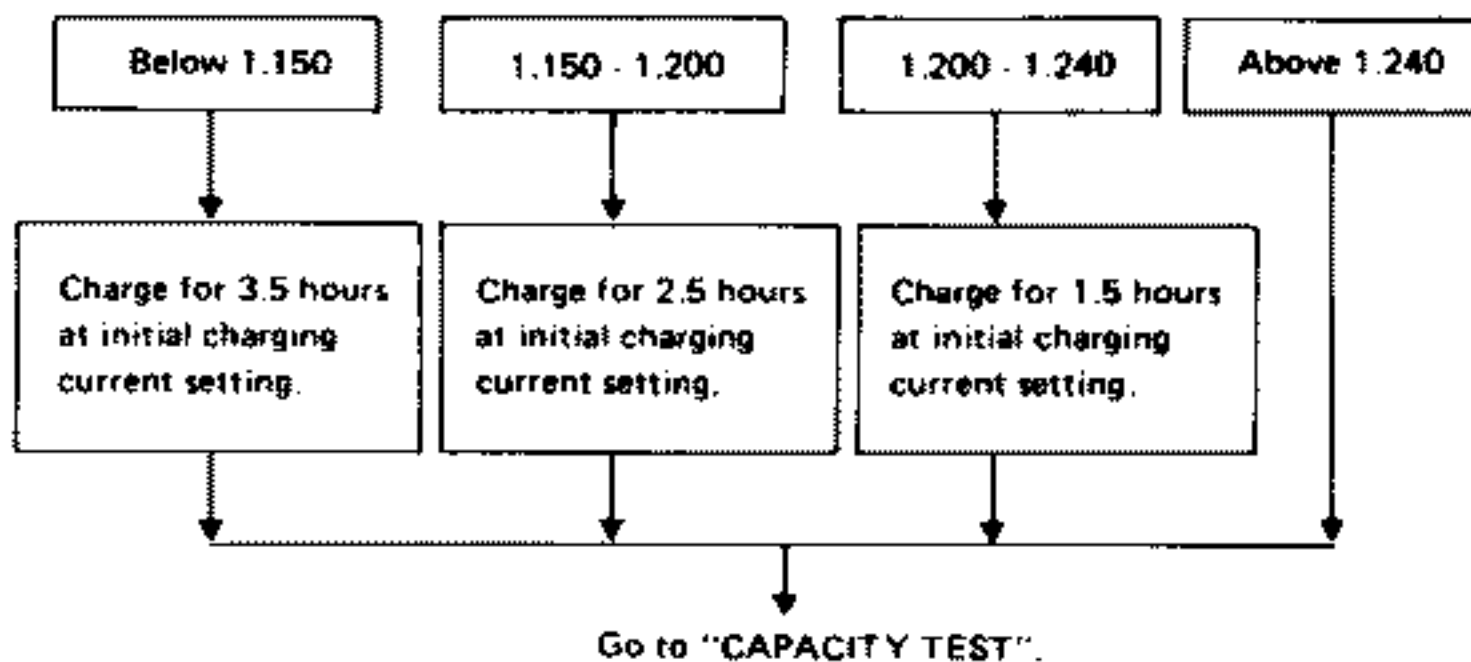


Fig. 4 INITIAL CHARGING CURRENT SETTING
(Standard charge)

BATTERY TYPE CON- VERTED SPECIFIC GRAVITY	28B19R(L) 34B19R(L)		46B24R(L) 55B24R(L)		50D23R(L) 55D23R(L)		65D26R(L) 80D26R(L)		75D31R(L)	95D31R(L) 95E41R(L)		130E41R(L)
	1.100 - 1.130	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	8.0 (A)	9.0 (A)	13.0 (A)				
1.130 - 1.160	3.0 (A)	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	8.0 (A)	11.0 (A)					
1.160 - 1.190	2.0 (A)	3.0 (A)	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	9.0 (A)					
1.190 - 1.220	2.0 (A)	2.0 (A)	3.0 (A)	4.0 (A)	5.0 (A)	5.0 (A)	7.0 (A)					

- Check battery type and determine the specified current using the table shown above.
- After starting charging, adjustment of charging current is not necessary.

Fig. 5 ADDITIONAL CHARGE (Standard charge)



CAUTION:

- Do not use standard charge method on a battery whose specific gravity is less than 1.100.
- Set charging current to value specified in Fig. 4. If charger is not capable of producing specified current value, set its charging current as close to that value as possible.
- Keep battery away from open flame while it is being charged.
- When connecting charger, connect leads first, then turn on charger. Do not turn on charger first, as this may cause a spark.
- If battery temperature rises above 60° C (140° F), stop charging. Always charge battery when its temperature is below 60° C (140° F).

BATTERY

Battery Test and Charging Chart (Cont'd)

C: QUICK CHARGE

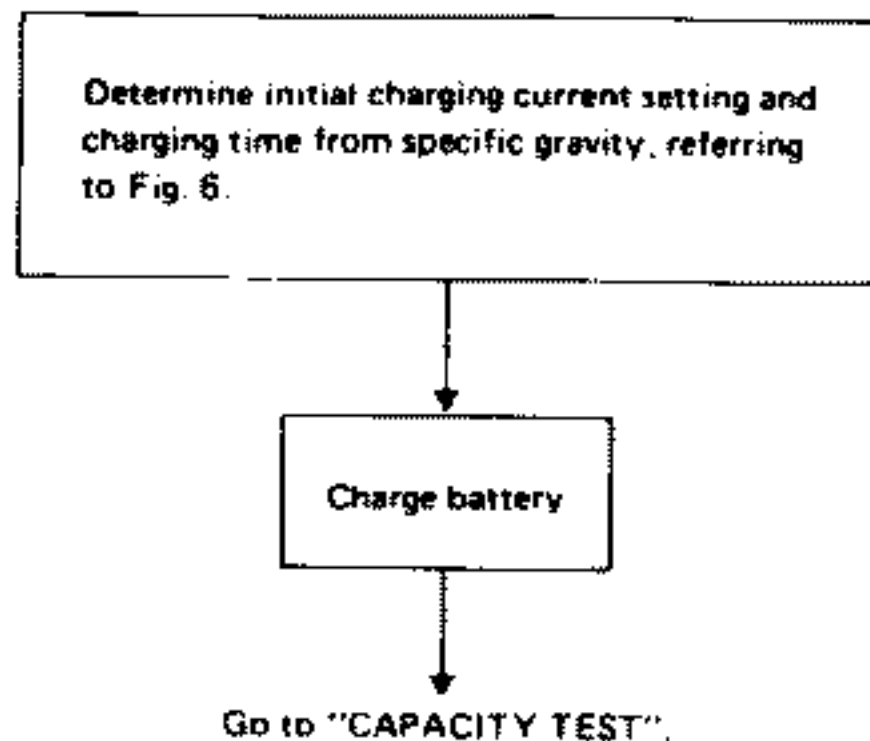


Fig. 6 INITIAL CHARGING CURRENT SETTING AND CHARGING TIME (Quick charge)

CON- VERTED SPECIFIC GRAVITY	BATTERY TYPE		46B24R(L) 55B24R(L) 50D23R(L)	55D23R(L) 65D26R(L) 80D26R(L)	75D31R(L) 95D31R(L) 95E41R(L)	130E41R(L)	
	CUR- RENT (A)						
	28B19R(L) 34B19R(L)		10 (A)	15 (A)	20 (A)	30 (A)	40 (A)
1.100 - 1.130	2.5 hours						
1.130 - 1.160	2.0 hours						
1.160 - 1.190	1.5 hours						
1.190 - 1.220	1.0 hours						
Above 1.220	0.75 hours (45 min.)						

- Check battery type and determine the specified current using the table shown above.
- After starting charging, adjustment of charging current is not necessary.

CAUTION:

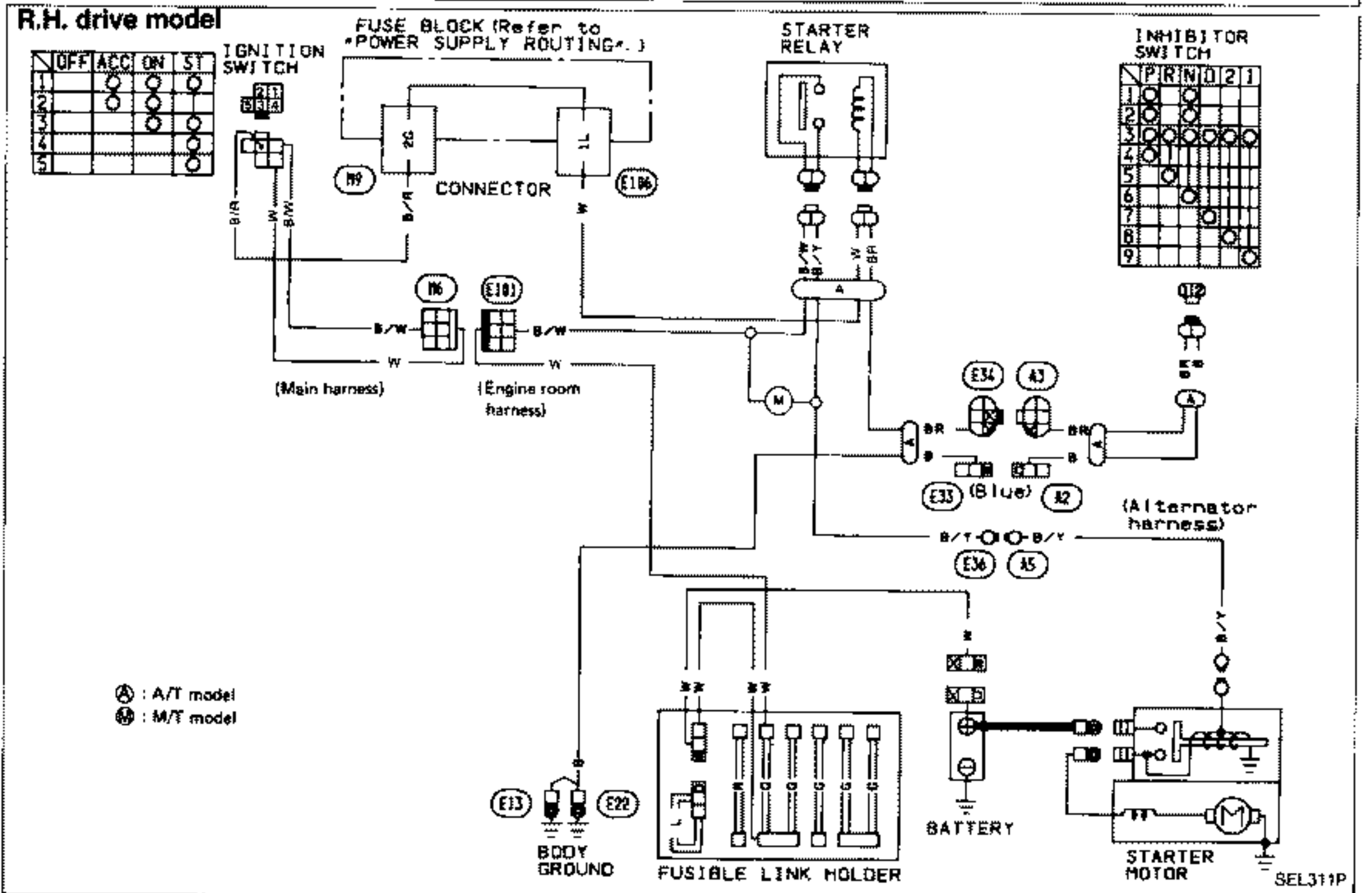
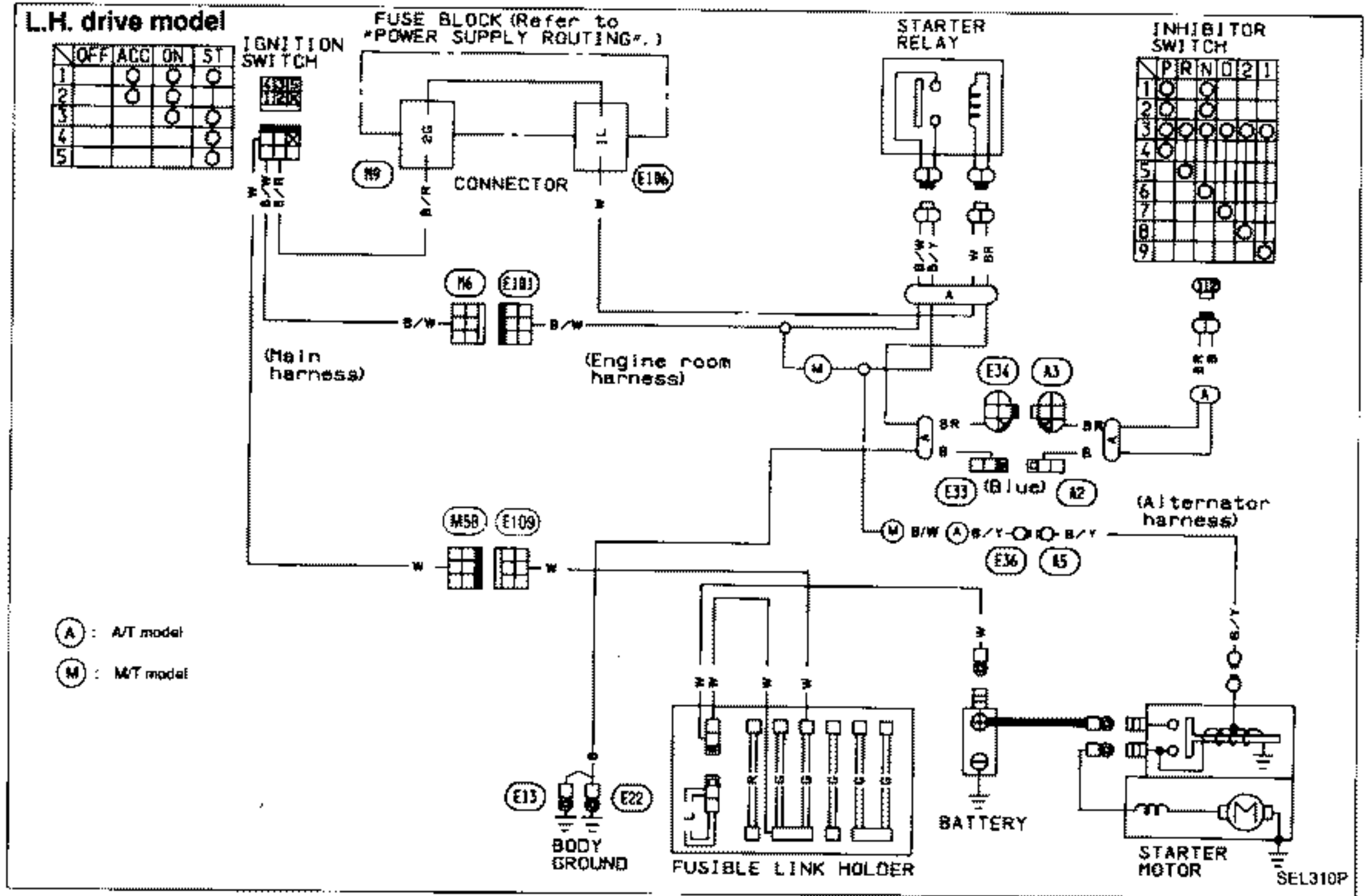
- Do not use quick charge method on a battery whose specific gravity is less than 1.100.
- Set initial charging current to value specified in Fig. 6. If charger is not capable of producing specified current value, set its charging current as close to that value as possible.
- Keep battery away from open flame while it is being charged.
- When connecting charger, connect leads first, then turn on charger. Do not turn on charger first, as this may cause a spark.
- Be careful of a rise in battery temperature because a large current flow is required during quick-charge operation.
If battery temperature rises above 60°C (140°F), stop charging. Always charge battery when its temperature is below 60°C (140°F).
- Do not exceed the charging time specified in Fig. 6, because charging battery over the charging time can cause deterioration of the battery.

Service Data and Specifications (S.D.S.)

		Australia	Europe	
Applied model		All	M/T	A/T
Type		55D23L	65D26L	80D26L
Capacity	V-AH	12-60	12-65	

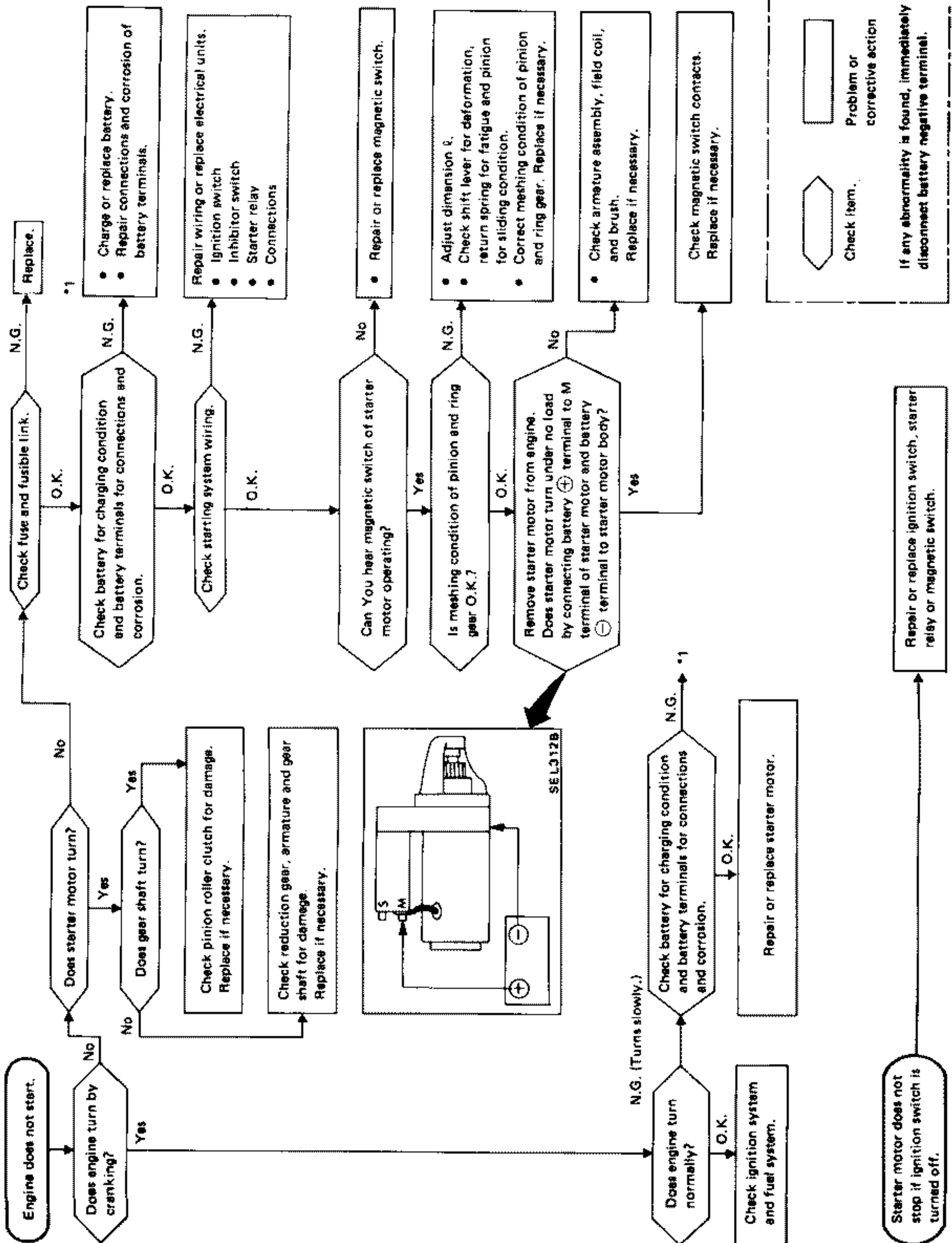
STARTING SYSTEM

Wiring Diagram



STARTING SYSTEM

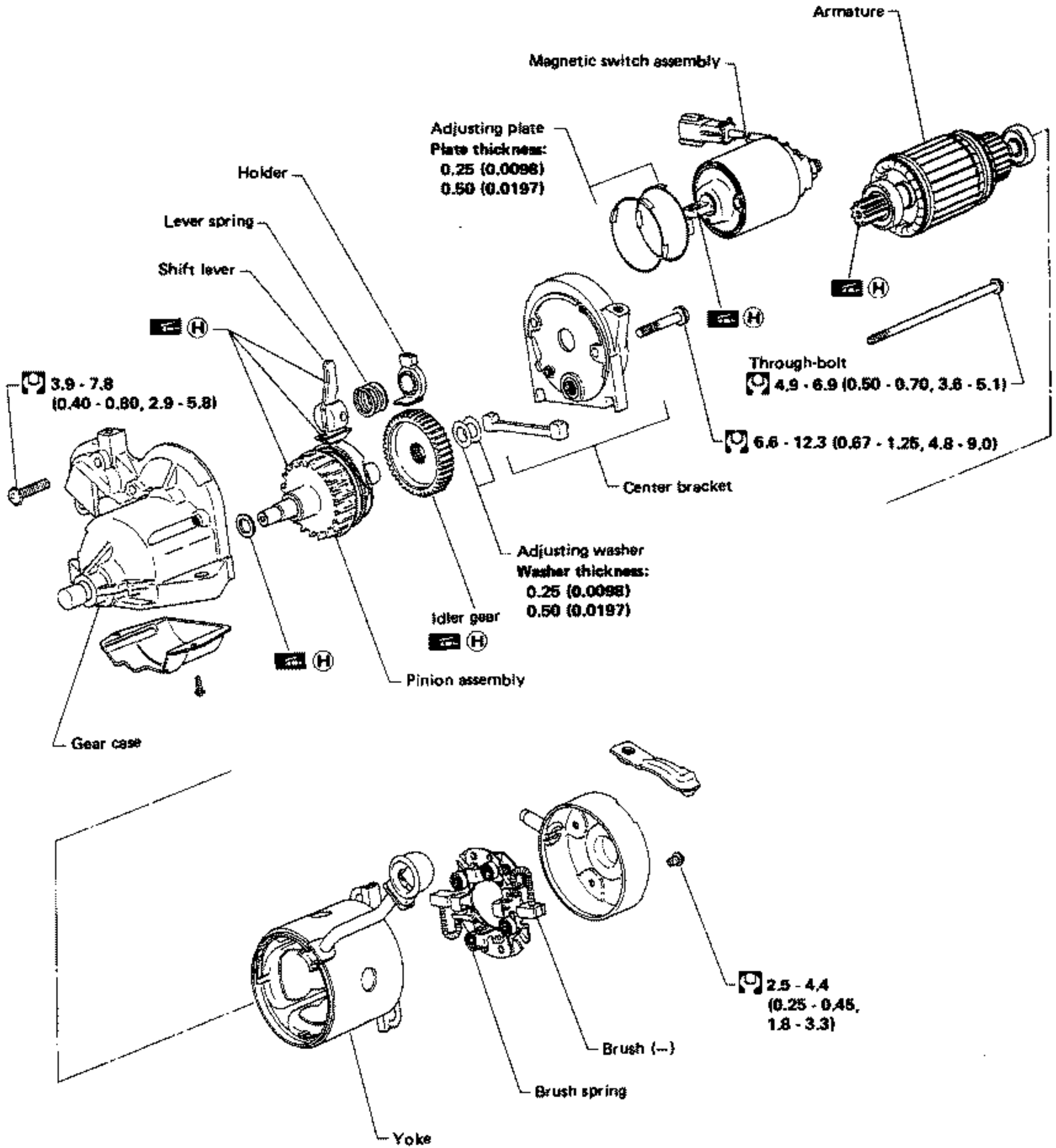
Trouble-shooting



STARTING SYSTEM — Starter —

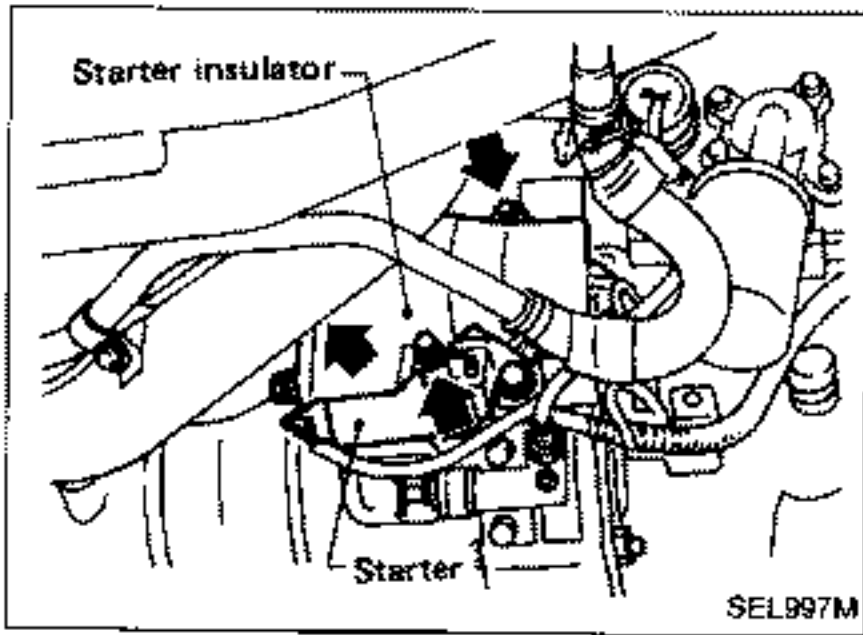
Construction

M2T25281



Unit: mm (in)
 [Torque symbol] : N.m (kg-m, ft-lb)
 [Grease symbol] (H) : High-temperature grease point

SEL038N



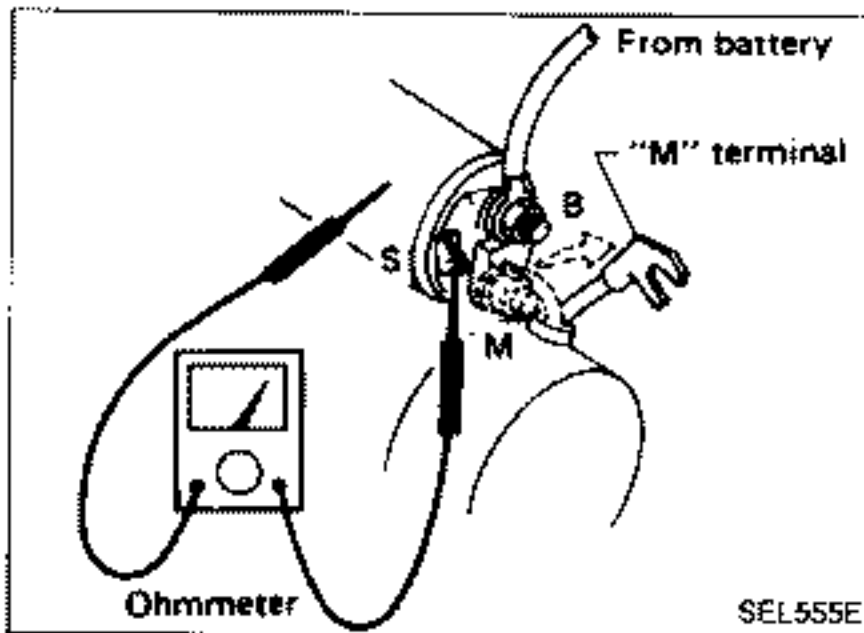
Removal and Installation

REMOVAL

1. Remove starter insulator.
2. Remove starter harness connector and cable.
3. Remove starter fixing bolt and nut and remove starter.

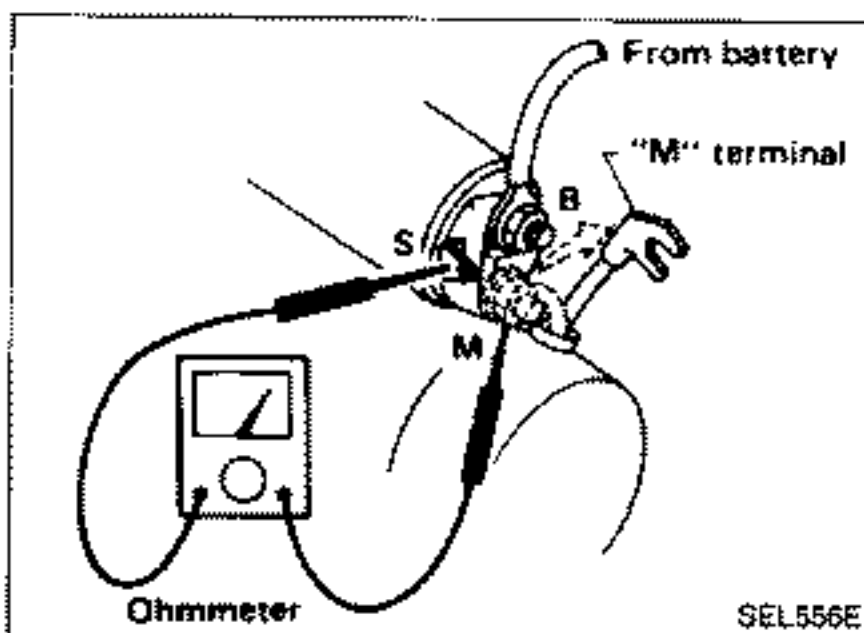
INSTALLATION

- Installation procedure is in reverse order of removal.

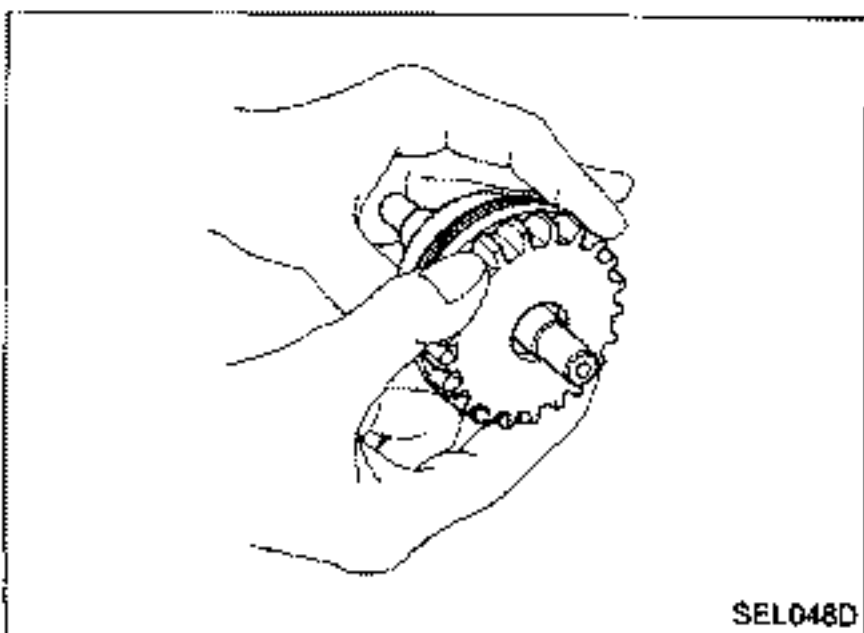


Magnetic Switch Check

- Before starting to check, disconnect battery ground cable.
- Disconnect "M" terminal of starter motor.
- 1. Continuity test (between "S" terminal and switch body).
- No continuity ... Replace.

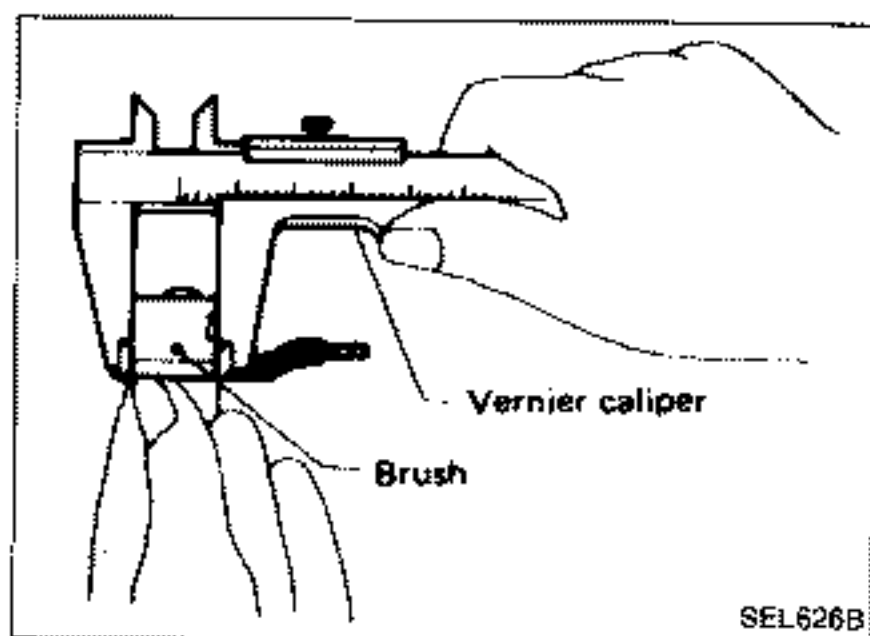


2. Continuity test (between "S" terminal and "M" terminal).
- No continuity ... Replace.



Pinion/Clutch Check

1. Inspect pinion teeth.
 - Replace pinion if teeth are worn or damaged. (Also check condition of ring gear teeth.)
2. Check to see if pinion locks in one direction and rotates smoothly in the opposite direction.
 - If it does not lock (or locks) in either direction or unusual resistance is evident ... Replace.
3. Inspect reduction gear teeth.
 - Replace reduction gear if teeth are worn or damaged. (Also check condition of armature shaft gear teeth.)



Brush Check

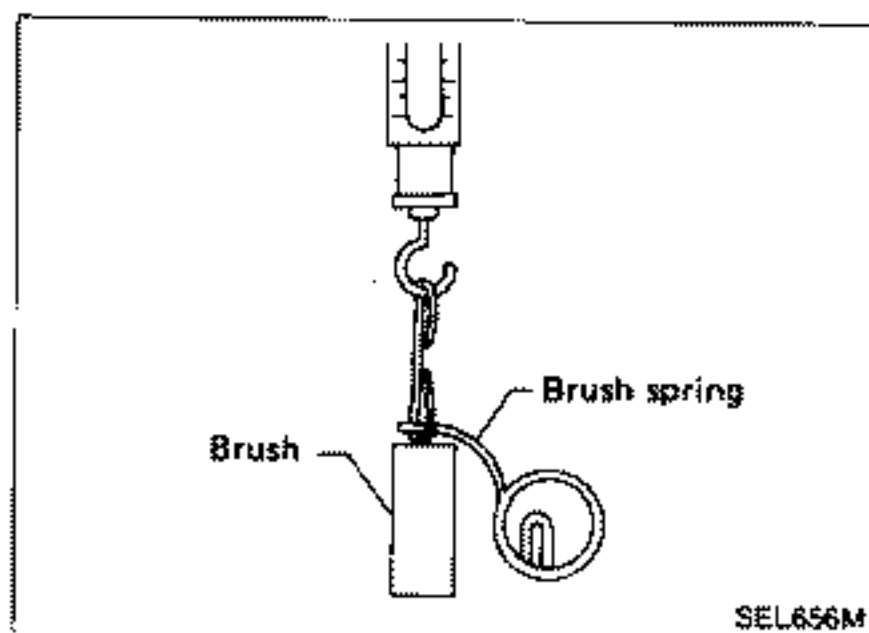
BRUSH

Check brush for wear.

Wear limit length:

Refer to S.D.S.

- Excessive wear ... Replace.



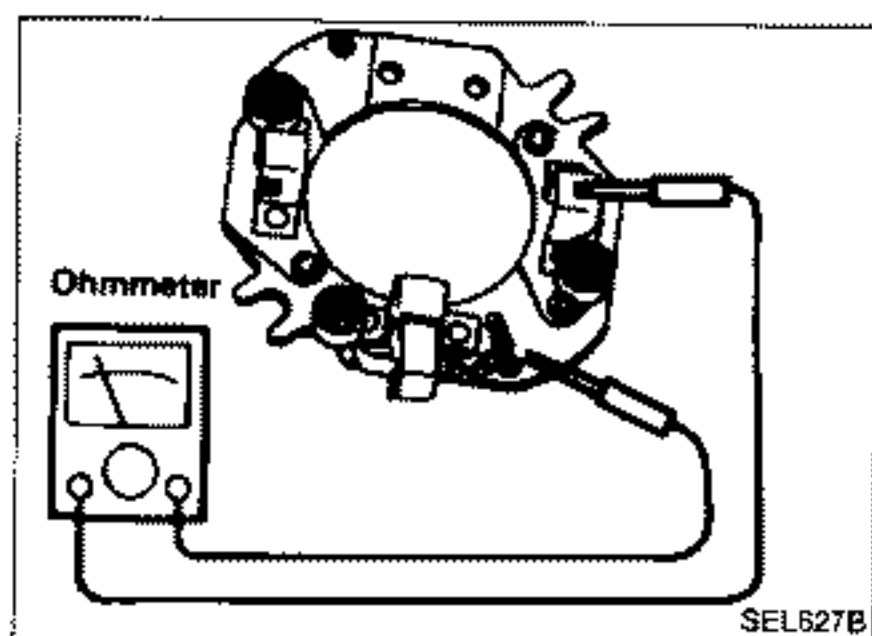
BRUSH SPRING PRESSURE

Check brush spring pressure with brush spring detached from brush.

Spring pressure (with new brush):

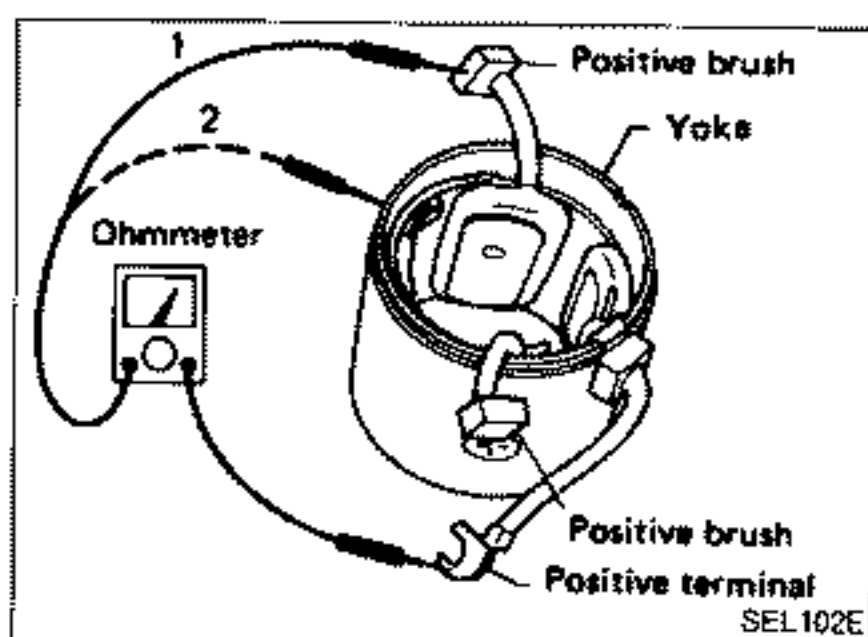
Refer to S.D.S.

- Not within the specified values ... Replace.



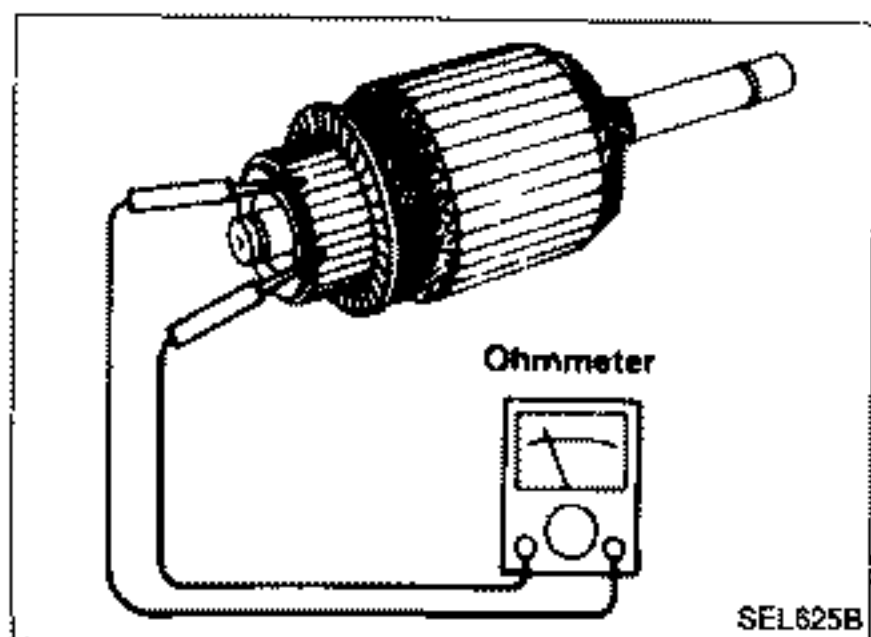
BRUSH HOLDER

1. Perform insulation test between brush holder (positive side) and its base (negative side).
 - Continuity exists Replace.
2. Check brushes to see if they move smoothly.
 - If brush holder is bent, replace it; if surfaces of brush holder and base are dirty, clean them.



Field Coil Check

1. Continuity test (between field coil positive terminal and positive brushes).
 - No continuity ... Replace yoke.
2. Insulation test (between field coil positive terminal and yoke).
 - Continuity exists Replace yoke.

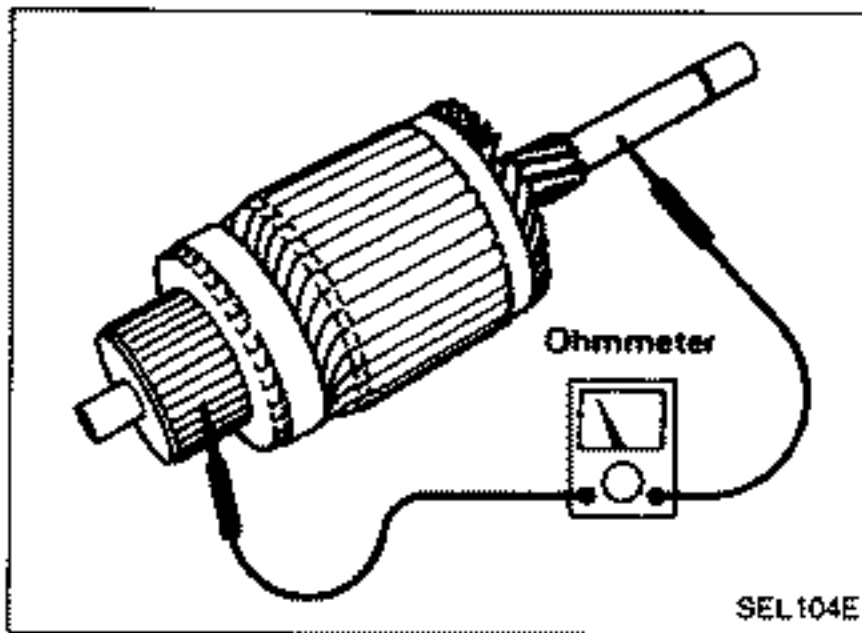


Armature Check

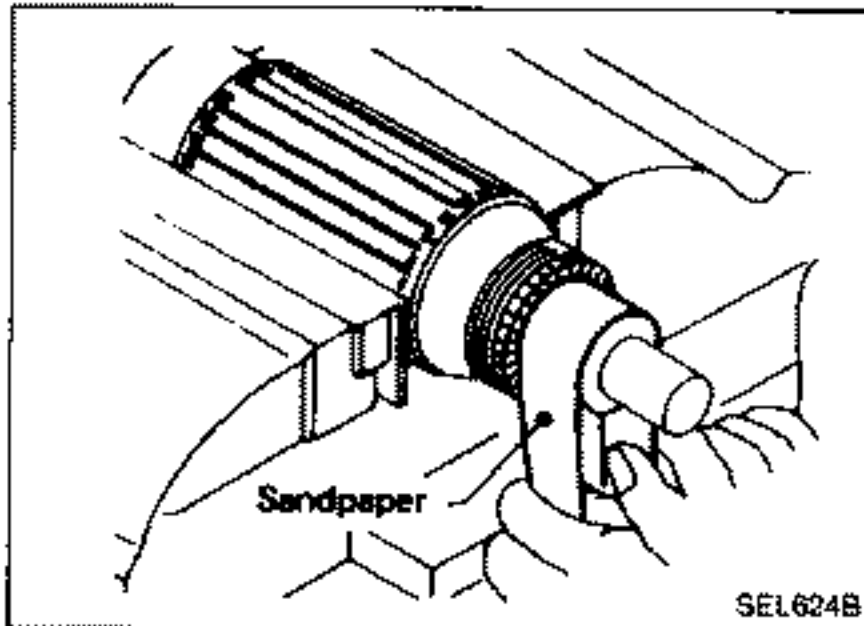
1. Continuity test (between two segments side by side).
 - No continuity ... Replace.

STARTING SYSTEM — Starter —

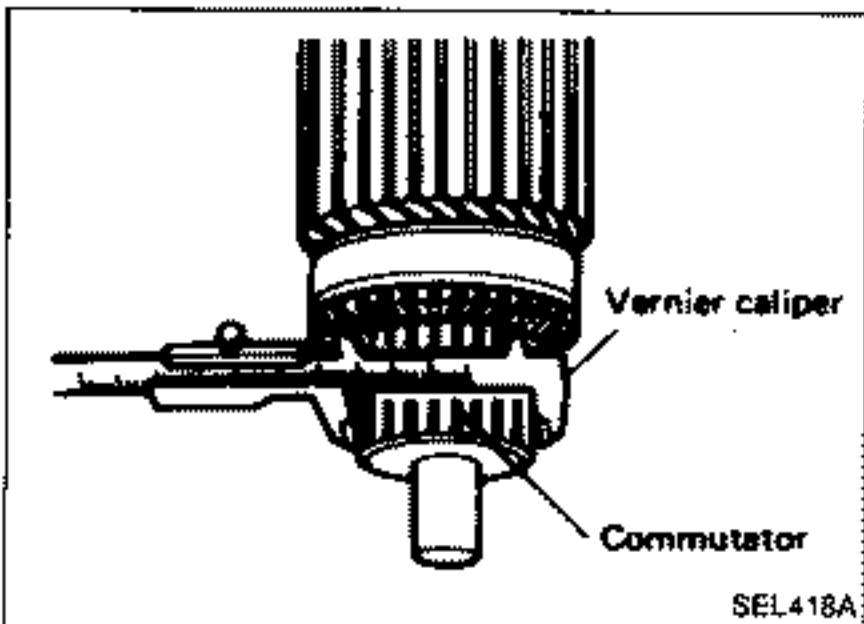
Armature Check (Cont'd)



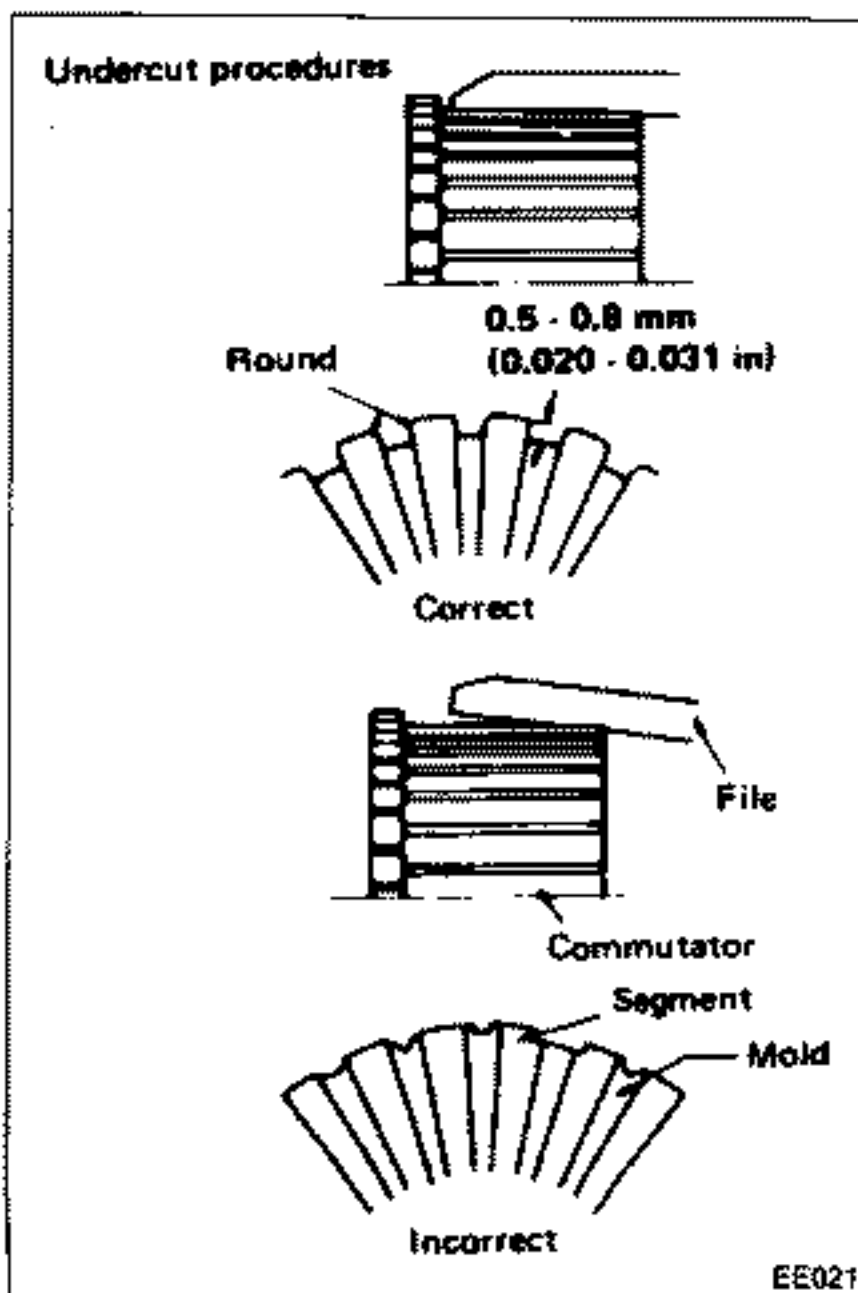
2. Insulation test (between each commutator bar and shaft).
 - Continuity exists Replace.



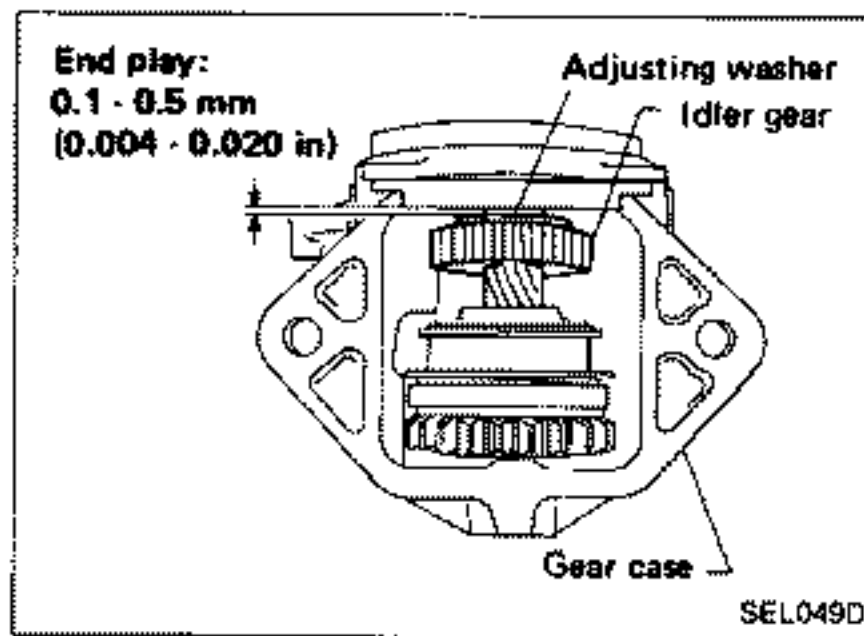
3. Check commutator surface.
 - Rough ... Sand lightly with No. 500 - 600 sandpaper.



4. Check diameter of commutator.
**Commutator minimum diameter:
Refer to S.D.S.**
 - Less than specified value ... Replace.



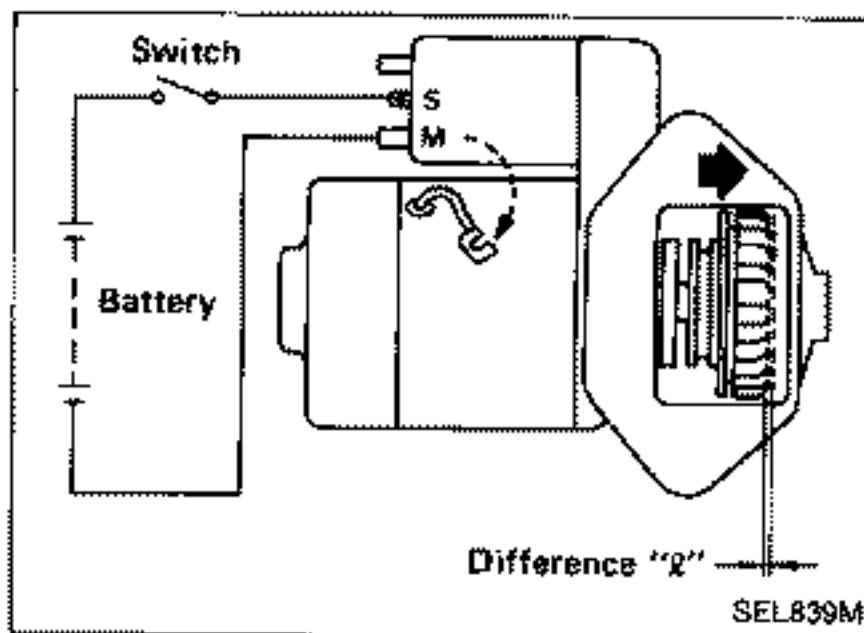
5. Check depth of insulating mold from commutator surface.
 - Less than 0.2 mm (0.008 in) ... Undercut to 0.5 to 0.8 mm (0.020 to 0.031 in)



Reassembly

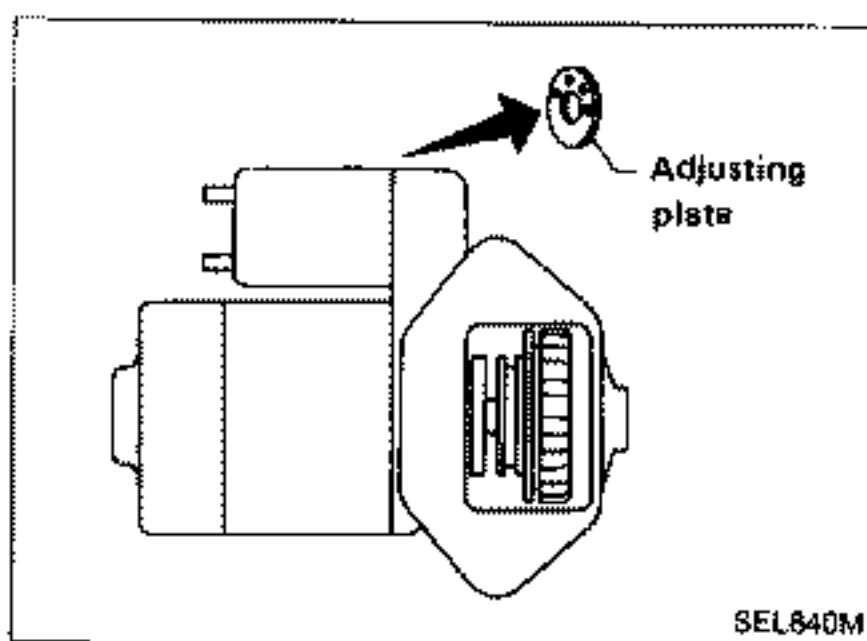
Carefully observe the following instructions.

- a. **Apply grease to:**
 - Rear cover metal
 - Gear case metal
 - Frictional surface of pinion
 - Moving portion of shift lever
 - Plunger of magnetic switch
- b. **After assembling gear case, pinion assembly, idler gear, adjusting washers and center bracket, turn idler gear with your hand in axial direction and adjust end play to the 0.1 to 0.5 mm (0.004 to 0.020 in) range using adjusting washer(s).**
- c. **Check pinion to see if its engagement length is correct.**



Measure difference in height "e" of pinion assembly front edge when pinion assembly is forced out by the magnetic switch and then when it is pulled out by hand.

Difference "e": 0.3 - 2.0 mm (0.012 - 0.079 in)



- Not in the specified value ... Adjust by adjusting plate.

STARTING SYSTEM — Starter —

Service Data and Specifications (S.D.S.)

STARTER

Type		M2T25281	
		Reduction gear	
System voltage		V	12
No-load	Terminal voltage	V	11.0
	Current	A	70
	Revolution	rpm	More than 2,000
Minimum length of brush		mm (in)	11.5 (0.453)
Brush spring tension (With new brush)		N (kg, lb)	13.7 - 25.5 (1.4 - 2.6, 3.1 - 5.7)
Minimum diameter of commutator		mm (in)	31.4 (1.236)
Difference "ℓ" in height of pinion assembly		mm (in)	0.3 - 2.0 (0.012 - 0.079)

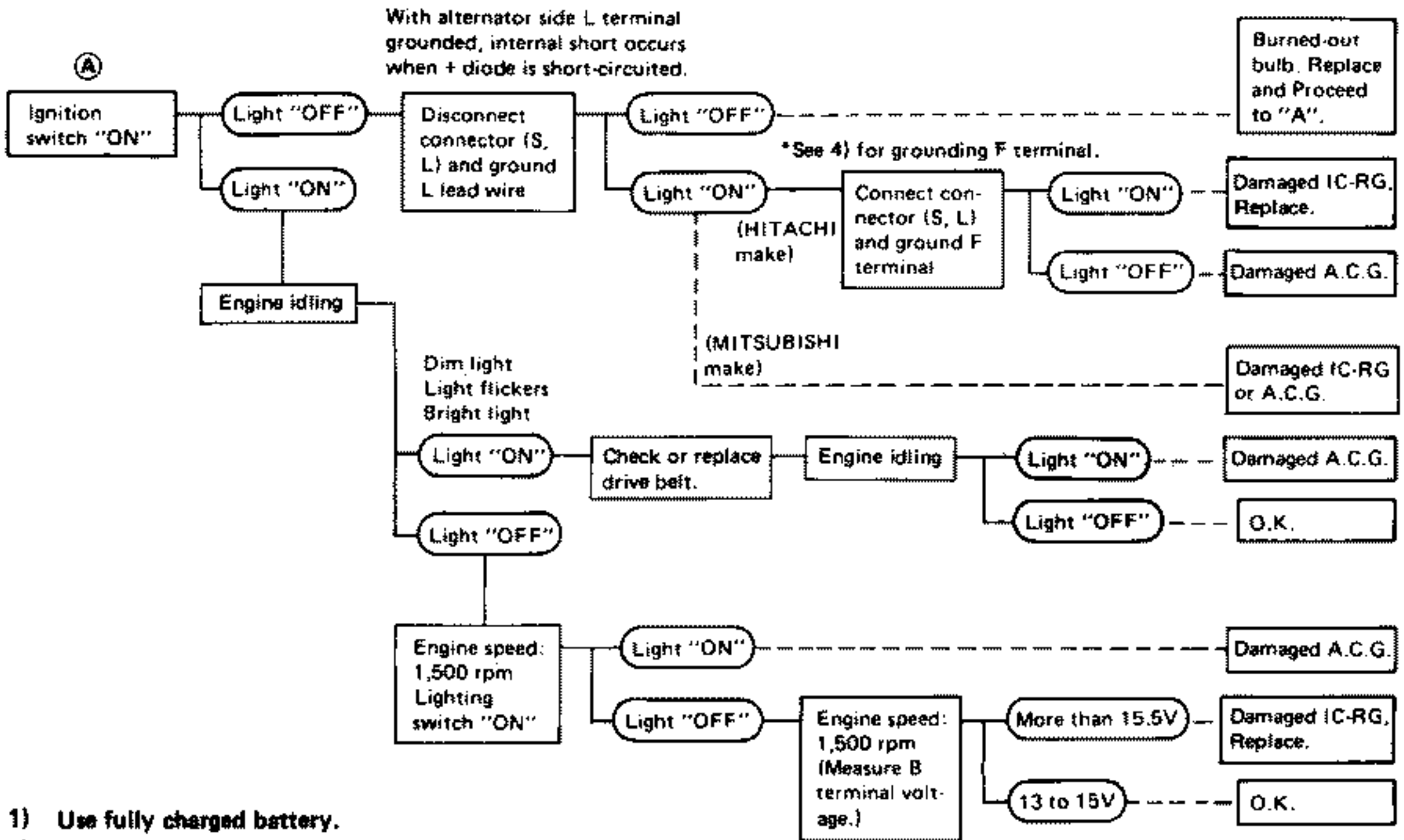
CHARGING SYSTEM

Trouble-shooting

Before conducting an alternator test, make sure that the battery is fully charged. A 30-volt voltmeter and suitable test probes are necessary for the test. The alternator can be checked easily by referring to the Inspection Table.

Before starting trouble-shooting, inspect the fusible link.

WITH IC REGULATOR

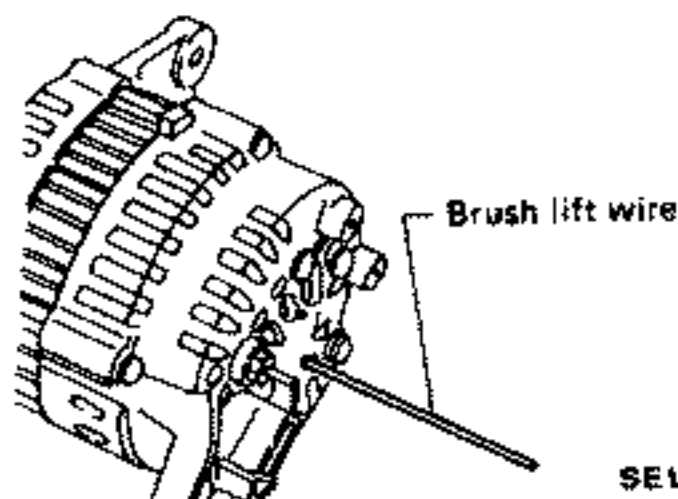


Make sure connector (S, L) is connected correctly.

- 1) Use fully charged battery.
- 2) Light : Charge warning light
A.C.G. : Alternator parts except IC regulator
IC-RG : IC regulator
O.K. : IC alternator is in good condition.
- 3) When reaching "Damaged A.C.G.", remove alternator from vehicle and disassemble, inspect and correct or replace faulty parts.
- 4) *Method of grounding F terminal (HITACHI make only)

Gasoline engine model

Contact tip of wire with brush and attach wire to alternator body.

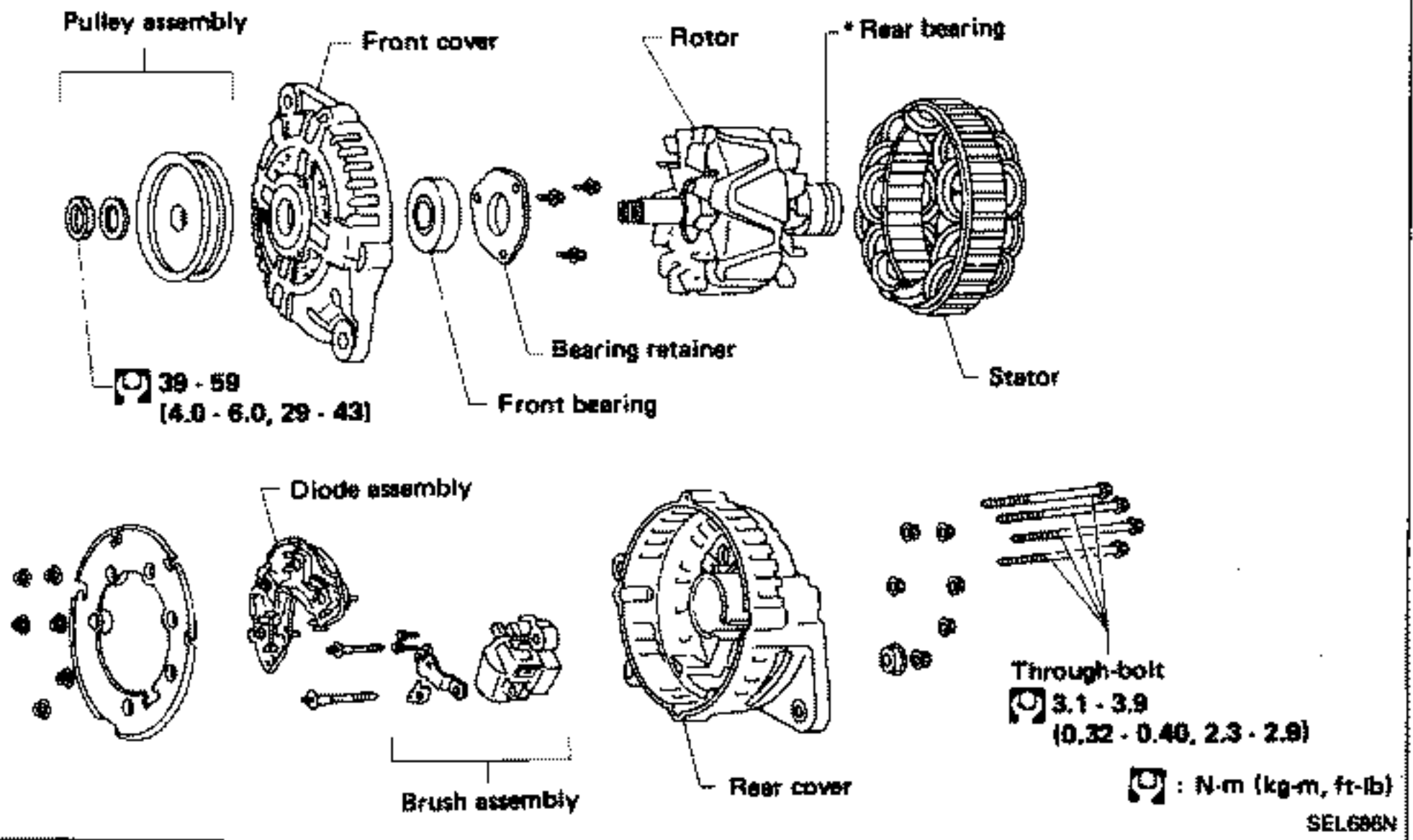


- 5) Terminals "S", "L", "B" and "E" are marked on rear cover of alternator.

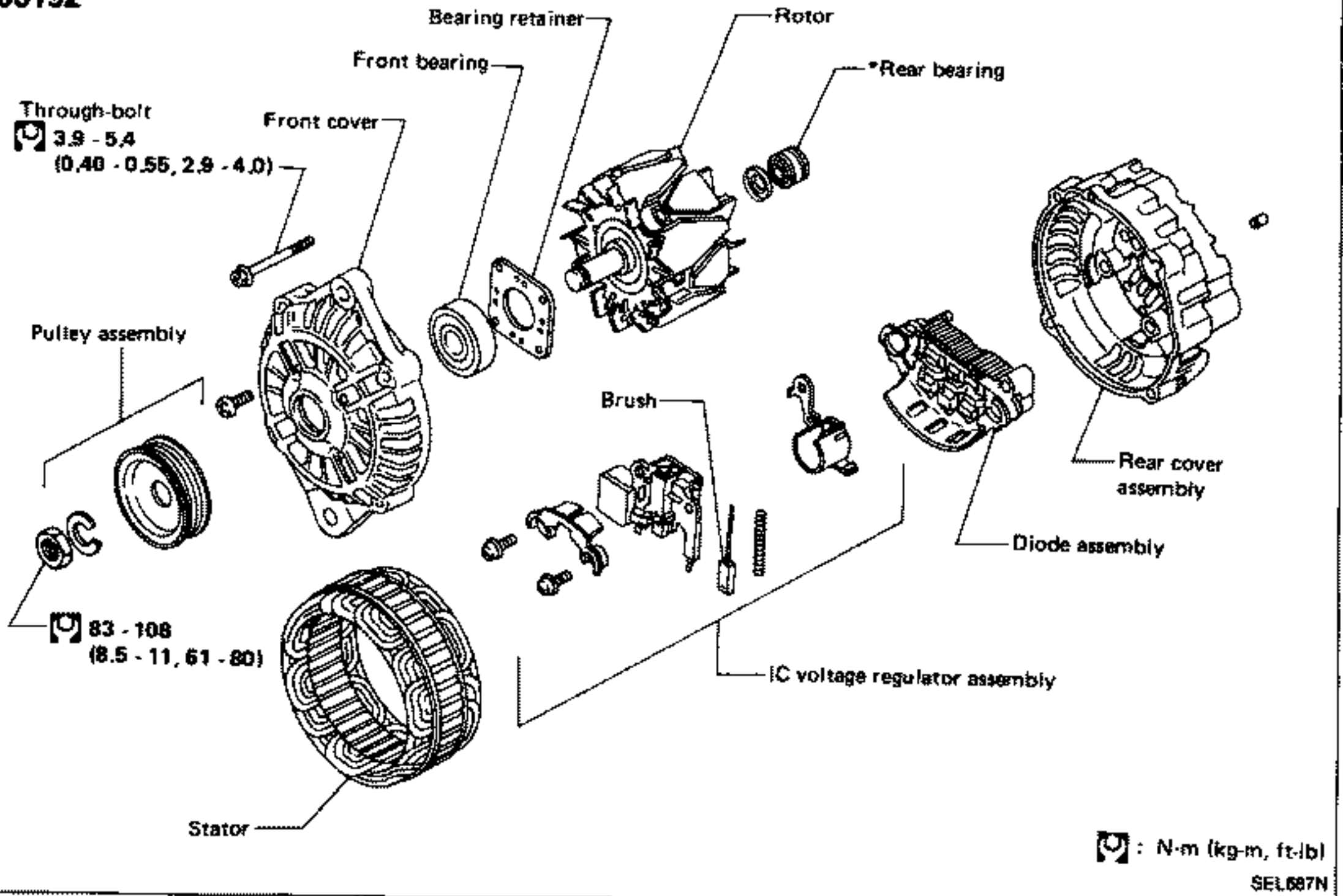
CHARGING SYSTEM — Alternator —

Construction

LR180-724



A3T05192



*Rear bearing

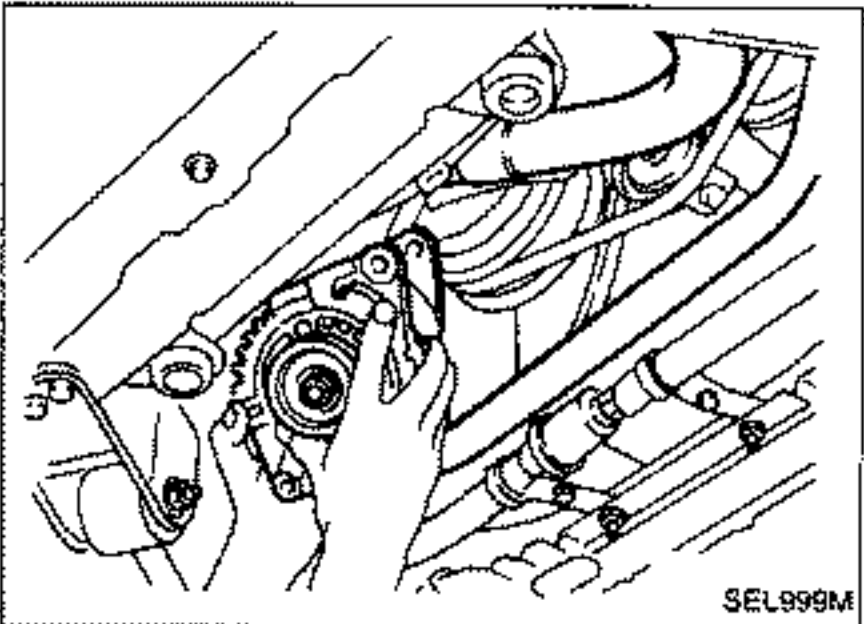
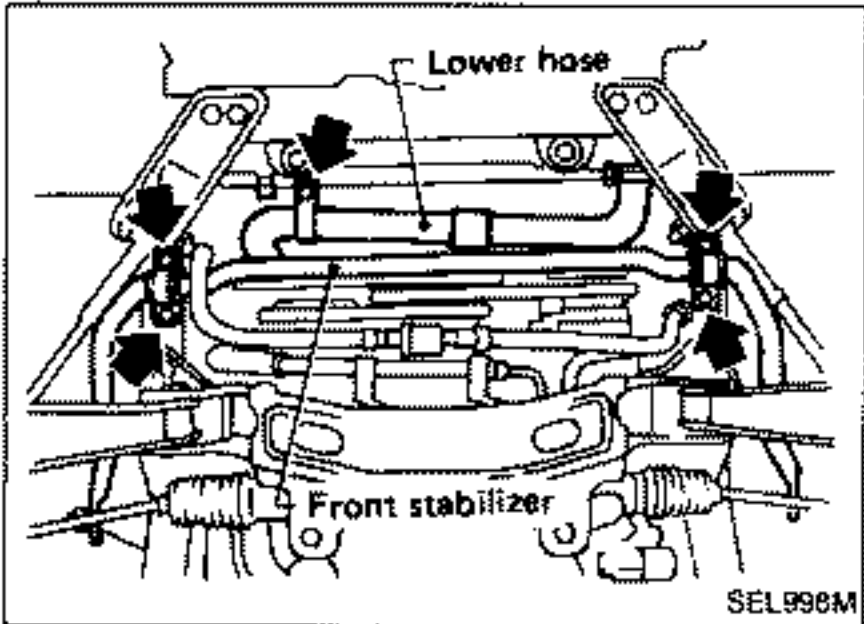
CAUTION:

Rear cover may be hard to remove because a ring is used to lock outer race of rear bearing. Be careful not to lose this ring during removal.

Removal and Installation

REMOVAL

1. Loosen alternator belt.
2. Remove alternator adjusting bar.
3. Remove harness connector and cable from alternator.
4. Remove stabilizer bracket fixing bolts.
5. Remove radiator lower hose bracket and push lower hose upward to make room.
6. Remove alternator fixing bolt and take out alternator as shown in the figure.



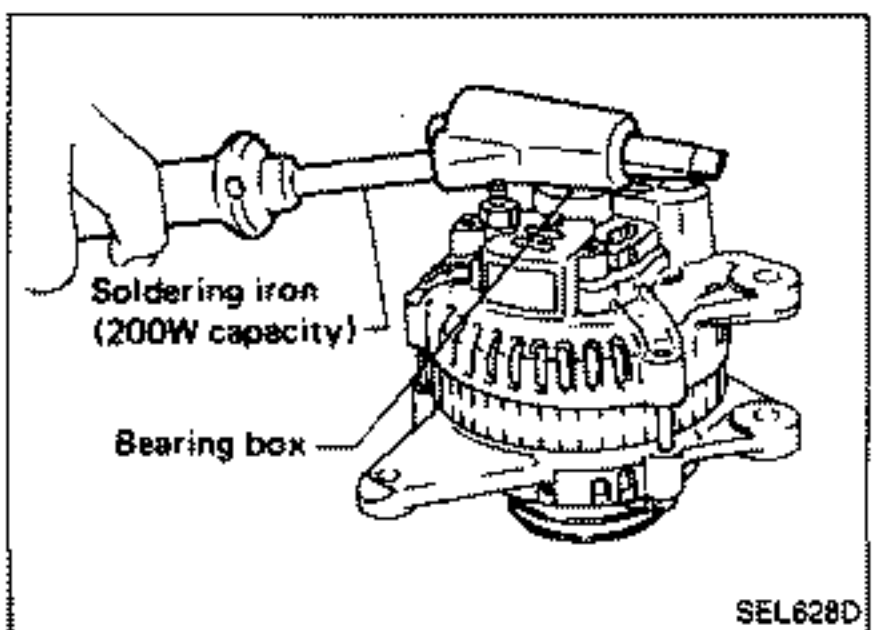
INSTALLATION

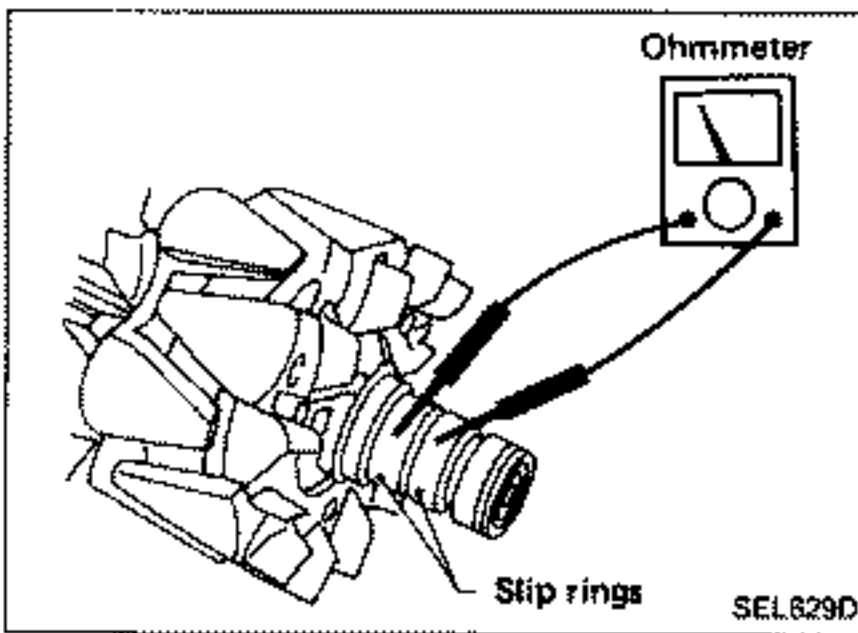
- Installation procedure is in reverse order of removal.

