ELECTRICAL SYSTEM

SECTION EL

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HOW TO READ DIAGRAMS

Description

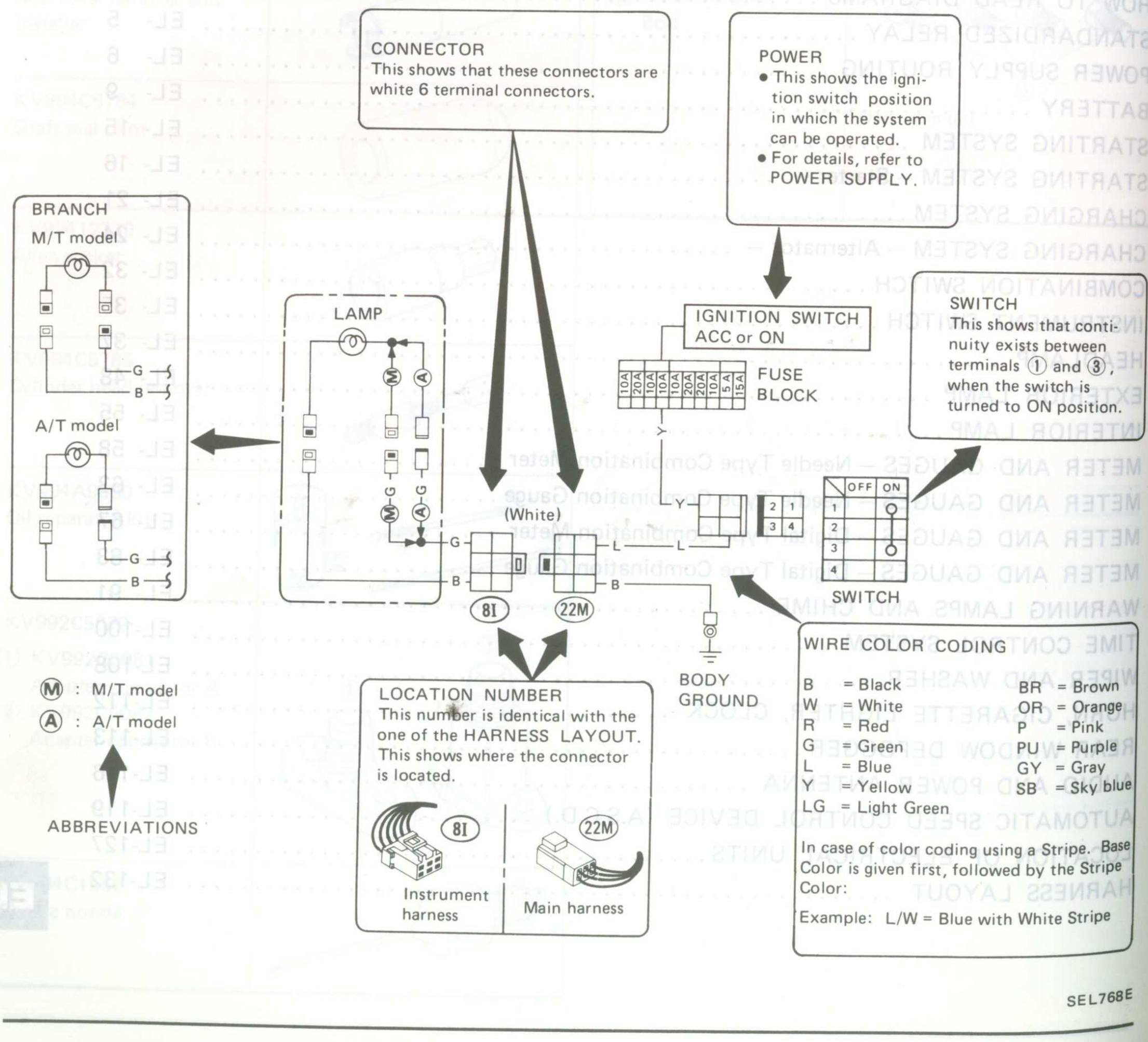
POWER SUPPLY ROUTING

This diagram is helpful in identifying specific problems in the power supply portion of the electrical circuits. For example, let's say a vehicle has an inoperative rear window defogger. A quick check proves that meter and gauges in the vehicle are operative. The power supply diagram shows that there cannot be a problem between the battery, ignition relay, ignition switch or fuse since the power supply circuit for the rear window defogger is common with the meter and gauges. Therefore, the cause of this specific problem must lie past the fuse, such as in the wiring, rear window defogger, or ground.

WIRING DIAGRAM

This diagram identifies types and number of connectors, electrical terminal positions in the connector, color coding of wires, and connector codes Refer to the following example.

Example



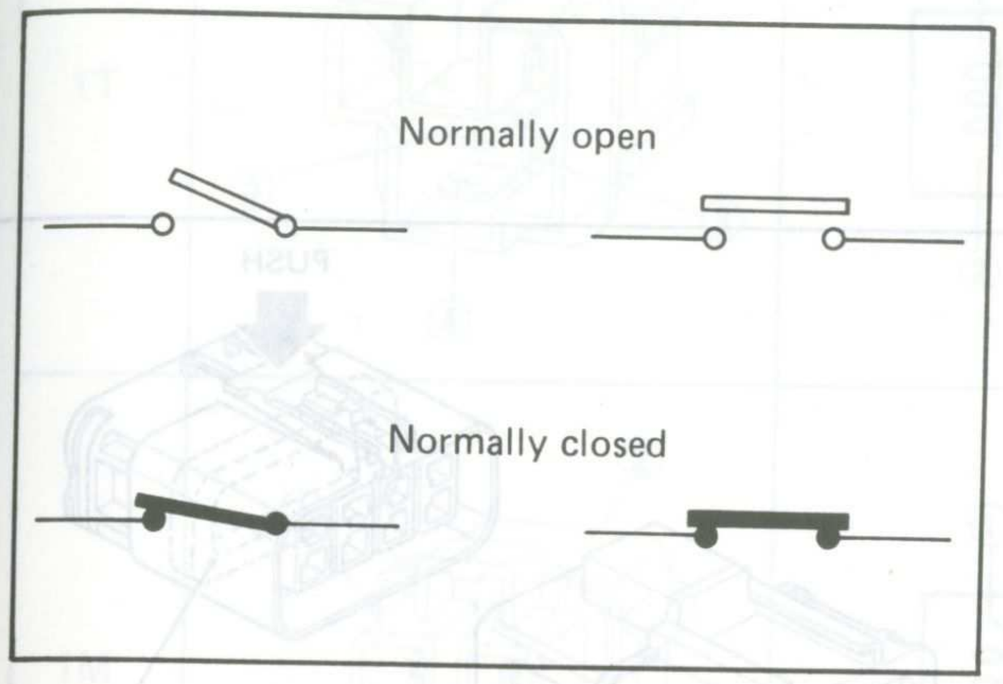
SEL768E

HOW TO READ DIAGRAMS

Description (Cont'd)

SWITCH POSITIONS IN DIAGRAMS

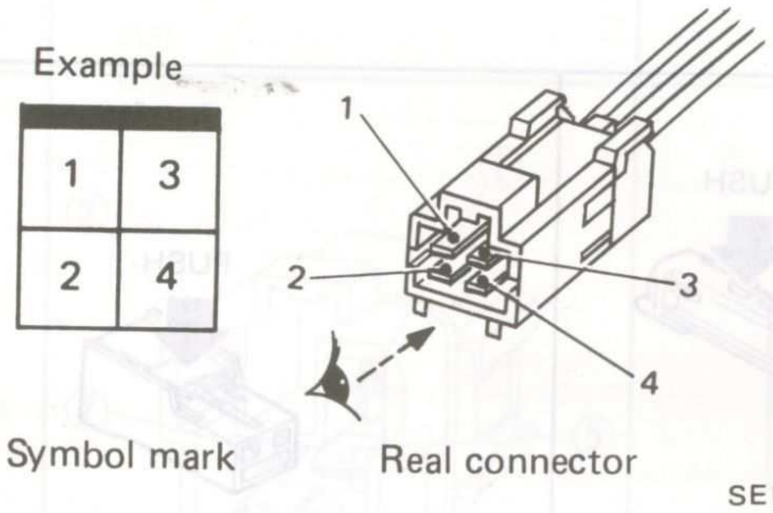
- Ignition switch in lock position
- Light switch and wiper switch in off position
- Doors closed



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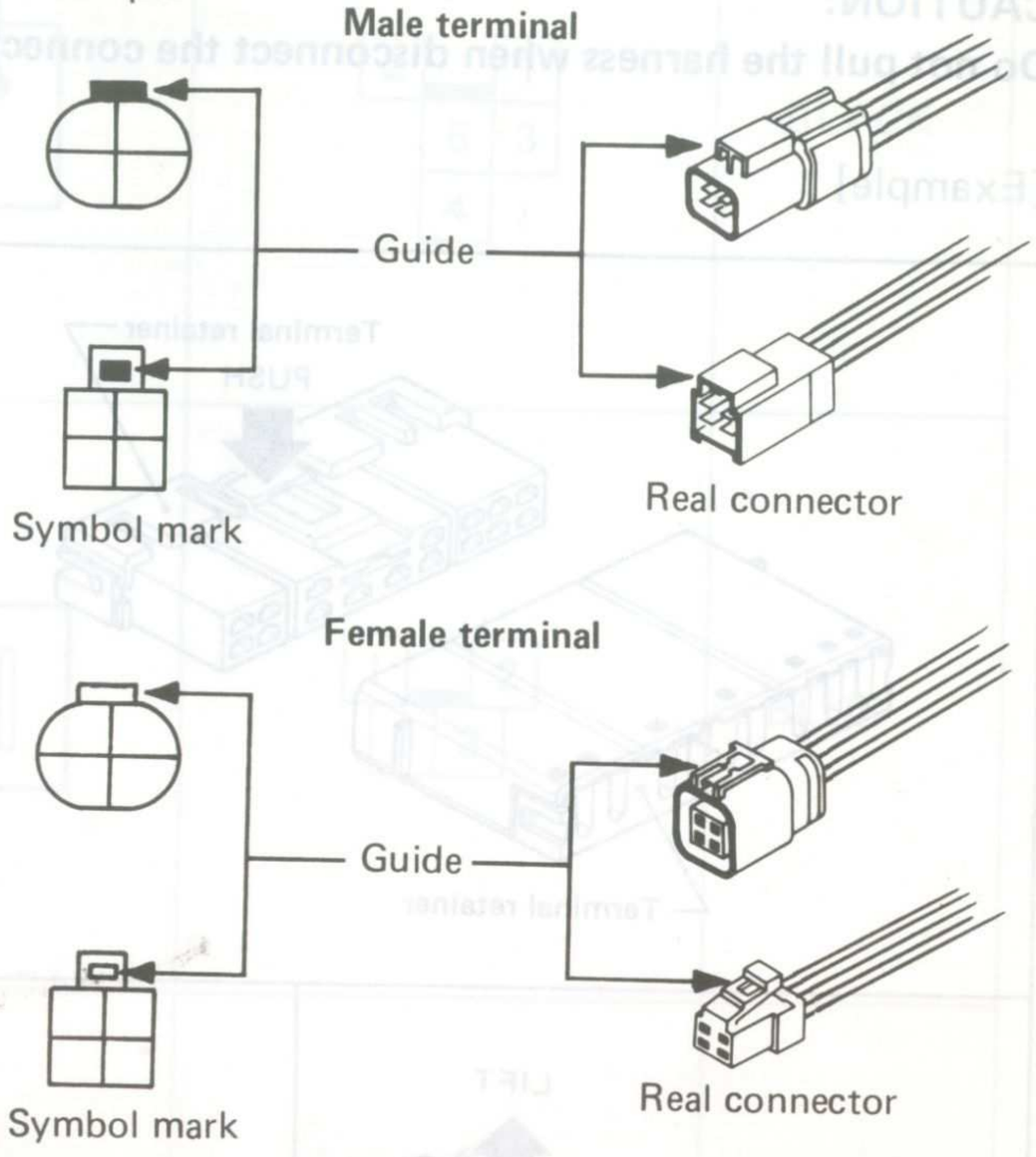
CONNECTOR SYMBOLS

1. Direction of connector



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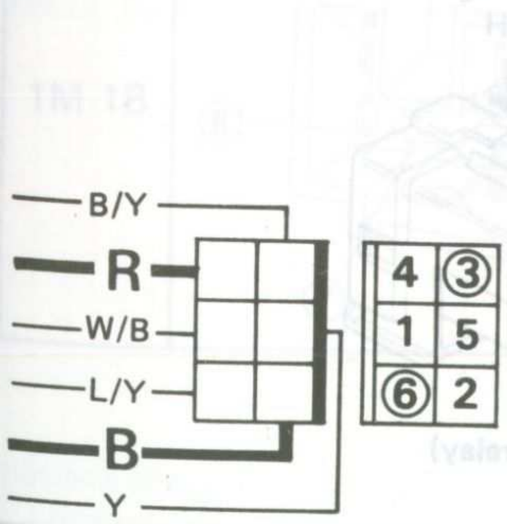
2. Male and female terminals
   Connectors for male terminals are in black and female terminals in white.



SEL765E

HOW TO IDENTIFY THE MULTIPLE SWITCH

The multiple switch is identified in the symbol chart and shown in the diagrams below.



WIPER SWITCH

	OFF	INT	LO	HI	WASH
1					○
2				○	
③	○	○	●		
4	○	○			
5		○			
⑥		○	●	○	○

Continuity circuit of wiper switch

SWITCH POSITION	CONTINUITY CIRCUIT
OFF	3 - 4
INT	3 - 4, 5 - 6
LO	3 - 6
HI	2 - 6
WASH	1 - 6

Case of wiper switch in LO position.
Continuity circuit: Red wire – Male connector – ③ terminal (Female connector) – ● Wiper switch ● – ⑥ terminal – Male connector – Black wire

SEL767E

HOW TO READ DIAGRAMS

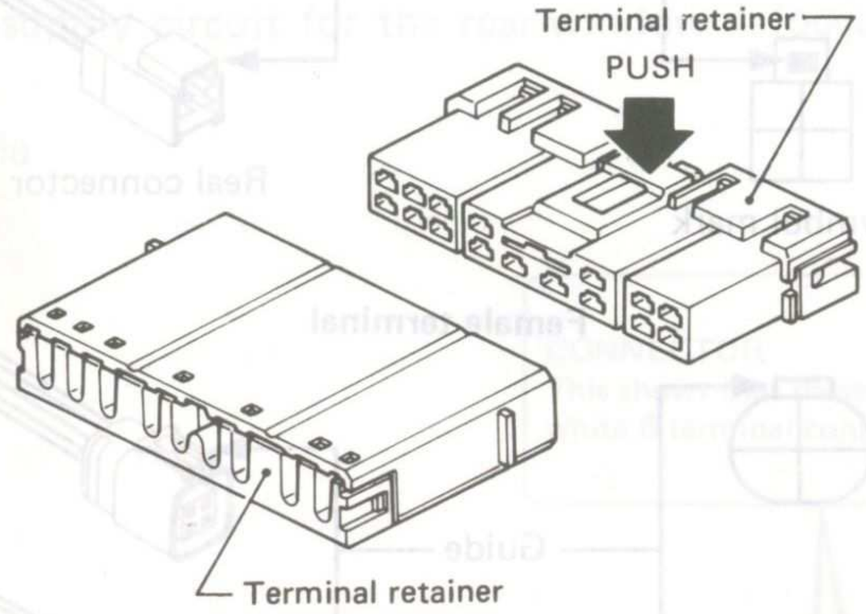
HARNESS CONNECTOR

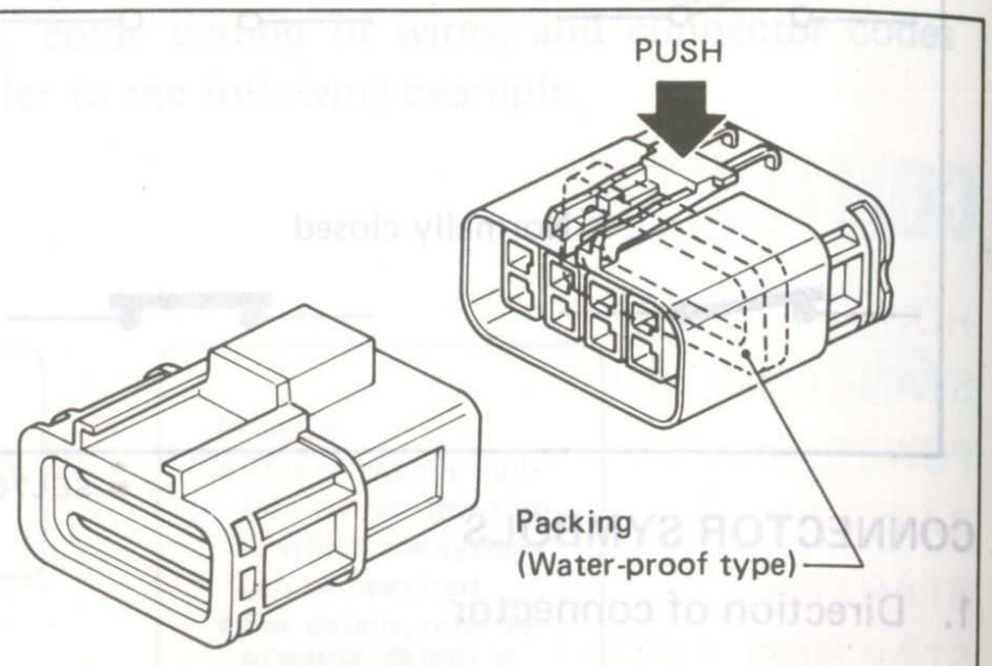
- All harness connectors have been modified to prevent accidental looseness or disconnection.
- The connector can be disconnected by pushing or lifting the locking section.

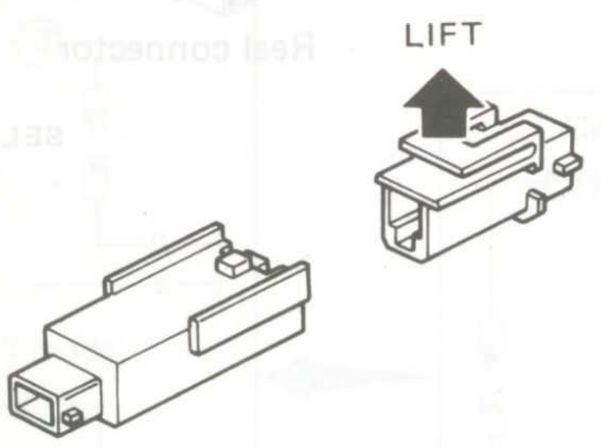
CAUTION:

Do not pull the harness when disconnect the connector.

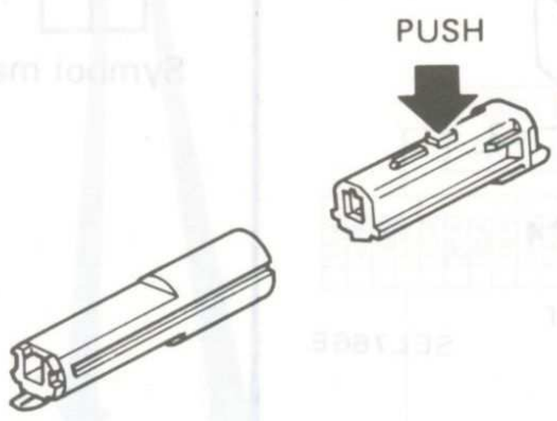
[Example]

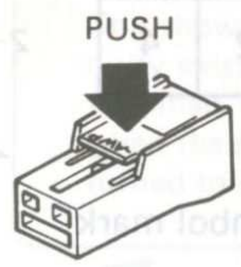


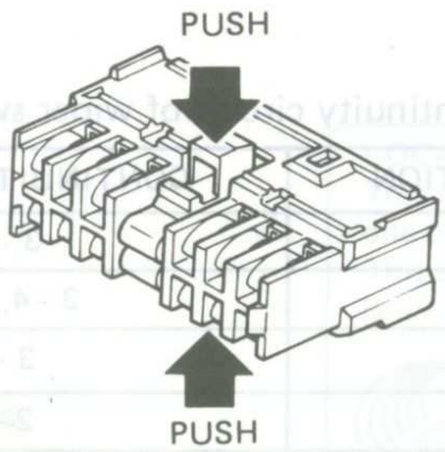




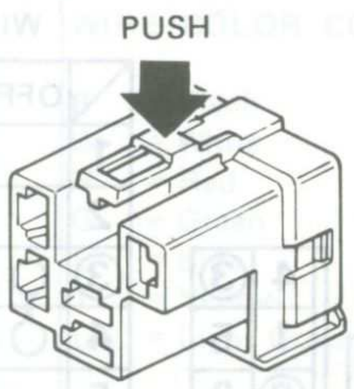
(For combination meter)







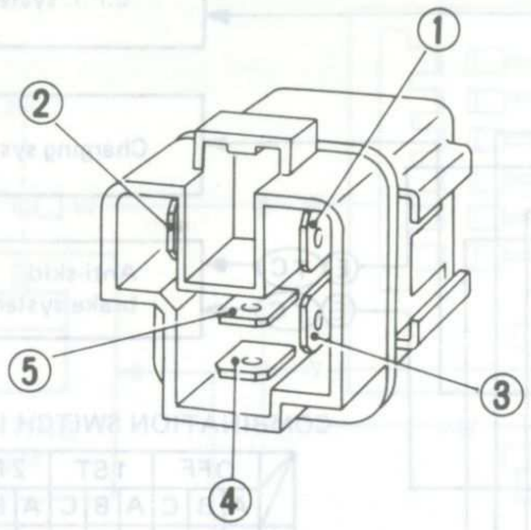
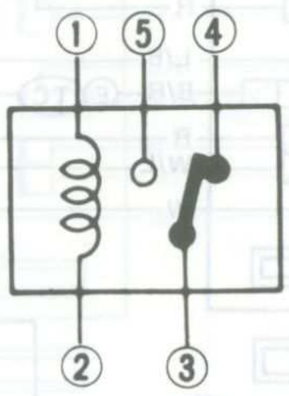
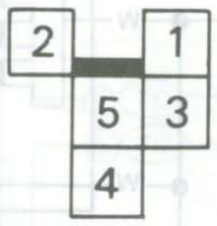
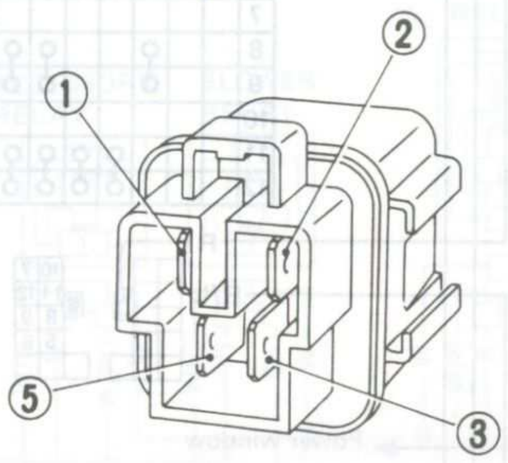
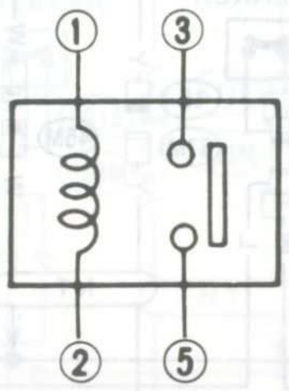
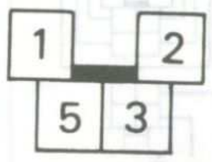
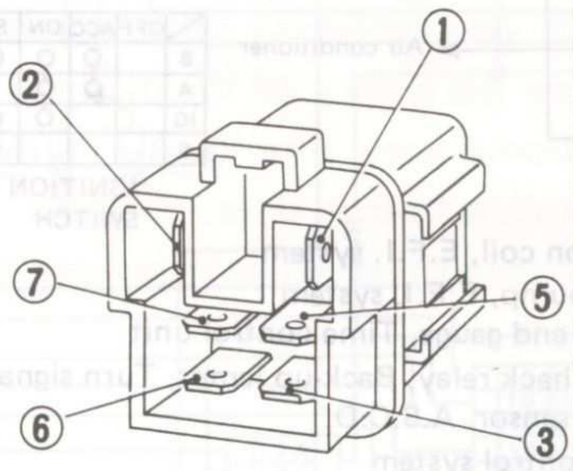
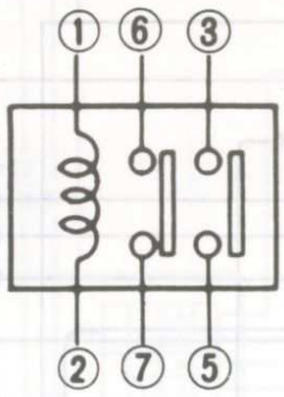
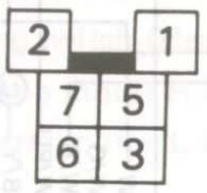
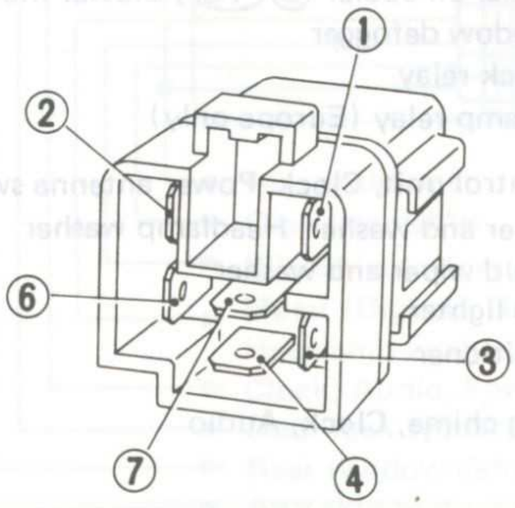
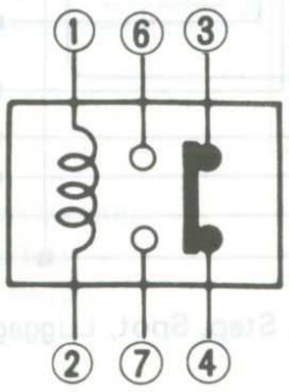
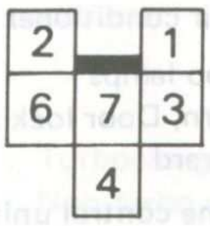
(For combination meter)



(For relay)

SEL769D

STANDARDIZED RELAY

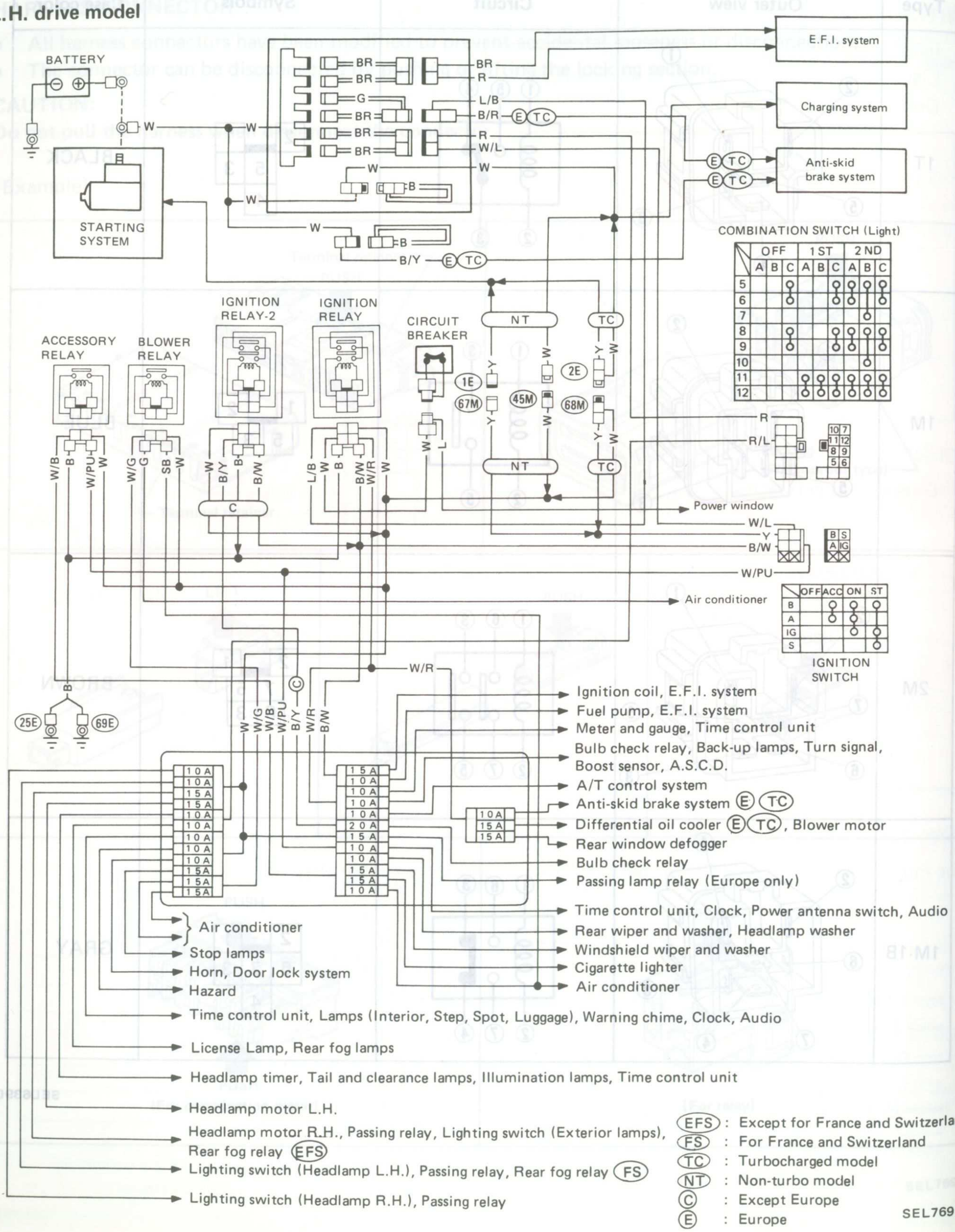
Type	Outer view	Circuit	Symbols	Case color
1T				BLACK
1M				BLUE
2M				BROWN
1M·1B				GRAY

SEL639D

POWER SUPPLY ROUTING

Wiring Diagram

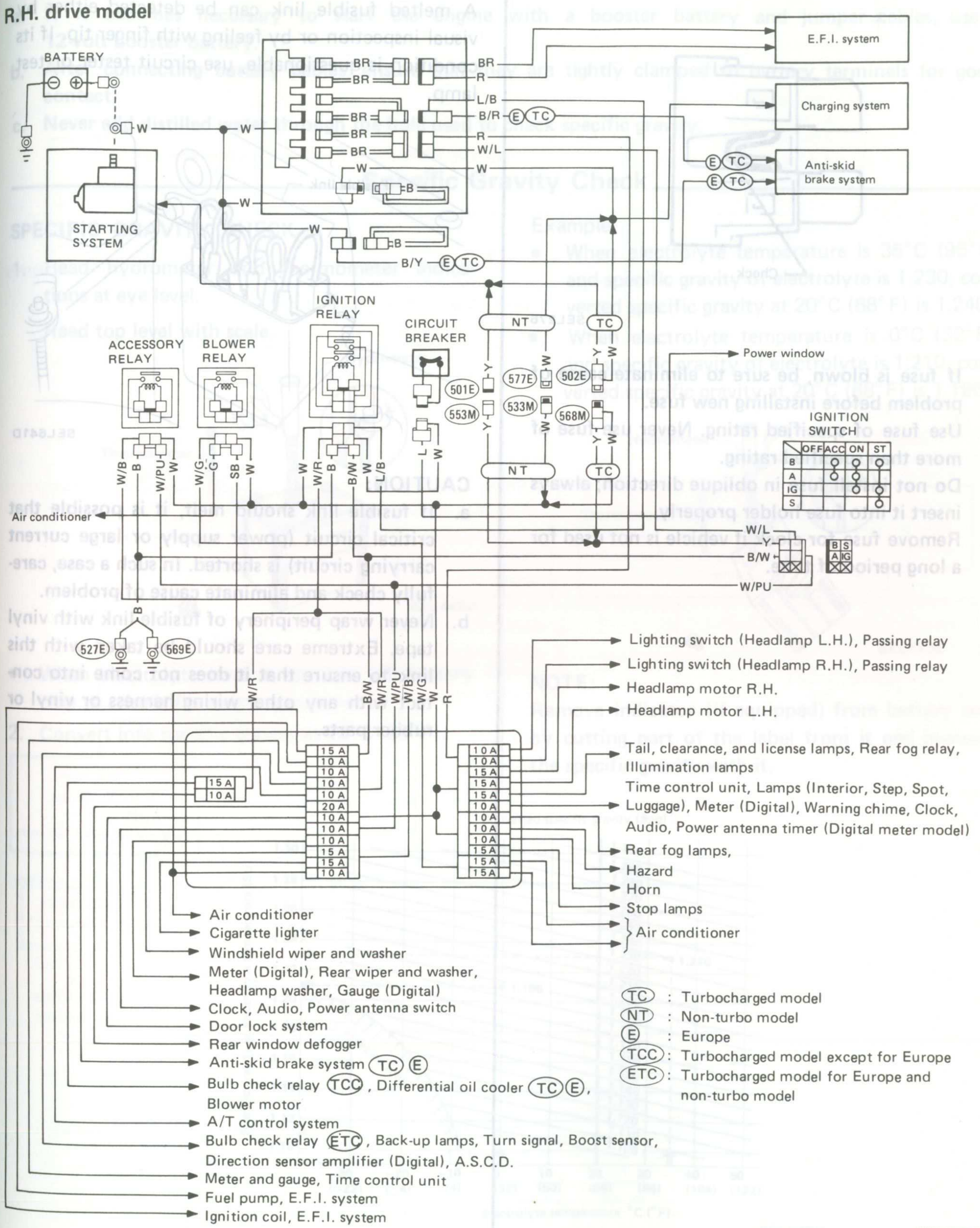
L.H. drive model



POWER SUPPLY ROUTING

Wiring Diagram (Cont'd)

R.H. drive model

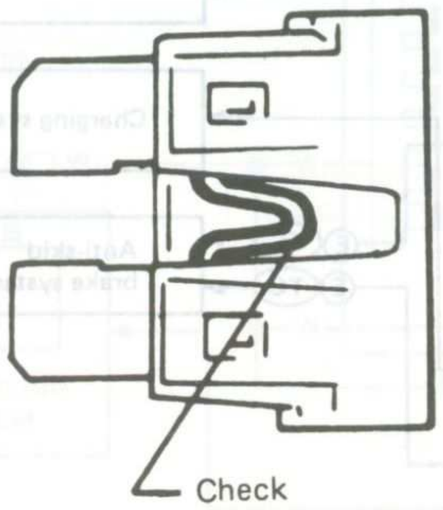


(TC) : Turbocharged model
(NT) : Non-turbo model
(E) : Europe
(TCC) : Turbocharged model except for Europe
(ETC) : Turbocharged model for Europe and non-turbo model

SEL770E

POWER SUPPLY ROUTING

Fuse

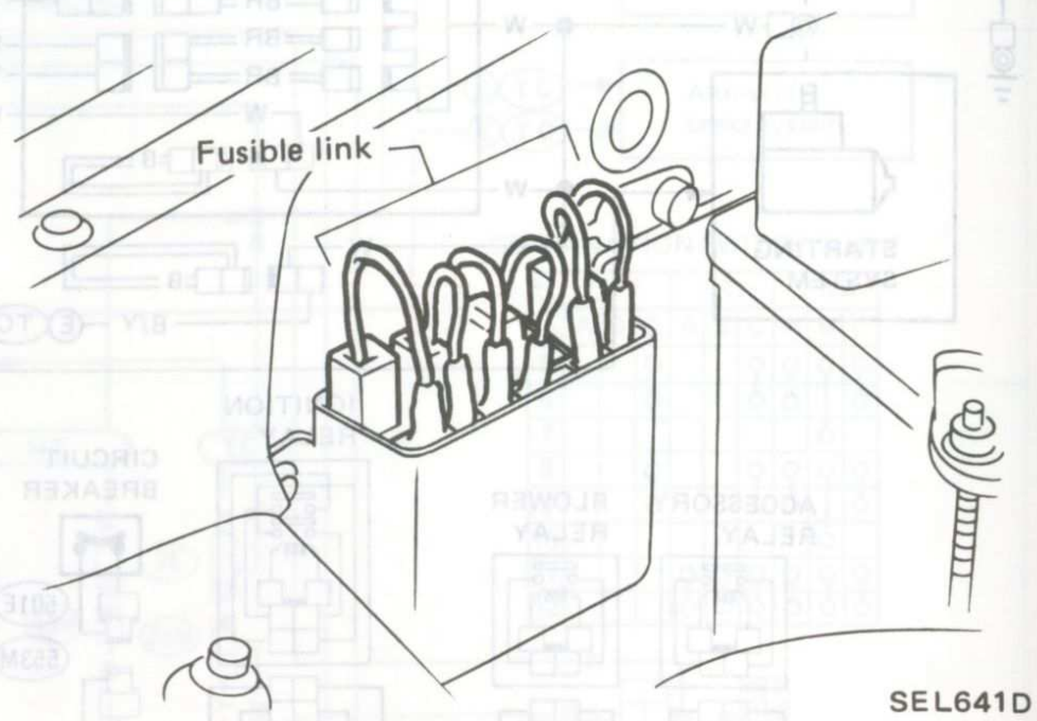


SEL276

a. If fuse is blown, be sure to eliminate cause of problem before installing new fuse.
b. Use fuse of specified rating. Never use fuse of more than specified rating.
c. Do not install fuse in oblique direction; always insert it into fuse holder properly.
d. 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.