Disassembly

CAUTION:

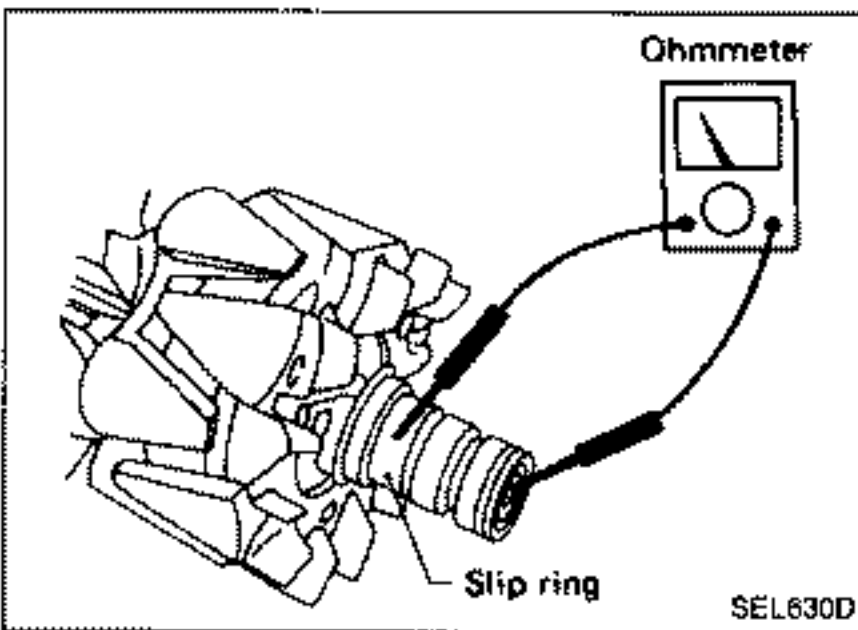
Rear cover may be hard to remove because a ring is used to lock outer race of rear bearing. To facilitate removal of rear cover, heat just bearing box section with a 200W soldering iron. Do not use a heat gun, as it can damage diode assembly.



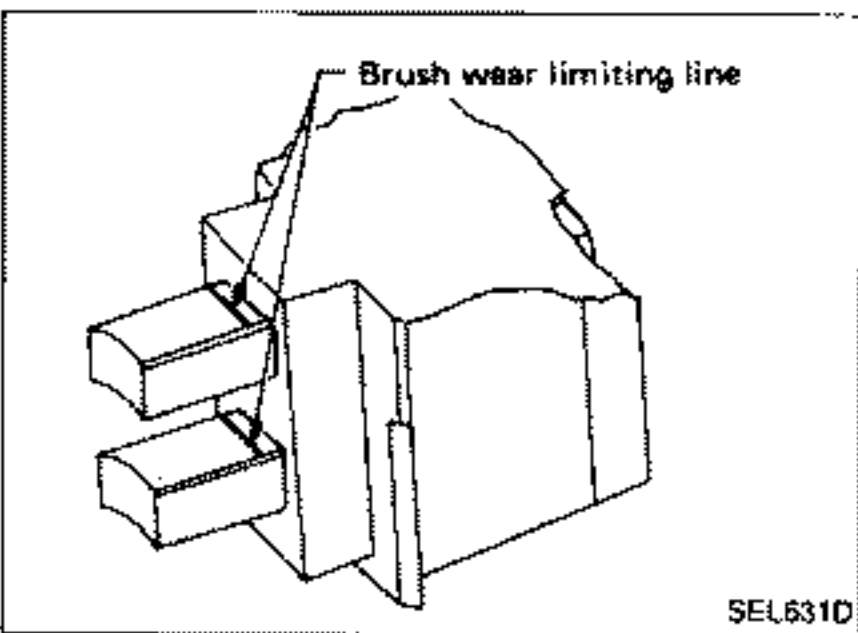


Rotor Slip Ring Check

1. Continuity test
 - No continuity ... Replace rotor.

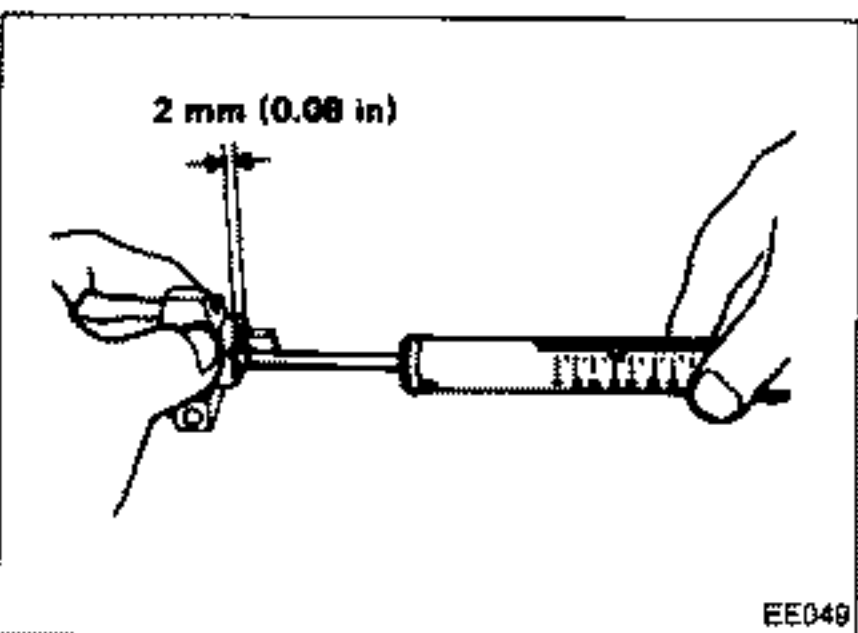


2. Insulator test
 - Continuity exists ... Replace rotor.
3. Check slip ring for wear.
 - **Slip ring minimum outer diameter:**
Refer to S.D.S.



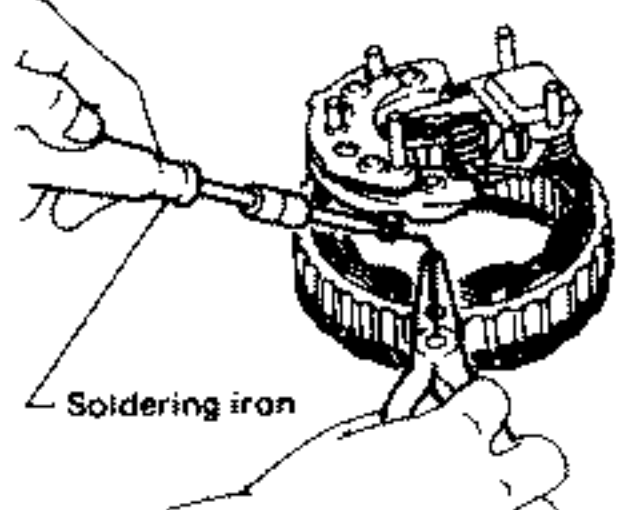
Brush Check

1. Check smooth movement of brush.
 - Not smooth ... Check brush holder and clean.
2. Check brush for wear.
 - Replace brush if it is worn down to the limit line.



3. Check brush lead wire for damage.
 - Damaged ... Replace.
4. Check brush spring pressure with brush projected approximately 2 mm(0.08 in) from brush holder.
 - **Spring pressure:**
Refer to S.D.S.
 - Not within the specified values ... Replace.

[HITACHI make]

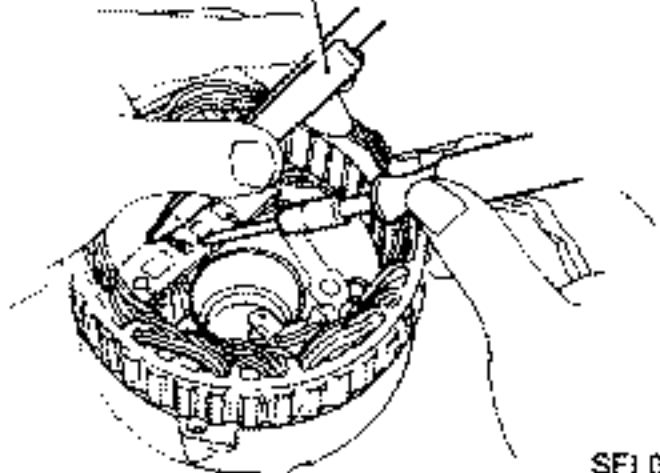


Soldering iron

SEL587A

[MITSUBISHI make]

Long nose pliers used as a heat sink



SEL054D

Stator Check

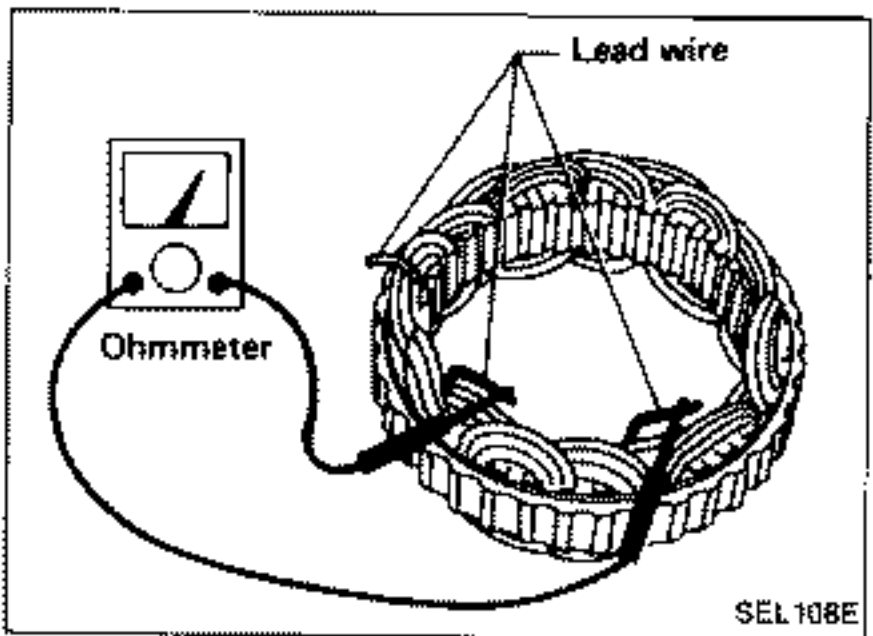
To test the stator or diode, you must separate them by unsoldering the connecting wires.

CAUTION:

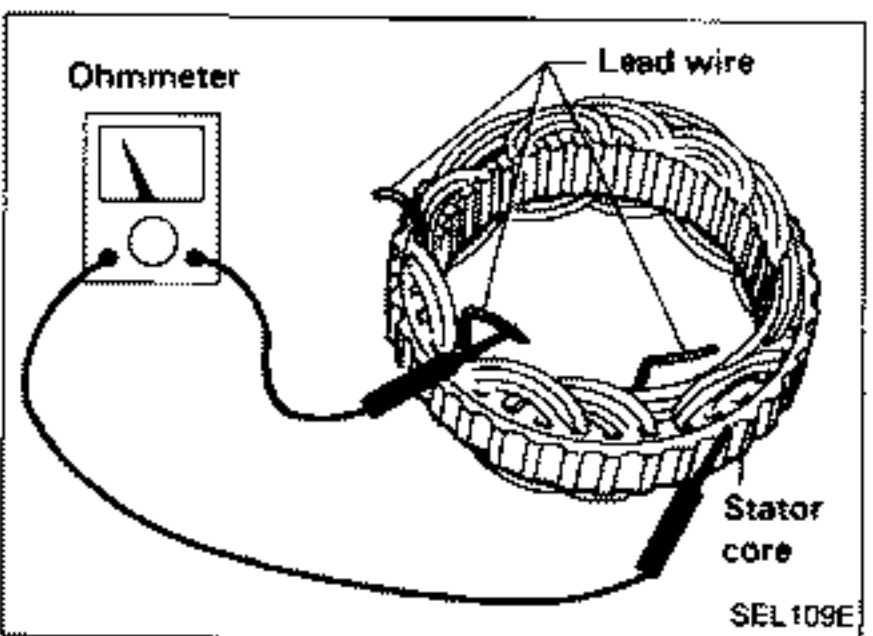
Use only as much heat as required to melt solder. Otherwise, diodes will be damaged by excessive heat.

1. Continuity test
 - No continuity ... Replace stator.

2. Ground test
 - Continuity exists ... Replace stator.



SEL108E



SEL109E

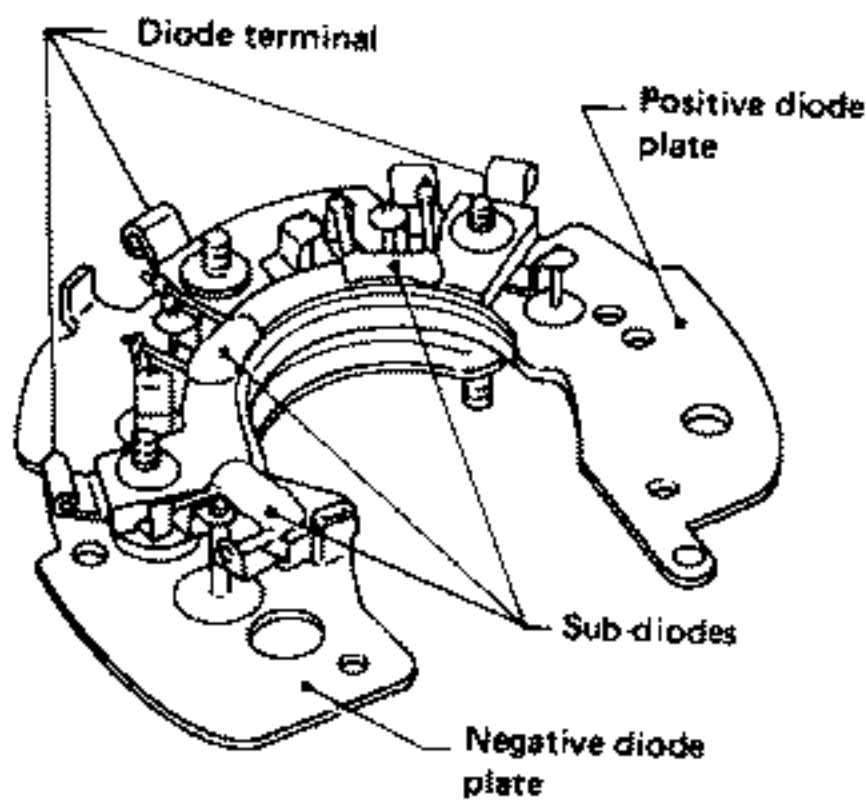
Diode Check

MAIN DIODES

- Use an ohmmeter to check condition of diodes as indicated in chart below.
- If any of the test results is not satisfactory, replace diode assembly.

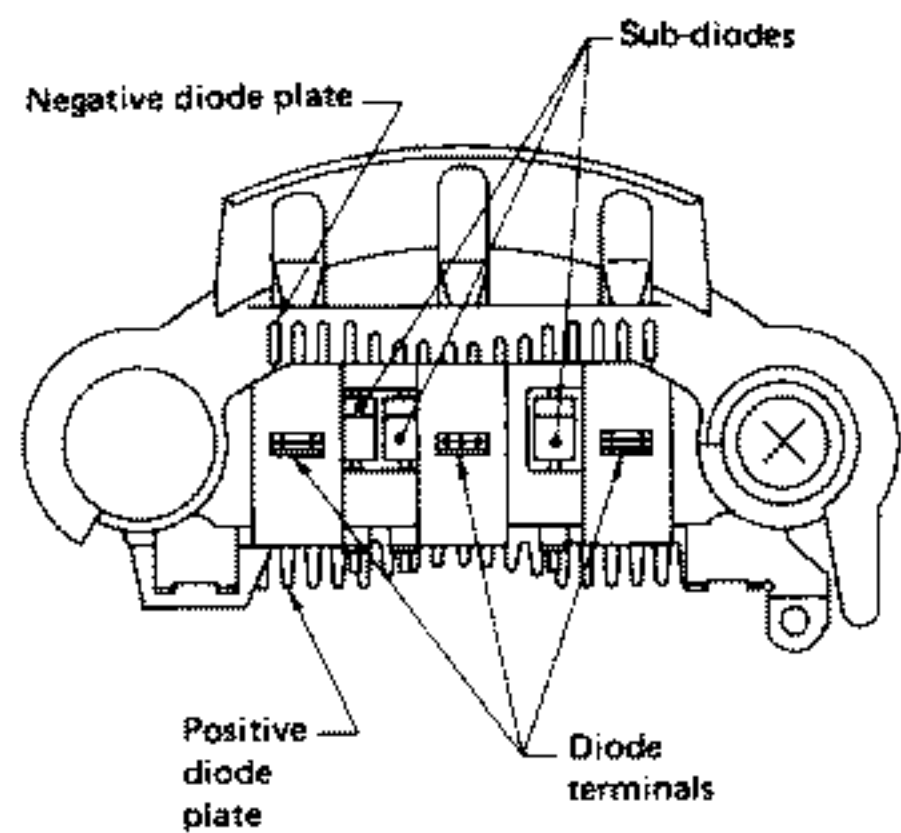
	Ohmmeter probes		Continuity
	Positive (+)	Negative (-)	
Diodes check (Positive side)	Positive diode plate	Diode terminals	Yes
	Diode terminals	Positive diode plate	No
Diodes check (Negative side)	Negative diode plate	Diode terminals	No
	Diode terminals	Negative diode plate	Yes

[HITACHI make]

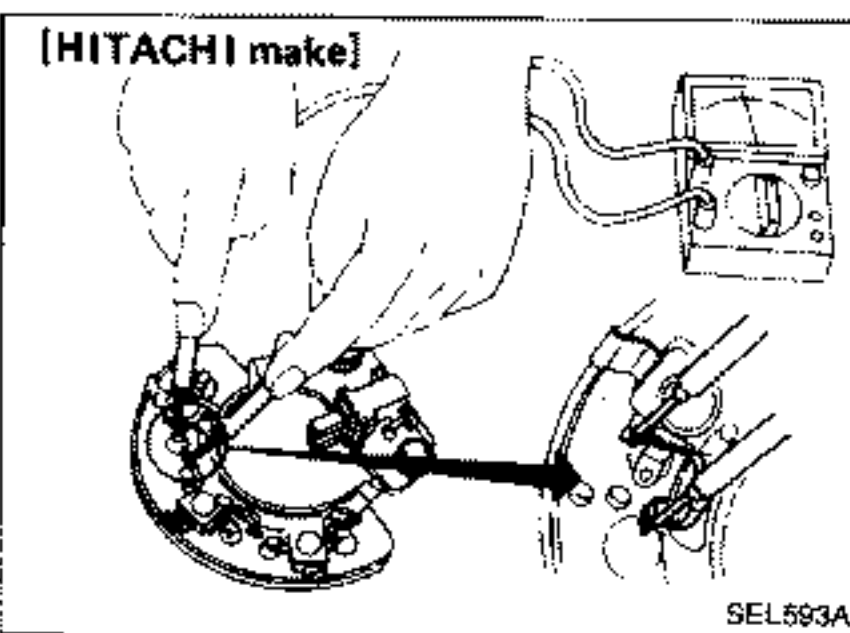


SEL768D

[MITSUBISHI make]

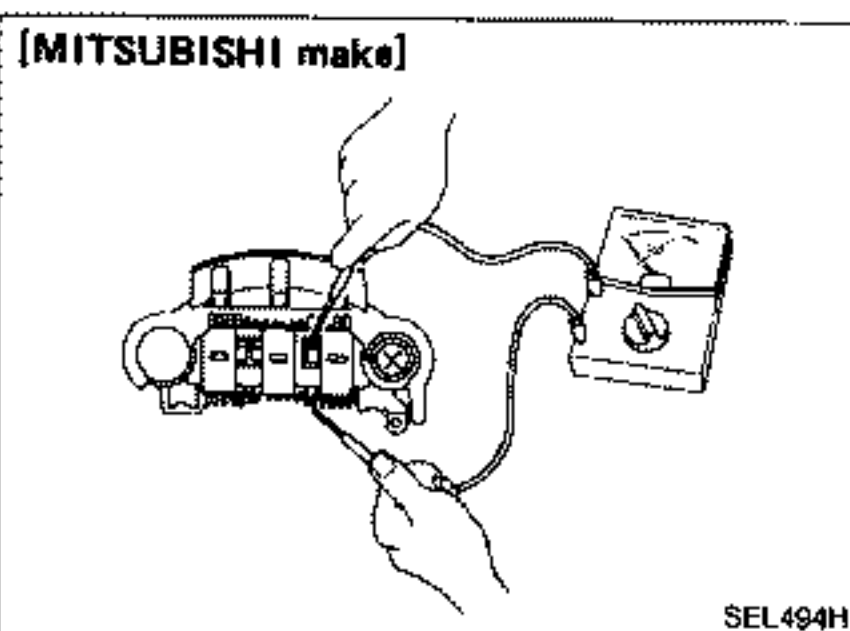


SEL493H



SUB-DIODES

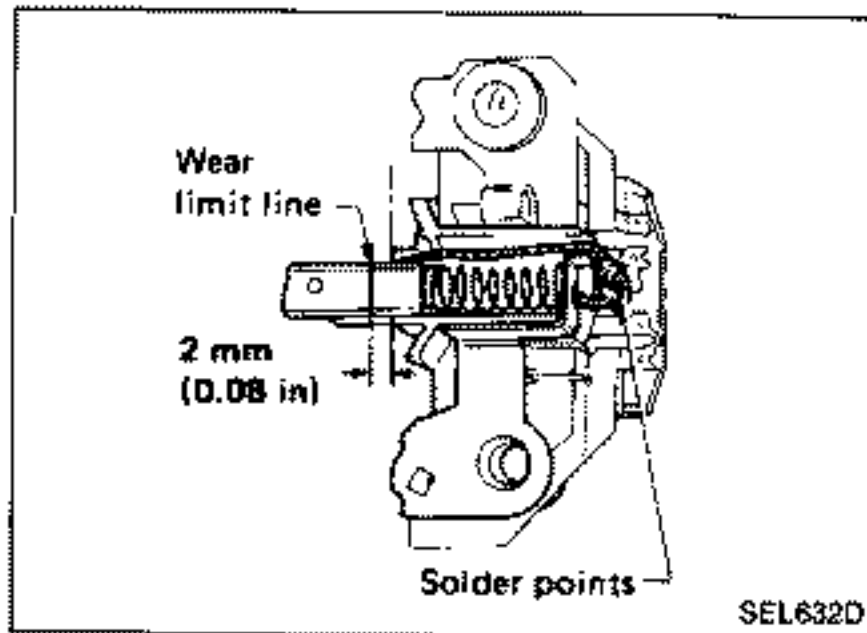
- Attach ohmmeter's probe to each end of diode to check for continuity.
- Continuity is N.G Replace diode assembly.



Assembly

Carefully observe the following instructions.

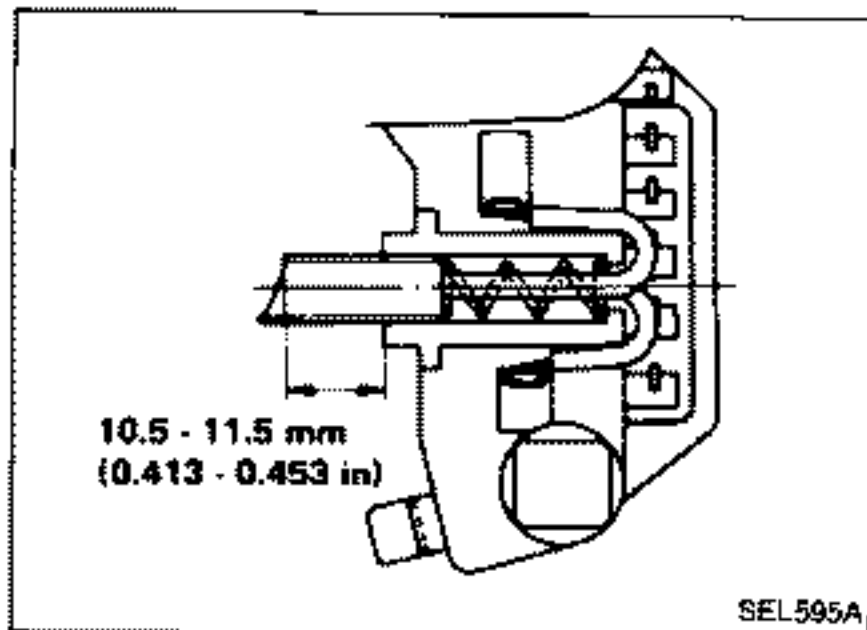
- When soldering each stator coil lead wire to diode assembly terminal, carry out the operation as fast as possible.



WHEN SOLDERING BRUSH LEAD WIRE

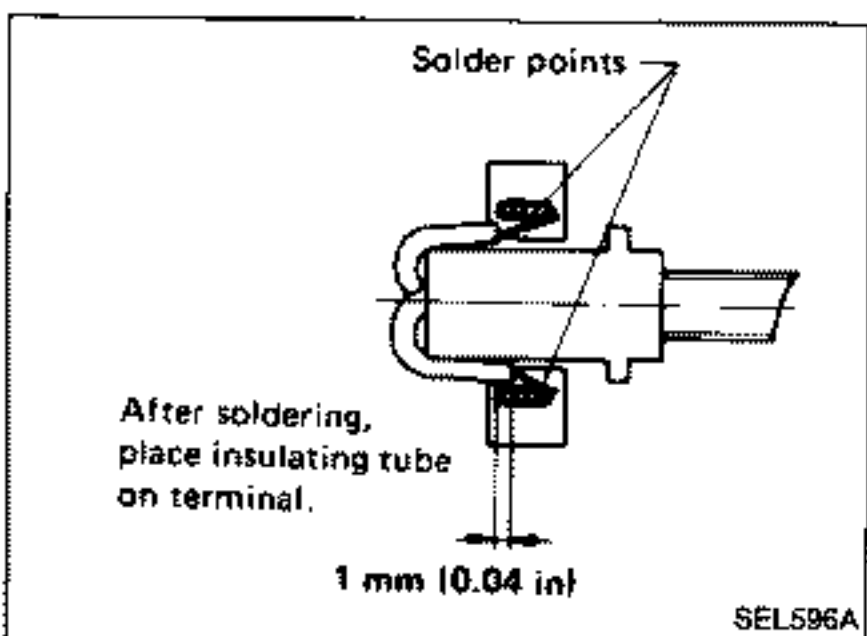
[MITSUBISHI make]

- Position brush so that its wear limit line protrudes 2 mm (0.08 in) beyond end face of brush holder.



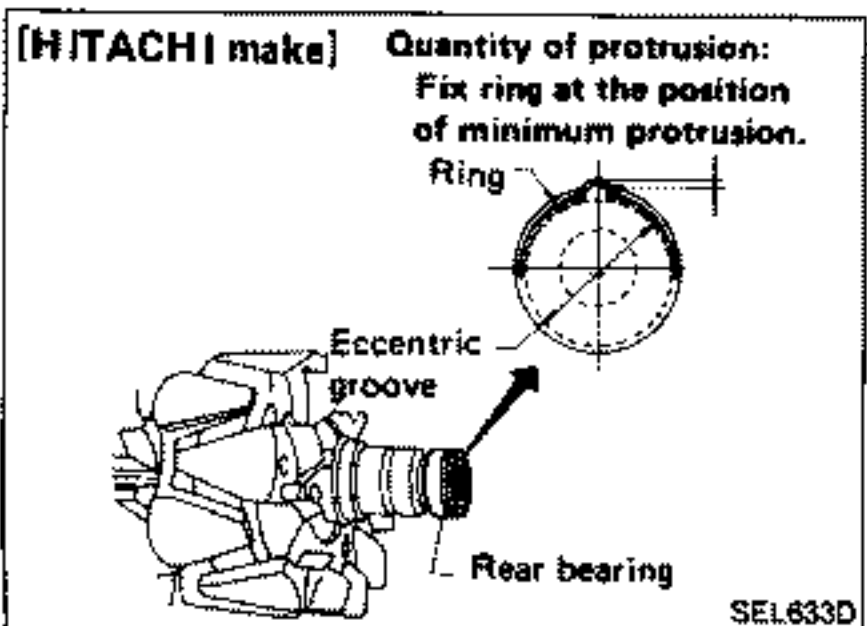
[HITACHI make]

- (1) Position brush so that it extends 10.5 to 11.5 mm (0.413 to 0.453 in) from brush holder.



- (2) Coil lead wire 1.5 times around terminal groove. Solder outside of terminal.

When soldering, be careful not to let solder adhere to insulating tube as it will weaken the tube and cause it to break.



RING FITTING IN REAR BEARING

[HITACHI make]

- Fix ring into groove in rear bearing so that it is as close to the adjacent area as possible.

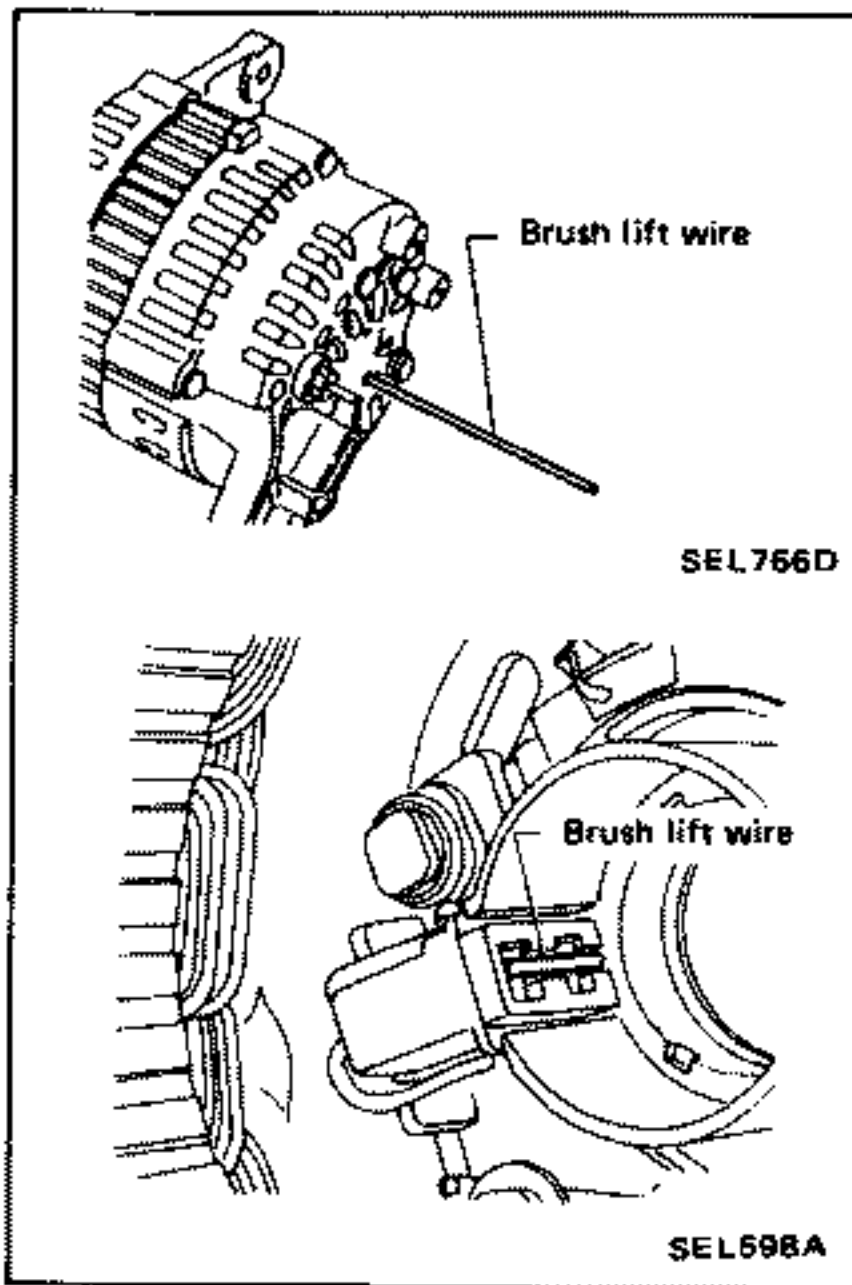
[MITSUBISHI make]

- Always press new bearing into place with ring groove toward slip ring.

Assembly (Cont'd)

REAR COVER INSTALLATION

- (1) Before installing front cover with pulley and rotor with rear cover, push brush up with fingers and retain brush by inserting brush lift wire into brush lift hole from outside.
- (2) After installing front and rear sides of alternator, pull out brush lift wire.

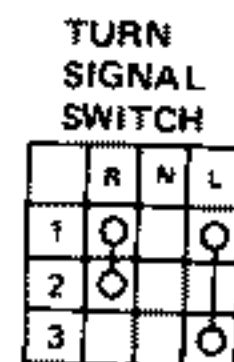
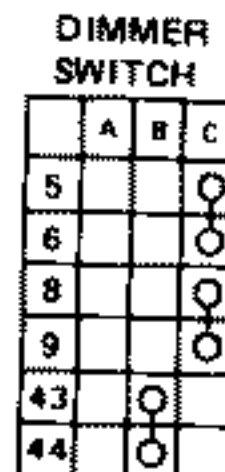
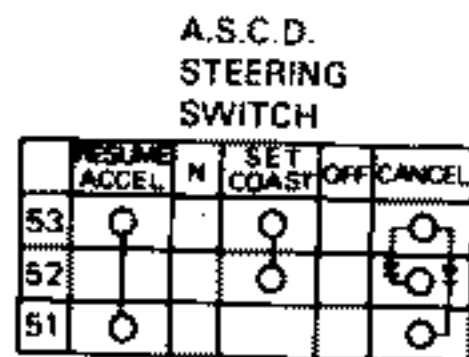
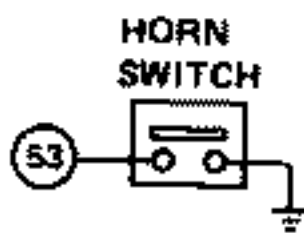
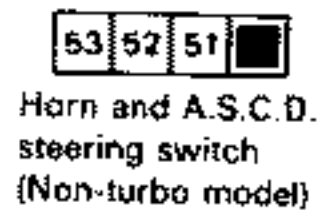
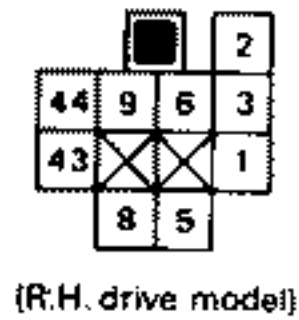
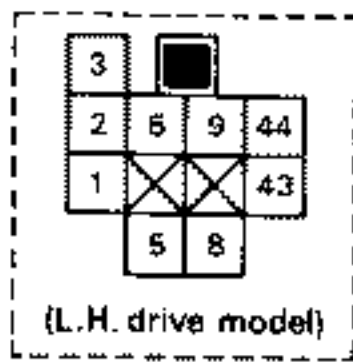
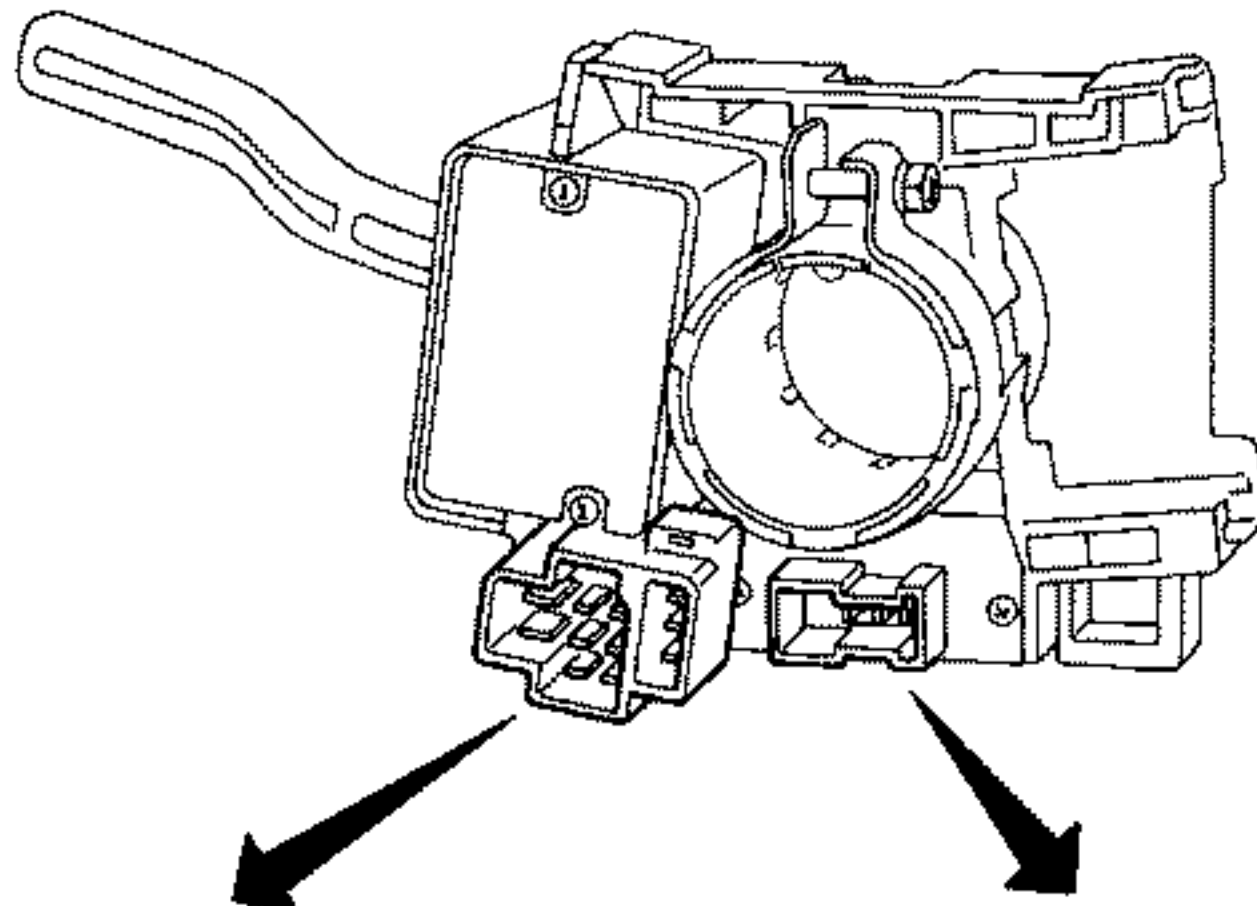
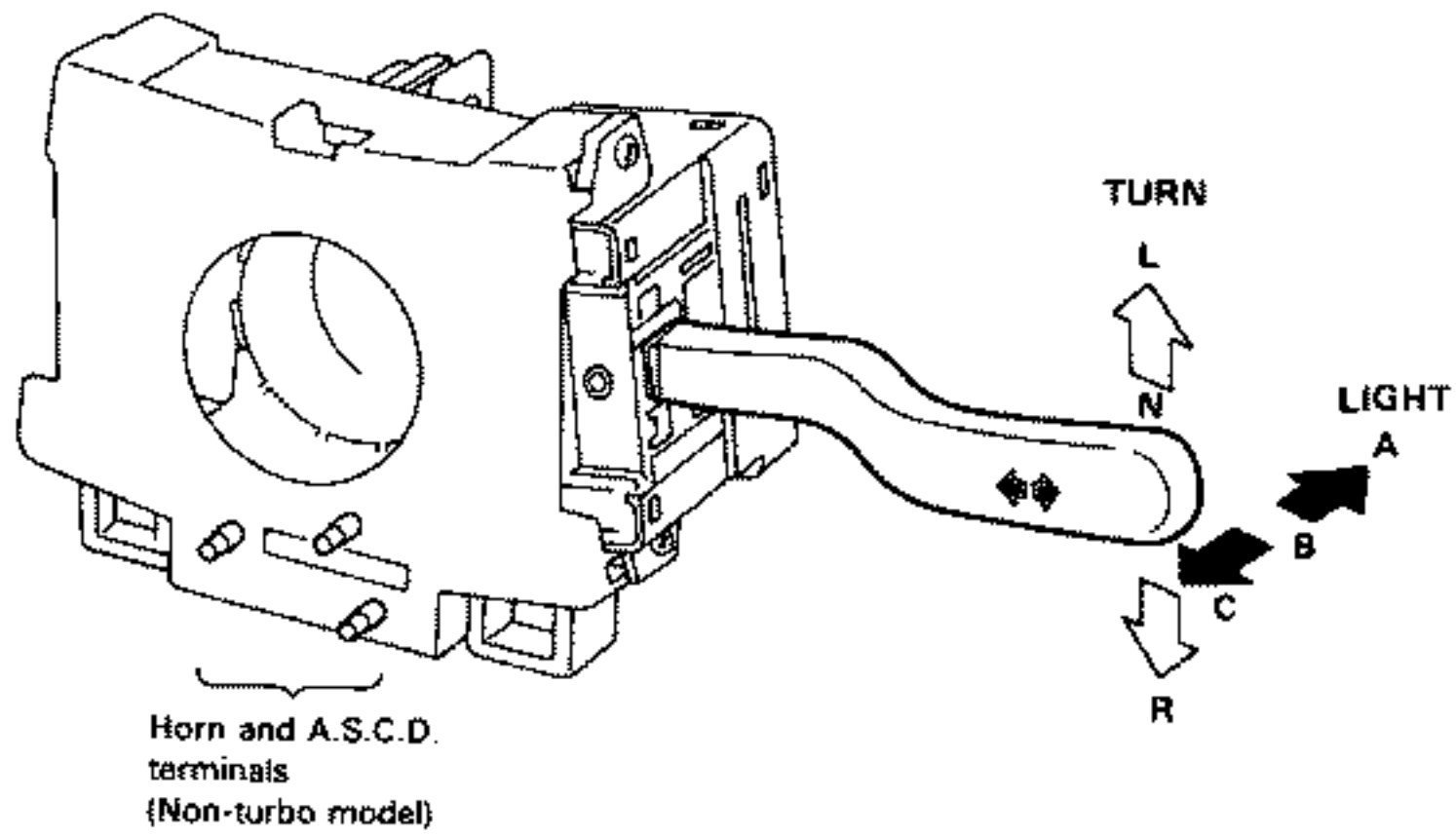


CHARGING SYSTEM — Alternator —**Service Data and Specifications (S.D.S.)****ALTERNATOR**

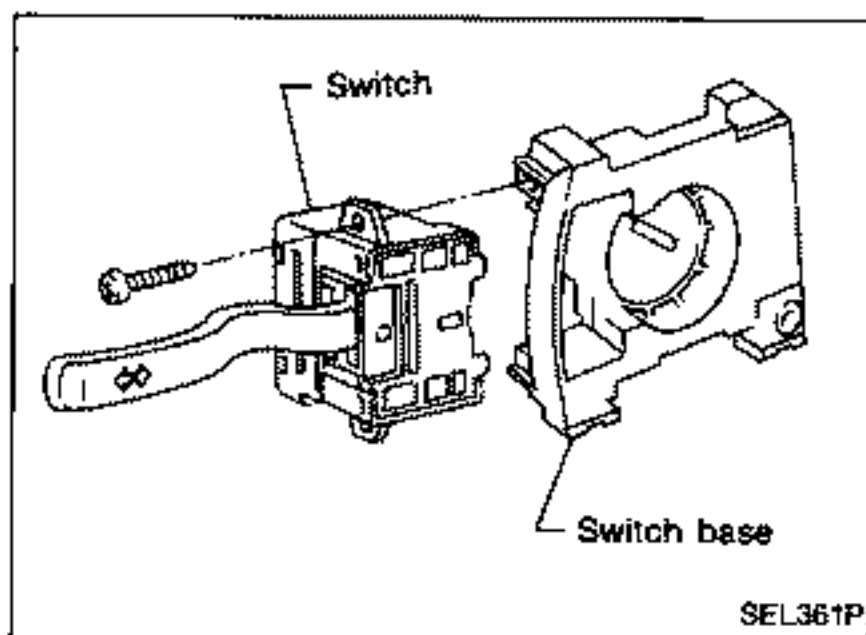
Type		LR180-724	A3T05192
		HITACHI make	MITSUBISHI make
Applied model		Australia	Europe
Nominal rating	V-A	12-80	12-90
Ground polarity		Negative	
Minimum revolution under no-load (when 13.5 volts is applied)	rpm	Less than 950	Less than 1,300
Hot output current	A/rpm	More than 65/2,500 More than 80/5,000	More than 65/2,500 More than 90/5,000
Regulated output voltage	V	14.1 - 14.7	
Minimum length of brush	mm (in)	More than 7.0(0.276)	More than 8.0 (0.315)
Brush spring pressure	N(g, oz)	1.863 - 3.040 (190 - 310, 6.70 - 10.93)	3.040 - 4.217 (310 - 430, 10.93 - 15.17)
Slip ring minimum outer diameter	mm (in)	More than 30.6 (1.205)	More than 22.1 (0.870)

COMBINATION SWITCH

Combination Switch/Check

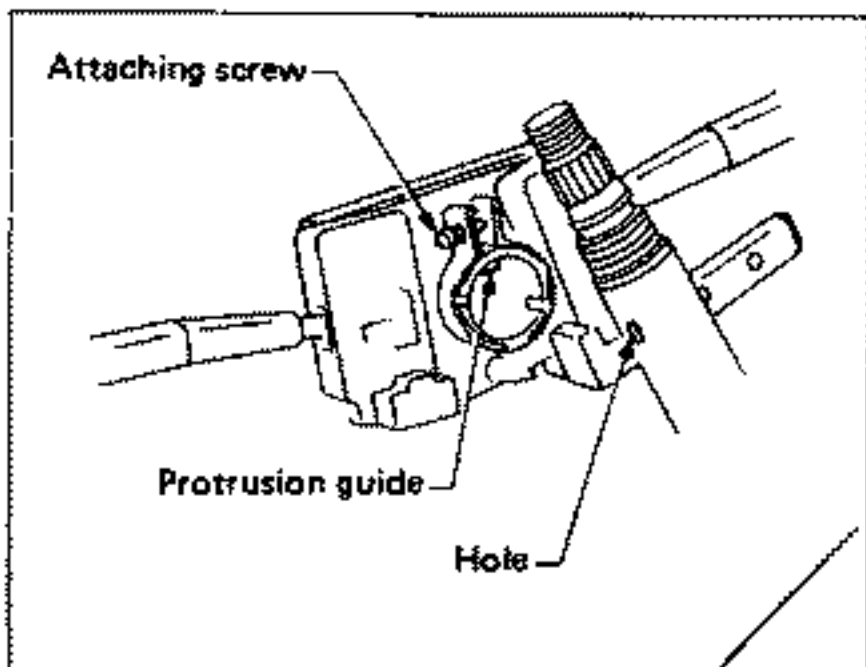


COMBINATION SWITCH

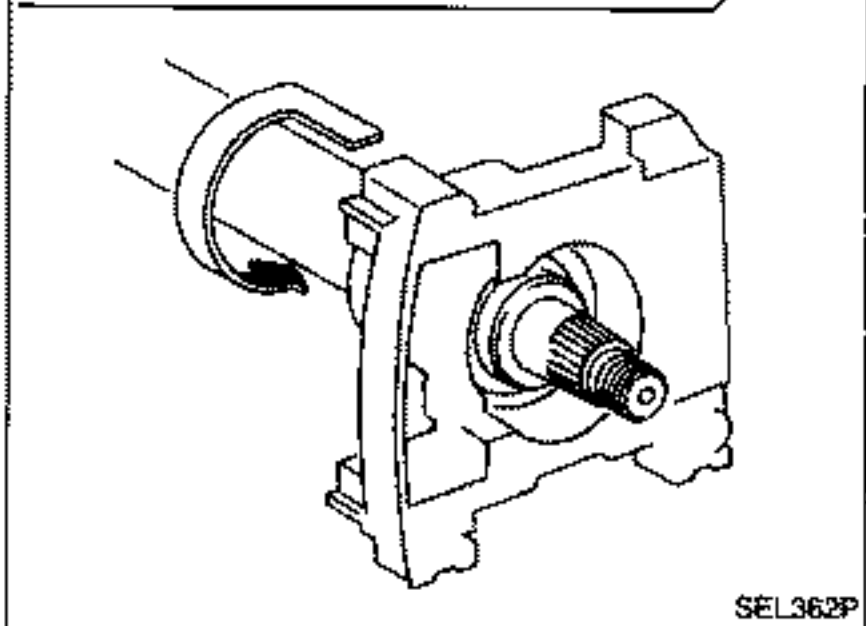


Combination Switch/Replacement

- Each switch can be replaced without removing combination switch base.



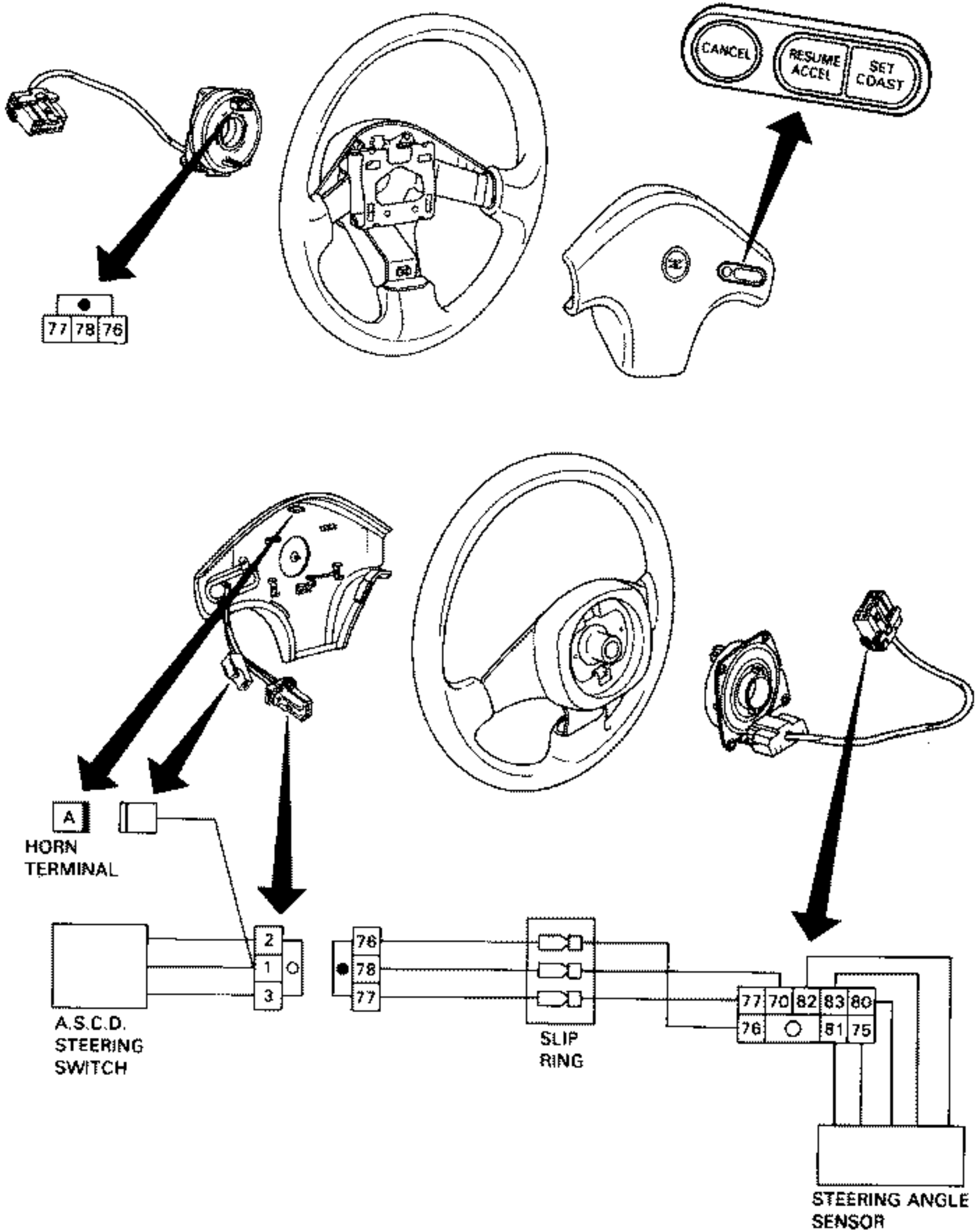
- To remove combination switch base, remove base attaching screw and turn after pushing on it.



COMBINATION SWITCH

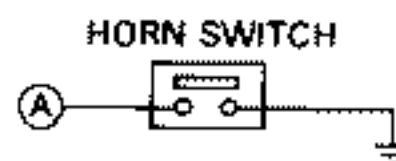
Steering Switch/Check

Turbo model



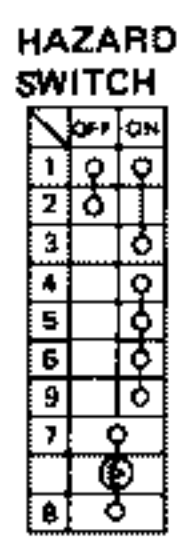
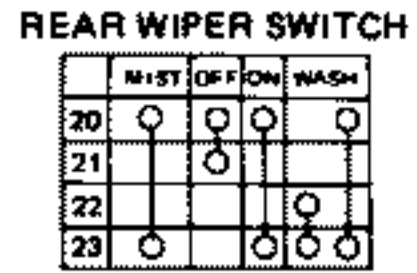
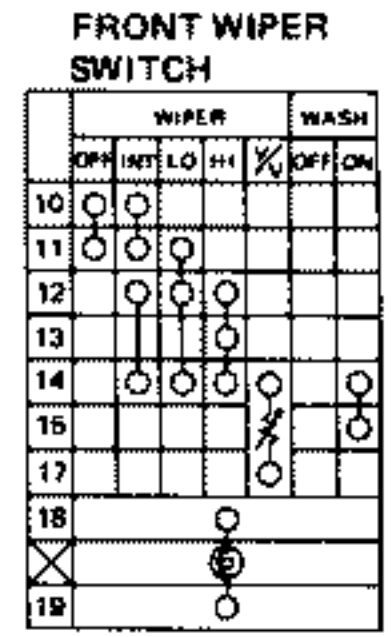
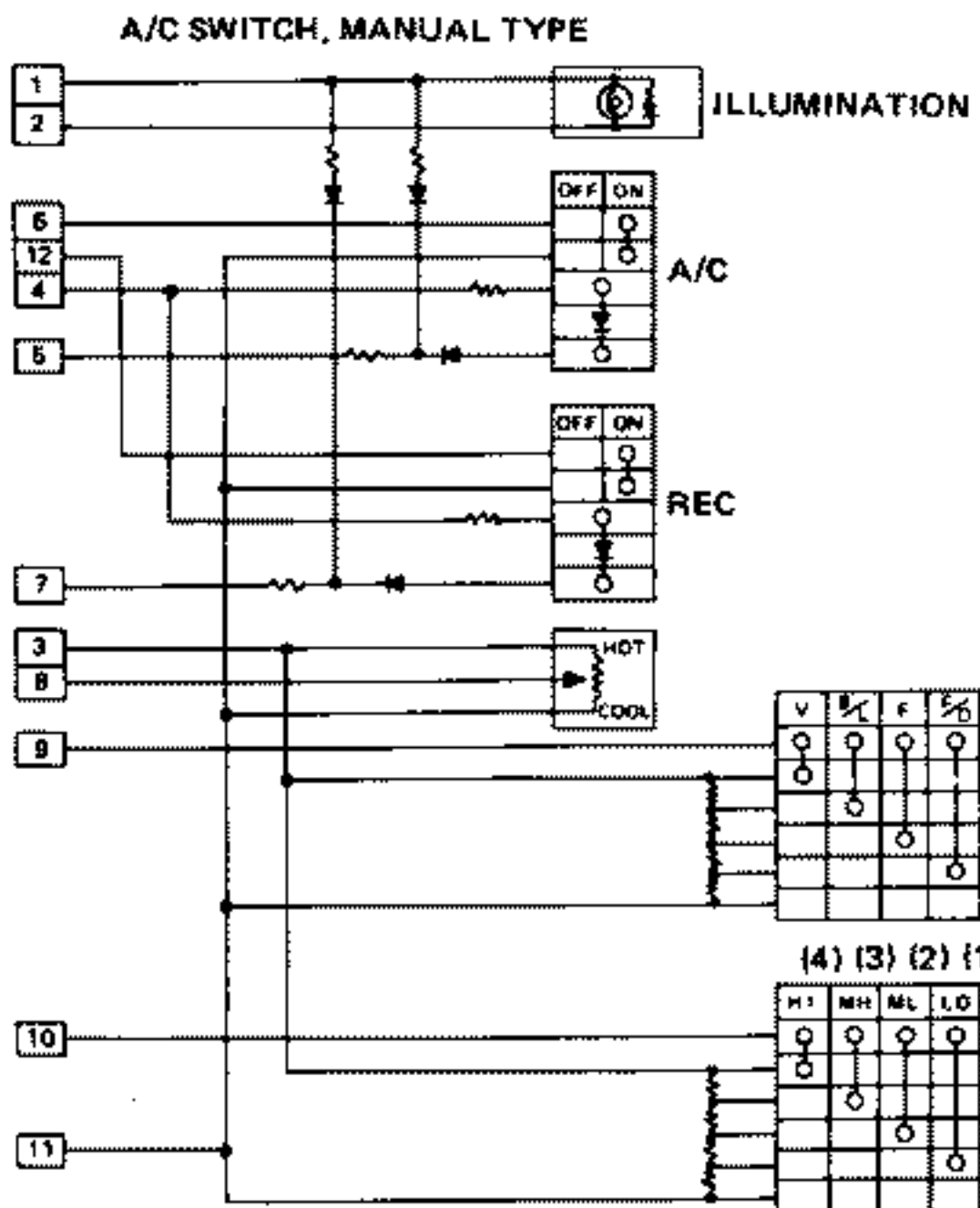
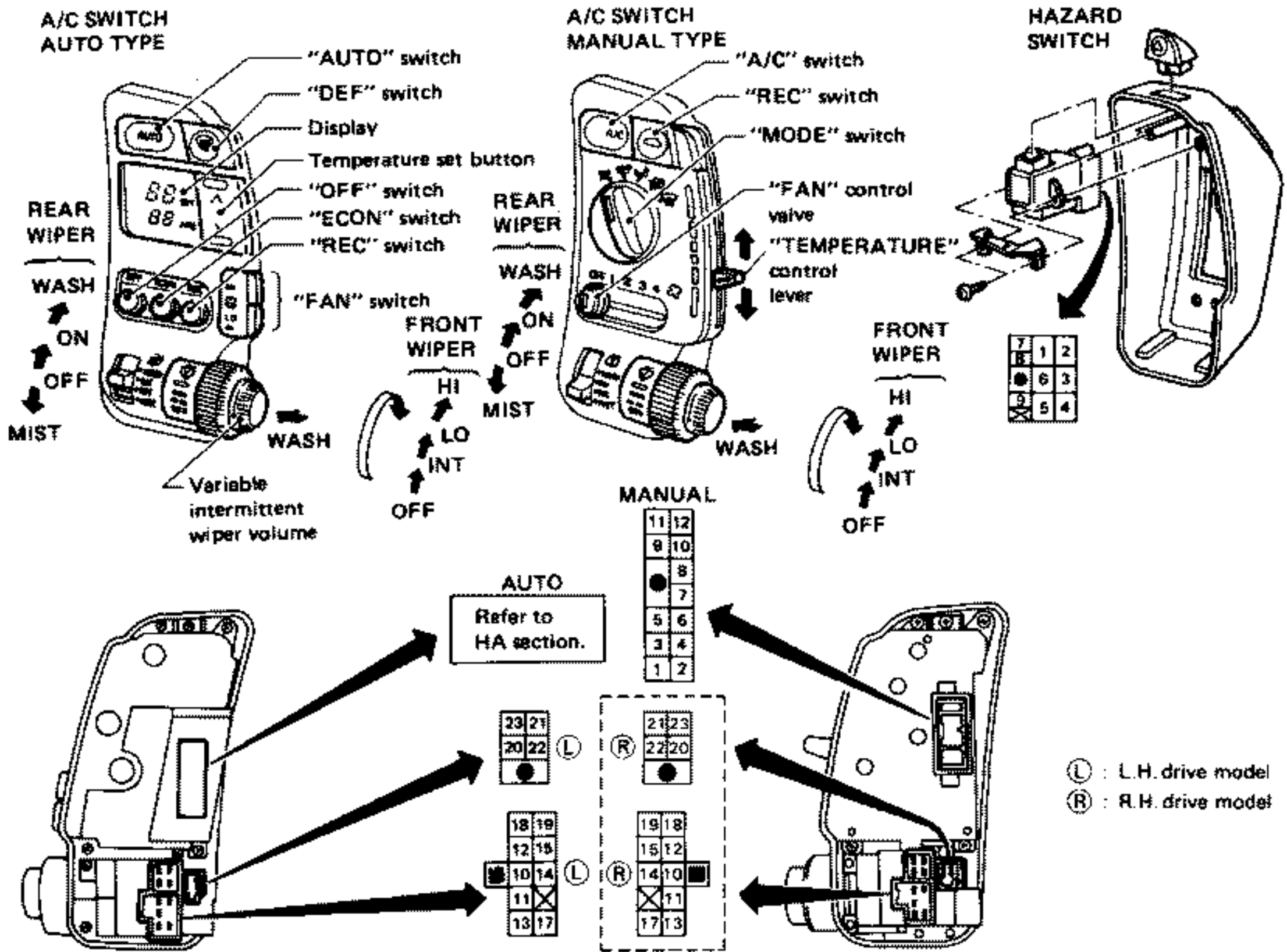
A.S.C.D. STEERING SWITCH

	RESUME ACCEL.	N	SET COAST	OFF	CANCEL
1	○		○		○
2	○		○		○
3	○				○



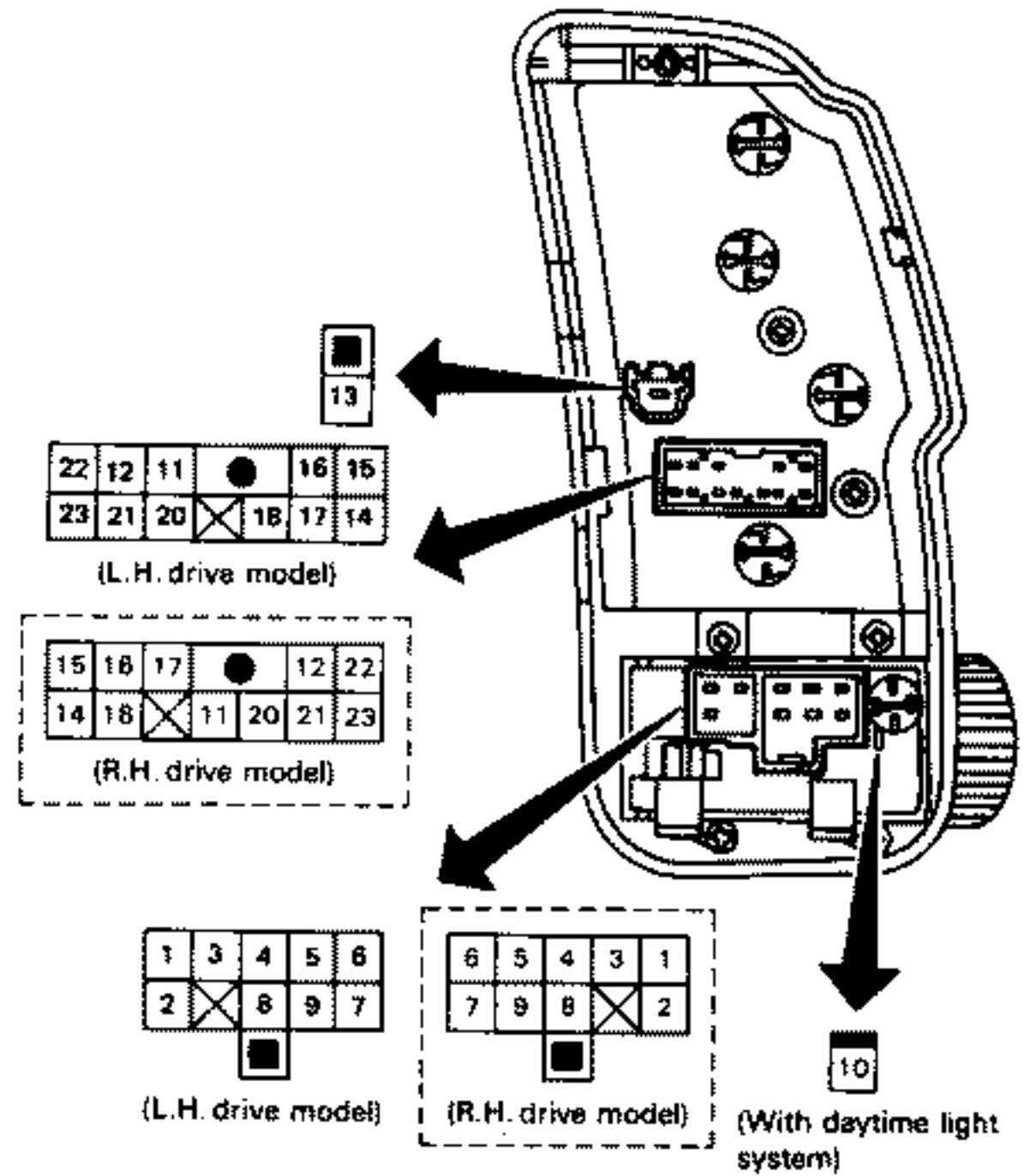
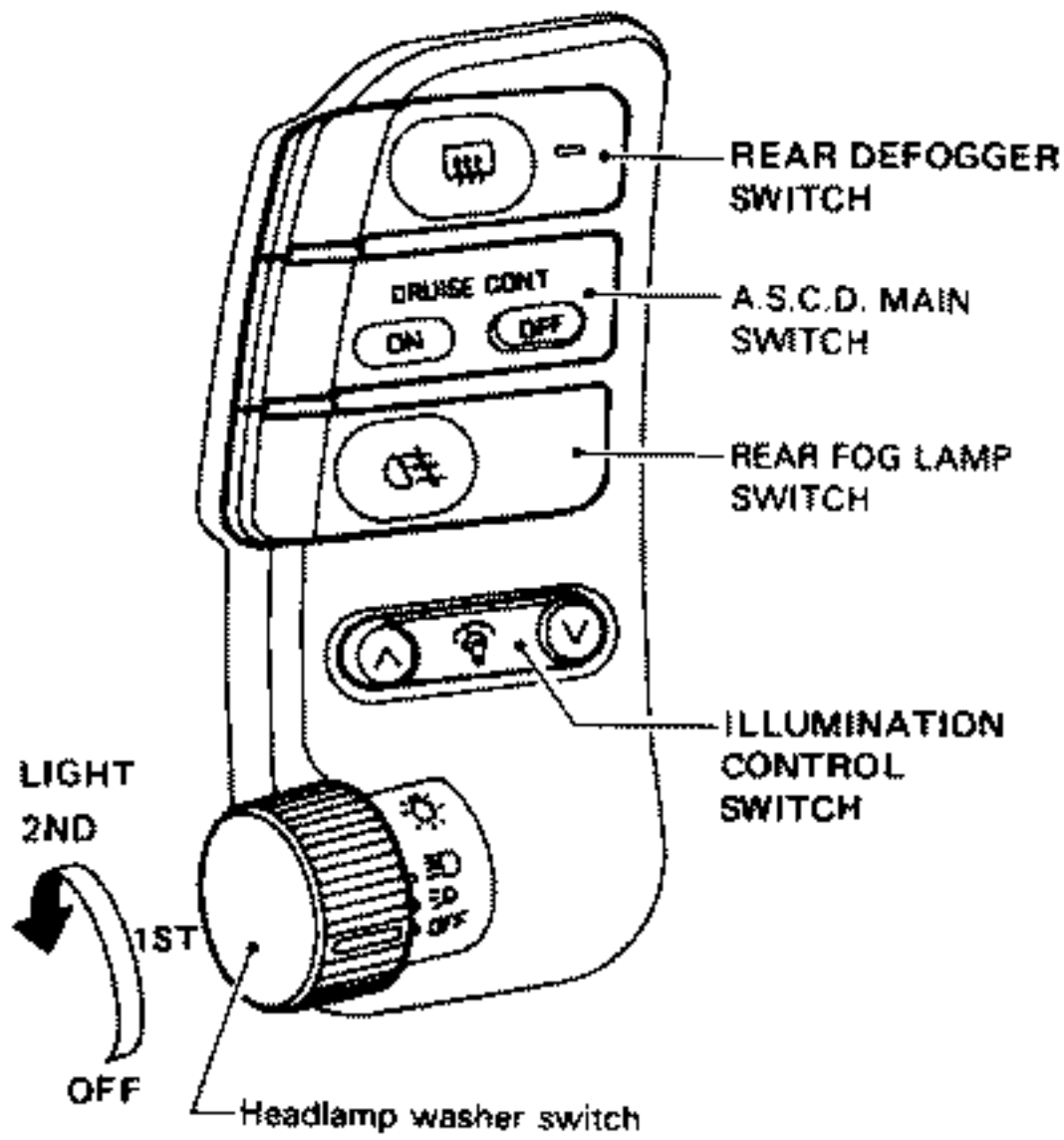
INSTRUMENT SWITCH

Check



INSTRUMENT SWITCH

Check (Cont'd)



LIGHTING SWITCH

	OFF	1ST	2ND
1			○
2			○
3			○
4			○
5		○	○
6		○	○
7	⊗	○	○

(Without daytime light system)

	OFF	1ST	2ND
1			○
2			○
3			○
4			○
5		○	○
6		○	○
10		○	○
7	⊗	○	○

(With daytime light system)

REAR DEFOGGER SWITCH

	OFF	ON
11		○
12		○
13	⊗	○

A.S.C.D. MAIN SWITCH

	OFF	N	ON
14			○
15		○	○
16		○	○

REAR FOG LAMP SWITCH

	OFF	ON
17		○
18		○

HEADLAMP WASHER SWITCH

	OFF	ON
8		○
9		○

ILLUMINATION CONTROL SWITCH

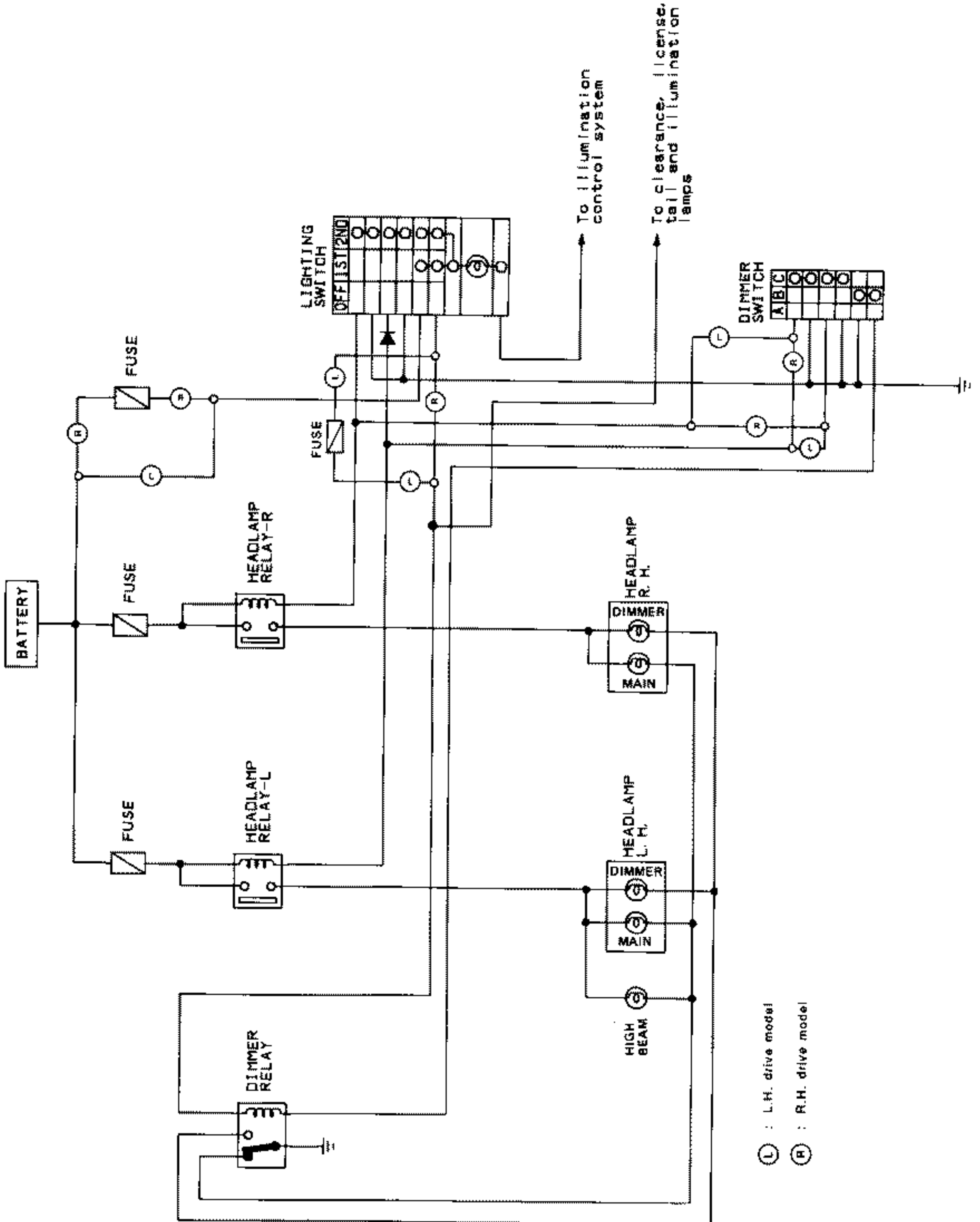
	V	N	A
20			○
21	○		○
12	○		○

CLUSTER ILLUMINATION

22	○
23	○

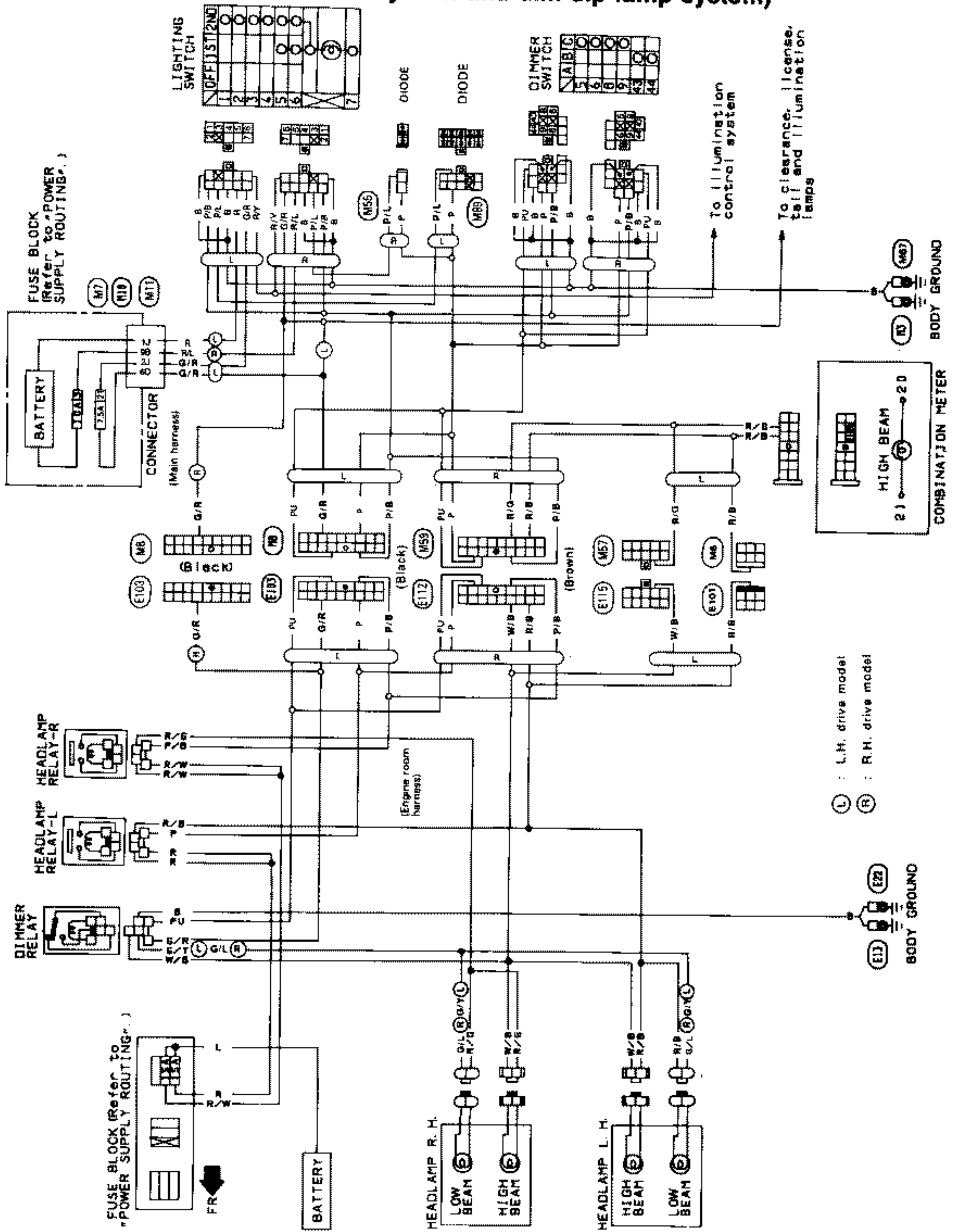
HEADLAMP

Schematic (Models without daytime light system and dim-dip lamp system)



HEADLAMP

Wiring Diagram (Models without daytime light system and dim-dip lamp system)



HEADLAMP

Operation (Models equipped with daytime light system)

After starting the engine with the lighting switch in the "OFF" position, the headlamp low beam and clearance, tail, license and instrument illumination lamps automatically turn on. Lighting switch operations other than the above are the same as conventional light systems.

Engine		With engine stopped									With engine running								
		OFF			1ST			2ND			OFF			1ST			2ND		
Lighting switch		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Headlamp	High beam	X	X	O	X	X	O	O	X	O	X	X	O	X	X	O	O	X	O
	Low beam	X	X	X	X	X	X	X	O	X	O	O	O	X	X	X	X	O	X
Clearance and tail lamp		X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
License and instrument illumination lamp		X	X	X	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

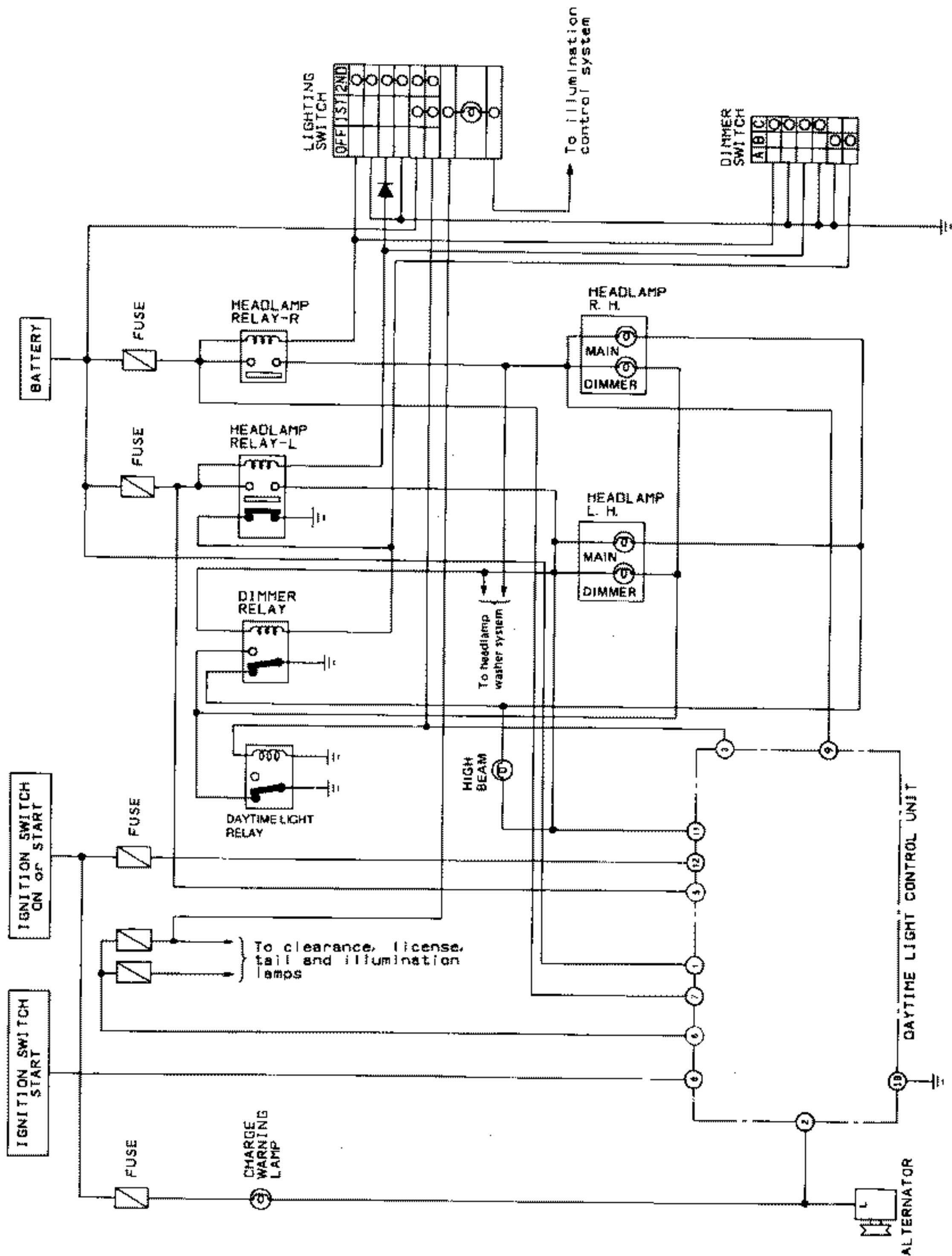
O : Lamp "ON"

X : Lamp "OFF"

◻ : Added functions

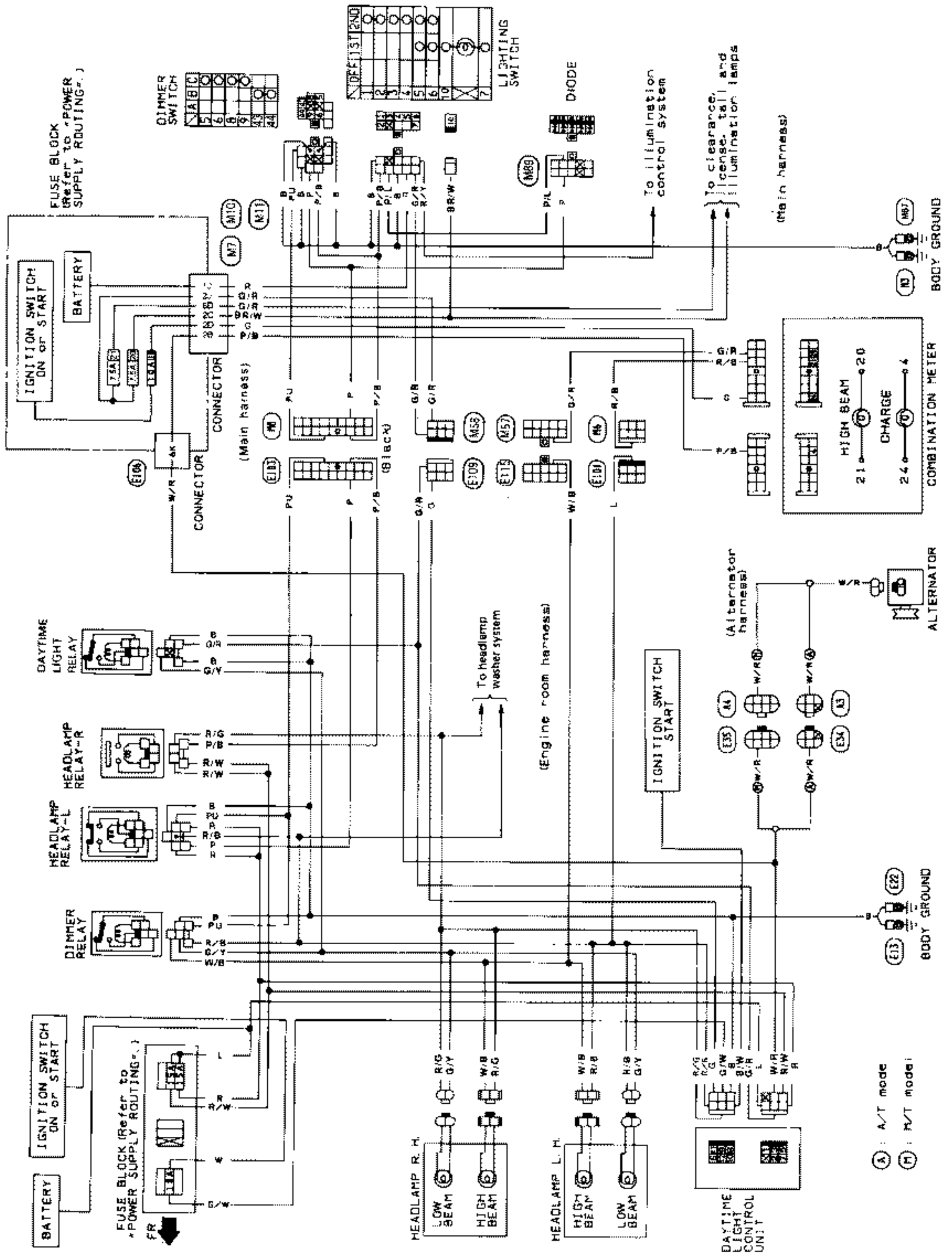
HEADLAMP

Schematic (Models equipped with daytime light system)



HEADLAMP

Wiring Diagram (Models equipped with daytime light system)



HEADLAMP

Operation (Models equipped with dim-dip lamp)

When ignition switch is in the "ON" position with the lighting switch in the "1ST" position, the headlamp low beam comes on dimly to function as a clearance lamp. Lighting switch operations other than the above are the same as conventional light systems.

Ignition switch		OFF or ACC									ON								
		OFF			1ST			2ND			OFF			1ST			2ND		
Lighting switch		A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Headlamp	High beam	X	X	O	X	X	O	O	X	O	X	X	O	X	X	O	O	X	O
	Low beam	X	X	X	X	X	X	X	O	X	X	X	X	X	X	X	X	O	X
	Dim-dip (Low beam)	X	X	X	X	X	X	X	X	X	X	X	X	O	O	X	X	X	X
Clearance, tail, license and illumination lamps		X	X	X	O	O	O	O	O	O	X	X	X	O	O	O	O	O	O

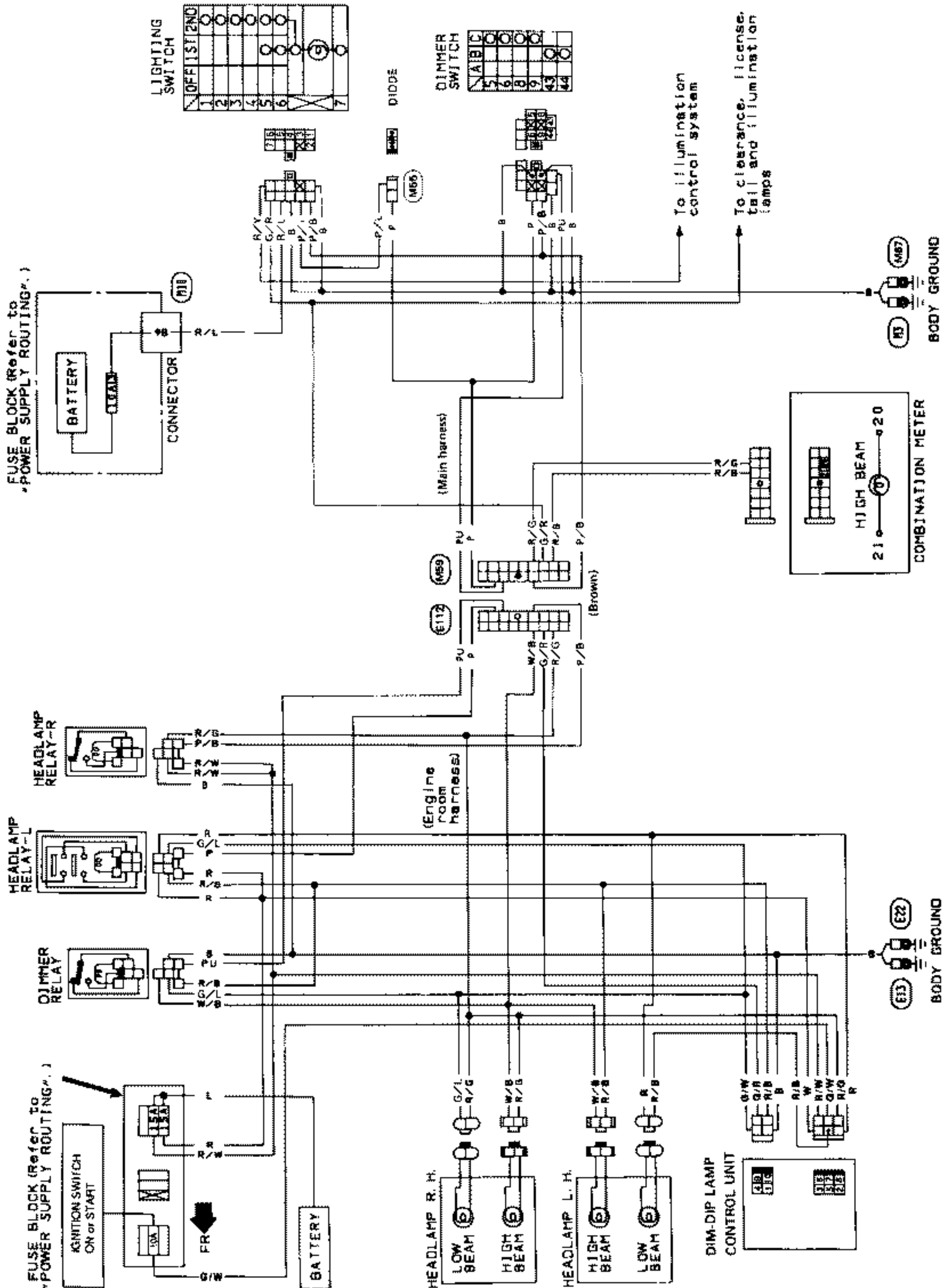
O : Lamp "ON"

X : Lamp "OFF"

■ : Added functions

HEADLAMP

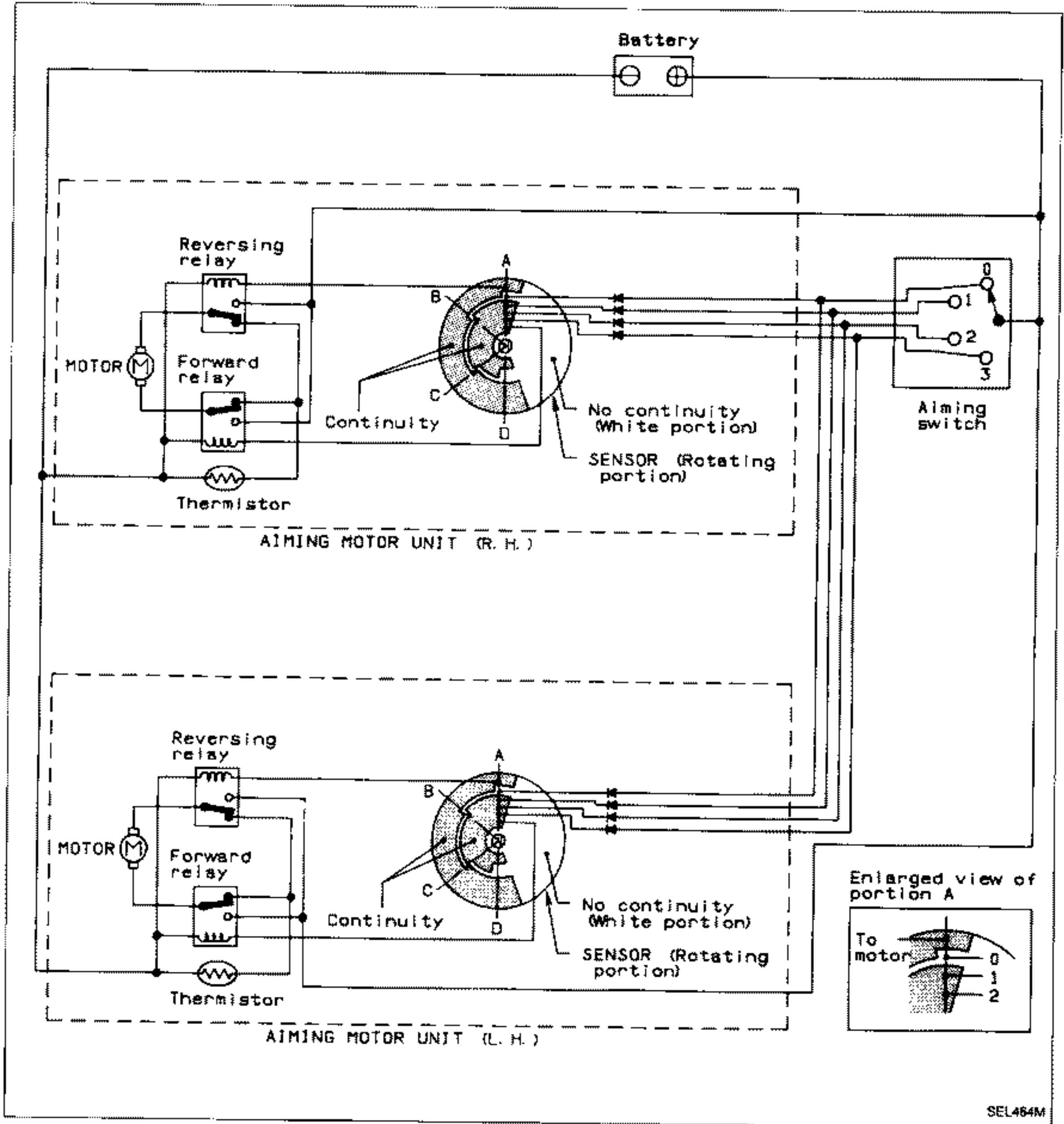
Wiring Diagram (Models equipped with dim-dip lamp)



HEADLAMP — Headlamp Aiming Control —

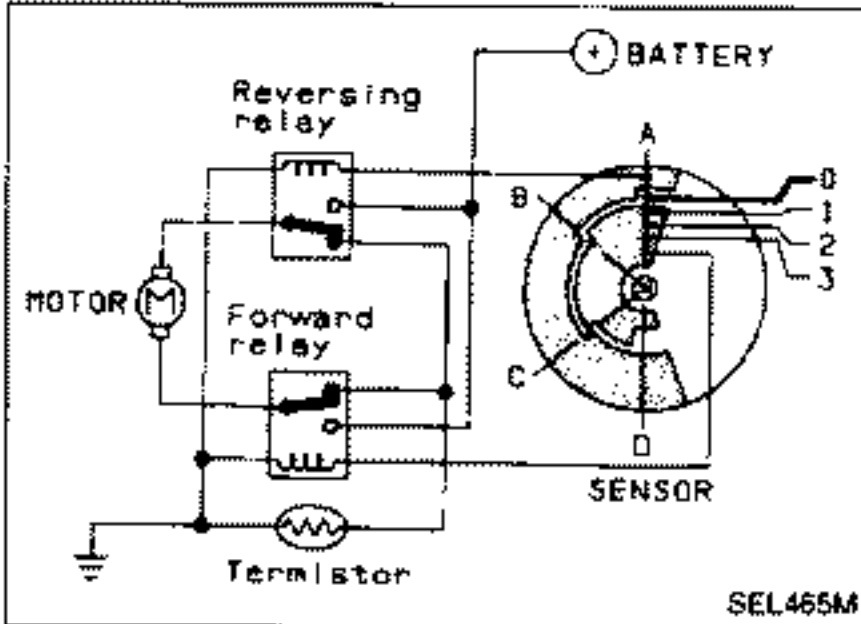
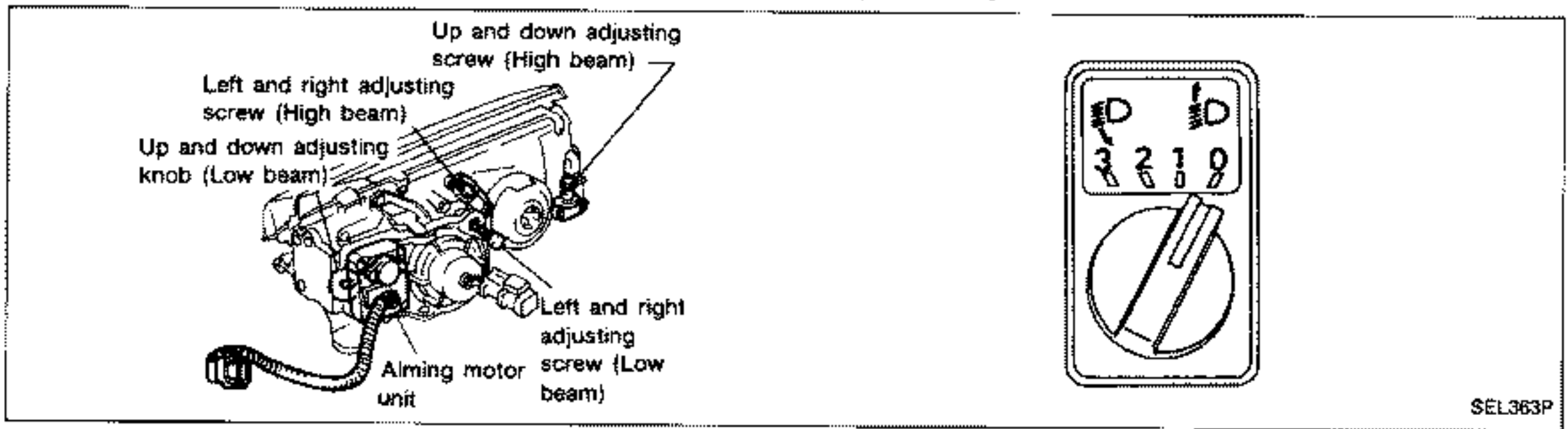
Description

- The vertical direction of the headlamp projection can be adjusted from inside the vehicle to prevent the headlight beam axis from facing upward due to a change in the number of occupants and load conditions in the vehicle.



HEADLAMP — Headlamp Aiming Control —

Description (Cont'd)

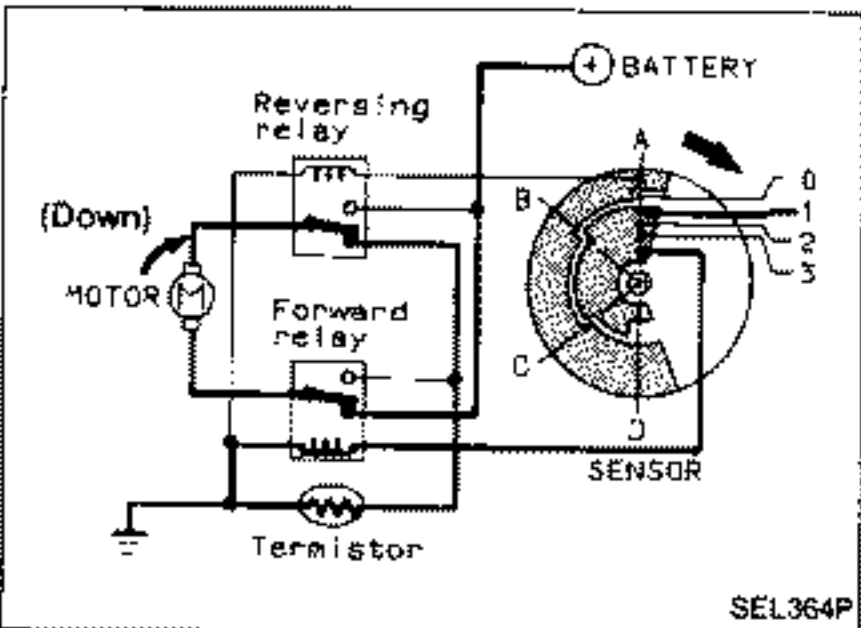


CIRCUIT OPERATION

[Example]

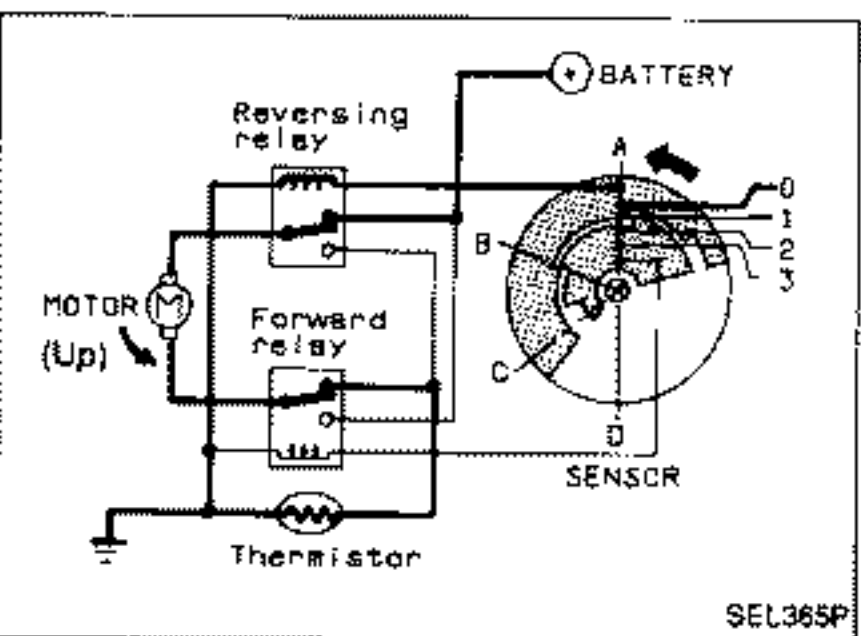
Aiming switch "0"

- When the aiming switch is set to "0", the motor will not start because the power terminals are positioned at the nonconductive section of the sensor's rotary unit.



Aiming switch "0" → "1"

- When the aiming switch is moved from "0" to "1", power is applied to the motor through the relay operated by the sensor's conductive section. The headlamps will then move in the "DOWN" direction.
- The motor continues to rotate while the rotary unit of the sensor moves from point A to point B.
- The power terminals will then be positioned at the nonconductive section, disconnecting the power to the motor. Then motor then stops.

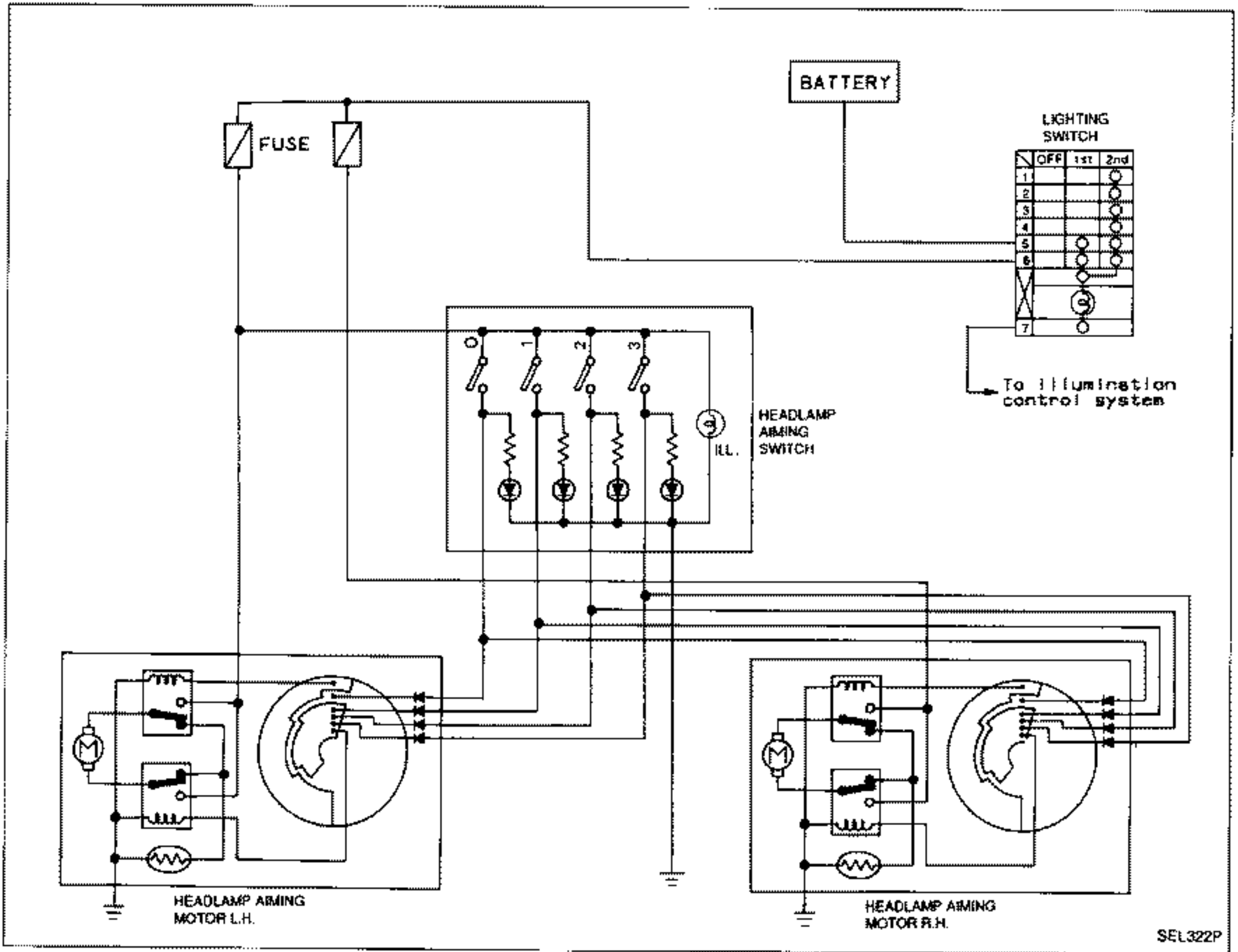


Aiming switch "1" → "0"

- When the aiming switch is moved from "1" to "0", power is applied to the motor through the relay operated by the conductive section of the sensor. The motor will rotate to move the headlamps in the "UP" direction.
- When the rotary unit of the sensor moves from point B to point A, the motor will stop.

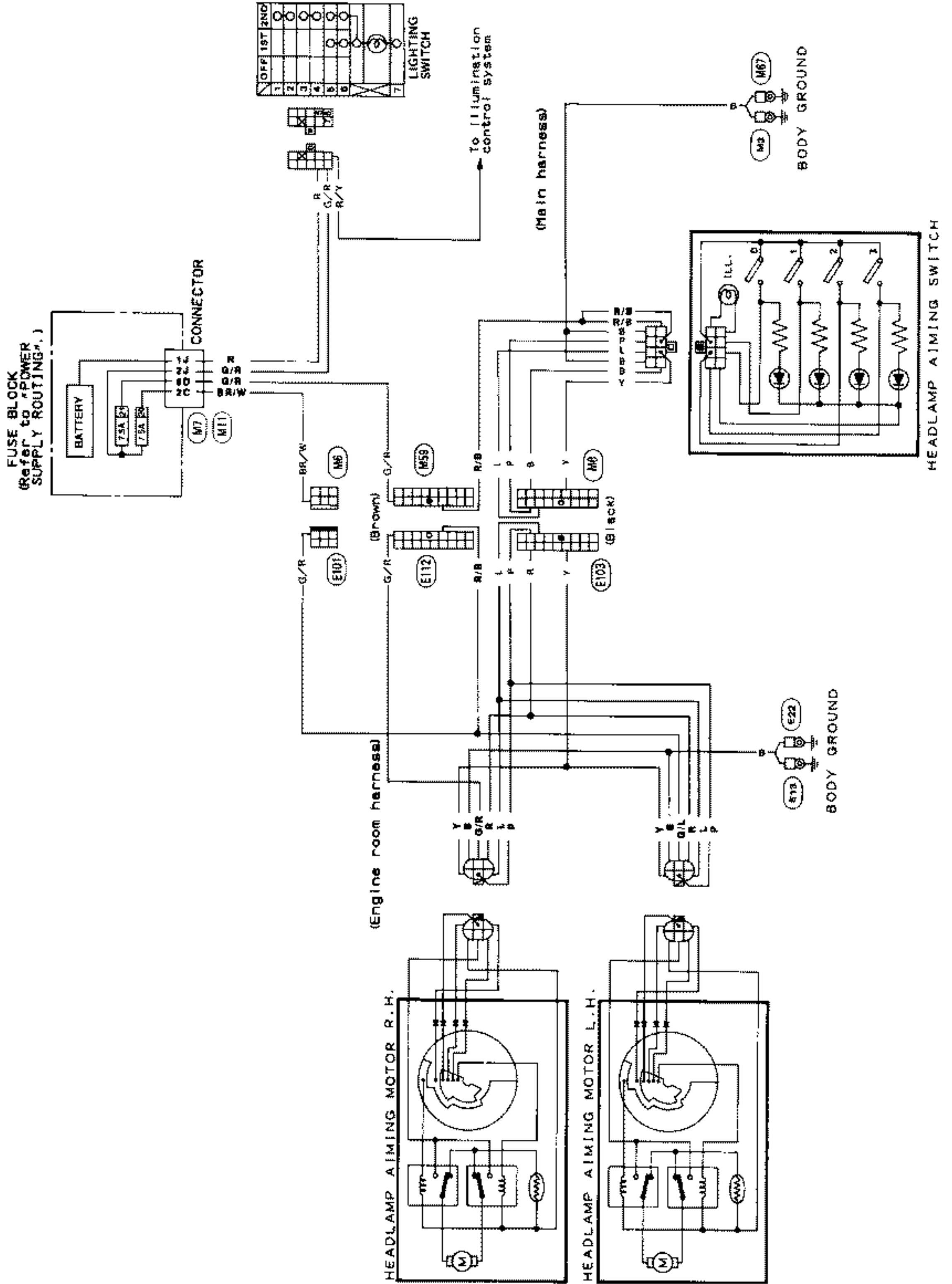
HEADLAMP — Headlamp Aiming Control —

Schematic

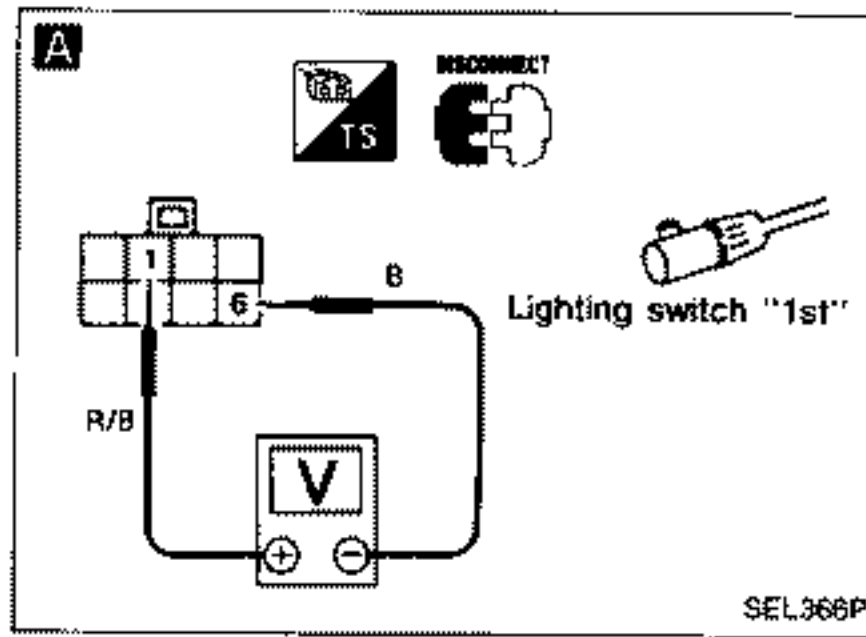


HEADLAMP — Headlamp Aiming Control —

Wiring Diagram

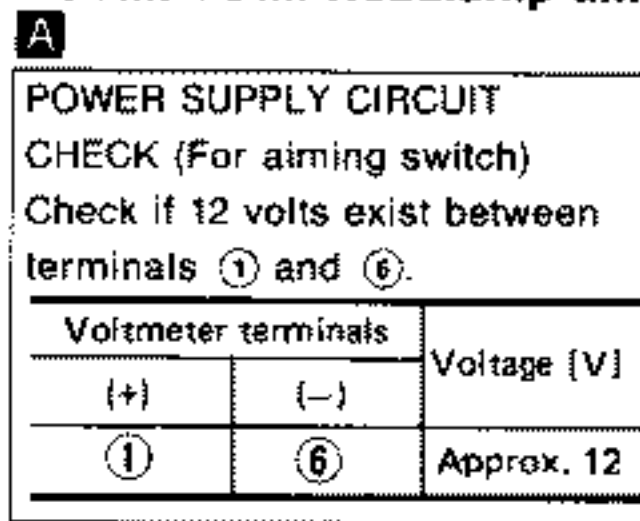


HEADLAMP — Headlamp Aiming Control —

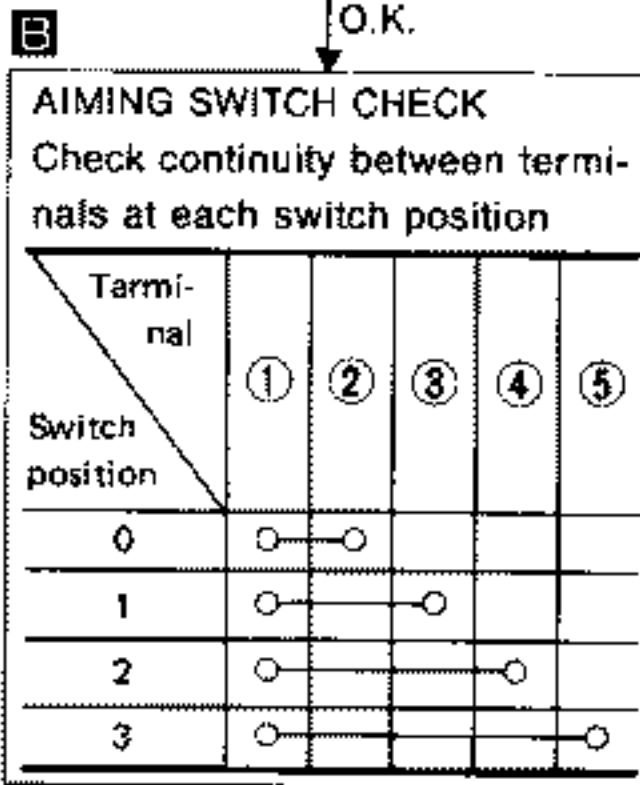
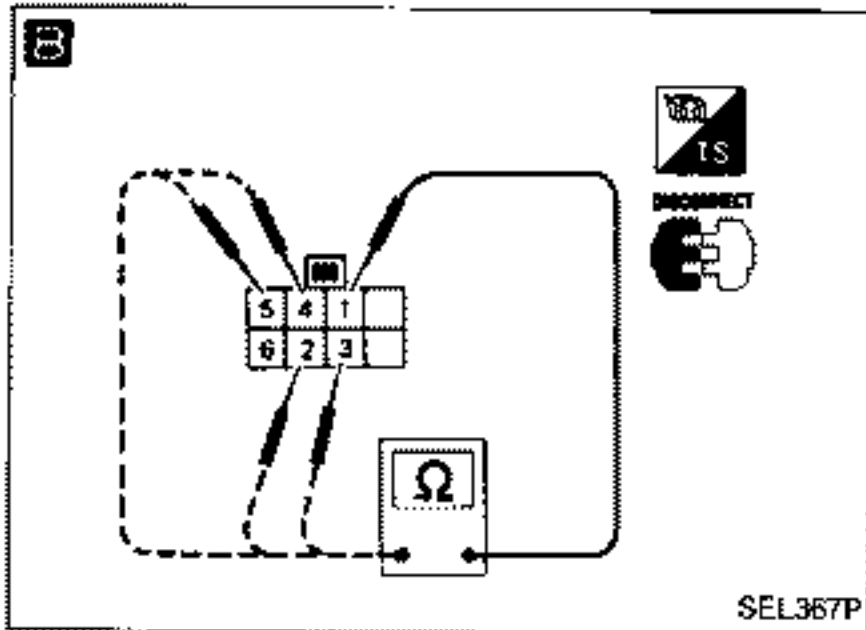


Trouble-diagnosis

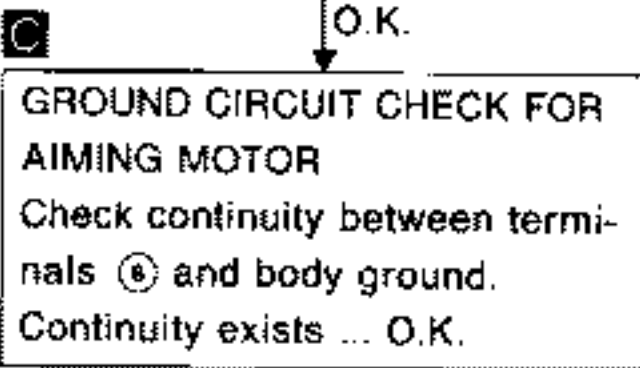
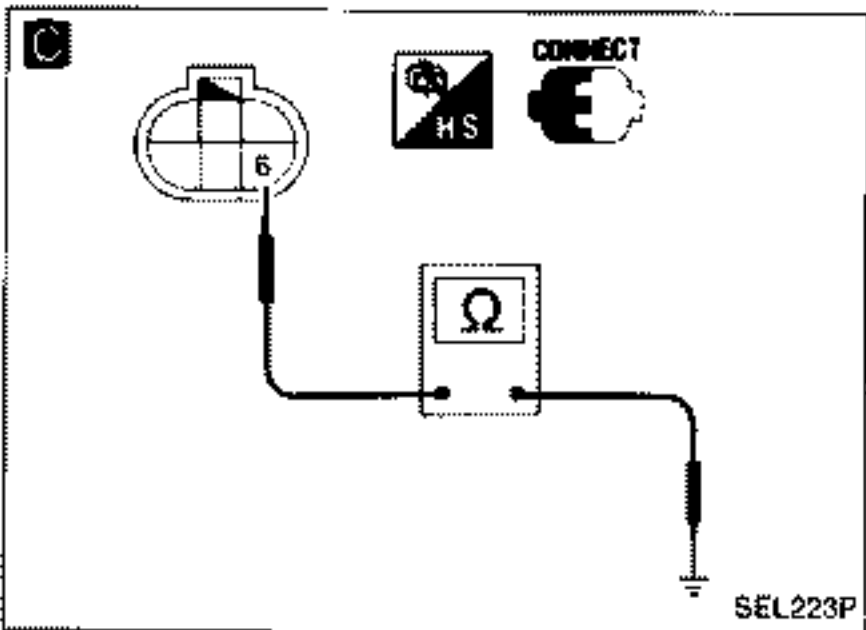
SYMPTOM: Headlamp aiming does not operate.



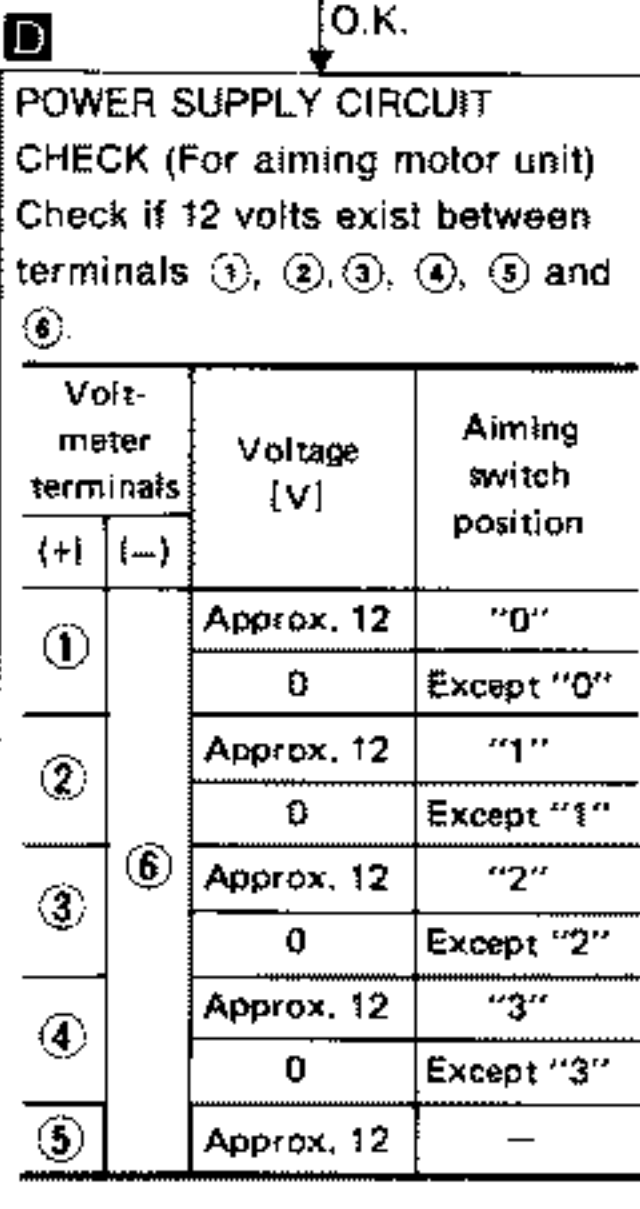
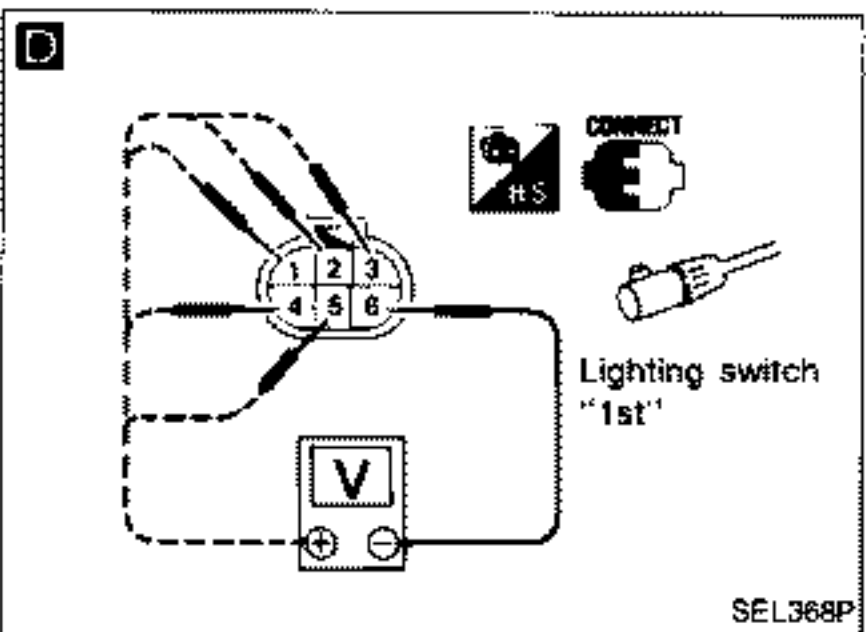
N.G. → Check 7.5A fuse at fuse block. (Refer to "POWER SUPPLY ROUTING".)



N.G. → Replace aiming switch.



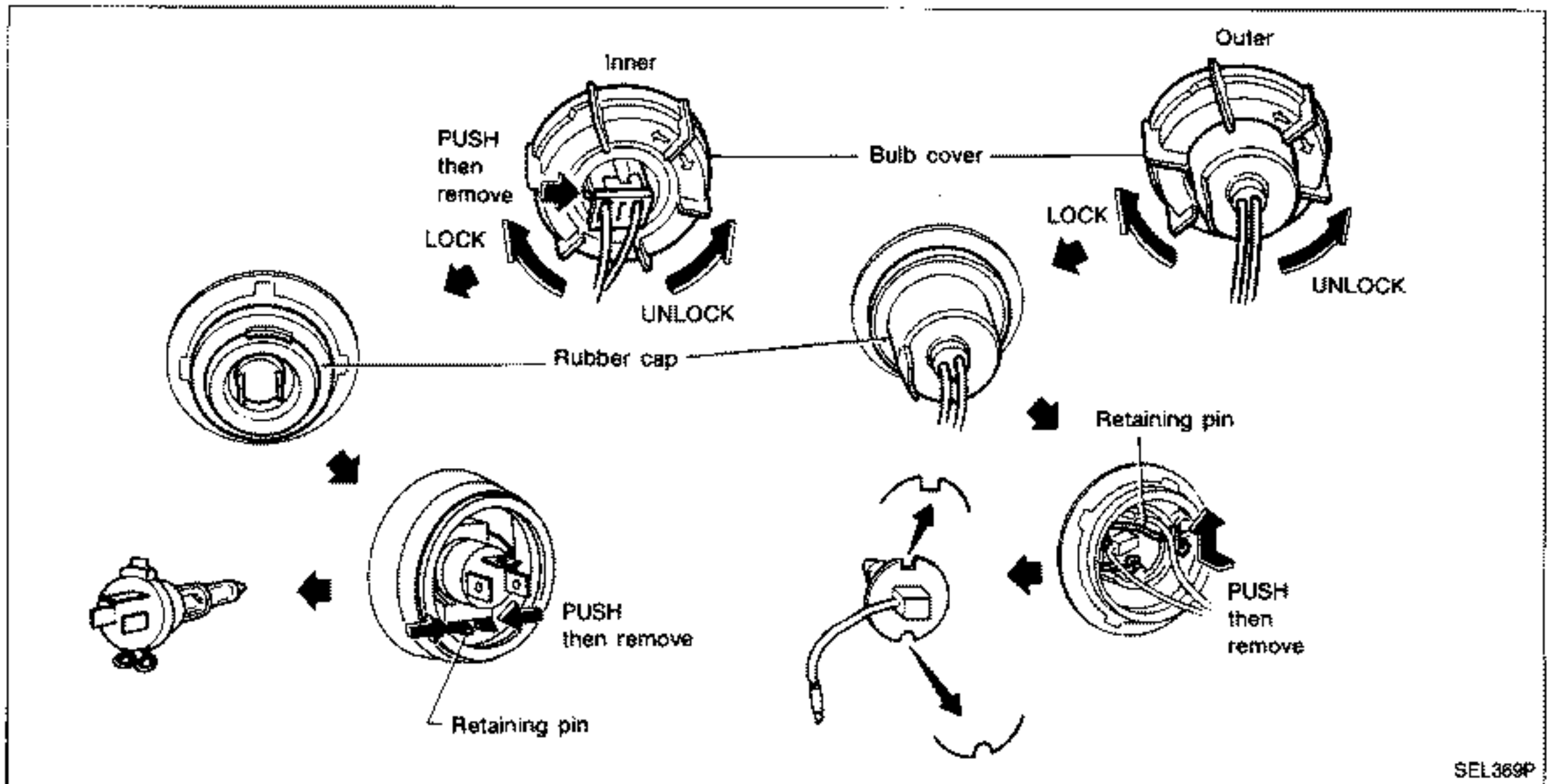
N.G. → Repair harness between aiming motor and body ground.



N.G. → Check harness between aiming switch and aiming motor unit

O.K. → Replace aiming motor unit.

Bulb Replacement



The headlamp is a semi-sealed beam type which uses a replaceable halogen bulb. The bulb can be replaced from the engine compartment side without removing the headlamp body.

- **Grasp only the plastic base when handling the bulb. Never touch the glass envelope.**

1. Disconnect the battery cable.
2. Disconnect harness connector from rear end of bulb. (Inner)
3. Turn bulb cover counterclockwise, then remove it.
4. Pull off rubber cap.
5. Push and turn retaining pin to loosen it.
6. Remove headlamp bulb. Do not shake or rotate bulb when removing it.
7. Disconnect harness connector. (Outer)
8. Install in the reverse order of removal.

CAUTION:

- **Do not leave the bulb out of the headlamp reflector for a long period of time as dust, moisture, smoke, etc. may enter the headlamp body and affect the performance of the headlamp. Thus, the headlamp bulb should not be removed from the headlamp reflector until just before a replacement bulb is to be installed.**

- **Use the same wattage as originally installed:**

	Inside (High beam)	Outside (Low beam)
Wattage (W)	55	55

Aiming Adjustment

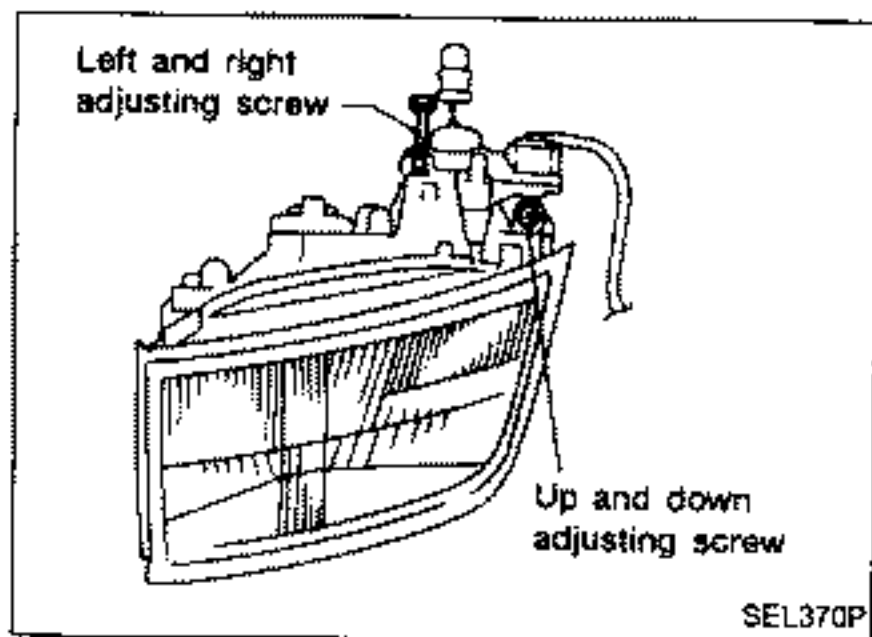
When performing headlamp aiming adjustment, use an aiming machine, aiming wall screen or headlamp tester. For operating instructions of any aimer, it should be in good repair, calibrated and used according to respective operation manuals supplied with the unit.

If any aimer is not available, aiming adjustment can be done as follows:

For details, refer to the regulations in your own country.

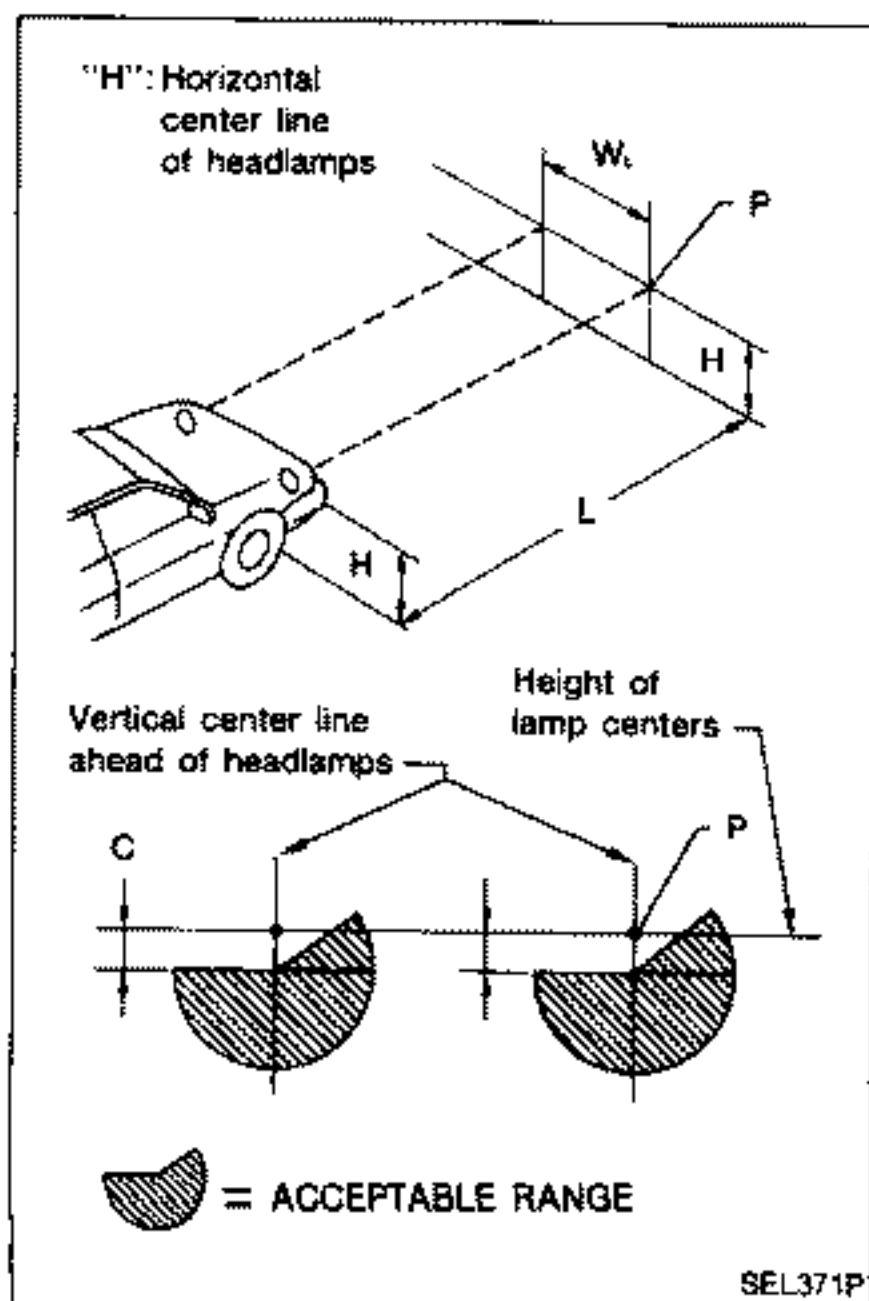
CAUTION:

- a. Keep all tires inflated to correct pressures.
- b. Place vehicle and tester on one and same flat surface.
- c. See that there is no-load in vehicle (coolant, engine oil filled up to correct level and full fuel tank) other than the driver (or equivalent weight placed in driver's position).



LOW BEAM

1. Turn headlamp low beam on.
2. Use adjusting screws to perform aiming adjustment.
- First tighten the adjusting screw all the way and then make adjustment by loosening the screw.



- a. Adjust headlamps so that main axis of light is parallel to center line of body and is aligned with point P shown in illustration.
- b. Figure to the left shows headlamp aiming pattern for driving on right side of road; for driving on left side of road, aiming pattern is reversed.
- c. Dotted lines in illustration show center of headlamp.

"H": Horizontal center line of headlamps

"W_L": Distance between each headlamp center

"L": 5,000 mm (196.85 in)

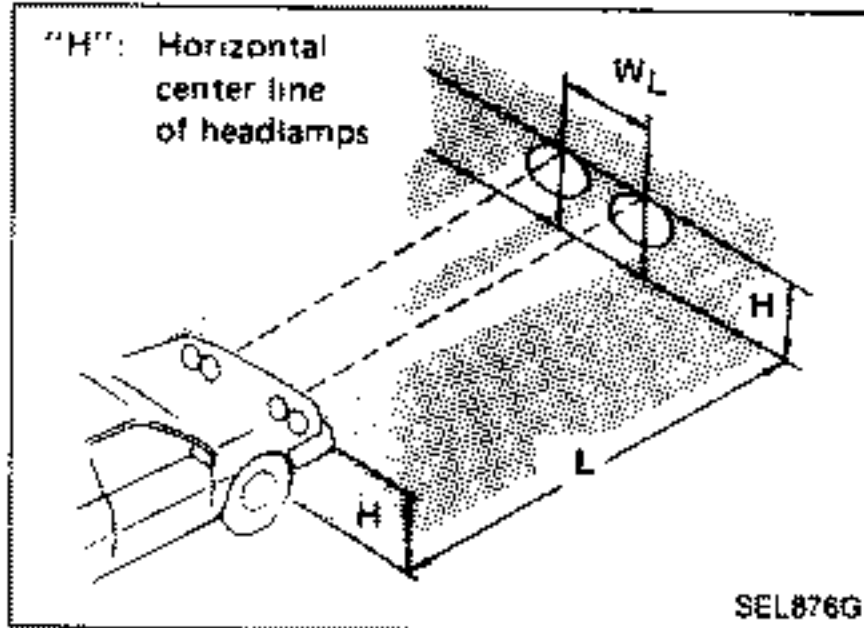
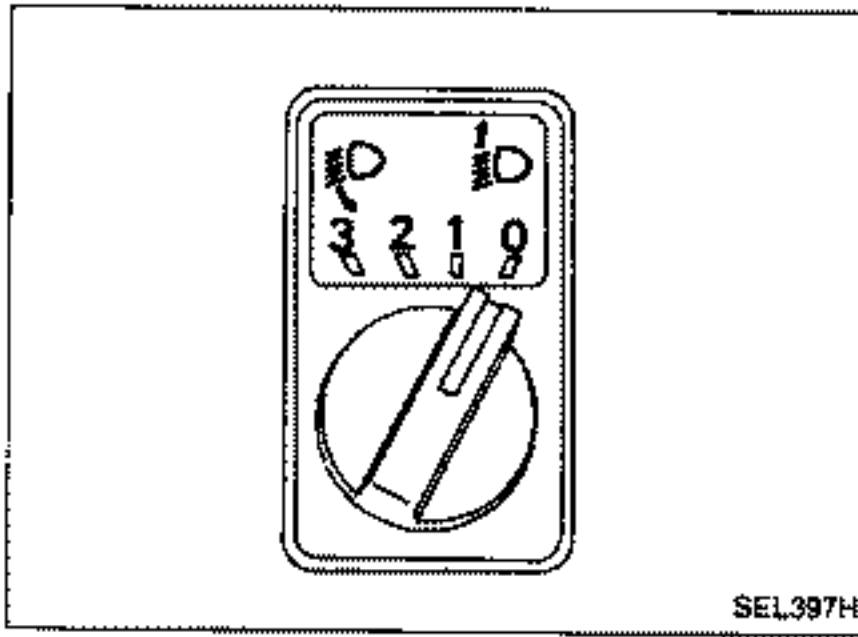
"C": 50 mm (1.97 in)

HEADLAMP — Headlamp Aiming Control —

Aiming Adjustment (Cont'd)

CAUTION:

Be sure aiming switch is set to "0" when performing aiming adjustment on vehicles equipped with headlamp aiming control.



HIGH BEAM

Turn headlamp high beam on.

- Adjust high beams so that main axis of light is parallel to center line of body.
- Dotted lines in illustration show center of headlamp.

"H": Horizontal center line of headlamps

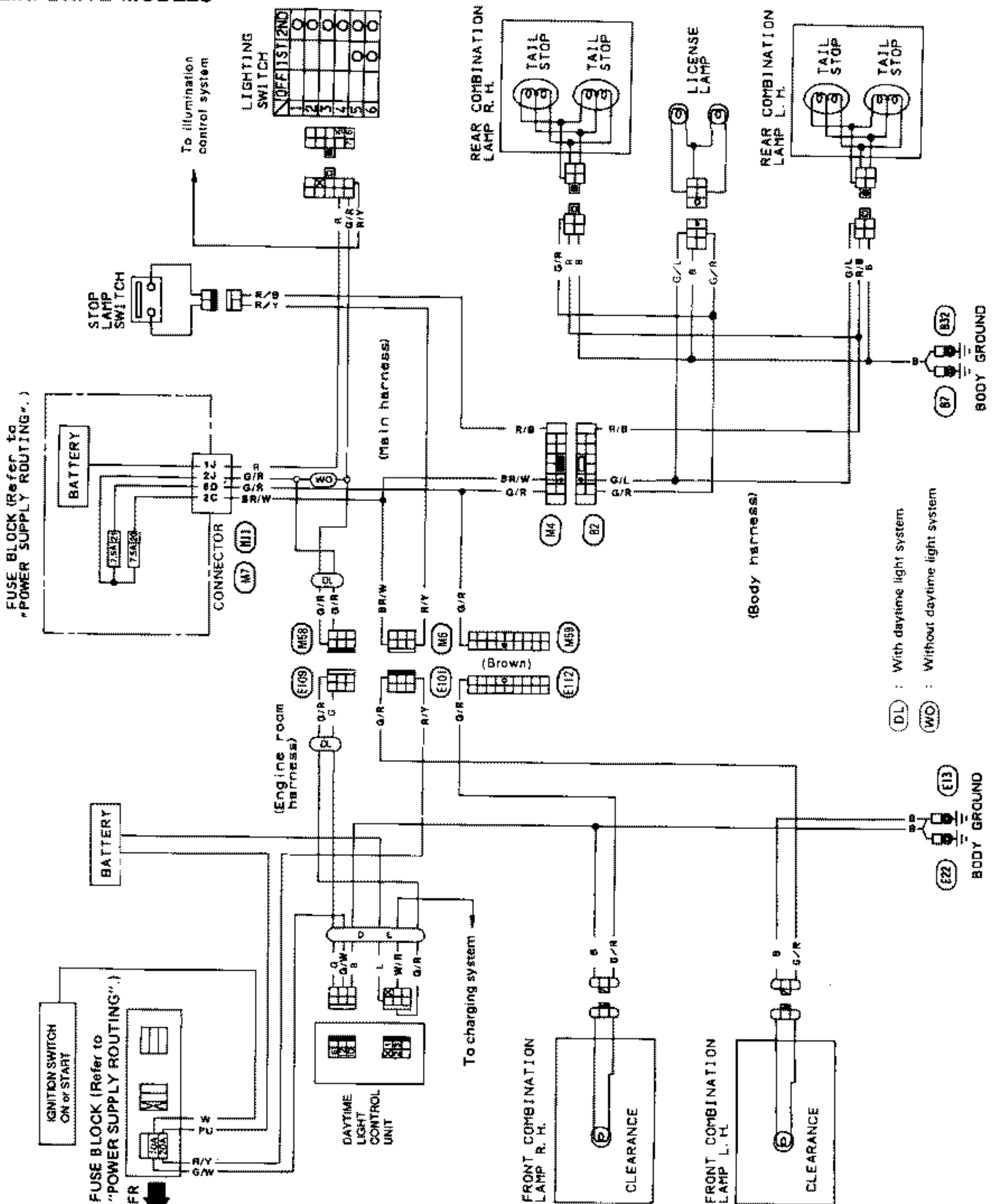
"W_L": Distance between each headlamp center

"L": 5,000 mm (196.85 in)

EXTERIOR LAMP

Clearance, License, Tail and Stop Lamps/Wiring Diagram

L.H. DRIVE MODELS

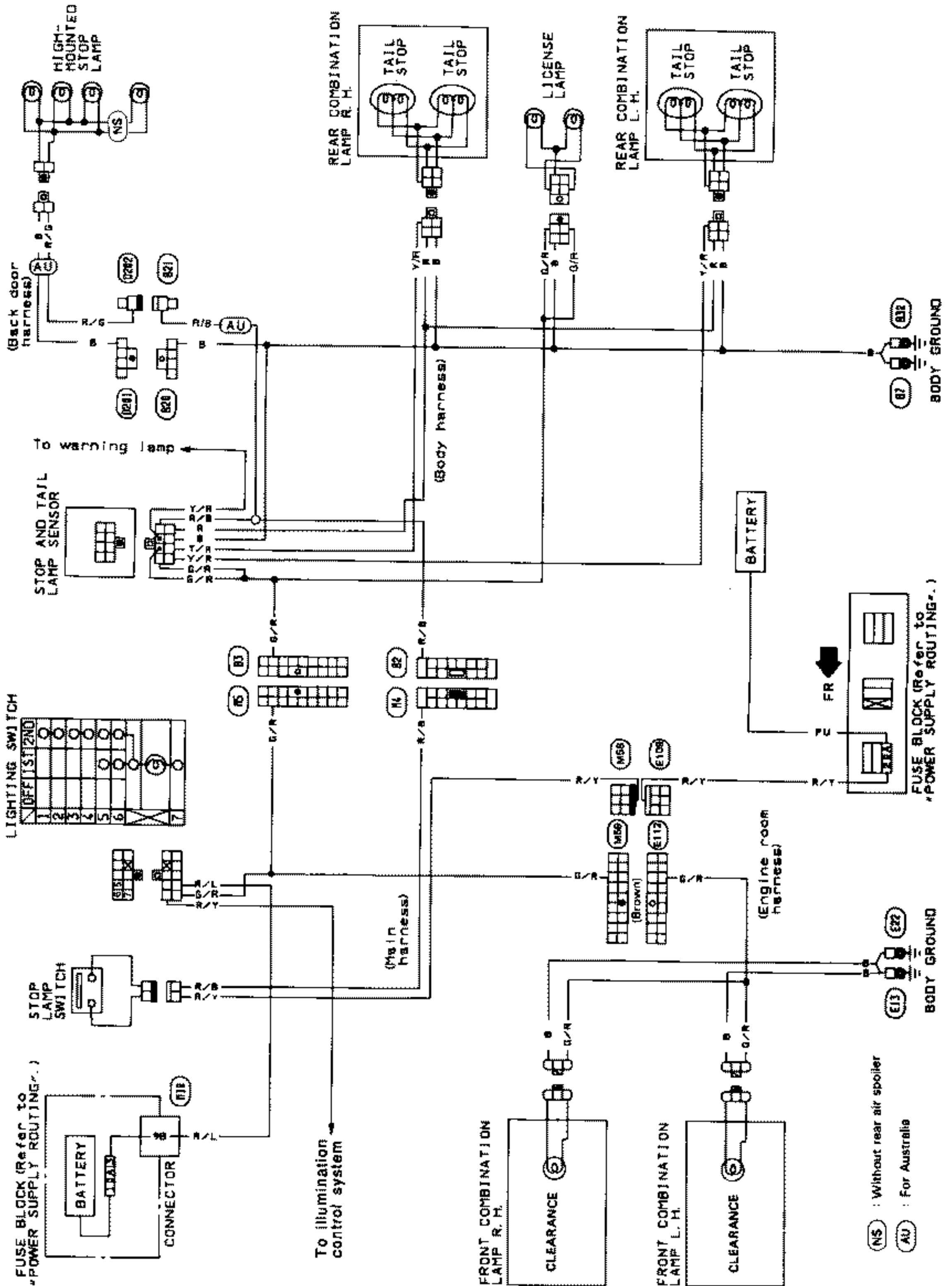


SEL324P

EXTERIOR LAMP

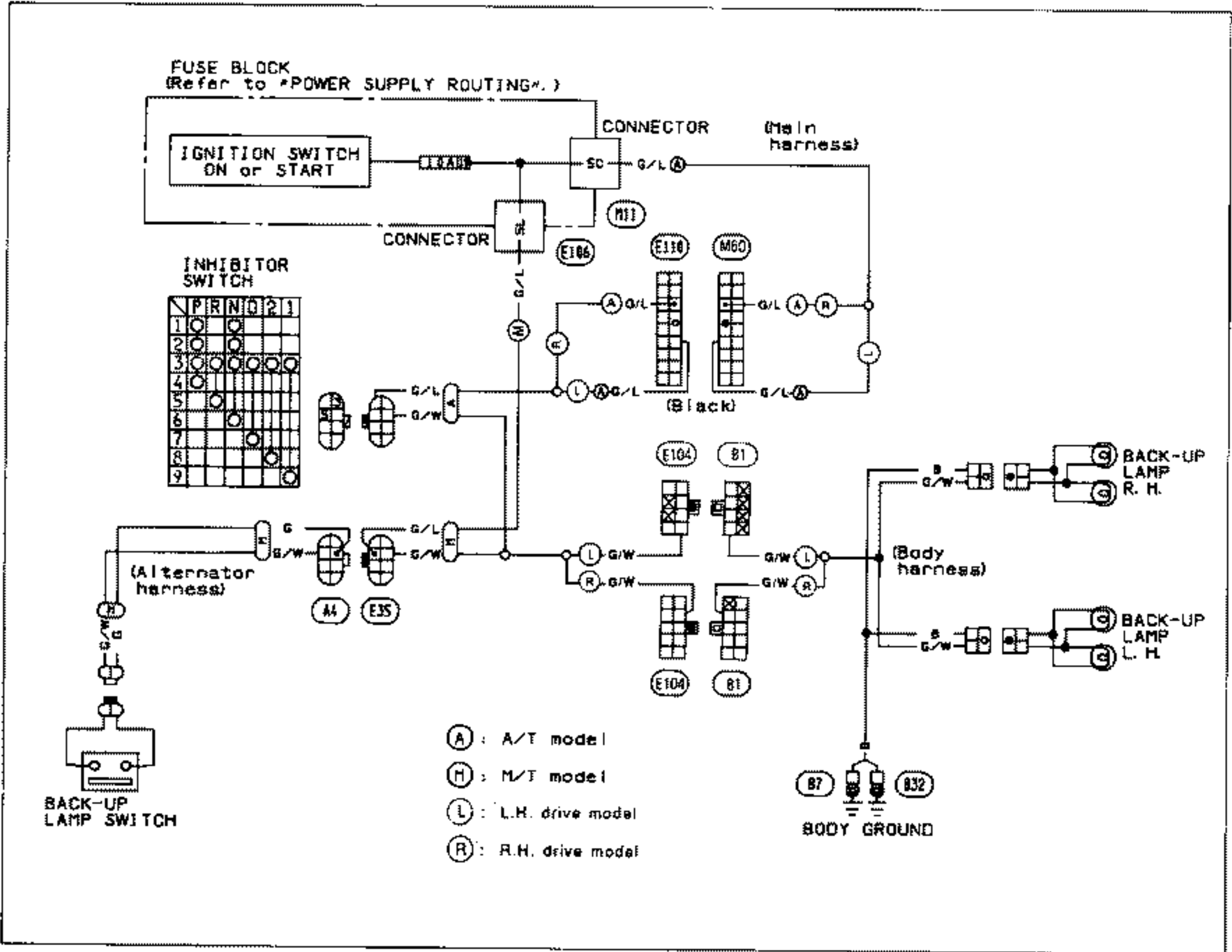
Clearance, License, Tail and Stop Lamps/Wiring Diagram (Cont'd)