SEL641D

CAUTION:

a. If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of problem.
b. 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.

CAUTION:

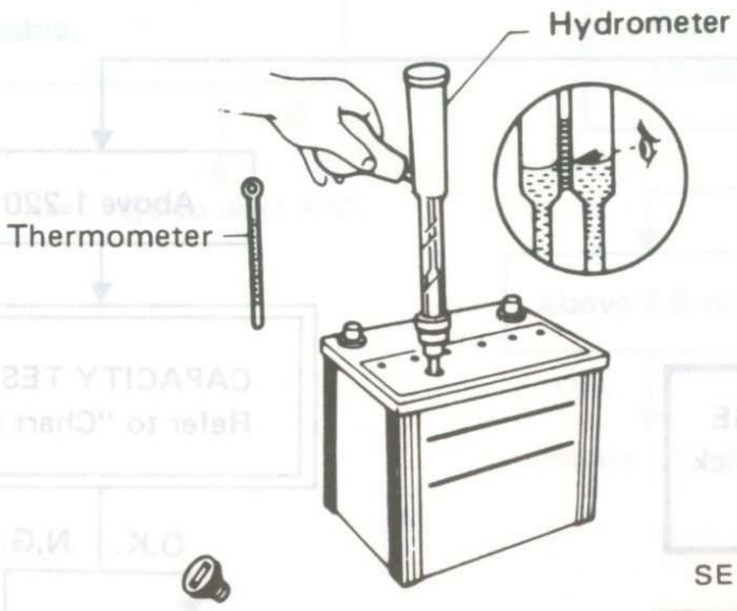
a. If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.
b. After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.
c. Never add distilled water through the hole used to check specific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

Specific Gravity Check

SPECIFIC GRAVITY CHECK

1. Read hydrometer and thermometer indications at eye level.

   Read top level with scale.



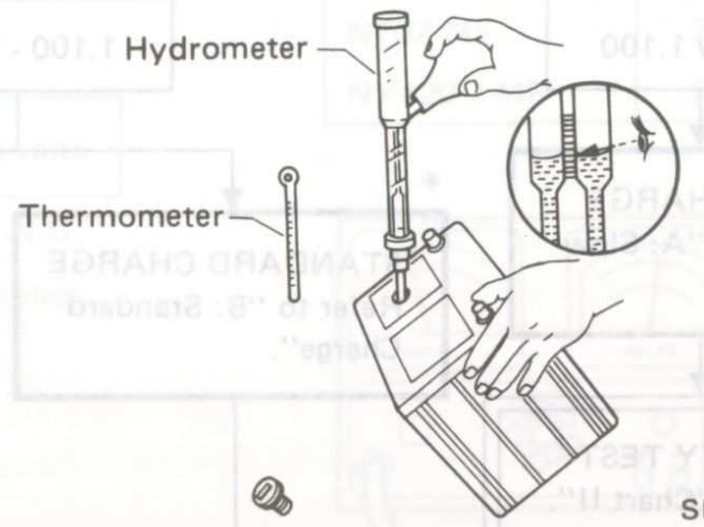
SEL442D

- 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).

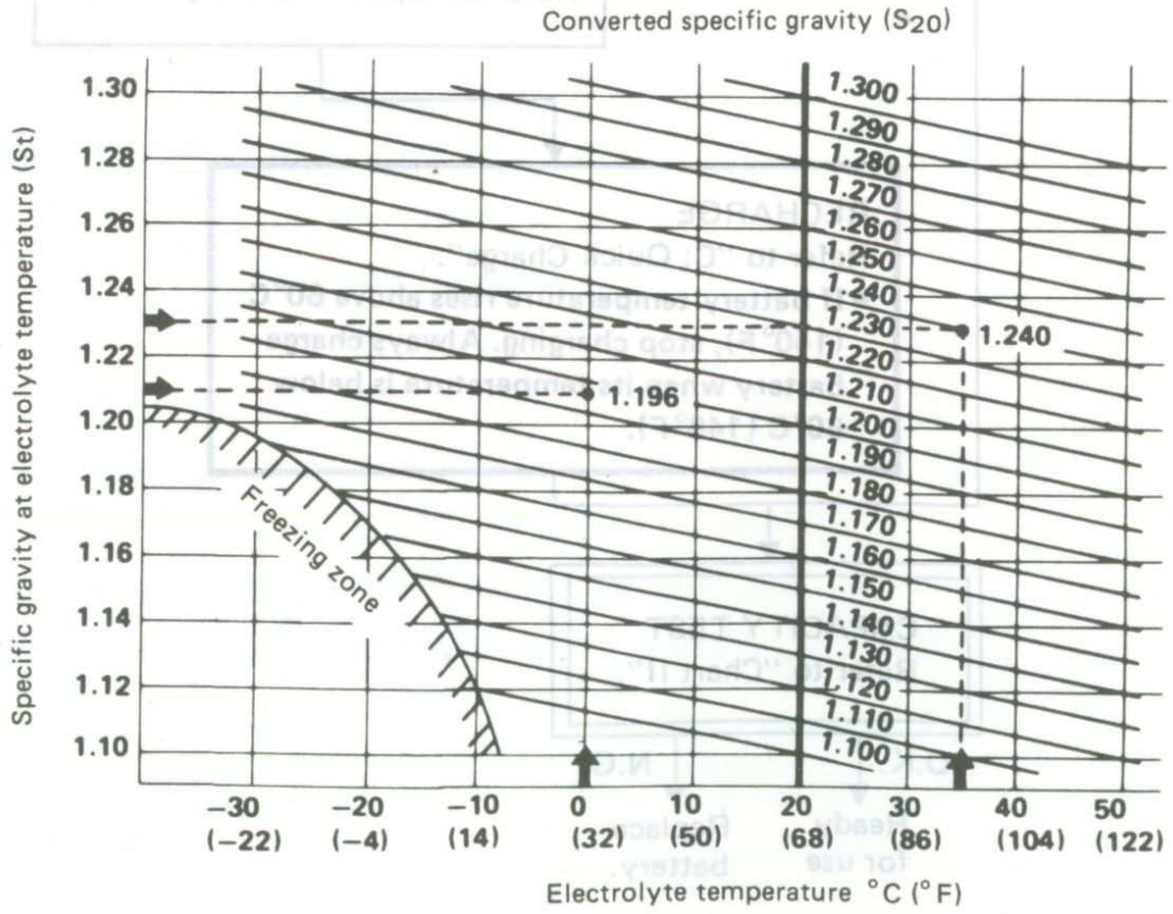
Example:

- 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.



SEL710E

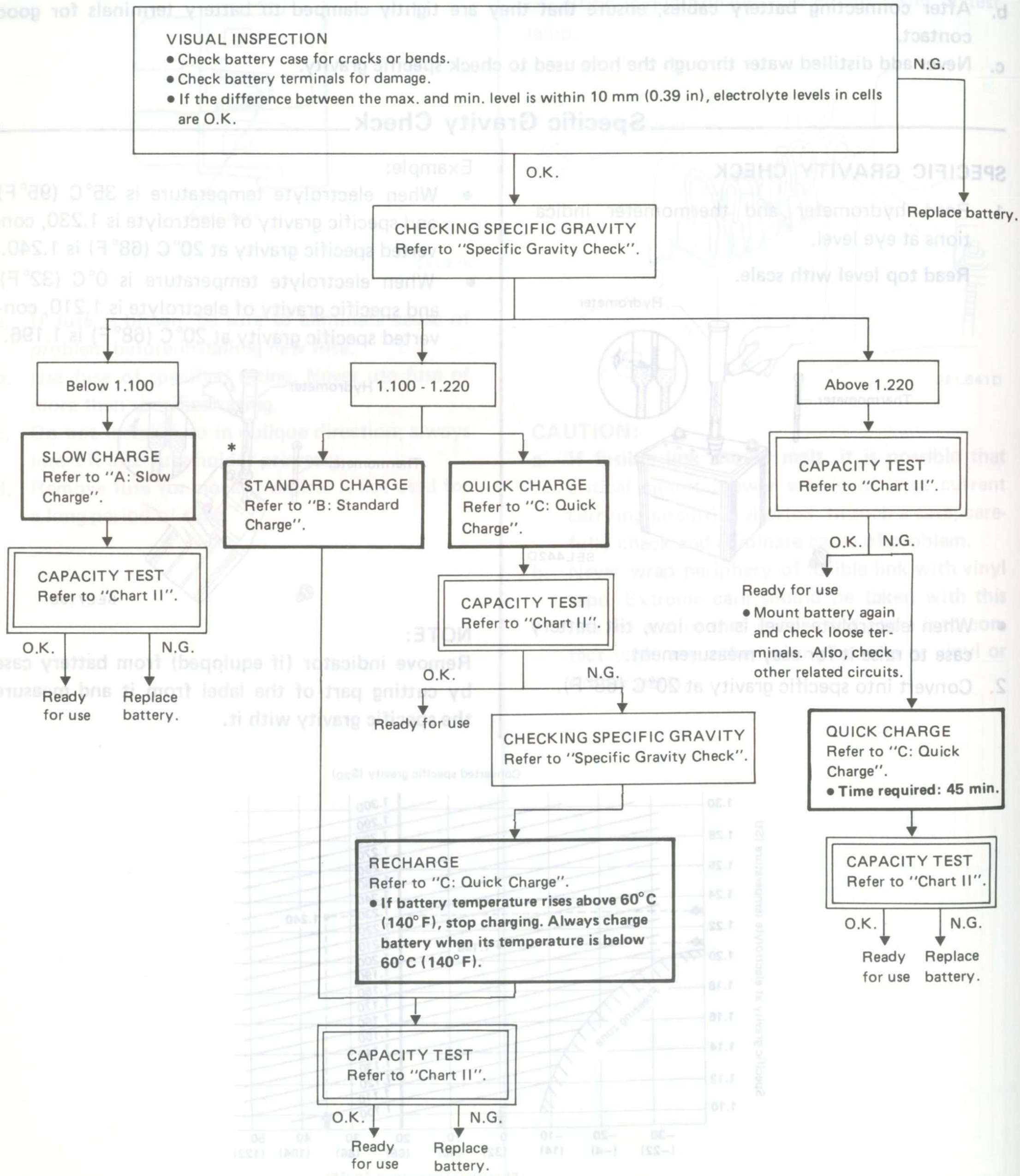
NOTE:
Remove indicator (if equipped) from battery case by cutting part of the label from it and measure the specific gravity with it.



SEL042D

M.F. Battery Test and Charging Chart

Chart I



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

M.F. Battery Test and Charging Chart (Cont'd)

Chart II

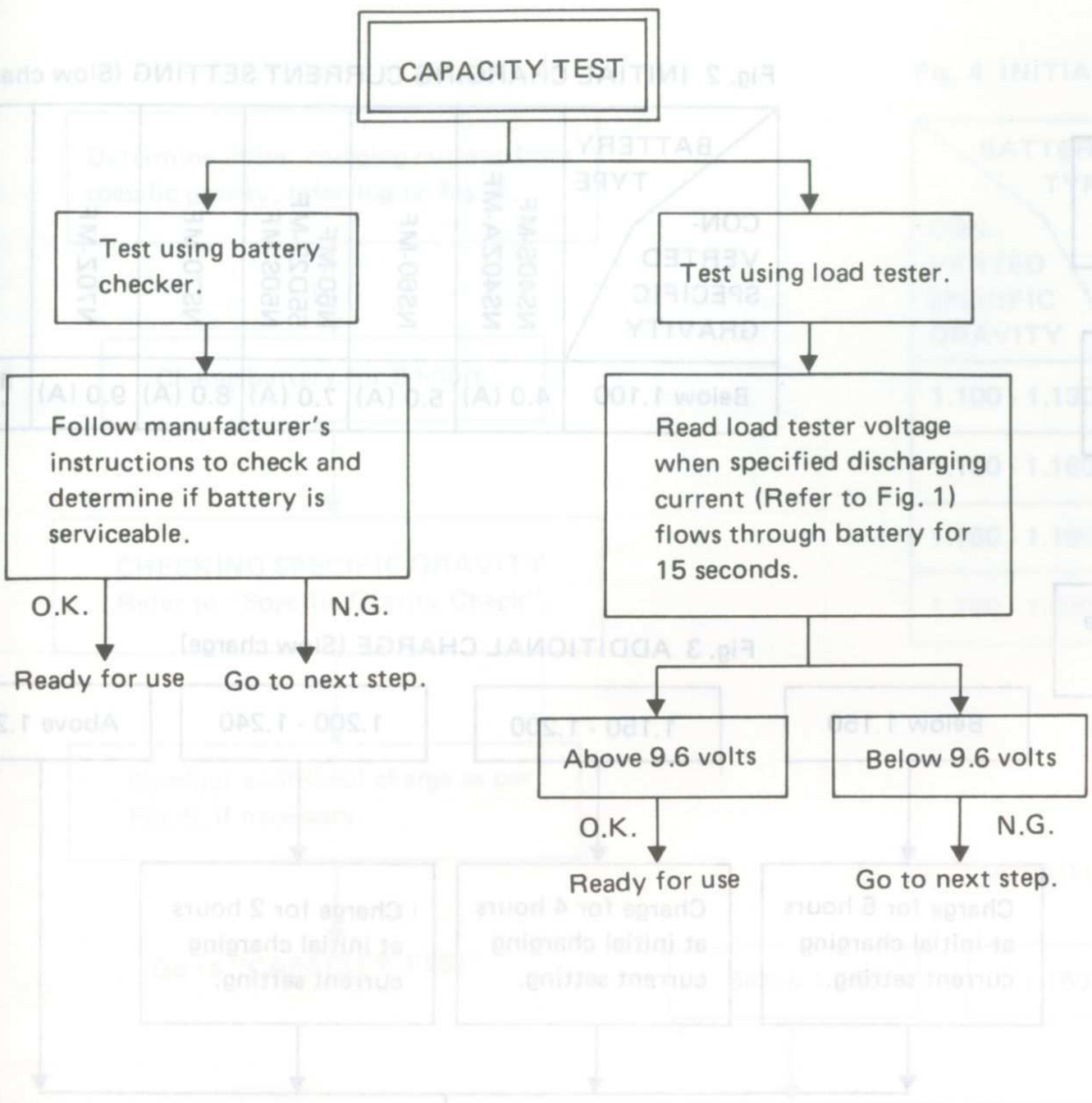
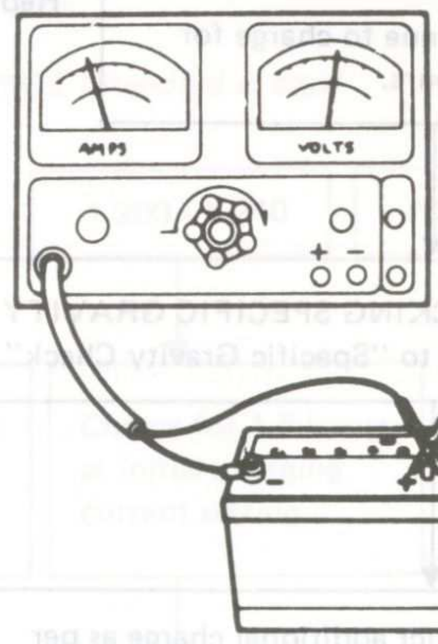


Fig. 1 DISCHARGING CURRENT
(Load tester)

Type	Current (A)
NS40S-MF	90 (A)
NS40ZA-MF	99 (A)
NS60-MF	135 (A)
N50S-MF	150 (A)
N60-MF 55D23-MF	180 (A)
NS70-MF	195 (A)
N70Z-MF	210 (A)
NX120-7-MF	240 (A)



SEL697B

M.F. Battery Test and Charging Chart (Cont'd)

A: SLOW CHARGE

Determine initial charging current from specific gravity referring to Fig. 2.

- Charge battery.
- Check charging voltage 30 minutes after starting the battery charge.

12 to 15 volts — O.K. → Continue to charge for 12 hours.

Below 12 volts or above 15 volts — N.G. → Replace battery.

CHECKING SPECIFIC GRAVITY
Refer to "Specific Gravity Check".

Conduct additional charge as per Fig 3, if necessary.

Go to "CAPACITY TEST".

Fig. 2 INITIAL CHARGING CURRENT SETTING (Slow charge)

BATTERY TYPE / CONVERTED SPECIFIC GRAVITY	NS40S-MF NS40ZA-MF	NS60-MF	N60-MF 55D23-MF N50S-MF	NS70-MF	N70Z-MF	NX120-7-MF
Below 1.100	4.0 (A)	5.0 (A)	7.0 (A)	8.0 (A)	9.0 (A)	10.0 (A)

Fig. 3 ADDITIONAL CHARGE (Slow charge)

Below 1.150	1.150 - 1.200	1.200 - 1.240	Above 1.240
Charge for 5 hours at initial charging current setting.	Charge for 4 hours at initial charging current setting.	Charge for 2 hours at initial charging current setting.	

Go to "CAPACITY TEST".

CAUTION:

a. 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.

b. Keep battery away from open flame while it is being charged.

c. When connecting charger, connect leads first, then turn on charger. Do not turn on charger first, as this may cause a spark.

d. If battery temperature rises above 60°C (140°F), stop charging. Always charge battery when its temperature is below 60°C (140°F).

M.F. Battery Test and Charging Chart (Cont'd)

B: STANDARD CHARGE

Determine initial charging current from specific gravity, referring to Fig. 4.

↓

Charge battery for 8 hours.

↓

CHECKING SPECIFIC GRAVITY
Refer to "Specific Gravity Check".

↓

Conduct additional charge as per Fig. 5, if necessary.

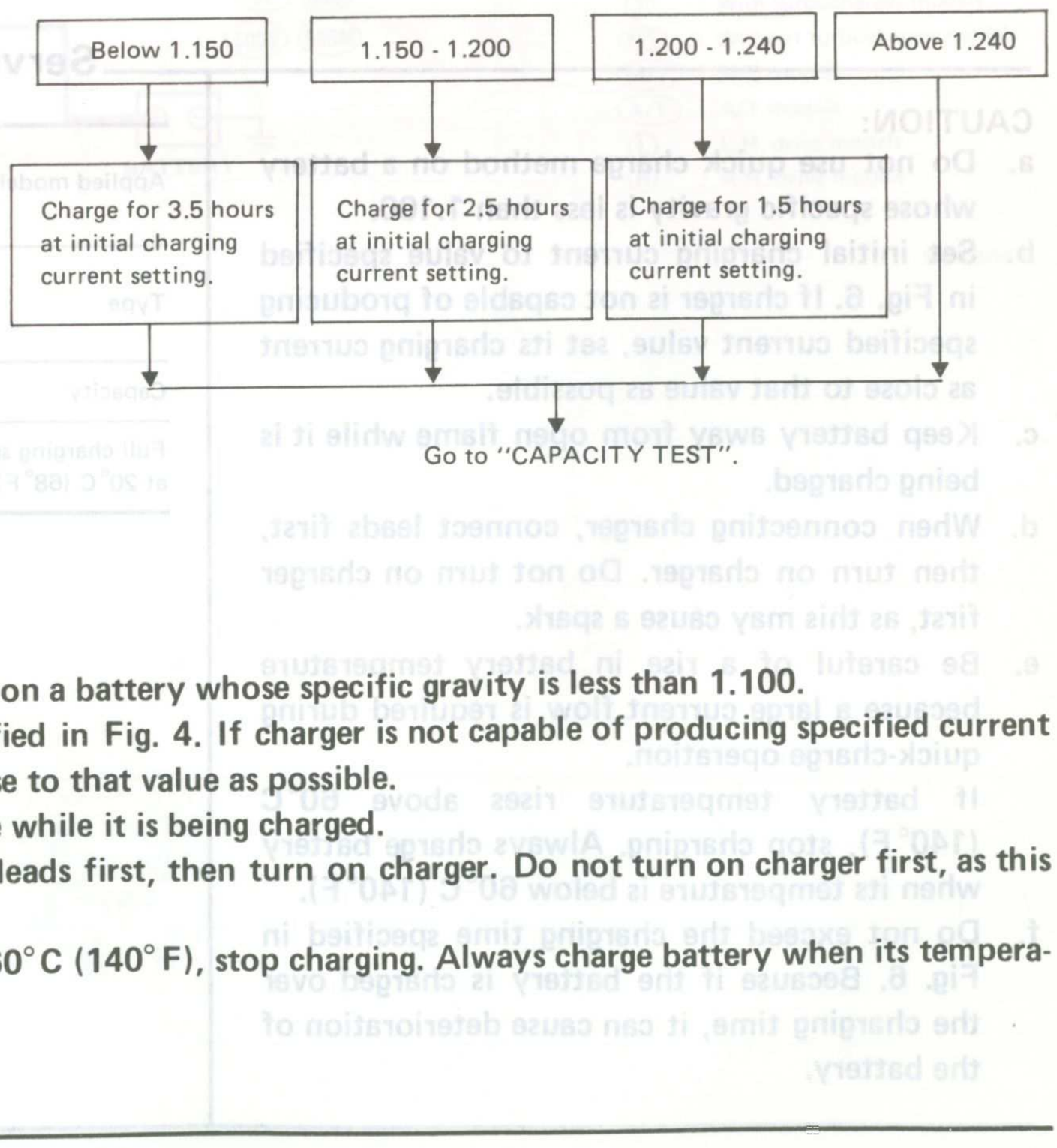
↓

Go to "CAPACITY TEST".

Fig. 4 INITIAL CHARGING CURRENT SETTING (Standard charge)

BATTERY TYPE / CONVERTED SPECIFIC GRAVITY	NS40S-MF NS40ZA-MF	NS60-MF	N60-MF 55D23-MF N50S-MF	NS70-MF	N70Z-MF	NX120-7-MF
1.100 - 1.130	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	8.0 (A)	9.0 (A)
1.130 - 1.160	3.0 (A)	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)	8.0 (A)
1.160 - 1.190	2.0 (A)	3.0 (A)	4.0 (A)	5.0 (A)	6.0 (A)	7.0 (A)
1.190 - 1.220	2.0 (A)	2.0 (A)	3.0 (A)	4.0 (A)	5.0 (A)	5.0 (A)

Fig. 5 ADDITIONAL CHARGE (Standard charge)



CAUTION:

a. Do not use standard charge method on a battery whose specific gravity is less than 1.100.
b. 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.
c. Keep battery away from open flame while it is being charged.
d. When connecting charger, connect leads first, then turn on charger. Do not turn on charger first, as this may cause a spark.
e. If battery temperature rises above 60°C (140°F), stop charging. Always charge battery when its temperature is below 60°C (140°F).

M.F. Battery Test and Charging Chart (Cont'd)

C: QUICK CHARGE

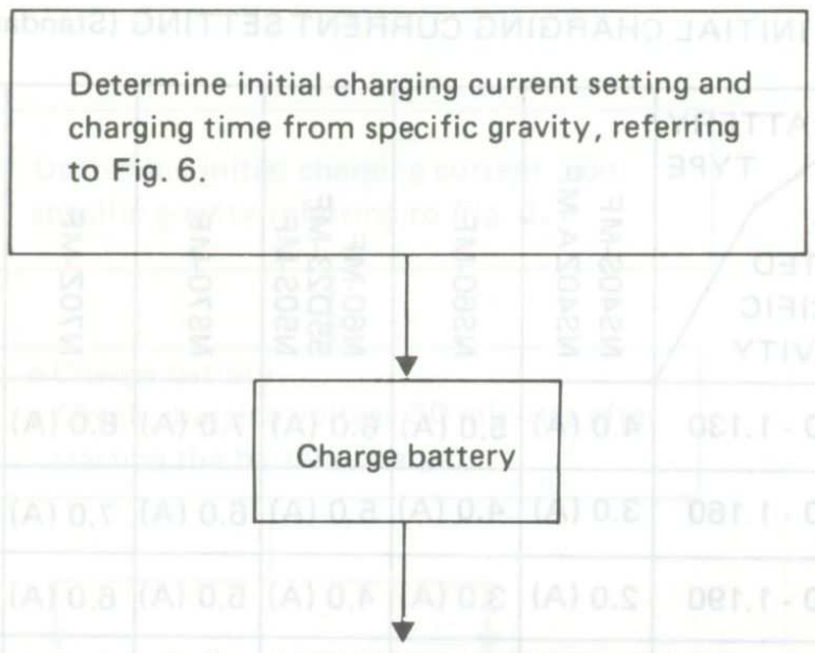


Fig. 6 INITIAL CHARGING CURRENT SETTING AND CHARGING TIME (Quick charge)

BATTERY TYPE / CURRENT [A] / CONVERTED SPECIFIC GRAVITY	NS40S -MF NS40ZA -MF	NS60-MF N50S-MF	N60-MF 55D23-MF NS70-MF	N70Z-MF NX120-7 -MF
	10 (A)	15 (A)	20 (A)	30 (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.)			

CAUTION:

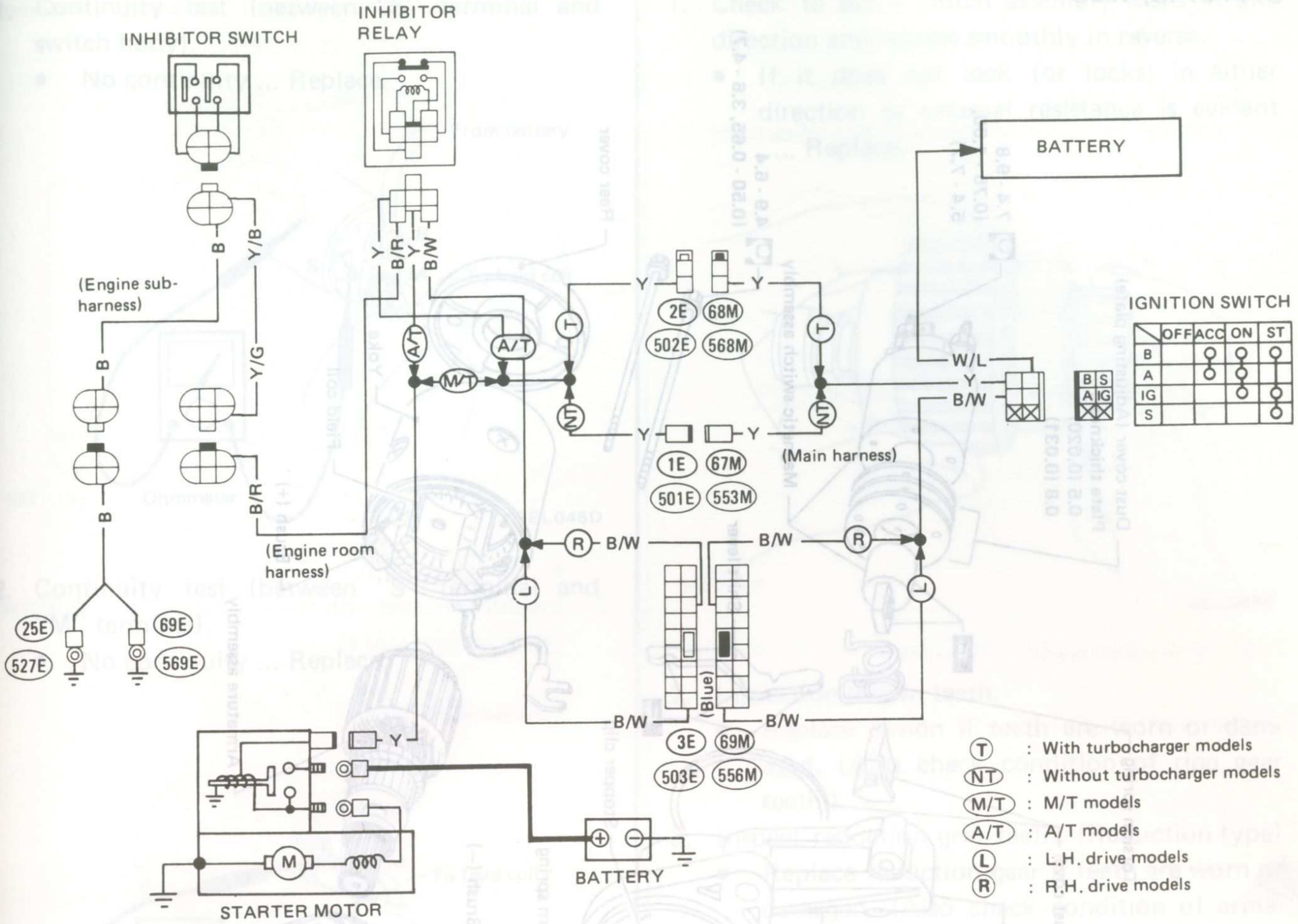
a. **Do not use quick charge method on a battery whose specific gravity is less than 1.100.**
b. **Set initial charging current to value specified in Fig. 6. If charger is not capable of producing specified current value, set its charging current as close to that value as possible.**
c. **Keep battery away from open flame while it is being charged.**
d. **When connecting charger, connect leads first, then turn on charger. Do not turn on charger first, as this may cause a spark.**
e. **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).
f. **Do not exceed the charging time specified in Fig. 6. Because if the battery is charged over the charging time, it can cause deterioration of the battery.**

Service Data and Specifications

Applied model	Except L.H. model for Europe	L.H. model for Europe
Type	55D23R-MF	N70Z-MF
	Maintenance-free	
Capacity V-AH	12-60	12-70
Full charging specific gravity at 20°C (68°F)	1.26	1.28

STARTING SYSTEM

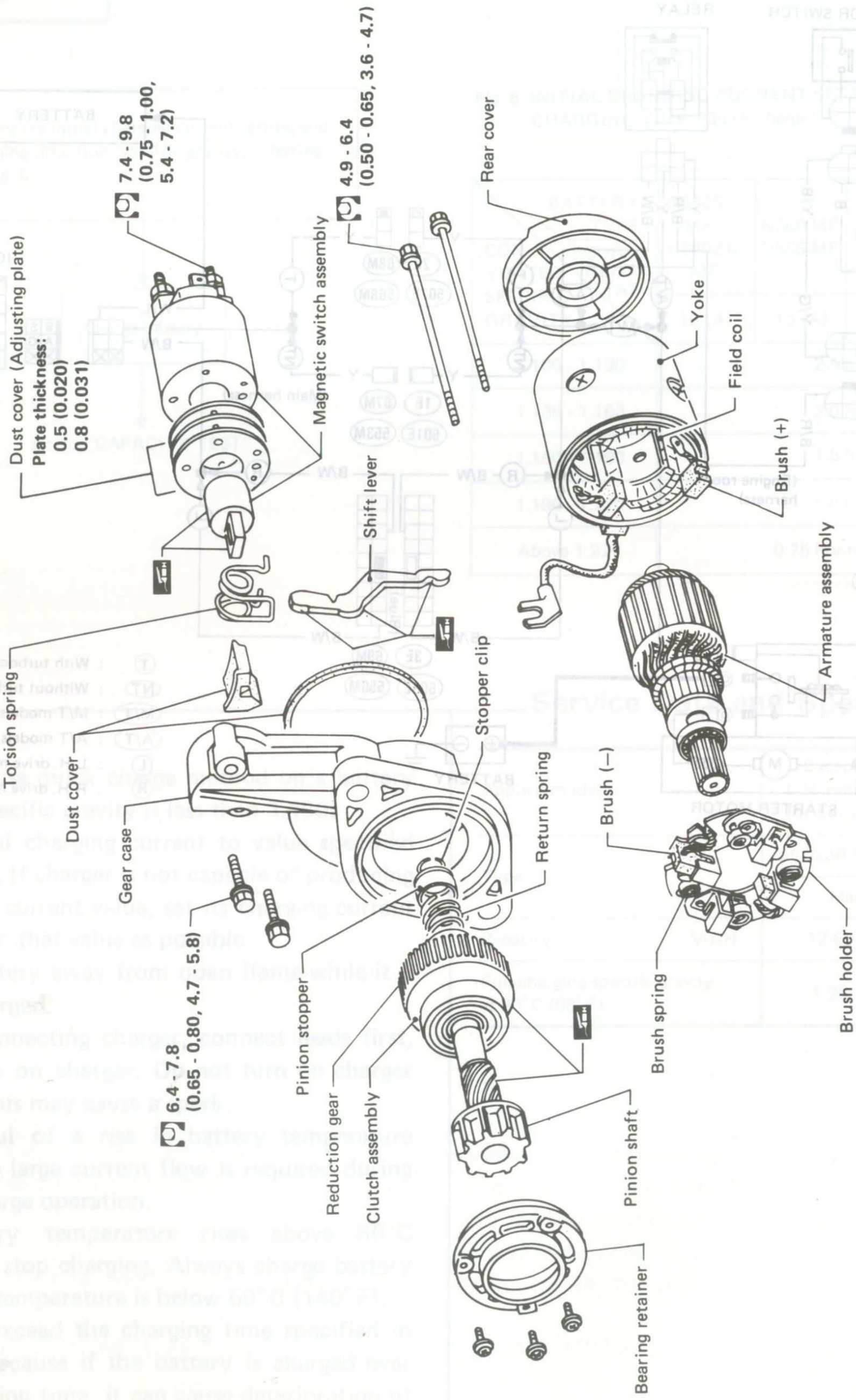
Wiring Diagram



SEL864E

Construction

S114-374B, 403B

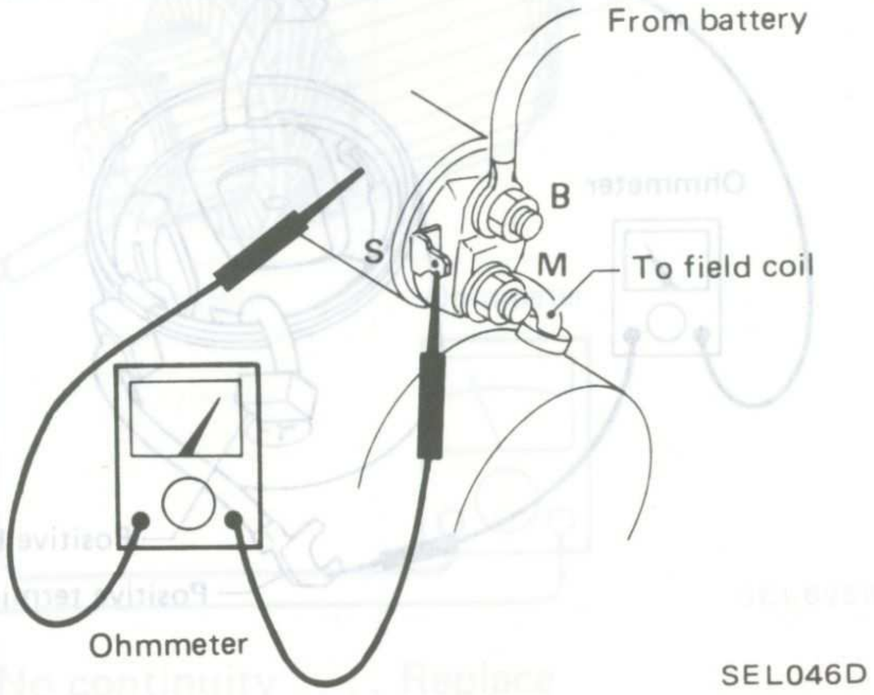


Unit: mm (in)
: N·m (kg-m, ft-lb)
: High-temperature grease point

SEL623D

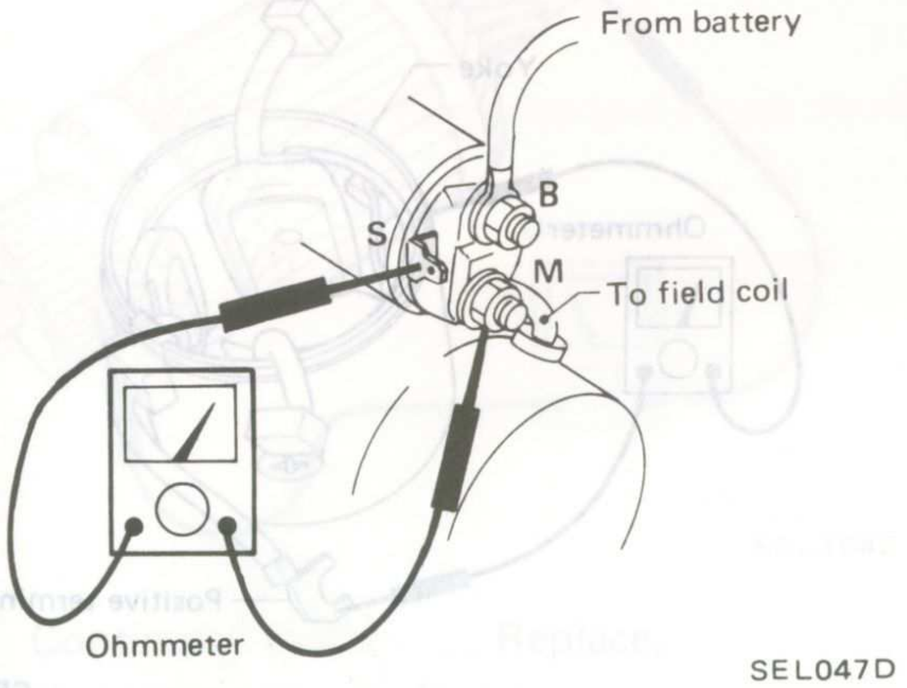
Magnetic Switch Check

1. Continuity test (between "S" terminal and switch body).
   - No continuity ... Replace.



SEL046D

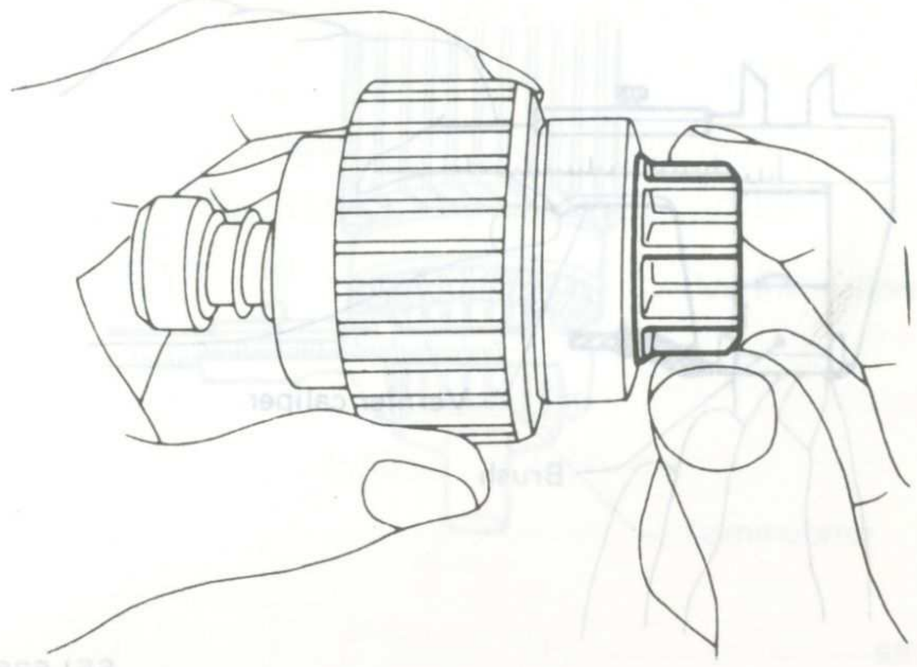
2. Continuity test (between "S" terminal and "M" terminal).
   - No continuity ... Replace.