R.H. DRIVE MODELS



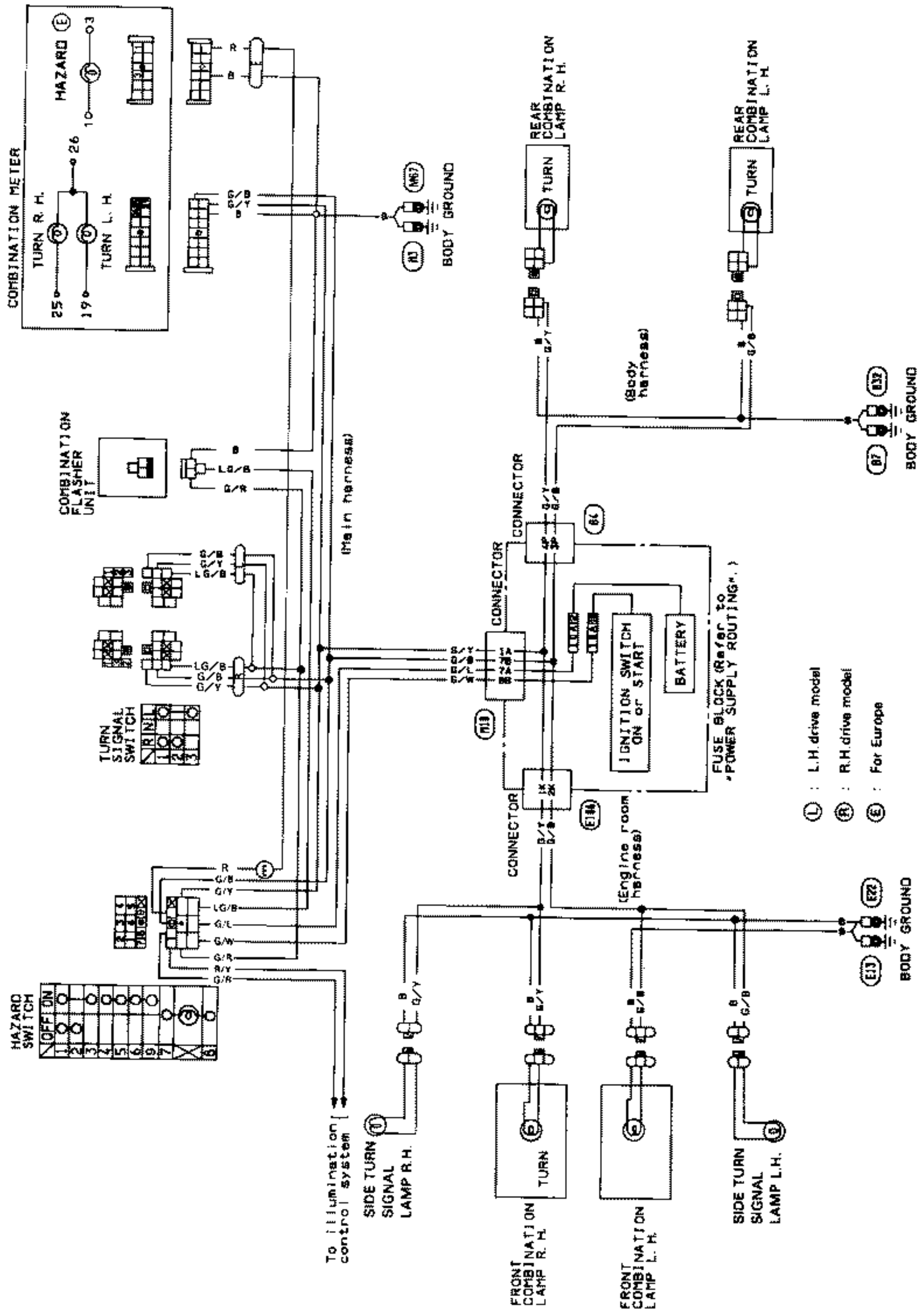
EXTERIOR LAMP

Back-up Lamp/Wiring Diagram



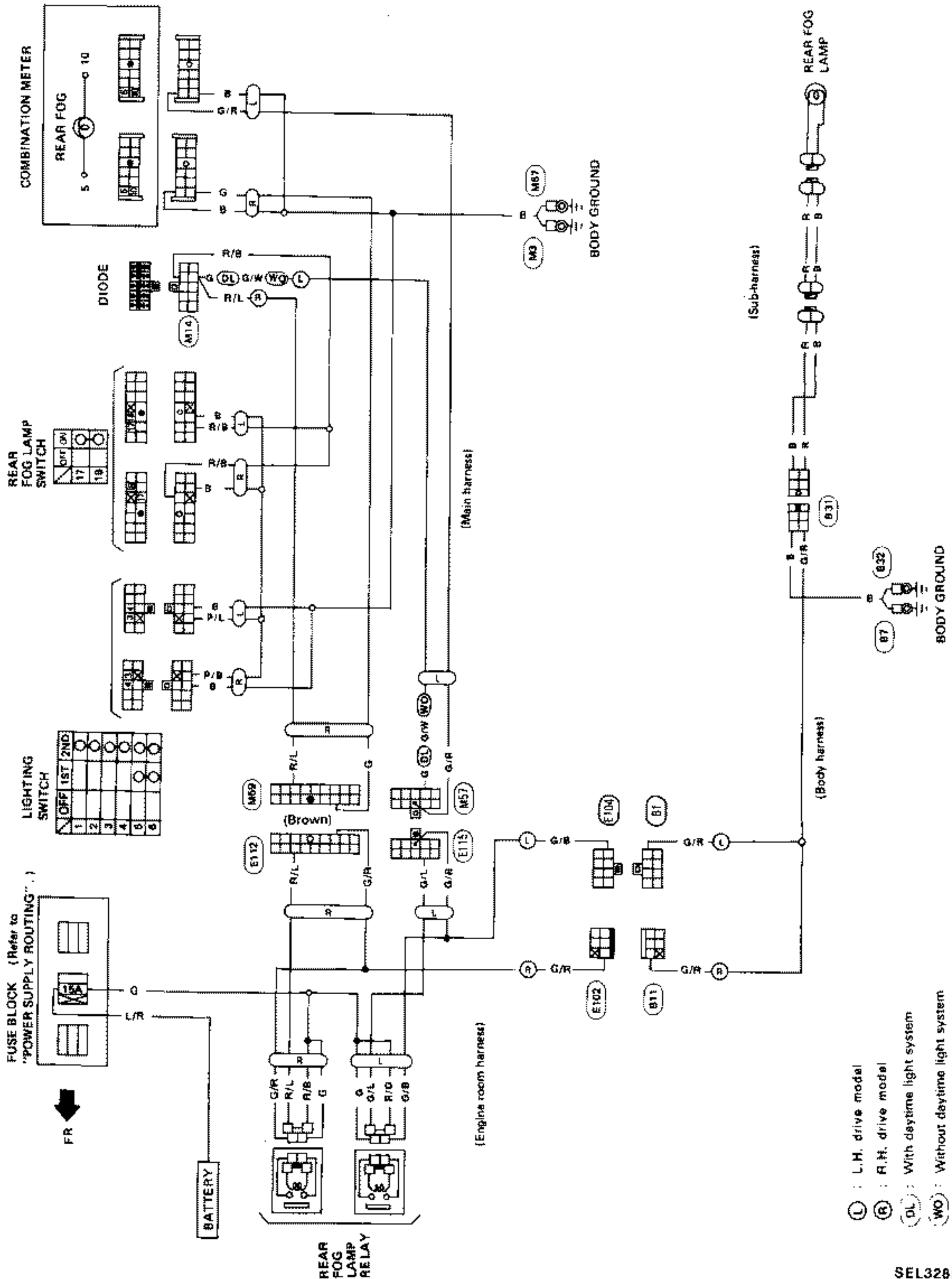
EXTERIOR LAMP

Turn Signal and Hazard Warning Lamps/Wiring Diagram



EXTERIOR LAMP

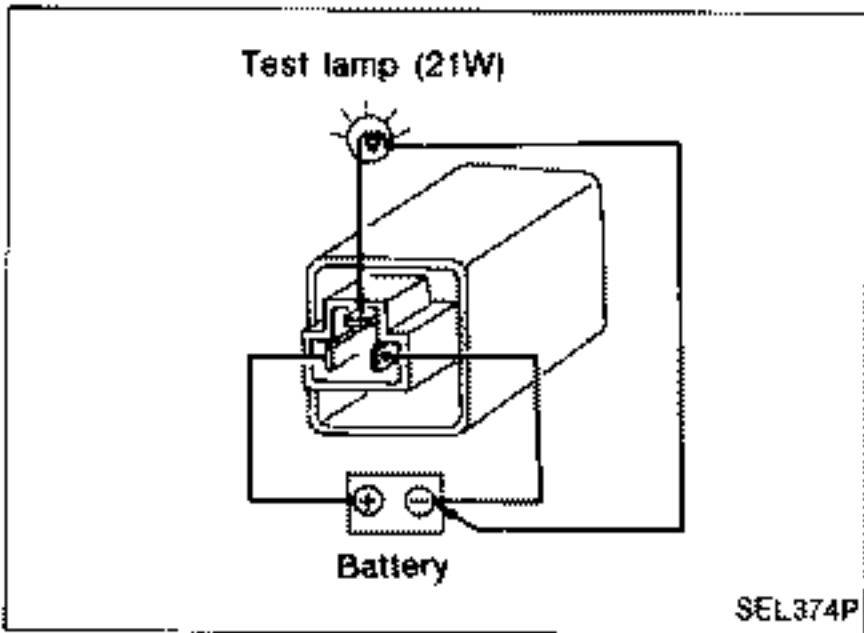
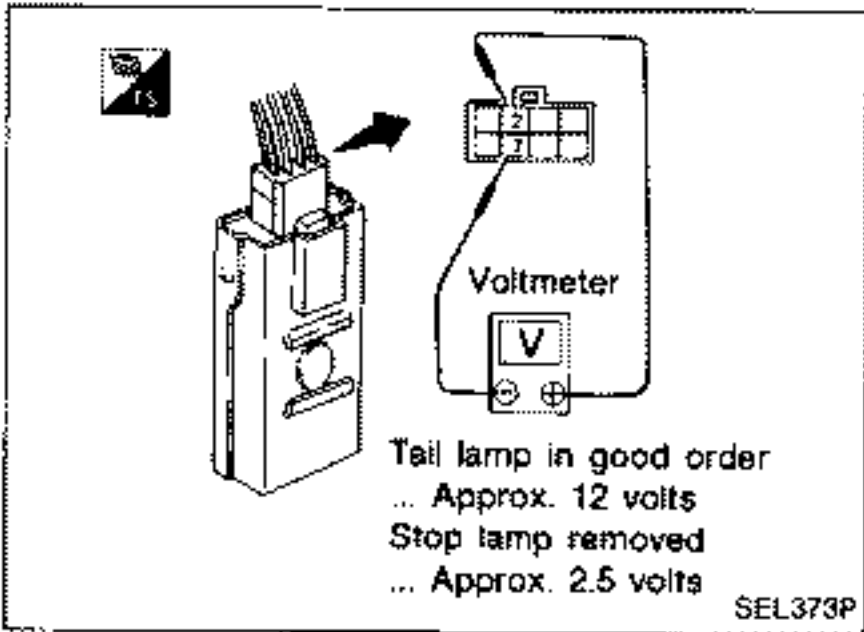
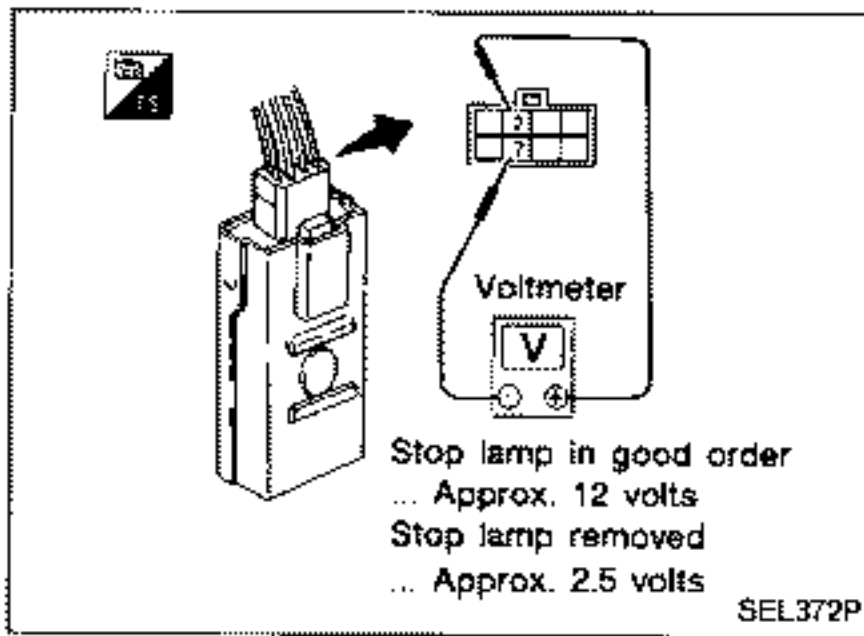
Rear Fog Lamp/Wiring Diagram



- (L) : L.H. drive model
- (R) : R.H. drive model
- (DL) : With daytime light system
- (WO) : Without daytime light system

SEL328P

EXTERIOR LAMP



Stop and Tail Lamp Sensor Check

- Before checking, ensure that bulbs meet specifications.

STOP LAMP

1. Start engine.
2. Stop lamp switch on.

Tail Lamp

1. Start engine.
2. Lighting switch on.

Combination Flasher Unit Check

- Before checking, ensure that bulbs meet specifications.
- Connect a battery and test lamp to the combination flasher unit, as shown. Combination flasher unit is properly functioning if it blinks when power is supplied to the circuit.

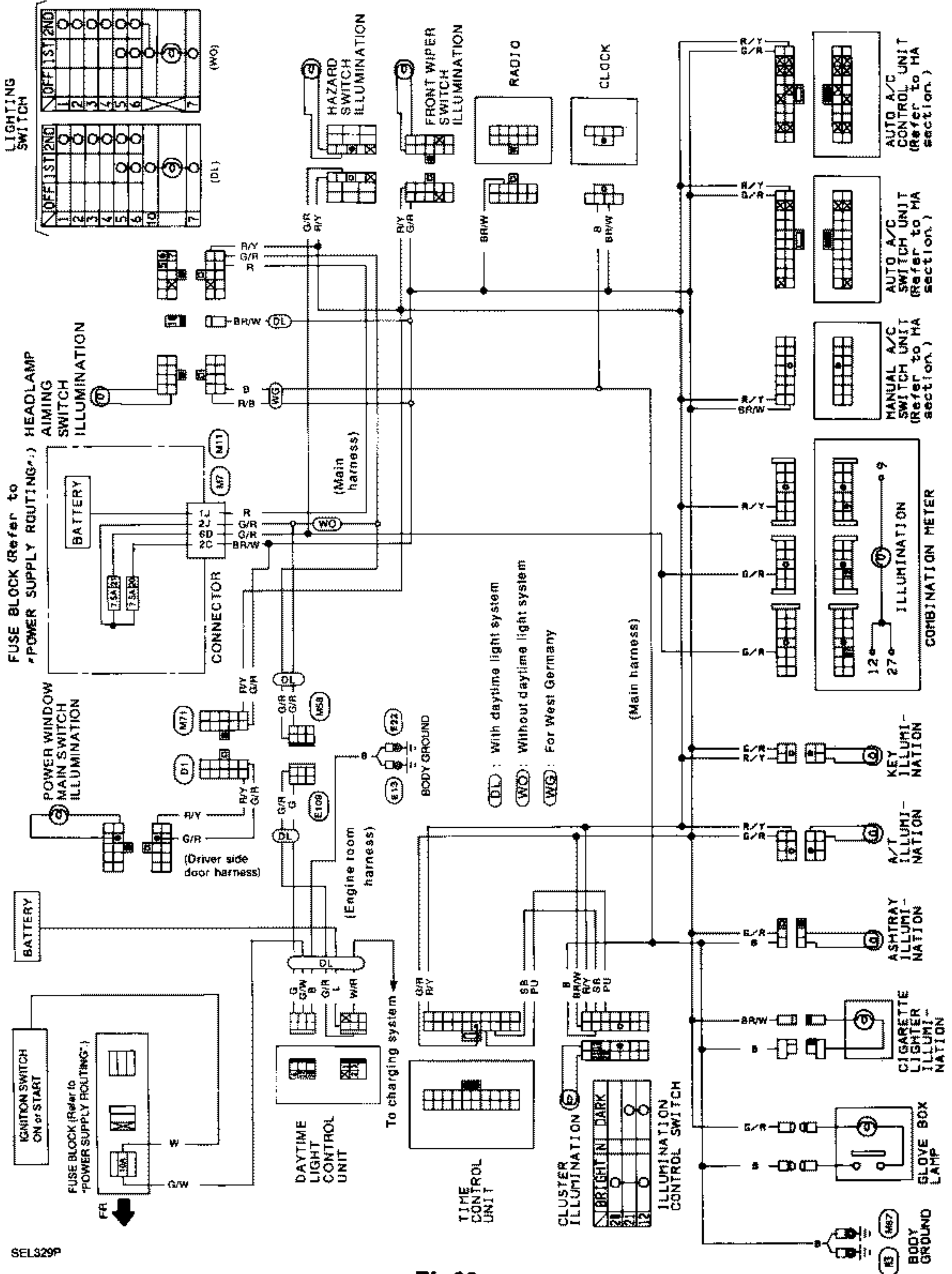
Bulb Specifications

	Wattage (W)
Front combination lamp	
Turn signal	21
Clearance	5
Side turn signal lamp	5
Rear combination lamp	
Turn signal	21
Stop/Tail	21/5
Back-up lamp	21
License plate lamp	5
Rear fog lamp	21
High-mounted stop lamp	13
Interior lamp	10
Spot lamp	3.8
Luggage room lamp	3.4

INTERIOR LAMP

Illumination/Wiring Diagram

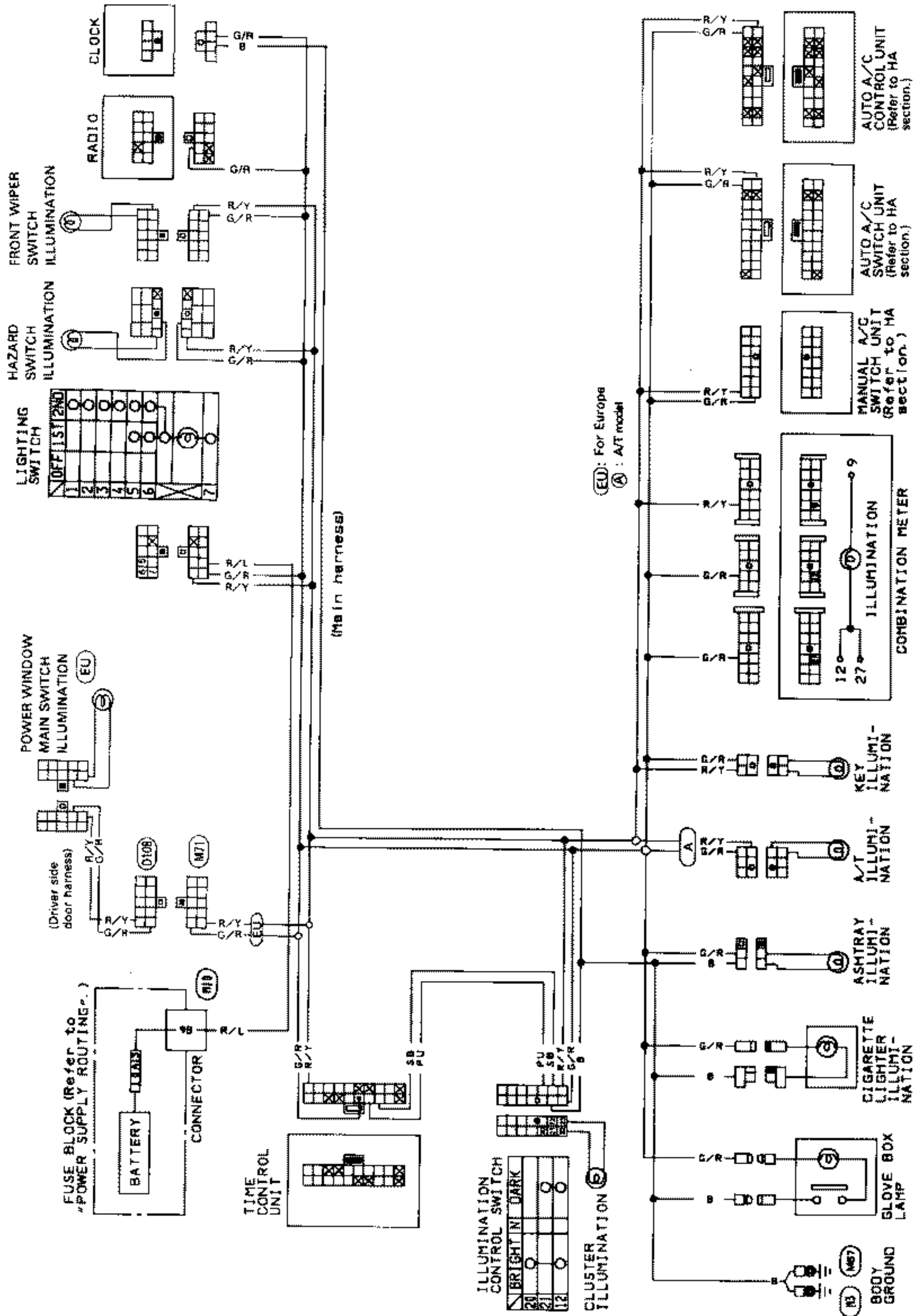
L.H. DRIVE MODELS



INTERIOR LAMP

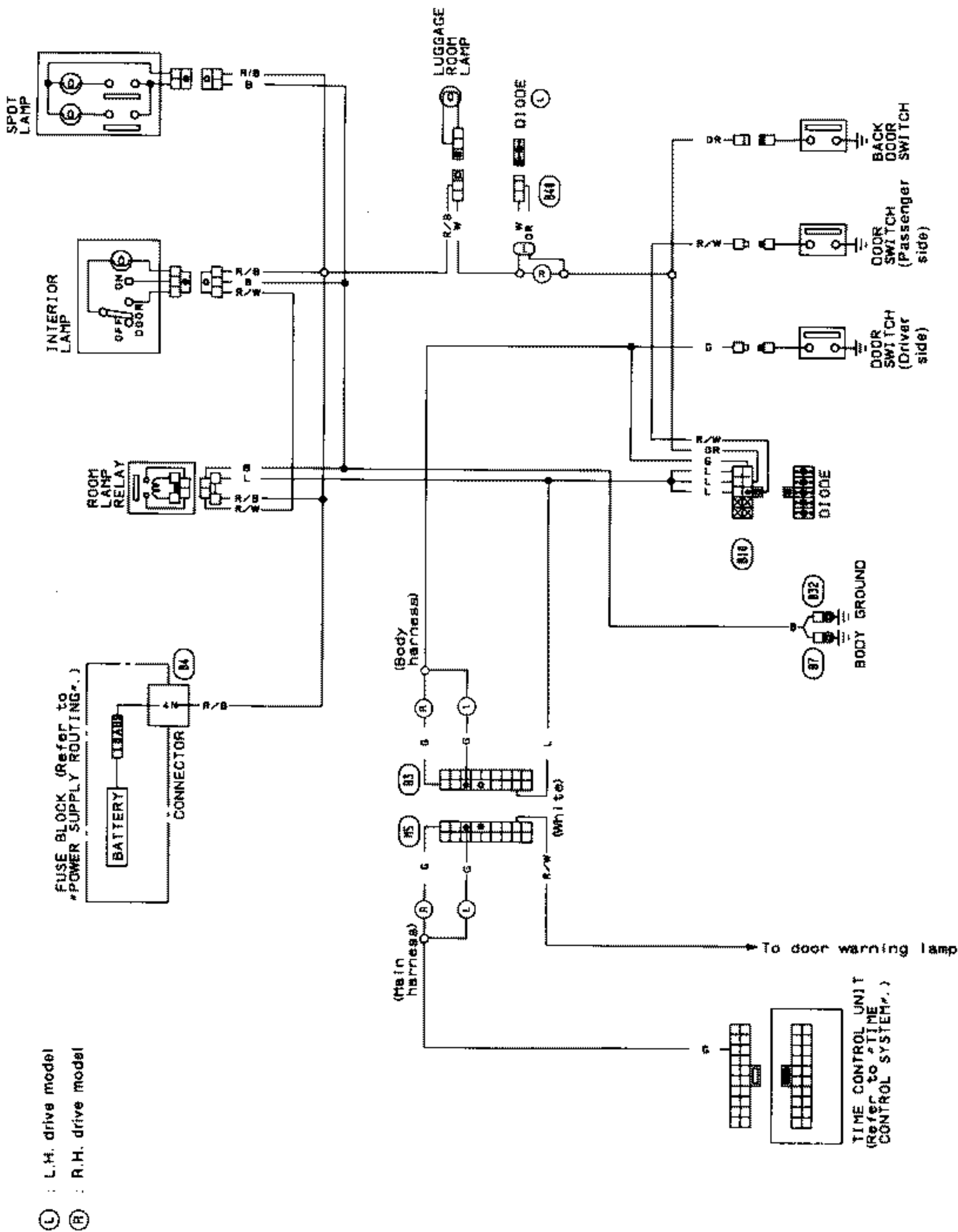
Illumination/Wiring Diagram (Cont'd)

R.H. DRIVE MODELS



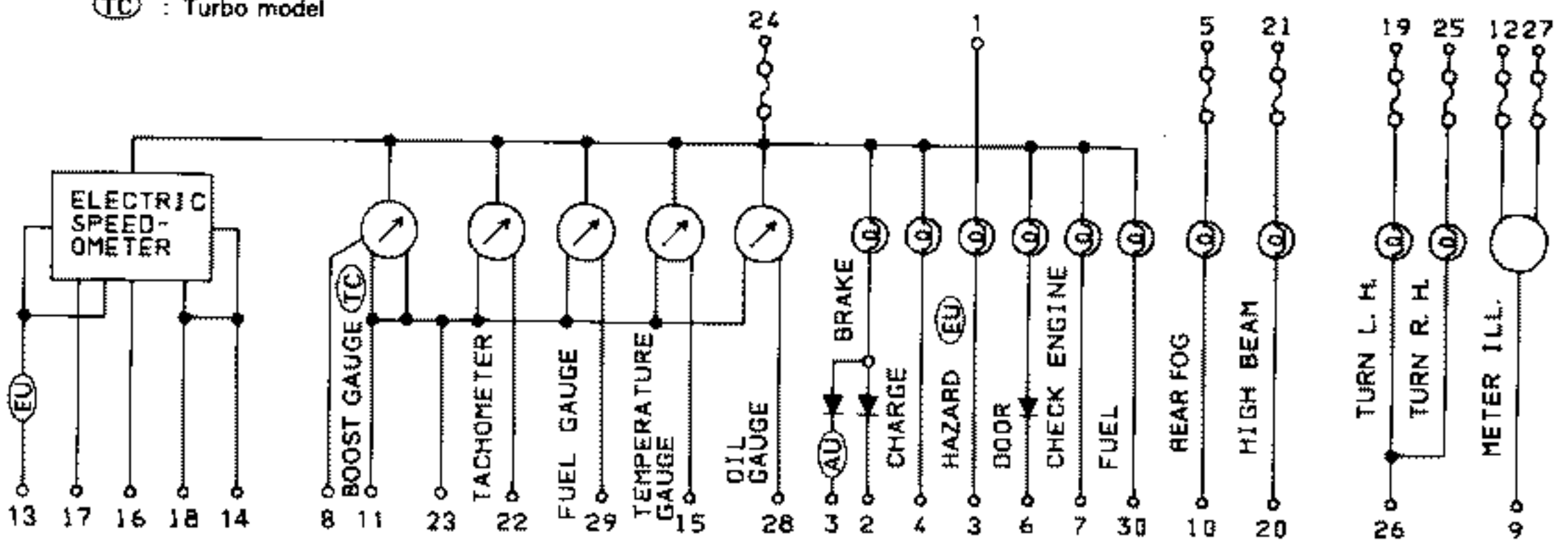
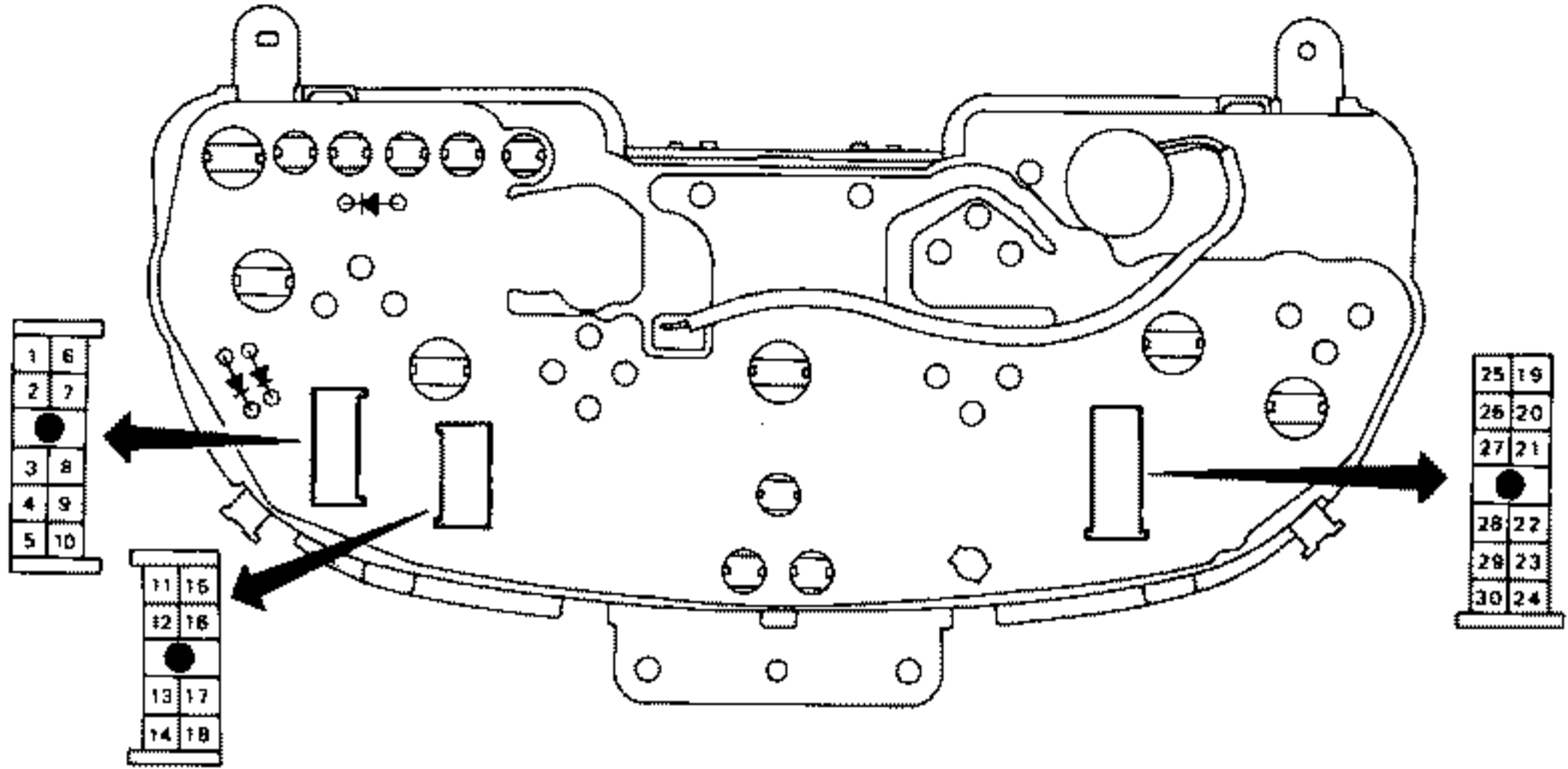
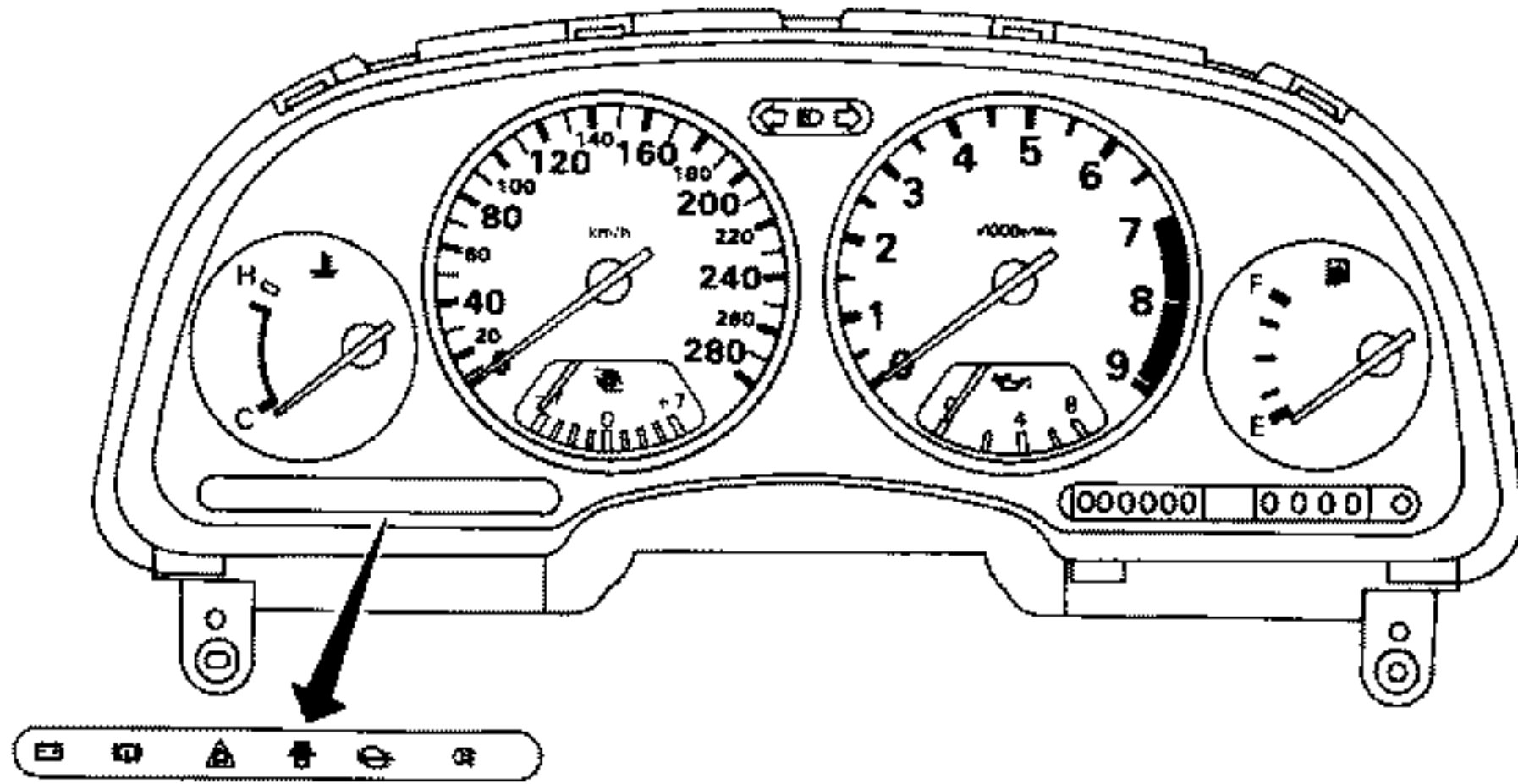
INTERIOR LAMP

Interior Lamp/Wiring Diagram



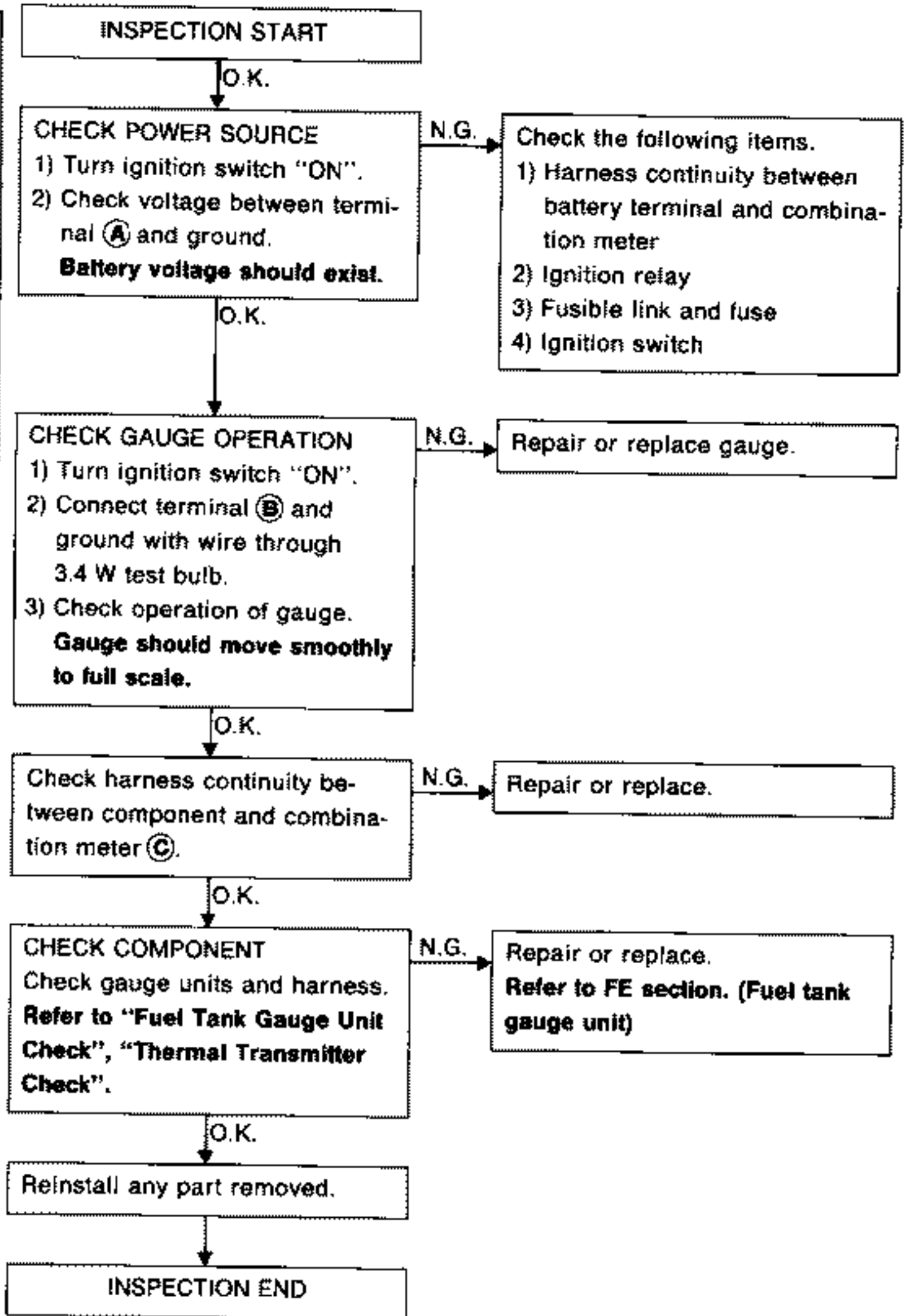
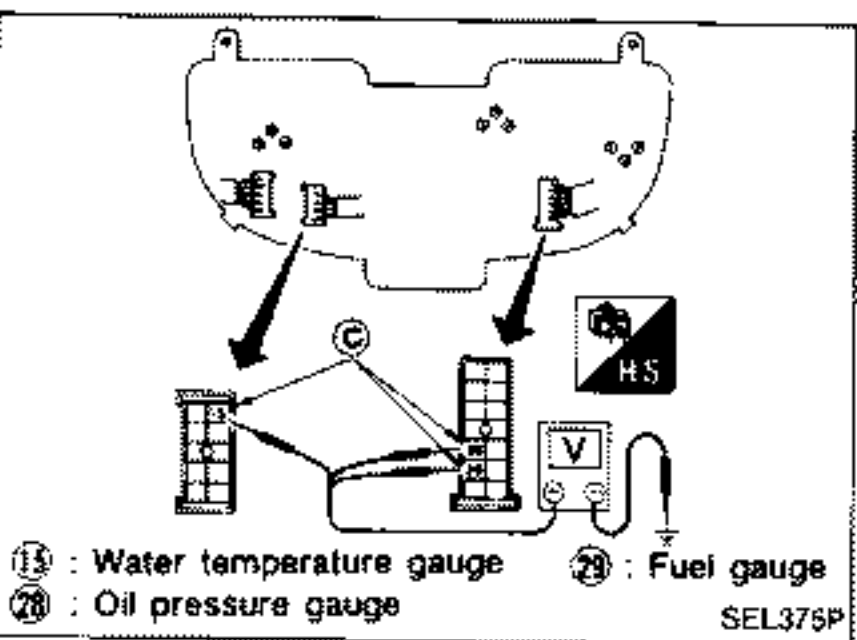
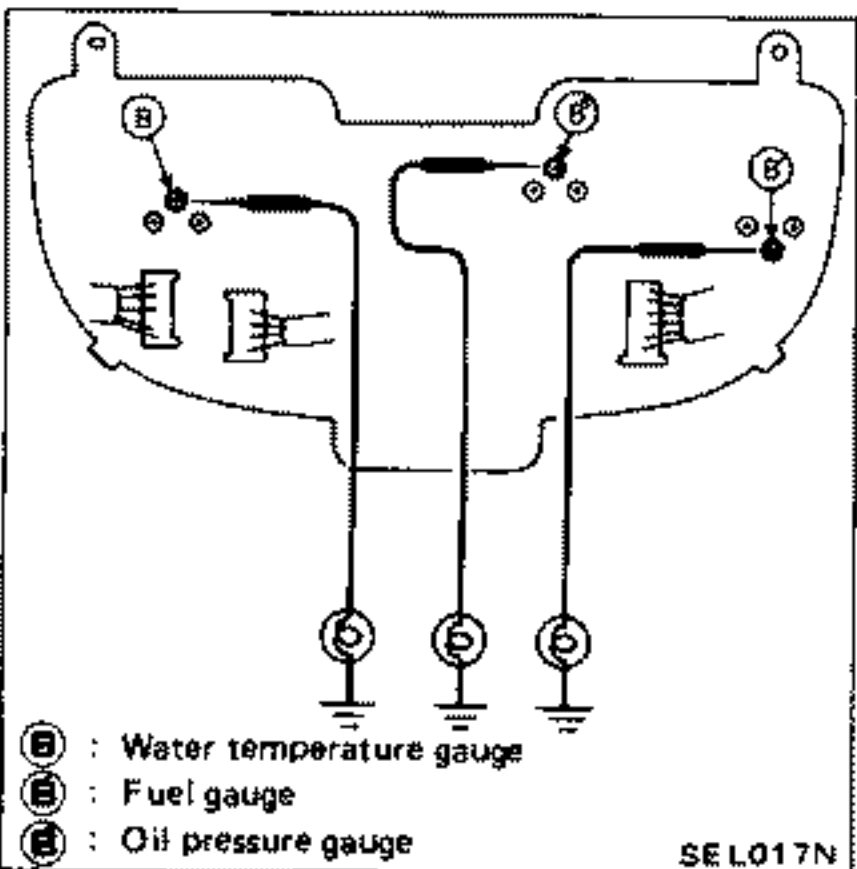
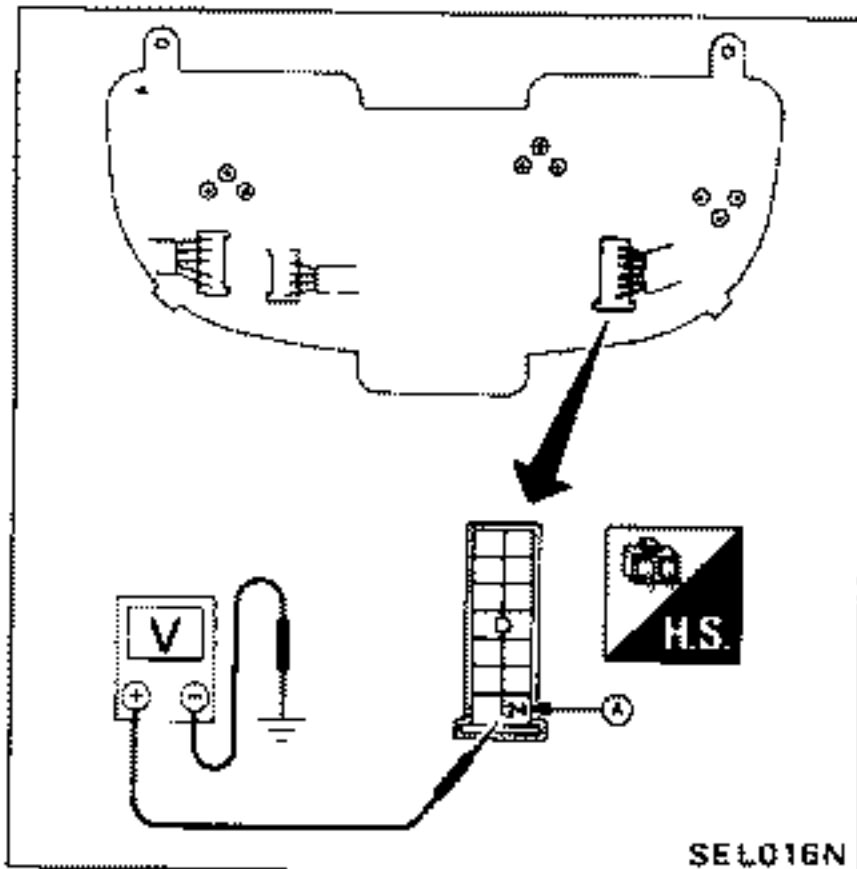
METER AND GAUGES

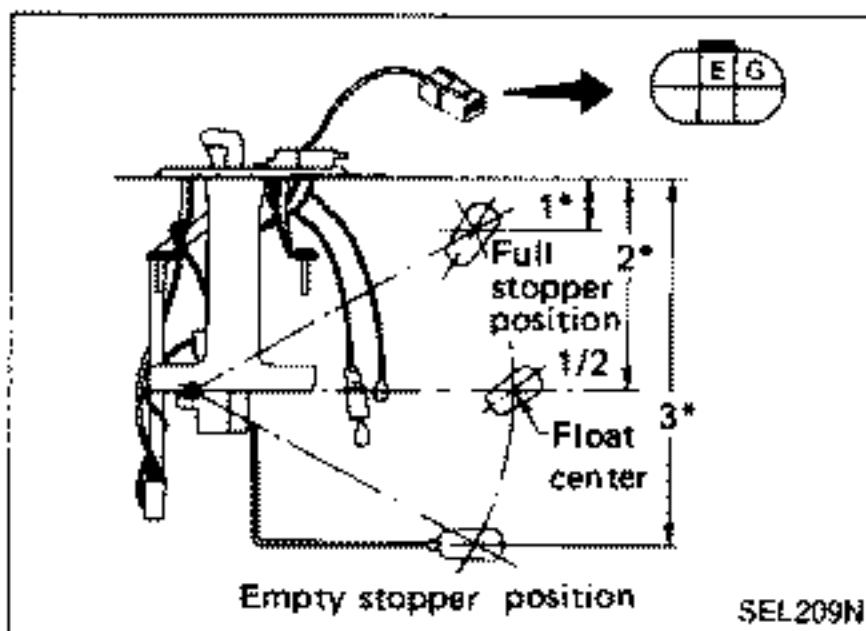
Combination Meter



METER AND GAUGES

Inspection/Fuel, Oil Pressure and Water Temperature Gauges





Fuel Tank Gauge Unit Check

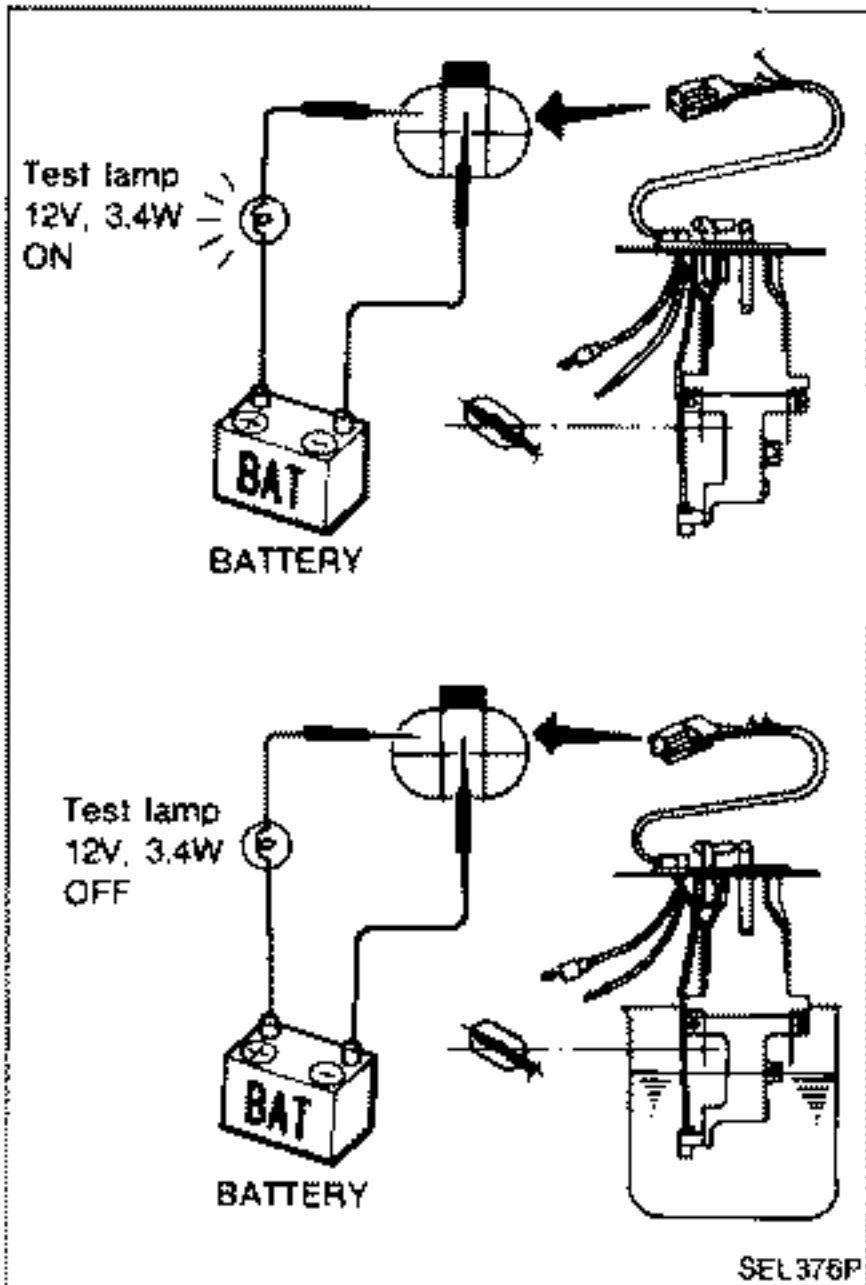
- For removal, refer to FE section.
- Check the resistance between terminals **G** and **E**.

Ohmmeter		Float position		Resistance value (Ω)
(+)	(-)	mm (in)		
G	E	1*	Full	21.0 (0.827)
		2*	1/2	115.0 (4.53)
		3*	Empty	207.0 (8.15)

1* and 3*: When float rod is in contact with stopper.

Fuel Warning Lamp Sensor Check

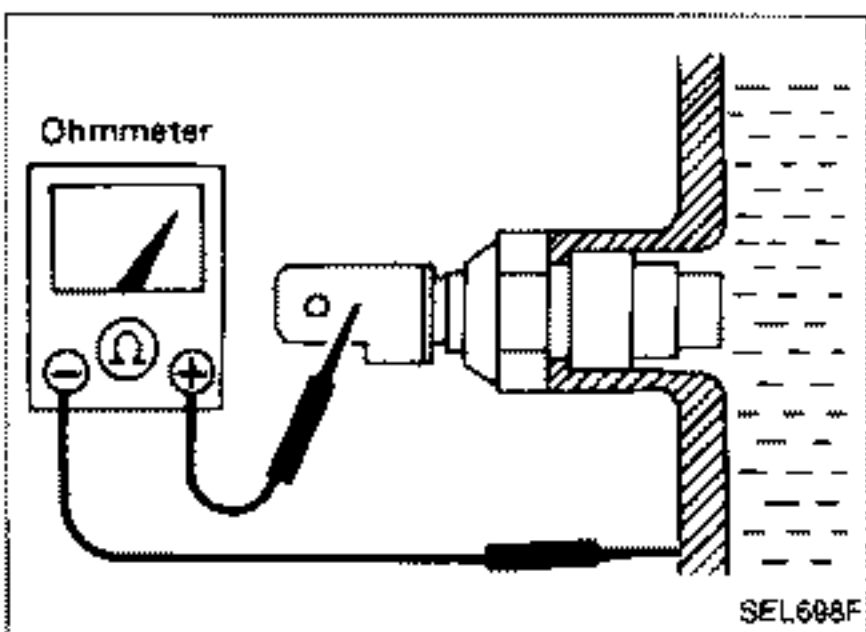
- It will take a short time for the bulb to light.



Thermal Transmitter Check

Check the resistance between the terminals of thermal transmitter and body ground.

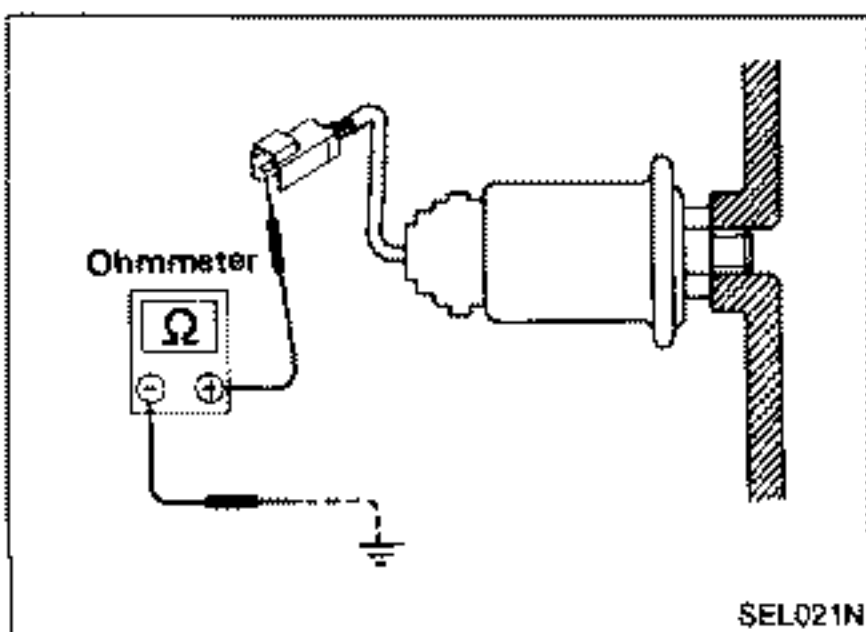
Water temperature	Resistance
60°C (140°F)	Approx. 70 - 90 Ω
100°C (212°F)	Approx. 21 - 24 Ω



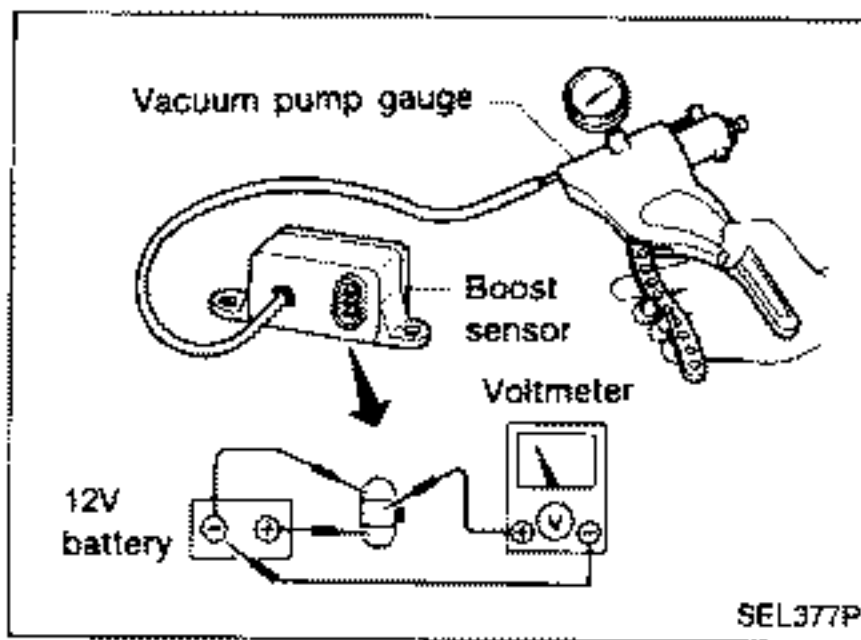
Oil Pressure Sending Unit Check

Check the resistance between the terminals of oil pressure sending unit and body ground.

Oil pressure kPa (bar, kg/cm ² , psi)	Resistance value (Ω)
0 (0, 0, 0) (Engine is stopped)	More than 54
392 (3.9, 4, 57)	Approx. 26 - 37
588 (5.9, 6, 85)	Approx. 18 - 26



METER AND GAUGES



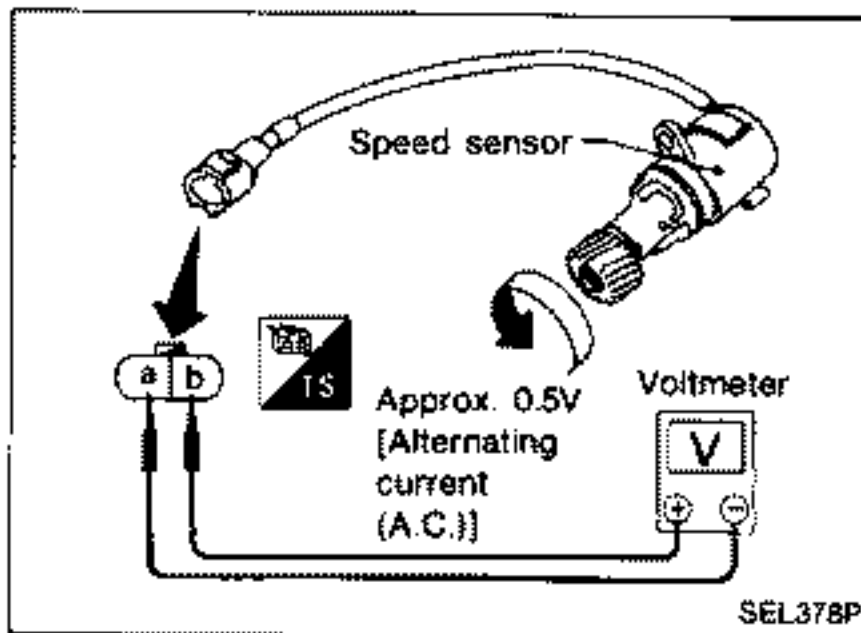
Boost Sensor Check

1. Connect vacuum pump gauge to boost sensor vacuum hose.
2. Disconnect harness connector from boost sensor and connect battery and voltmeter as shown.
3. Apply vacuum pressure to boost sensor by vacuum pump gauge and measure voltages.

Voltage:

**Approx. 2.2V at 0 kPa (0 mbar, 0 mmHg, 0 inHg)
(Atmospheric pressure)**

Approx. 1.3V at -53.3 kPa (-533 mbar, -400 mmHg, -15.75 inHg)

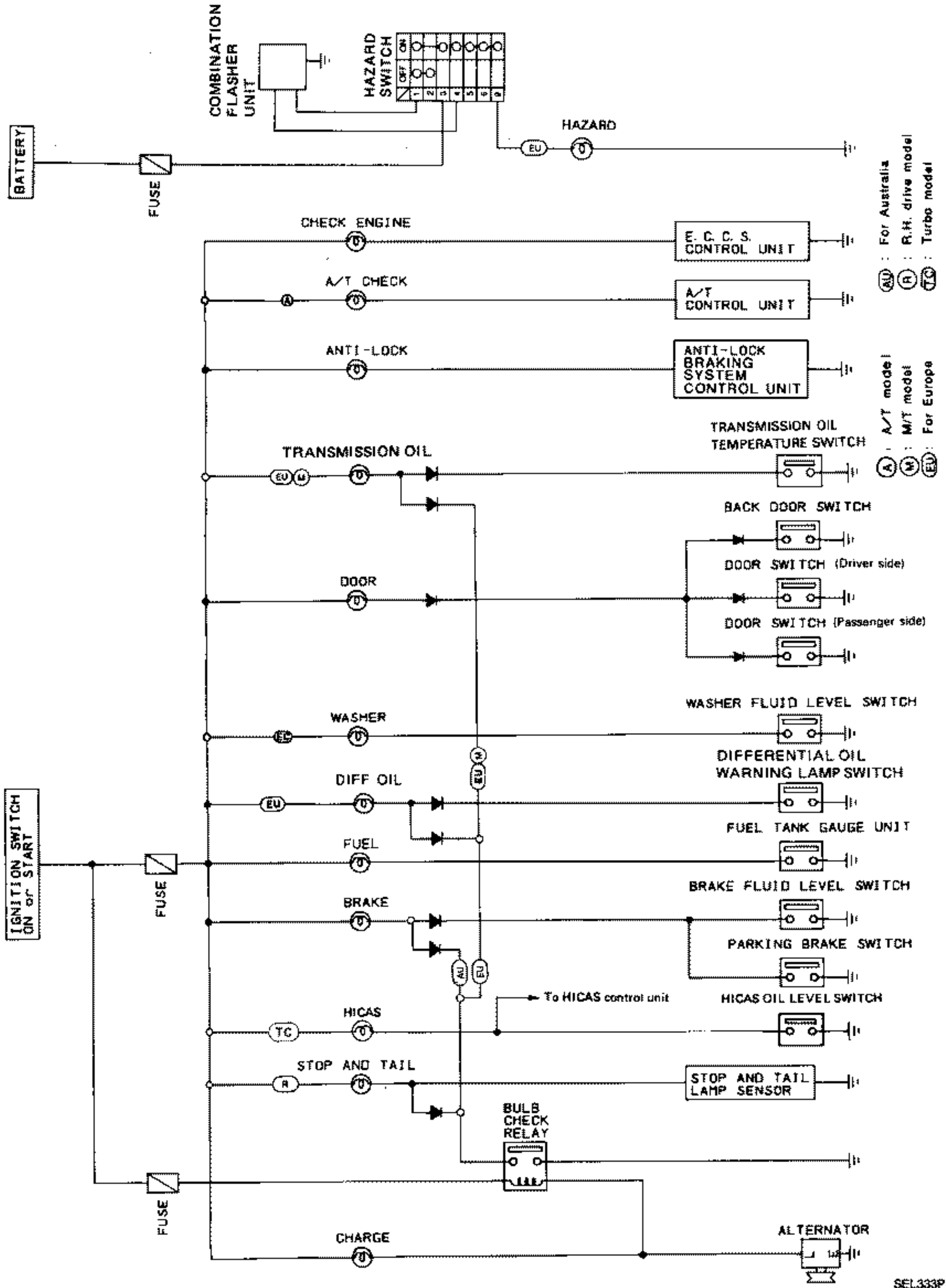


Speed Sensor Signal Check

1. Remove speed sensor from transmission.
2. Turn speedometer pinion quickly and measure voltage across (a) and (b).

WARNING LAMPS AND CHIME

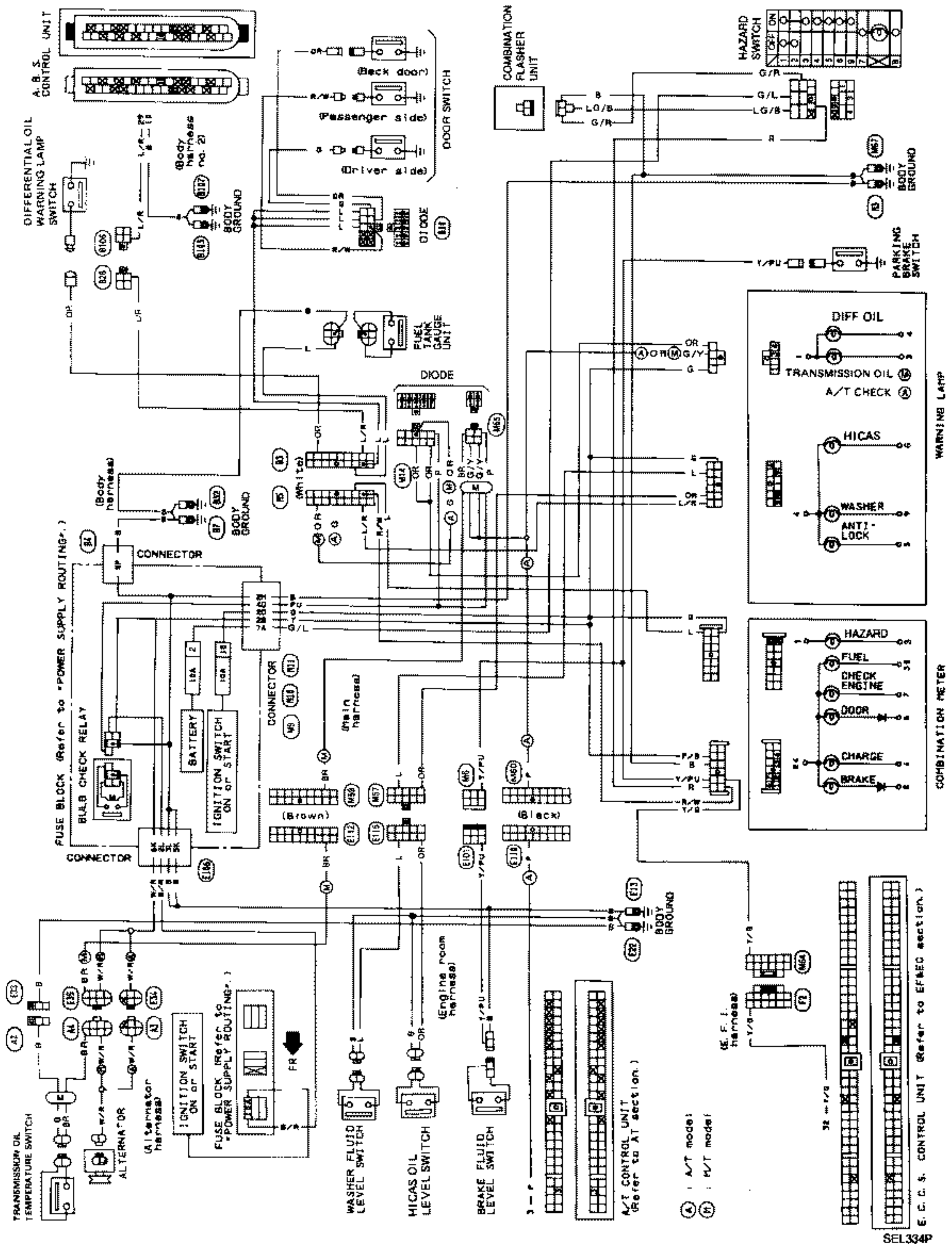
Warning Lamps/Schematic



WARNING LAMPS AND CHIME

Warning Lamps/Wiring Diagram

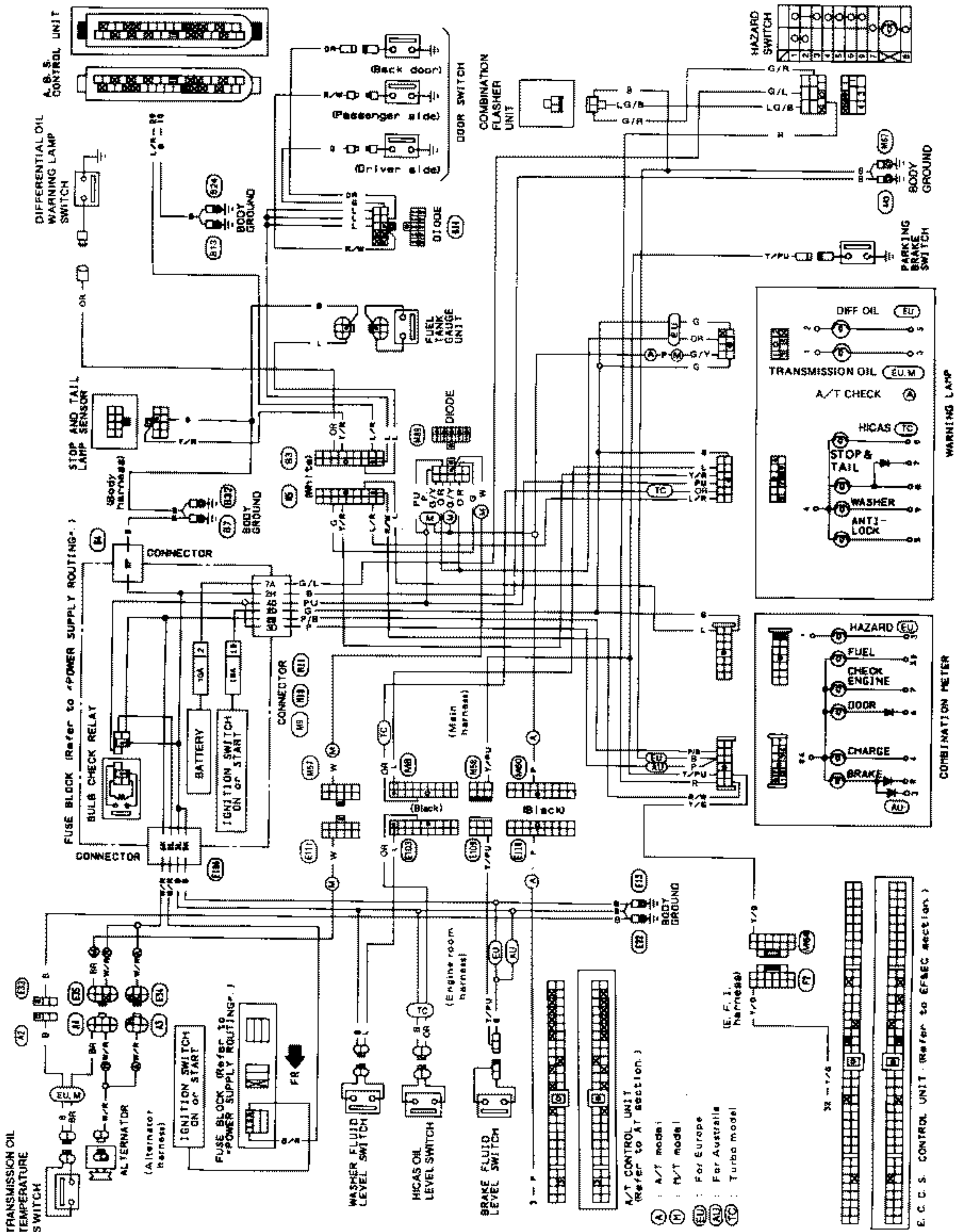
L.H. DRIVE MODELS



WARNING LAMPS AND CHIME

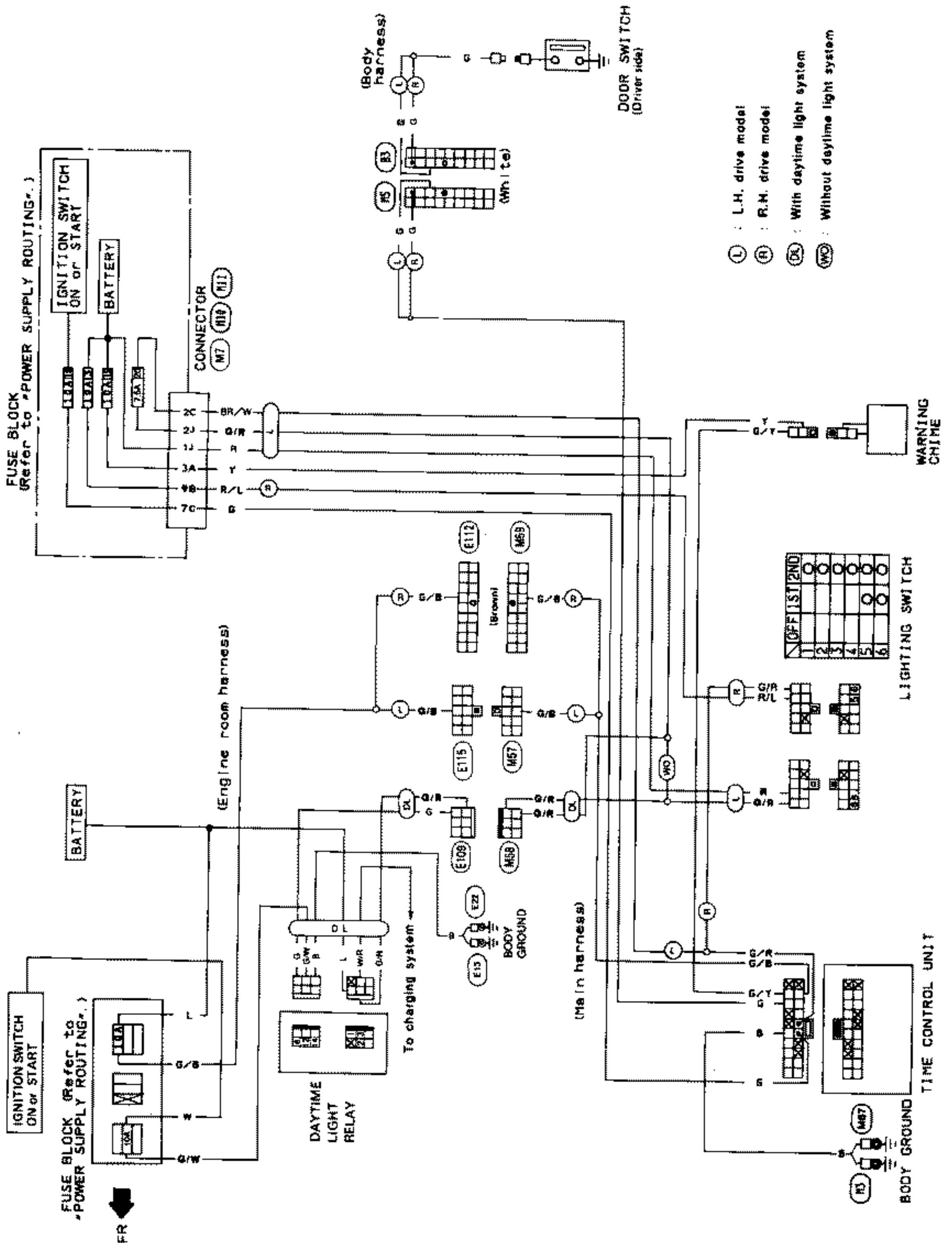
Warning Lamps/Wiring Diagram (Cont'd)

R.H. DRIVE MODELS

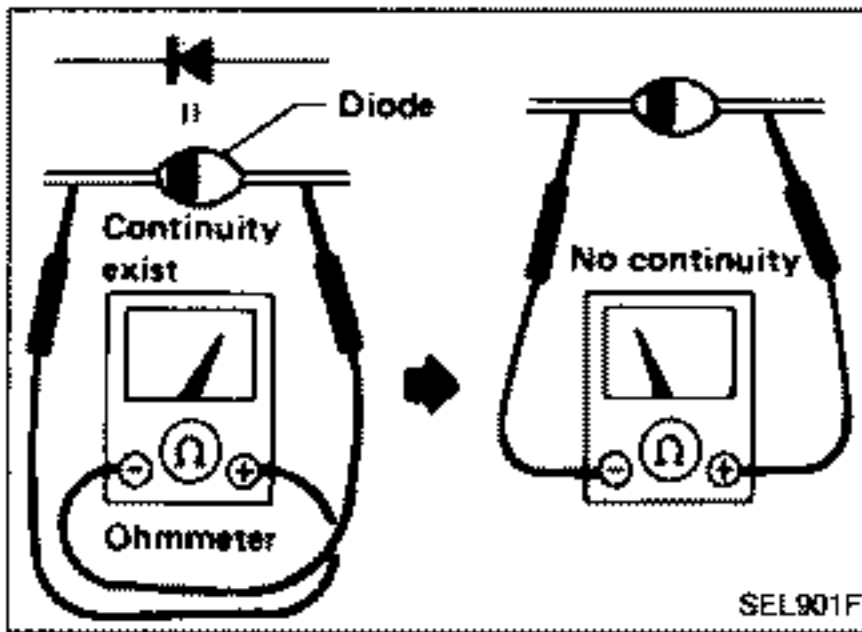


WARNING LAMPS AND CHIME

Warning Chime/Wiring Diagram

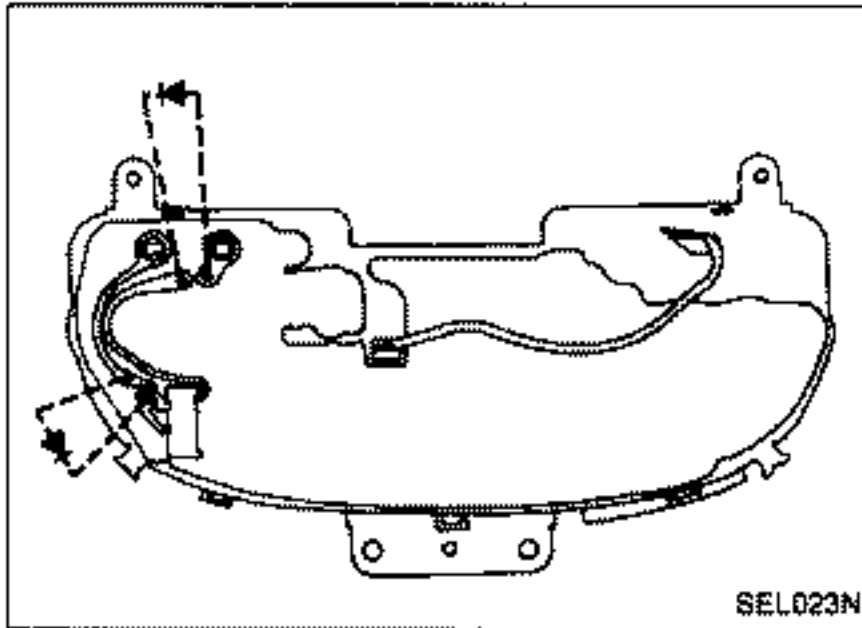


WARNING LAMPS AND CHIME

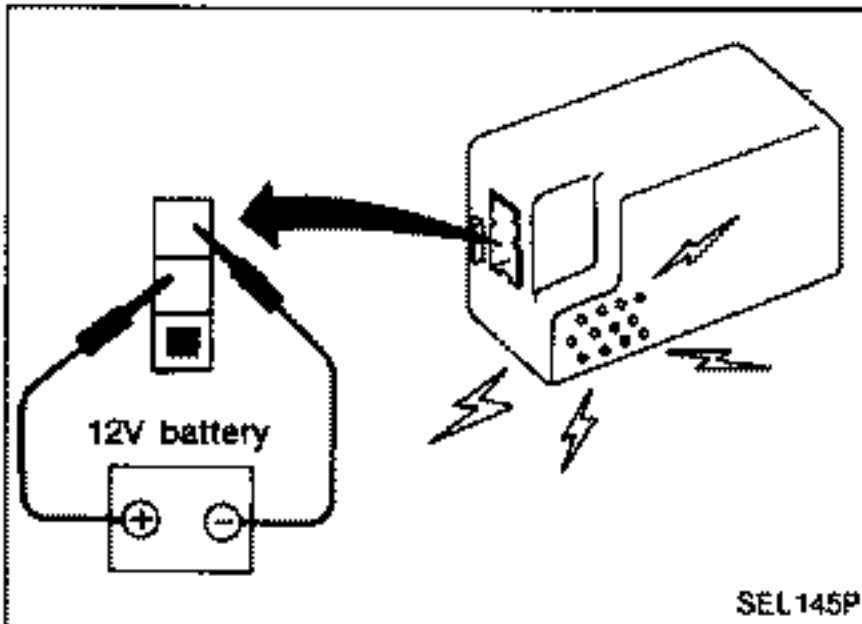


Diode Check

- Check continuity using an ohmmeter.
- Diode is functioning properly if test results are as shown in the figure at left.



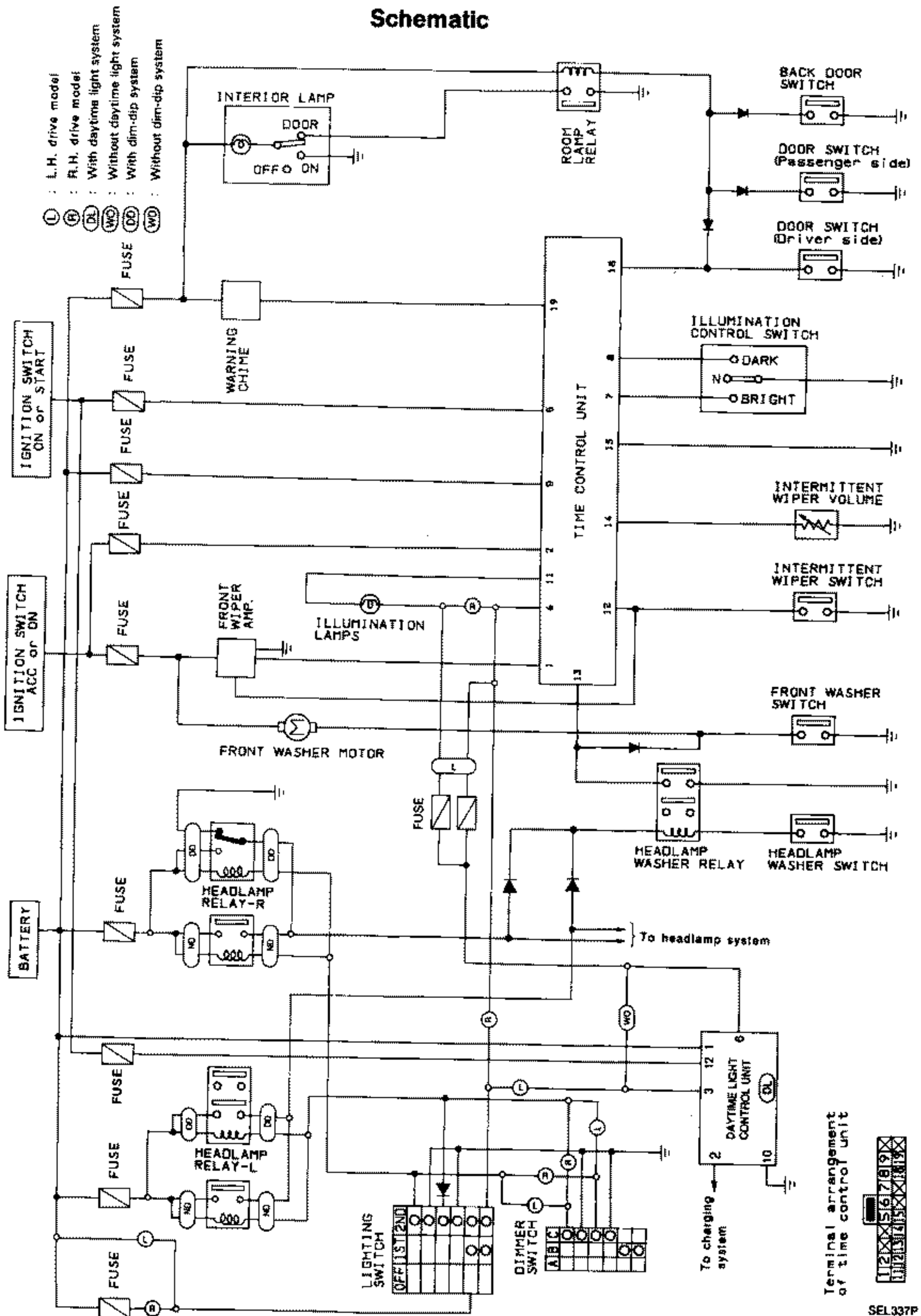
- Diodes for warning lamps are built into the combination meter printed circuit.



Warning Chime Check

TIME CONTROL SYSTEM

Schematic



TIME CONTROL SYSTEM

Description

FUNCTION

- Time control unit has the following functions.

Item	Details of control
1 Intermittent wiper control	Regulates intermittent time from approximately 3 to 23 seconds depending on the intermittent wiper volume setting.
2 Washer and wiper combination control Headlamp washer control	Wiper is operated in conjunction with washer switch. Headlamp washer is operated for about 7 seconds when headlamp washer switch is turned "ON".
3 Illumination control	Regulates brightness of illumination in 16 stages depending on the illumination control switch setting.
4 Light warning chime timer	When driver's door is opened with light switch "ON" and ignition switch "OFF", warning chime sounds.

OPERATING CONDITIONS

Item	Input signal	Power source from battery	Ignition switch	Light switch	Wiper switch "INT"	Washer switch	Driver's side door switch *1	Illumination control switch
		⑨	② or ⑤	⑥	⑫	⑬	⑱	⑦ or ⑧
Intermittent wiper control	①	ON	ACC or ON		ON			
Washer and wiper combination control Headlamp washer control	⑫	ON	ACC or ON			ON		
Illumination control	⑪	ON		ON				ON
Light warning chime timer	⑲	ON	OFF or ACC	ON			ON	

*1: Door switch is turned "ON" when door is opened.

Trouble-diagnosis

Symptom	DIAGNOSTIC PROCEDURE	
Wiper & washer	Intermittent wiper does not operate.	1
	Intermittent time of wiper cannot be adjusted.	2
	Wiper and washer activate individually but not in combination.	3
Illumination	Illumination control system does not actuate.	4
Warning	Light warning chime does not activate.	5

TIME CONTROL SYSTEM

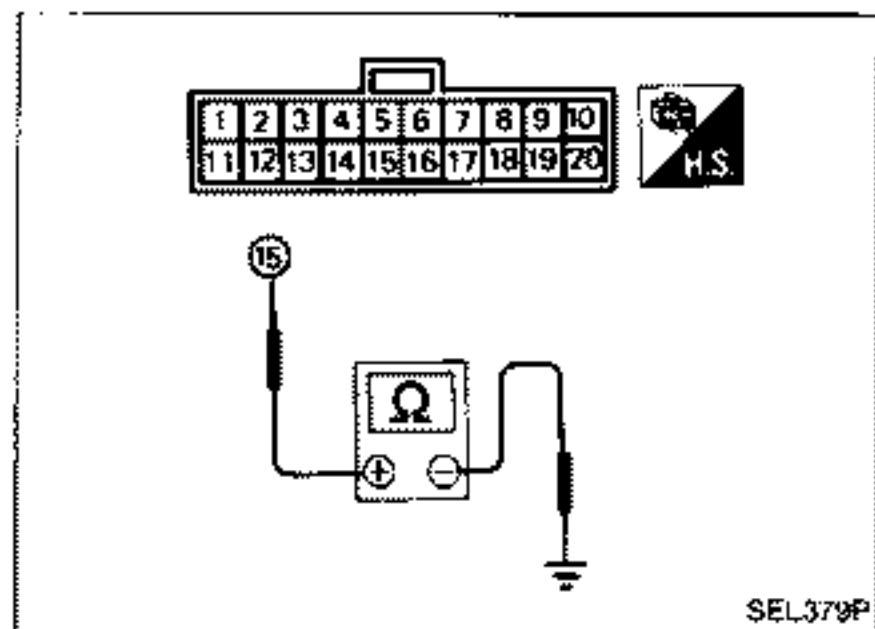
Trouble-diagnosis (Cont'd)

PREPARATION FOR TROUBLE-DIAGNOSIS

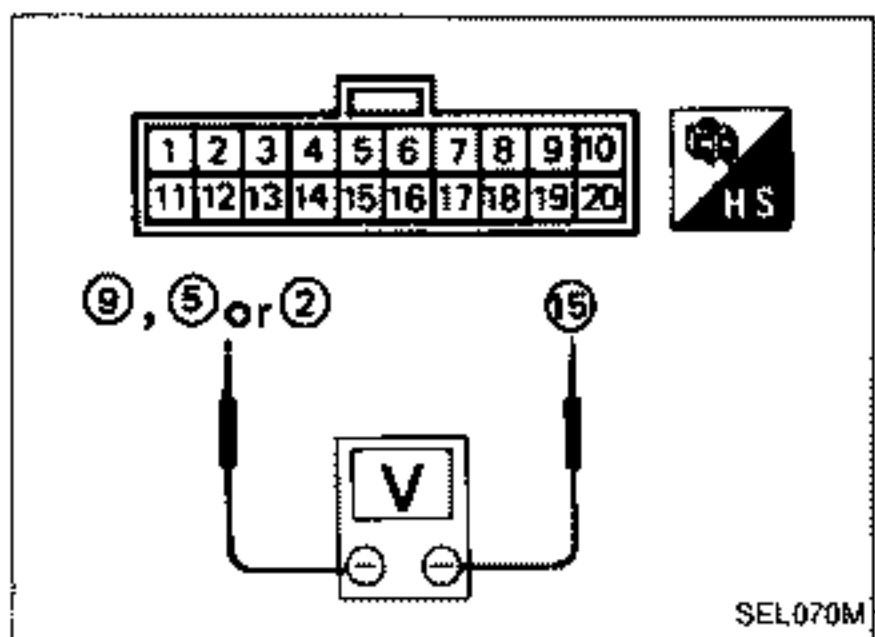
1. Remove lower trim.
2. Remove time control unit with harness connected.

POWER SUPPLY CIRCUIT CHECK

1. Connect ohmmeter from harness side.
2. Check continuity between terminal ⑮ and body ground.



Ohmmeter terminals		Continuity
(+)	(-)	
⑮	Body ground	Yes



3. Connect voltmeter from harness side.
4. Measure voltage across terminal ⑮ and terminals ②, ⑤ or ⑨.

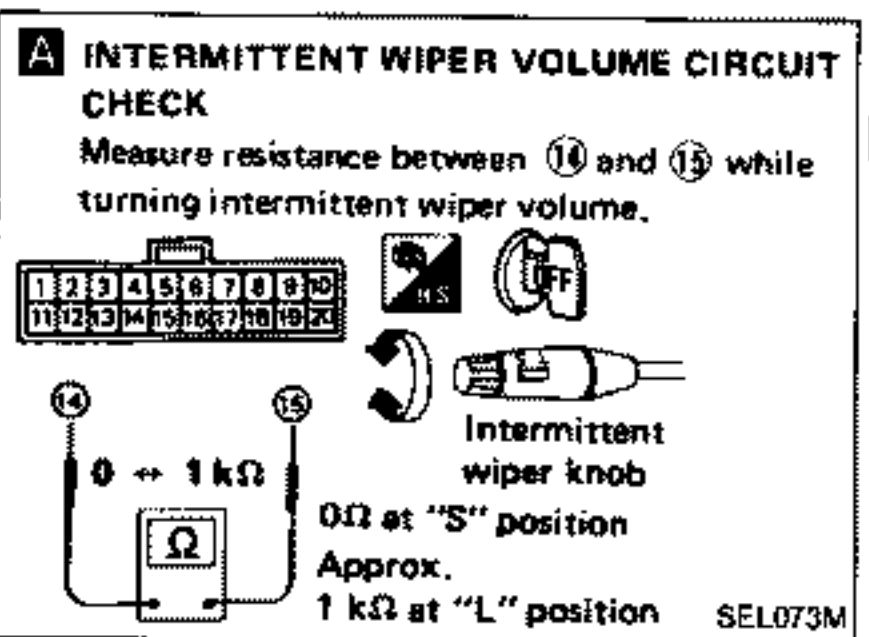
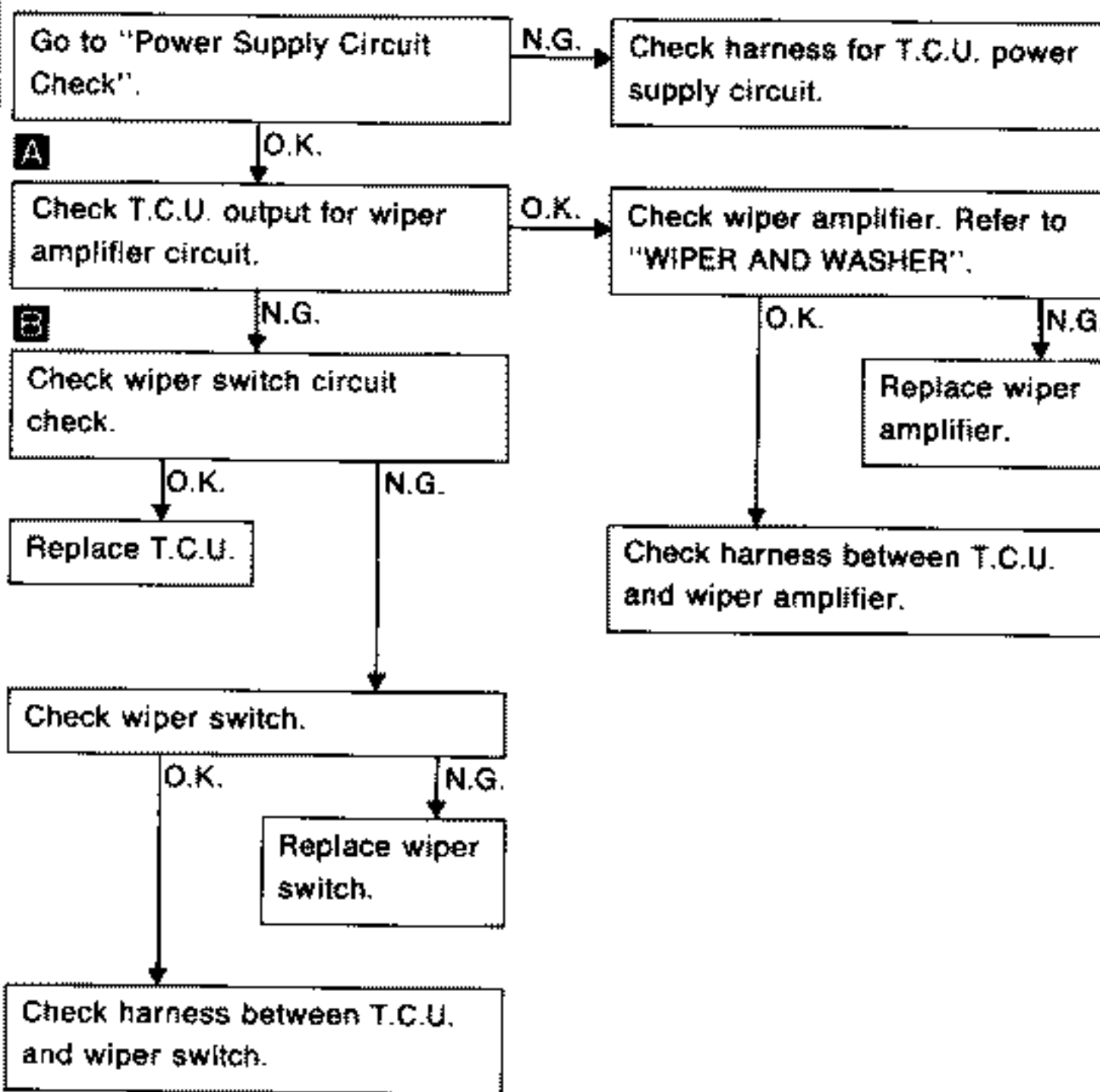
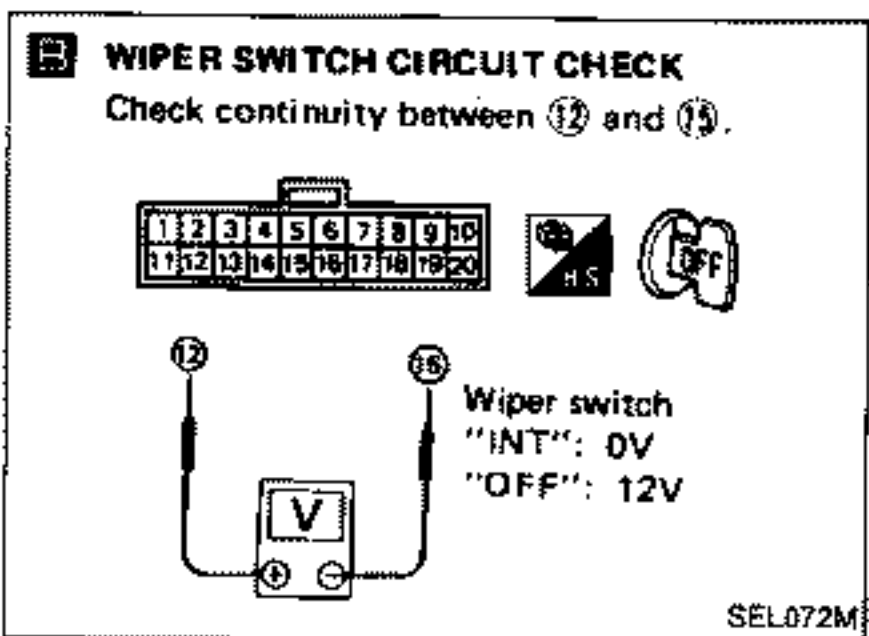
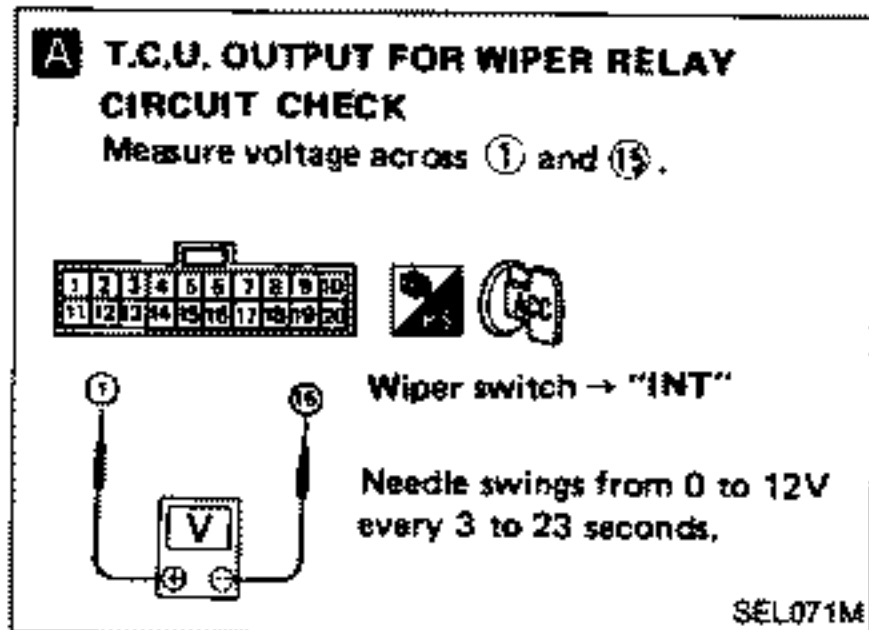
Voltmeter terminals		Ignition switch position		
(+)	(-)	OFF	ACC	ON
⑨	⑮	Approx. 12V	Approx. 12V	Approx. 12V
⑤	⑮	0V	0V	Approx. 12V
②	⑮	0V	Approx. 12V	Approx. 12V

TIME CONTROL SYSTEM

Trouble-diagnosis (Cont'd)

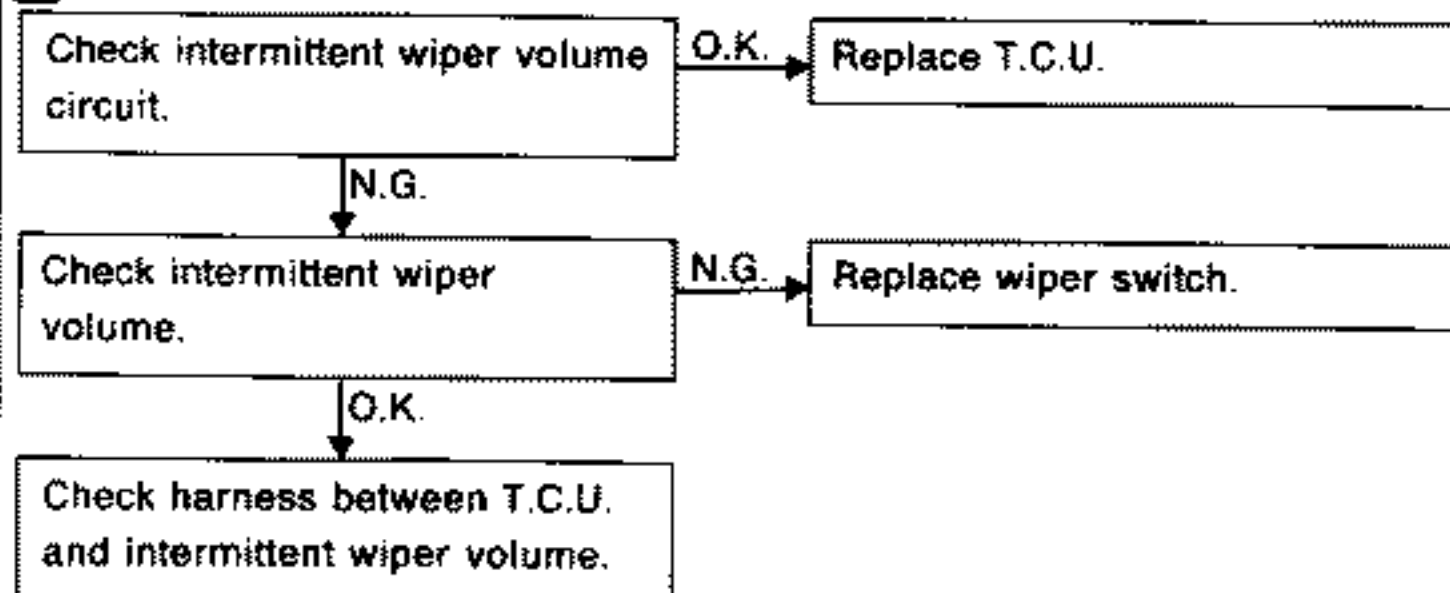
DIAGNOSTIC PROCEDURE-1

Intermittent wiper does not operate.



DIAGNOSTIC PROCEDURE-2

Intermittent time of wiper cannot be adjusted.

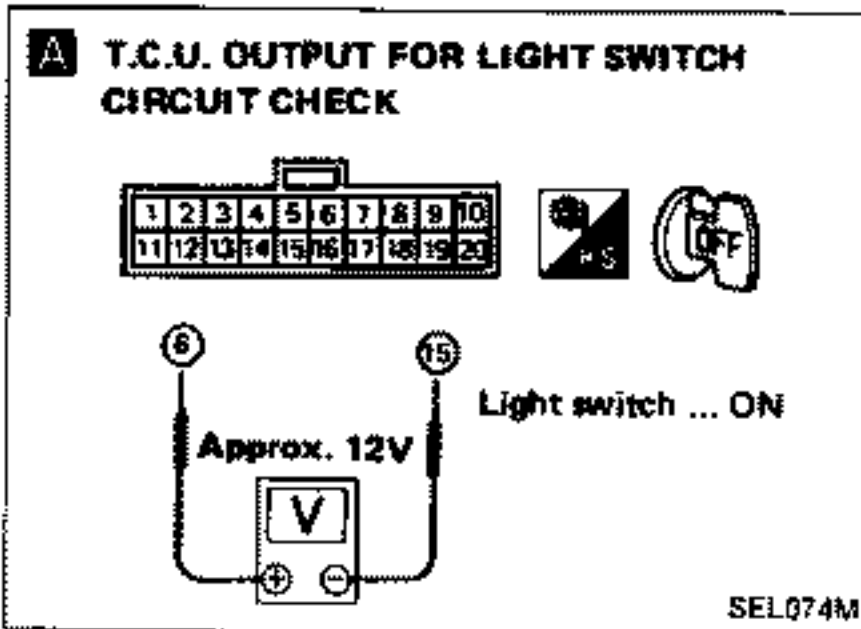
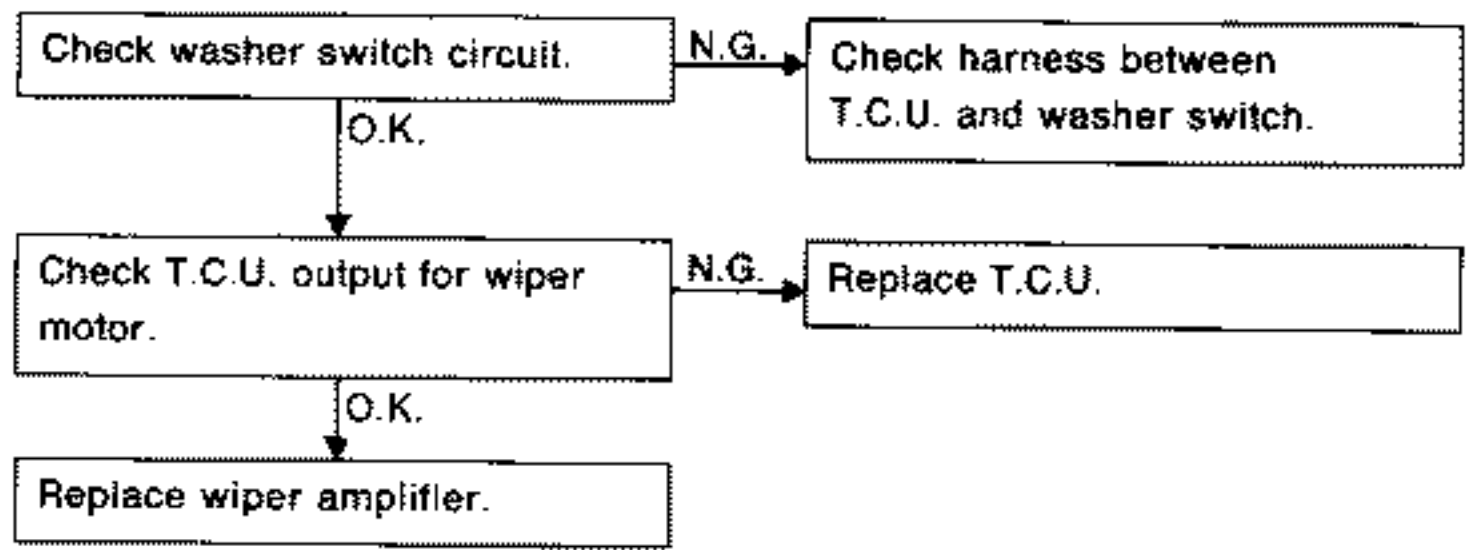


TIME CONTROL SYSTEM

Trouble-diagnosis (Cont'd)

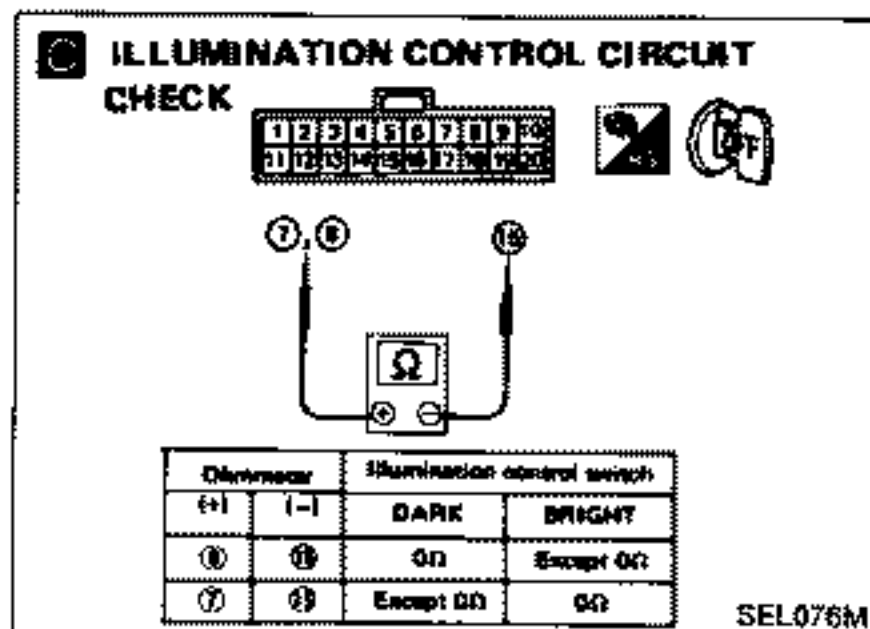
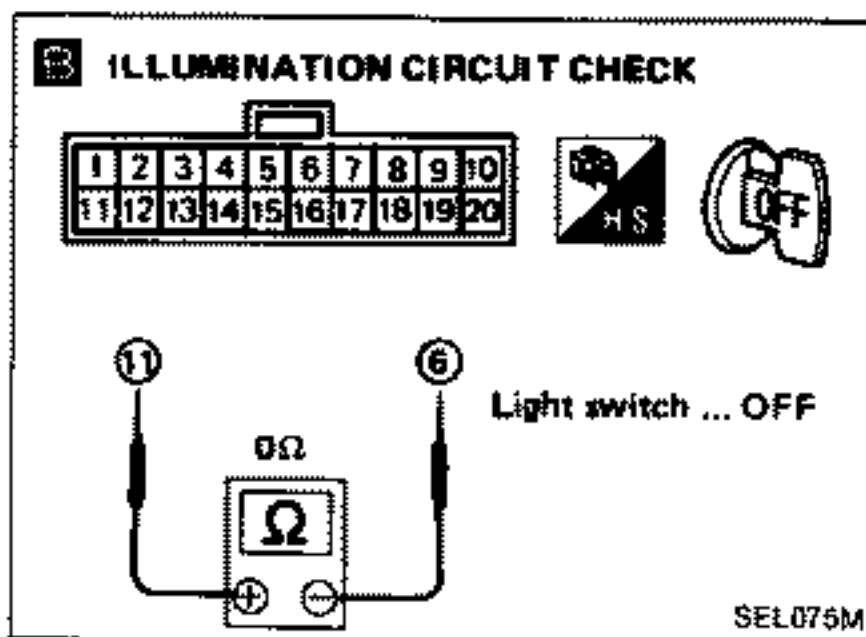
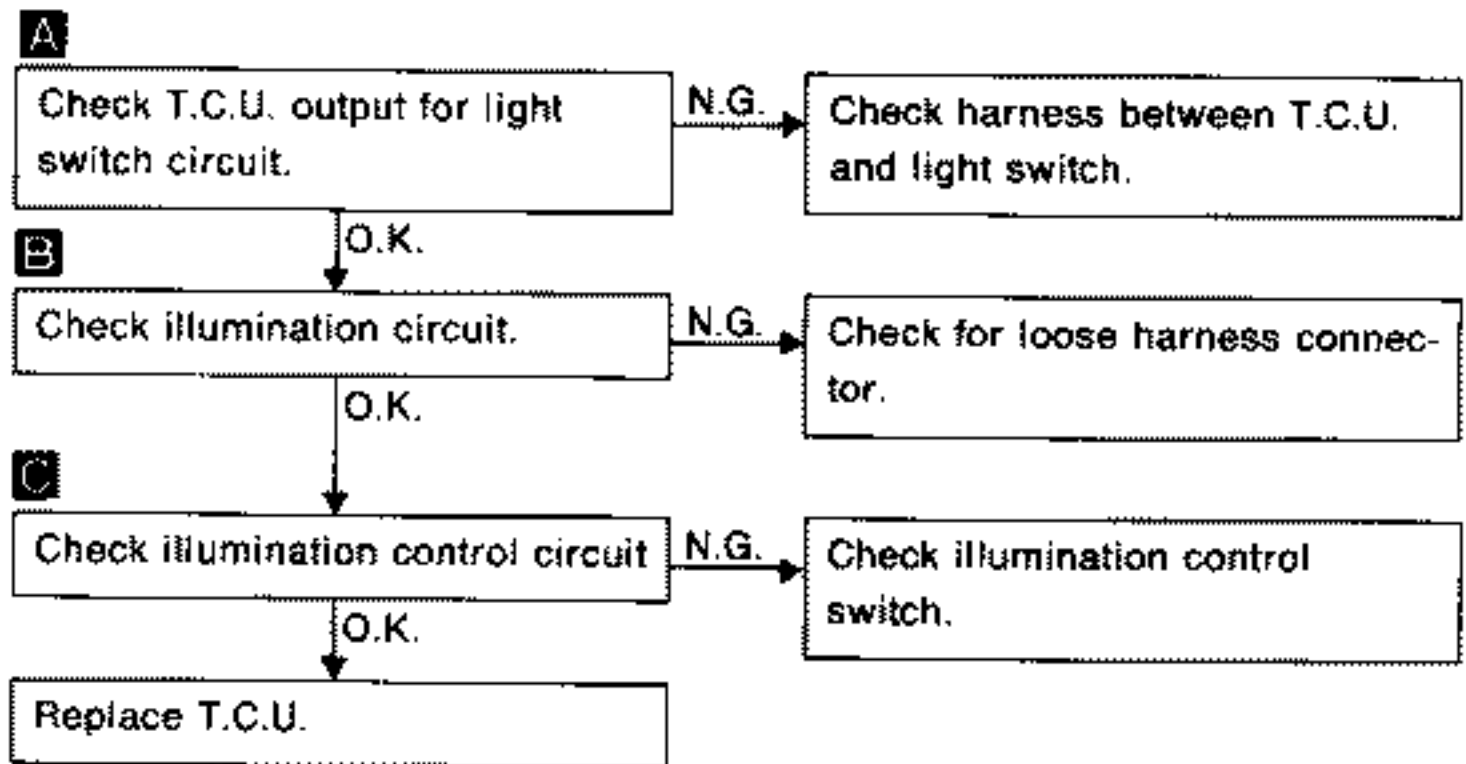
DIAGNOSTIC PROCEDURE-3

Wiper and washer activate individually but not in combination.



DIAGNOSTIC PROCEDURE-4

Illumination control system does not actuate.

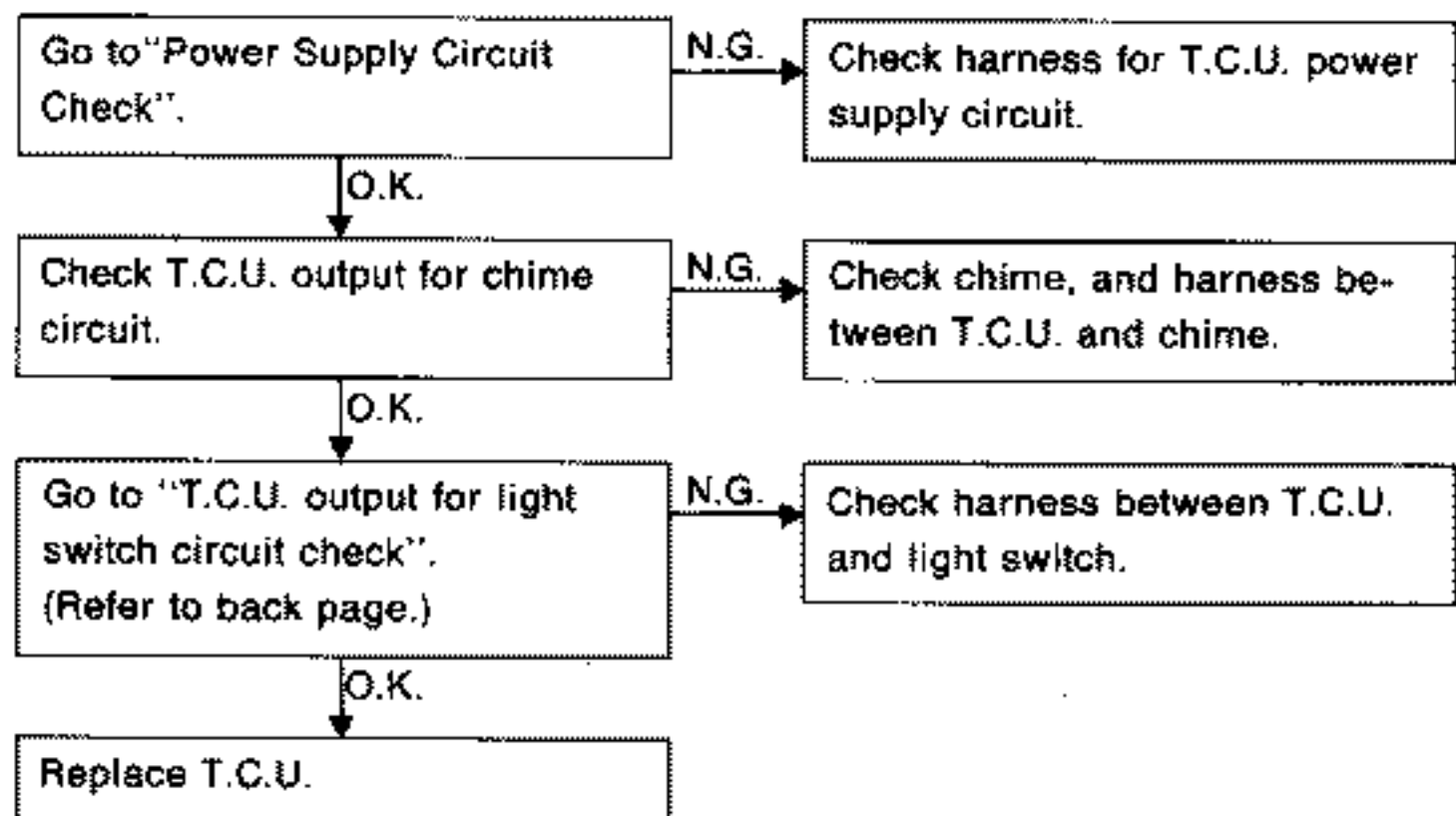


TIME CONTROL SYSTEM

Trouble-diagnosis (Cont'd)

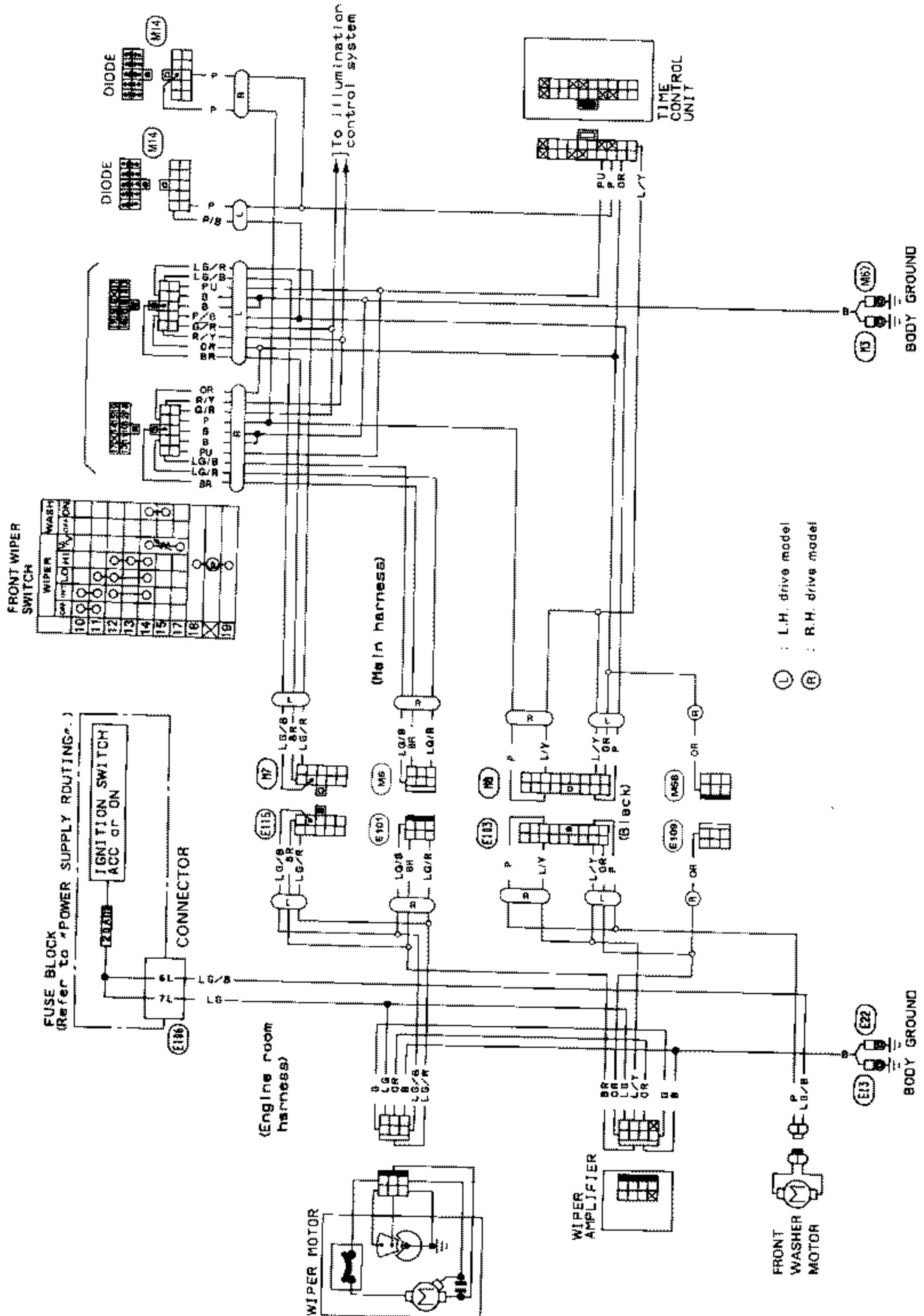
DIAGNOSTIC PROCEDURE-5

Light warning chime does not activate.



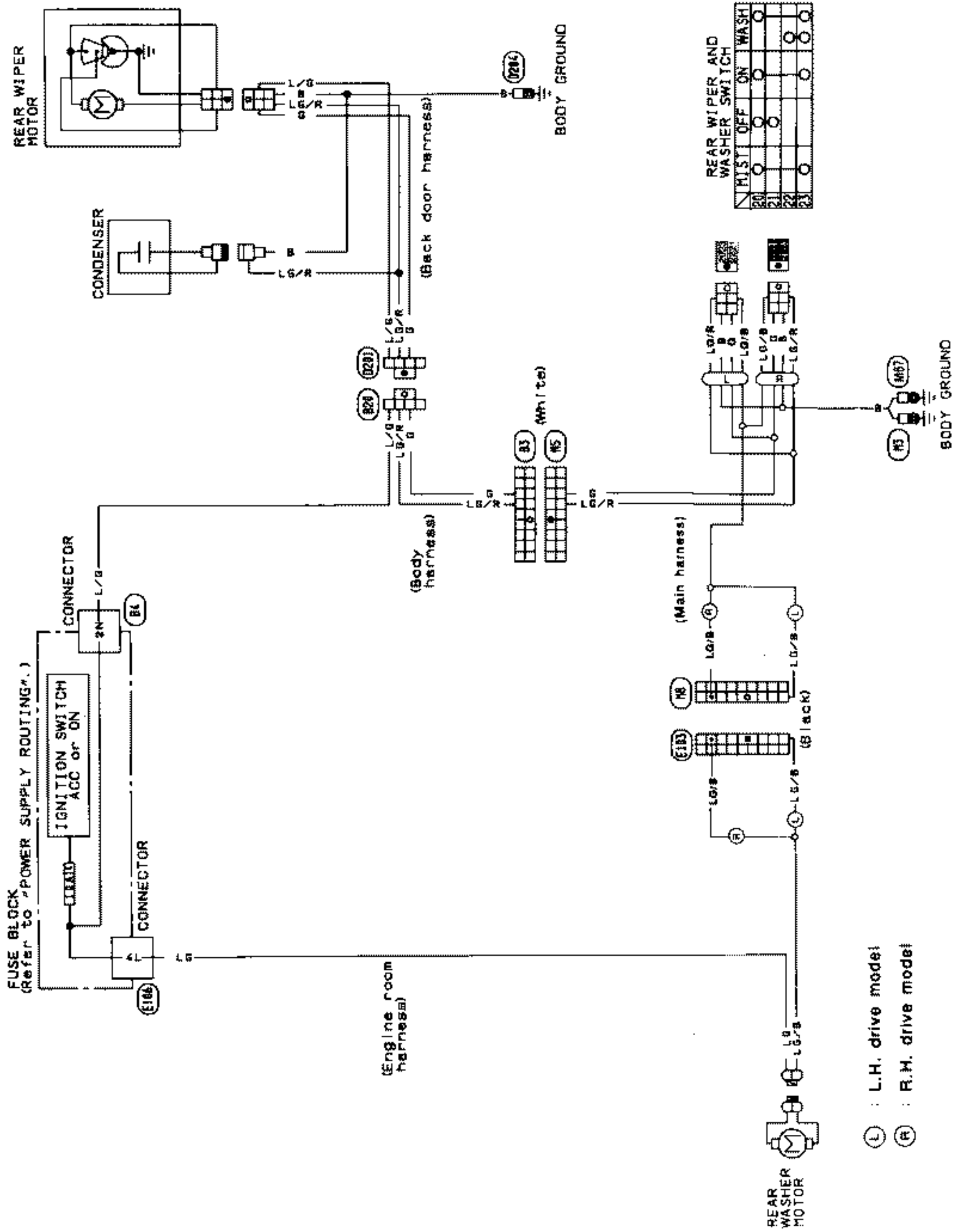
WIPER AND WASHER

Front Wiper and Washer/Wiring Diagram



WIPER AND WASHER

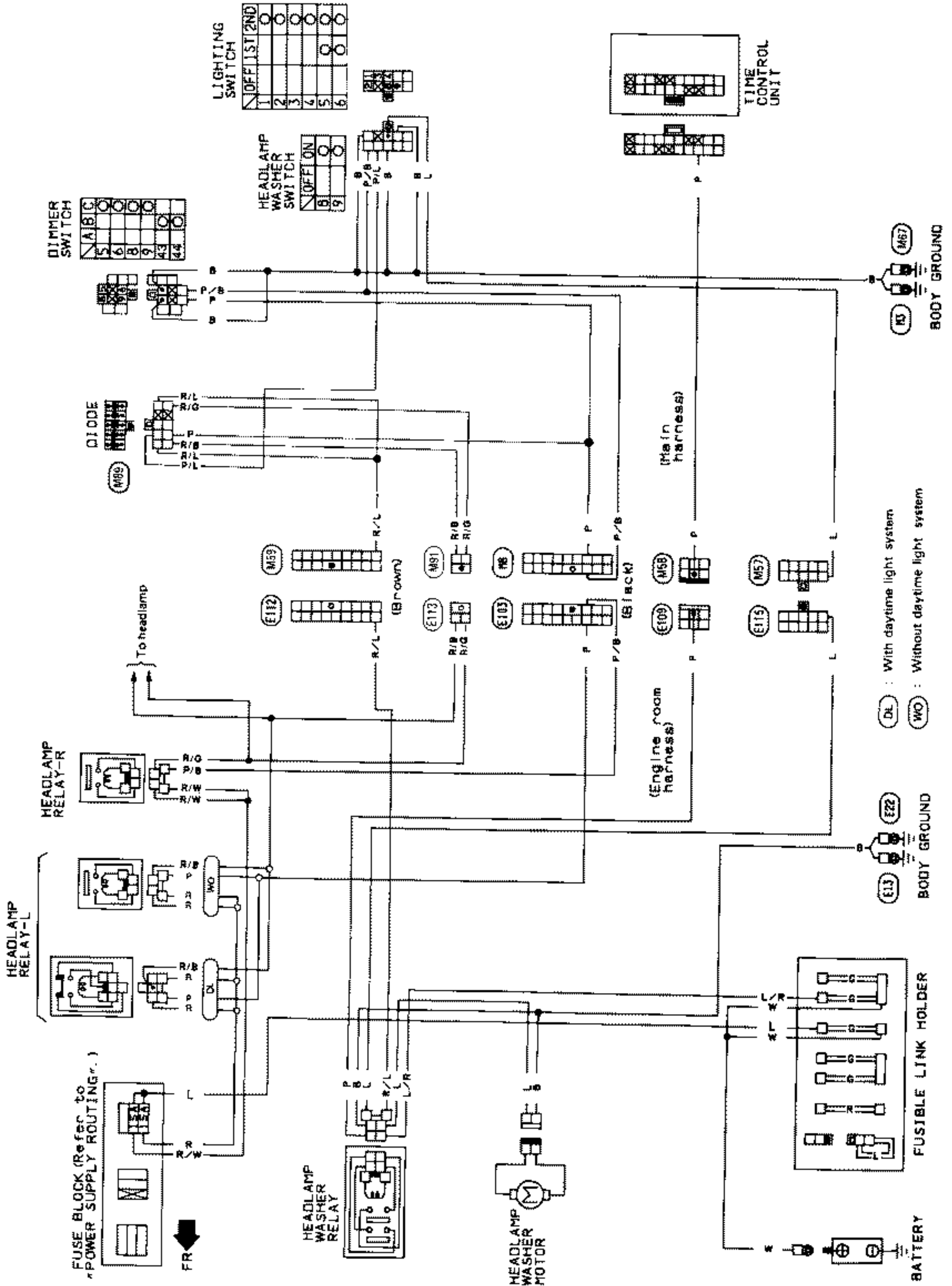
Rear Wiper and Washer/Wiring Diagram



WIPER AND WASHER

Headlamp Washer/Wiring Diagram

L.H. DRIVE MODELS

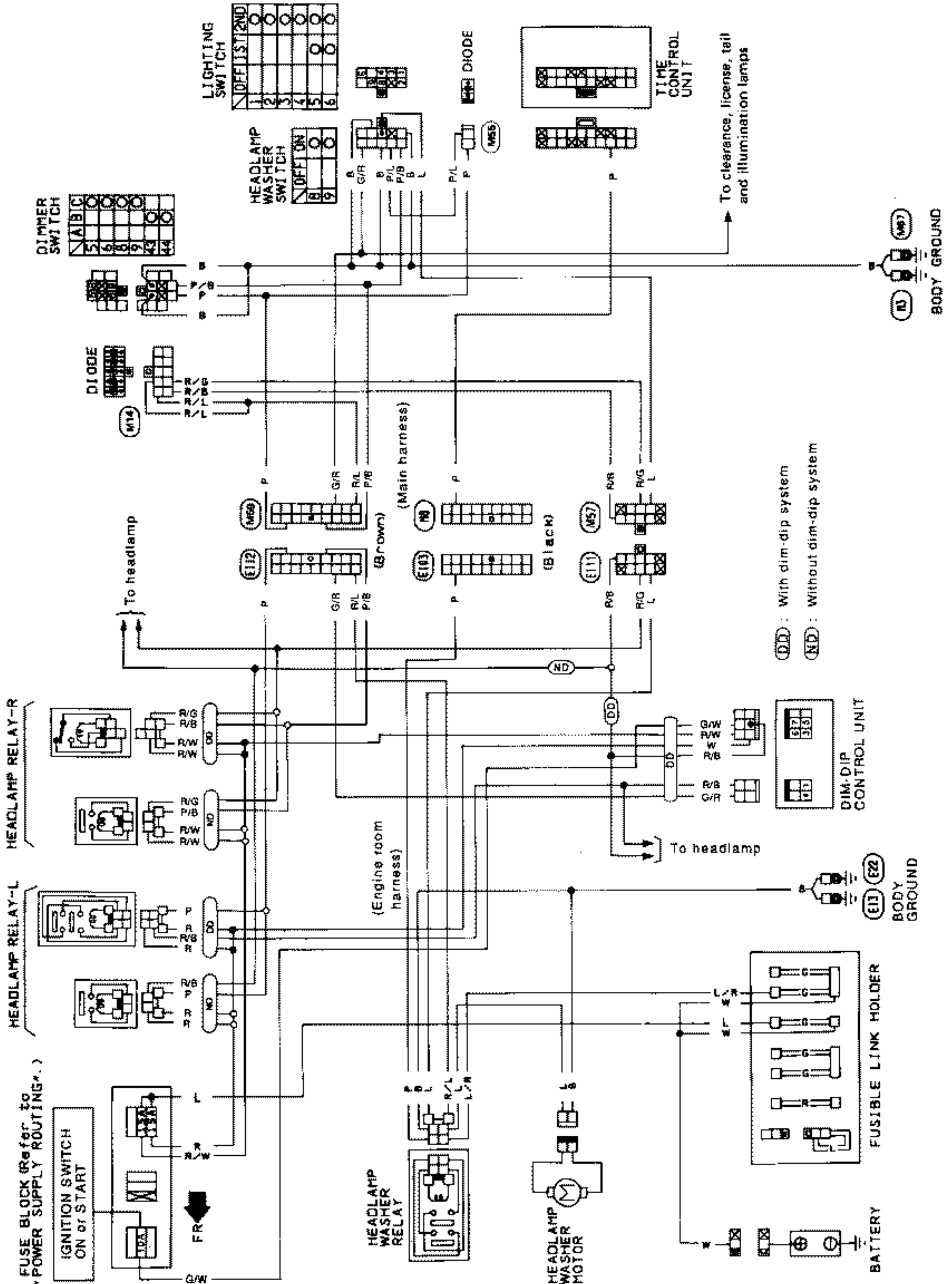


SEL342P

WIPER AND WASHER

Headlamp Washer/Wiring Diagram (Cont'd)

R.H. DRIVE MODELS



WIPER AND WASHER

Installation

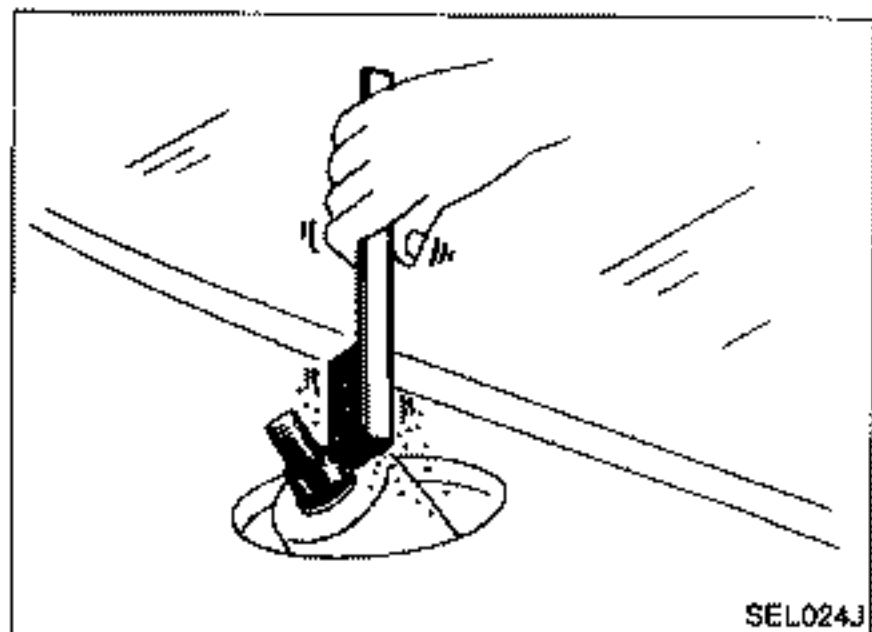
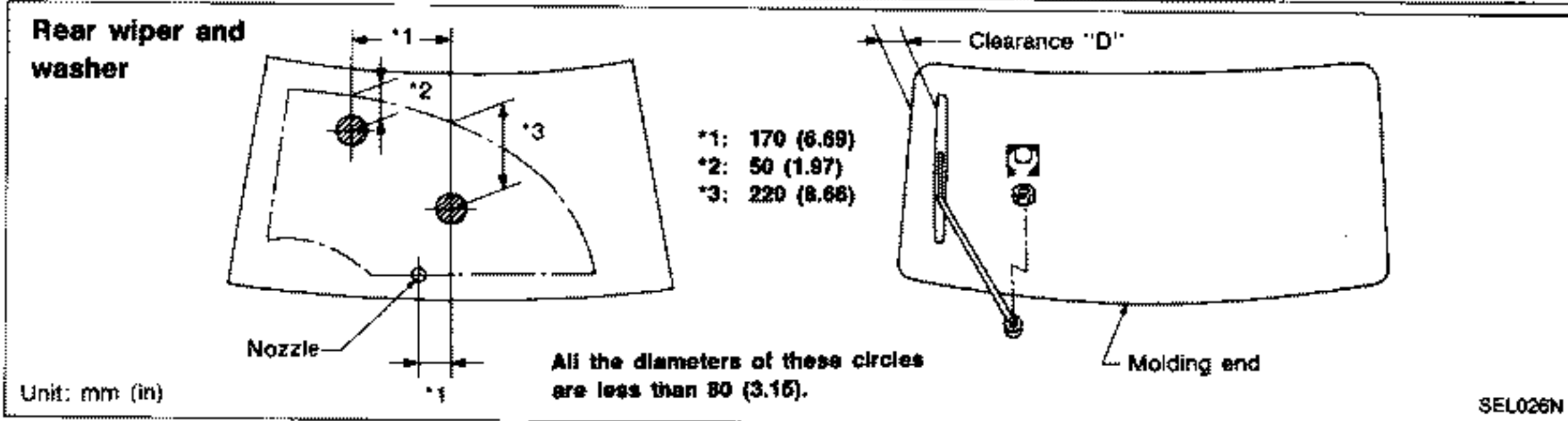
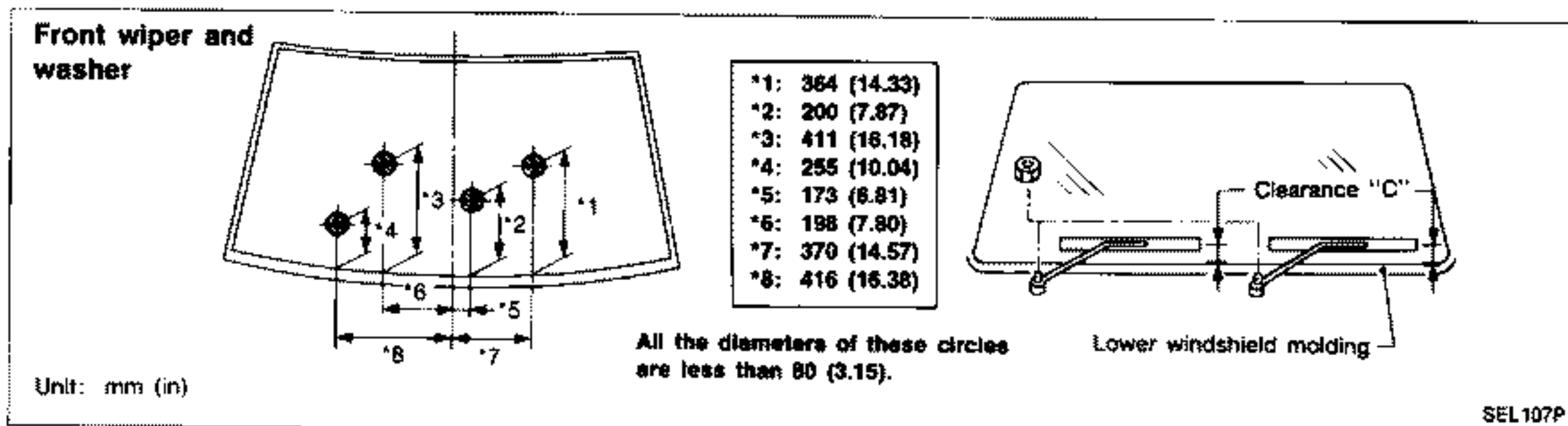
1. Prior to wiper arm installation, turn "ON" wiper switch to operate wiper motor and then turn it "OFF" (Auto Stop).
 2. Lift the blade up and then set it down onto glass surface to set the blade center to clearance "C" or "D" immediately before tightening nut.
 3. Eject washer fluid. Turn "ON" wiper switch to operate wiper motor and then turn it "OFF".
 4. Ensure that wiper blades stop within clearance "C" or "D". Clearance "C": 0 - 10 mm (0 - 0.39 in)
Clearance "D": 73 - 88 mm (2.87 - 3.46 in)
- Tighten windshield wiper arm nuts to specified torque.

Front wiper:

: 26 - 32 N·m (2.7 - 3.3 kg-m, 20 - 24 ft-lb)

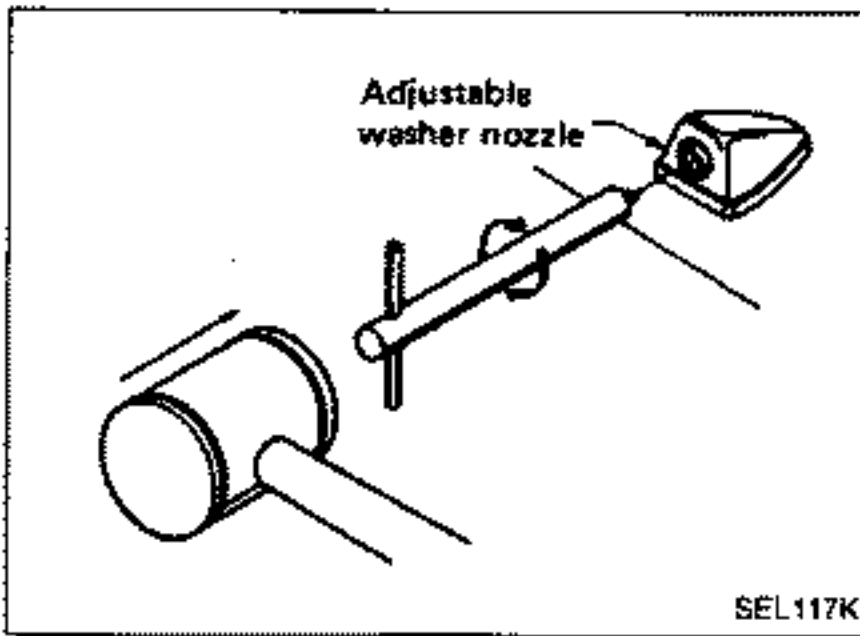
Rear wiper:

: 13 - 18 N·m (1.3 - 1.8 kg-m, 9 - 13 ft-lb)



- Before reinstalling wiper arm, clean up the pivot area as illustrated. This will reduce possibility of wiper arm looseness.

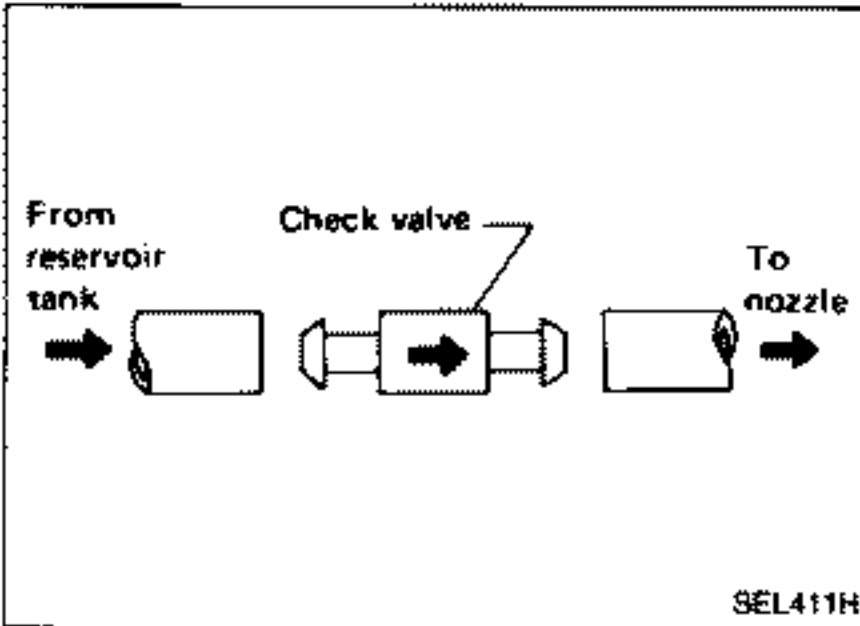
WIPER AND WASHER



Washer Nozzle Adjustment

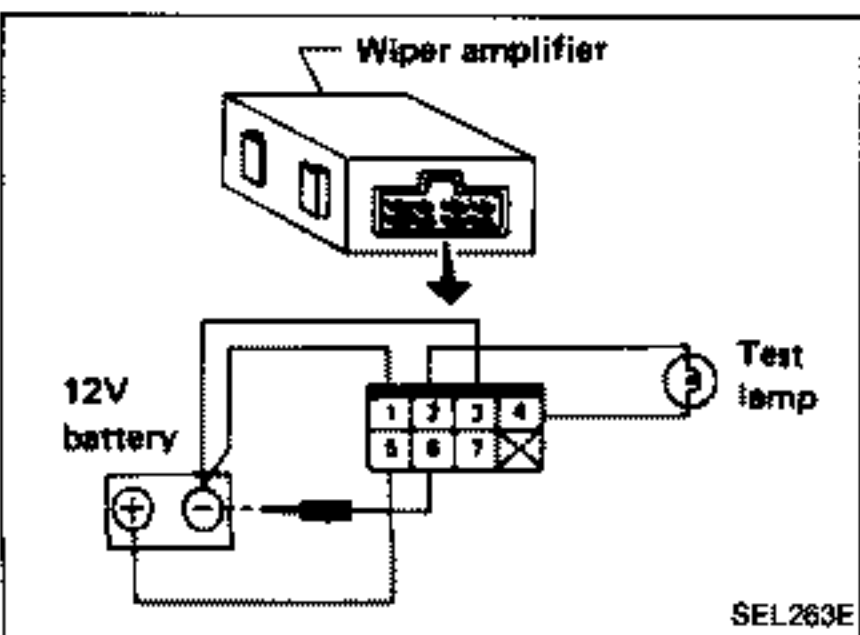
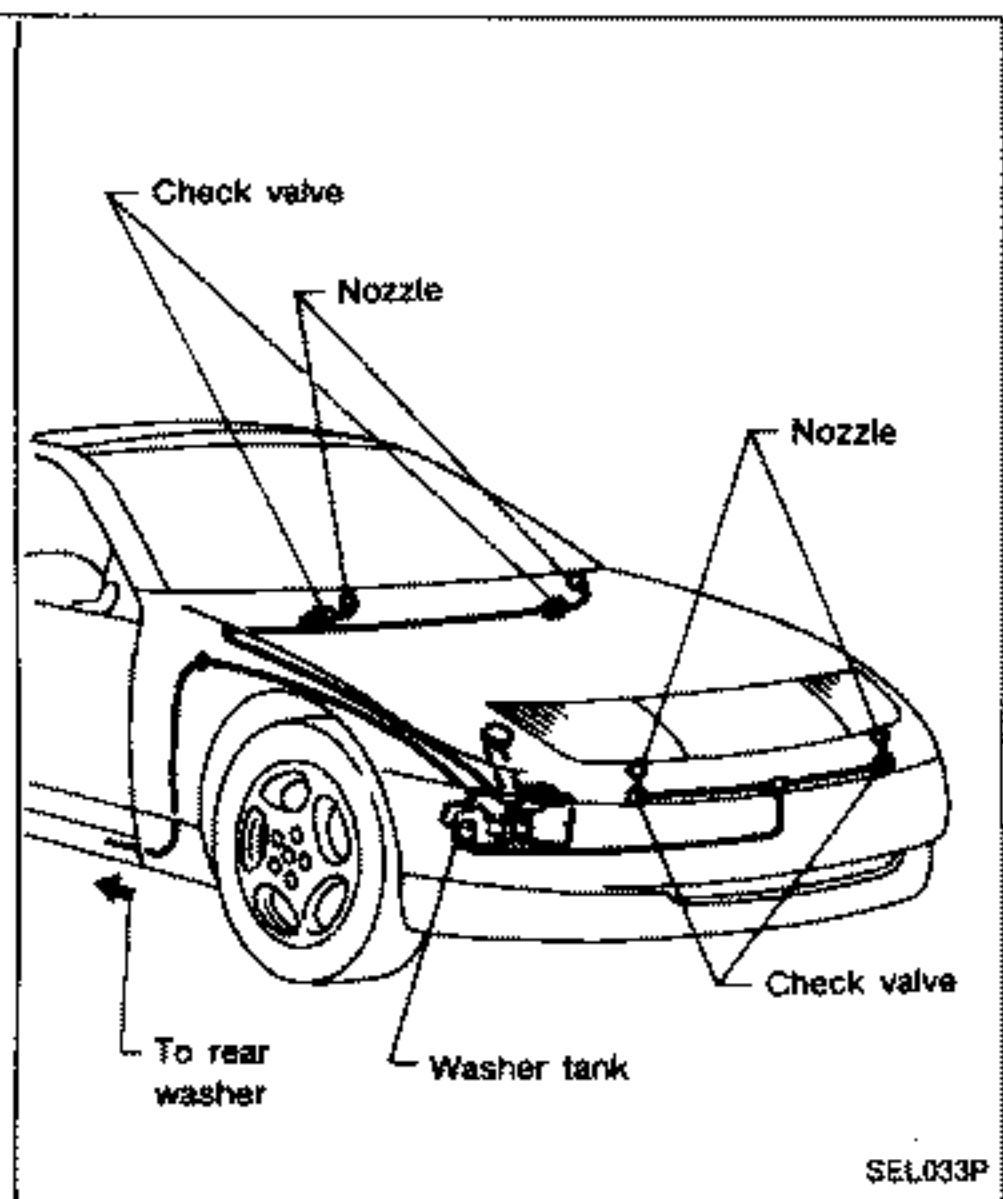
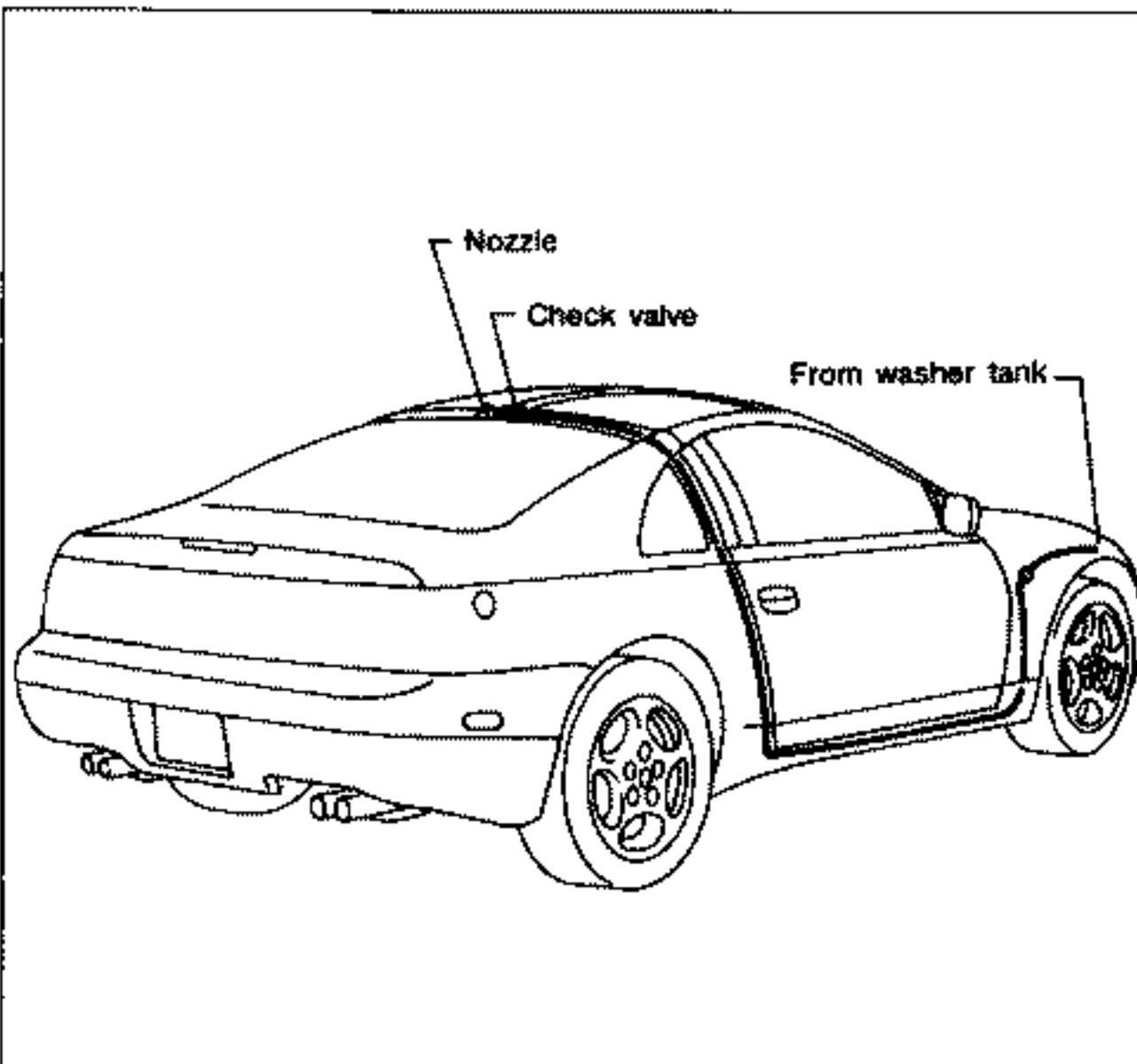
- Adjust washer nozzle with a suitable tool as shown in the figure at left.