SEL047D

Pinion/Clutch Check

1. Check to see if clutch assembly locks in one direction and rotates smoothly in reverse.
   - If it does not lock (or locks) in either direction or unusual resistance is evident ..... Replace.



SEL569B

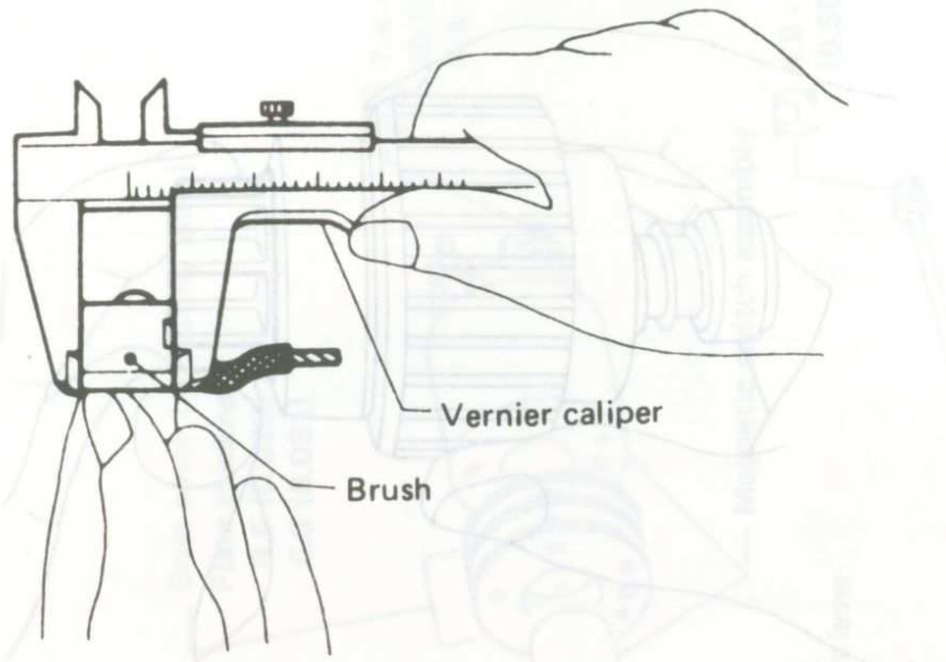
2. Inspection pinion teeth.
   - Replace pinion if teeth are worn or damaged. (Also check condition of ring gear teeth.)
3. Inspect reduction gear teeth. (Reduction type)
   - Replace reduction gear if teeth are worn or damaged. (Also check condition of armature shaft gear teeth.)

Brush Check

BRUSH

Check wear of brush.

Wear limit length:
Refer to "Service Data and Specifications."

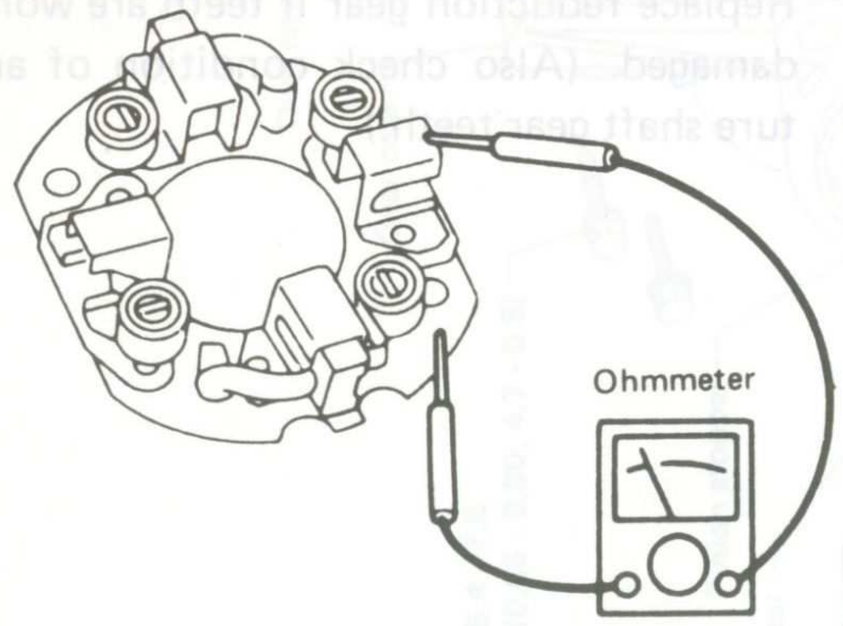


SEL626B

- Excessive wear ... Replace.

BRUSH HOLDER

1. Perform insulation test between brush holder (positive side) and its base (negative side).



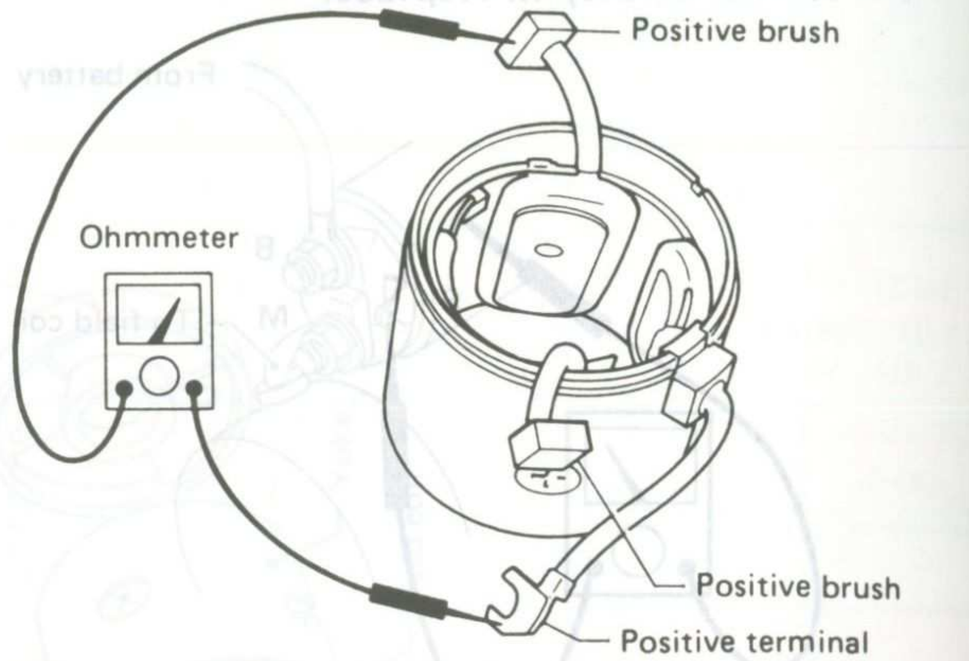
SEL568B

- Continuity exists ... Replace.

2. Check brush to see if it moves smoothly.
   - If brush holder is bent, replace it; if sliding surface is dirty, clean.

Field Coil Check

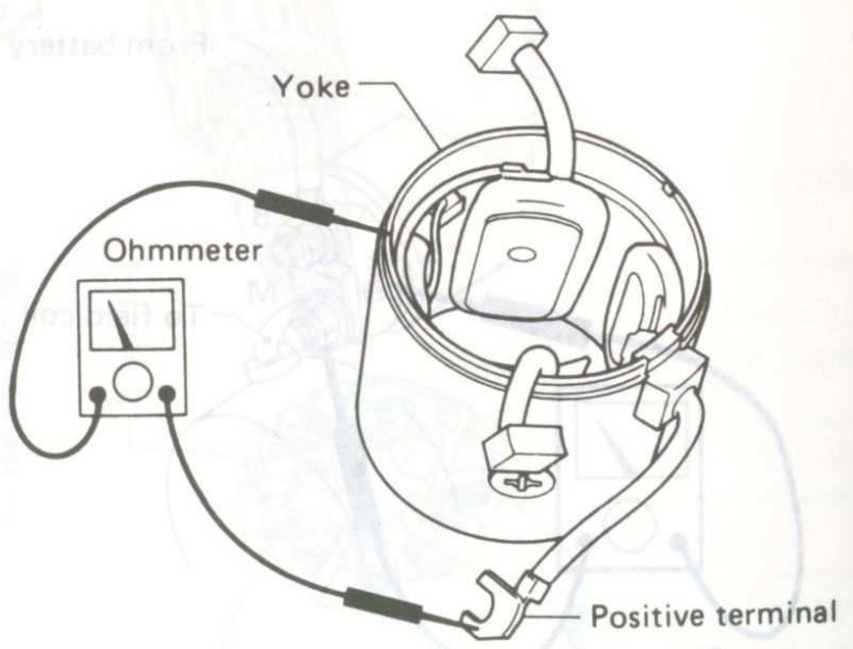
1. Continuity test (between field coil positive terminal and positive brushes).



SEL102E

- No continuity ... Replace field coil.

2. Insulation test (between field coil positive terminal and yoke).

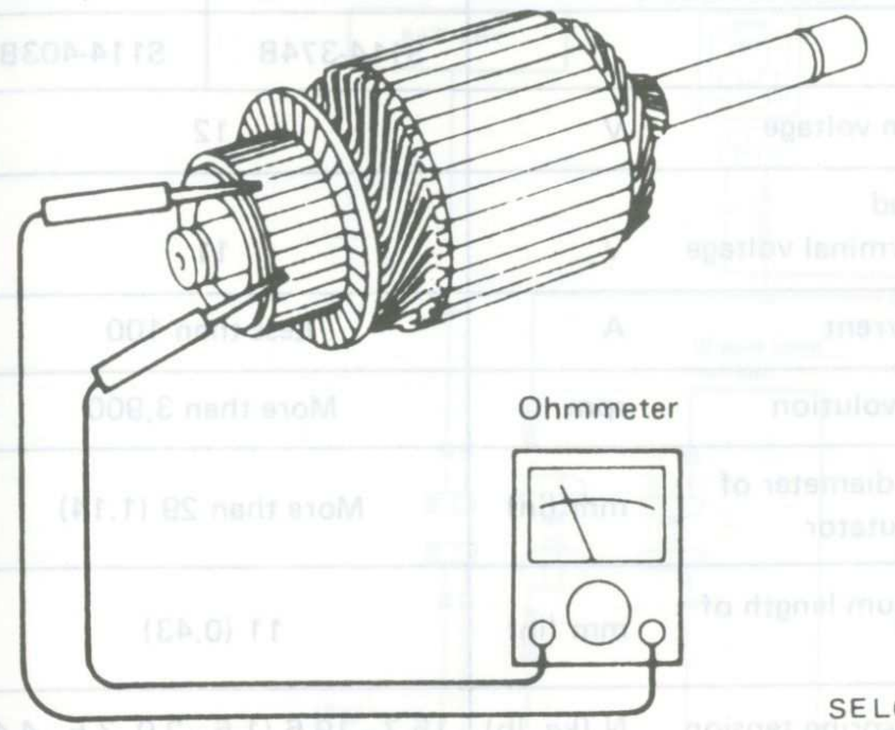


SEL103E

- Continuity exists ... Replace field coil.

Armature Check

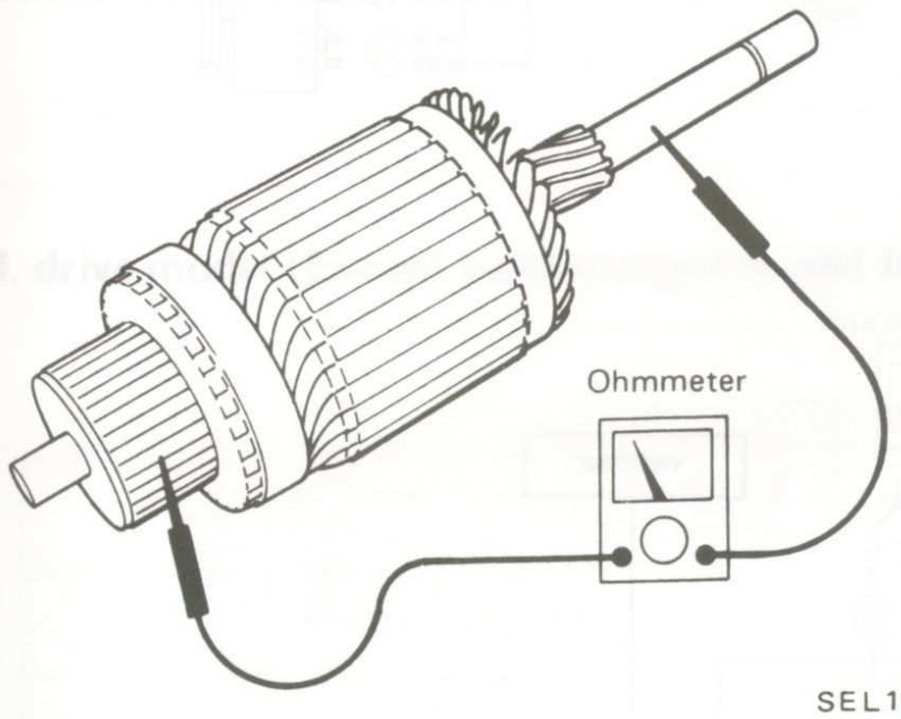
1. Continuity test (between two segments side by side).



SEL625B

- No continuity . . . . Replace

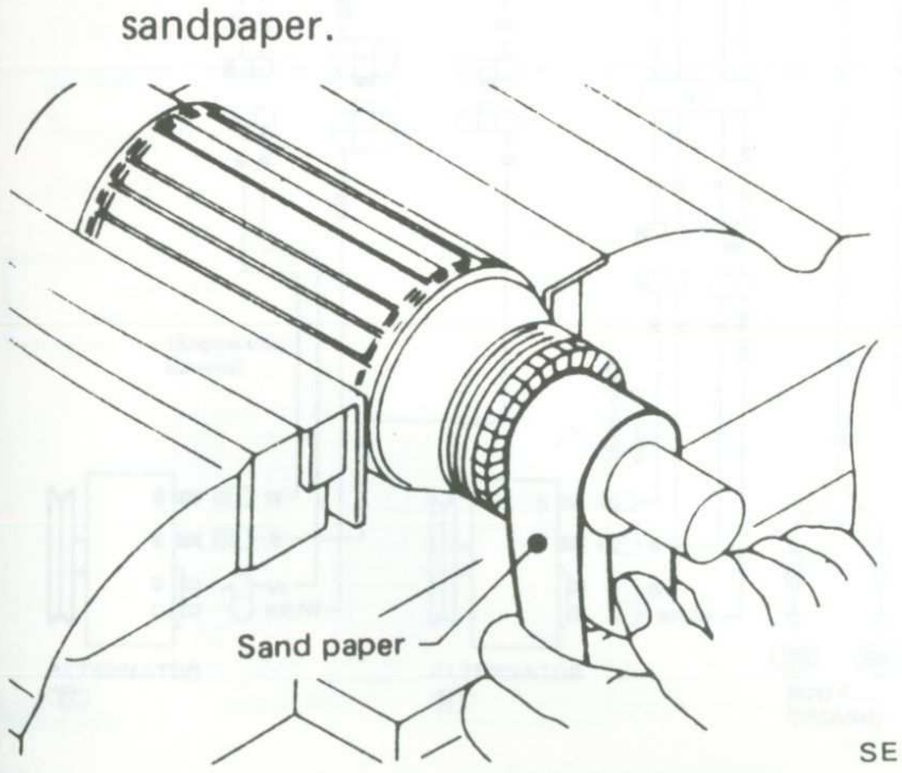
2. Insulation test (between each commutator bar and shaft).



SEL104E

- Continuity exists . . . . Replace.

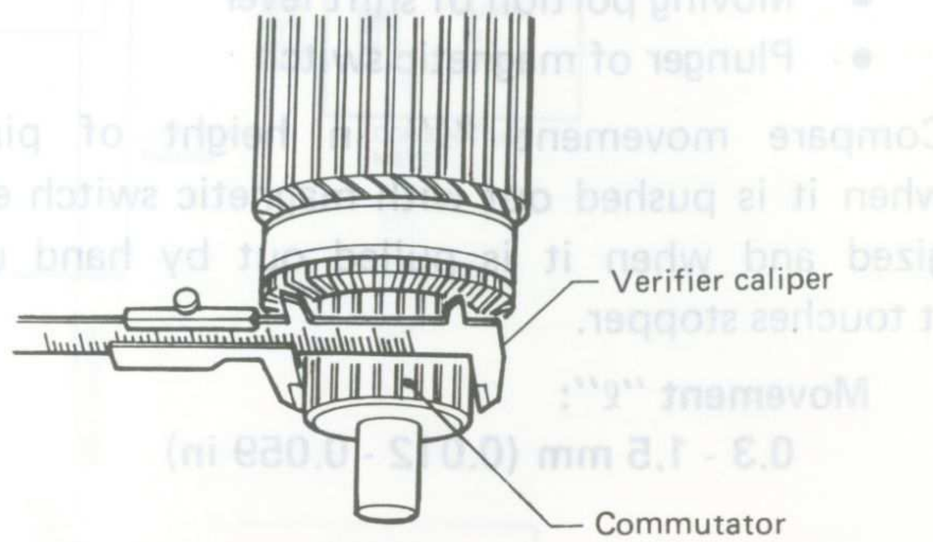
3. Check commutator surface.
   - Rough ... Sand lightly with No. 500 - 600 sandpaper.



SEL624B

4. Check diameter of commutator.

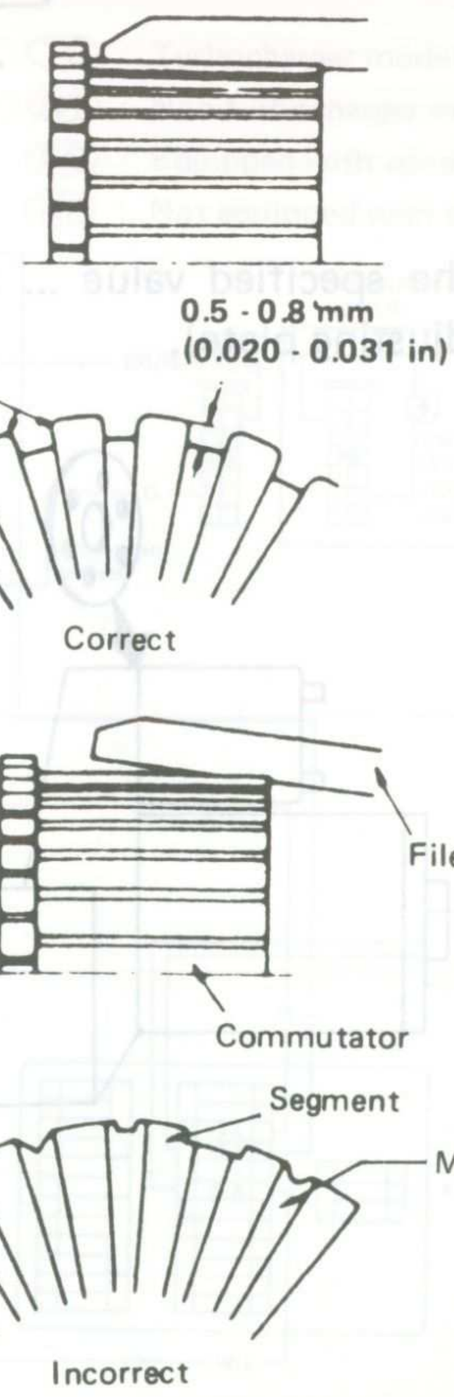
   Commutator minimum diameter:
   29 mm (1.14 in)
   - Less than specified value . . . . Replace.



SEL869E

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

Undercut procedures



EE021

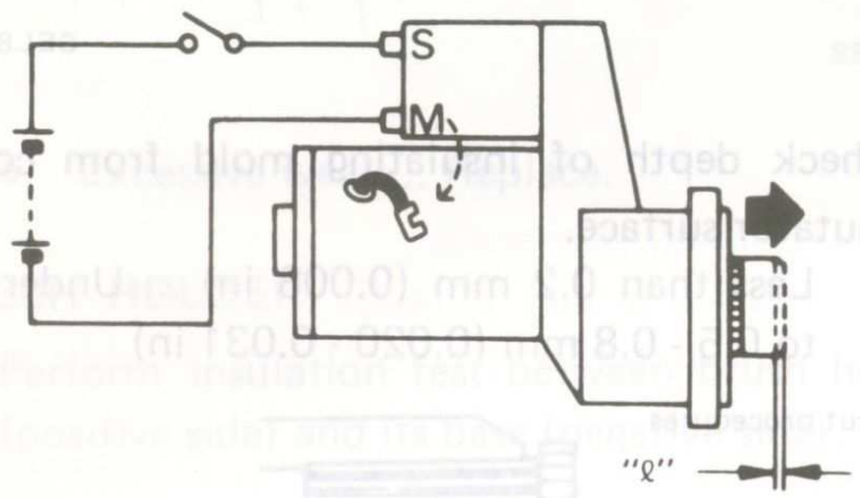
Assembly

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

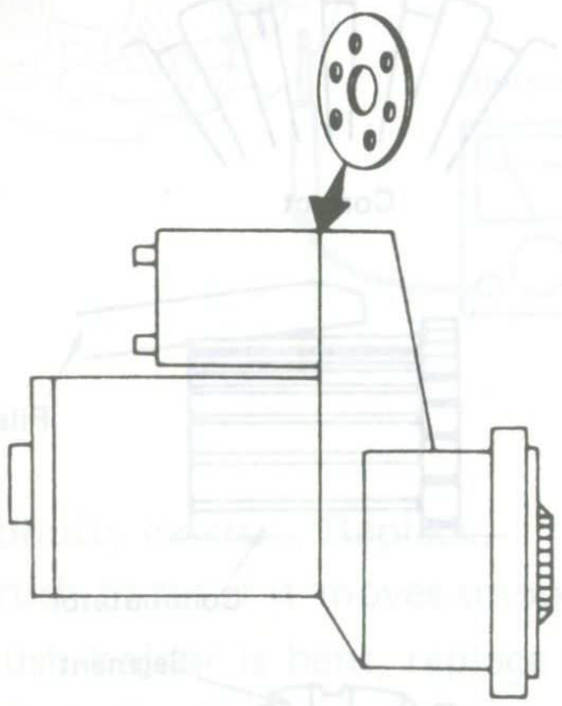
Compare movement "ℓ" in height of pinion when it is pushed out with magnetic switch energized and when it is pulled out by hand until it touches stopper.

Movement "ℓ":
0.3 - 1.5 mm (0.012 - 0.059 in)



SEL497D

- Not in the specified value ... Adjust by dust cover (Adjusting plate).



SEL573B

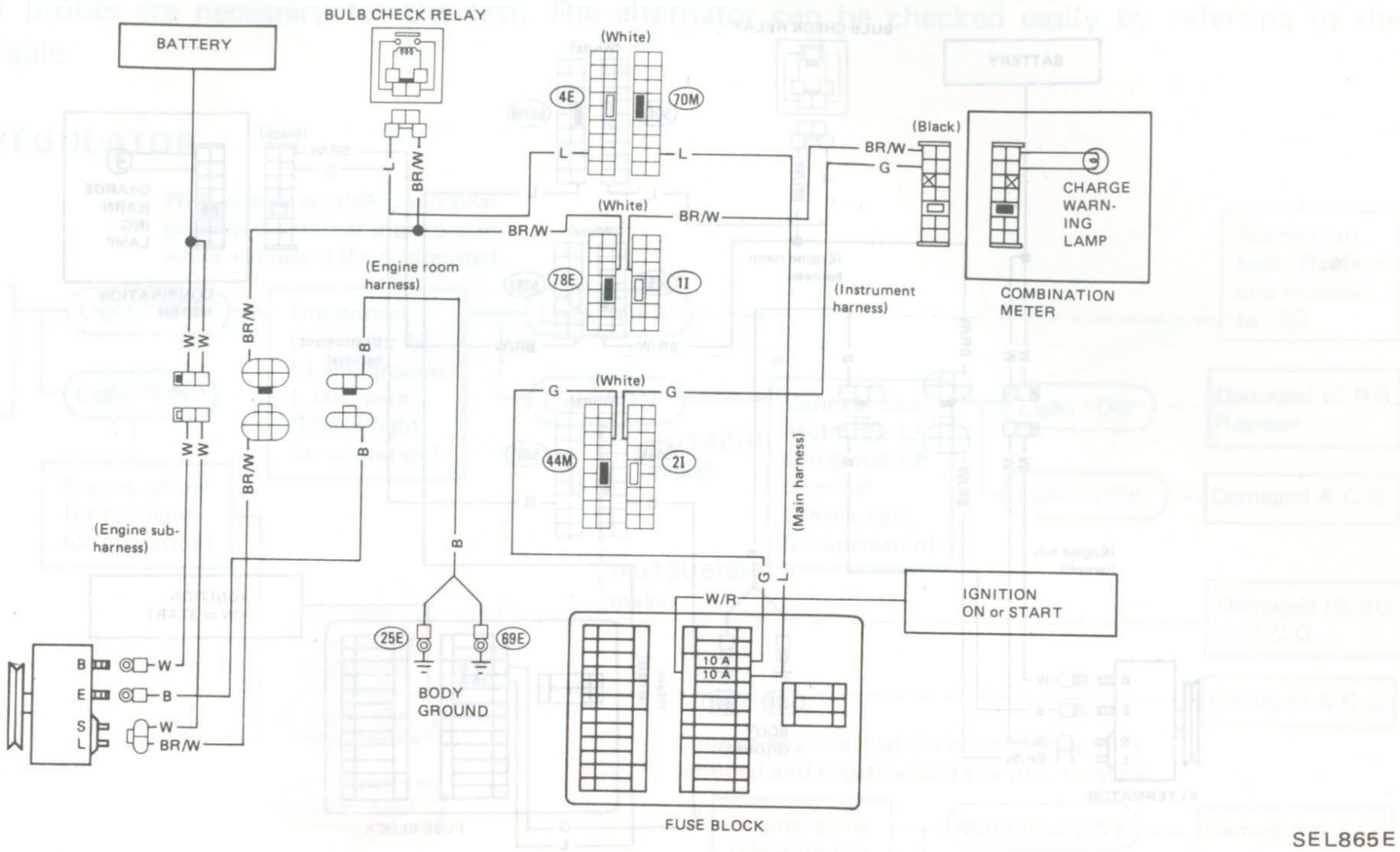
Service Data and Specifications

Applied model		L.H. drive model	R.H. drive model
Type		S114-374B	S114-403B
System voltage	V	12	
No-load			
Terminal voltage	V	11	
Current	A	Less than 100	
Revolution	rpm	More than 3,900	
Outer diameter of commutator	mm (in)	More than 29 (1.14)	
Minimum length of brush	mm (in)	11 (0.43)	
Brush spring tension	N (kg, lb)	15.7 - 19.6 (1.6 - 2.0, 3.5 - 4.4)	
Difference "ℓ" in height of pinion assembly	mm (in)	0.3 - 1.5 (0.012 - 0.059)	

CHARGING SYSTEM

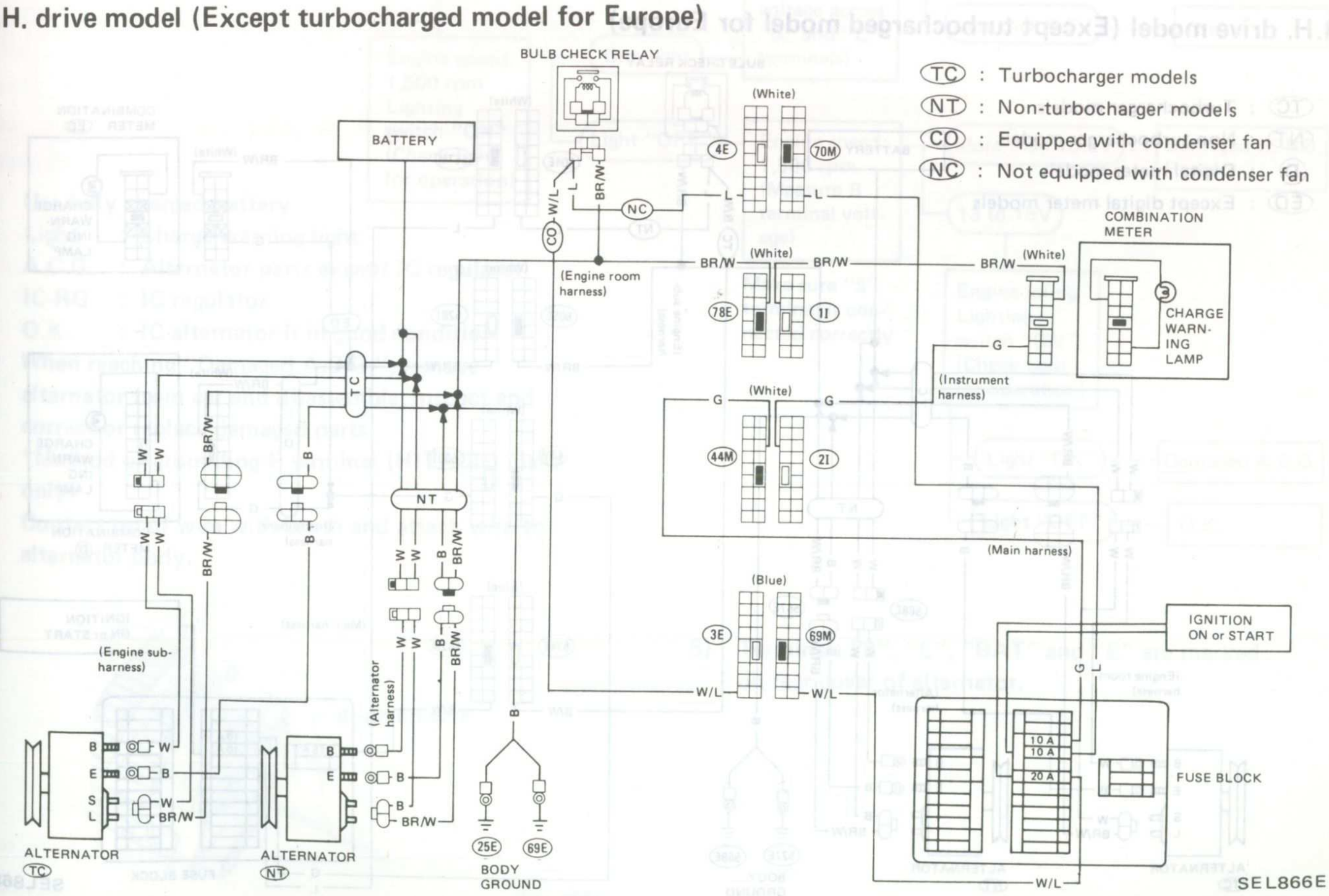
Wiring Diagram

L.H. drive model (Turbocharged model for Europe)



SEL865E

L.H. drive model (Except turbocharged model for Europe)

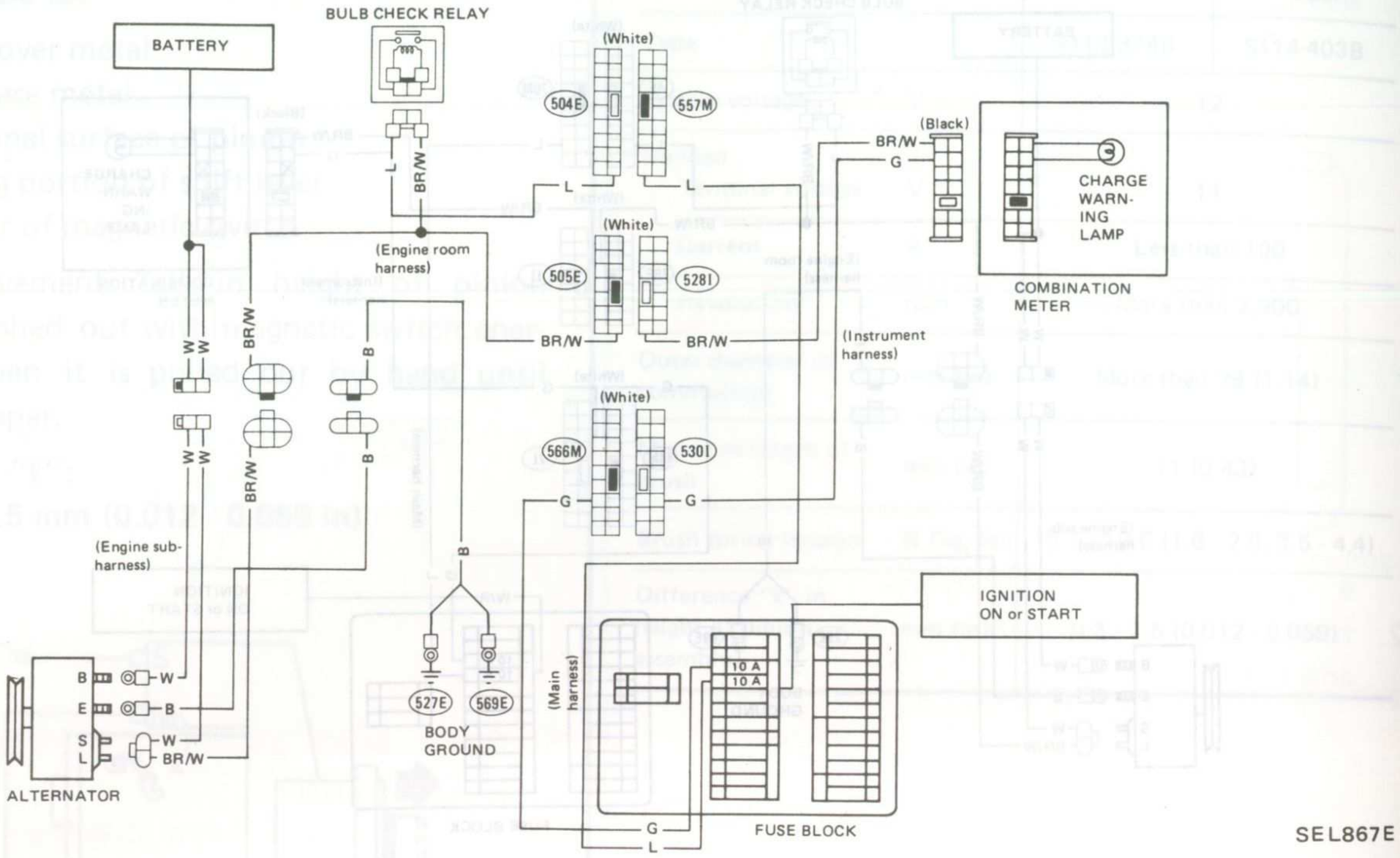


SEL866E

CHARGING SYSTEM

Wiring Diagram (Cont'd)

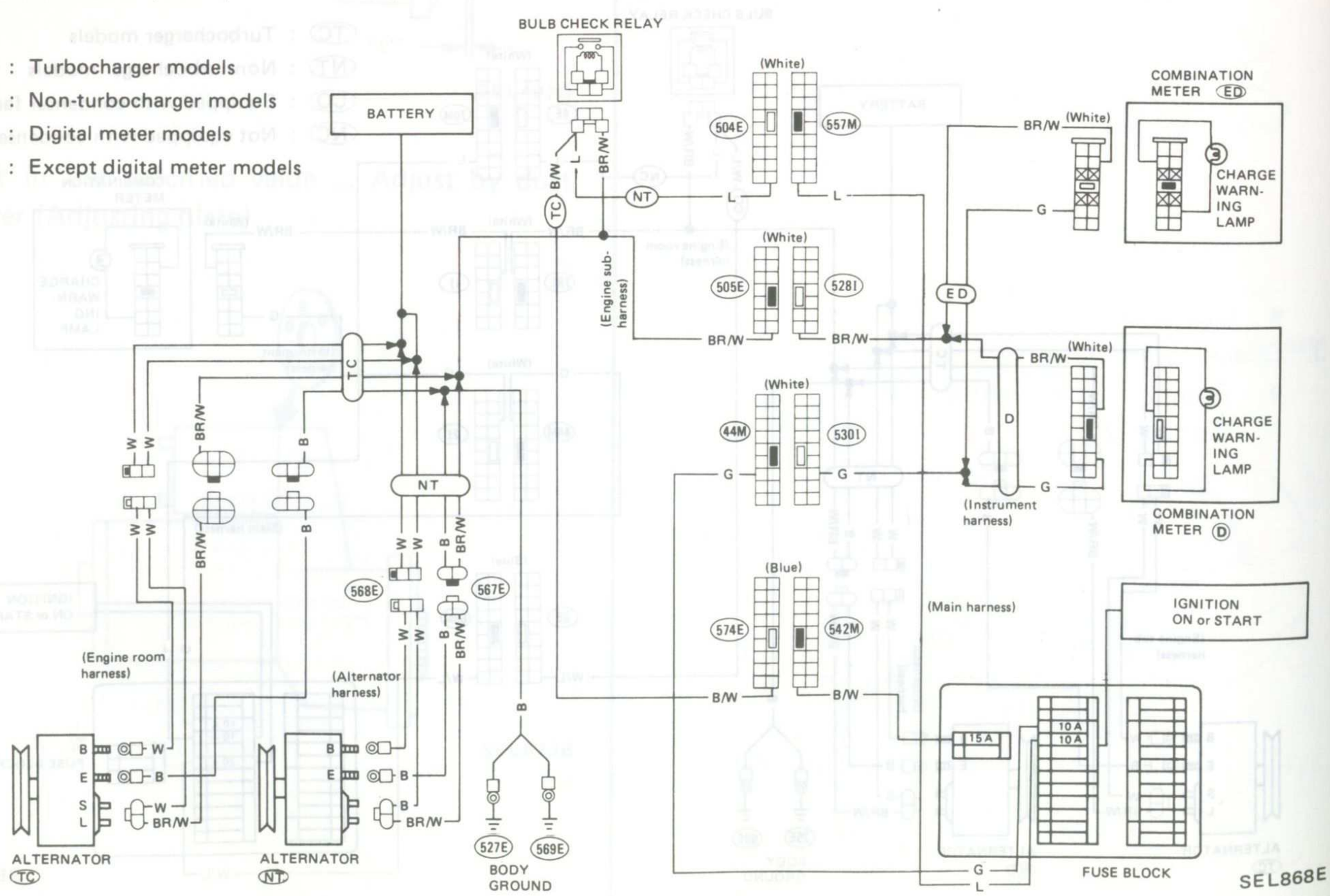
R.H. drive model (Turbocharged model for Europe)



SEL867E

R.H. drive model (Except turbocharged model for Europe)

TC : Turbocharger models
NT : Non-turbocharger models
D : Digital meter models
ED : Except digital meter models



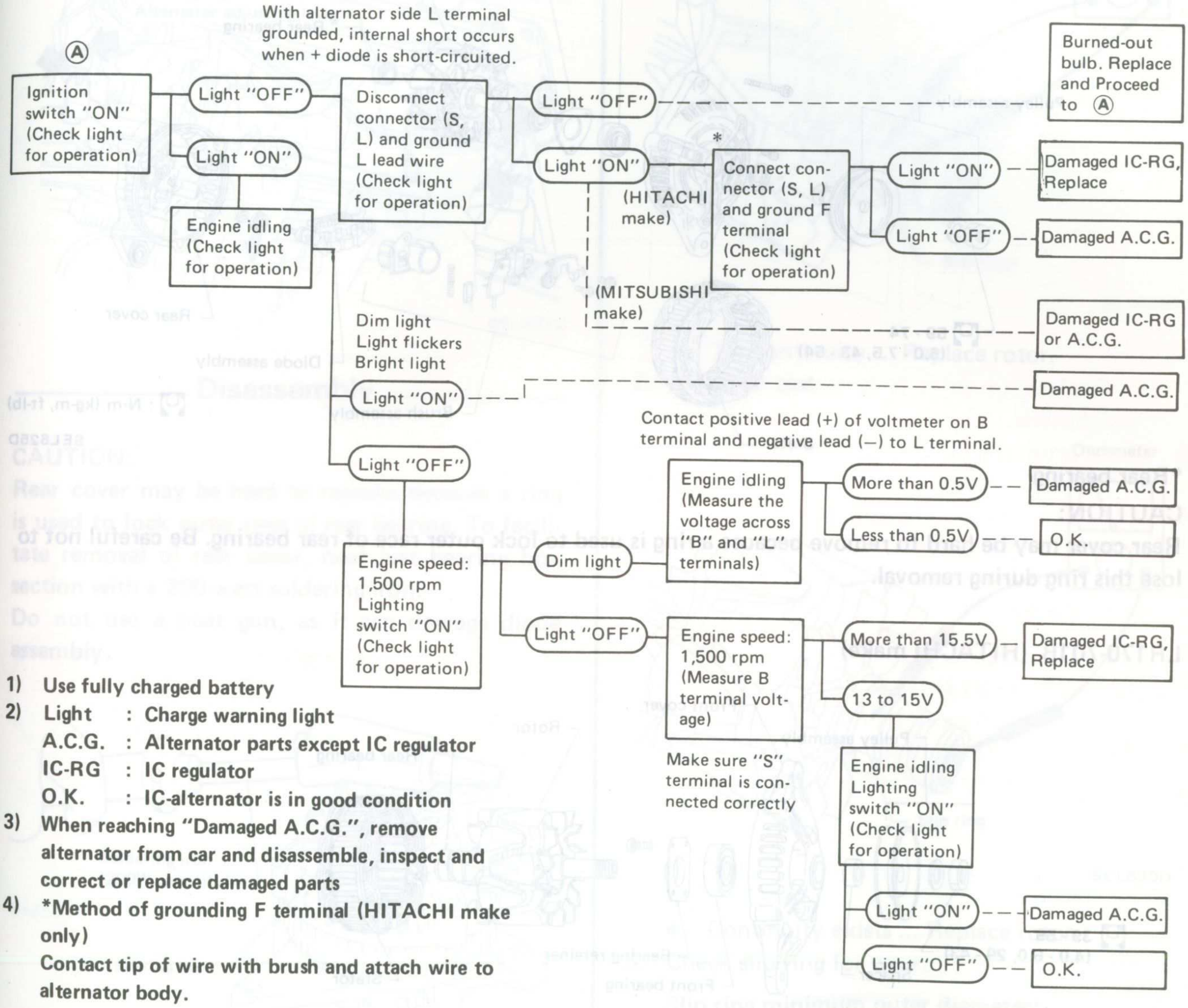
SEL868E

CHARGING SYSTEM

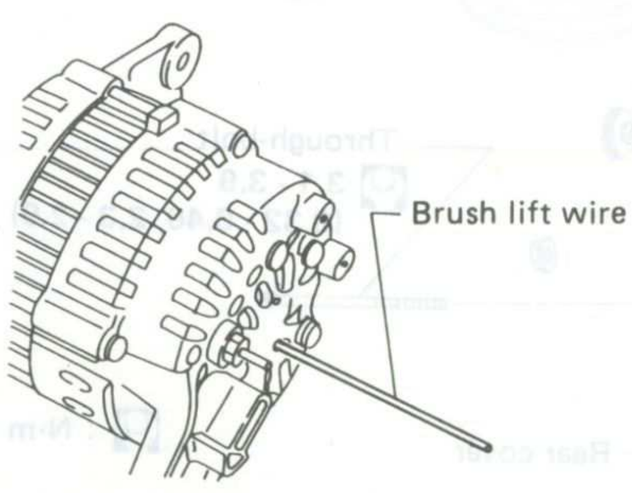
Trouble-shooting

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.

WITH IC REGULATOR



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 car and disassemble, inspect and correct or replace damaged parts
4) *Method of grounding F terminal (HITACHI make only)
   Contact tip of wire with brush and attach wire to alternator body.

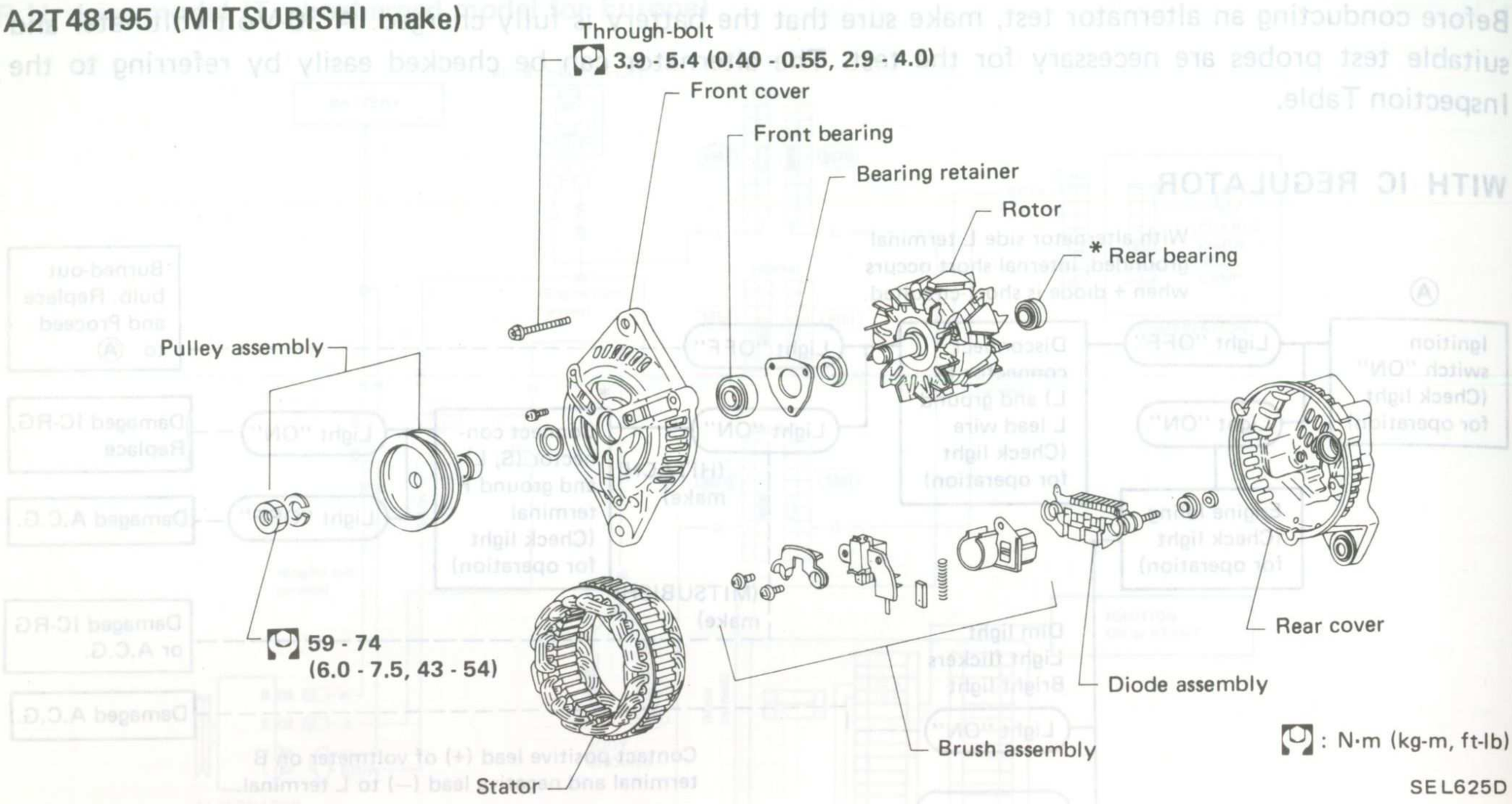


SEL766D

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

Construction

A2T48195 (MITSUBISHI make)

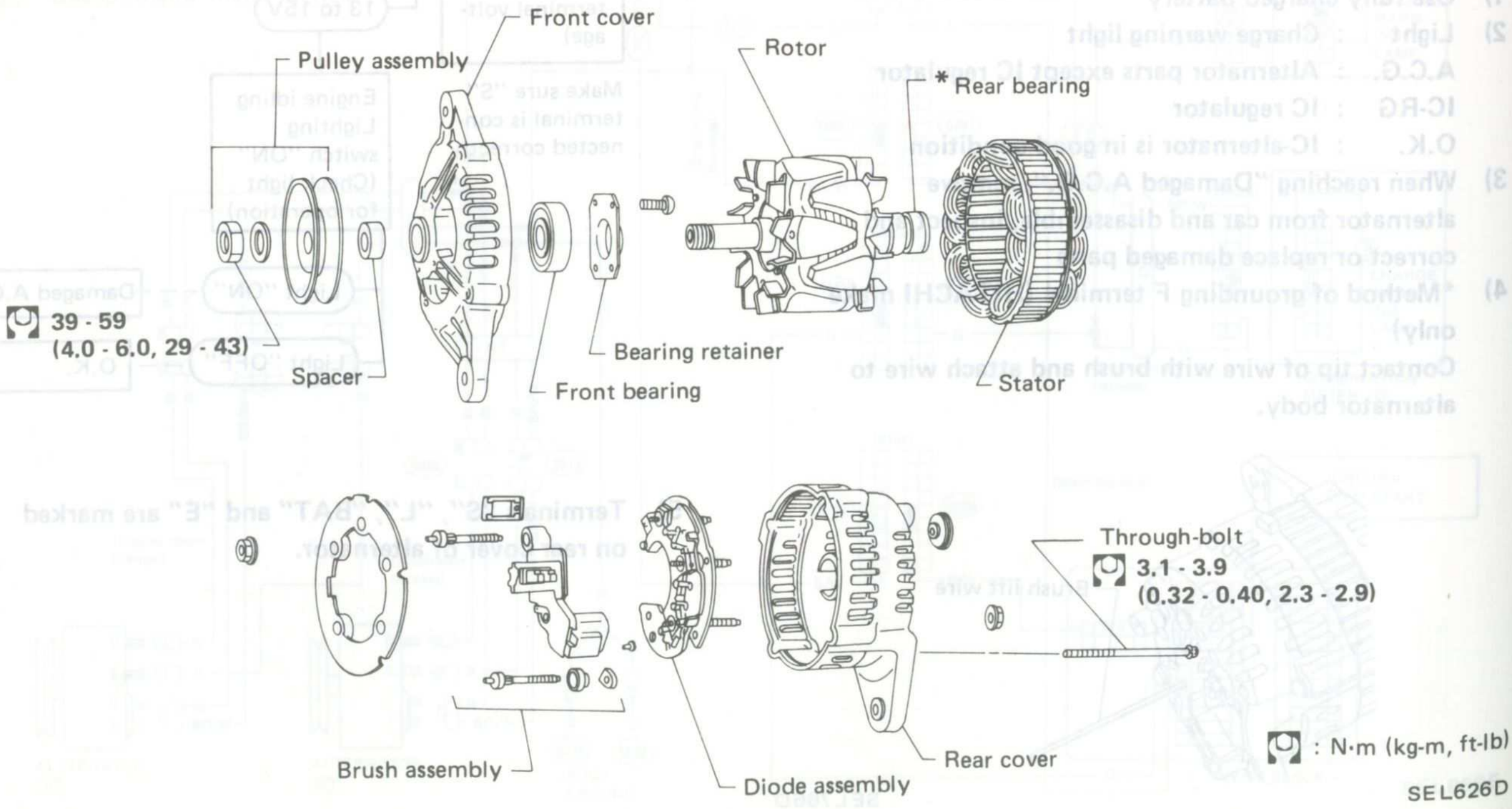


***Rear bearing**

CAUTION:

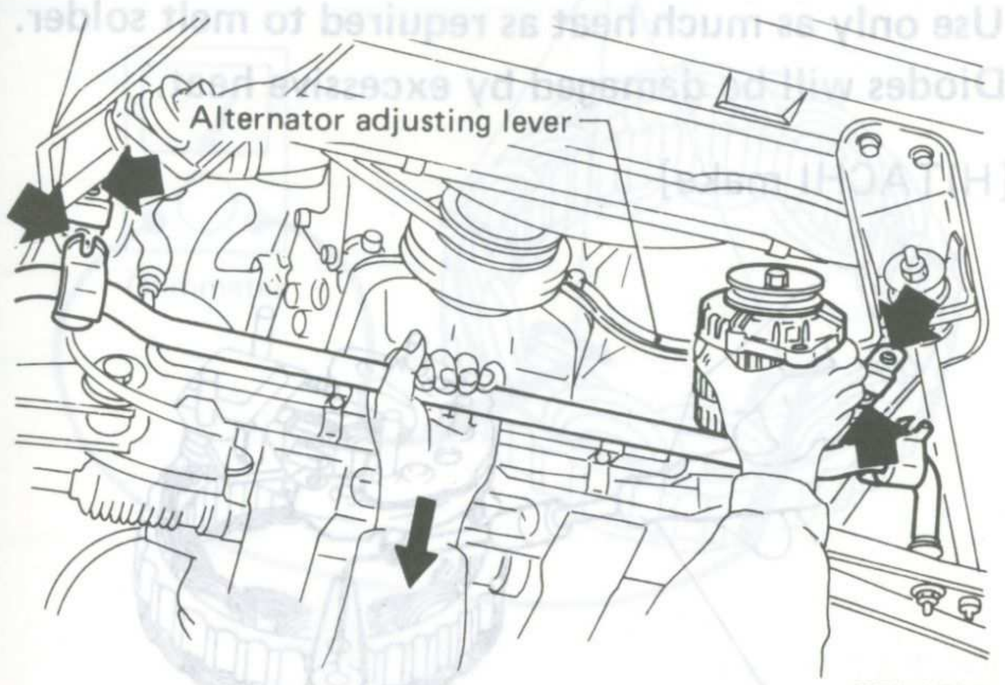
Rear cover may be hard to remove because a ring is used to lock outer race of rear bearing. Be careful not to lose this ring during removal.

LR170-701B (HITACHI make)



Removal

- Remove bolts from alternator.
- Remove bolts for front stabilizer.
- Manually move stabilizer down and remove alternator.



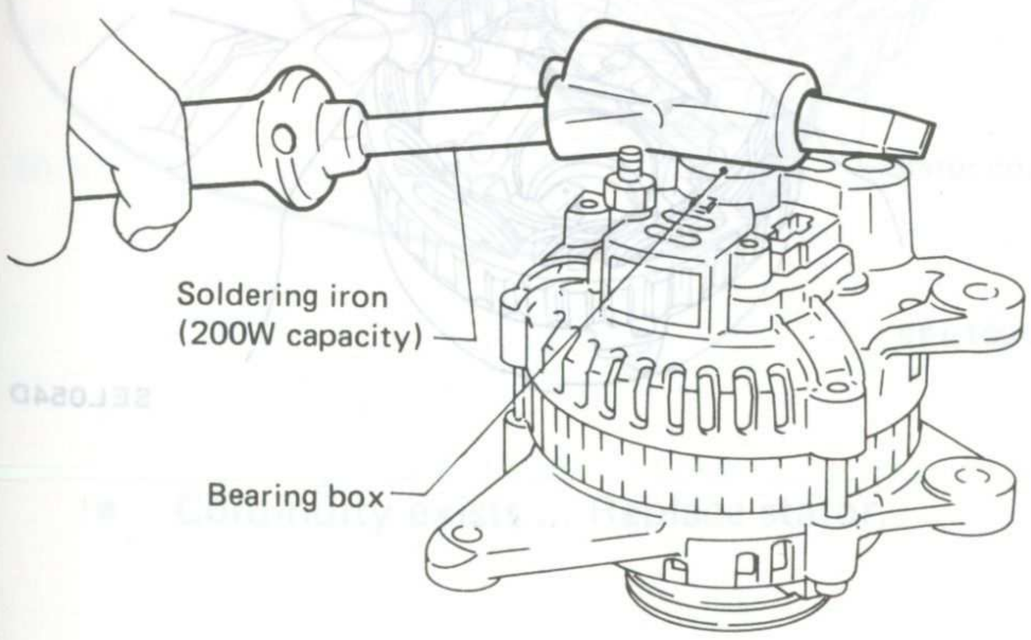
SEL627D

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 200-watt soldering iron.

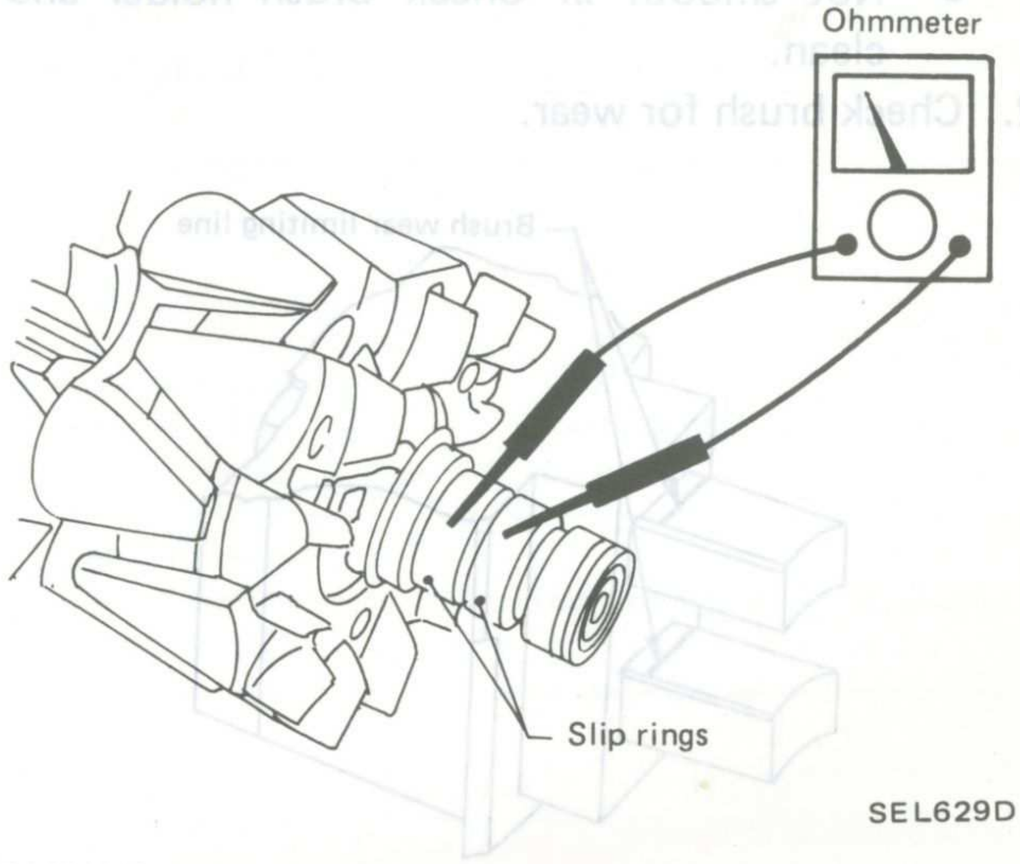
Do not use a heat gun, as it can damage diode assembly.



SEL628D

Rotor Slip Ring Check

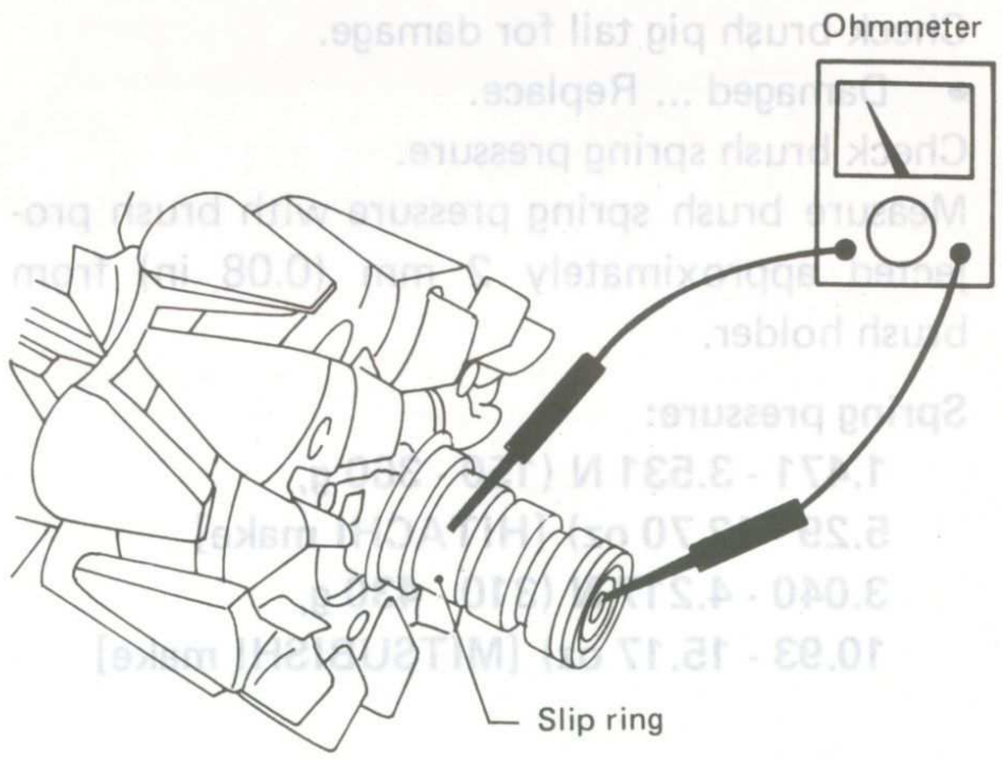
1. Continuity test



SEL629D

- No continuity ... Replace rotor.

2. Insulator test



SEL630D

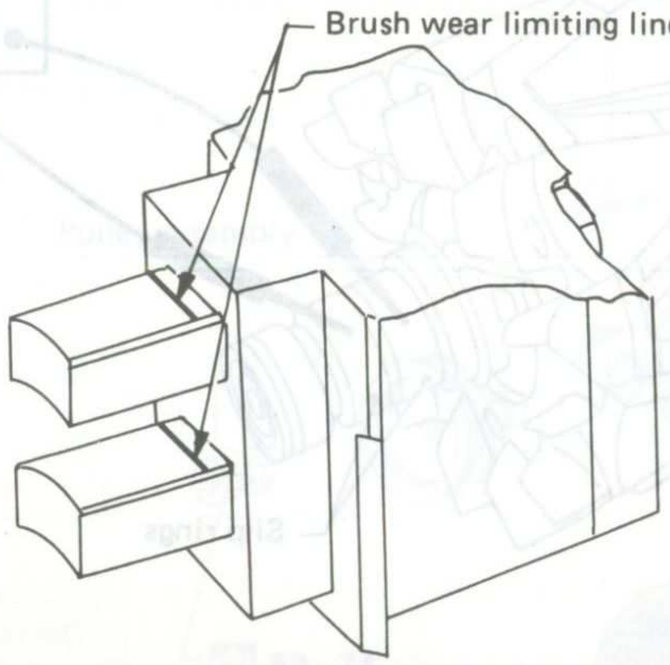
- Continuity exists ... Replace rotor.

3. Check slip ring for wear.

Slip ring minimum outer diameter:
21.6 mm (0.850 in) [HITACHI make]
22.4 mm (0.882 in) [MITSUBISHI make]

Brush Check

1. Check smooth movement of brush.
   - Not smooth ... Check brush holder and clean.
2. Check brush for wear.

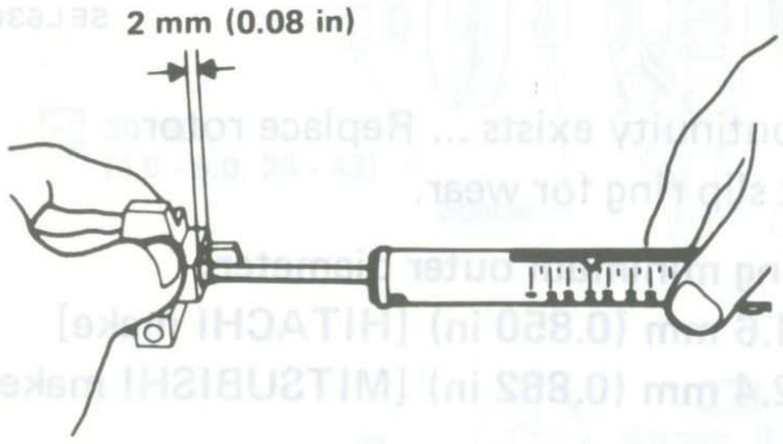


SEL631D

   - Replace brush if it is worn down to the limit line.
3. Check brush pig tail for damage.
   - Damaged ... Replace.
4. Check brush spring pressure.
   Measure brush spring pressure with brush projected approximately 2 mm (0.08 in) from brush holder.

Spring pressure:

1.471 - 3.531 N (150 - 360 g, 5.29 - 12.70 oz) [HITACHI make]
3.040 - 4.217 N (310 - 430 g, 10.93 - 15.17 oz) [MITSUBISHI make]



EE049

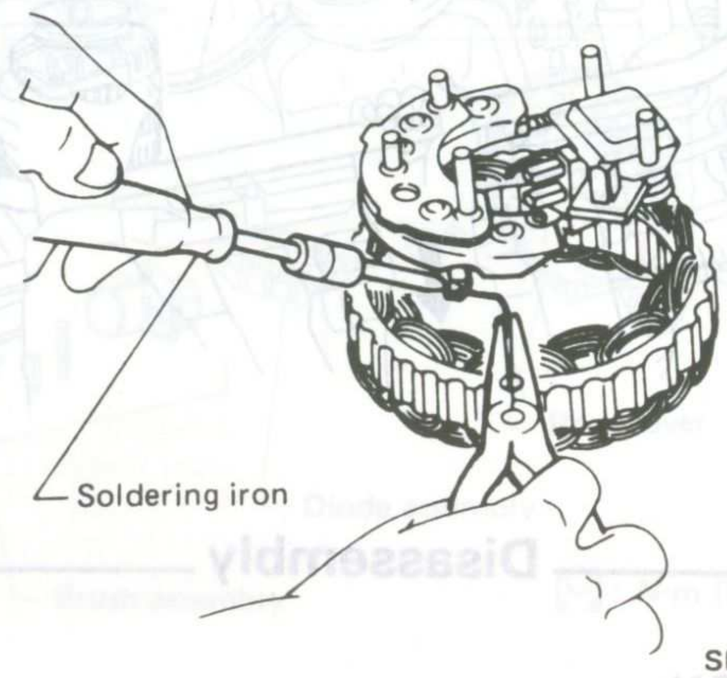
   - Not in the specified value ... Replace.

Stator Check

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

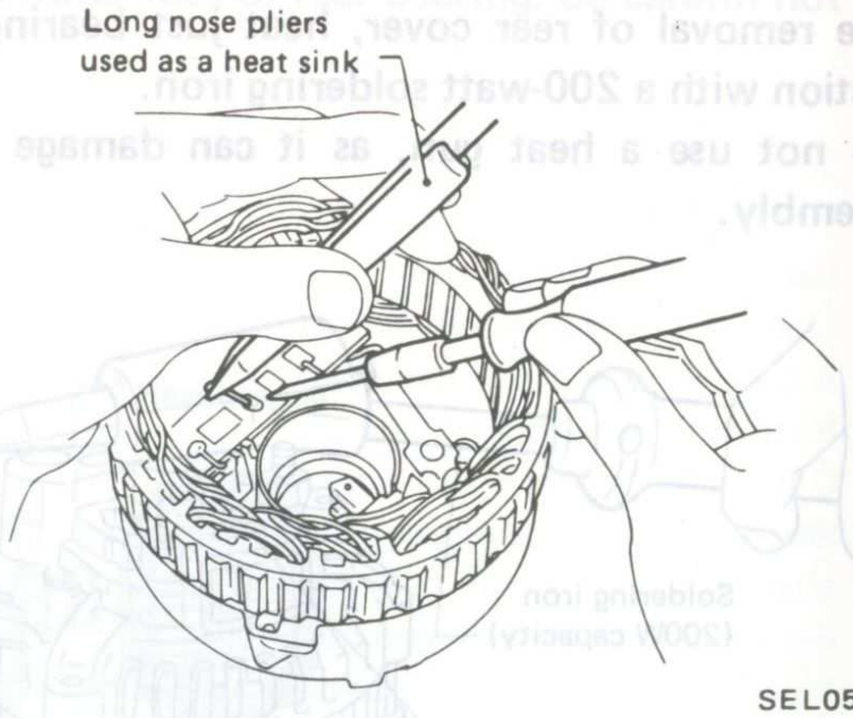
CAUTION:
Use only as much heat as required to melt solder.
Diodes will be damaged by excessive heat.