Before attempting to turn the nozzle, gently tap the end of the tool to free the nozzle. This will prevent "rounding out" the small female square in the center of the nozzle.



Check Valve

- A check valve is provided in the washer fluid line. Be careful not to connect check valve to washer tube in the wrong direction.

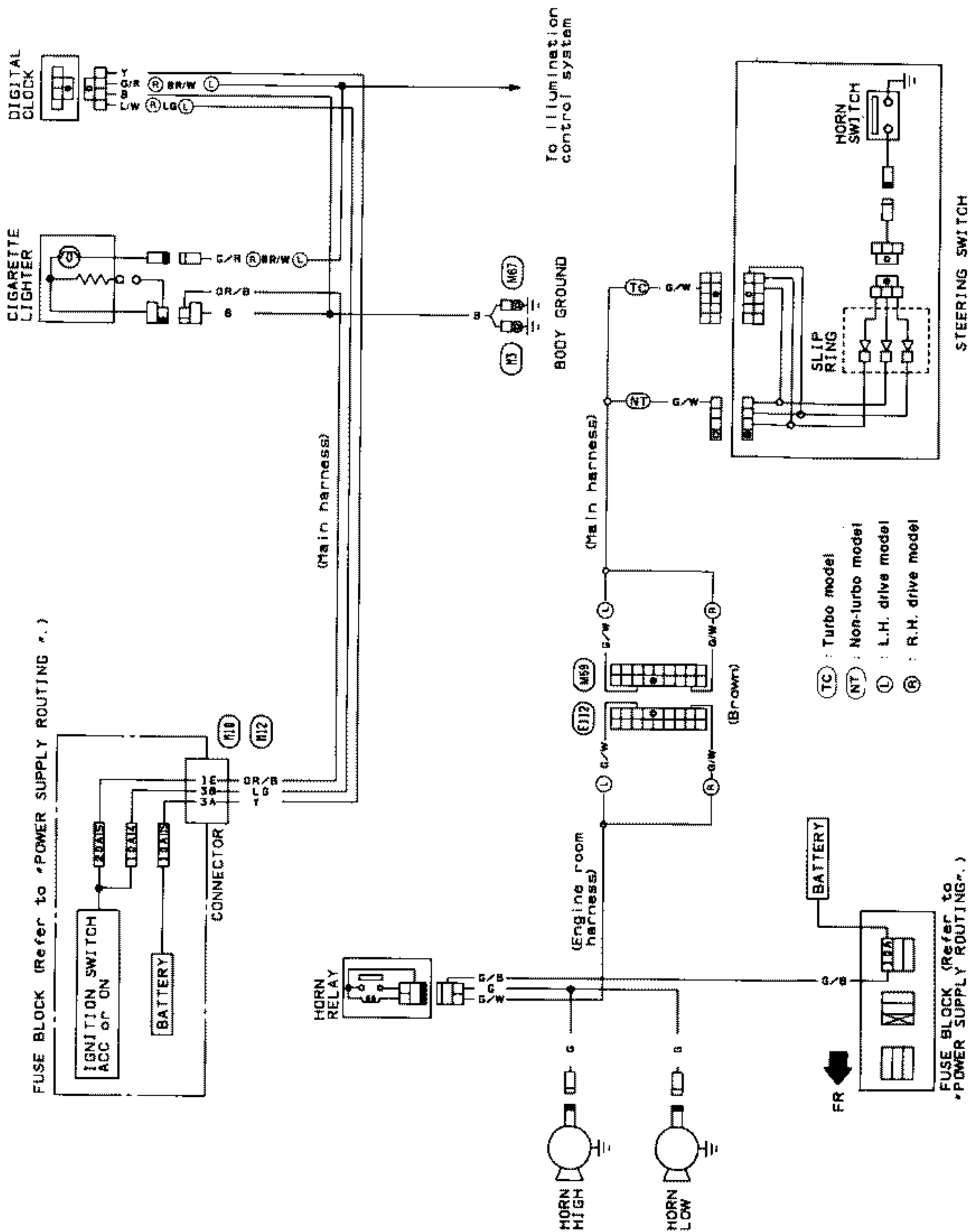


Wiper Amplifier Check

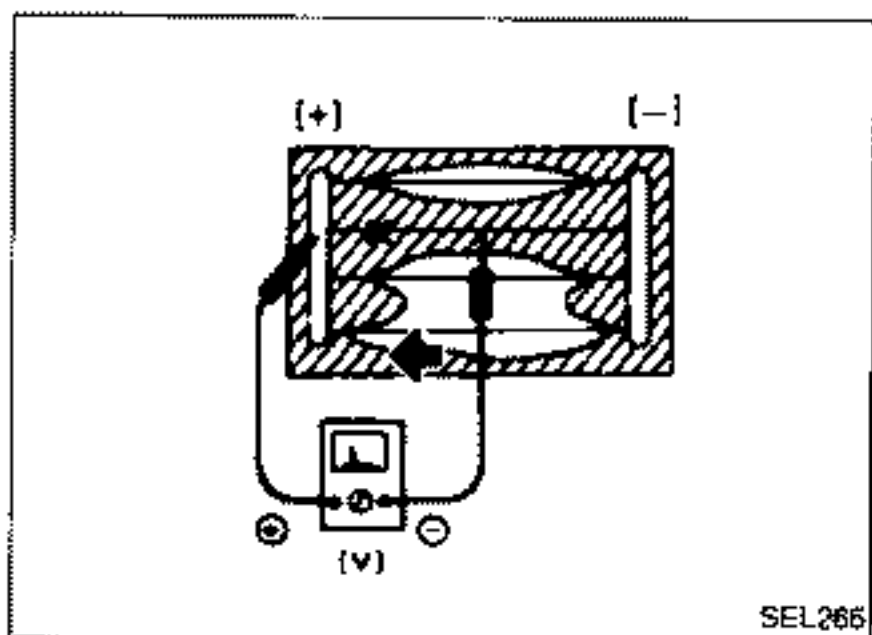
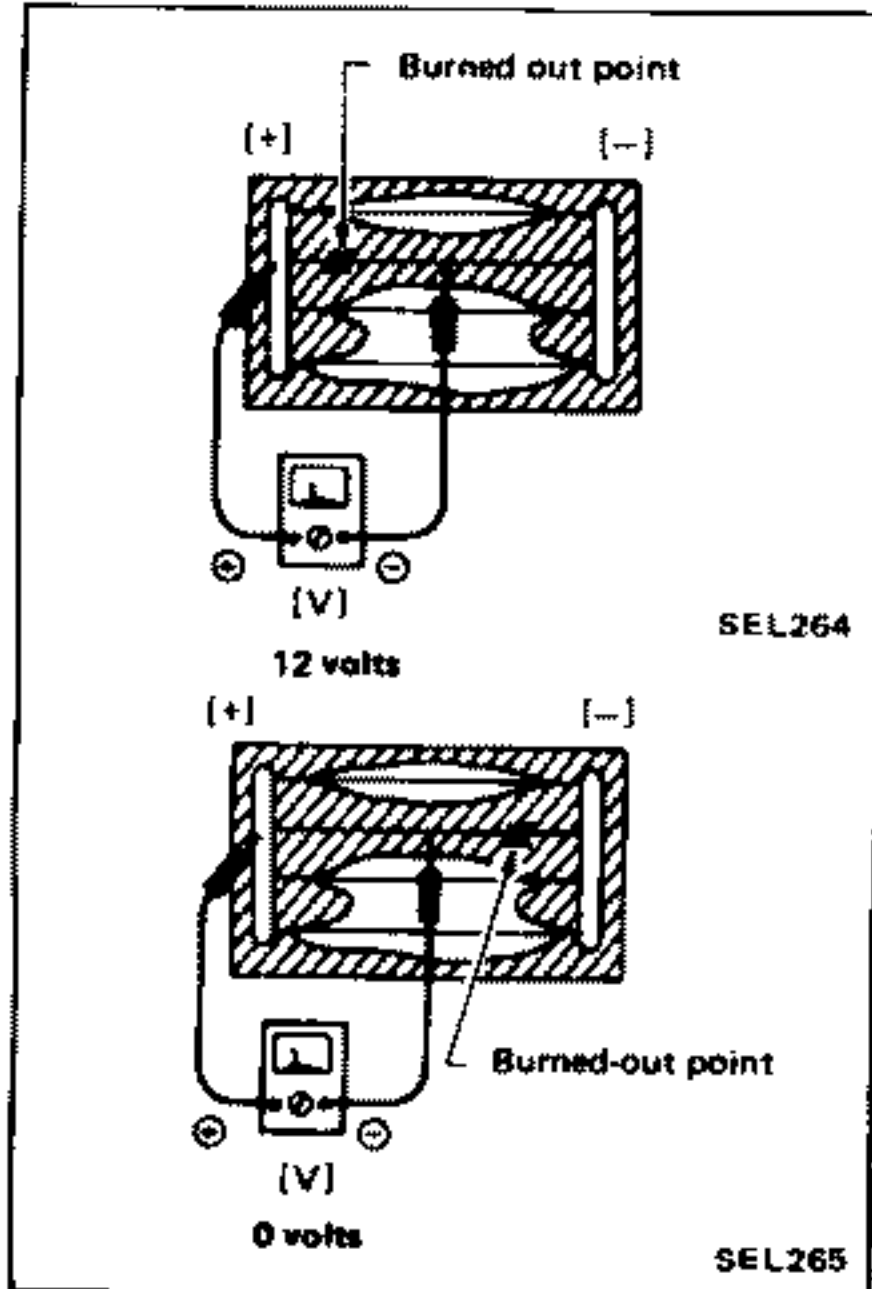
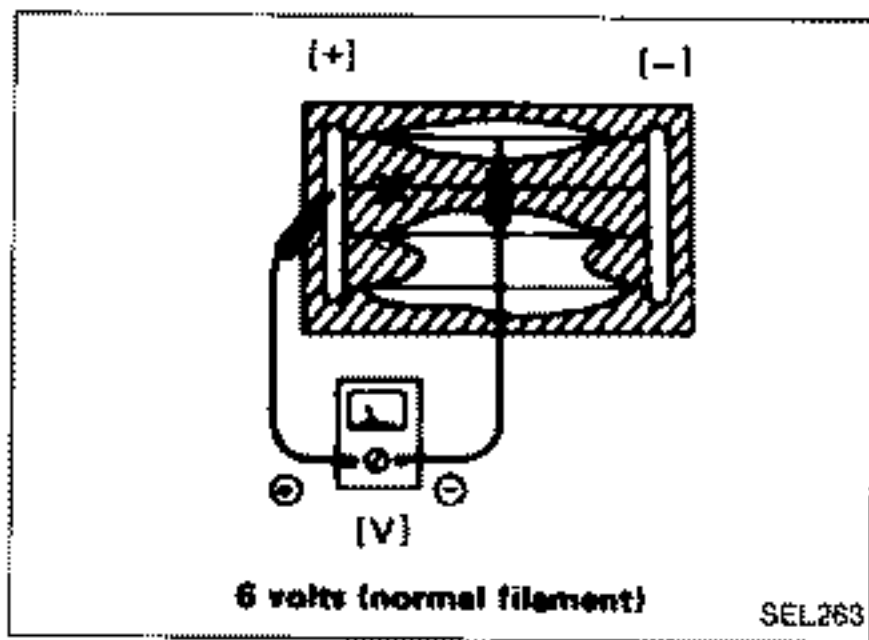
1. Connect as shown in the figure at left.
2. If test lamp comes on when connected to terminal ⑥ and battery ground, wiper relay is normal.

HORN, CIGARETTE LIGHTER, CLOCK

Wiring Diagram



REAR WINDOW DEFOGGER



Filament Check

1. Attach probe circuit tester (in volt range) to middle portion of each filament.
2. If a filament is burned out, circuit tester registers 0 or 12 volts.
3. To locate burned out point, move probe to left and right along filament to determine point where tester needle swings abruptly.

Filament Repair

REPAIR EQUIPMENT

1. Conductive silver composition (Dupont No. 4817 or equivalent)
2. Ruler 30 cm (11.8 in) long
3. Drawing pen
4. Heat gun
5. Alcohol
6. Cloth

REAR WINDOW DEFOGGER

Filament Repair (Cont'd)

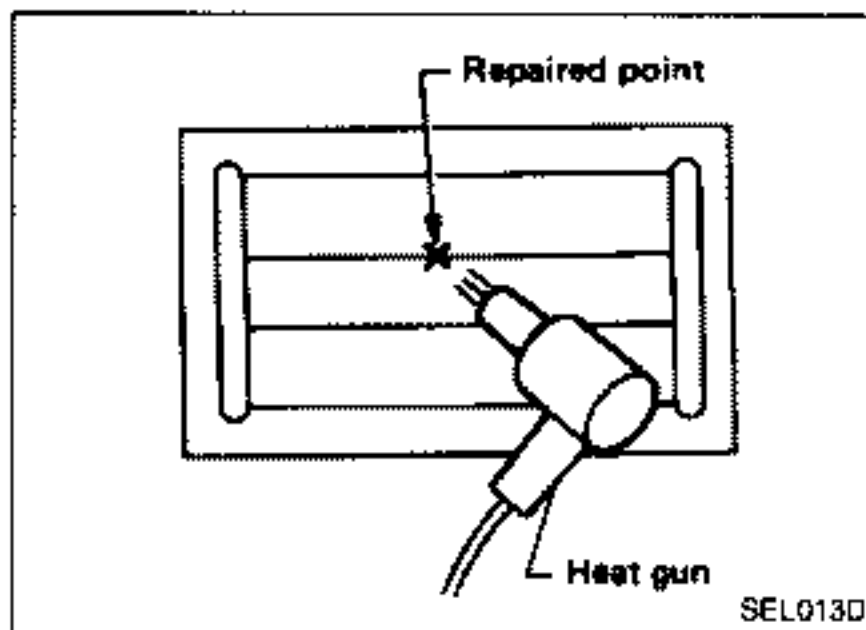
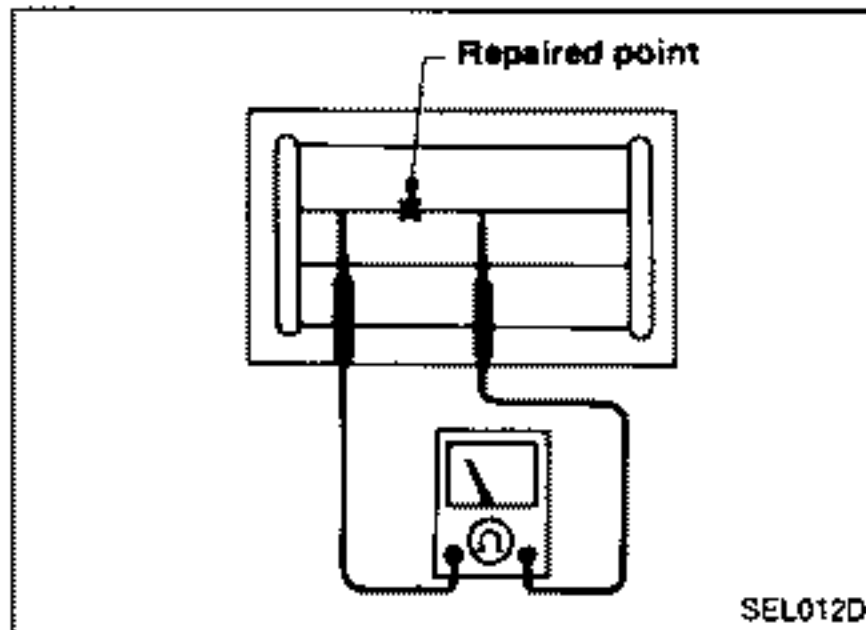
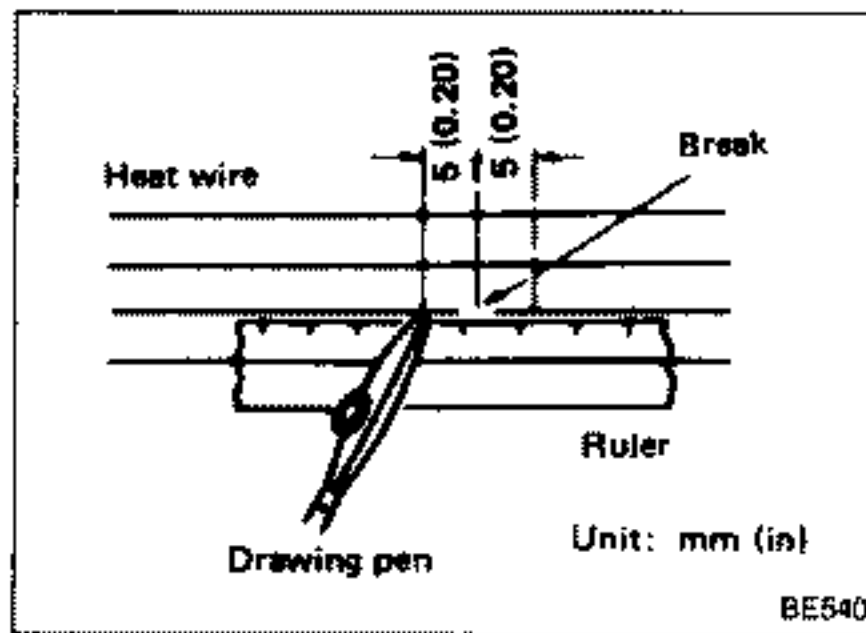
REPAIRING PROCEDURE

1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.

Shake silver composition container before use.

3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited.

Do not touch repaired area while test is being conducted.



5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.

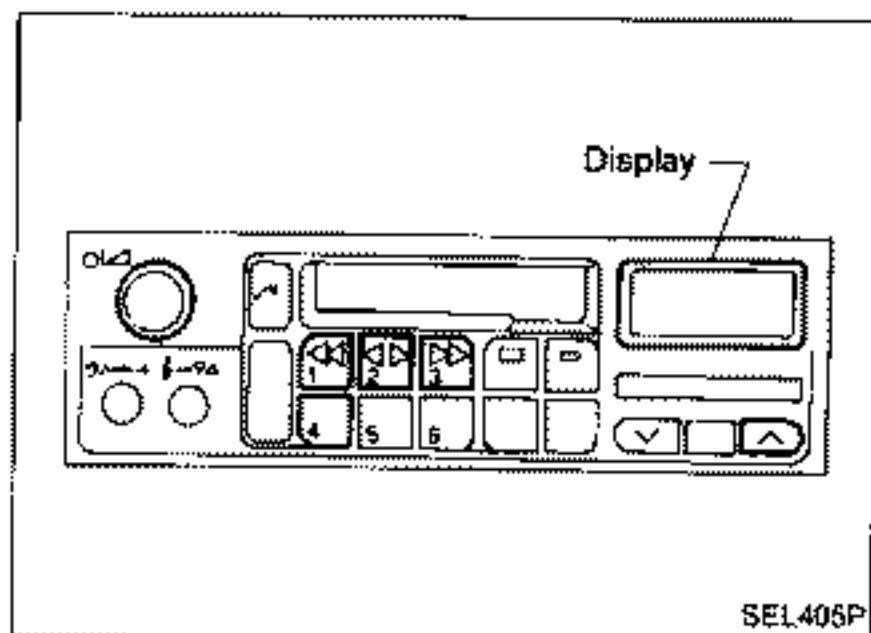
AUDIO AND POWER ANTENNA

Radio

ANTI-THEFT SYSTEM


By using a personal 4-digit code known only to the vehicle owner, the possibility of the audio unit being stolen is effectively reduced, because without the code the unit can not be activated. When in normal use, the unit is unlocked and accessible in the usual way.

If however, someone attempts to remove the unit or the ground cable is disconnected from the battery, the Anti-theft system activates and the unit "locks". The only way it can be unlocked is by entering a personal code number known only by the owner.



UNLOCKING THE UNIT (How to enter a personal code number)

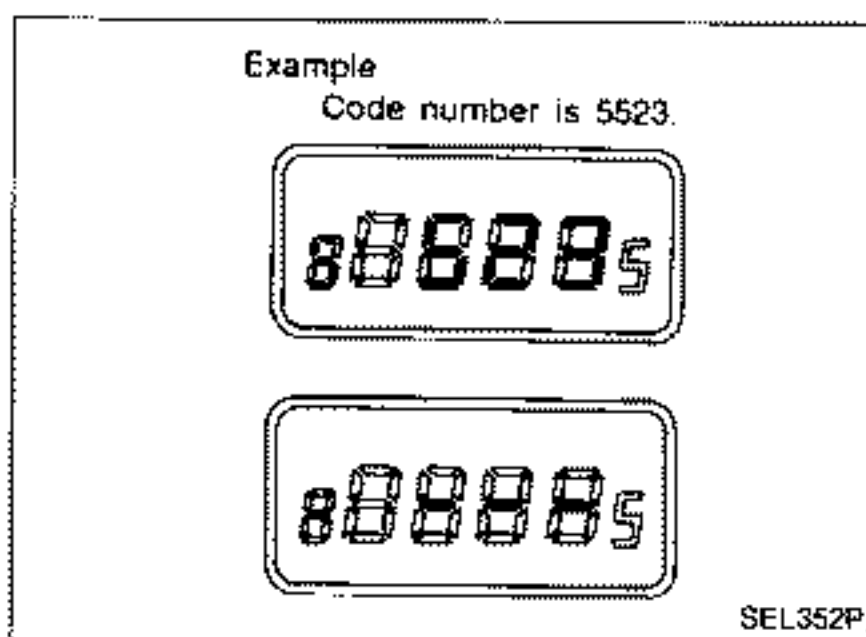
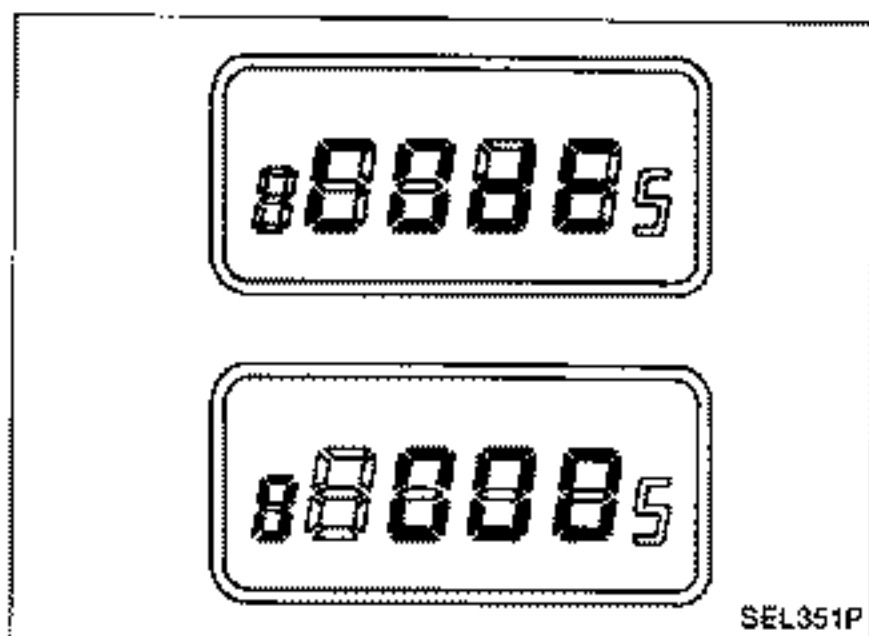
Use the following procedures to enter a personal code number into the radio.

1. Turn ignition switch to "ACC" or "ON".
2. Turn SW. VOL knob to "ON" and "LOCK" will appear on the display.
3. Press any button (except "eject") and "0000" will appear on the display.
4. Enter a personal code number by pressing station select buttons 1, 2, 3, 4 the required number of times to display the code.
5. Press  to enter the code.
Unit is unlocked and the radio/cassette will operate.
If the wrong code number is entered, the display shows "----". Wait ten seconds then enter the correct code.

CAUTION:

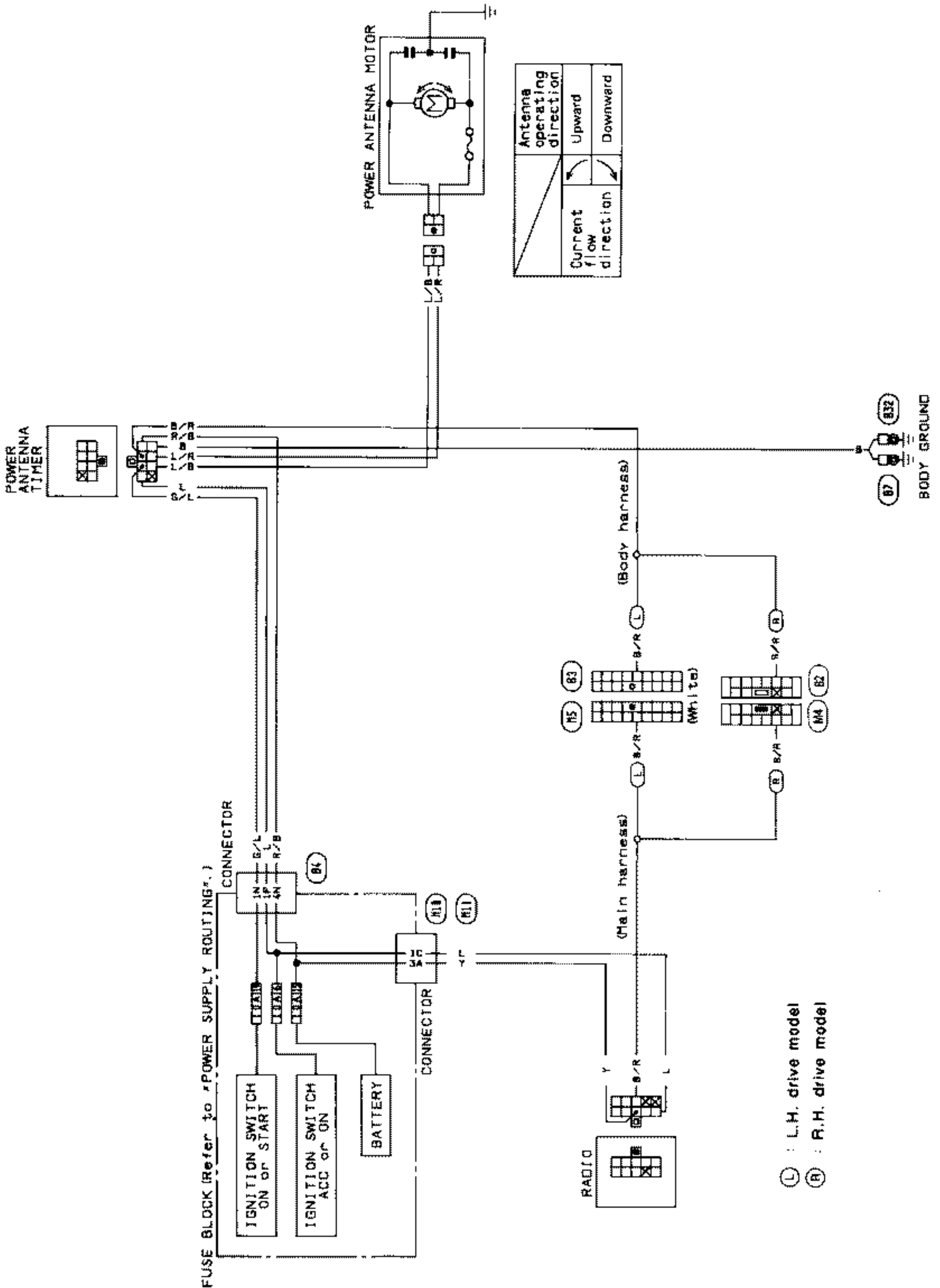
There are two ten second waiting periods after a wrong code number has been entered. There then follows twenty waiting periods of fifteen minutes duration.

After that, if wrong code is entered, the unit will lock permanently.



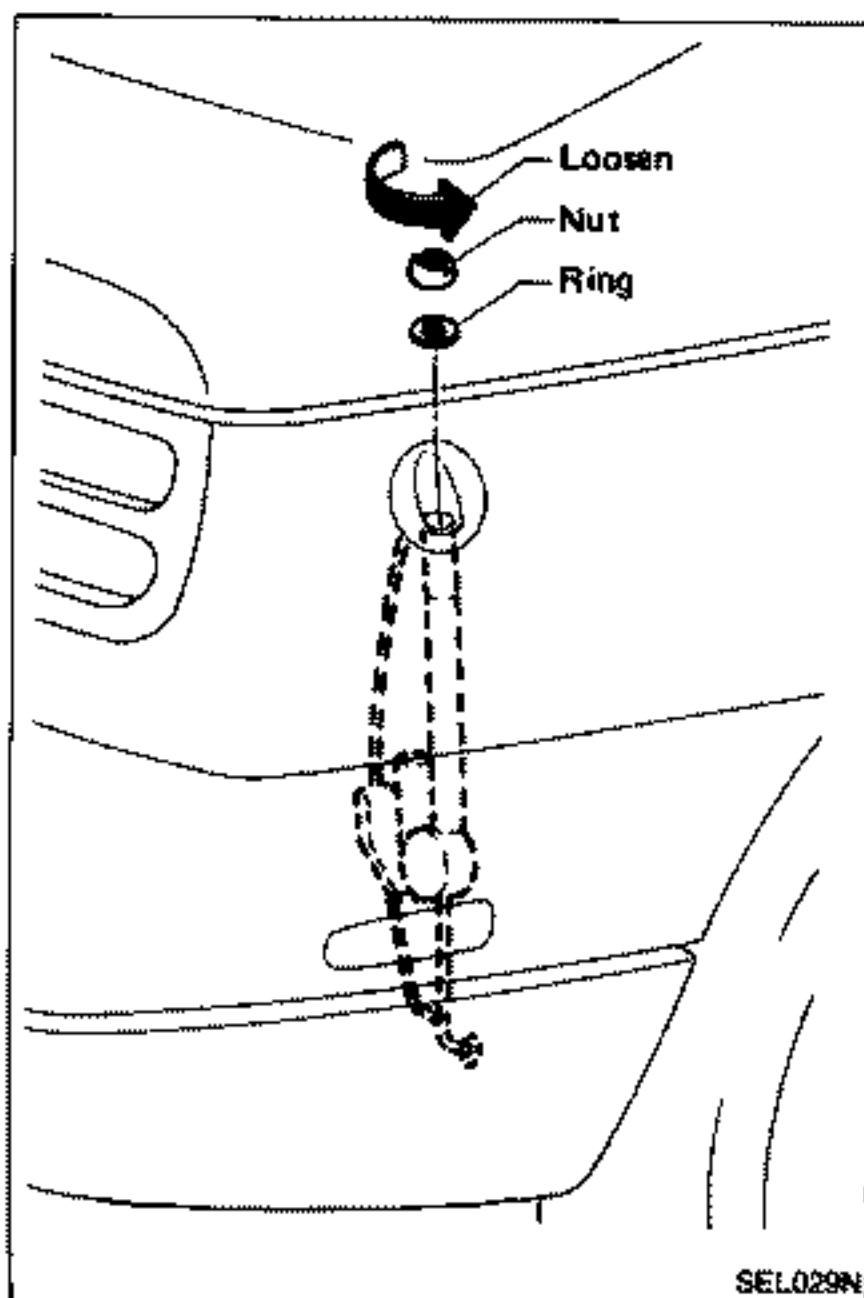
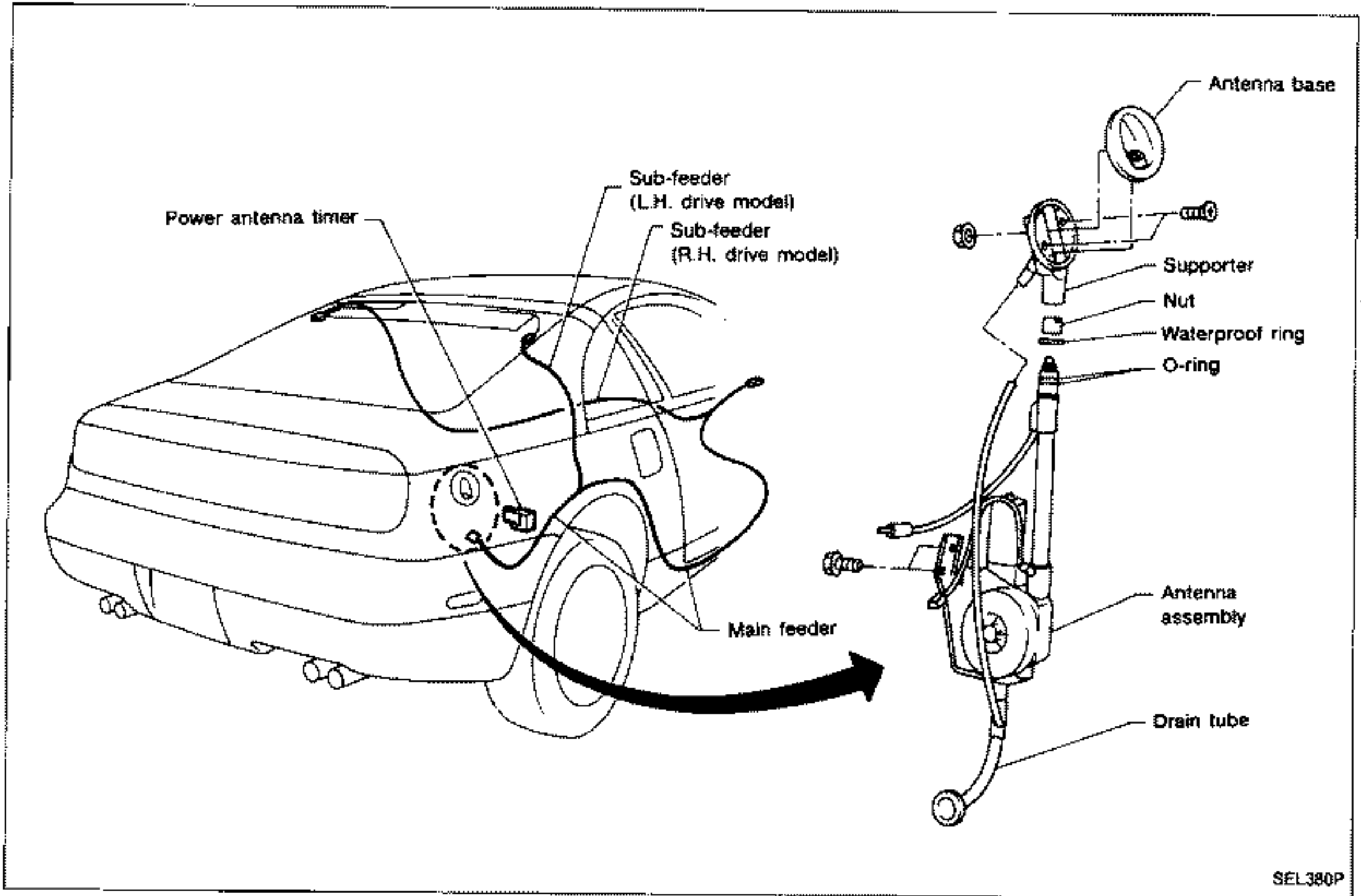
AUDIO AND POWER ANTENNA

Power Antenna/Wiring Diagram



AUDIO AND POWER ANTENNA

Location of Antenna



Antenna Rod Replacement

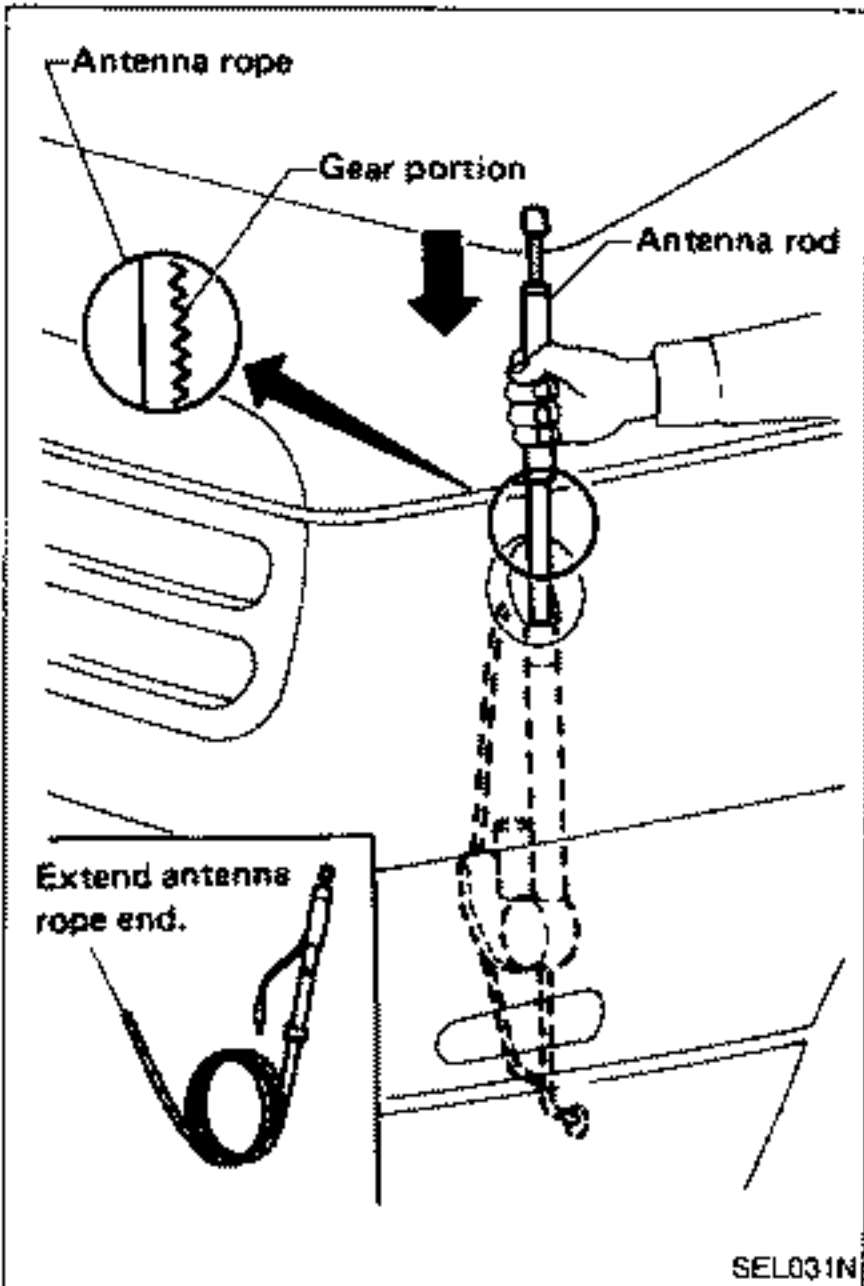
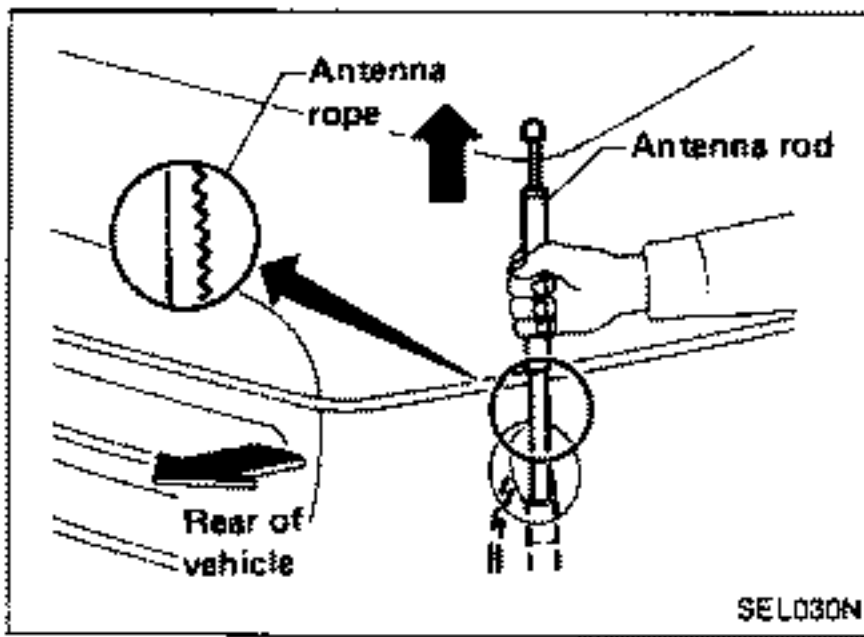
REMOVAL

1. Remove antenna nut and antenna base.

AUDIO AND POWER ANTENNA

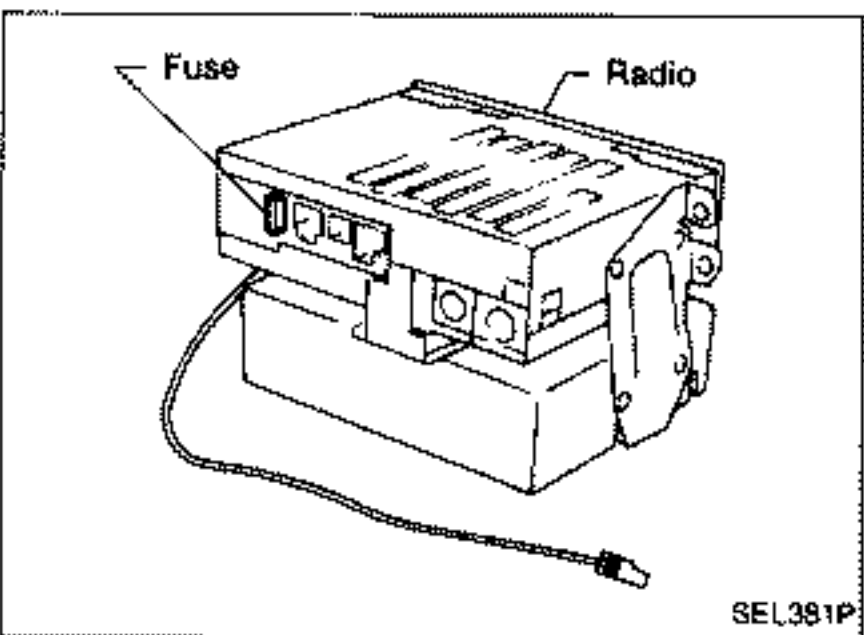
Antenna Rod Replacement (Cont'd)

2. Withdraw antenna rod while raising it by operating antenna motor.

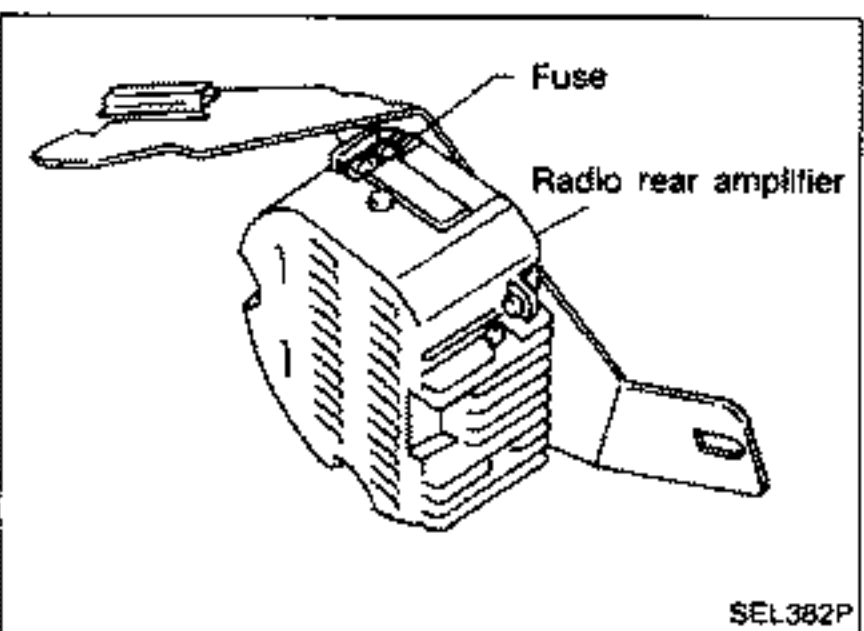


INSTALLATION

1. Lower antenna rod by operating antenna motor.
2. Insert gear section of antenna rope into place with it facing toward antenna motor.
3. As soon as antenna rope is wound on antenna motor, stop antenna motor. Insert antenna rod lower end into antenna motor pipe.
4. Retract antenna rod completely by operating antenna motor.
5. Install antenna nut and base.



Radio Fuse Check



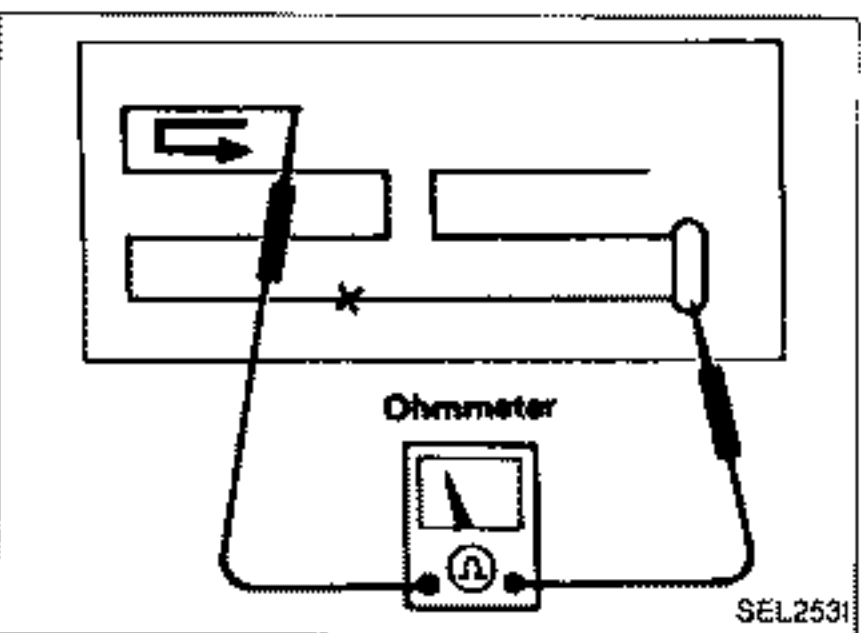
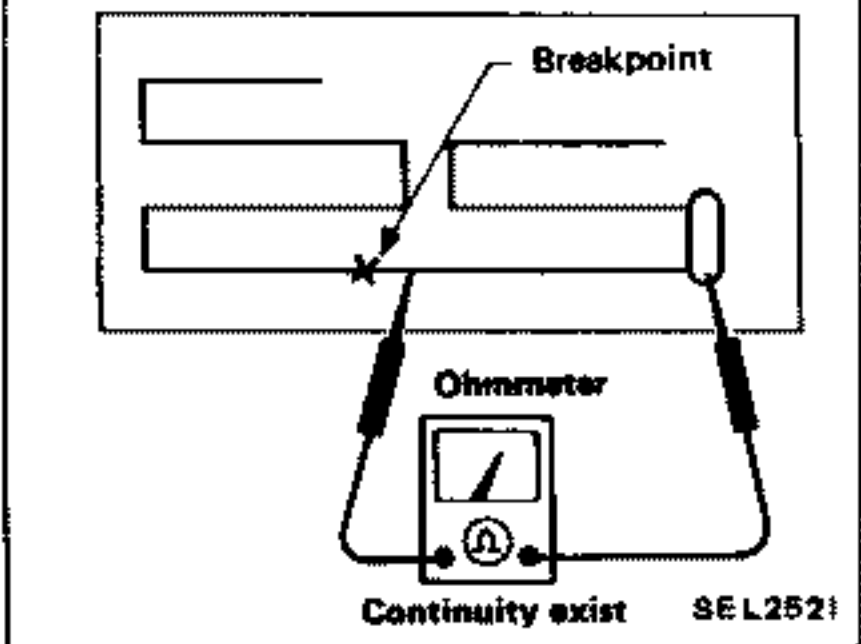
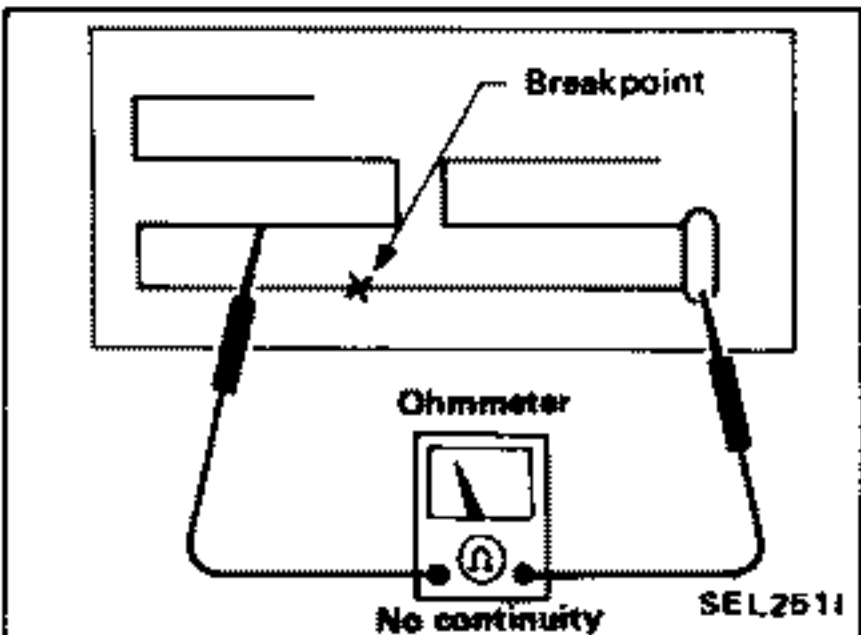
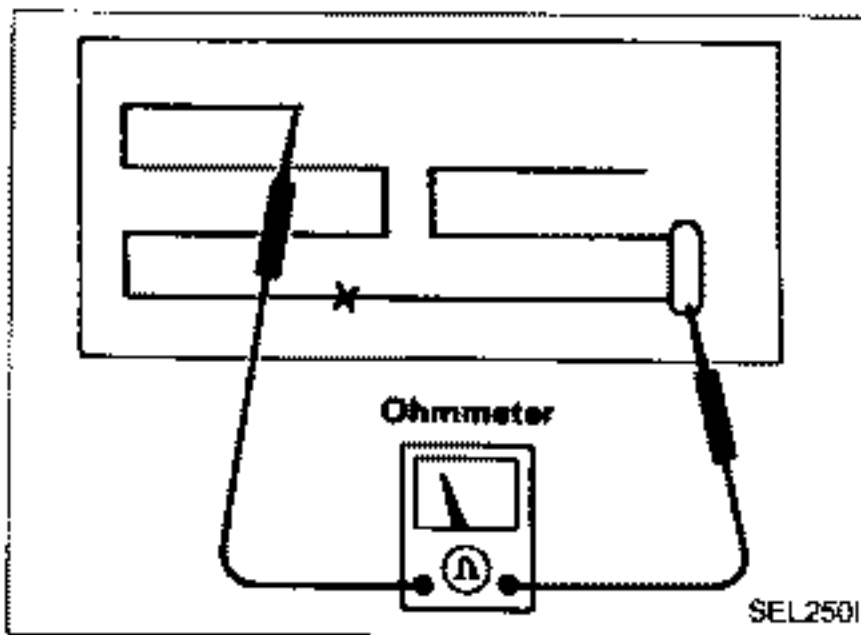
Radio Rear Amplifier Check

AUDIO AND POWER ANTENNA

Window Antenna Repair

ELEMENT CHECK

1. Attach probe circuit tester (in ohm range) to antenna terminal on each side.



2. If an element is broken, no continuity will exist.

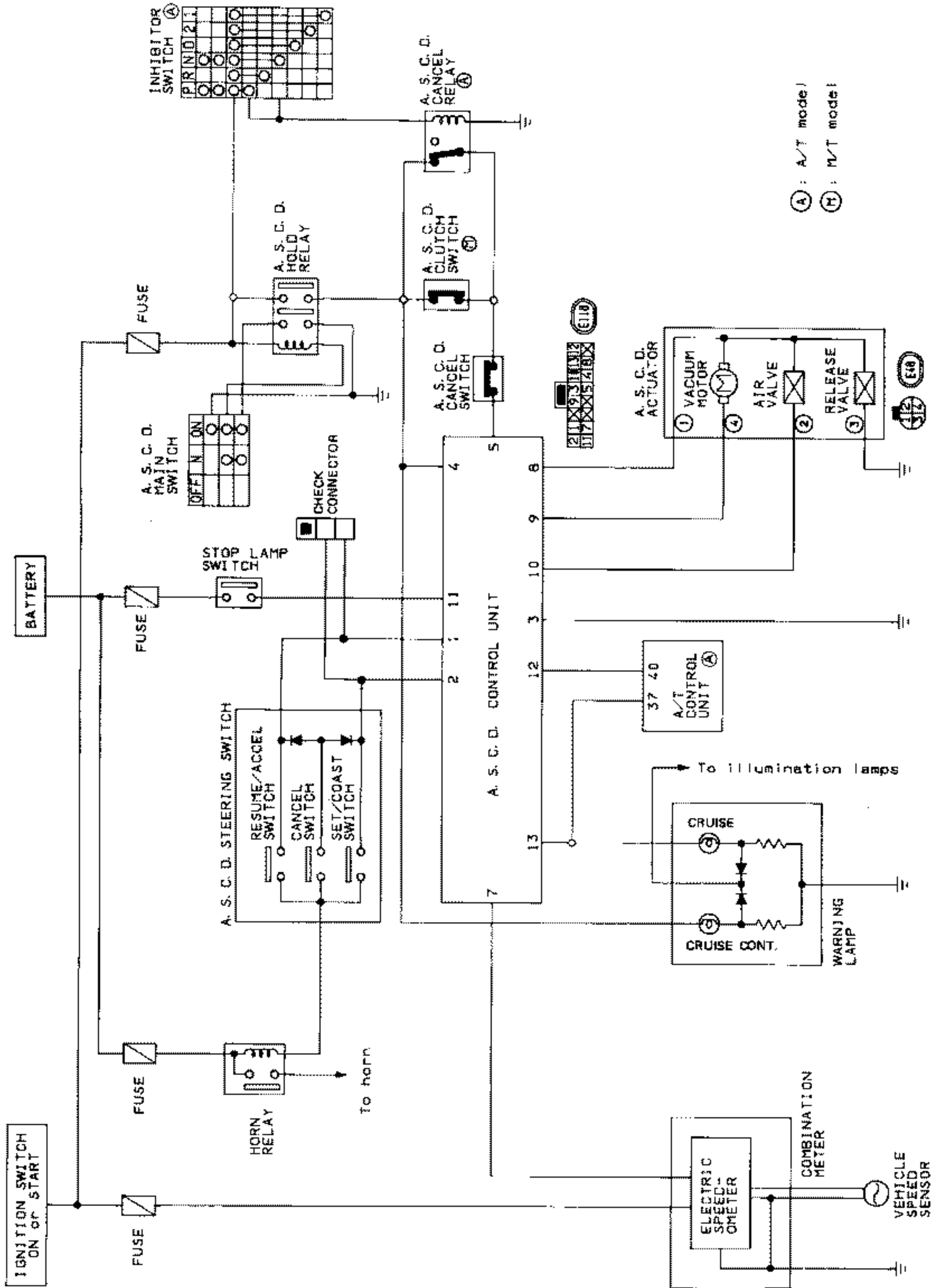
3. To locate broken point, move probe to left and right along element to determine point where tester needle swings abruptly.

ELEMENT REPAIR

Refer to REAR WINDOW DEFOGGER "Filament Repair".

AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

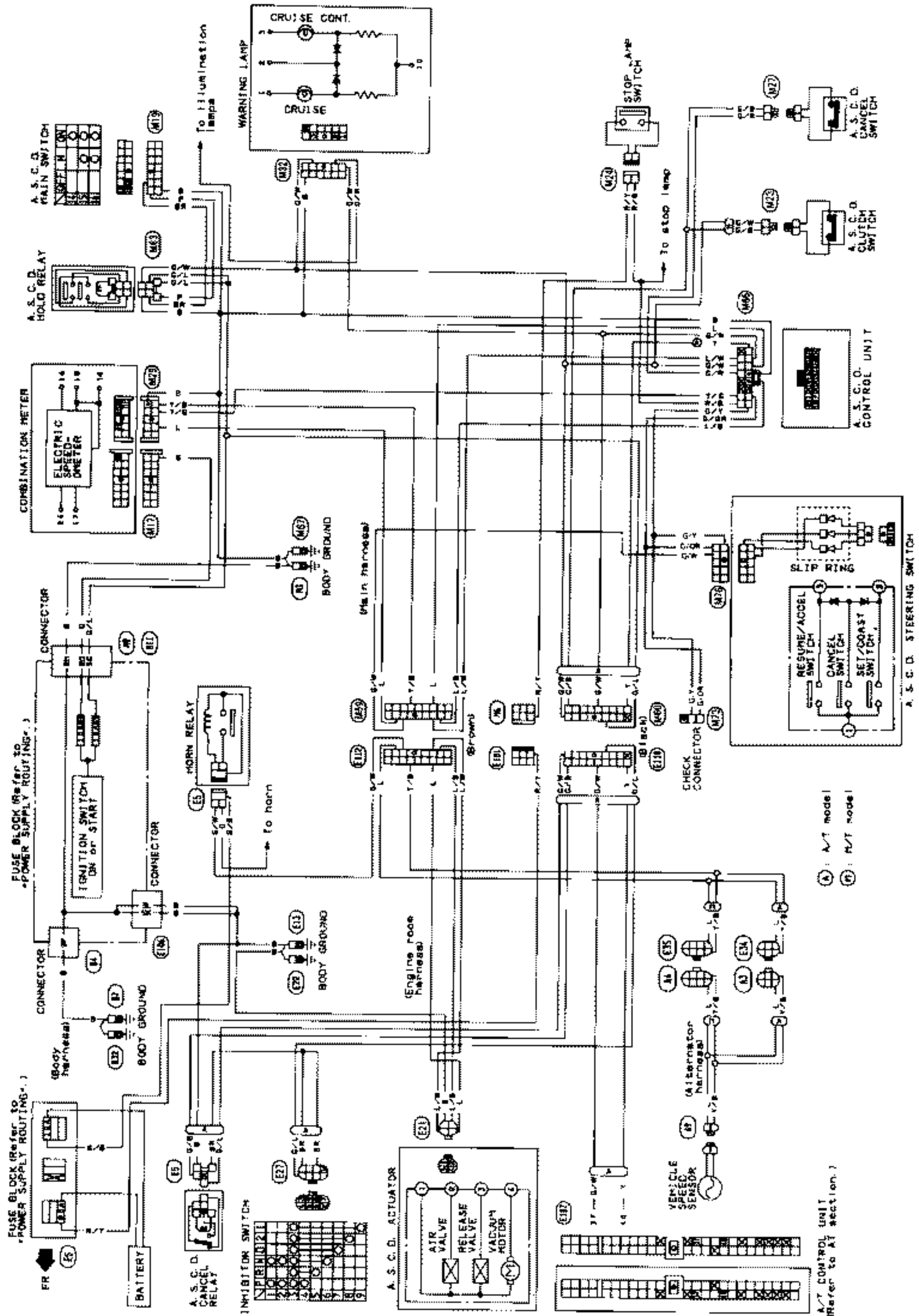
Schematic



AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

Wiring Diagram

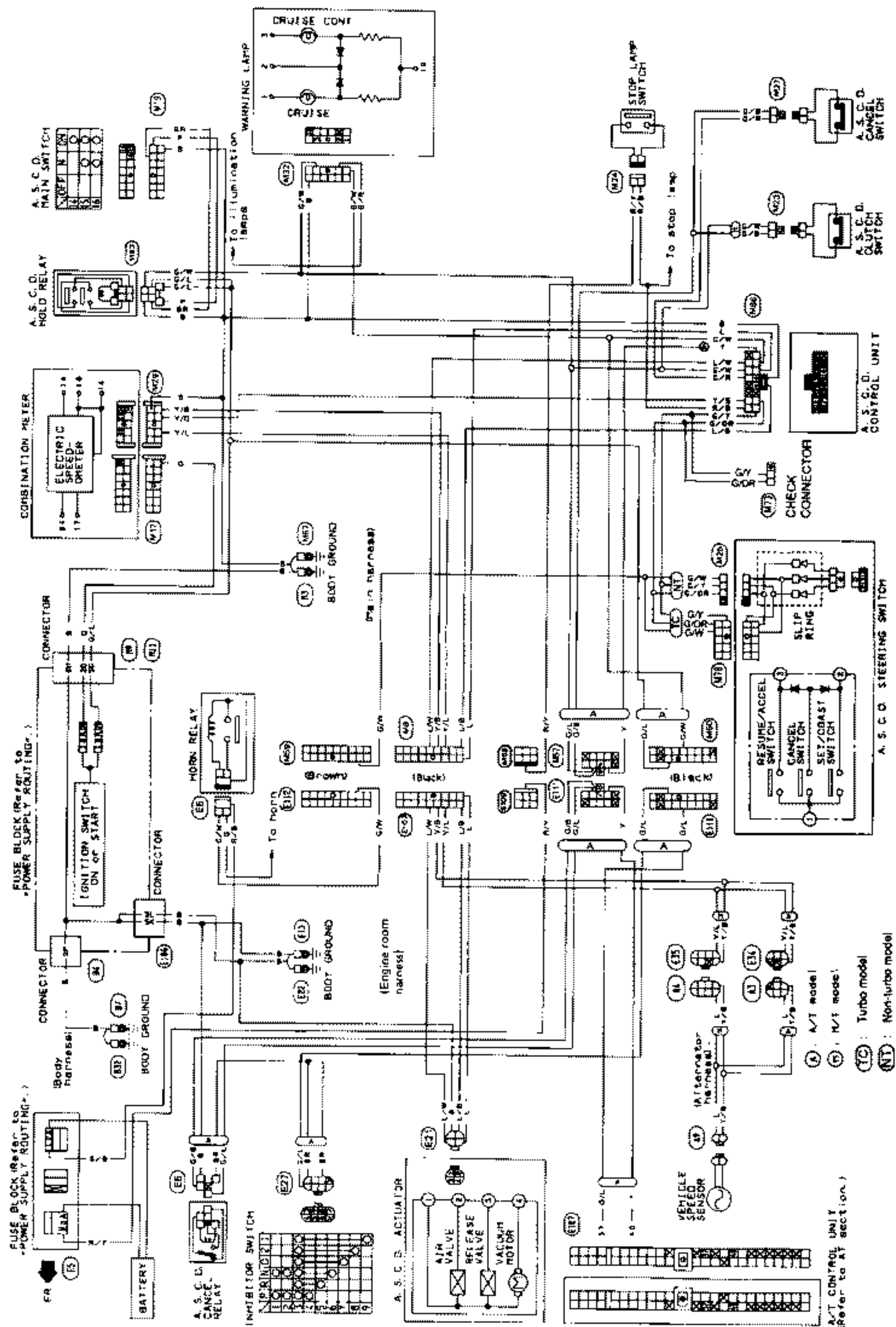
L.H. DRIVE MODELS



AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

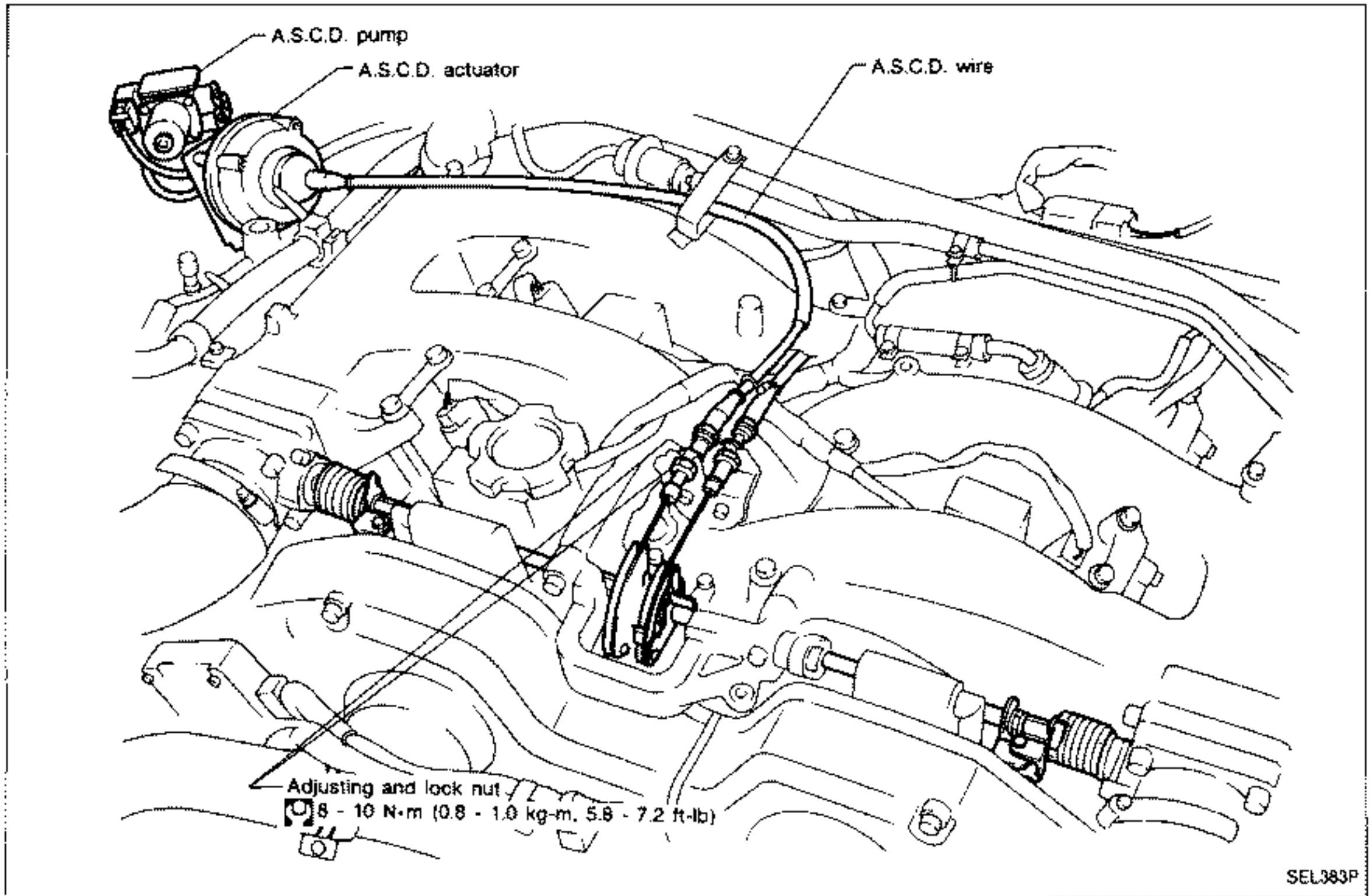
Wiring Diagram (Cont'd)

R.H. DRIVE MODELS



AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

A.S.C.D. Wire Adjustment



CAUTION:

- Be careful not to twist A.S.C.D. wire when removing it.
 - Do not tense A.S.C.D. wire excessively during adjustment.
- After confirming that accelerator wire is properly adjusted, adjust the tension of A.S.C.D. wire in the following manner.
- (1) After adjusting the length of the accelerator wire, turn a securing nut by 1/2 to 1 turn from throttle open starting position to the wire loosening direction to fix. (Must be securing carried out to prevent response delay of operation of the A.S.C.D.)
 - (2) Securely tighten lock nut to hold adjusting nut in place.
- For A.S.C.D. stop switch and clutch switch adjustment, refer to BR and CL sections.

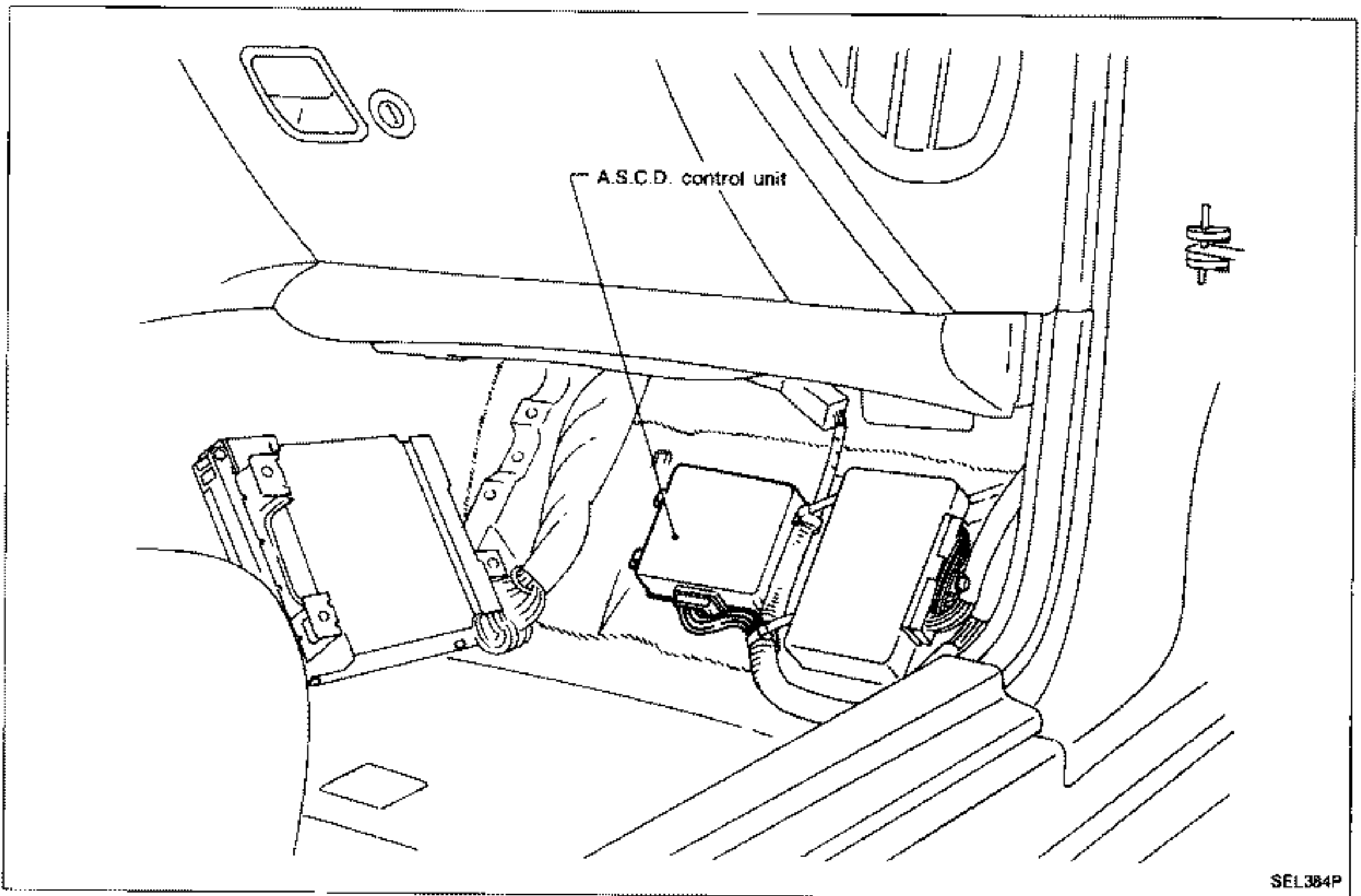
AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

Trouble Diagnoses

Symptom	DIAGNOSTIC PROCEDURE
A.S.C.D. control unit cannot be set properly.	1
Resume switch will not operate.	2
Cancel switch will not operate.	3
Engine hunts.	4
Large difference between set vehicle speed and actual speed.	5
Set speed cannot be canceled.	6

PREPARATION FOR TROUBLE-DIAGNOSIS

1. Remove lower trim.
2. Remove A.S.C.D. control unit with harness connected.
3. Perform check from harness side using circuit tester, with harness connector connected.



GROUND CIRCUIT CHECK

- Check continuity between ③ and body ground.

AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

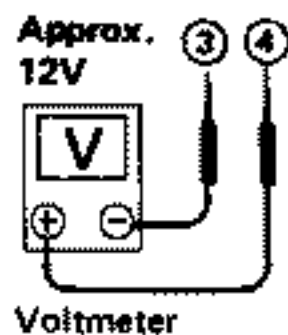
Trouble Diagnoses (Cont'd)

DIAGNOSTIC PROCEDURE-1

A.S.C.D. control unit cannot be set properly.

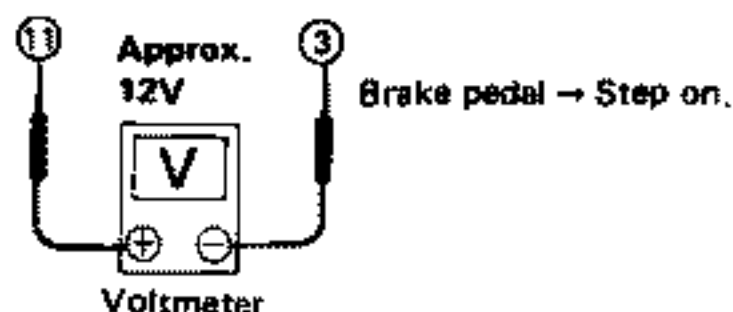
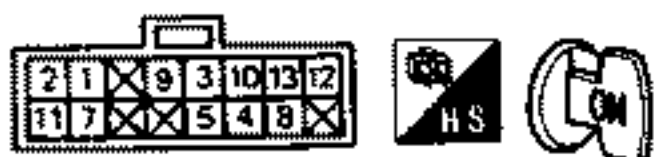
POWER SUPPLY CIRCUIT CHECK

1. Turn A.S.C.D. main switch to "ON".
2. Check voltage between ④ and ③.



CUT-OFF CIRCUIT CHECK

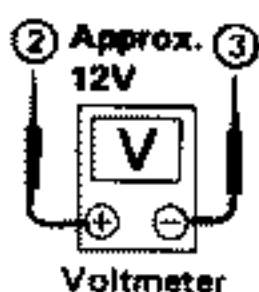
1. Step on brake pedal.
2. Turn A.S.C.D. main switch to "ON".
3. Check voltage between ⑪ and ③.