[HITACHI make]



SEL587A

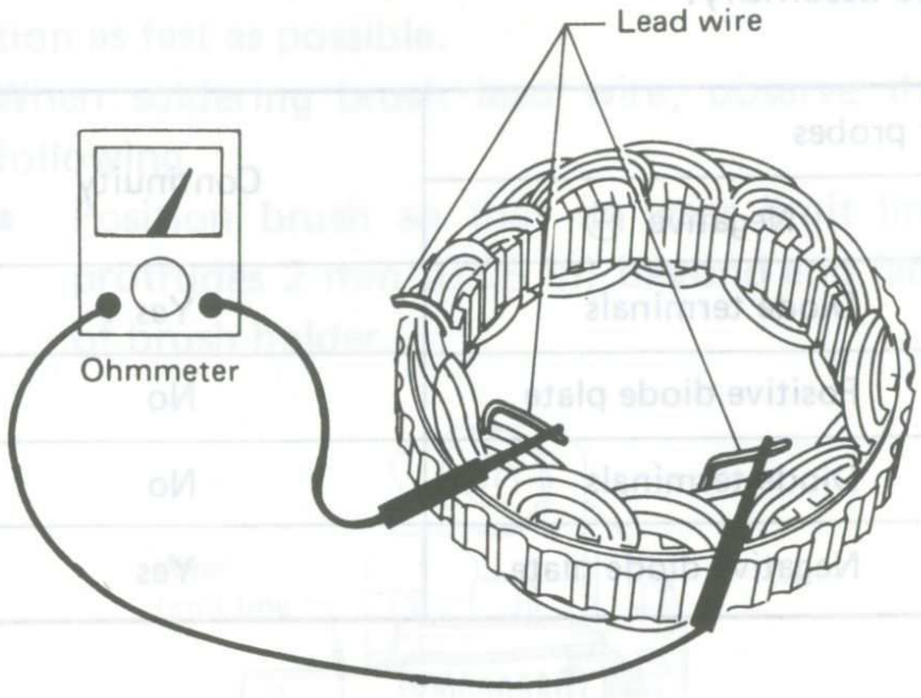
[MITSUBISHI make]



SEL054D

Stator Check (Cont'd)

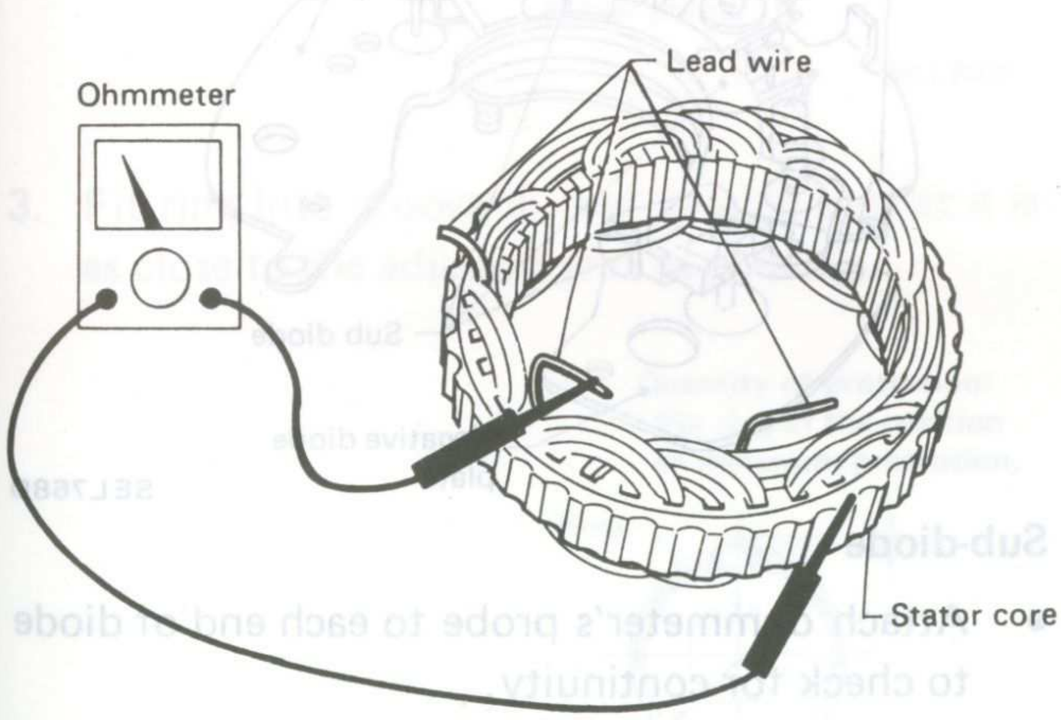
1. Continuity test



SEL108E

- No continuity ... Replace stator.

2. Ground test



SEL109E

- Continuity exists ... Replace stator.

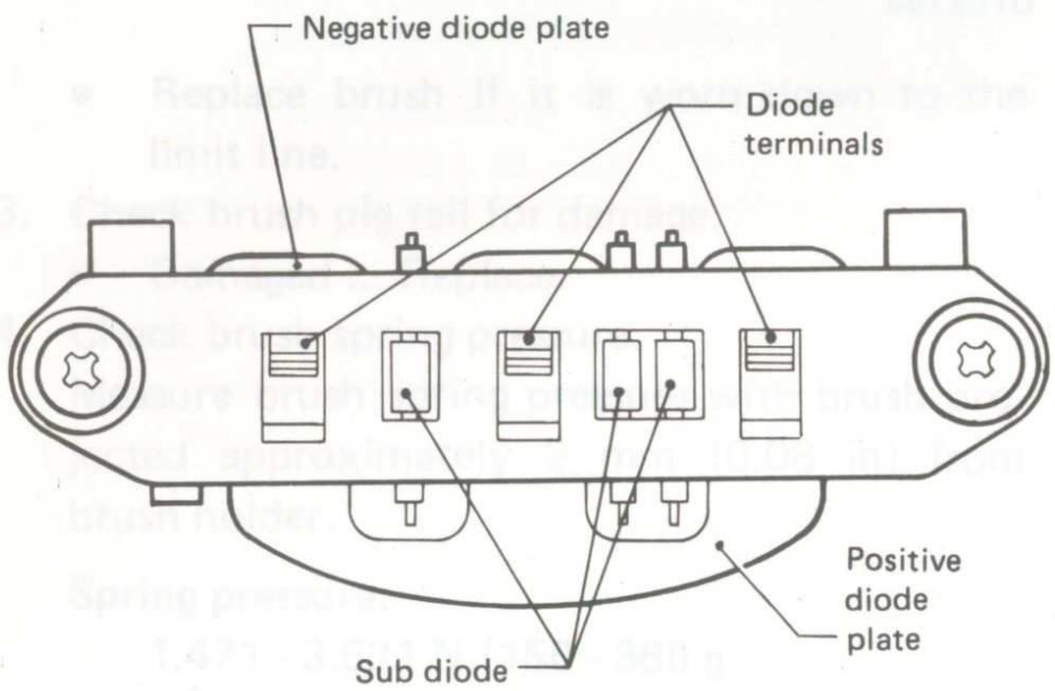
Diode Check

DIODE

- 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

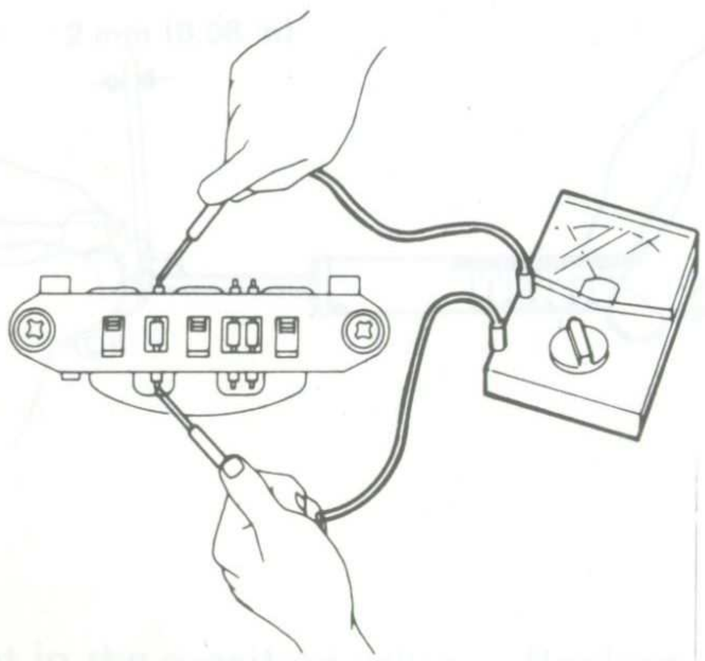
[MITSUBISHI make]



SEL767D

Sub-diode

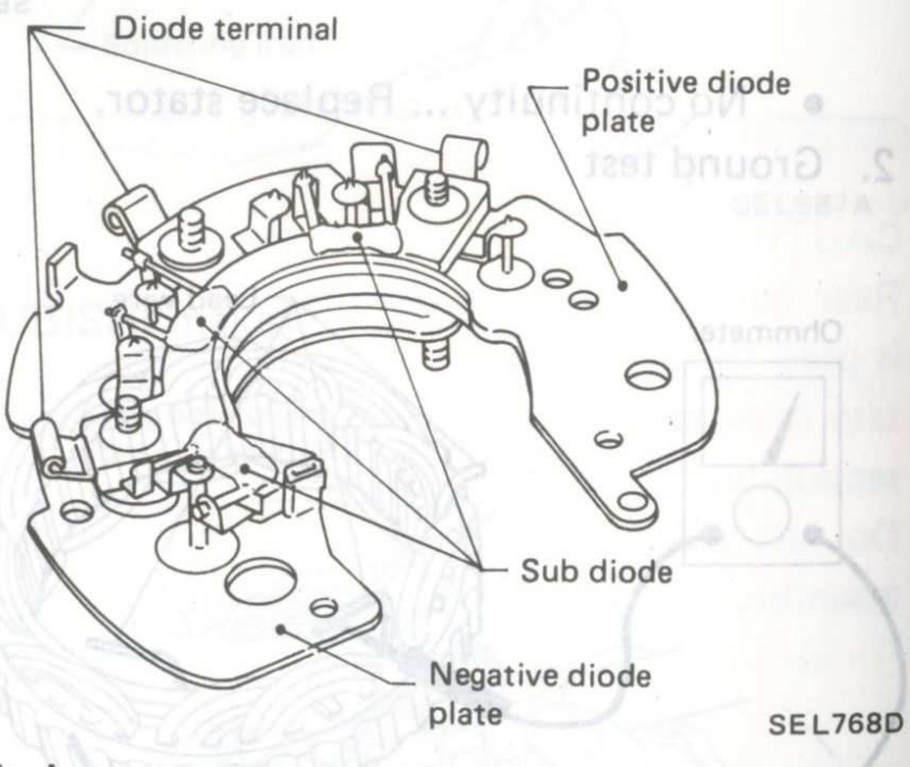
- Attach ohmmeter's probe to each end of diode to check for continuity.



SEL910A

- Continuity is N.G. ... Replace diode assembly.

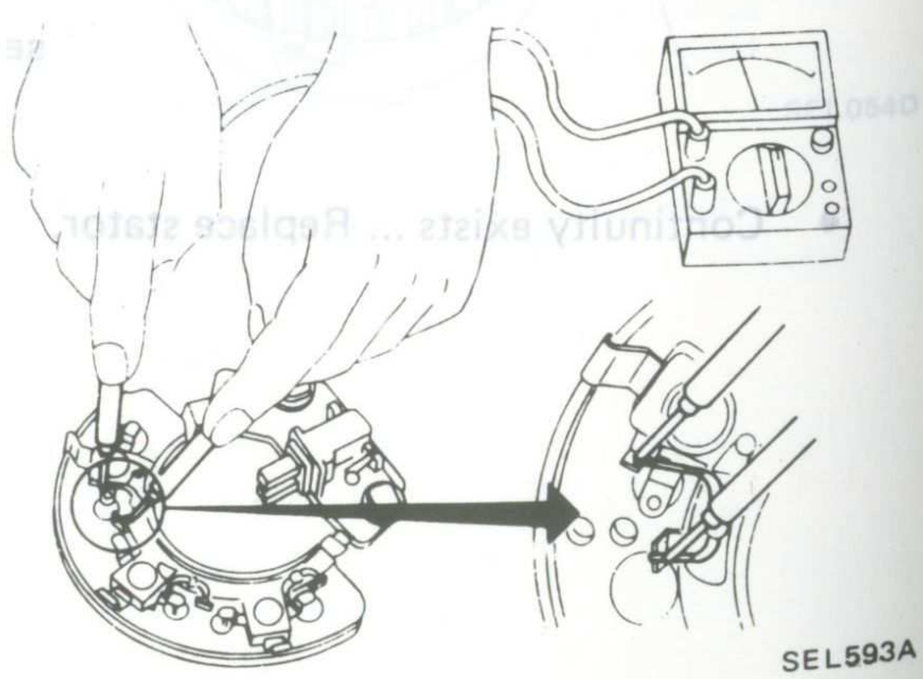
[HITACHI make]



SEL768D

Sub-diode

- Attach ohmmeter's probe to each end of diode to check for continuity.



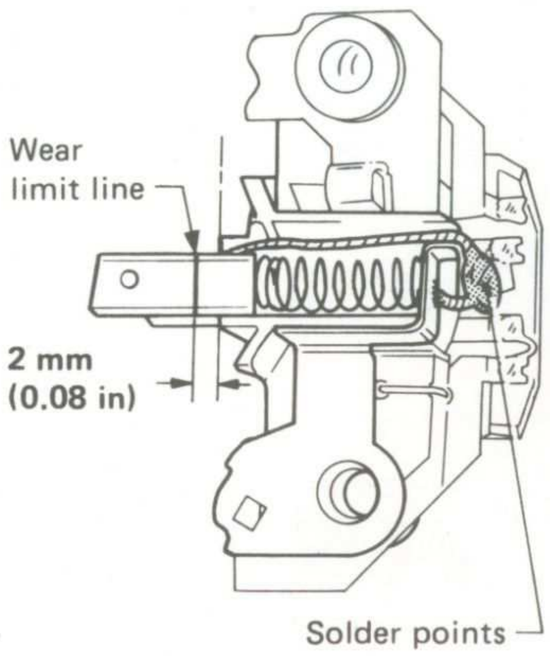
SEL593A

- Continuity is N.G. ... Replace diode assembly.

Assembly

Carefully observe the following instructions.

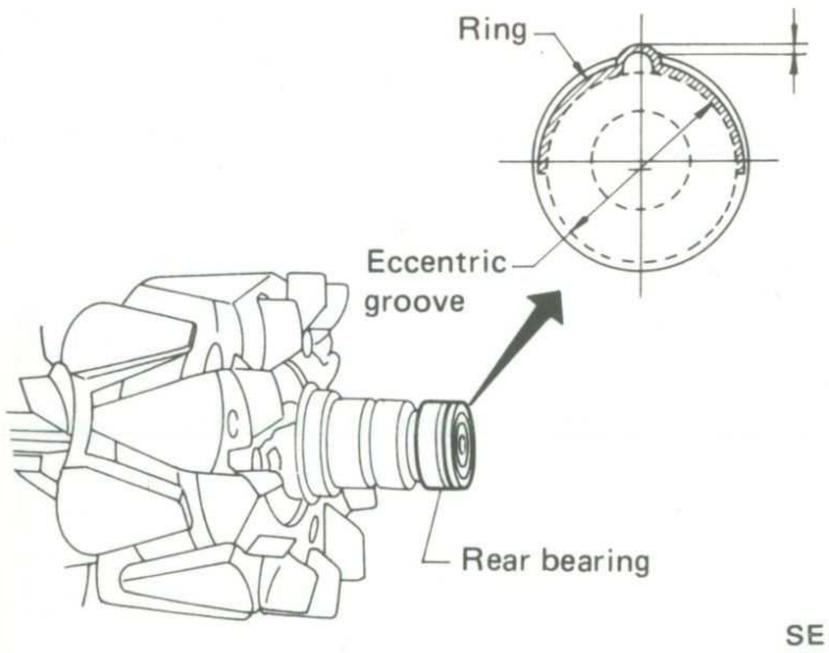
1. When soldering each stator coil lead wire to diode assembly terminal, carry out the operation as fast as possible.
2. When soldering brush lead wire, observe the following.
   - Position brush so that its wear limit line protrudes 2 mm (0.08 in) beyond end face of brush holder.



SEL632D

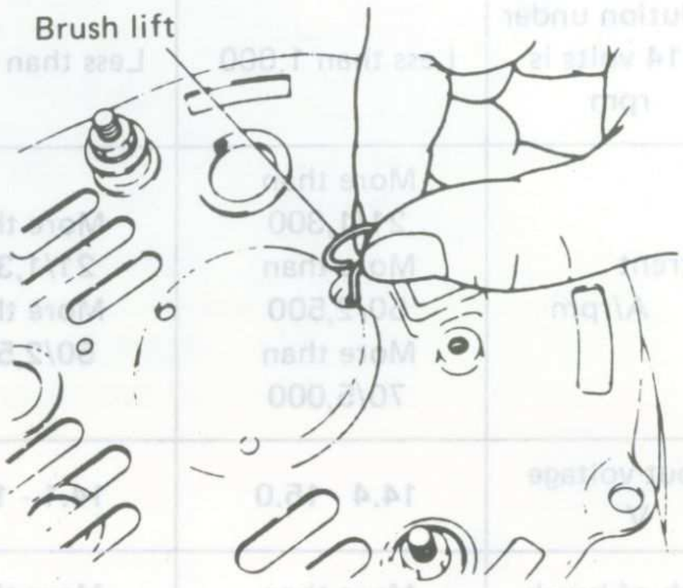
3. Fit ring into groove in rear bearing so that it is as close to the adjacent area as possible.

Quantity of protrusion:
Fix ring at the position of minimum protrusion.

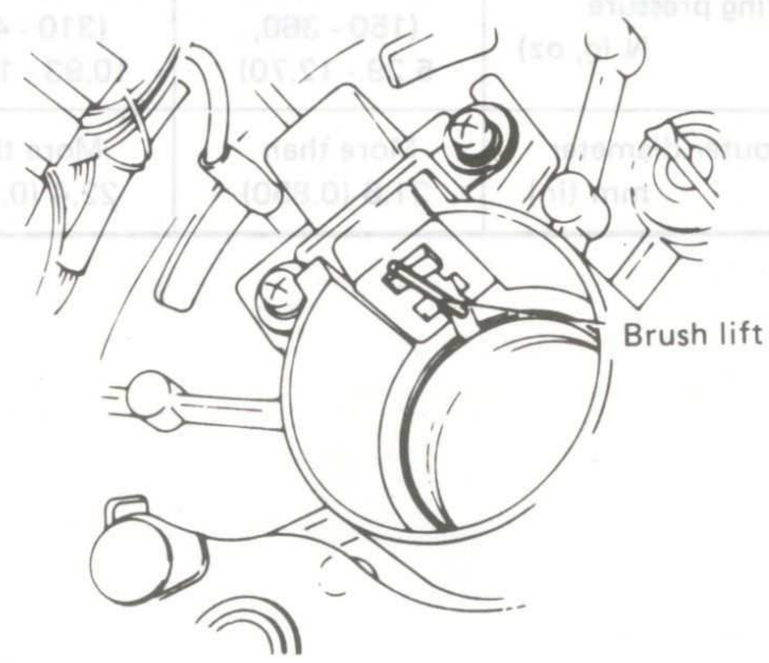


SEL633D

4. Before installing front cover with pulley and rotor with rear cover, push brush up with fingers and retain brush, by inserting brush lift into brush lift hole from outside.
   After installing, remove wire for brush lift.



EE540



EE541

5. After installing front and rear sides of alternator, pull brush lift by pushing toward center.

Do not pull brush lift by pushing toward outside of cover as it will damage slip ring sliding surface.

— Service Data and Specifications —

Type	LR170-701B	A2T48195
Applied model	Without turbo-charger models	With turbocharger models
Nominal rating V-A	12-70	
Ground polarity	Negative	
Minimum revolution under no-load (when 14 volts is applied) rpm	Less than 1,000	Less than 1,100
Hot output current A/rpm	More than 21/1,300 More than 50/2,500 More than 70/5,000	More than 21/1,300 More than 50/2,500
Regulated output voltage V	14.4 - 15.0	14.1 - 14.7
Minimum length of brush mm (in)	More than 5.5 (0.217)	More than 8 (0.31)
Brush spring pressure N (g, oz)	1.471 - 3.531 (150 - 360, 5.29 - 12.70)	3.040 - 4.217 (310 - 430, 10.93 - 15.17)
Slip ring outer diameter mm (in)	More than 21.6 (0.850)	More than 22.4 (0.882)

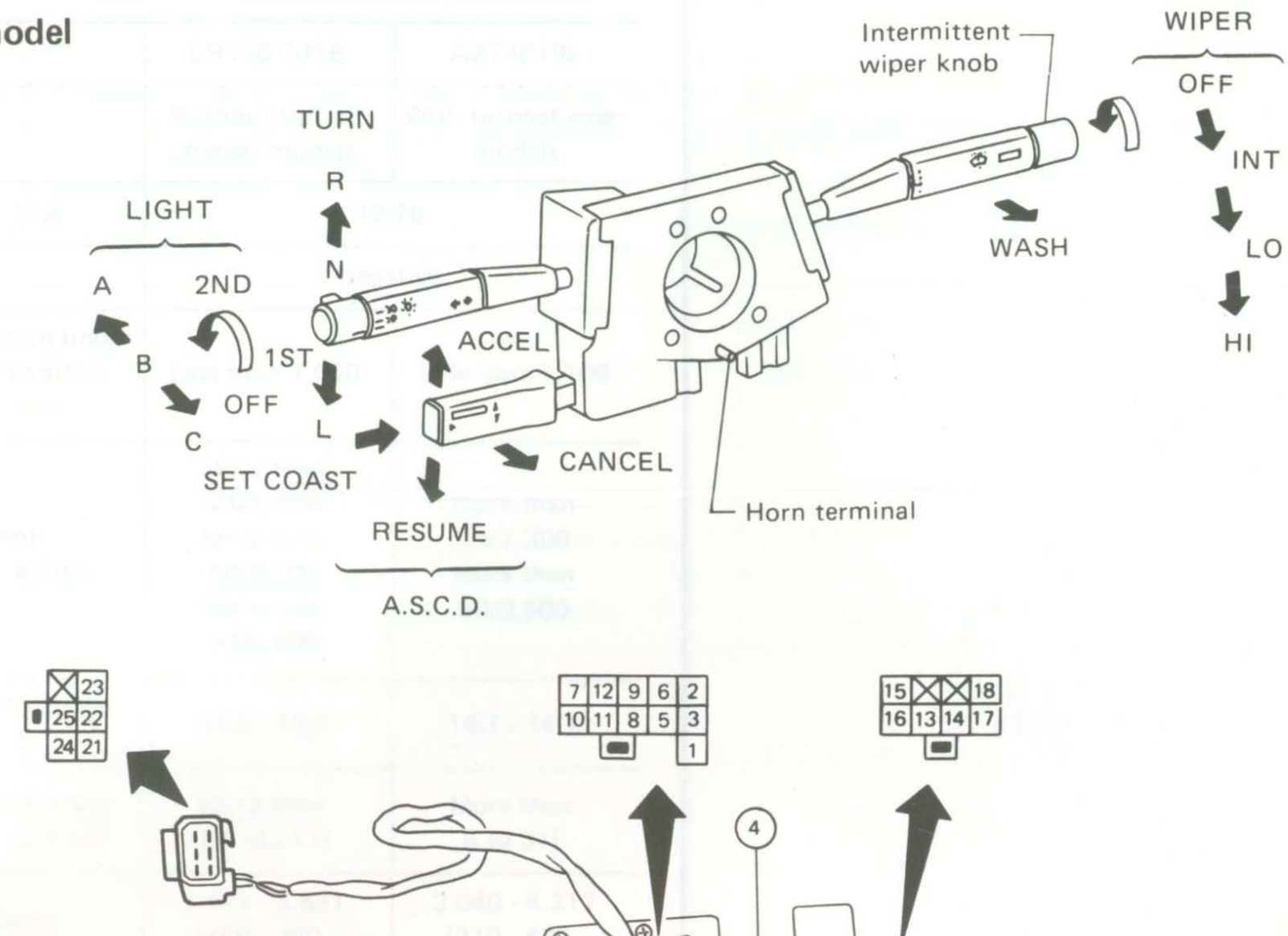
CHARGING SYSTEM

Note:

COMBINATION SWITCH

Check

L.H. drive model



LIGHTING SWITCH

	OFF			1ST			2ND		
	A	B	C	A	B	C	A	B	C
5			○			○	○	○	○
6			○			○	○		○
7								○	
8			○			○	○	○	○
9			○			○	○		○
10								○	
11				○	○	○	○	○	○
12				○	○	○	○	○	○
26							○	○	○
27							○	○	○

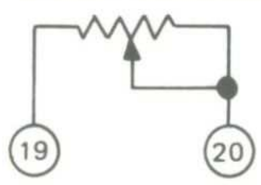
WIPER SWITCH

	OFF	INT	LO	HI	WASH
13	○	○			
14	○	○	○		
15		○	○	○	
16				○	
17		○	○	○	○
18					○

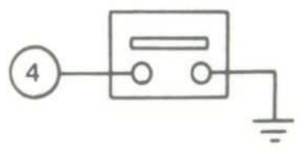
or

	OFF	INT	LO	HI	WASH
13	○	○			
14	○	○	○		
15		○			
16				○	
17		○	○	○	○
18					○

INTERMITTENT WIPER VOLUME



HORN SWITCH



A.S.C.D. SWITCH

	CANSEL	RESUME	ACCEL	SET COAST
21	○	○	○	○
22				○
23		○		
24			○	
25	○			

	R	N	L
1	○		○
2	○		
3			○

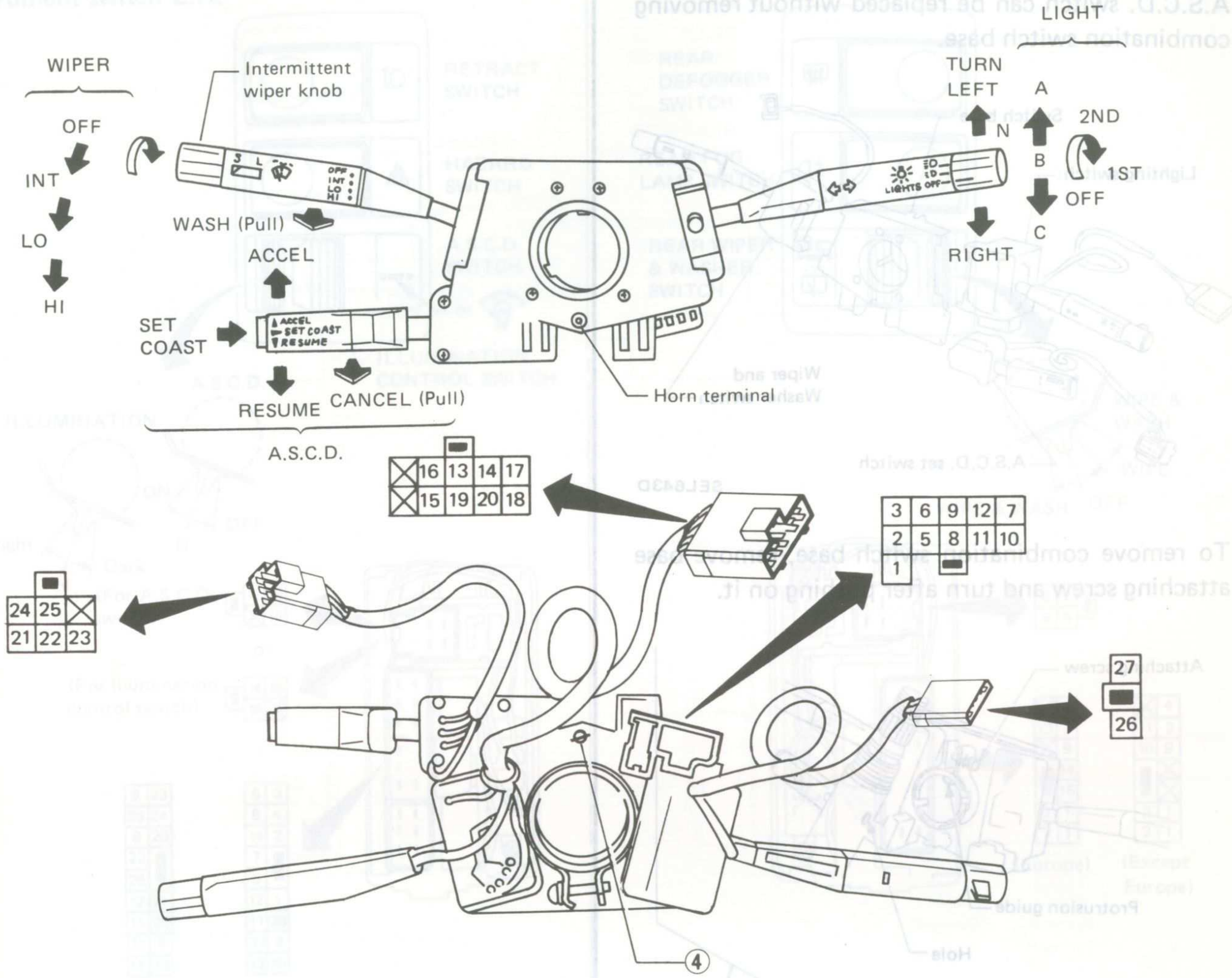
TURN SIGNAL SWITCH

SEL771E

COMBINATION SWITCH

Check (Cont'd)

R.H. drive model



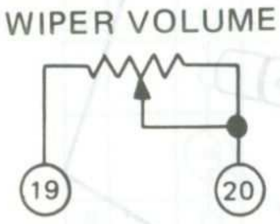
LIGHTING SWITCH

	OFF			1ST			2ND		
	A	B	C	A	B	C	A	B	C
5			○			○	○	○	○
6			○			○	○		○
7								○	
8			○			○	○	○	○
9			○			○	○		○
10								○	
11				○	○	○	○	○	○
12				○	○	○	○	○	○
26							○	○	○
27							○	○	○

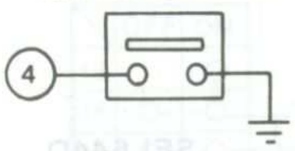
WIPER SWITCH

	OFF	INT	LO	HI	WASH
13	○	○			
14	○	○	○		
15		○	○	○	
16				○	
17		○	○	○	○
18					○

INTERMITTENT WIPER VOLUME



HORN SWITCH



A.S.C.D. SWITCH

	CANSEL	RESUME	ACCEL	SET COAST
21	○	○	○	○
22				○
23		○		
24			○	
25	○			

	R	N	L
1	○		○
2	○		
3			○

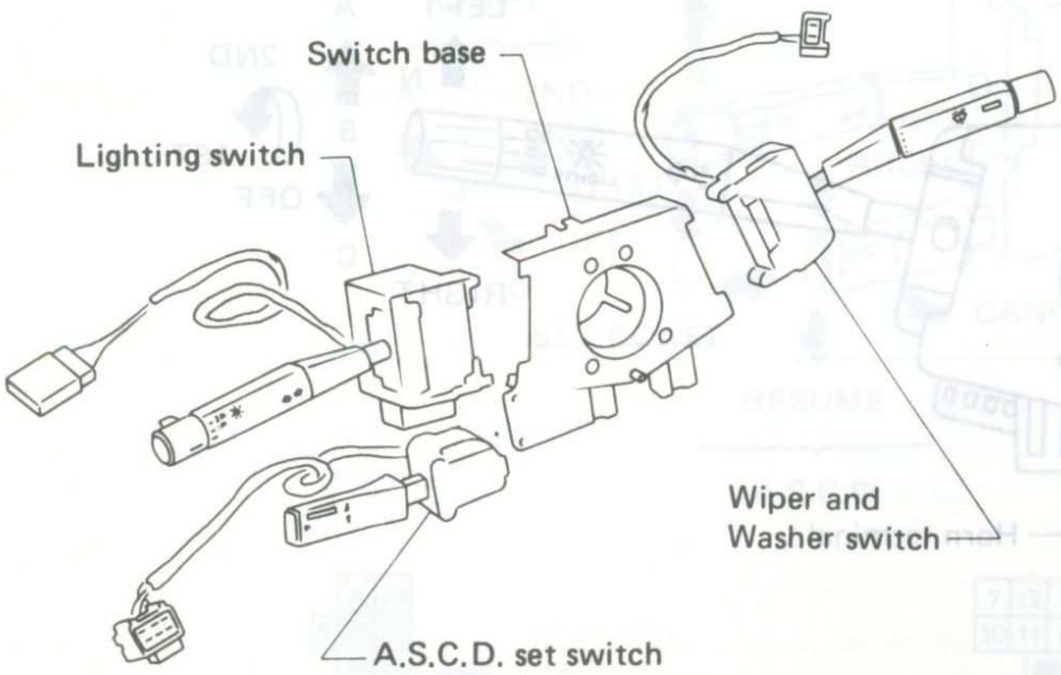
TURN SIGNAL SWITCH

SEL772E

COMBINATION SWITCH

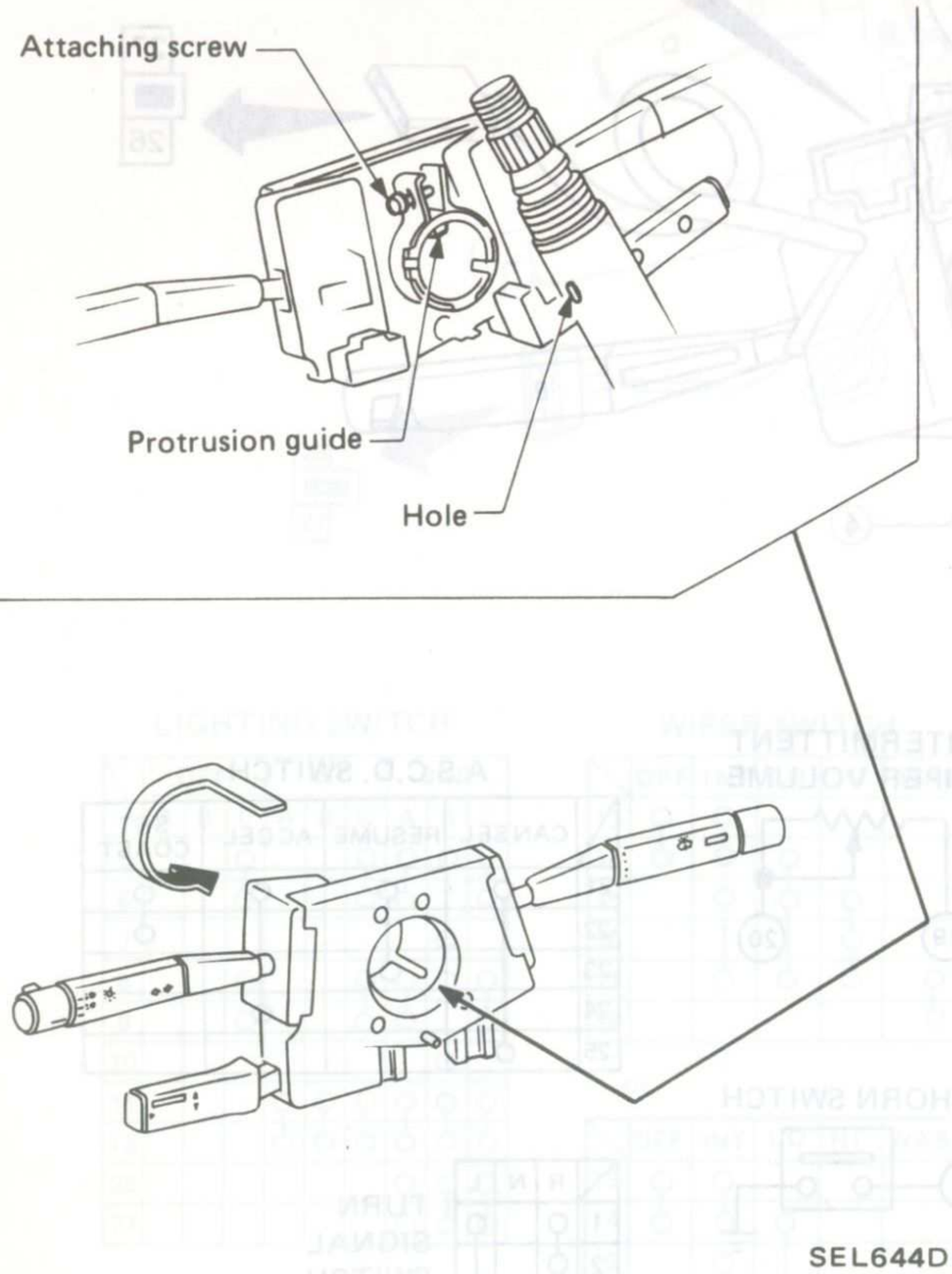
Replacement

Lighting switch, wiper & washer switch and A.S.C.D. switch can be replaced without removing combination switch base.



SEL643D

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



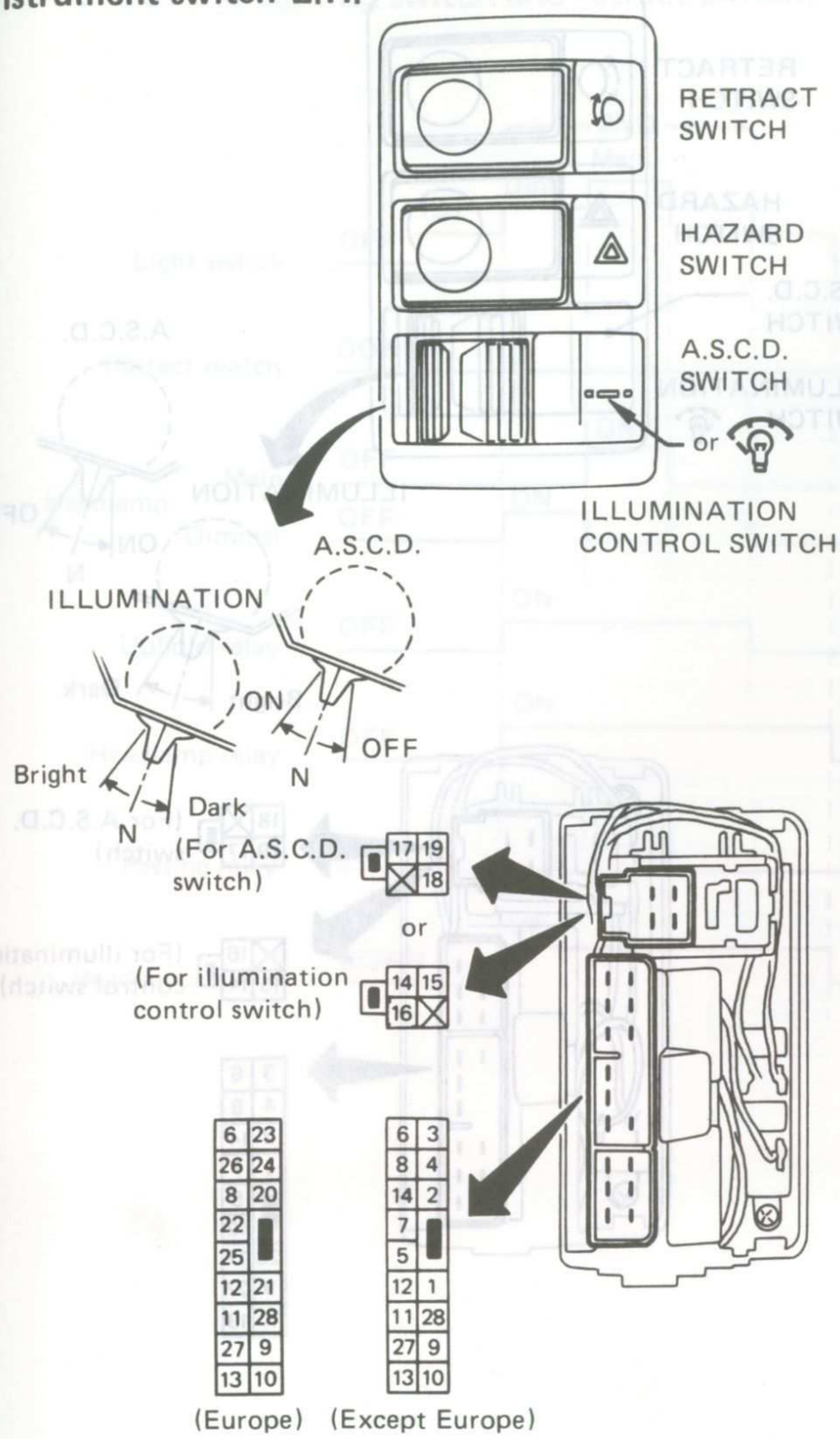
SEL644D

INSTRUMENT SWITCH

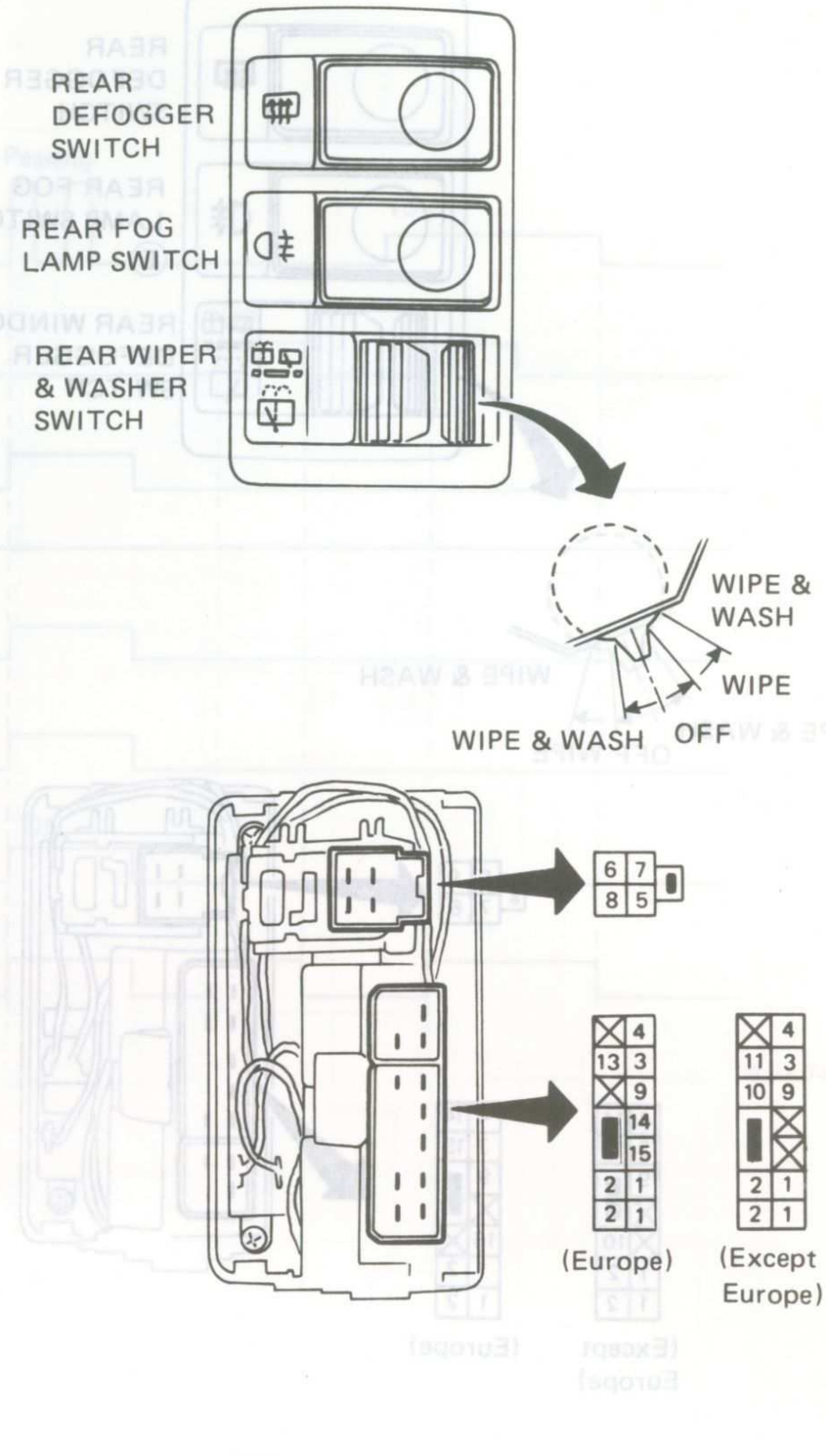
Check

L.H. DRIVE MODEL

Instrument switch L.H.



Instrument switch R.H.



RETRACT SWITCH

	UP	DOWN
9	○	
10	○	○
11		○
12	○	○
27		○
28	○	
13	○	
Indicator	⊖	
14	○	

HAZARD Ⓒ SWITCH

	OFF	ON
2	○	○
1	○	
7		○
3		○
4		○
5		○

A.S.C.D. MAIN SWITCH

	OFF	N	ON
17		○	○
18		○	○
19			○

ILLUMINATION CONTROL SWITCH

	BRIGHT	DARK
15	○	
16		○
14	○	○

HAZARD Ⓒ SWITCH

	OFF	ON
20	○	○
21	○	
22		○
23		○
24		○
25		○
Indicator		⊖
26		○

6 — (illumination) — 8

Illumination

REAR WINDOW DEFOGGER SWITCH

	OFF	ON
2		○
1		○
		⊖
9		○

REAR WIPER & WASHER SWITCH

	WIPE WASH	OFF	WIPE	WIPE WASH
5	○	○	○	○
6		○		
7	○			○
8	○		○	○

Indicator

REAR FOG LAMP SWITCH Ⓔ

	OFF	ON
13		○
14	○	○
15	○	○

Indicator

4 — (illumination) — 3

Illumination

Ⓒ : Except Europe

Ⓔ : Europe

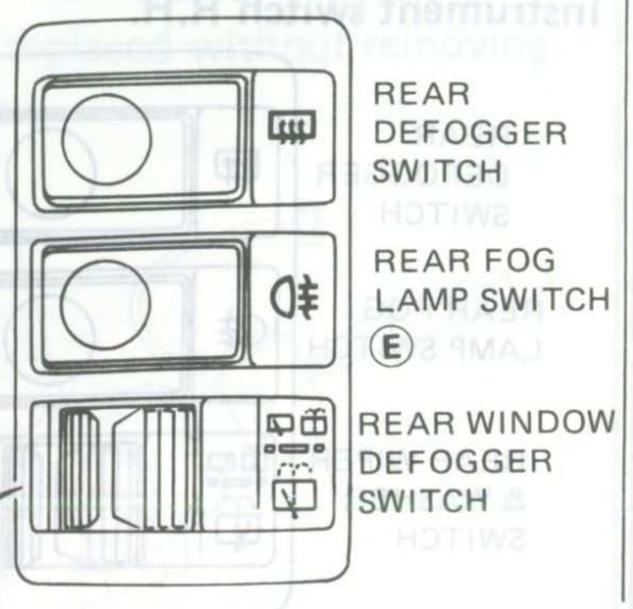
SEL773E

INSTRUMENT SWITCH

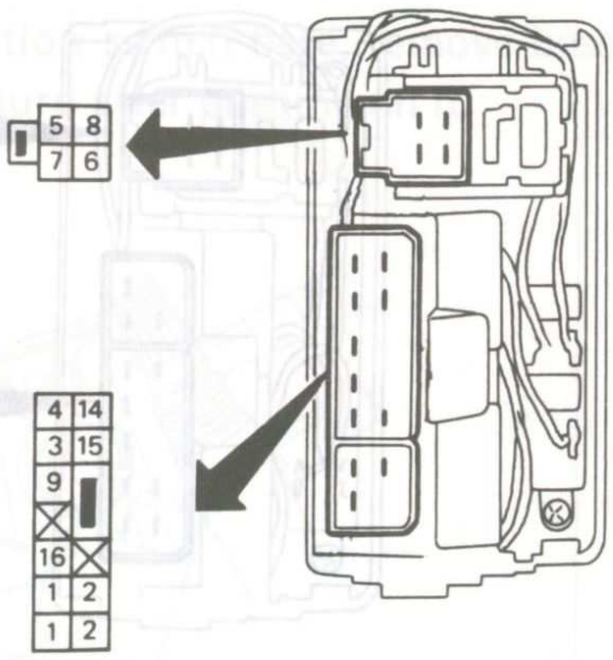
Check (Cont'd)

R.H. DRIVE MODEL

Instrument switch L.H.

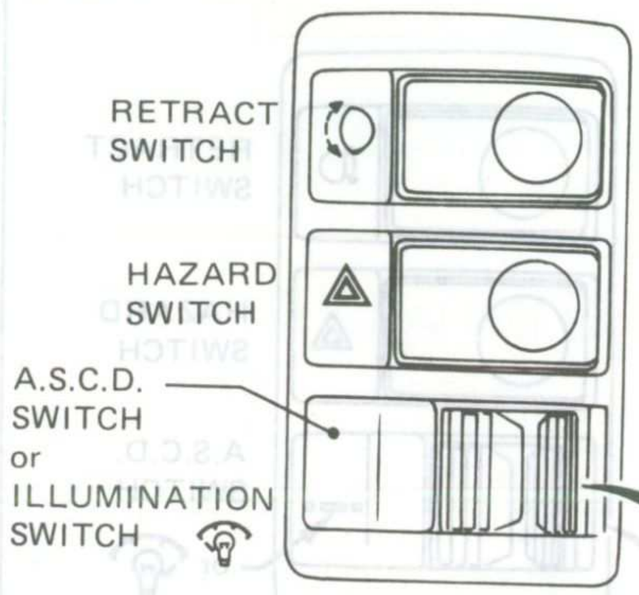


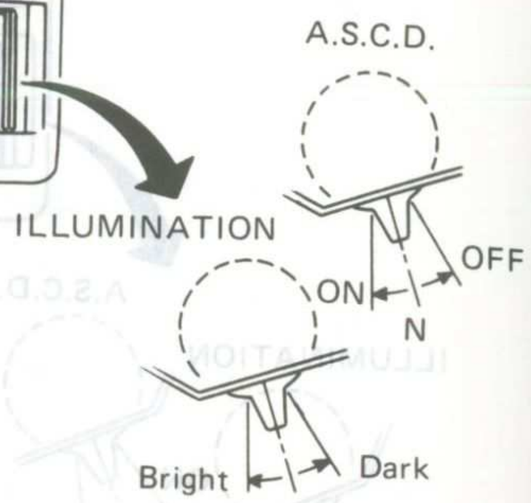


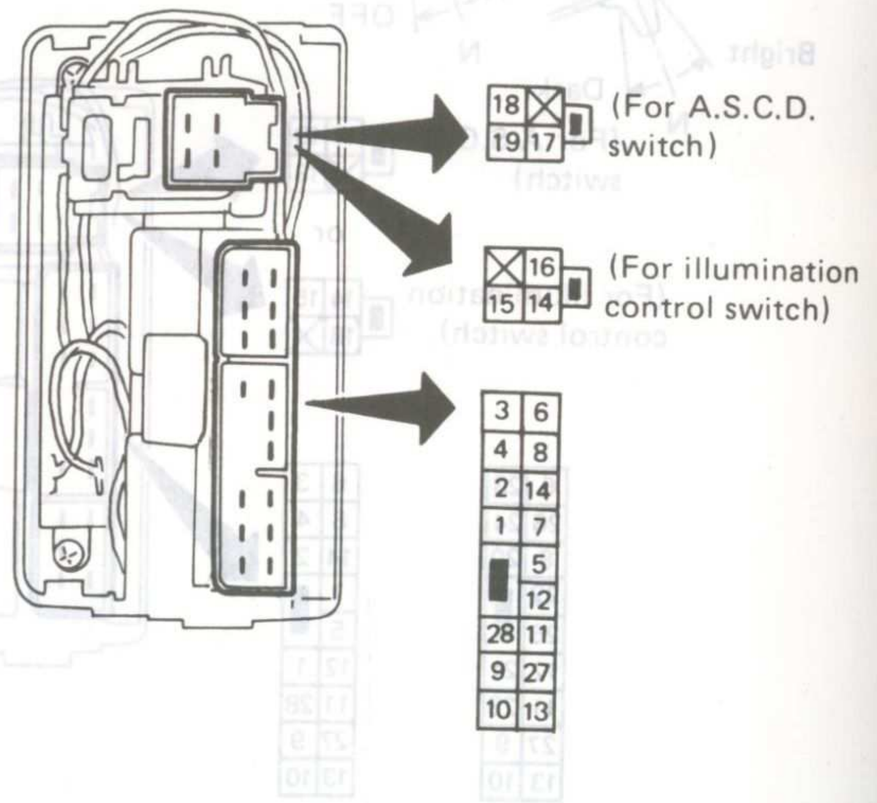


(Except Europe) (Europe)

Instrument switch R.H.







REAR WIPER & WASHER SWITCH

	OFF	ON
2		
1		
9		

REAR WIPER & WASHER SWITCH

	WIPE WASH	OFF	WIPE	WIPE WASH
5				
6				
7				
8				

Indicator

REAR FOG LAMP SWITCH (E)

	OFF	ON
14		
15		
16		

Indicator

4 — 3

Illumination

RETRACT SWITCH

	UP	DOWN
9		
10		
11		
12		
27		
28		
13		
14		

Indicator

HAZARD SWITCH

	OFF	ON
2		
1		
7		
3		
4		
5		

A.S.C.D. MAIN SWITCH

	OFF	N	ON
17			
18			
19			

ILLUMINATION CONTROL SWITCH

	BRIGHT	DARK
15		
16		
14		

6 — 8

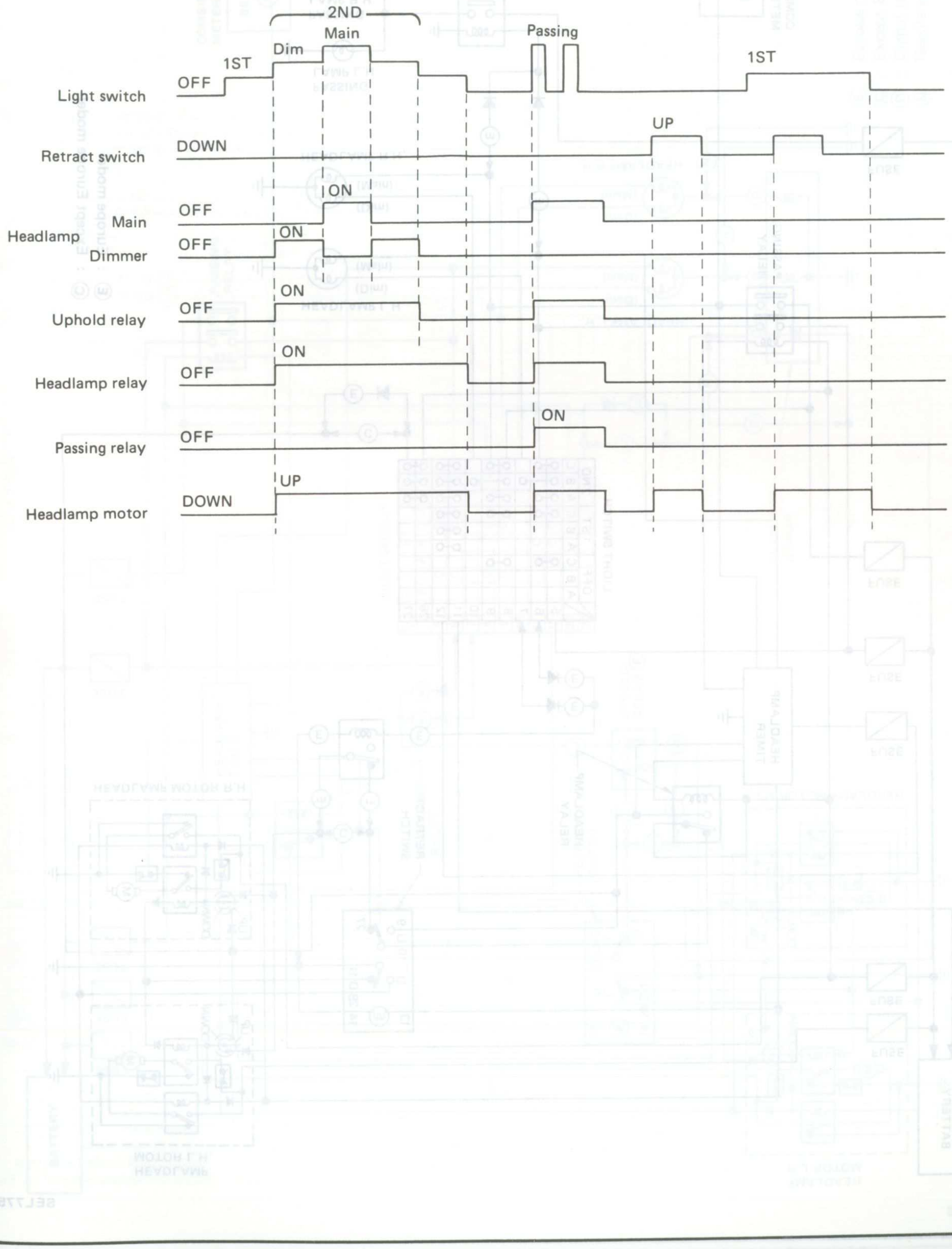
Illumination

SEL774E

HEADLAMP

Operation

- The following chart depicts the operational modes of relays and headlamp motors in relation to the positions of the lighting switch and retract switch.

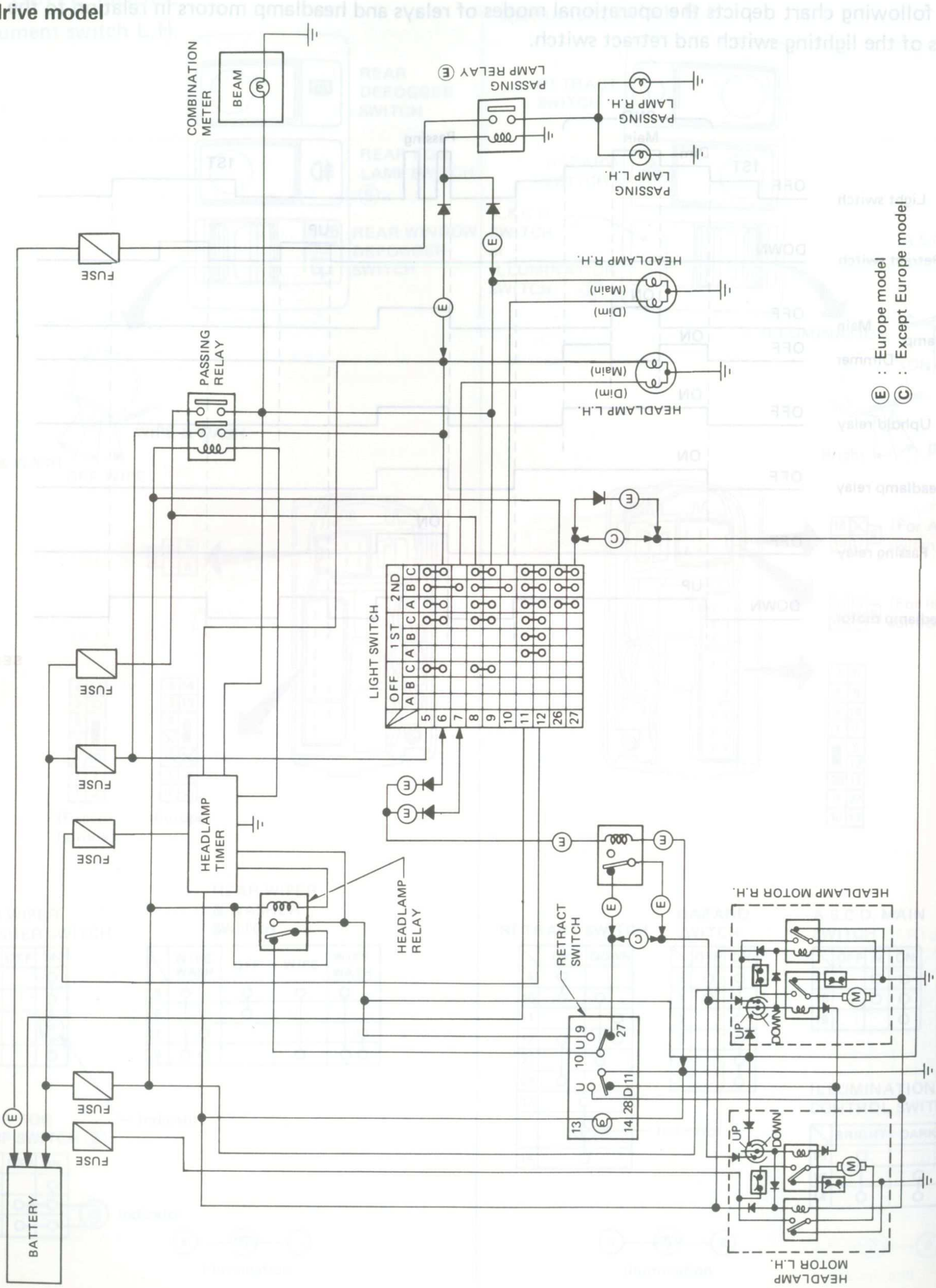


SEL743D

HEADLAMP

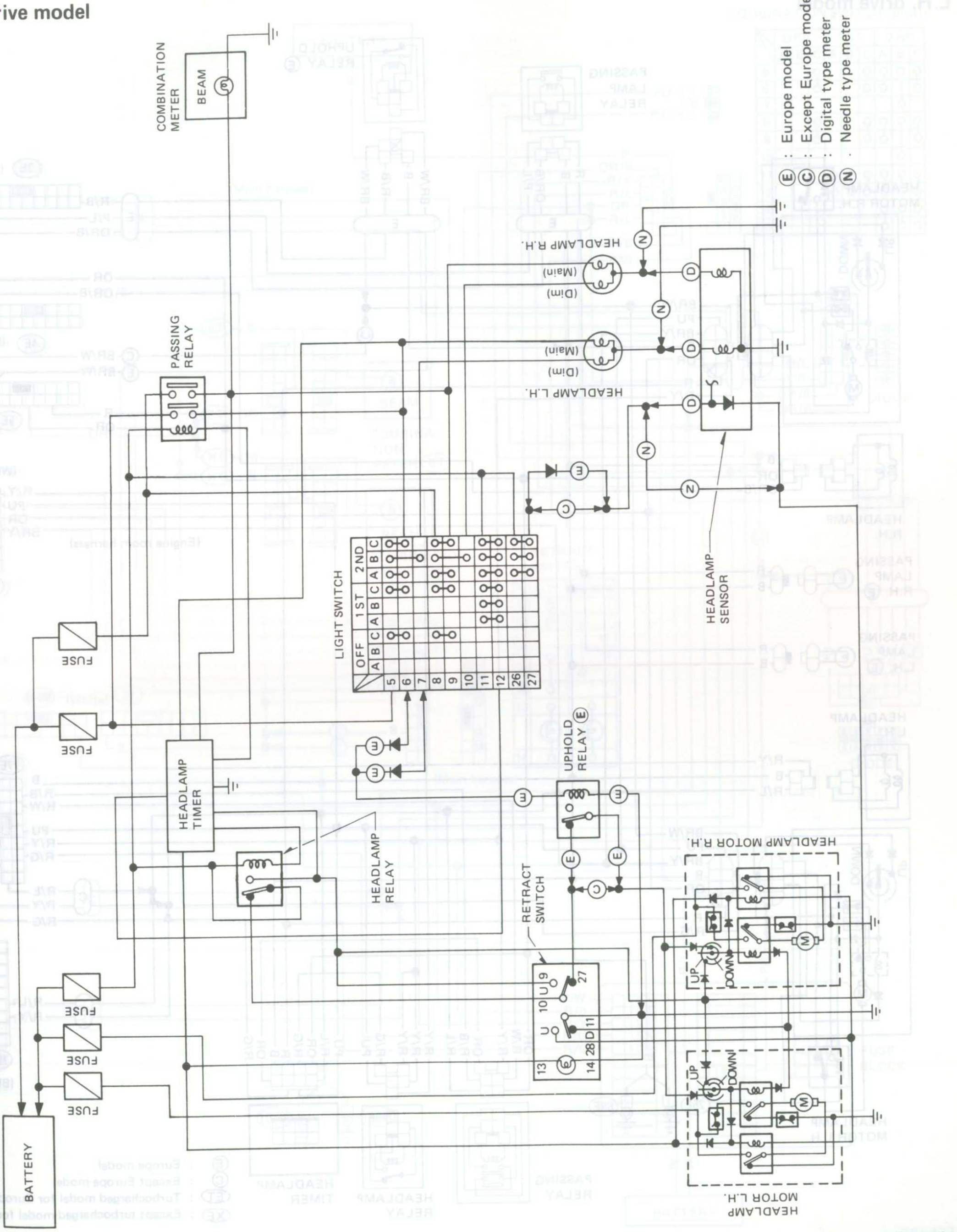
Schematic

L.H. drive model



Schematic (Cont'd)