SEL629L

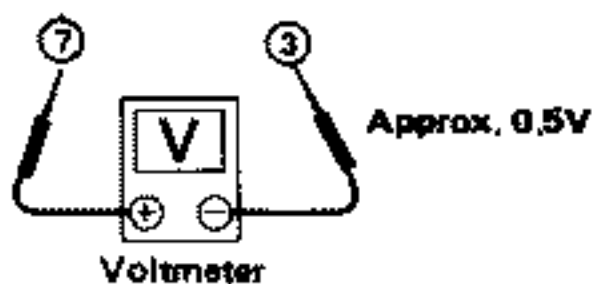
SET SWITCH CIRCUIT CHECK

1. Push A.S.C.D. set switch.
2. Check voltage between ② and ③.

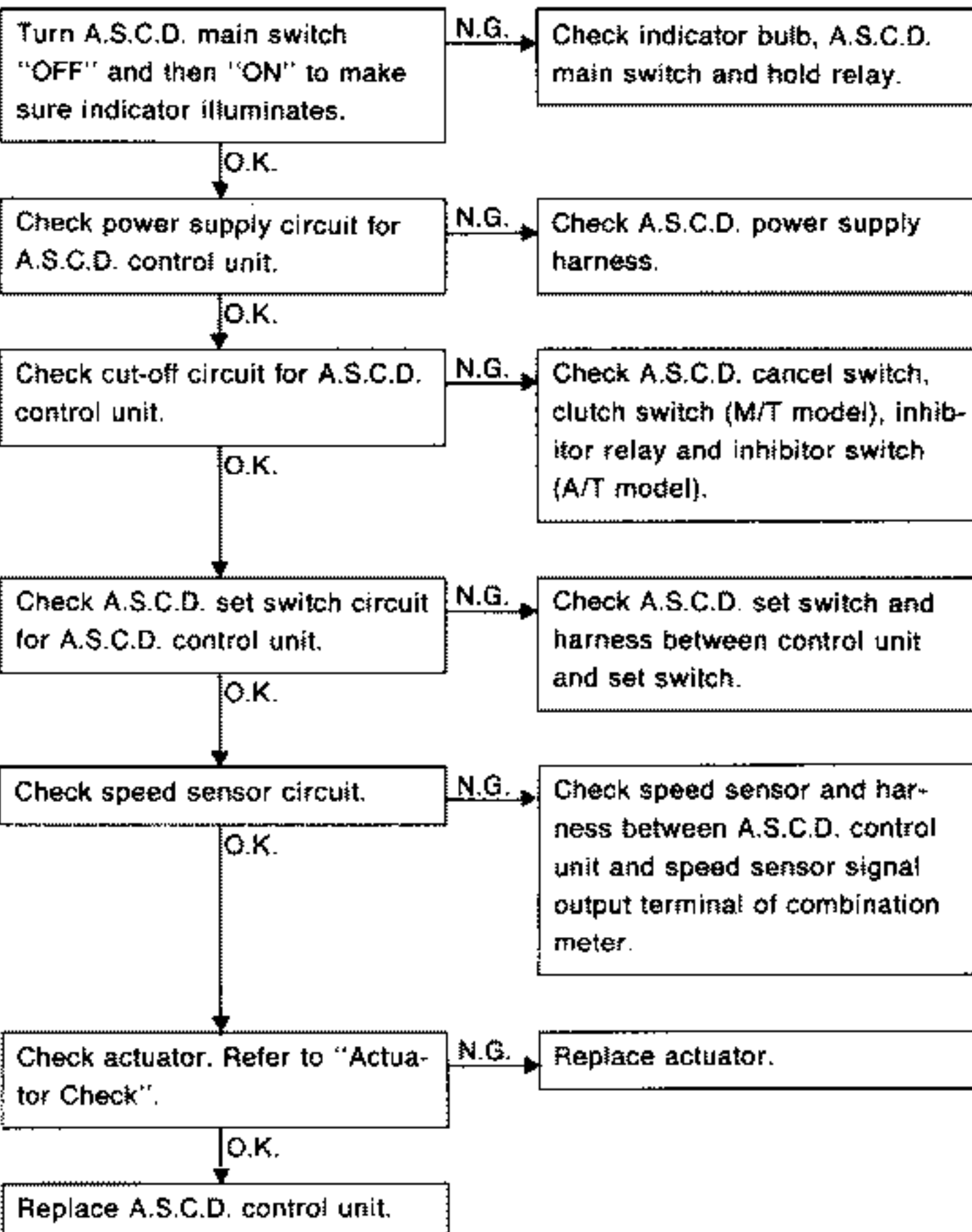


SPEED SENSOR CIRCUIT CHECK

1. Disconnect speed sensor from transmission.
 2. Connect a voltmeter between ⑦ and ③.
 3. Slowly turn speed sensor by hand to make sure voltmeter pointer deflects.
- Voltmeter pointer deflects twice per rotation of pinion.



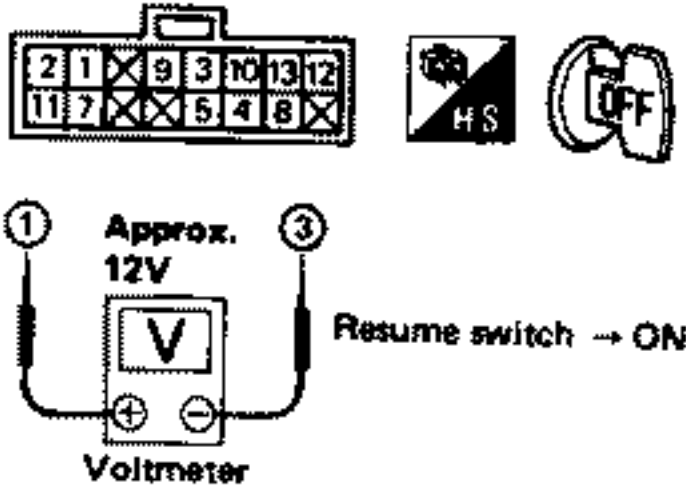
SEL630L



AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

PRESUME SWITCH CIRCUIT CHECK

1. Turn resume switch to "ON".
2. Check voltage between ① and ③.

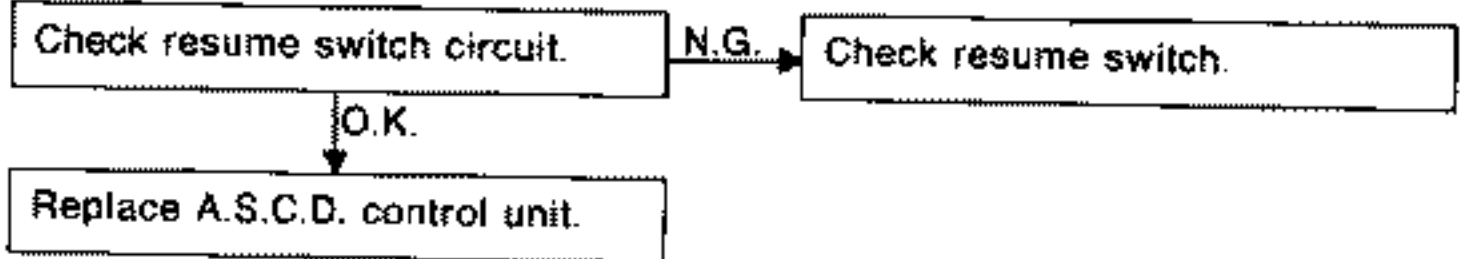


SEL636L

Trouble Diagnoses (Cont'd)

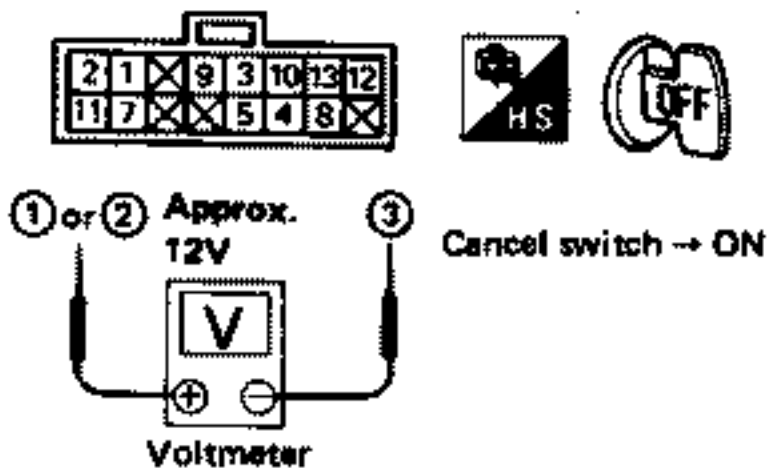
DIAGNOSTIC PROCEDURE-2

Resume switch will not operate.



CANCEL SWITCH CIRCUIT CHECK

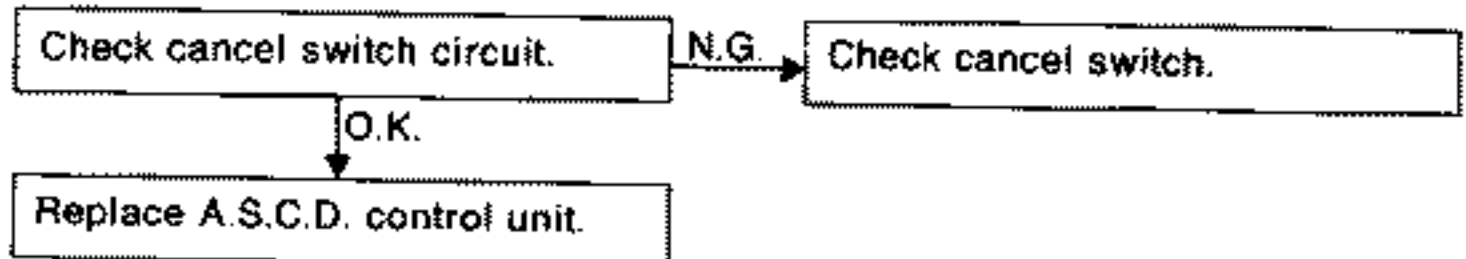
1. Turn cancel switch to "ON".
2. Check voltage between ② and ③ or ① and ③.



SEL637L

DIAGNOSTIC PROCEDURE-3

Cancel switch will not operate.

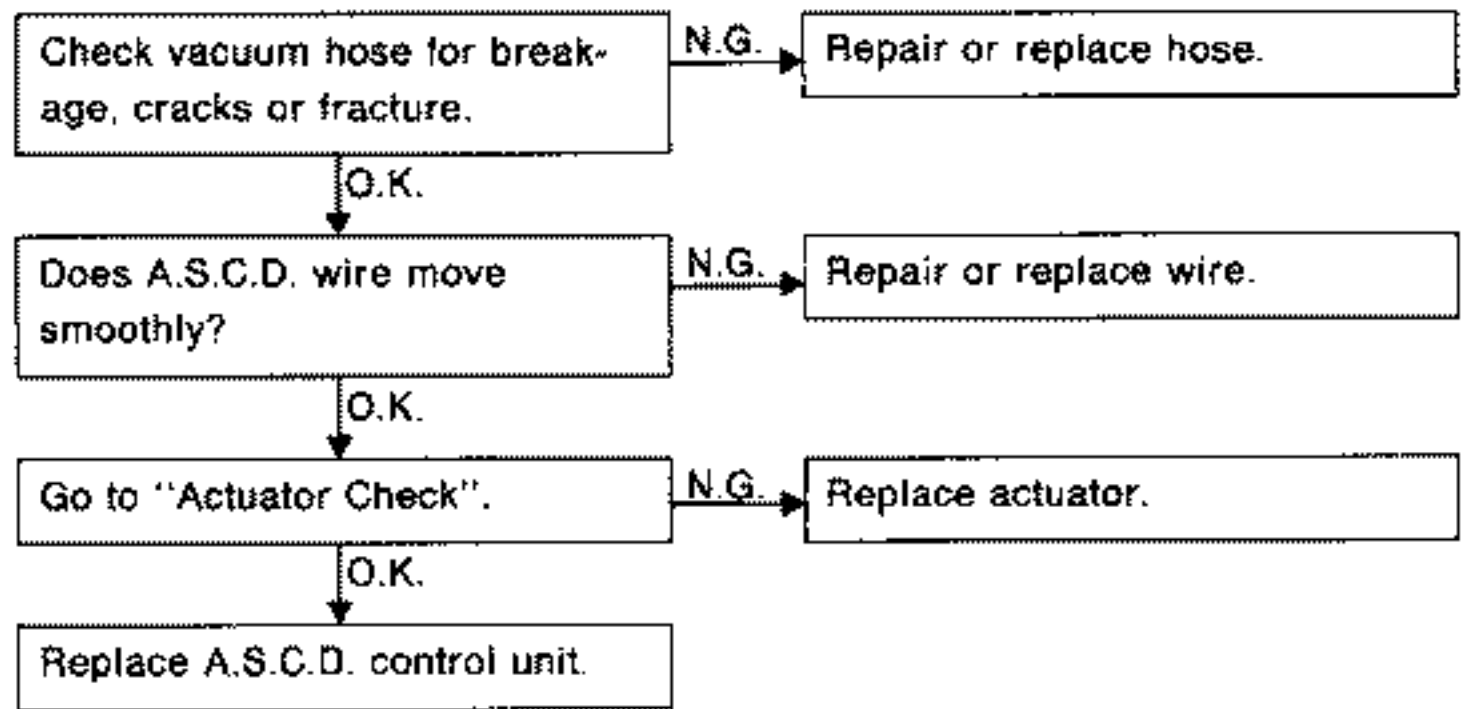


AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

Trouble Diagnoses (Cont'd)

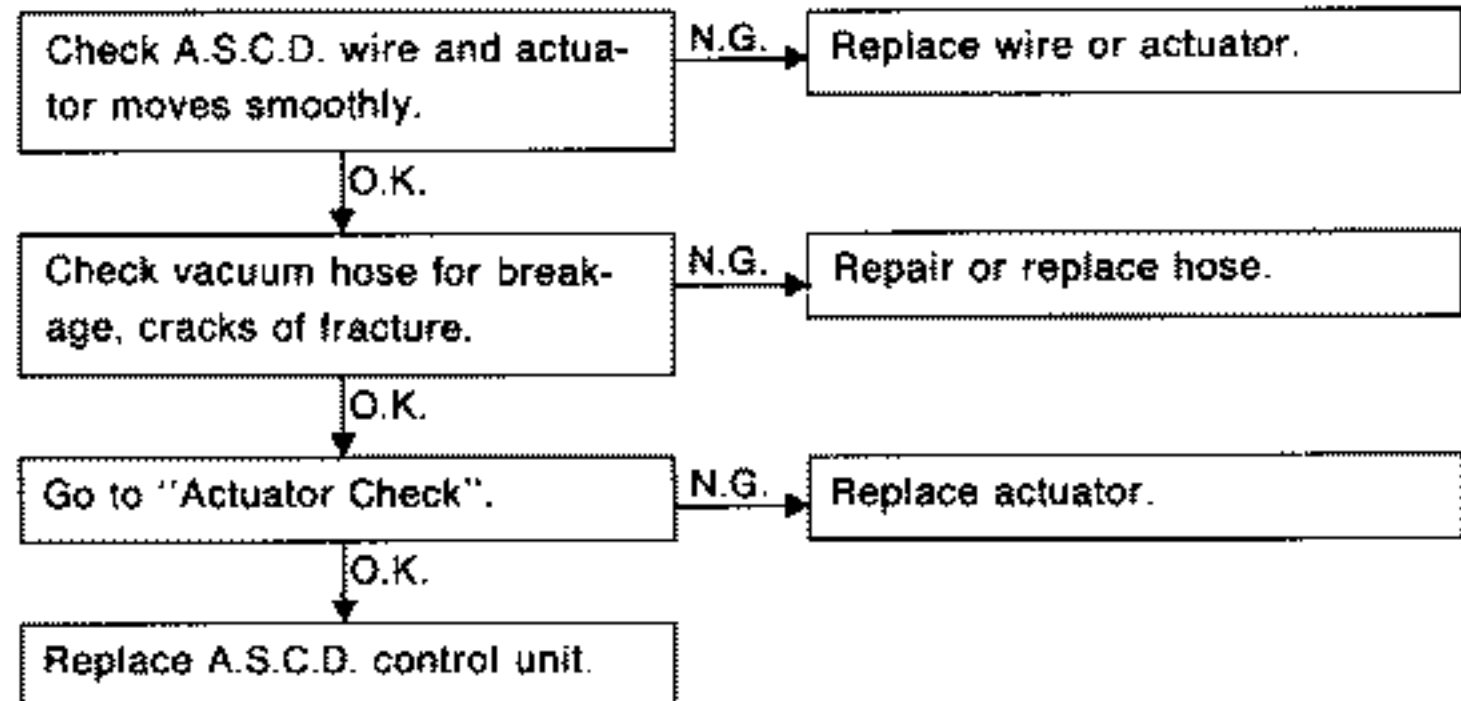
DIAGNOSTIC PROCEDURE-4

Engine hunts.



DIAGNOSTIC PROCEDURE-5

Large difference between set vehicle speed and actual speed.

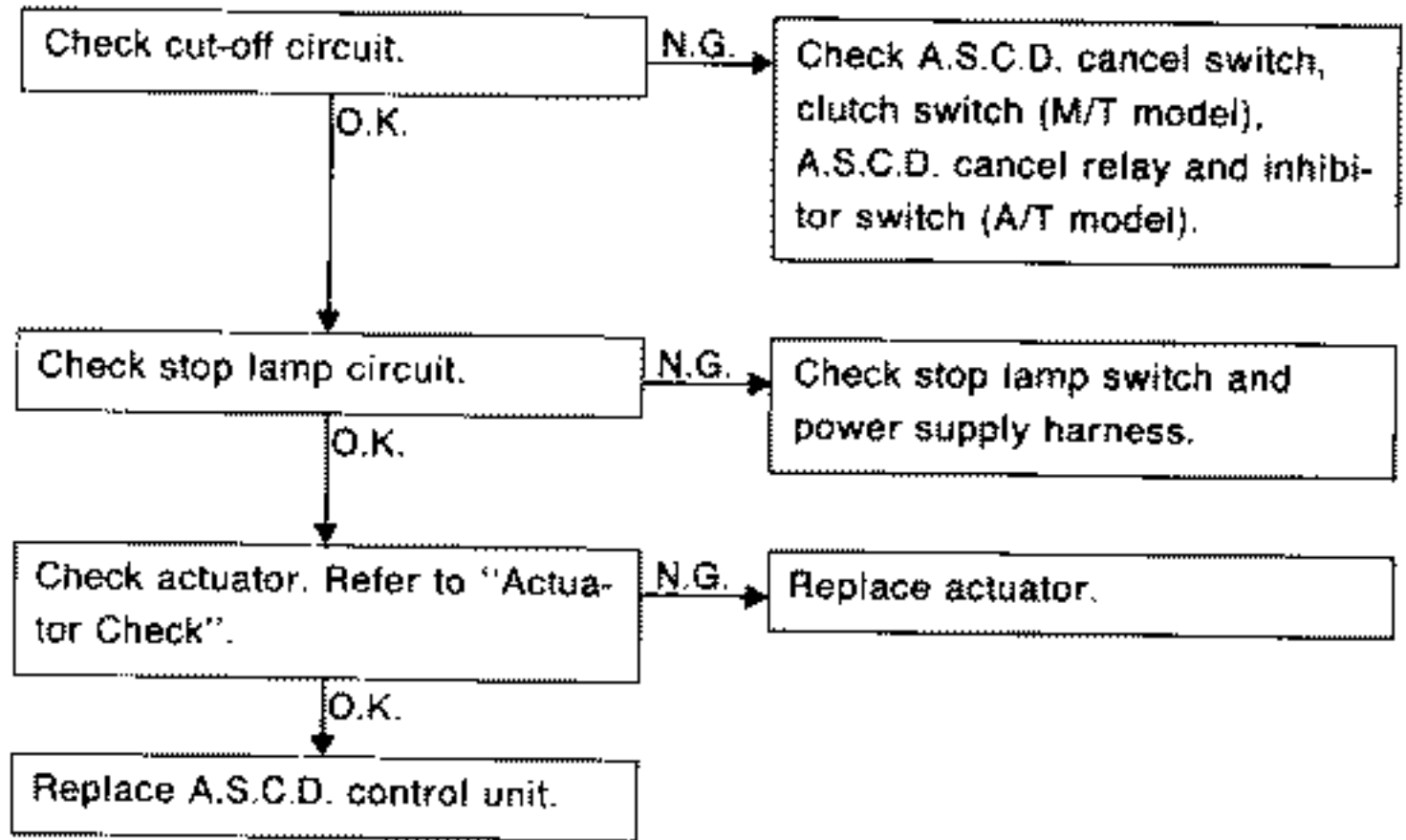


AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)

Trouble Diagnoses (Cont'd)

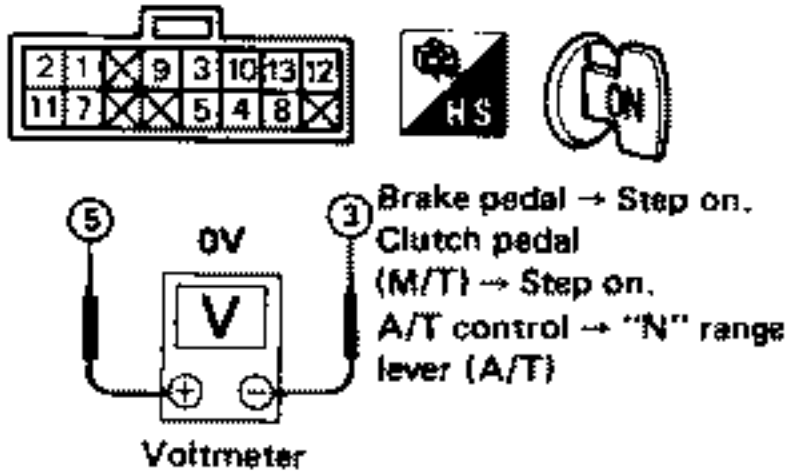
DIAGNOSTIC PROCEDURE-6

Set speed cannot be canceled.



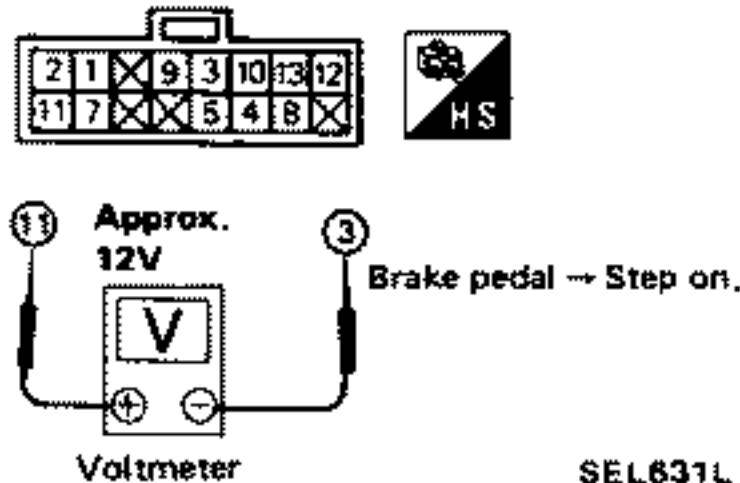
CUT-OFF CIRCUIT CHECK

1. Turn A.S.C.D. main switch to "ON".
2. Turn A.S.C.D. main switch to "ON" again.
3. Step on brake pedal.
4. Step on clutch pedal (M/T) or shift in "N" range (A/T).
5. Check voltage between ⑤ and ③.



STOP LAMP CIRCUIT CHECK

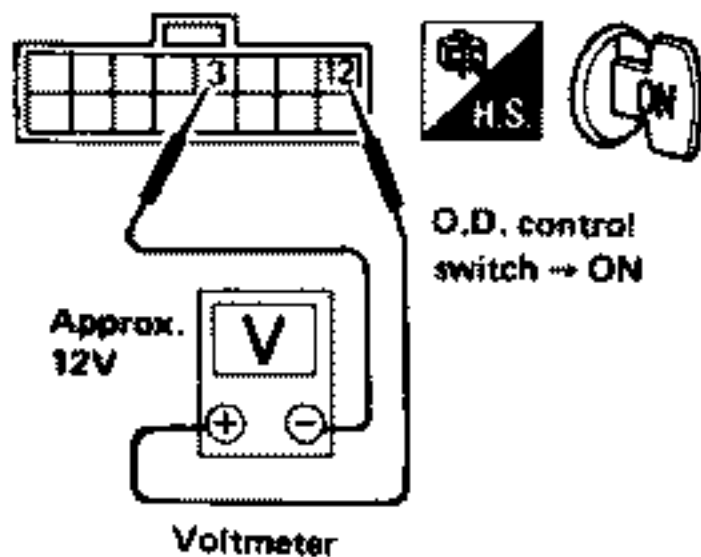
1. Step on brake pedal.
2. Check voltage between ⑪ and ③.



SEL631L

O.D. CANCEL CIRCUIT CHECK FOR A.S.C.D. CONTROL UNIT

1. Turn O.D. control switch to "ON"
2. Measure voltage across ⑫ and ③.

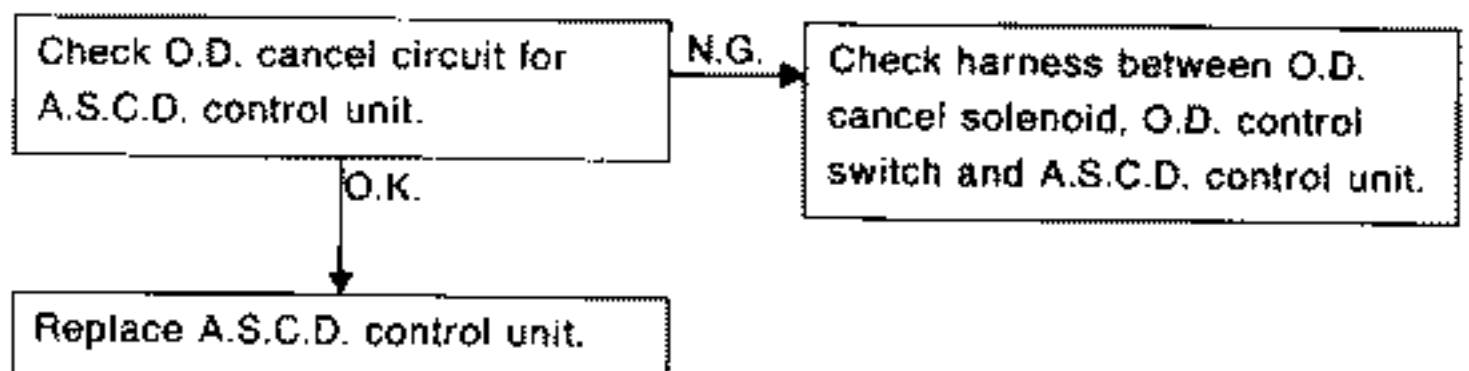


SEL640M

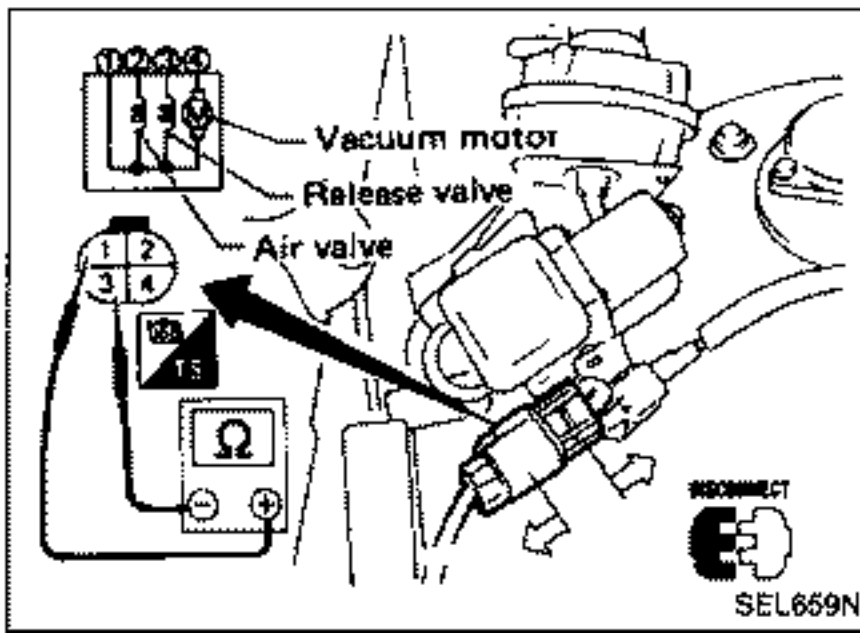
DIAGNOSTIC PROCEDURE-7

A/T model only:

- When A.S.C.D. is set while vehicle is operating in "O.D." range, O.D. will be canceled and shifting to O.D. cannot be made thereafter.
- O.D. will not be canceled even if actual vehicle speed is 6 km/h (4 MPH) lower than set speed. (Set speed cannot be maintained.)
- O.D. will not be canceled even if accelerator switch is turned "ON".



AUTOMATIC SPEED CONTROL DEVICE (A.S.C.D.)



Actuator Check

1. Disconnect connector of actuator from main harness.
2. Check actuator operations as shown.

Check actuator.

O.K.

A Check to see if motor starts when 12V D.C. is applied across ① and ④.

N.G.

Replace actuator.

O.K.

B Check to see if A.S.C.D. wire is pulled when 12V D.C. is applied across ①, ②, ③ and ④.

N.G.

Replace actuator.

O.K. (Wire is pulled.)

C Check to see if A.S.C.D. wire returns to original position 50 to 60 seconds after disconnecting lead from ④.

N.G.

Replace actuator.

O.K. (Wire does not return.)

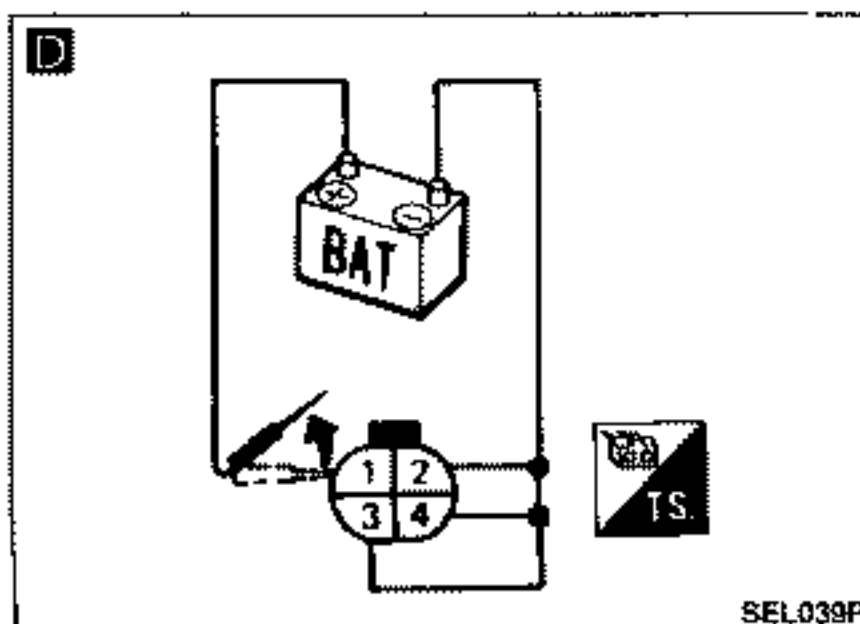
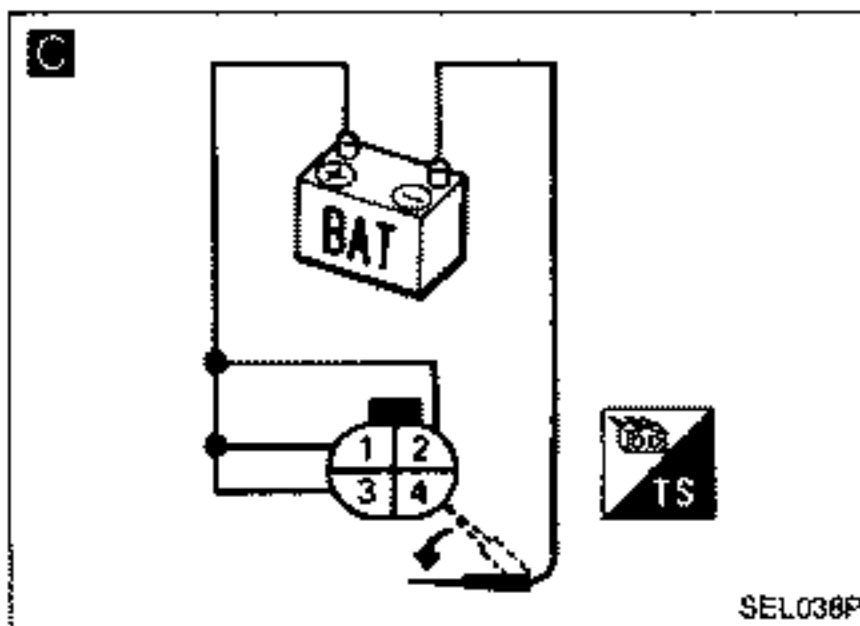
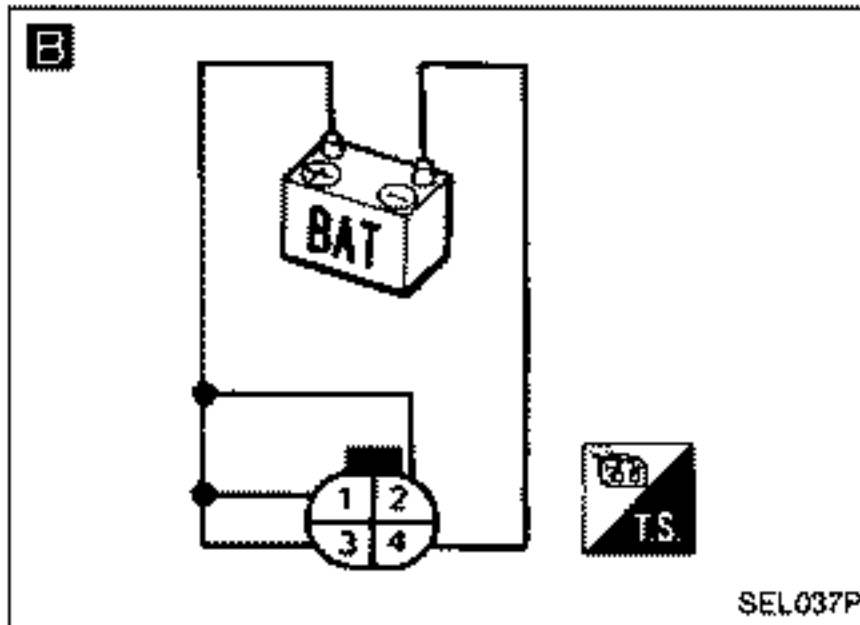
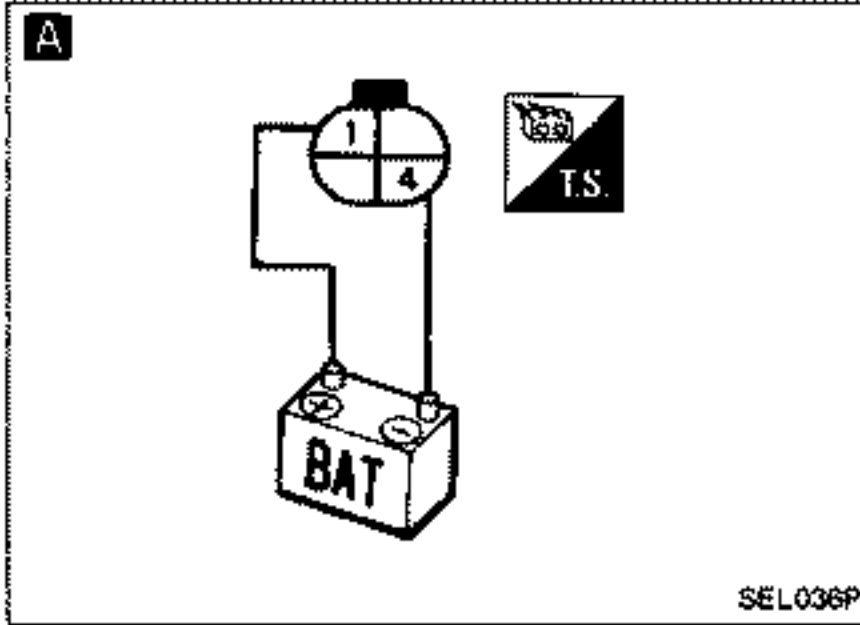
D Disconnect lead from ① to see if A.S.C.D. wire returns immediately.

N.G.

Replace actuator.

O.K. (Wire returns.)

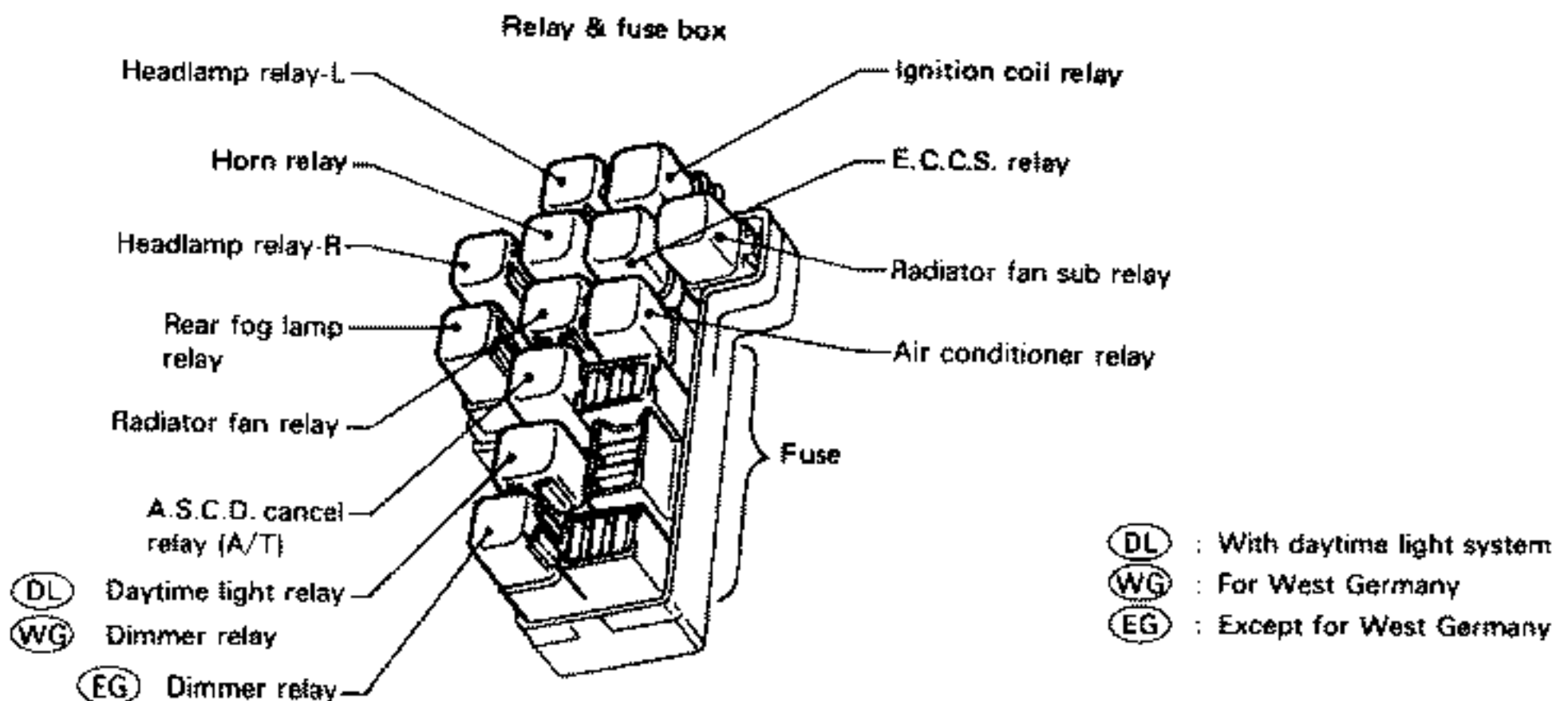
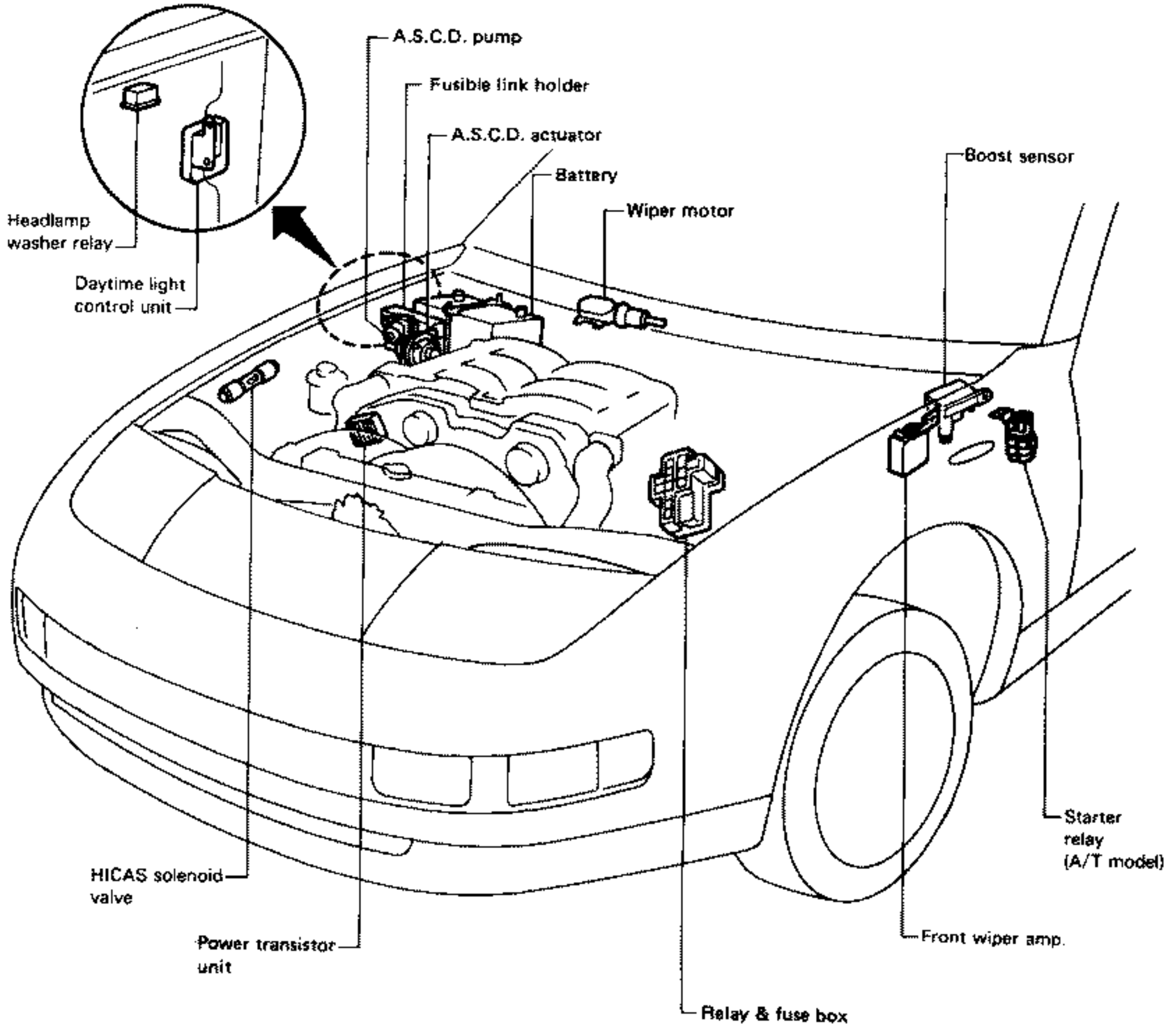
Actuator is O.K.



LOCATION OF ELECTRICAL UNITS

Engine Compartment

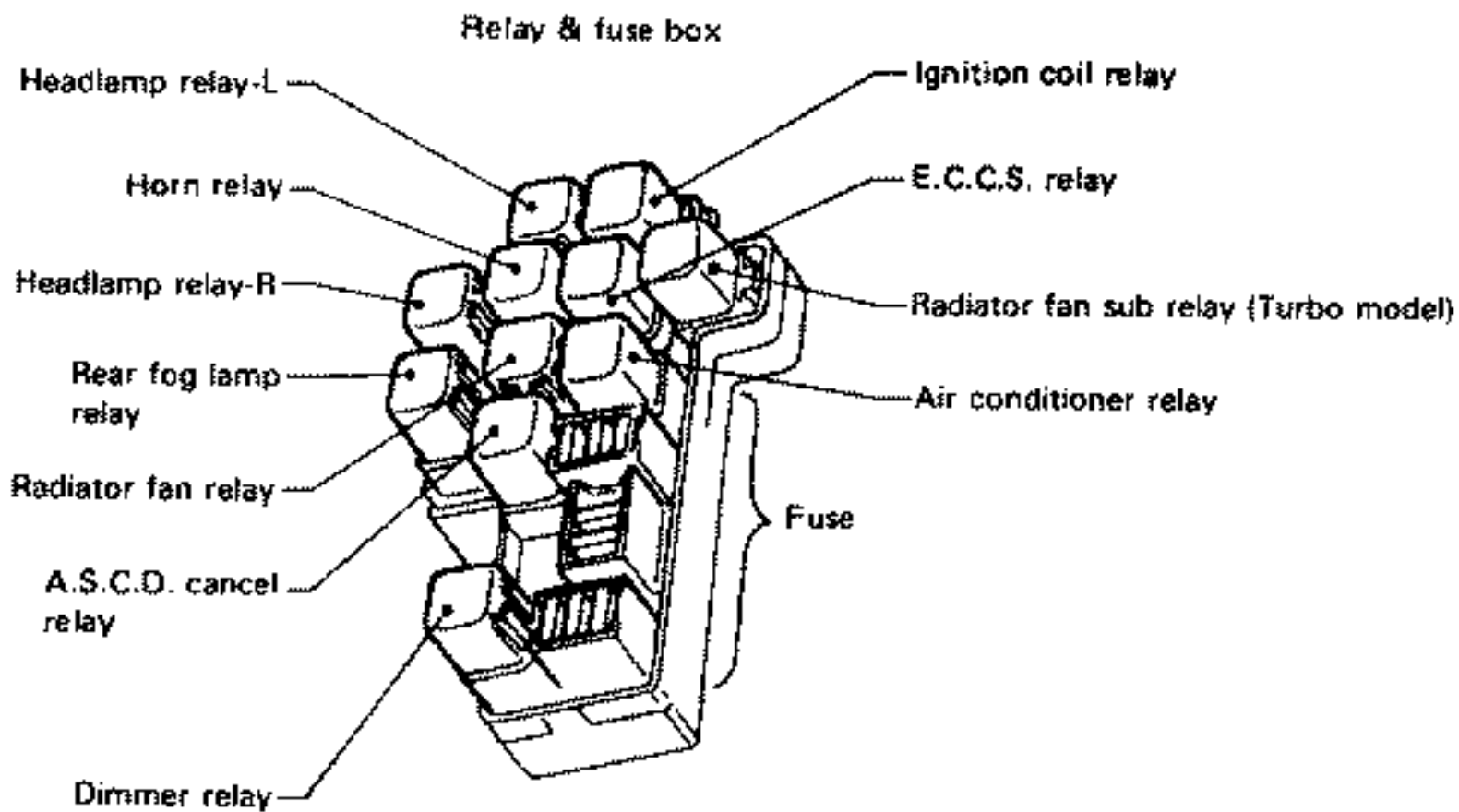
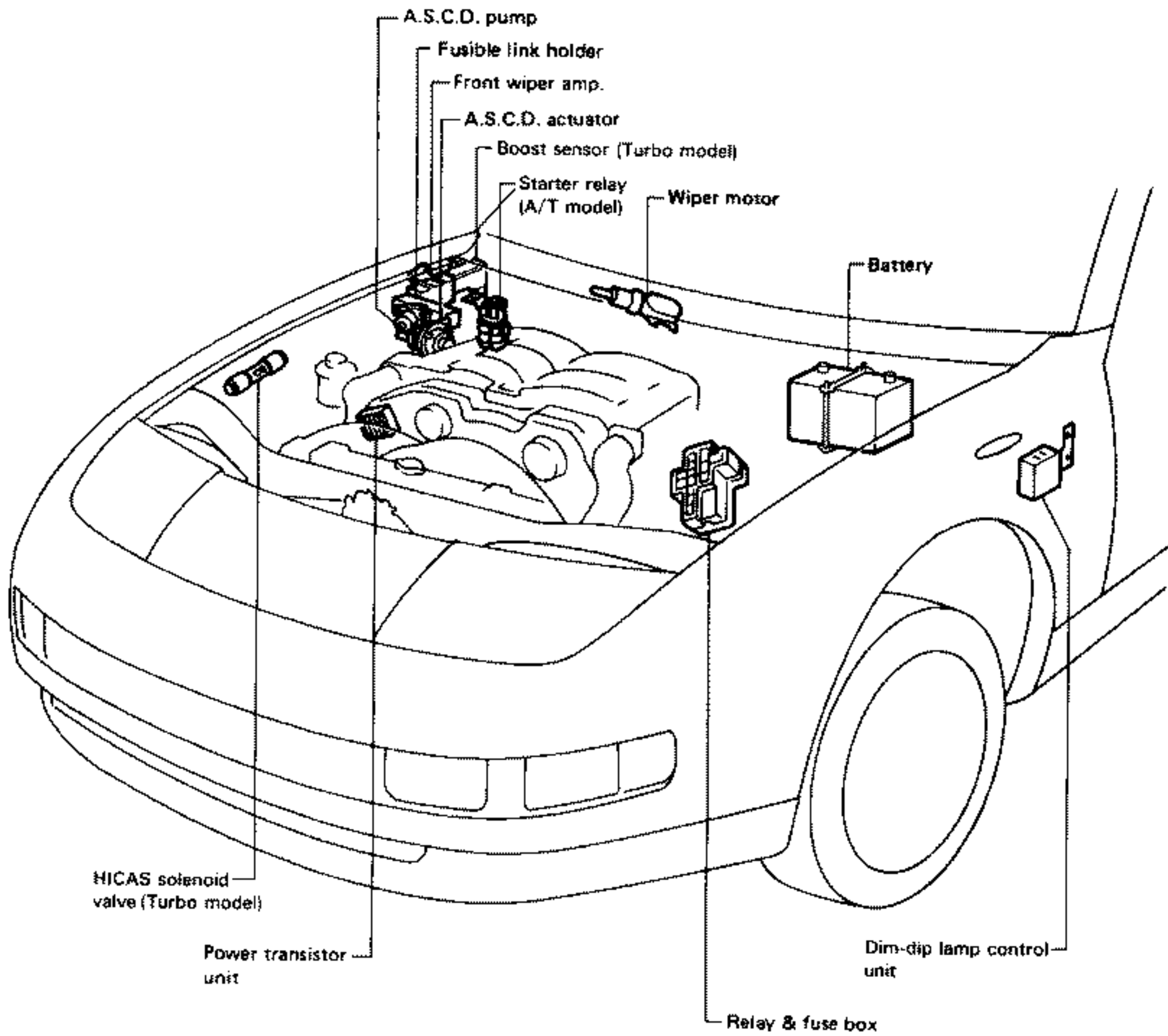
L.H. DRIVE MODELS



LOCATION OF ELECTRICAL UNITS

Engine Compartment (Cont'd)

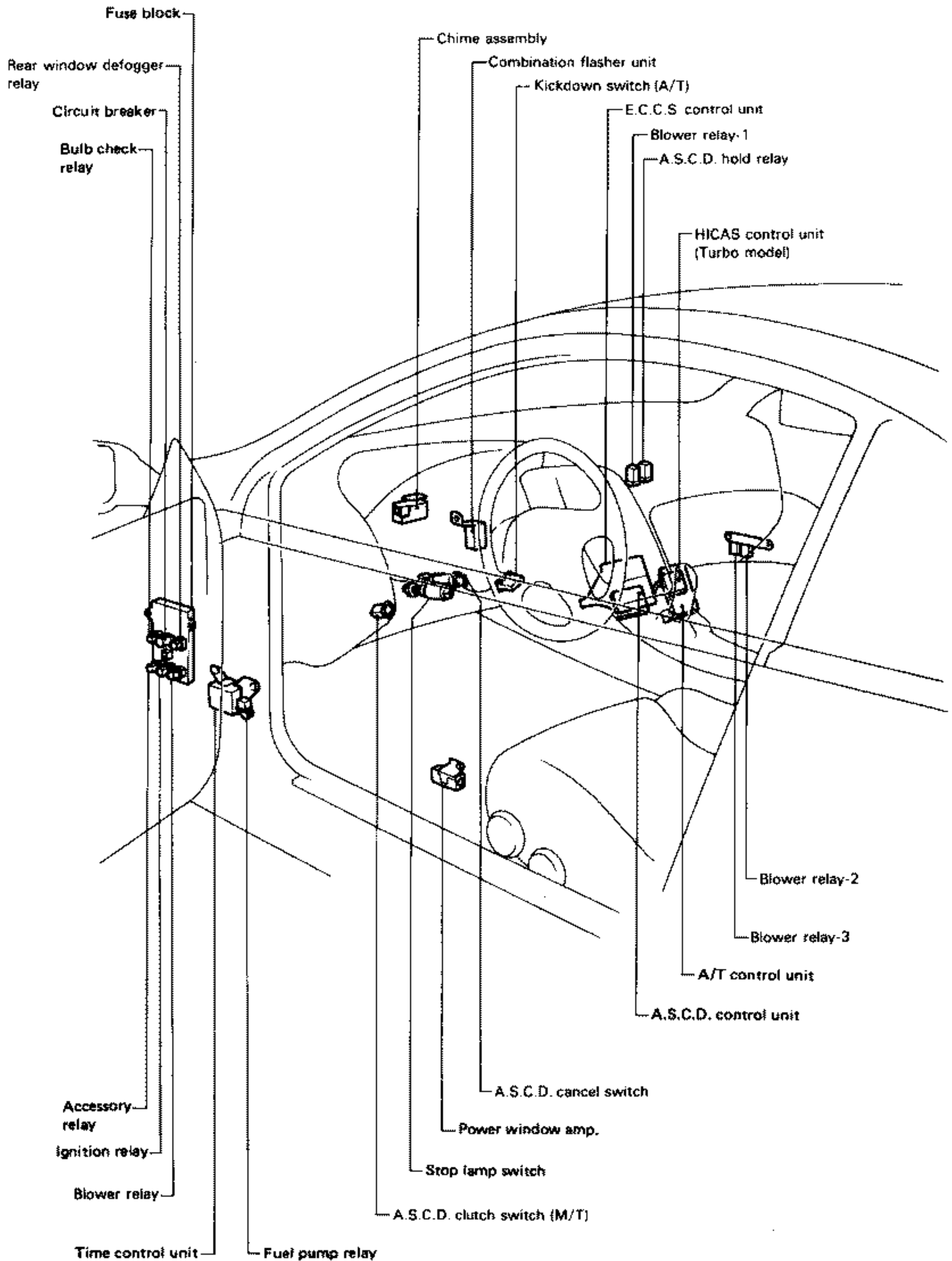
R.H. DRIVE MODELS



LOCATION OF ELECTRICAL UNITS

Passenger Compartment

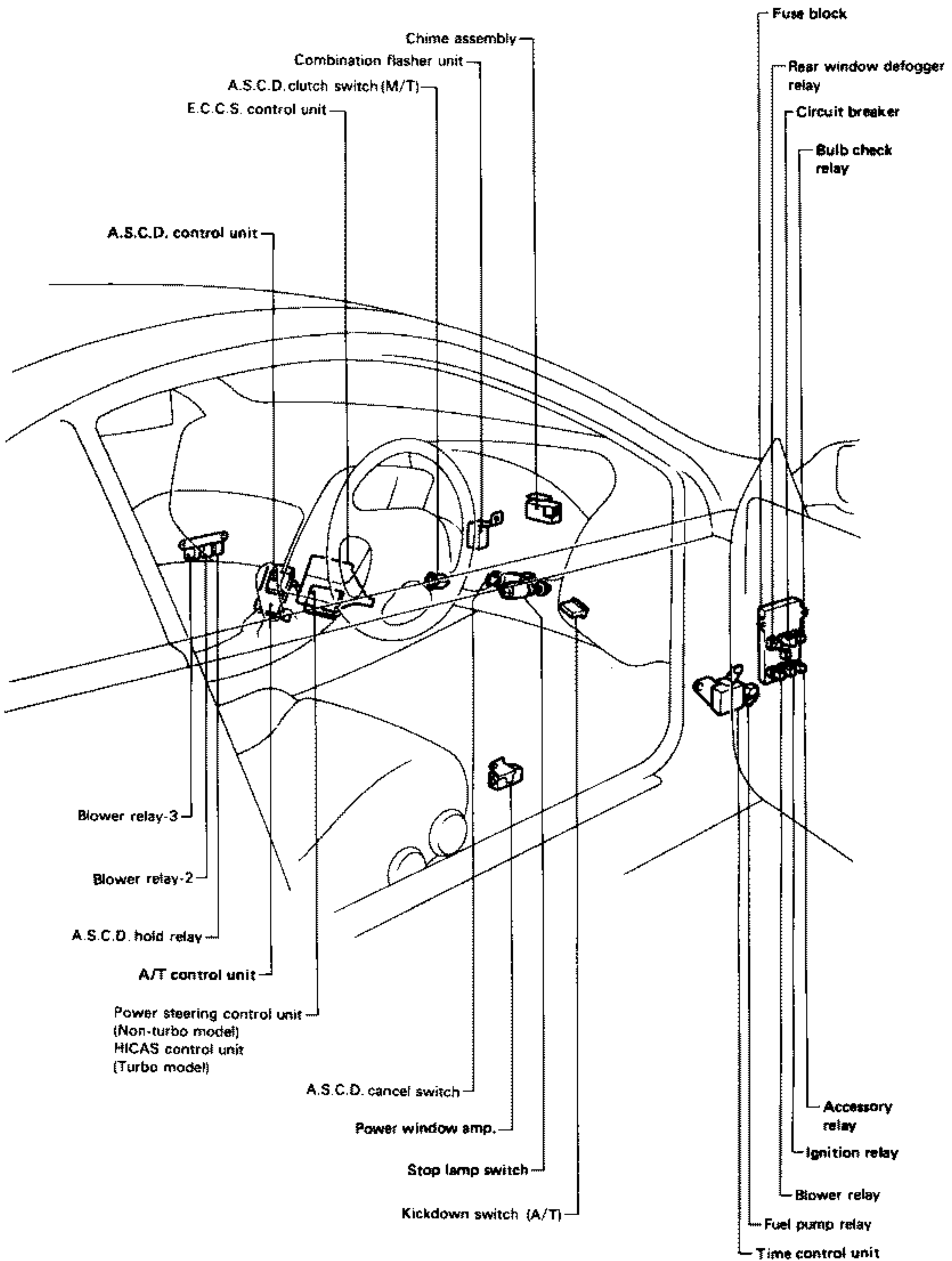
L.H. DRIVE MODELS



LOCATION OF ELECTRICAL UNITS

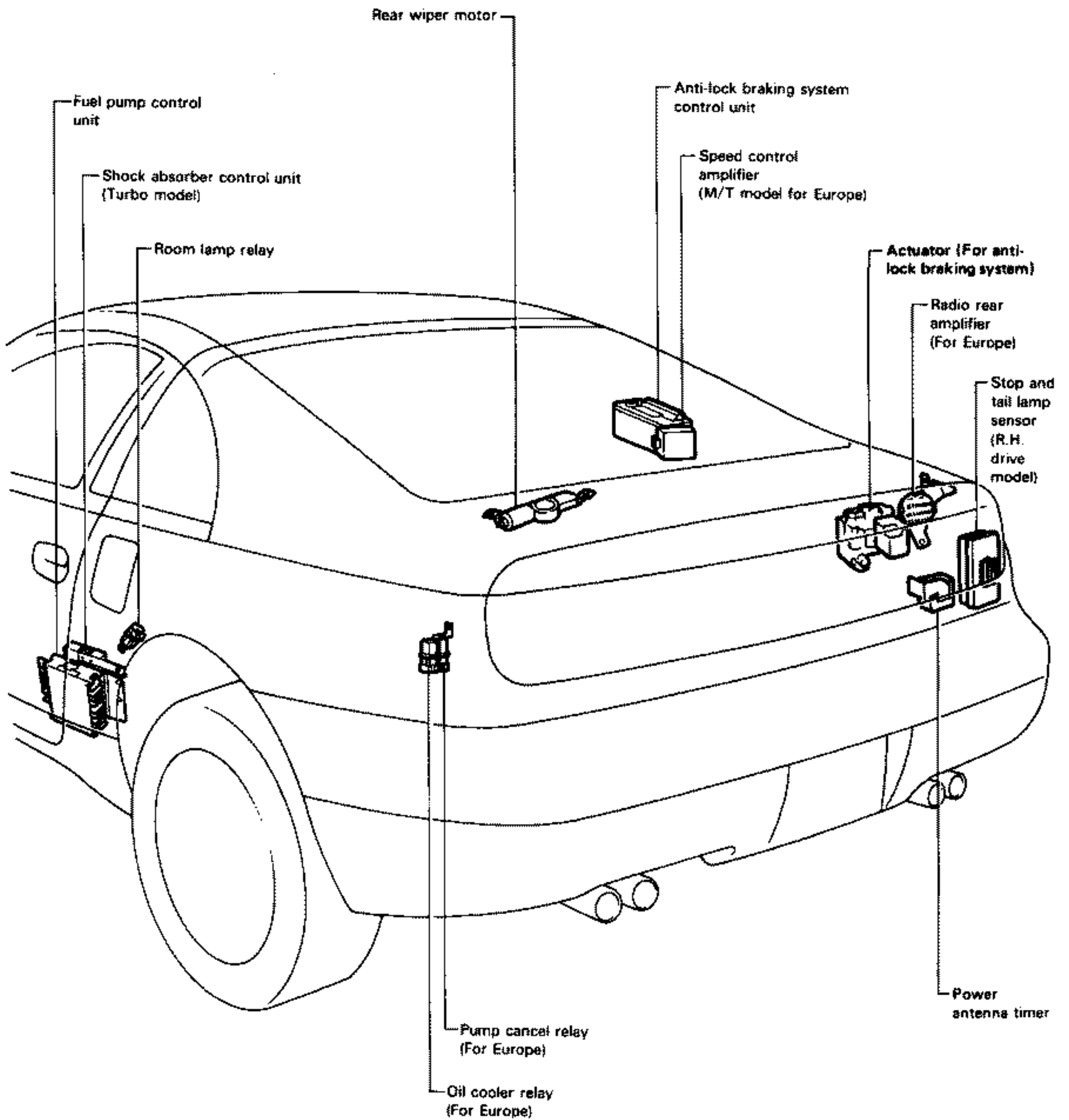
Passenger Compartment (Cont'd)

R.H. DRIVE MODELS



LOCATION OF ELECTRICAL UNITS

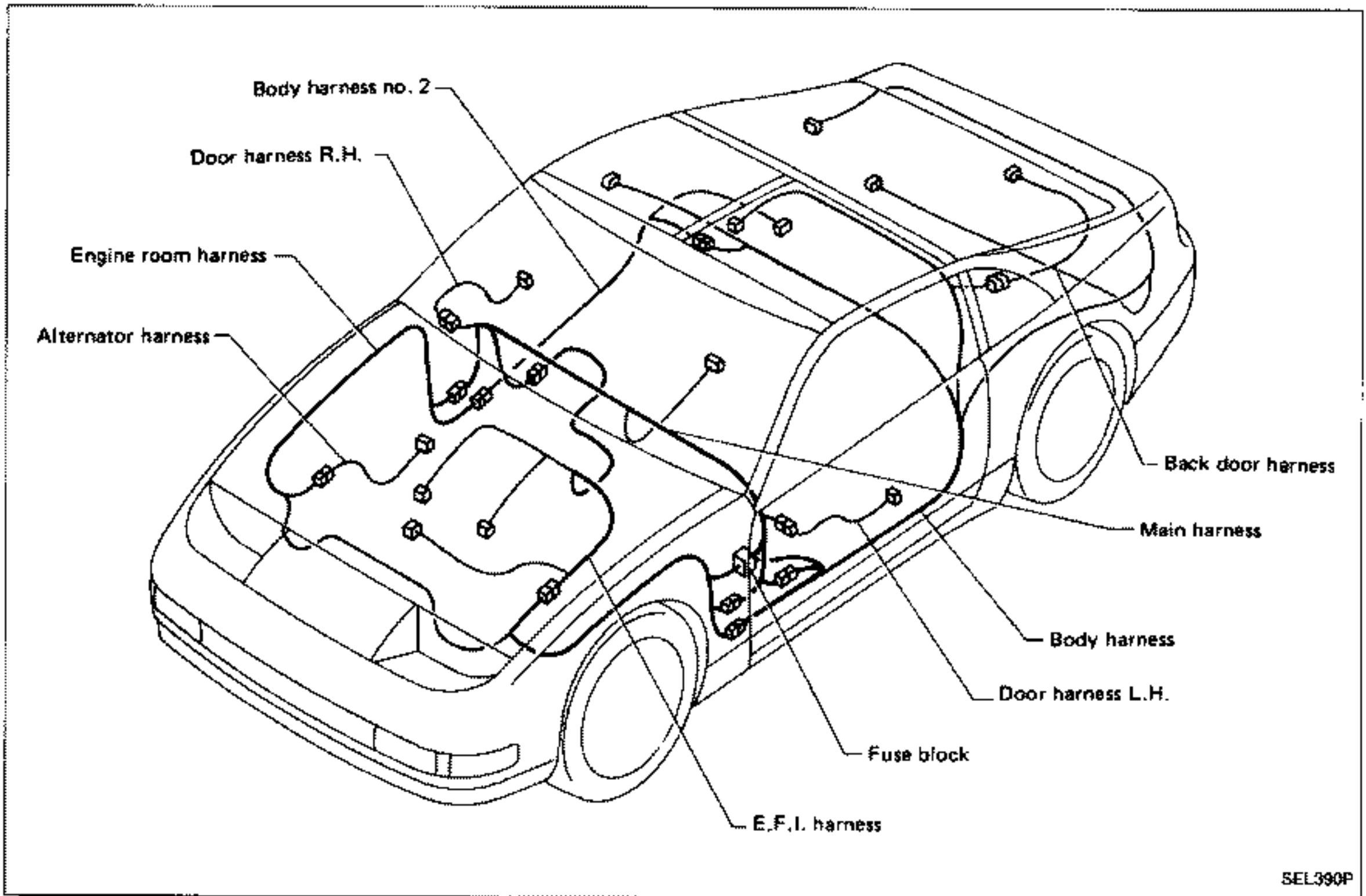
Luggage Compartment



HARNES LAYOUT

Outline

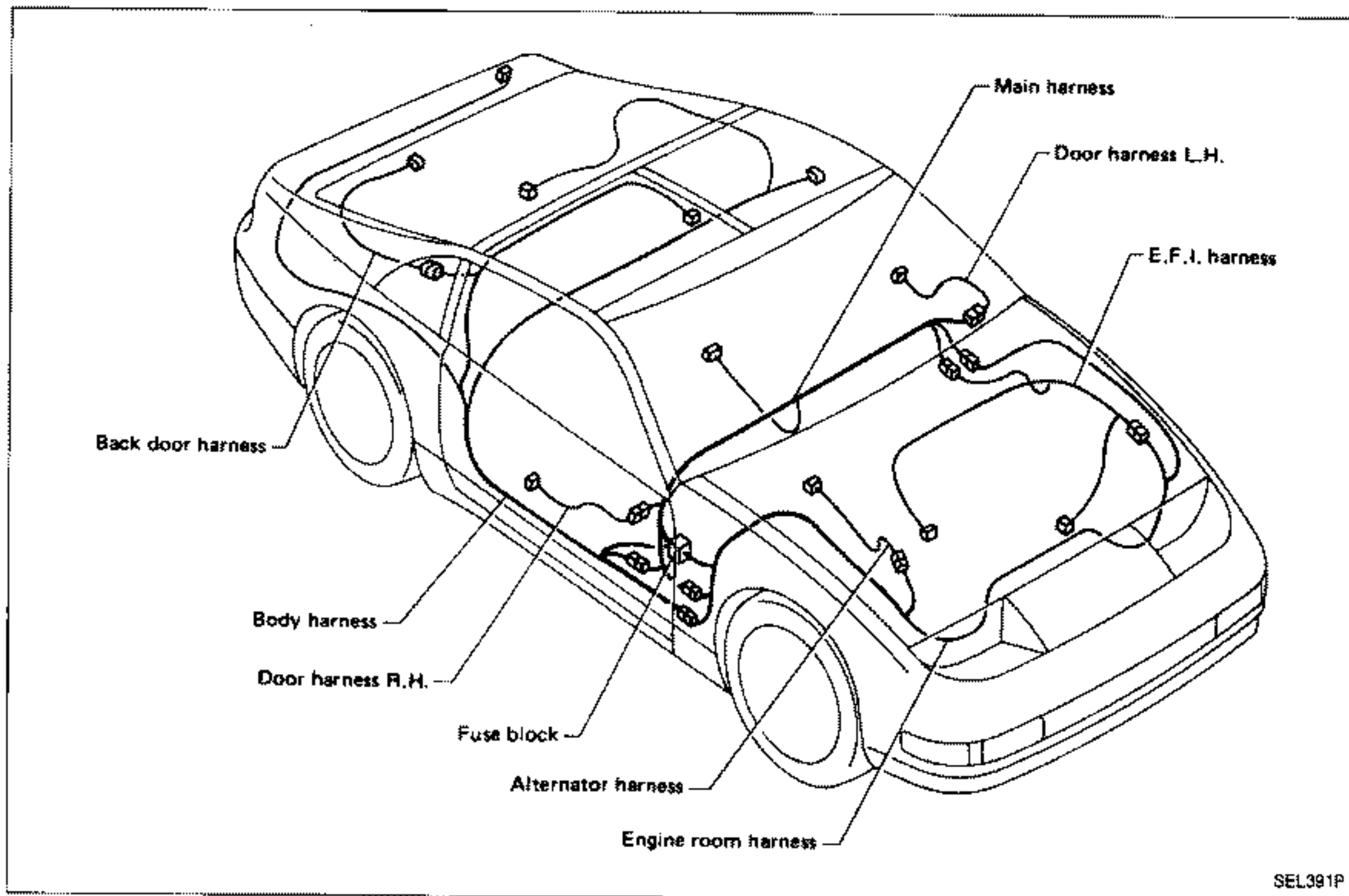
L.H. DRIVE MODELS



HARNESS LAYOUT

Outline (Cont'd)

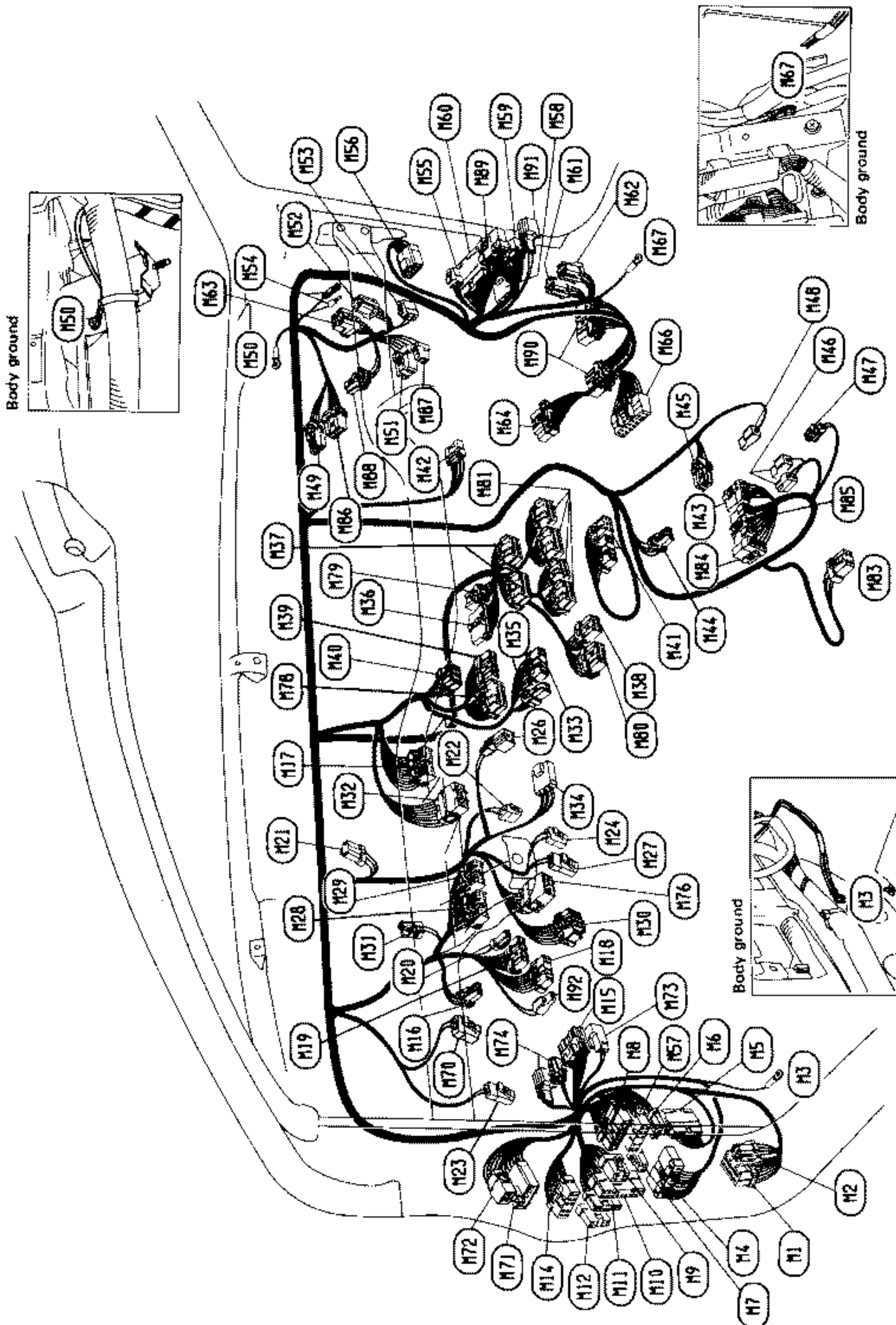
R.H. DRIVE MODELS



HARNESS LAYOUT

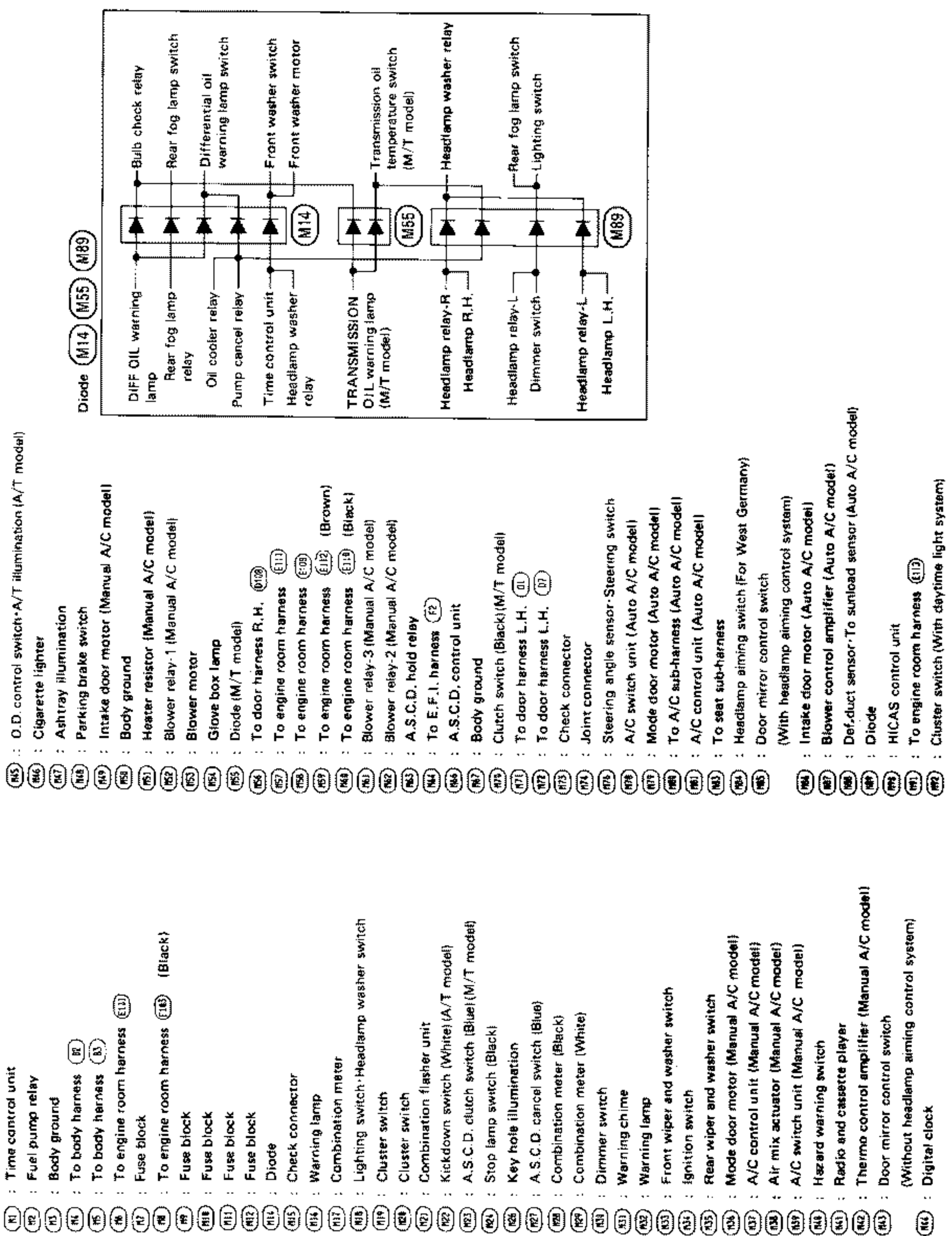
Main Harness

L.H. DRIVE MODELS



HARNESS LAYOUT

Main Harness (Cont'd)