R.H. drive model

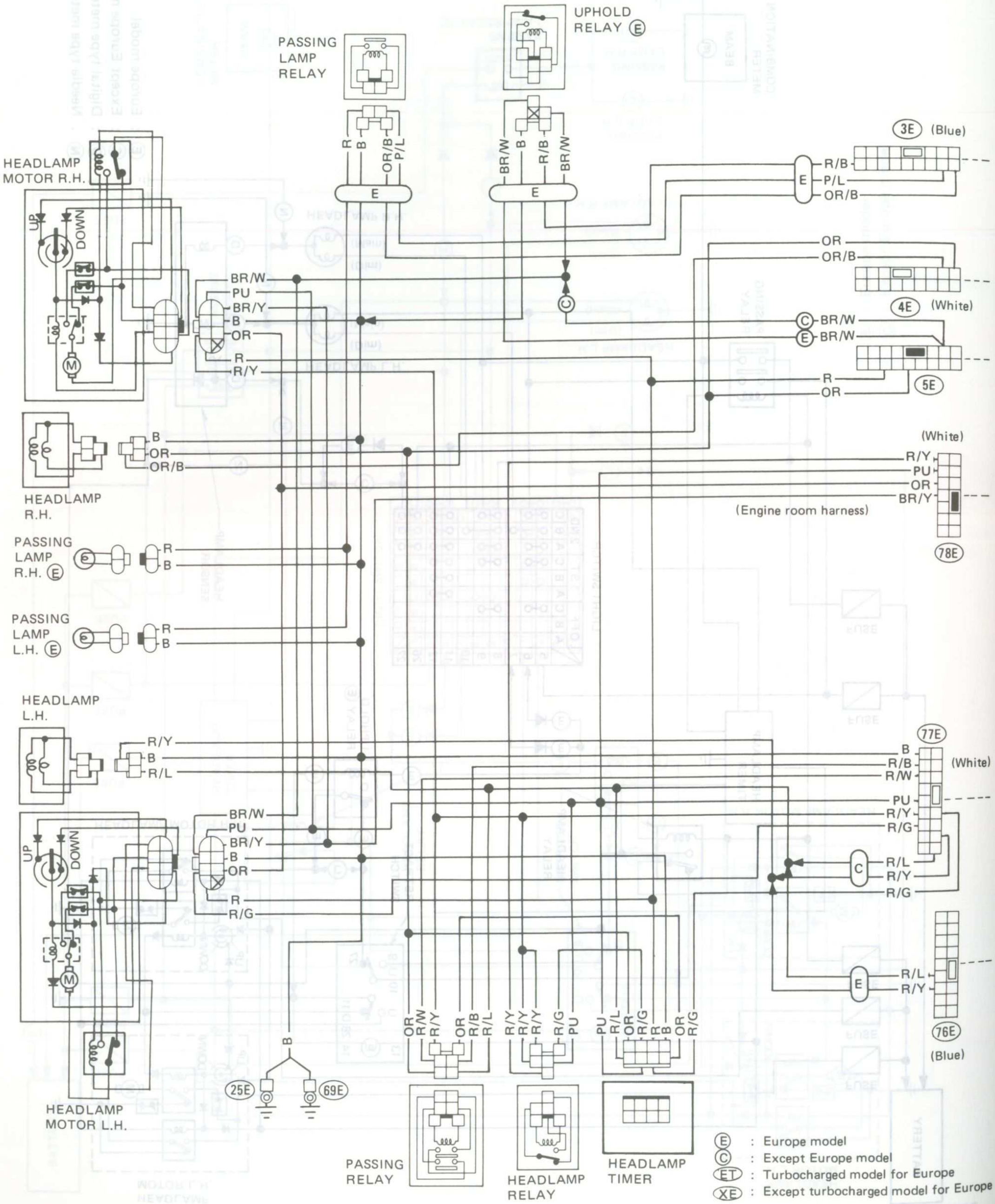


SEL776E

HEADLAMP

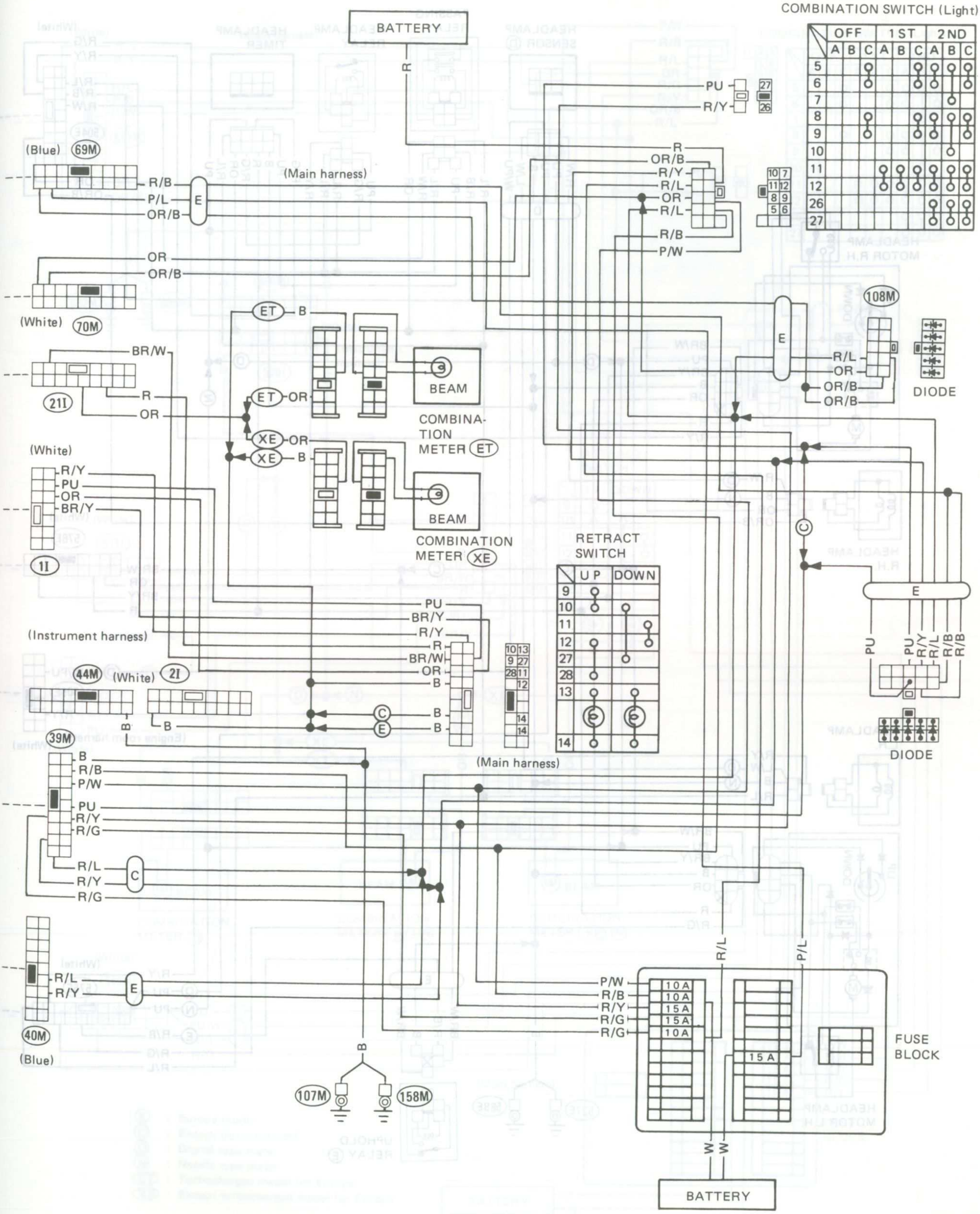
Wiring Diagram

L.H. drive model



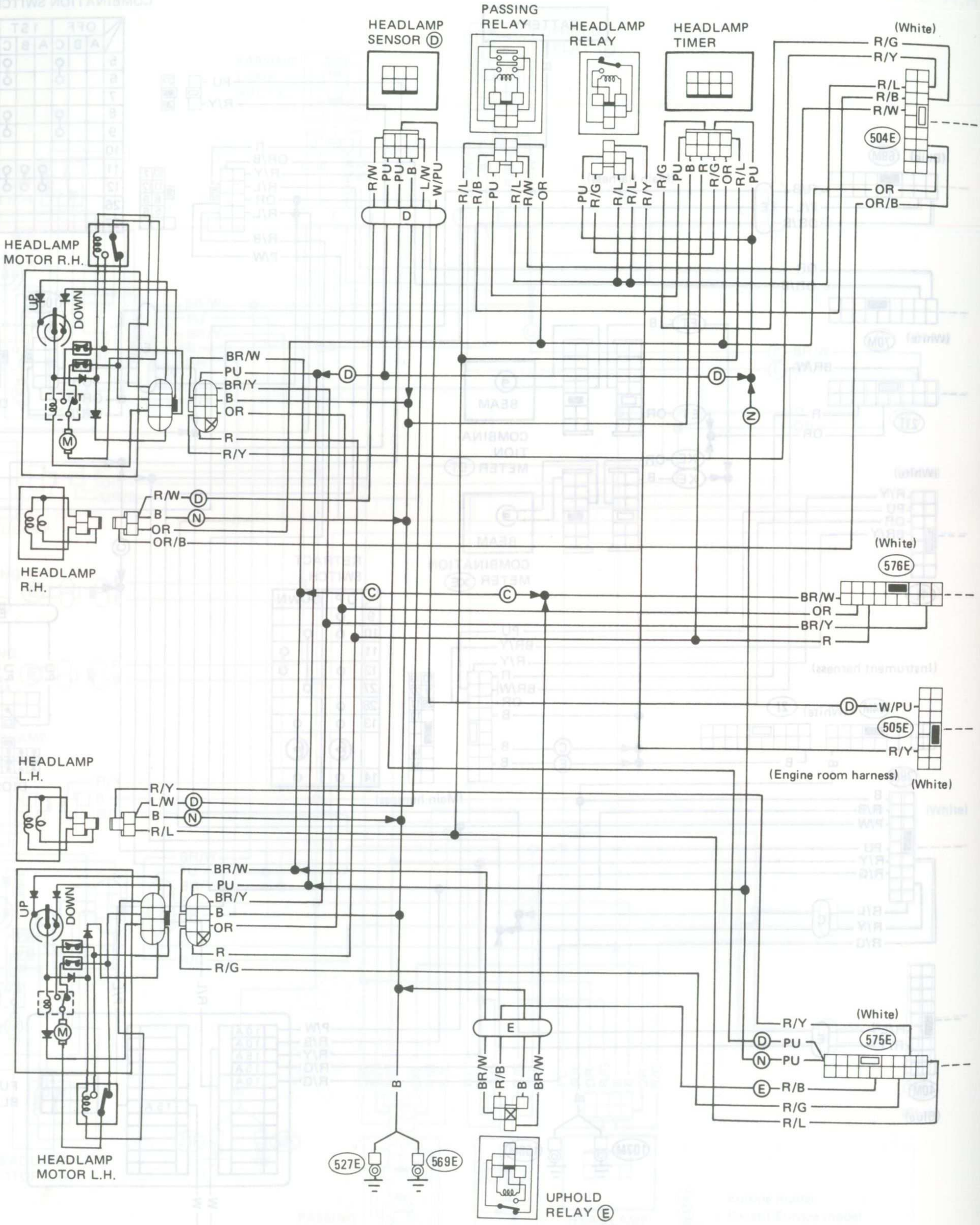
HEADLAMP

Wiring Diagram



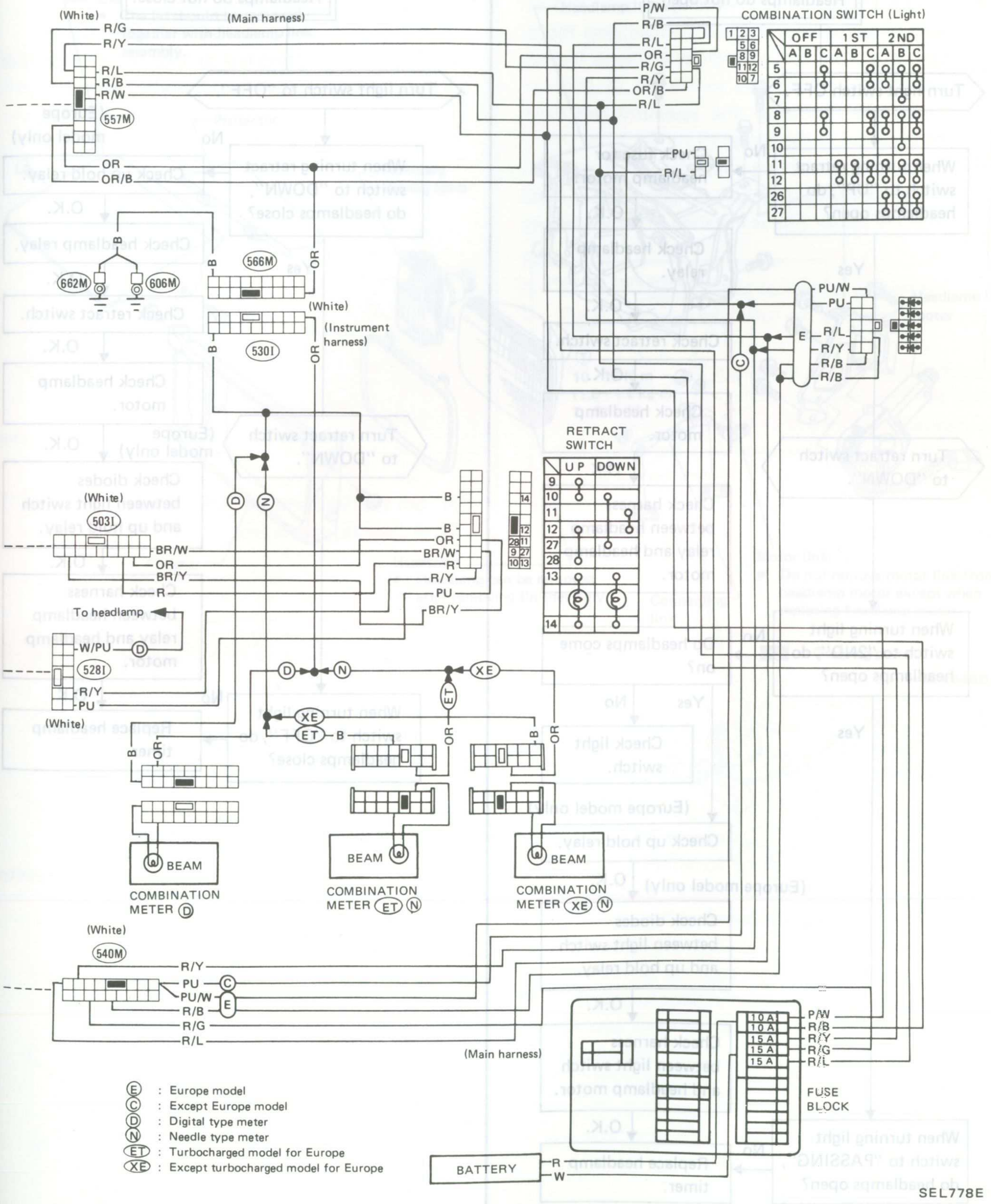
Wiring Diagram (Cont'd)

R.H. drive model



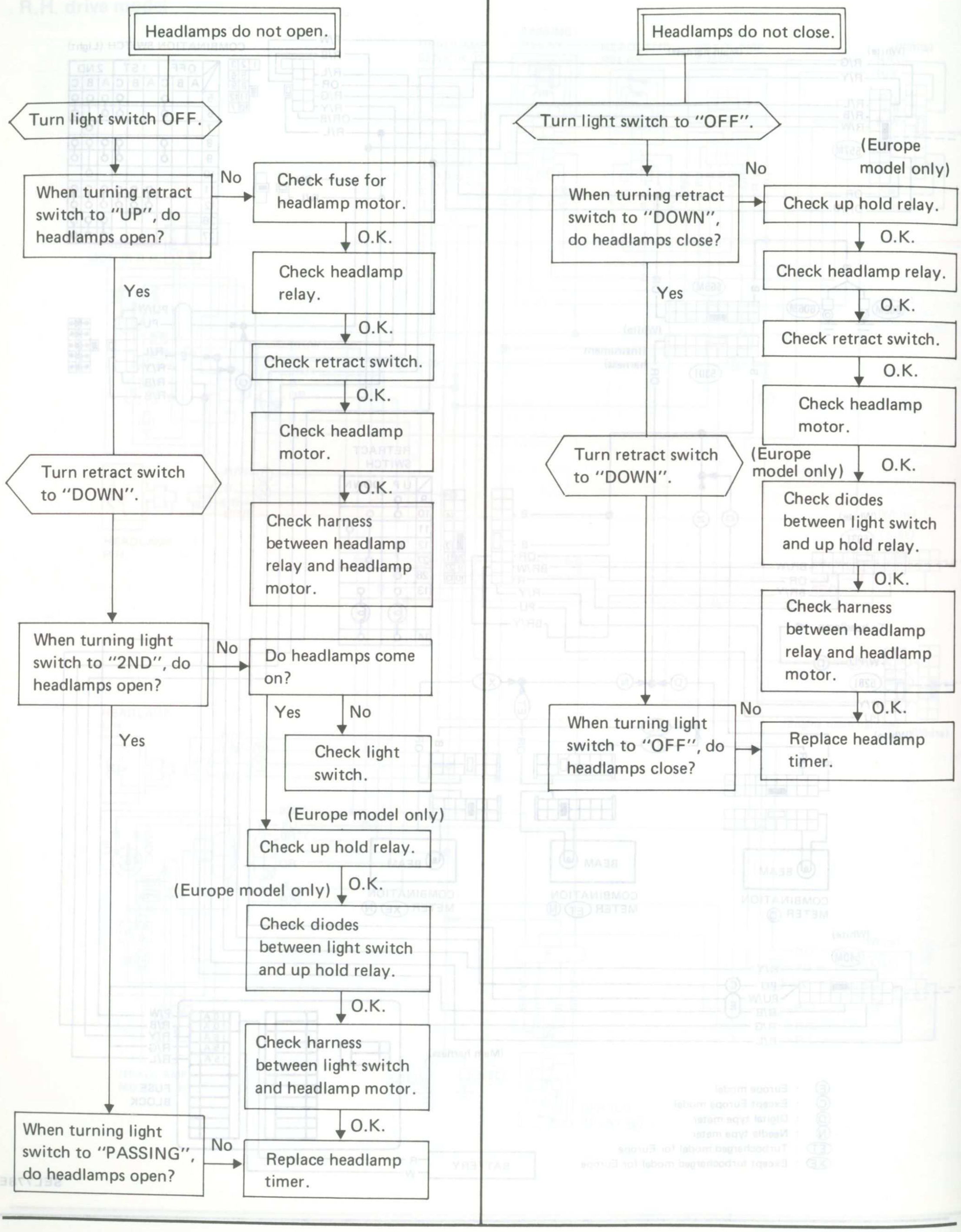
HEADLAMP

Wiring Diagram (Cont'd)



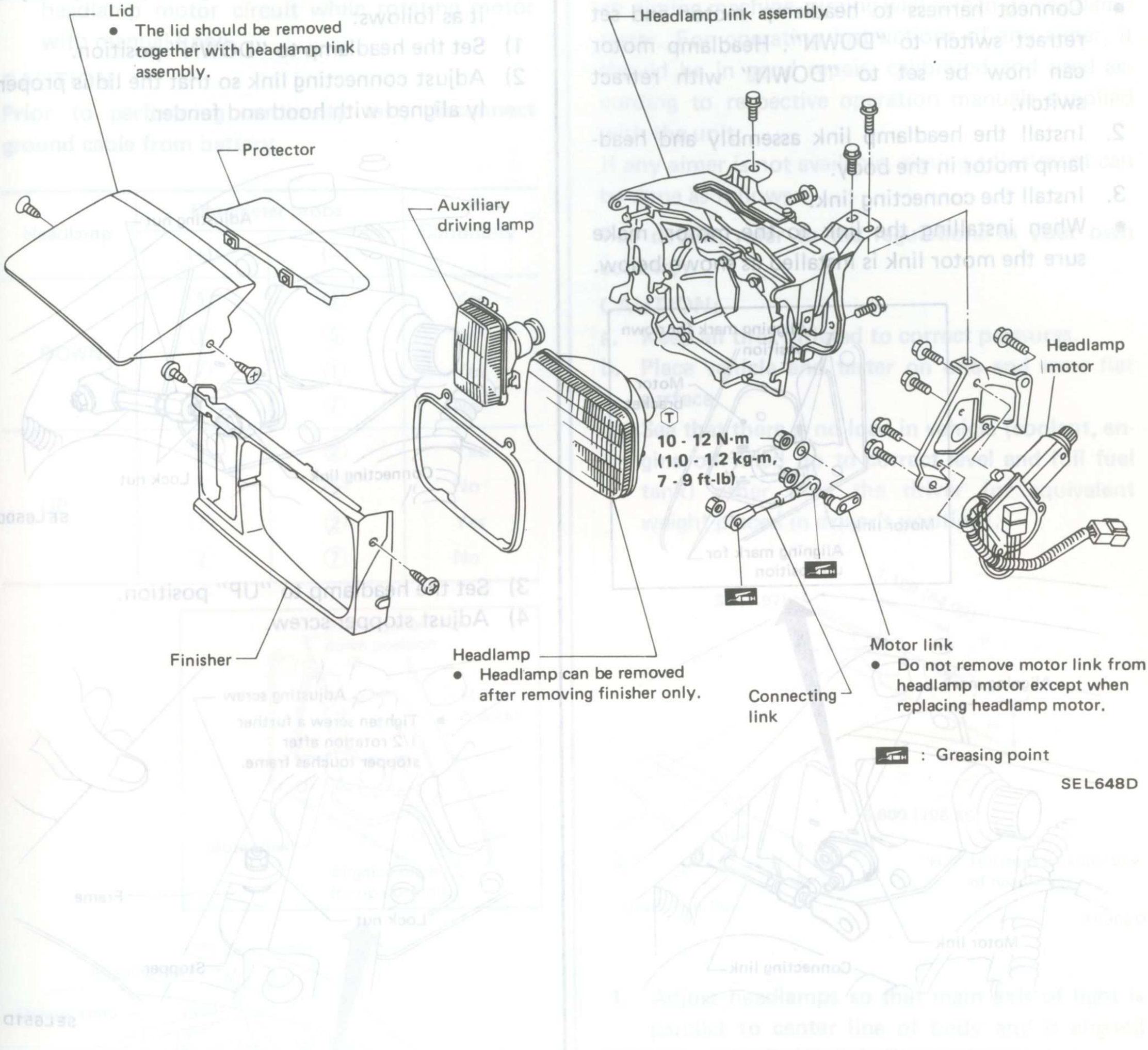
HEADLAMP

Trouble-shooting



HEADLAMP

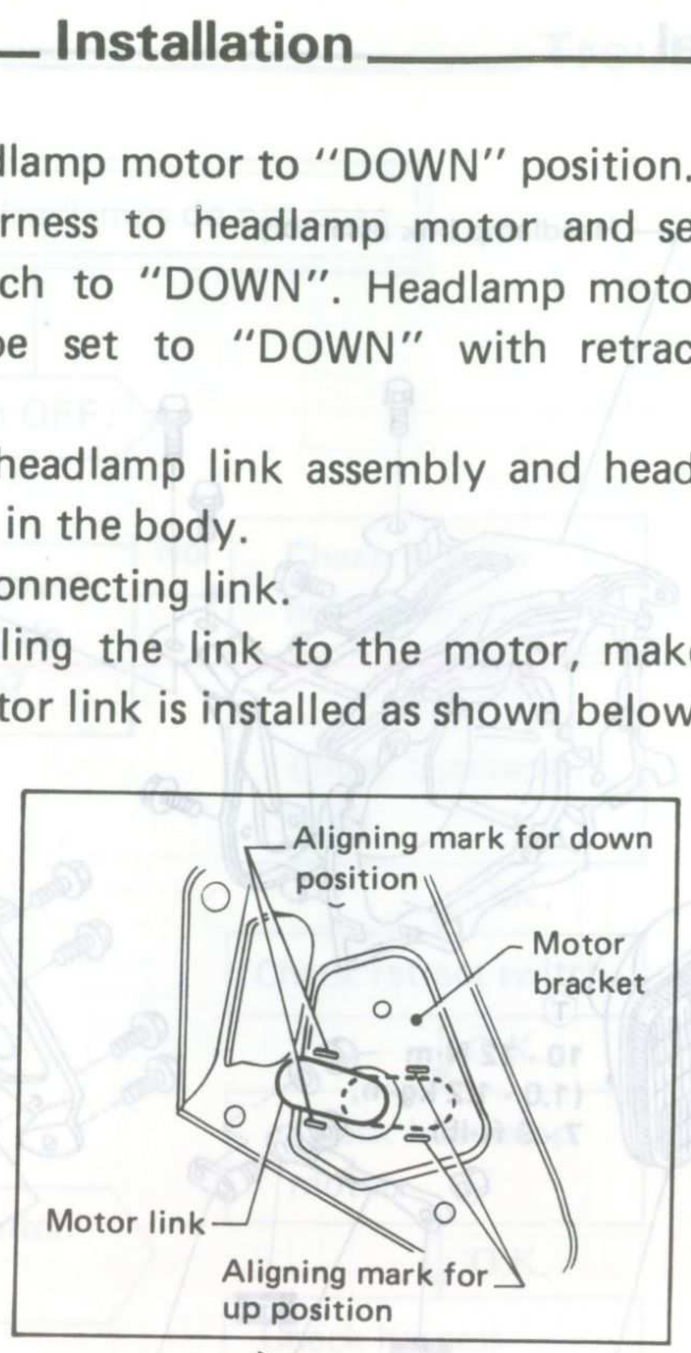
Removal



HEADLAMP

Installation

1. Set the headlamp motor to "DOWN" position.
- Connect harness to headlamp motor and set retract switch to "DOWN". Headlamp motor can now be set to "DOWN" with retract switch.
2. Install the headlamp link assembly and headlamp motor in the body.
3. Install the connecting link.
- When installing the link to the motor, make sure the motor link is installed as shown below.

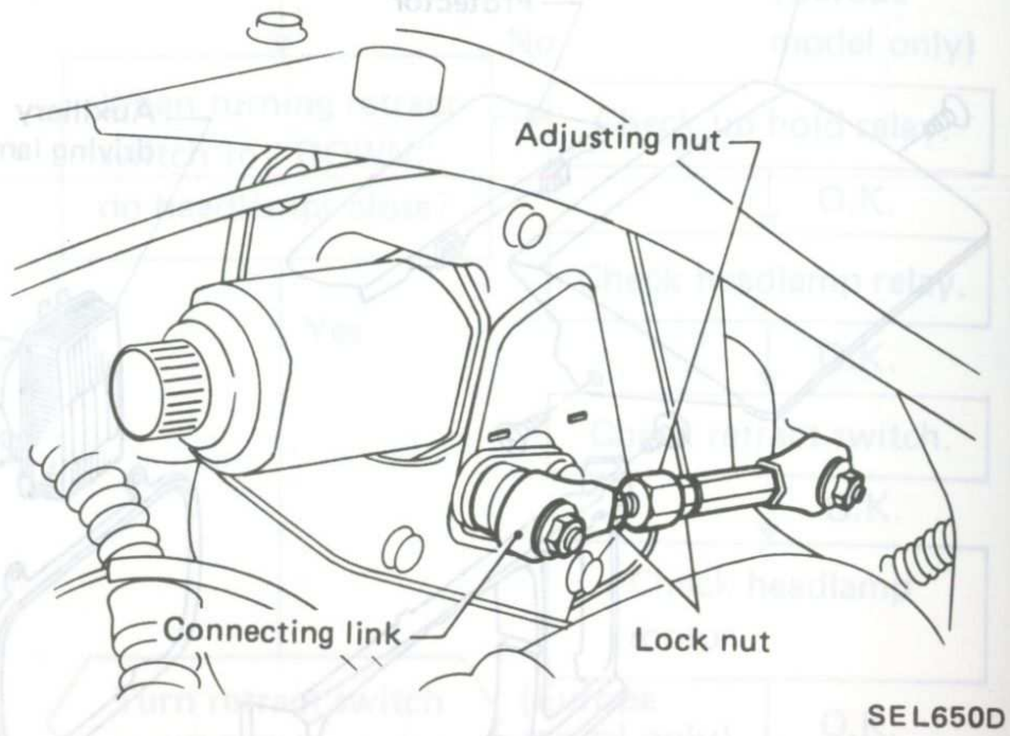


SEL649D

Adjustment

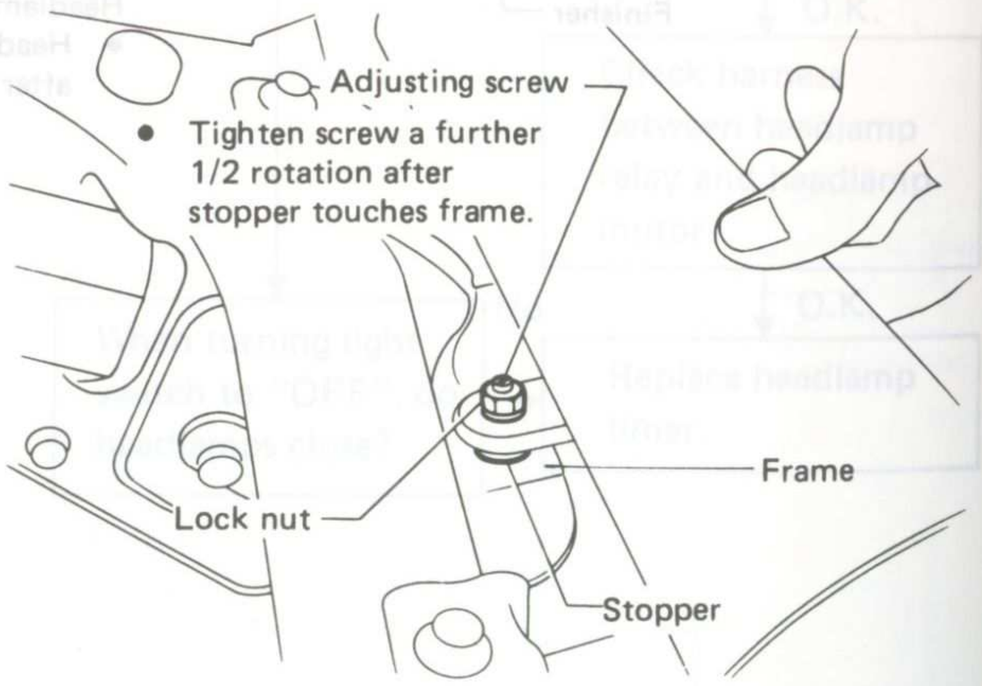
- After installing connecting link, always adjust it as follows:

1) Set the headlamp to "DOWN" position.
2) Adjust connecting link so that the lid is properly aligned with hood and fender.



SEL650D

3) Set the headlamp to "UP" position.
4) Adjust stopper screw.



SEL651D

HEADLAMP

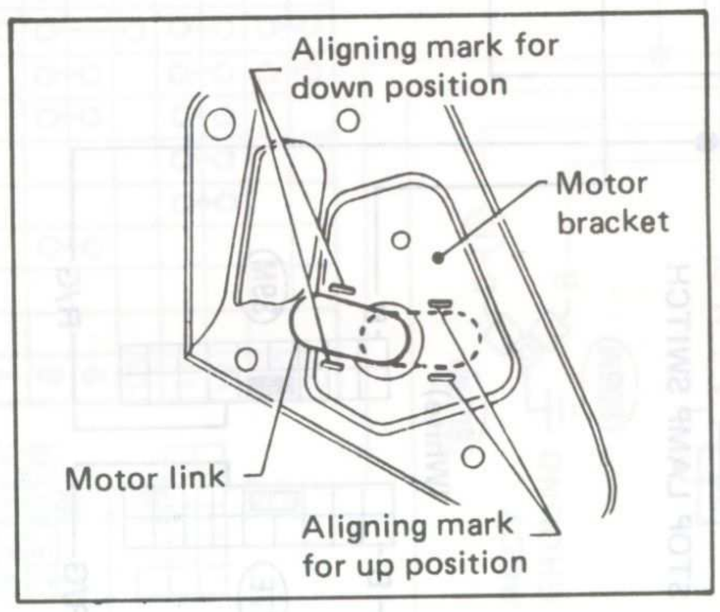
Headlamp Motor Check

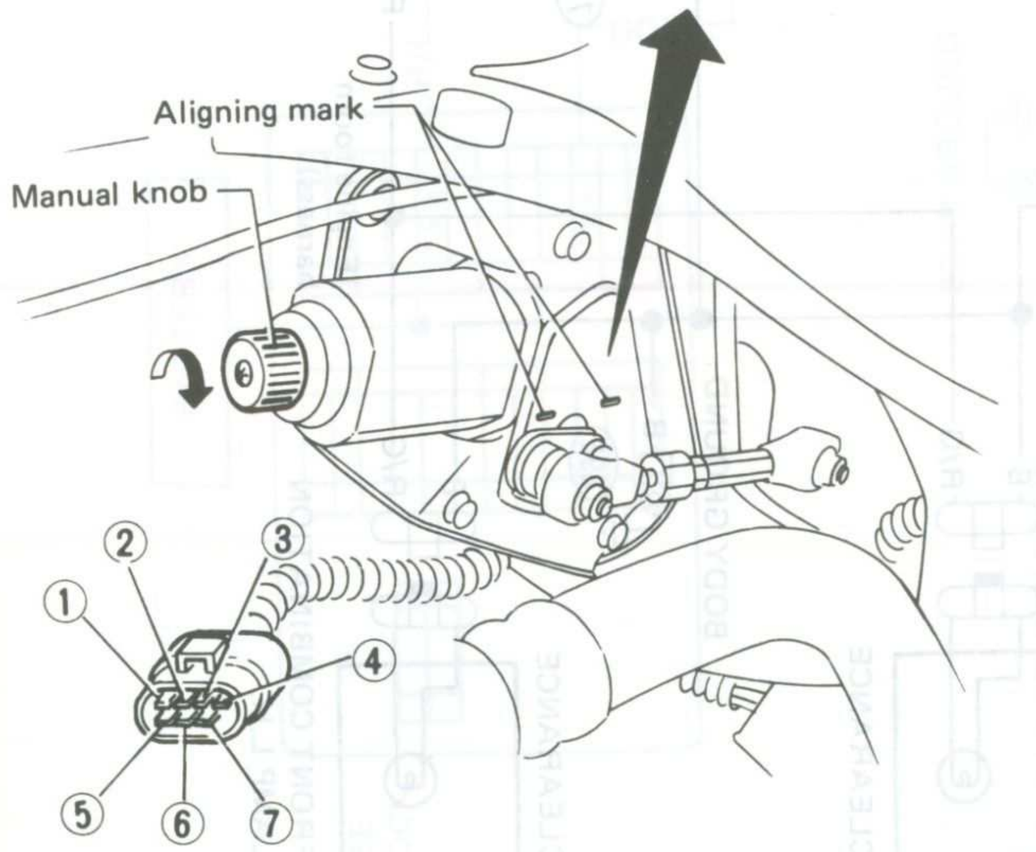
- Use an ohmmeter to check for continuity in headlamp motor circuit while rotating motor with manual knob.

CAUTION:

Prior to performing continuity test, disconnect ground cable from battery.

Headlamp	Ohmmeter probe		Continuity
	(+)	(−)	
DOWN	⑤	①	Yes
	①	⑤	No
	⑦	①	Yes
	①	⑦	No
UP	⑤	②	Yes
	②	⑤	No
	⑦	②	Yes
	②	⑦	No





SEL652D

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:

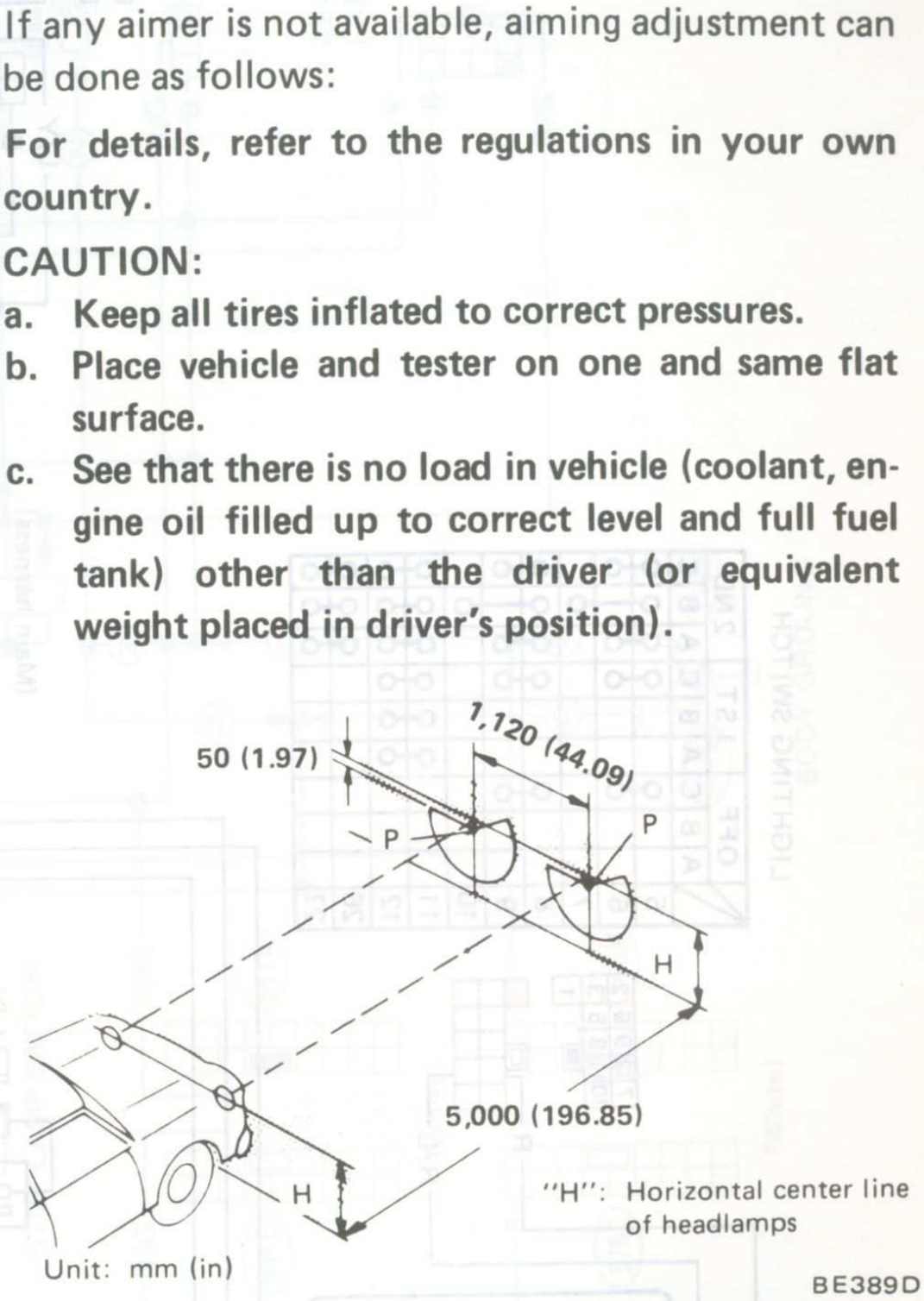
For details, refer to the regulations in your own country.

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).



BE389D

1. Adjust headlamps so that main axis of light is parallel to center line of body and is aligned with point P shown in illustration.

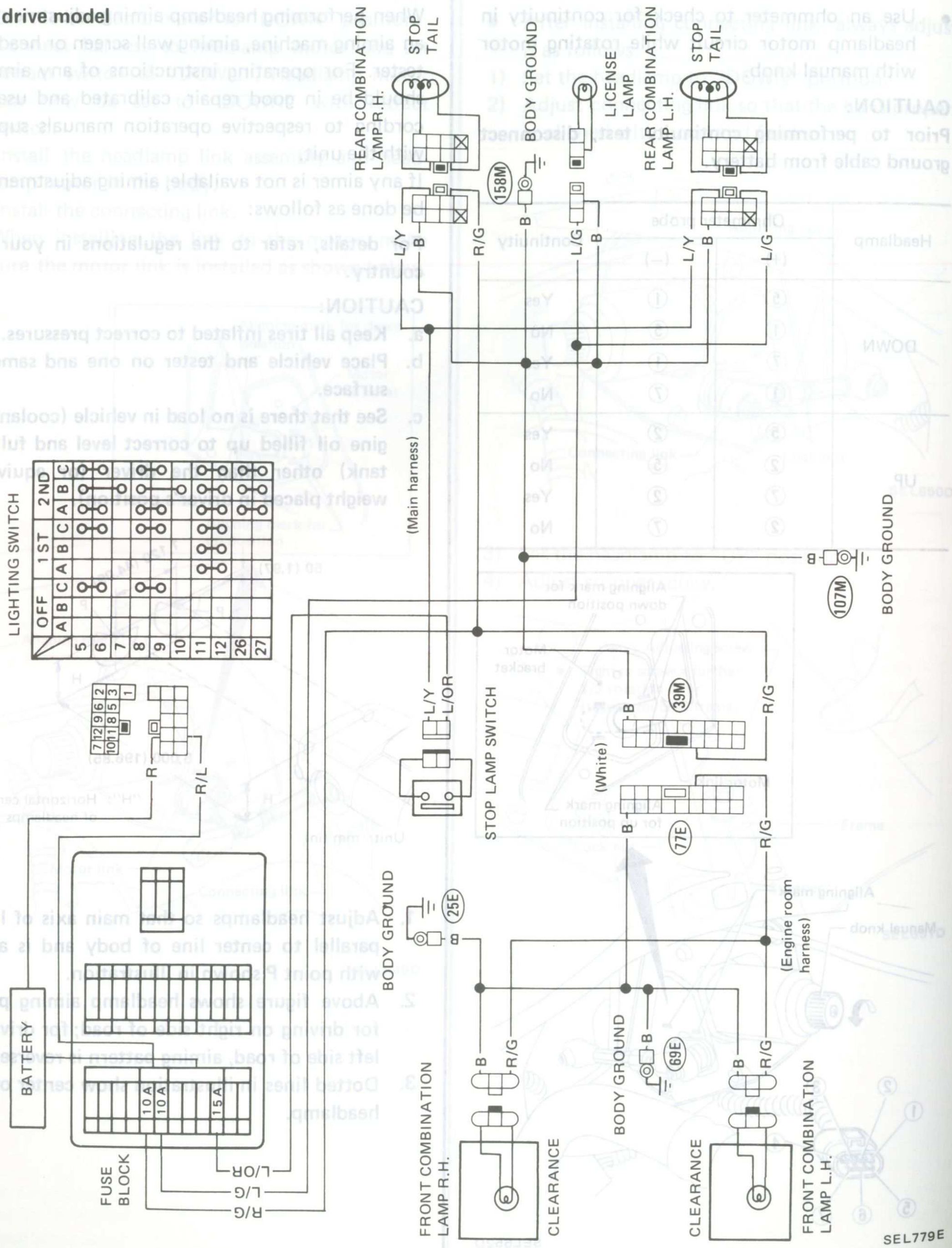
2. Above figure shows headlamp aiming pattern for driving on right side of road; for driving on left side of road, aiming pattern is reversed.