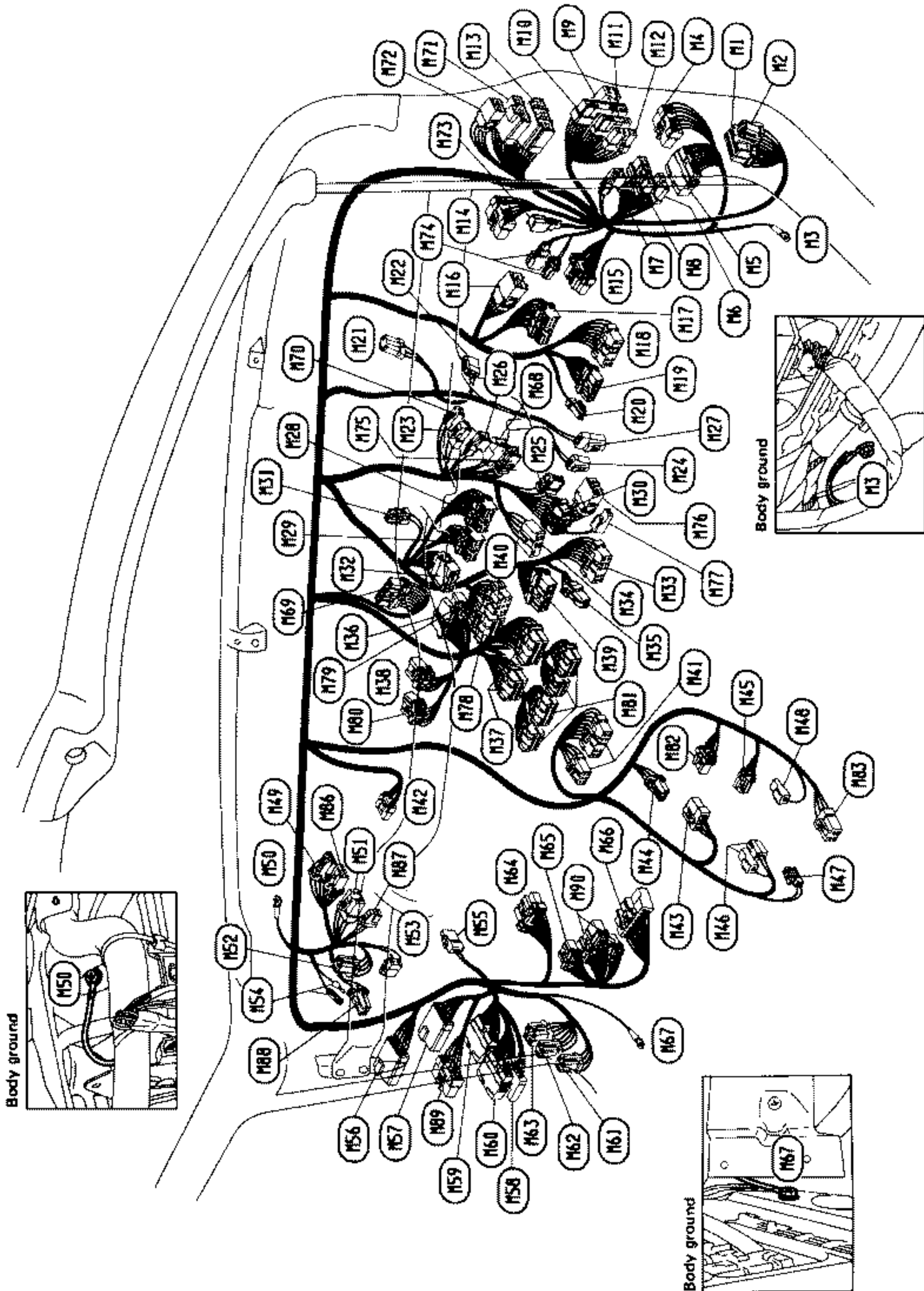
- (M15) : O.D. control switch-A/T illumination (A/T model)
- (M16) : Cigarette lighter
- (M17) : Ashtray illumination
- (M18) : Parking brake switch
- (M19) : Intake door motor (Manual A/C model)
- (M20) : Body ground
- (M21) : Heater resistor (Manual A/C model)
- (M22) : Blower relay-1 (Manual A/C model)
- (M23) : Blower motor
- (M24) : Glove box lamp
- (M25) : Diode (M/T model)
- (M26) : To door harness R.H. (E108)
- (M27) : To engine room harness (E111)
- (M28) : To engine room harness (E109)
- (M29) : To engine room harness (E112) (Brown)
- (M30) : To engine room harness (E119) (Black)
- (M31) : Blower relay-3 (Manual A/C model)
- (M32) : Blower relay-2 (Manual A/C model)
- (M33) : A.S.C.D. hold relay
- (M34) : To E.F.I. harness (F2)
- (M35) : A.S.C.D. control unit
- (M36) : Body ground
- (M37) : Clutch switch (Black)(M/T model)
- (M38) : To door harness L.H. (D1)
- (M39) : To door harness L.H. (D7)
- (M40) : Check connector
- (M41) : Joint connector
- (M42) : Steering angle sensor-Steering switch
- (M43) : A/C switch unit (Auto A/C model)
- (M44) : Mode door motor (Auto A/C model)
- (M45) : To A/C sub-harness (Auto A/C model)
- (M46) : A/C control unit (Auto A/C model)
- (M47) : To seat sub-harness
- (M48) : Headlamp aiming switch (For West Germany)
- (M49) : Door mirror control switch
(With headlamp aiming control system)
- (M50) : Intake door motor (Auto A/C model)
- (M51) : Blower control amplifier (Auto A/C model)
- (M52) : Deflect sensor-To sunload sensor (Auto A/C model)
- (M53) : Diode
- (M54) : HICAS control unit
- (M55) : To engine room harness (E113)
- (M56) : Cluster switch (With daytime light system)

- (M1) : Time control unit
- (M2) : Fuel pump relay
- (M3) : Body ground
- (M4) : To body harness (E1)
- (M5) : To body harness (E3)
- (M6) : To engine room harness (E111)
- (M7) : Fuse block
- (M8) : To engine room harness (E113) (Black)
- (M9) : Fuse block
- (M10) : Fuse block
- (M11) : Fuse block
- (M12) : Fuse block
- (M13) : Diode
- (M14) : Check connector
- (M15) : Warning lamp
- (M16) : Combination meter
- (M17) : Lighting switch-Headlamp washer switch
- (M18) : Cluster switch
- (M19) : Cluster switch
- (M20) : Combination flasher unit
- (M21) : Kickdown switch (White)(A/T model)
- (M22) : A.S.C.D. clutch switch (Blue)(M/T model)
- (M23) : Stop lamp switch (Black)
- (M24) : Key hole illumination
- (M25) : A.S.C.D. cancel switch (Blue)
- (M26) : Combination meter (Black)
- (M27) : Combination meter (White)
- (M28) : Dimmer switch
- (M29) : Warning chime
- (M30) : Warning lamp
- (M31) : Front wiper and washer switch
- (M32) : Ignition switch
- (M33) : Rear wiper and washer switch
- (M34) : Mode door motor (Manual A/C model)
- (M35) : A/C control unit (Manual A/C model)
- (M36) : Air mix actuator (Manual A/C model)
- (M37) : A/C switch unit (Manual A/C model)
- (M38) : Hazard warning switch
- (M39) : Radio and cassette player
- (M40) : Thermo control amplifier (Manual A/C model)
- (M41) : Door mirror control switch
(Without headlamp aiming control system)
- (M42) : Digital clock

HARNESS LAYOUT

Main Harness (Cont'd)

R.H. DRIVE MODELS



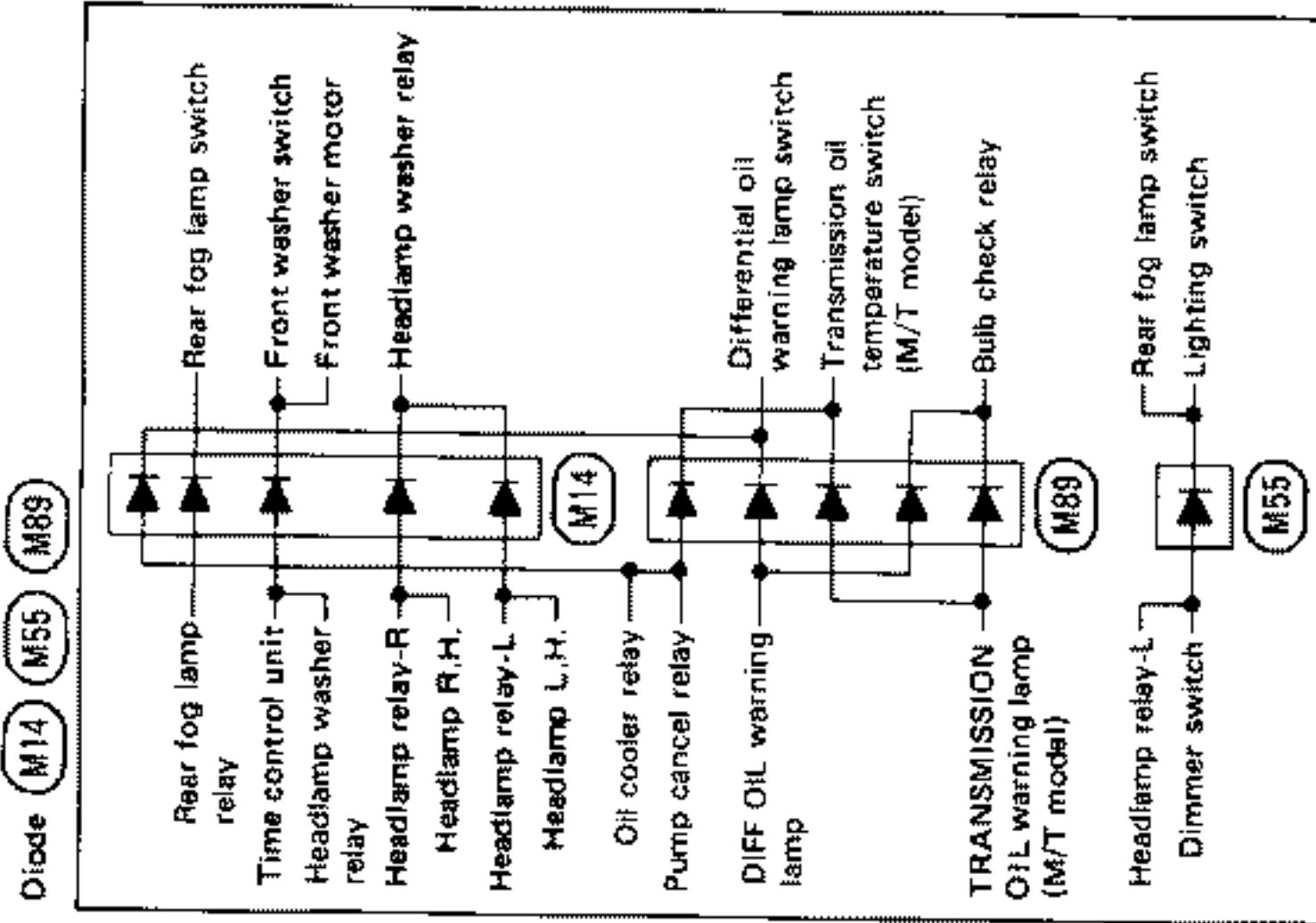
HARNESS LAYOUT

Main Harness (Cont'd)

- (R1) : Time control unit
- (R2) : Fuel pump relay
- (R3) : Body ground
- (R4) : To body harness (B2)
- (R5) : To body harness (B1)
- (R6) : To engine room harness (E1A)
- (R7) : Joint connector (Non-turbo model)
- (R8) : To engine room harness (E1B) (Black)
- (R9) : Fuse block
- (R10) : Fuse block
- (R11) : Fuse block
- (R12) : Fuse block
- (R13) : To door harness R.H. (D10) (For Australia)
- (R14) : Diode
- (R15) : Check connector
- (R16) : Warning lamp
- (R17) : Combination meter
- (R18) : Lighting switch-Headlamp washer switch
- (R19) : Cluster switch
- (R20) : Cluster switch
- (R21) : Combination flasher unit
- (R22) : Kickdown switch (White)(A/T model)
- (R23) : A.S.C.D. clutch switch (Blue)(M/T model)
- (R24) : Stop lamp switch (Black)
- (R25) : Steering switch (Non-turbo model)
- (R26) : Key hole illumination
- (R27) : A.S.C.D. cancel switch (Blue)
- (R28) : Combination meter (Black)
- (R29) : Combination meter (White)
- (R30) : Dimmer switch
- (R31) : Warning chime
- (R32) : Warning lamp
- (R33) : Front wiper and washer switch
- (R34) : Ignition switch
- (R35) : Rear wiper and washer switch
- (R36) : Mode door motor (Manual A/C model)
- (R37) : A/C control unit (Manual A/C model)
- (R38) : Air mix actuator (Manual A/C model)
- (R39) : A/C switch unit (Manual A/C model)
- (R40) : Hazard warning switch
- (R41) : Radio and cassette player
- (R42) : Thermo control amplifier (Manual A/C model)
- (R43) : Door mirror control switch

- (R44) : Digital clock
- (R45) : O.D. control switch-A/T illumination (A/T model)
- (R46) : Cigarette lighter
- (R47) : Ashtray illumination
- (R48) : Parking brake switch
- (R49) : Intake door motor (Manual A/C model)
- (R50) : Body ground
- (R51) : Heater resistor (Manual A/C model)
- (R52) : Blower relay-1 (Manual A/C model)
- (R53) : Blower motor
- (R54) : Glove box lamp
- (R55) : Diode
- (R56) : To door harness L.H. (D1)
- (R57) : To engine room harness (E11)
- (R58) : To engine room harness (E18)
- (R59) : To engine room harness (E12) (Brown)
- (R60) : To engine room harness (E16) (Black)
- (R61) : Blower relay-3 (Manual A/C model)
- (R62) : Blower relay-2 (Manual A/C model)
- (R63) : A.S.C.D. hold relay
- (R64) : To E.F.I. harness (F2)
- (R65) : Power steering control unit (Non-turbo model)
- (R66) : A.S.C.D. control unit
- (R67) : Body ground
- (R68) : Not used
- (R69) : Not used
- (R70) : Clutch switch (Black) (M/T model)
- (R71) : To door harness L.H. (D10) (For Europe)
- (R72) : To door harness L.H. (D10) (For Europe)
- (R73) : Check connector
- (R74) : Joint connector (Turbo model)
- (R75) : Not used
- (R76) : Steering angle sensor-Steering switch (Turbo model)
- (R77) : Not used
- (R78) : A/C switch unit (Auto A/C model)
- (R79) : Mode door motor (Auto A/C model)
- (R80) : To A/C sub-harness (Auto A/C model)
- (R81) : A/C control unit (Auto A/C model)
- (R82) : Not used
- (R83) : To seat sub-harness (For Europe)
- (R84) : Intake door motor (Auto A/C model)
- (R85) : Blower control amplifier (Auto A/C model)
- (R86) : Def. duct sensor-To sunload sensor (Auto A/C model)

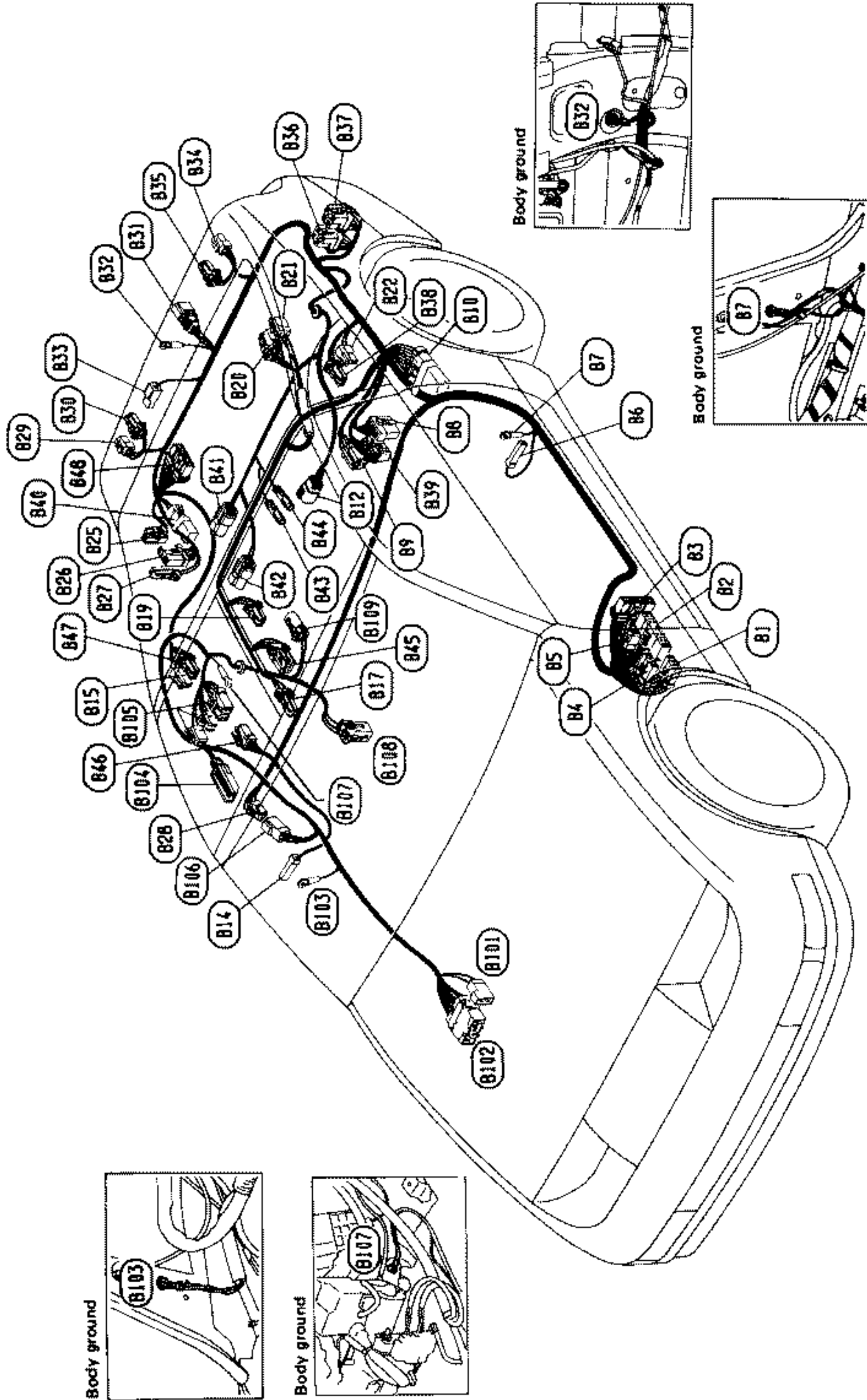
- (M14) : Diode
- (M55) : HICAS control unit (Turbo model)



HARNES LAYOUT

Body Harness

L.H. DRIVE MODELS



HARNES LAYOUT

Body Harness (Cont'd)

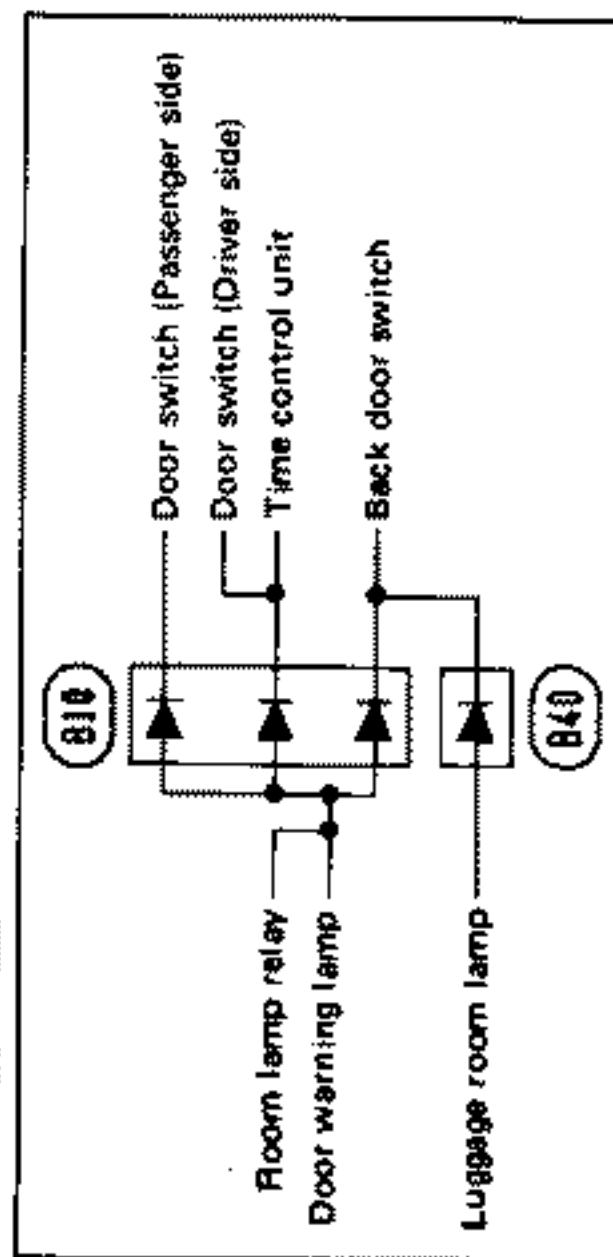
Body harness

- 81 : To engine room harness (E10)
- 82 : To main harness (E4)
- 83 : To main harness (E5)
- 84 : Fuse block
- 85 : Fuse block
- 86 : Door switch (Driver side)
- 87 : Body ground
- 88 : Fuel pump control unit
- 89 : Room lamp relay
- 818 : Diode
- 812 : Fuel tank gauge unit
- 814 : Door switch (Passenger side)
- 815 : Rear speaker R.H.
- 817 : Spot lamp
- 819 : Interior lamp
- 828 : To back door harness (E28)
- 827 : To back door harness (E28)
- 822 : Rear speaker L.H.
- 825 : Luggage room lamp
- 824 : Power antenna timer
- 827 : Power antenna motor
- 826 : To body harness no. 2 (E16)

- 829 : Rear combination lamp R.H.
- 838 : Back-up lamp R.H.
- 831 : License lamp-To rear fog lamp sub-harness
- 832 : Body ground
- 833 : Back door switch
- 834 : Rear combination lamp L.H.
- 835 : Back-up lamp L.H.
- 836 : Pump cancel relay (Black)
- 837 : Oil cooler relay (Brown)
- 838 : Shock absorber actuator L.H.
- 839 : Shock absorber control unit
- 843 : Diode
- 841 : Differential oil pump
- 842 : Transmission oil pump (M/T model)
- 843 : Differential oil temperature switch
- 844 : Differential oil warning lamp switch
- 845 : In-vehicle sensor upper*Aspirator motor (Auto A/C model)
- 846 : Speed control amplifier (M/T model)
- 847 : Shock absorber actuator R.H.
- 848 : Radio rear amplifier

- ### Body harness no. 2
- 8101 : To engine room harness (E10)
 - 8102 : To engine room harness (E14)
 - 8103 : Body ground
 - 8104 : Anti-lock braking system control unit
 - 8105 : Actuator (For anti-lock braking system)
 - 8106 : To body harness (E28)
 - 8107 : Body ground
 - 8108 : Rear sensor (For anti-lock braking system)
 - 8109 : HICAS fail-safe solenoid valve

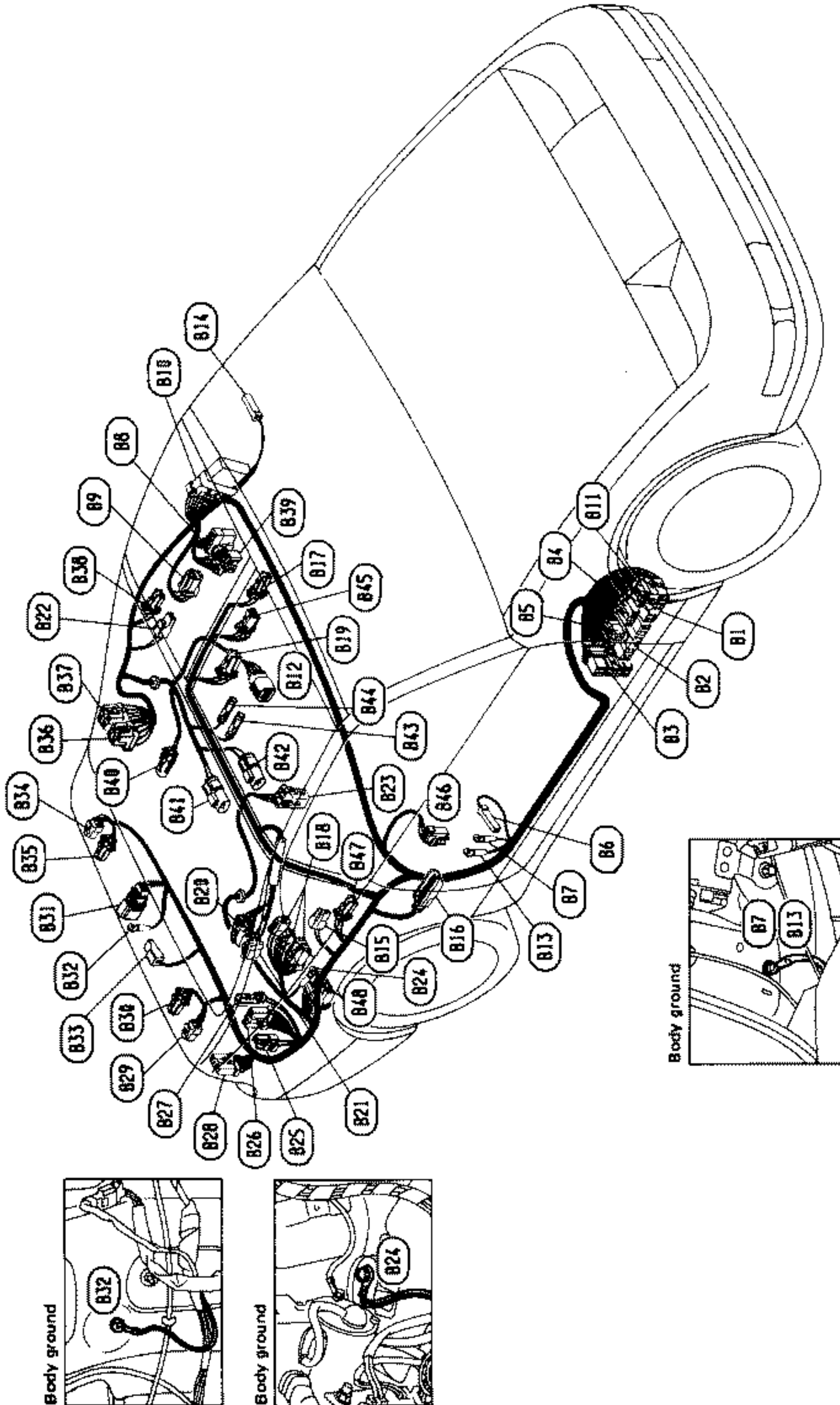
Diode (810) (840)



HARNESS LAYOUT

Body Harness (Cont'd)

R.H. DRIVE MODELS

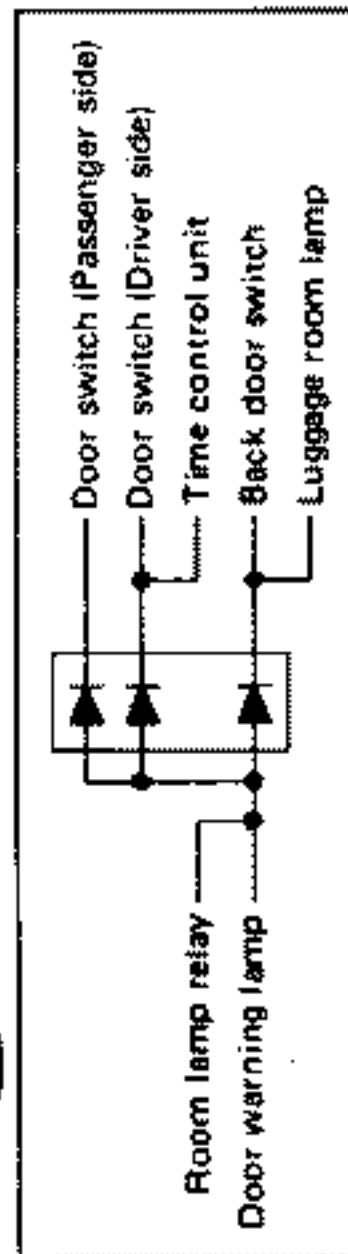


HARNES LAYOUT

Body Harness (Cont'd)

- 81 : To engine room harness (E184)
- 82 : To main harness (K)
- 83 : To main harness (75)
- 84 : Fuse block
- 85 : Fuse block
- 86 : Door switch (Driver side)
- 87 : Body ground
- 88 : Fuel pump control unit
- 89 : Room lamp relay
- 90 : Diode
- 91 : To engine room harness (E182)
- 92 : Fuel tank gauge unit
- 93 : Body ground
- 94 : Door switch (Passenger side)
- 95 : Rear speaker R.H.
- 96 : Anti-lock braking system control unit
- 97 : Spot lamp
- 98 : Actuator (For anti-lock braking system)
- 99 : Interior lamp
- 100 : To back door harness (E281)
- 101 : To back door harness (E282)
- 102 : Rear speaker L.H.
- 103 : Rear sensor (For anti-lock braking system)
- 104 : Body ground
- 105 : Luggage room lamp
- 106 : Power antenna timer
- 107 : Power antenna motor
- 108 : Stop and tail lamp sensor
- 109 : Rear combination lamp R.H.
- 110 : Back-up lamp R.H.
- 111 : License lamp - To rear fog lamp sub-harness
- 112 : Body ground
- 113 : Back door switch
- 114 : Rear combination lamp L.H.
- 115 : Back-up lamp L.H.
- 936 : Pump cancel relay (Black) (For Europe)
- 937 : Oil cooler relay (Brown) (For Europe)
- 938 : Shock absorber actuator L.H. (Turbo model)
- 939 : Shock absorber control unit (Turbo model)
- 940 : HICAS fail-safe solenoid valve (Turbo model)
- 941 : Differential oil pump (For Europe)
- 942 : Transmission oil pump (M/T model for Europe)
- 943 : Differential oil temperature switch (For Europe)
- 944 : Differential oil warning lamp switch (For Europe)
- 945 : In-vehicle sensor upper - Aspirator motor (Auto A/C model)
- 946 : Speed control amplifier (M/T model for Europe)
- 947 : Shock absorber actuator R.H. (Turbo model)
- 948 : Radio rear amplifier (For Europe)

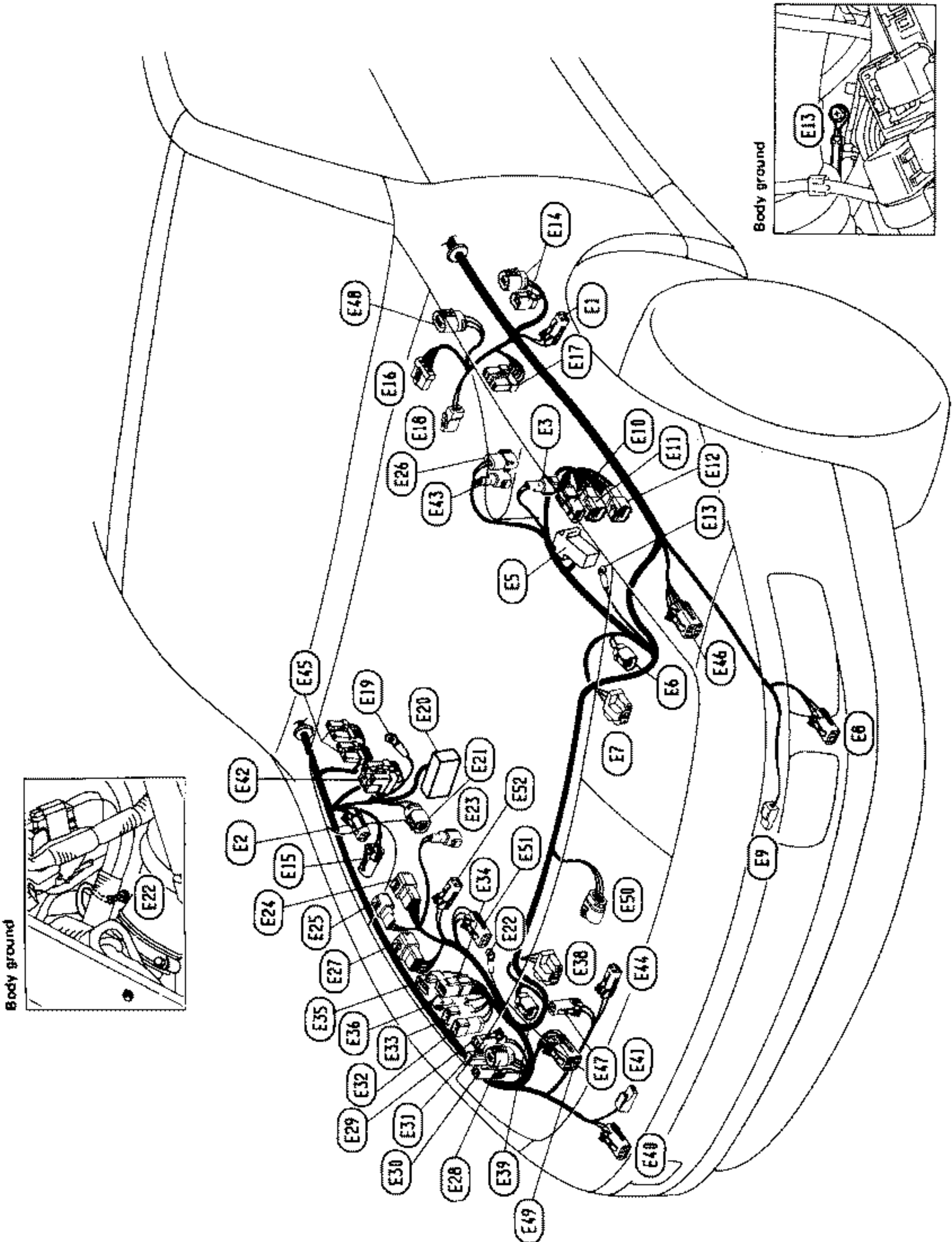
Diode (810)



HARNES LAYOUT

Engine Room Harness

L.H. DRIVE MODELS (Engine compartment)



HARNESS LAYOUT

Engine Room Harness (Cont'd)

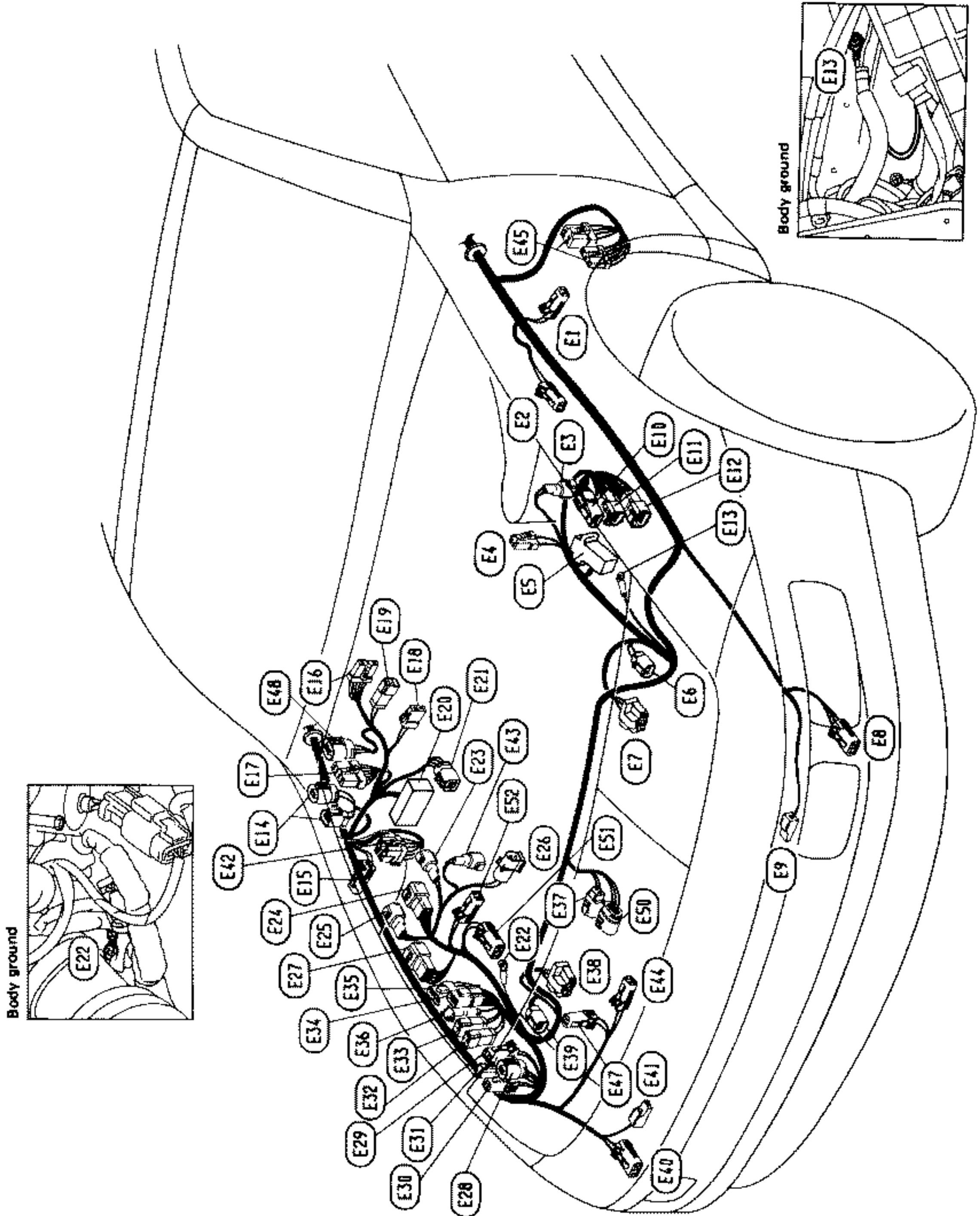
(E1) : Side turn signal lamp L.H.
 (E2) : Dropping resistor (A/T model)
 (E3) : Front sensor L.H. (For anti-lock braking system)
 (E5) : Relay box (Refer to LOCATION OF ELECTRICAL UNITS.)
 (E6) : Headlamp L.H. (Low beam)
 (E7) : Headlamp L.H. (High beam)
 (E8) : Front combination lamp L.H.
 (E9) : Horn-low
 (E10) : To E.F.I. harness (E23) (White)
 (E11) : To E.F.I. harness (E24) (Gray)
 (E12) : To E.F.I. harness (E25) (Brown)
 (E13) : Body ground
 (E14) : Starter relay (A/T model)
 (E15) : Side turn signal lamp R.H.
 (E16) : Front wiper motor
 (E17) : Front wiper amplifier
 (E18) : Brake fluid level switch
 (E19) : Battery
 (E20) : Fusible link holder
 (E21) : A.S.C.D. actuator
 (E22) : Body ground
 (E23) : Front sensor R.H. (For anti-lock braking system)
 (E24) : To A/T solenoid harness (A/T model)
 (E25) : Revolution sensor (A/T model)
 (E26) : Power steering oil pressure switch (Black)

(E27) : Inhibitor switch (A/T model)
 (E28) : Front washer motor (White)
 (E29) : Rear washer motor (Gray)
 (E30) : Washer fluid level switch (Brown)
 (E31) : Headlamp washer motor (Black)
 (E32) : To alternator harness (A1) (Black)
 (E33) : To alternator harness (A2) (Blue)
 (E34) : To alternator harness (A3) (A/T model)
 (E35) : To alternator harness (A4) (M/T model)
 (E36) : To alternator harness (A5)
 (E37) : Headlamp R.H. (High beam)
 (E38) : Headlamp R.H. (Low beam)
 (E39) : Front combination lamp R.H.
 (E40) : Horn-high
 (E41) : Headlamp washer relay
 (E42) : Power steering solenoid valve (Gray)
 (E43) : Low-pressure switch
 (E44) : Daytime light control unit
 (E45) : Aiming motor unit L.H. (For West Germany)
 (E46) : Ambient sensor (Auto A/C model)
 (E47) : Boost sensor
 (E48) : Aiming motor unit R.H. (For West Germany)
 (E49) : Radiator fan motor
 (E50) : HICAS solenoid valve
 (E51) : HICAS oil level switch

HARNESS LAYOUT

Engine Room Harness (Cont'd)

R.H. DRIVE MODELS (Engine compartment)



HARNESS LAYOUT

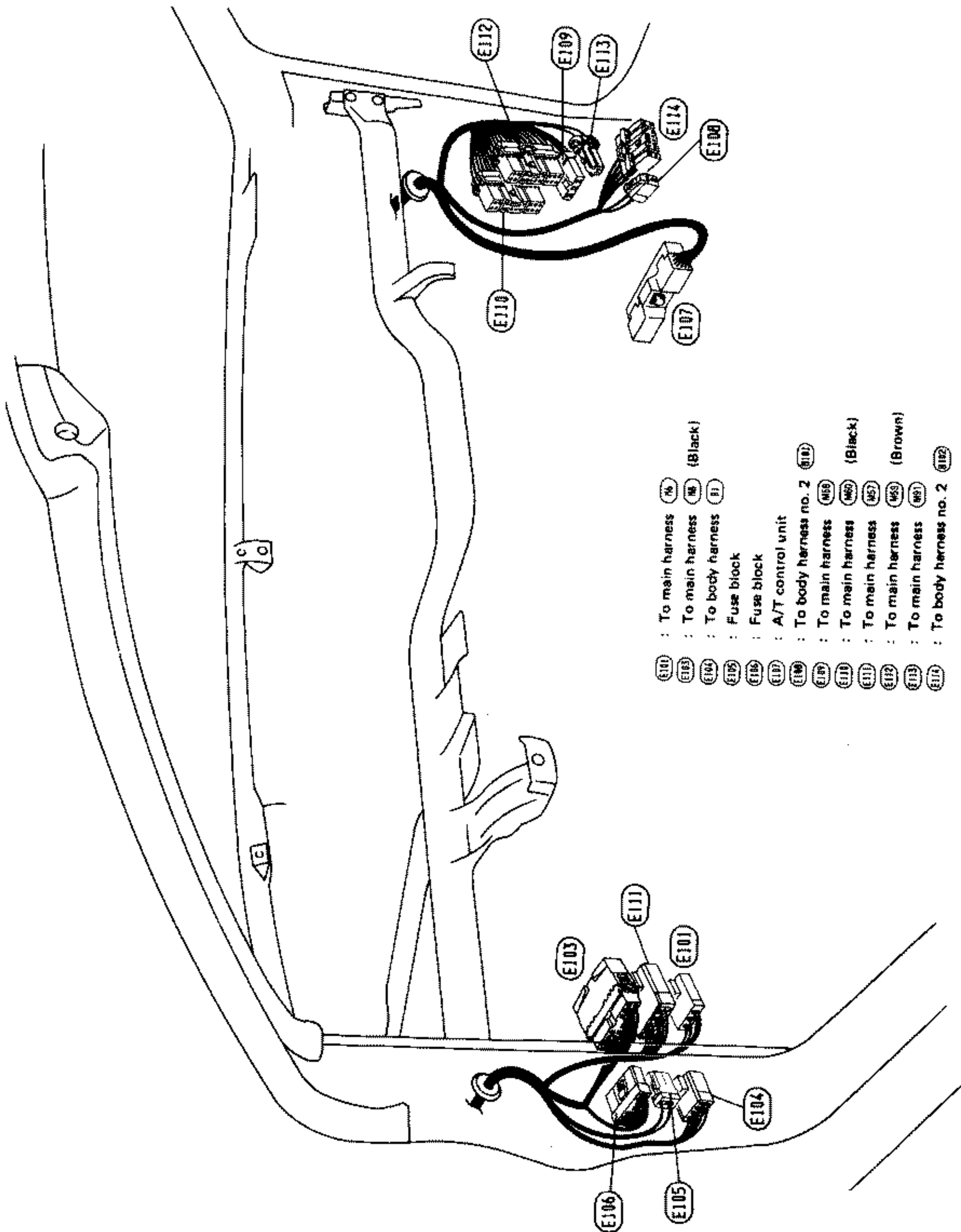
Engine Room Harness (Cont'd)

- E1 : Side turn signal lamp L.H.
 E2 : Dropping resistor (A/T model)
 E3 : Front sensor L.H. (For anti-lock braking system)
 E4 : Oil sending unit
 E5 : Relay box (Refer to LOCATION OF ELECTRICAL UNITS.)
 E6 : Headlamp L.H. (Low beam)
 E7 : Headlamp L.H. (High beam)
 E8 : Front combination lamp L.H.
 E9 : Horn-low
 E10 : To E.F.I. harness E23 (White)
 E11 : To E.F.I. harness E24 (Gray)
 E12 : To E.F.I. harness E25 (Brown)
 E13 : Body ground
 E14 : Starter relay (A/T model)
 E15 : Side turn signal lamp R.H.
 E16 : Front wiper motor
 E17 : Front wiper amplifier
 E18 : Brake fluid level switch
 E19 : Battery
 E20 : Fusible link holder
 E21 : A.S.C.D. actuator
 E22 : Body ground
 E23 : Front sensor R.H. (For anti-lock braking system)
 E24 : To A/T solenoid harness (A/T model)
 E25 : Revolution sensor (A/T model)
 E26 : Power steering oil pressure switch (Black)
 E27 : Inhibitor switch (A/T model)
 E28 : Front washer motor (White)
 E29 : Rear washer motor (Gray)
 E30 : Washer fluid level switch (Brown)
 E31 : Headlamp washer motor (Black)
 E32 : To alternator harness E1 (Black)
 E33 : To alternator harness E2 (Blue)
 E34 : To alternator harness E3 (A/T model)
 E35 : To alternator harness E4 (M/T model)
 E36 : To alternator harness E5
 E37 : Radiator fan motor (Non-turbo model)
 E38 : Headlamp R.H. (High beam)
 E39 : Headlamp R.H. (Low beam)
 E40 : Front combination lamp R.H.
 E41 : Horn-high
 E42 : Headlamp washer relay
 E43 : Power steering solenoid valve (Gray)
 E44 : Low-pressure switch
 E45 : Dim-dip lamp unit
 E46 : Ambient sensor (Auto A/C model)
 E48 : Boost sensor (Turbo model)
 E50 : Radiator fan motor (Turbo model)
 E51 : HICAS solenoid valve (Turbo model)
 E52 : HICAS oil level switch (Turbo model)

HARNESS LAYOUT

Engine Room Harness (Cont'd)

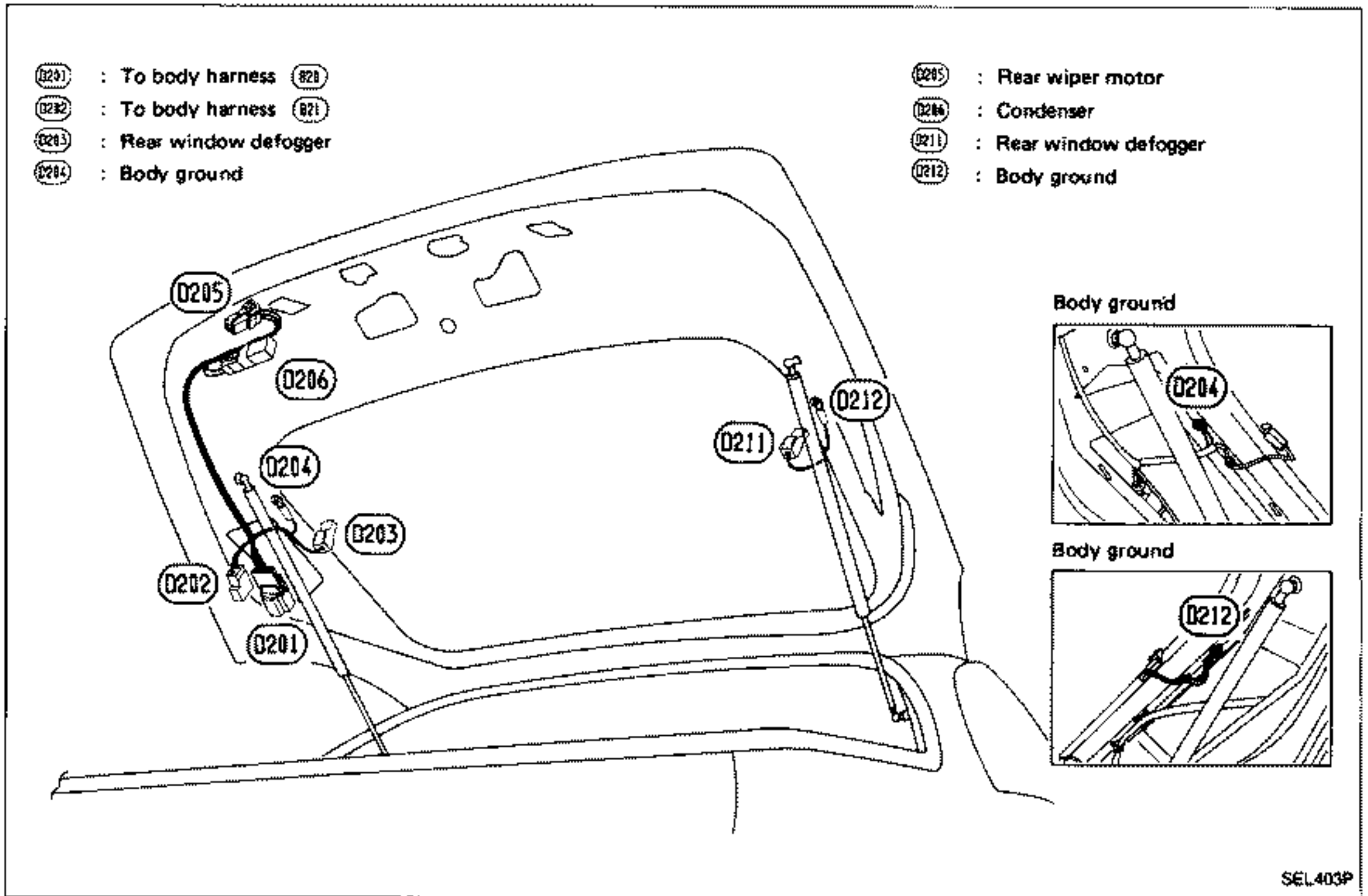
L.H. DRIVE MODELS (Passenger compartment)



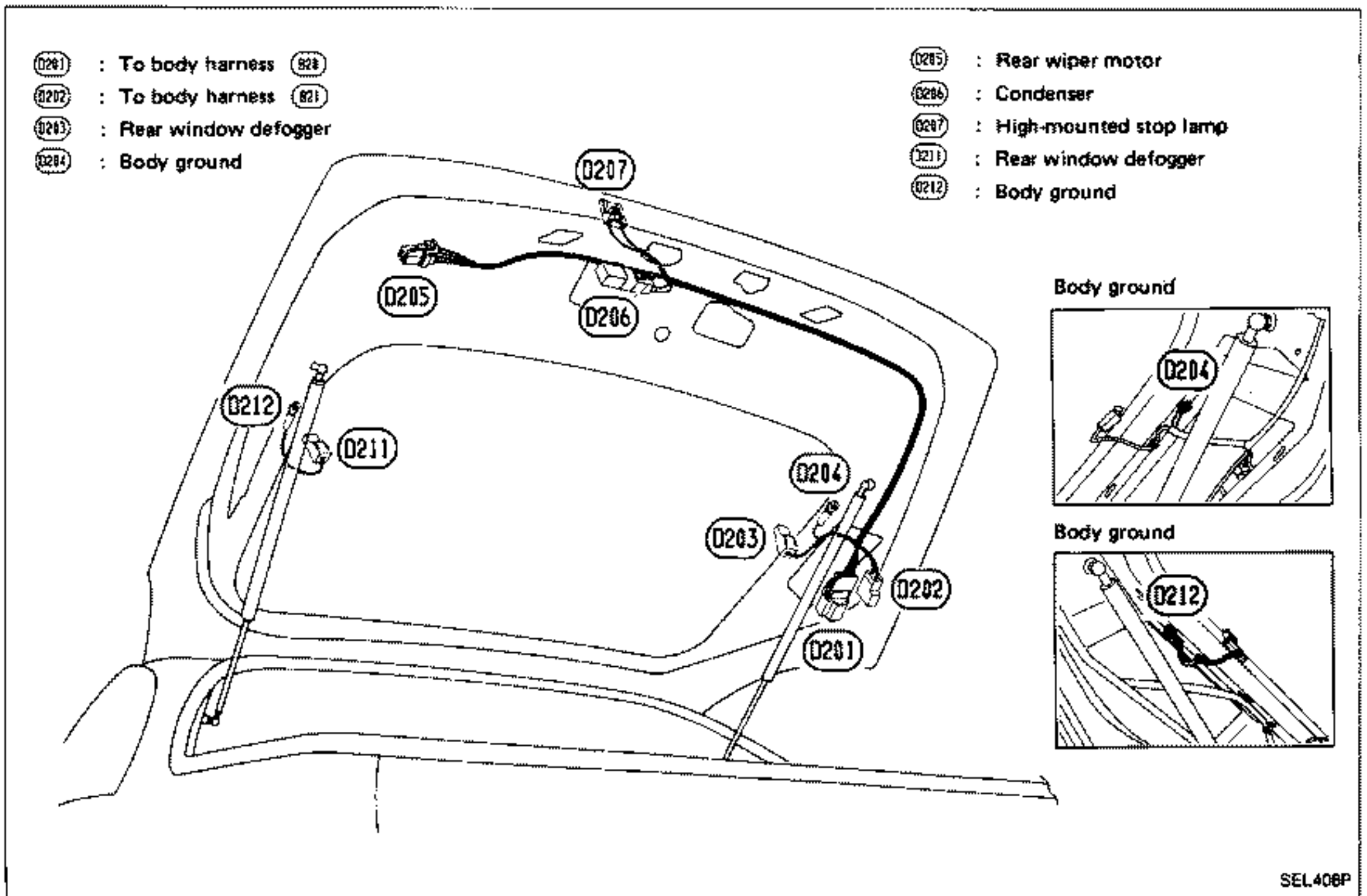
- (E101) : To main harness (W) (Black)
- (E103) : To main harness (M) (Black)
- (E104) : To body harness (B)
- (E105) : Fuse block
- (E106) : Fuse block
- (E107) : A/T control unit
- (E108) : To body harness no. 2 (E101)
- (E109) : To main harness (W58) (Black)
- (E110) : To main harness (W60) (Black)
- (E111) : To main harness (W57)
- (E112) : To main harness (W59) (Brown)
- (E113) : To main harness (W61)
- (E114) : To body harness no. 2 (E102)

HARNESS LAYOUT

Back Door Harness L.H.

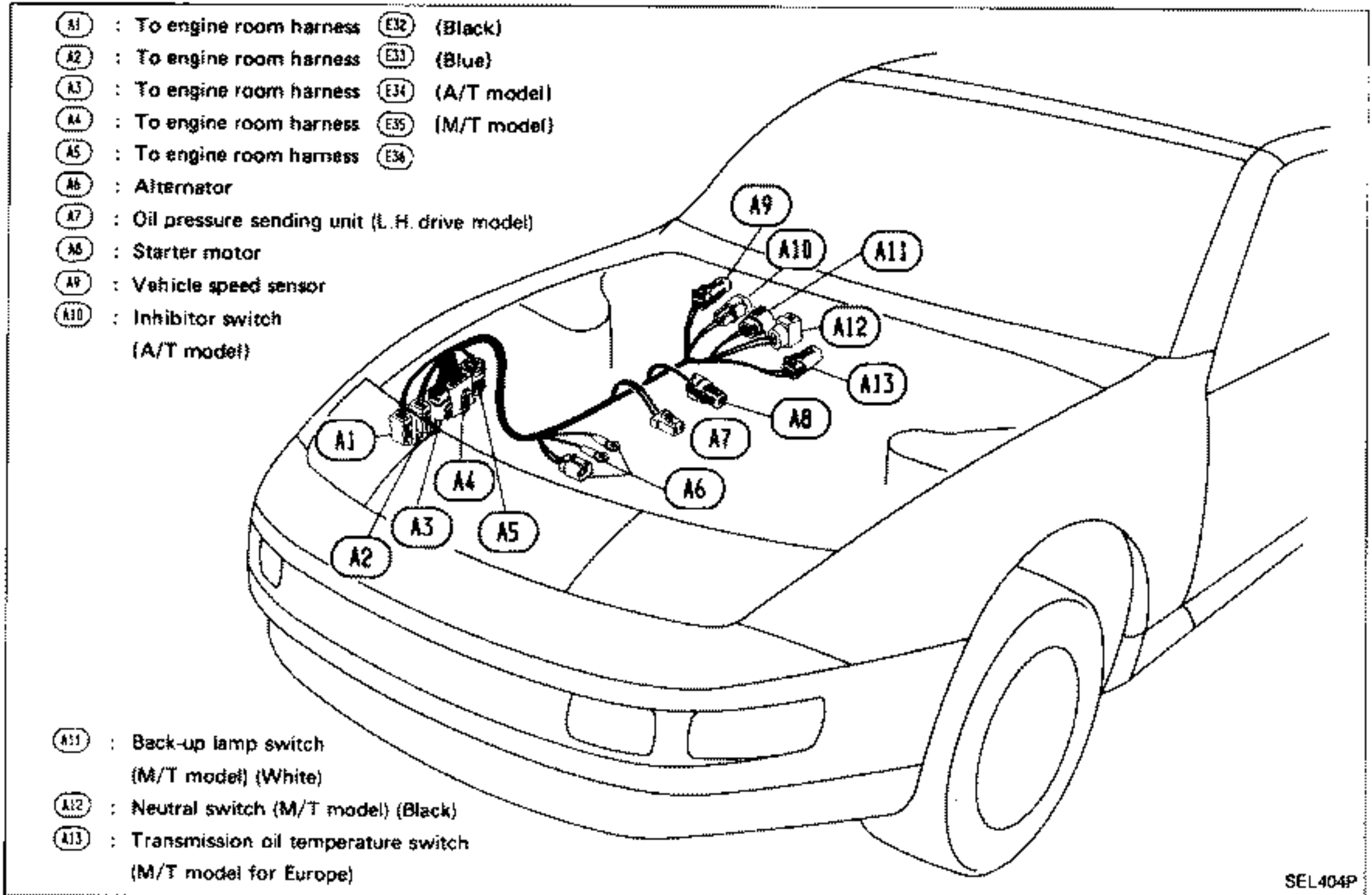


Back Door Harness R.H.



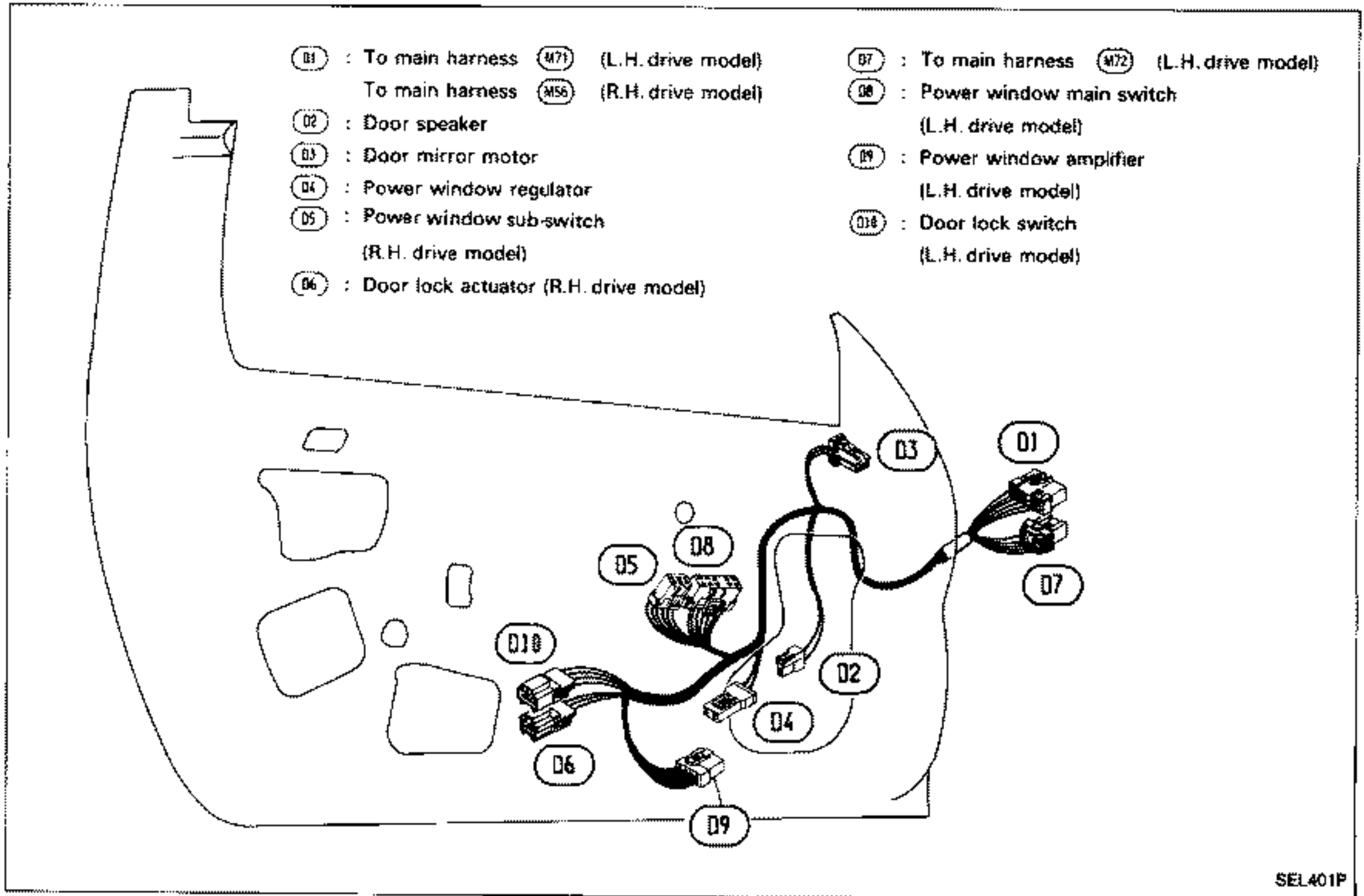
HARNES LAYOUT

Alternator Harness

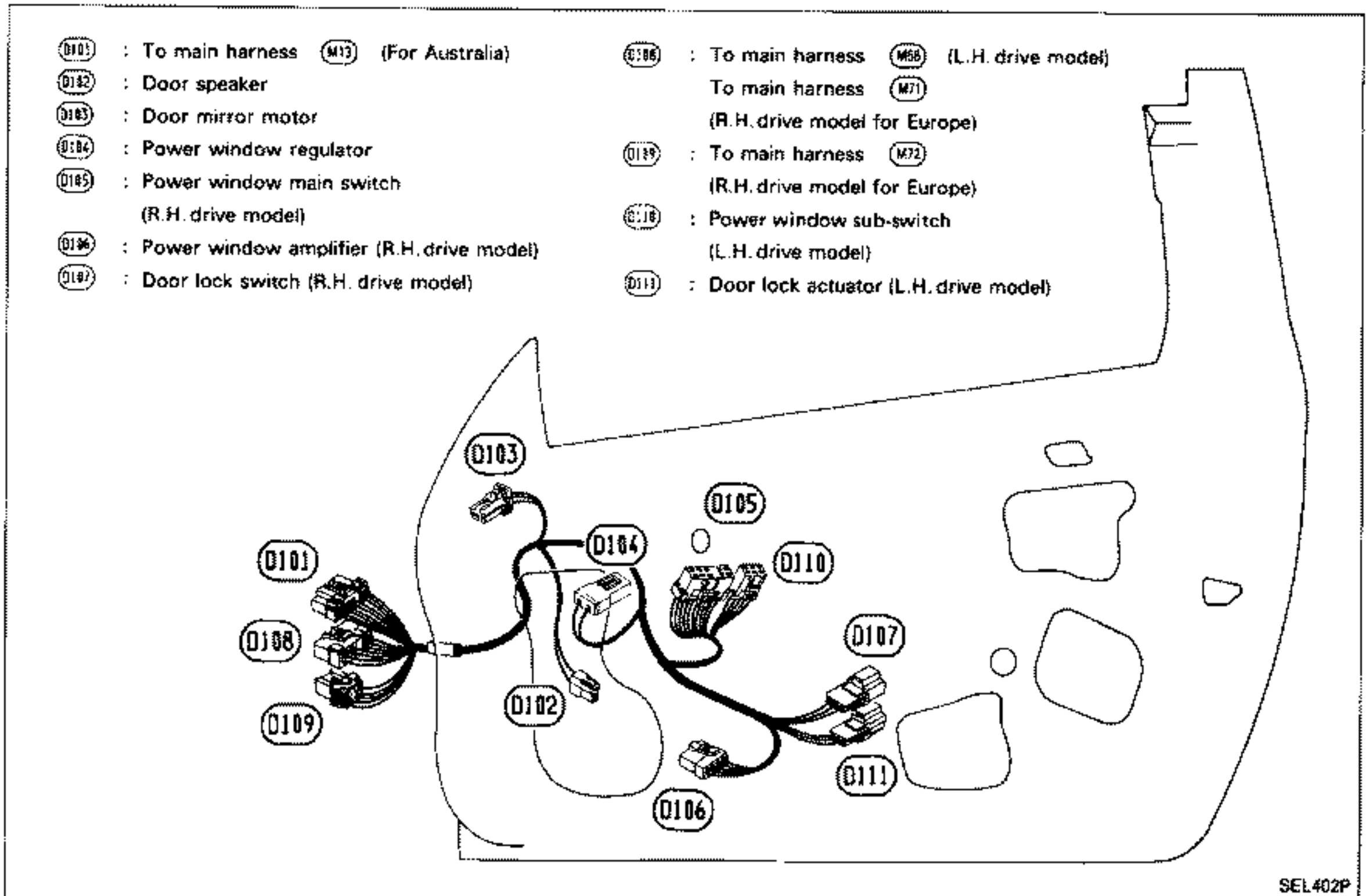


HARNES LAYOUT

Door Harness L.H.

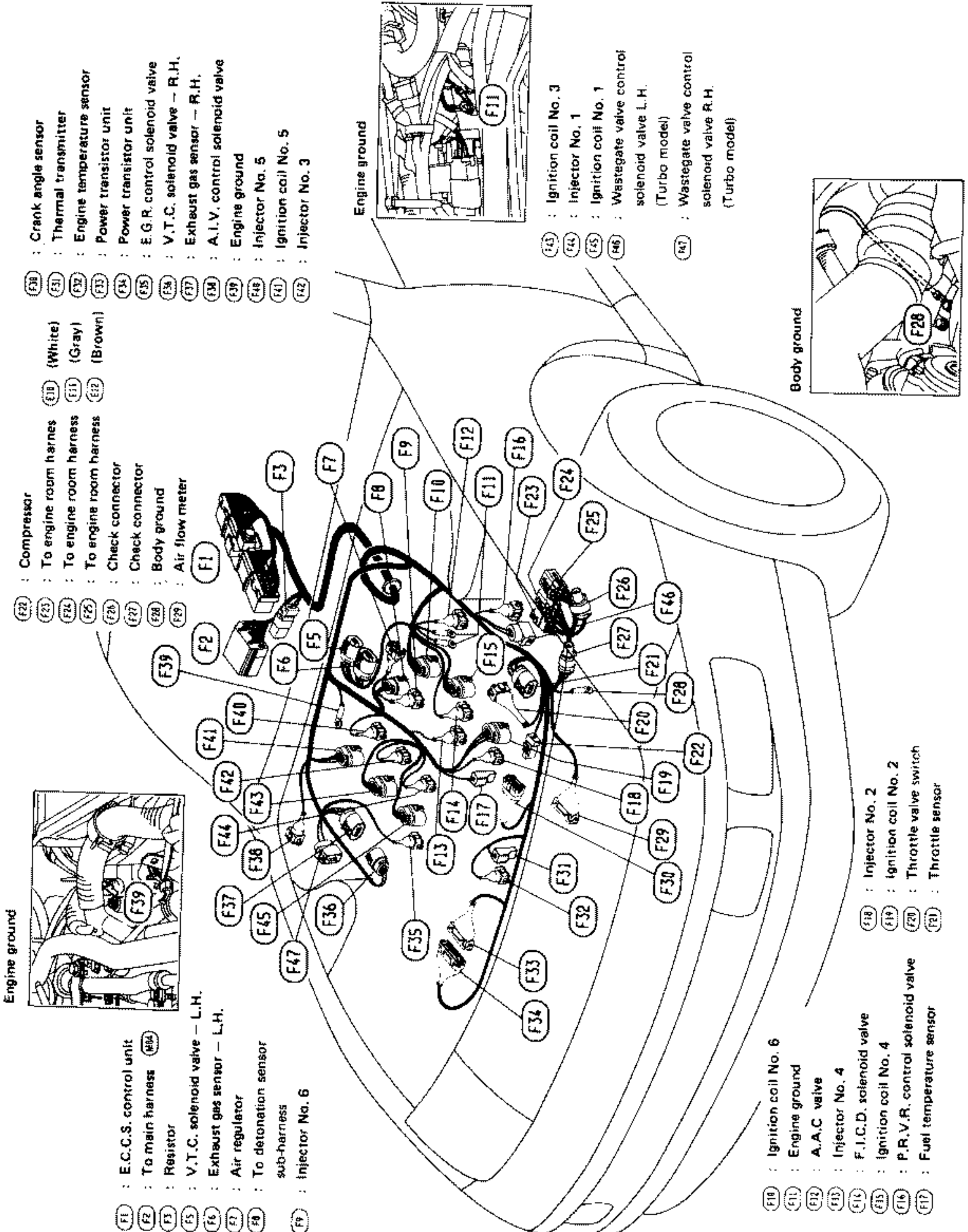


Door Harness R.H.



HARNESS LAYOUT

E.F.I. Harness



- (F38) : Crank angle sensor
- (F31) : Thermal transmitter
- (F32) : Engine temperature sensor
- (F33) : Power transistor unit
- (F34) : Power transistor unit
- (F35) : E.G.R. control solenoid valve
- (F36) : V.T.C. solenoid valve - R.H.
- (F37) : Exhaust gas sensor - R.H.
- (F38) : A.I.V. control solenoid valve
- (F39) : Engine ground
- (F40) : Injector No. 5
- (F41) : Ignition coil No. 5
- (F42) : Injector No. 3

- (F22) : Compressor
- (F23) : To engine room harness (White)
- (F24) : To engine room harness (Gray)
- (F25) : To engine room harness (Brown)
- (F26) : Check connector
- (F27) : Check connector
- (F28) : Body ground
- (F29) : Air flow meter

- (F1) : E.C.C.S. control unit
- (F2) : To main harness (MBA)
- (F3) : Resistor
- (F5) : V.T.C. solenoid valve - L.H.
- (F6) : Exhaust gas sensor - L.H.
- (F7) : Air regulator
- (F8) : To detonation sensor sub-harness
- (F9) : Injector No. 6

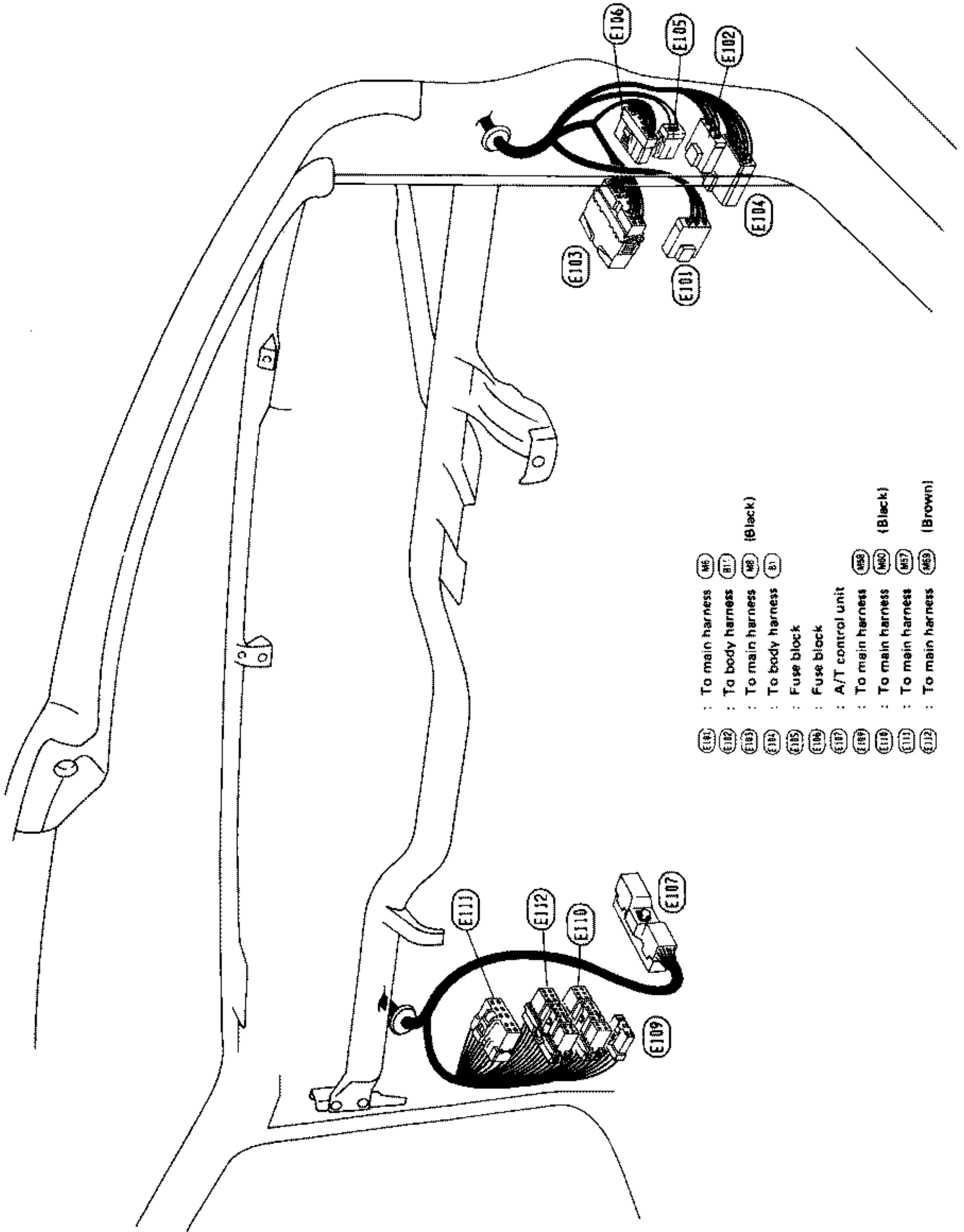
- (F43) : Ignition coil No. 3
- (F44) : Injector No. 1
- (F45) : Ignition coil No. 1
- (F46) : Wastegate valve control solenoid valve L.H. (Turbo model)
- (F47) : Wastegate valve control solenoid valve R.H. (Turbo model)

- (F10) : Ignition coil No. 6
- (F11) : Engine ground
- (F12) : A.A.C. valve
- (F13) : Injector No. 4
- (F14) : F.I.C.D. solenoid valve
- (F15) : Ignition coil No. 4
- (F16) : P.R.V.R. control solenoid valve
- (F17) : Fuel temperature sensor
- (F18) : Injector No. 2
- (F19) : Ignition coil No. 2
- (F20) : Throttle valve switch
- (F21) : Throttle sensor

HARNESS LAYOUT

E.F.I. Harness (Cont'd)

R.H. DRIVE MODELS (Passenger compartment)



- (E101) : To main harness (M6)
- (E102) : To body harness (B1) (Black)
- (E103) : To main harness (M8) (Black)
- (E104) : To body harness (B1)
- (E105) : Fuse block
- (E106) : Fuse block
- (E107) : A/T control unit
- (E108) : To main harness (M58) (Black)
- (E109) : To main harness (M60) (Black)
- (E110) : To main harness (M57)
- (E111) : To main harness (M59) (Brown)
- (E112) : To main harness