3. Dotted lines in illustration show center of head headlamp.

EXTERIOR LAMP

Clearance, License, Tail and Stop Lamps/Wiring Diagram

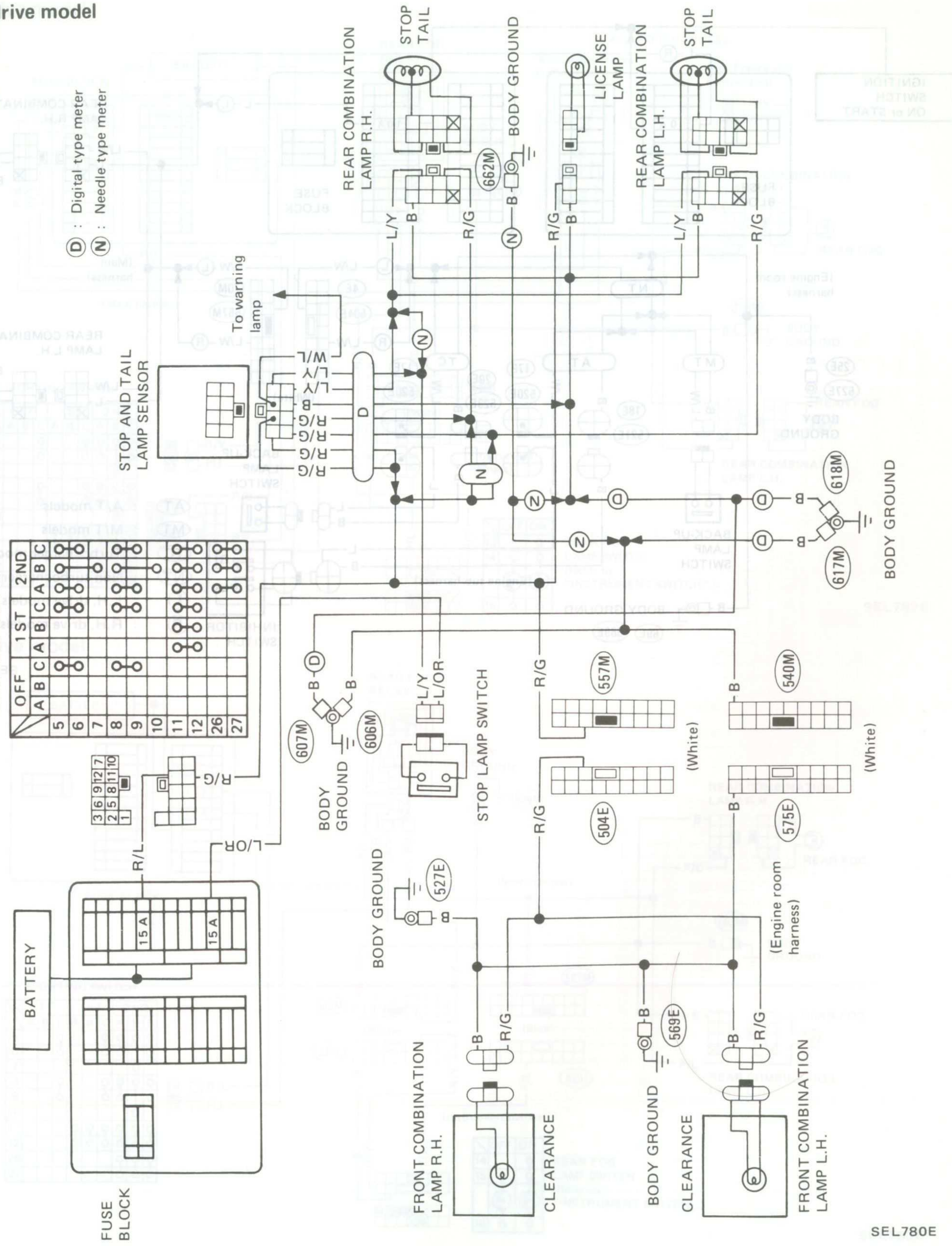
L.H. drive model



EXTERIOR LAMP

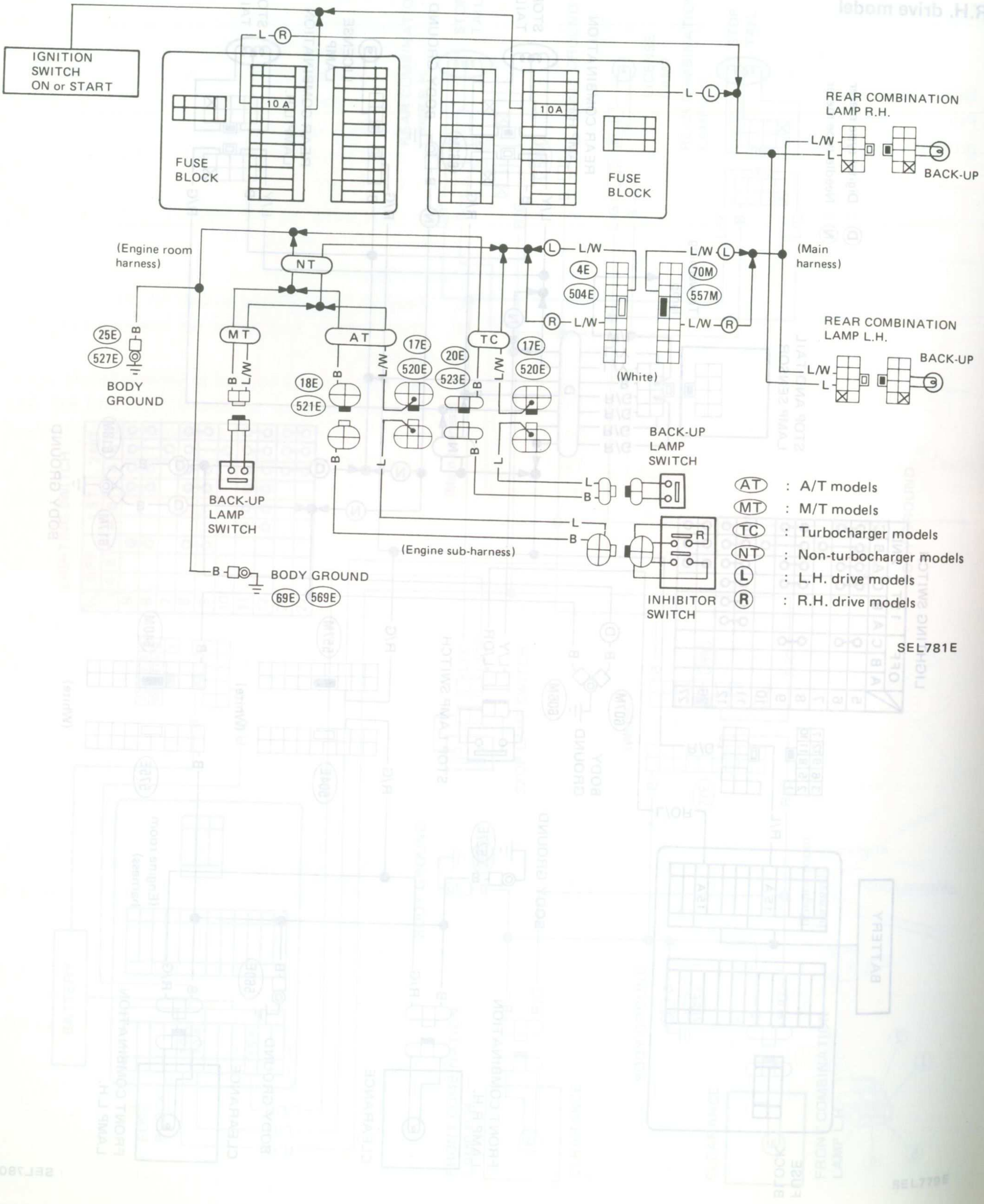
Clearance, License, Tail and Stop Lamps/Wiring Diagram (Cont'd)

R.H. drive model



EXTERIOR LAMP

Back-up Lamp/Wiring Diagram

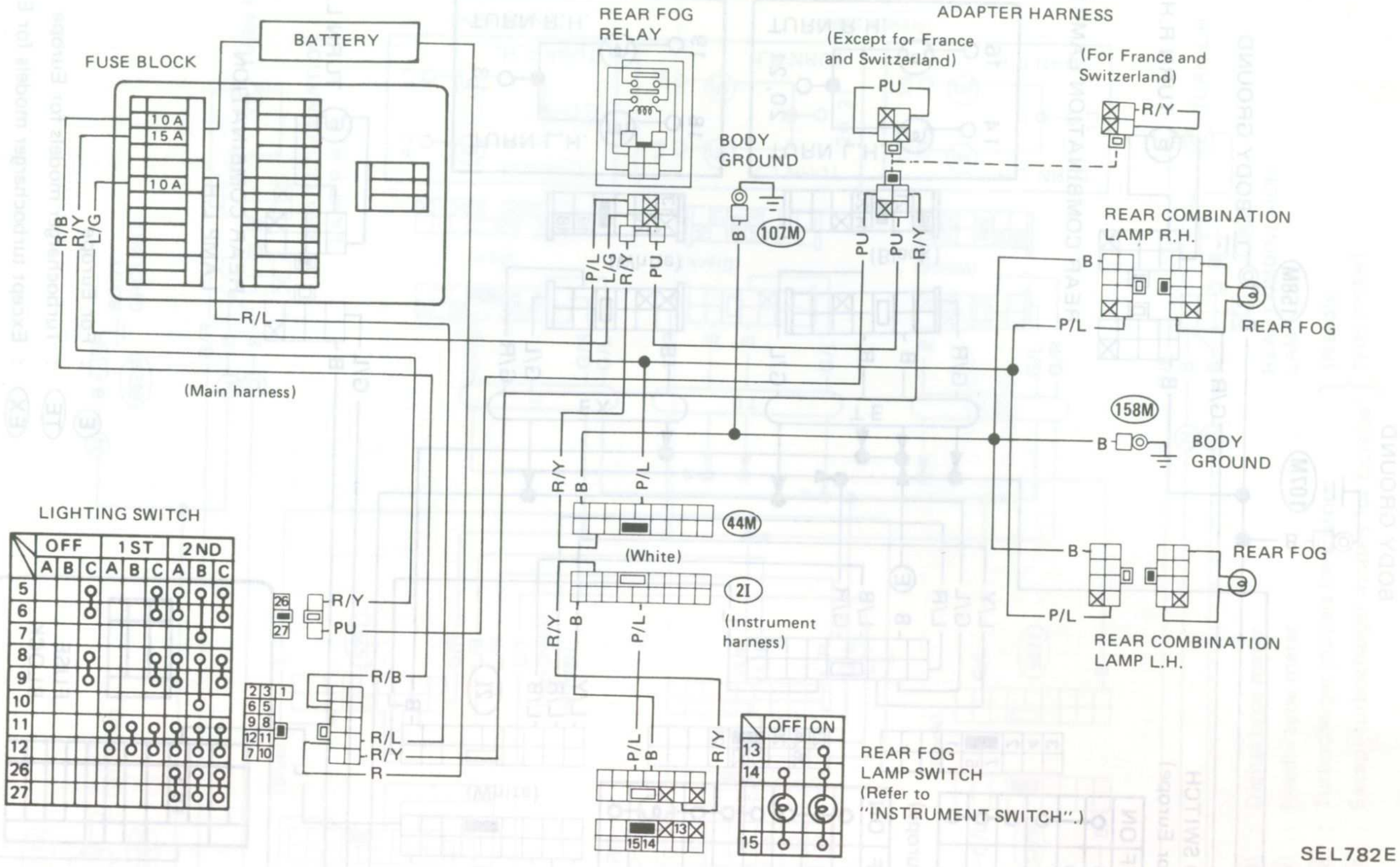


SEL781E

EXTERIOR LAMP

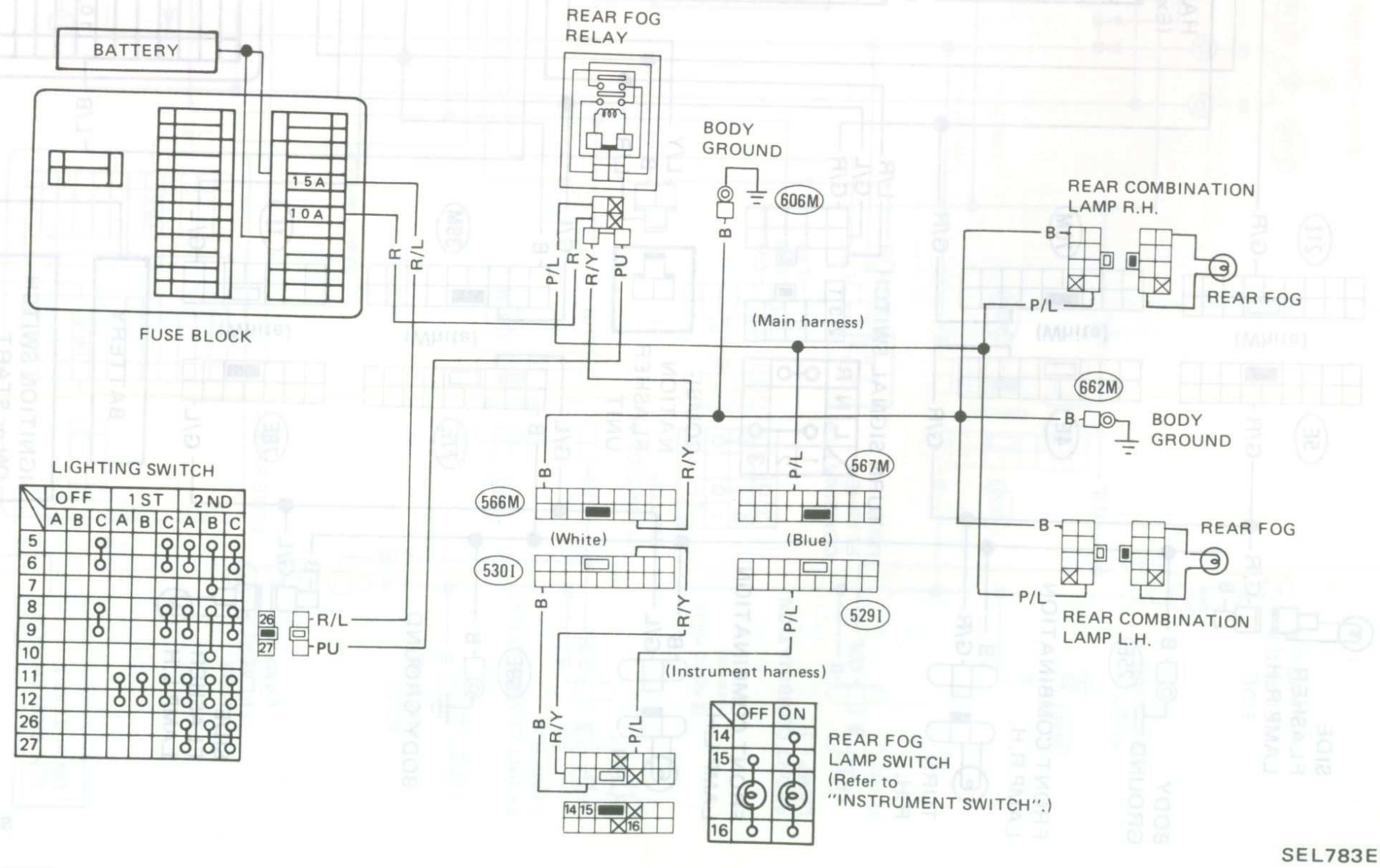
Rear Fog Lamp/Wiring Diagram

L.H. drive model



SEL782E

R.H. drive model

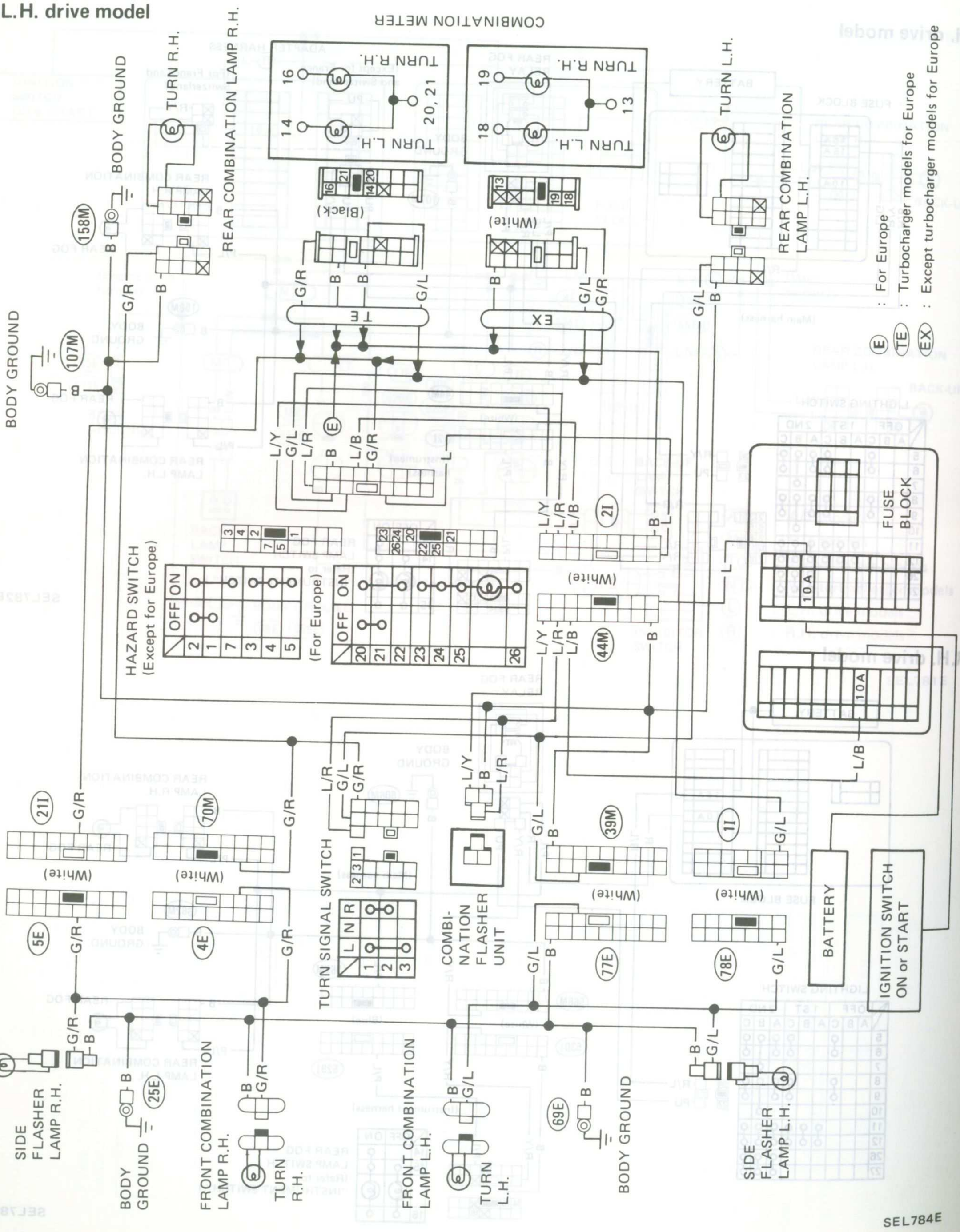


SEL783E

EXTERIOR LAMP

Turn Signal and Hazard Warning Lamp/Wiring Diagram

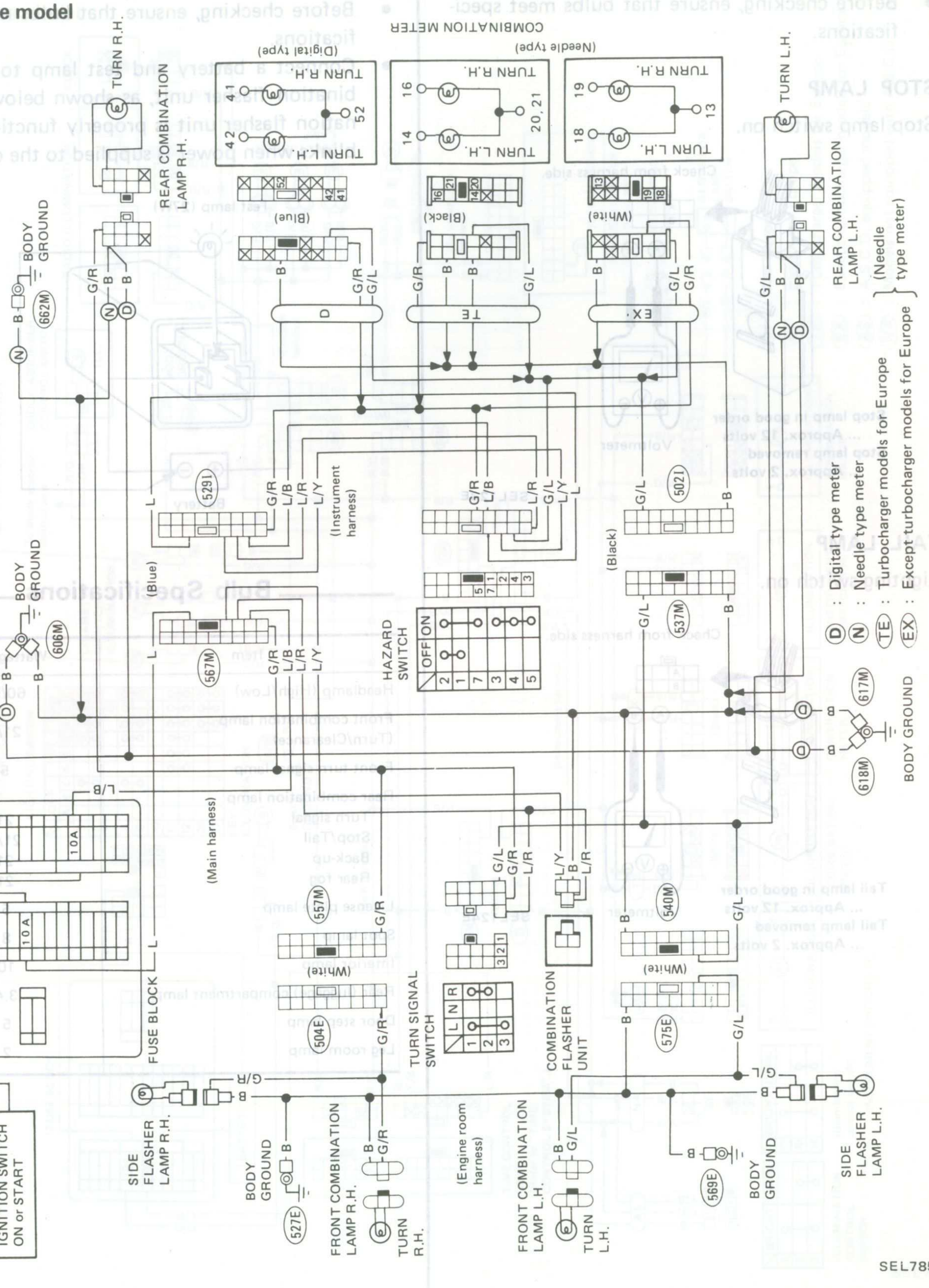
L.H. drive model



EXTERIOR LAMP

Turn Signal and Hazard Warning Lamp/Wiring Diagram (Cont'd)

R.H. drive model



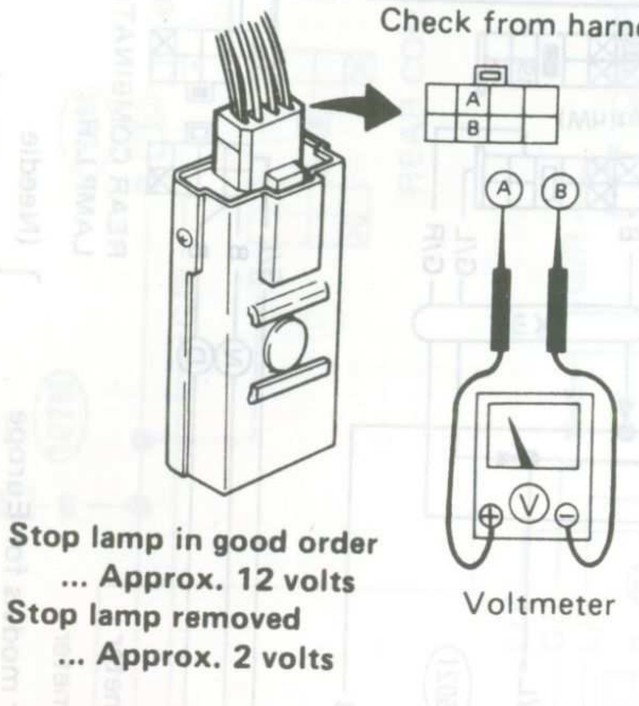
EXTERIOR LAMP

—Stop and Tail Lamp Sensor Check—

- Before checking, ensure that bulbs meet specifications.

STOP LAMP

Stop lamp switch on.



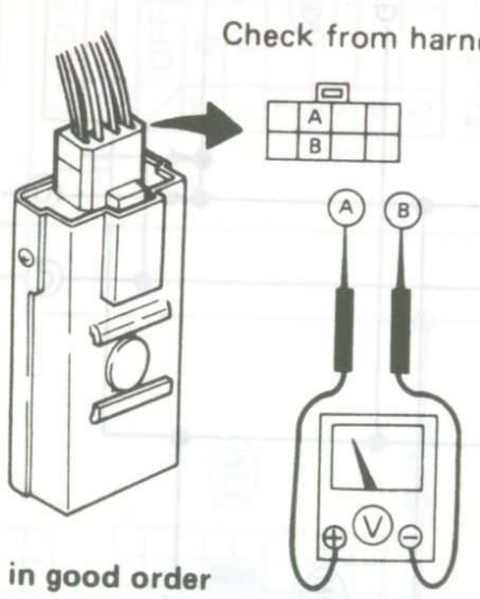
Stop lamp in good order
... Approx. 12 volts
Stop lamp removed
... Approx. 2 volts

Voltmeter

SEL123E

TAIL LAMP

Lighting switch on.



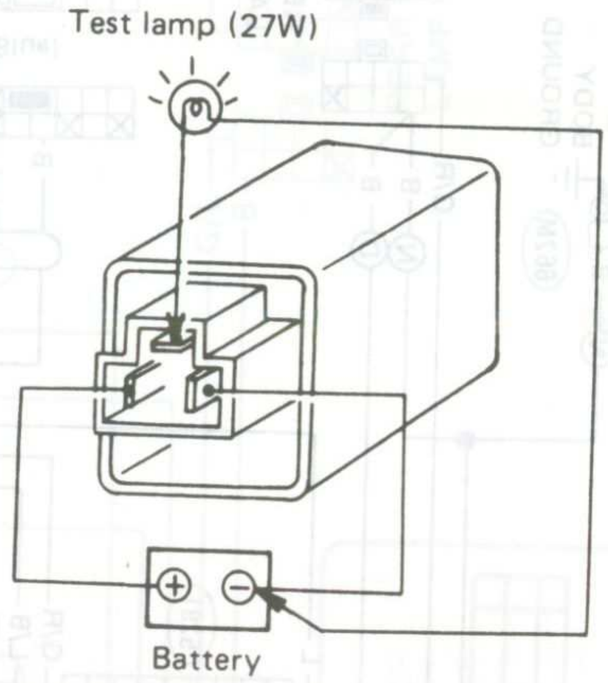
Tail lamp in good order
... Approx. 12 volts
Tail lamp removed
... Approx. 2 volts

Voltmeter

SEL124E

—Combination Flasher Unit Check—

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



SEL122E

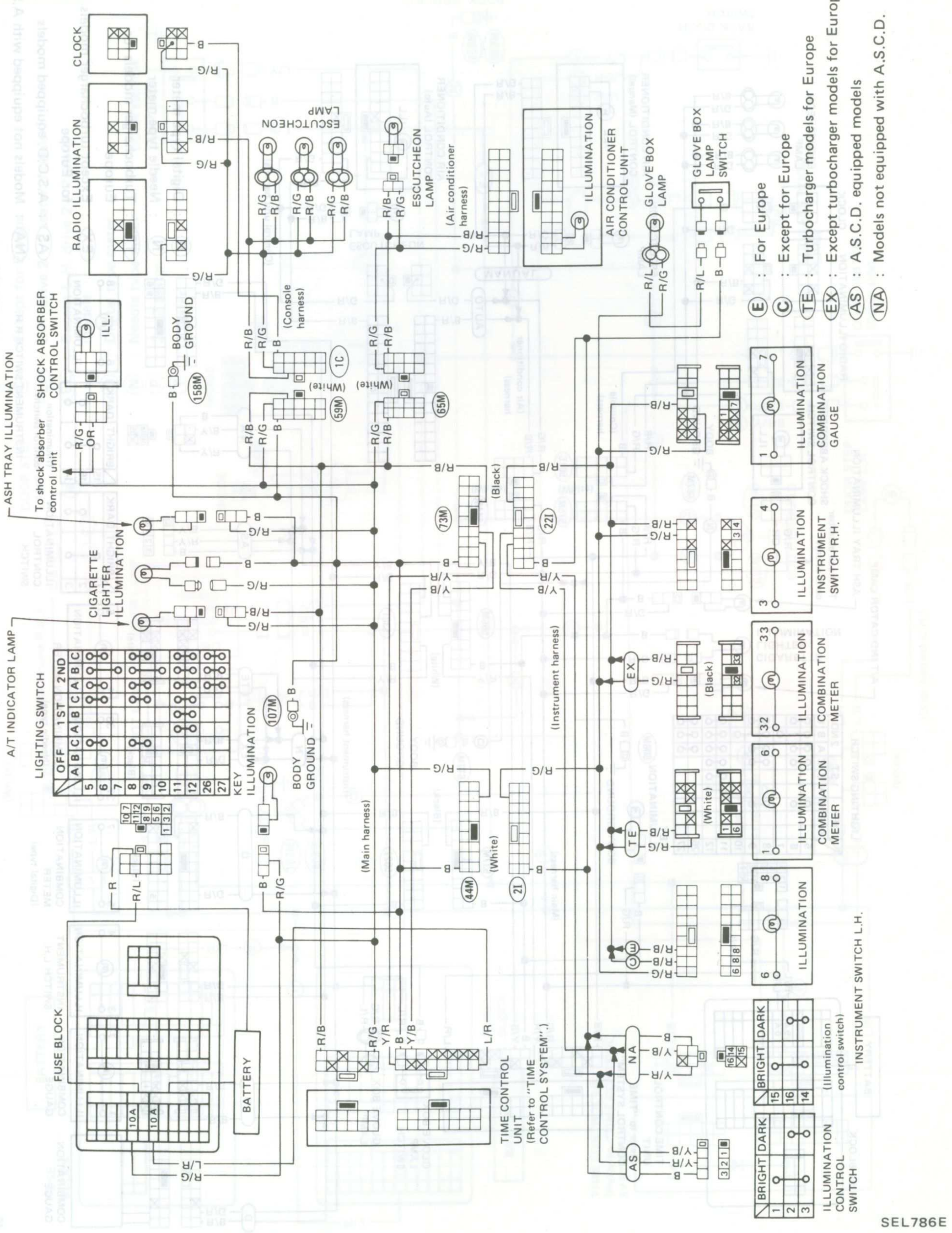
Bulb Specifications

Item	Wattage (W)
Headlamp (High/Low)	60/55
Front combination lamp (Turn/Clearance)	21/5
Front turn signal lamp	5
Rear combination lamp	
Turn signal	21
Stop/Tail	21/5
Back-up	21
Rear fog	21
License plate lamp	5
Spot lamp	8
Interior lamp	10
Rear (luggage) compartment lamp	3.4
Door step lamp	5
Leg room lamp	2

INTERIOR LAMP

Illumination/Wiring Diagram

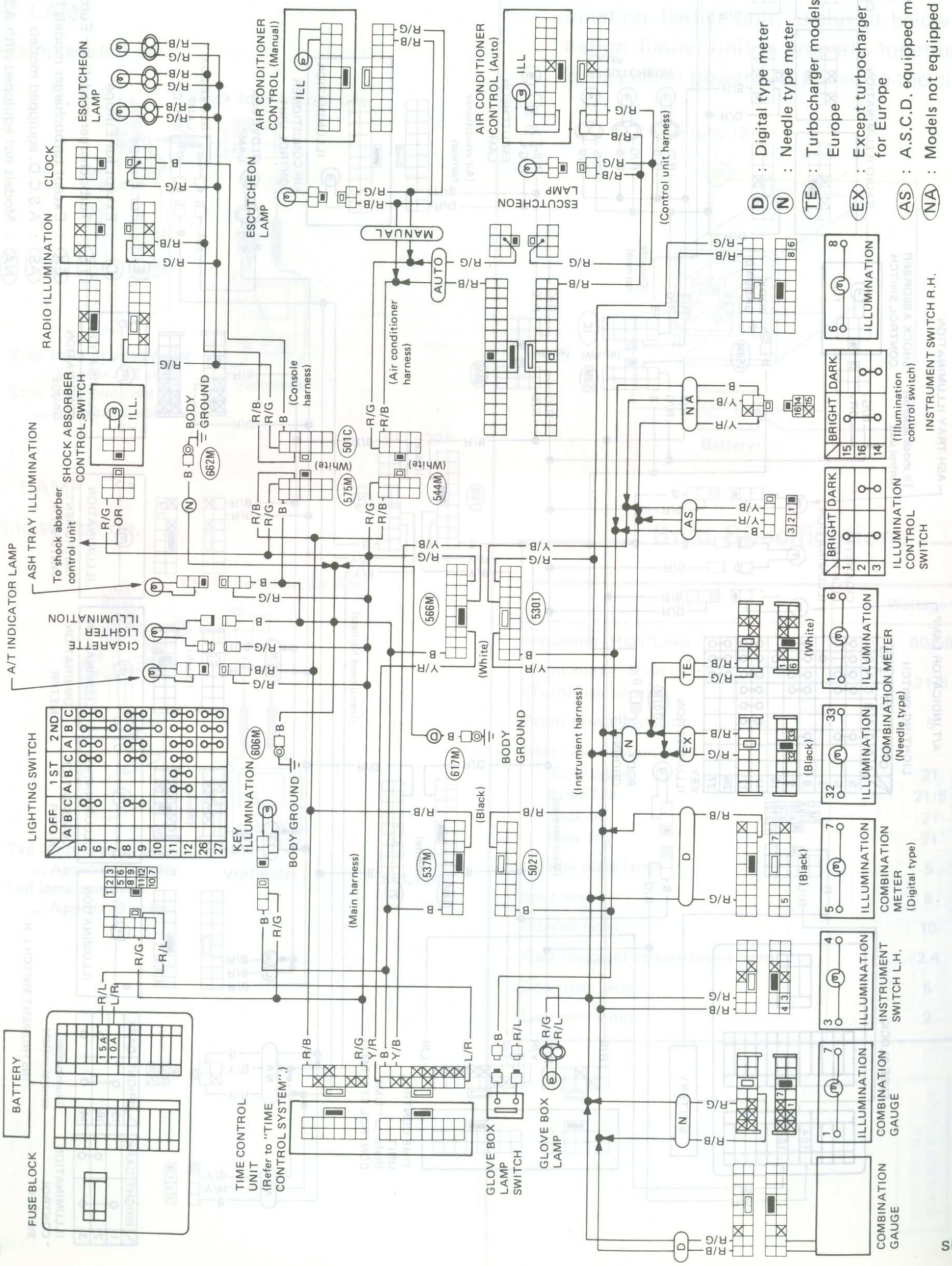
L.H. drive model



INTERIOR LAMP

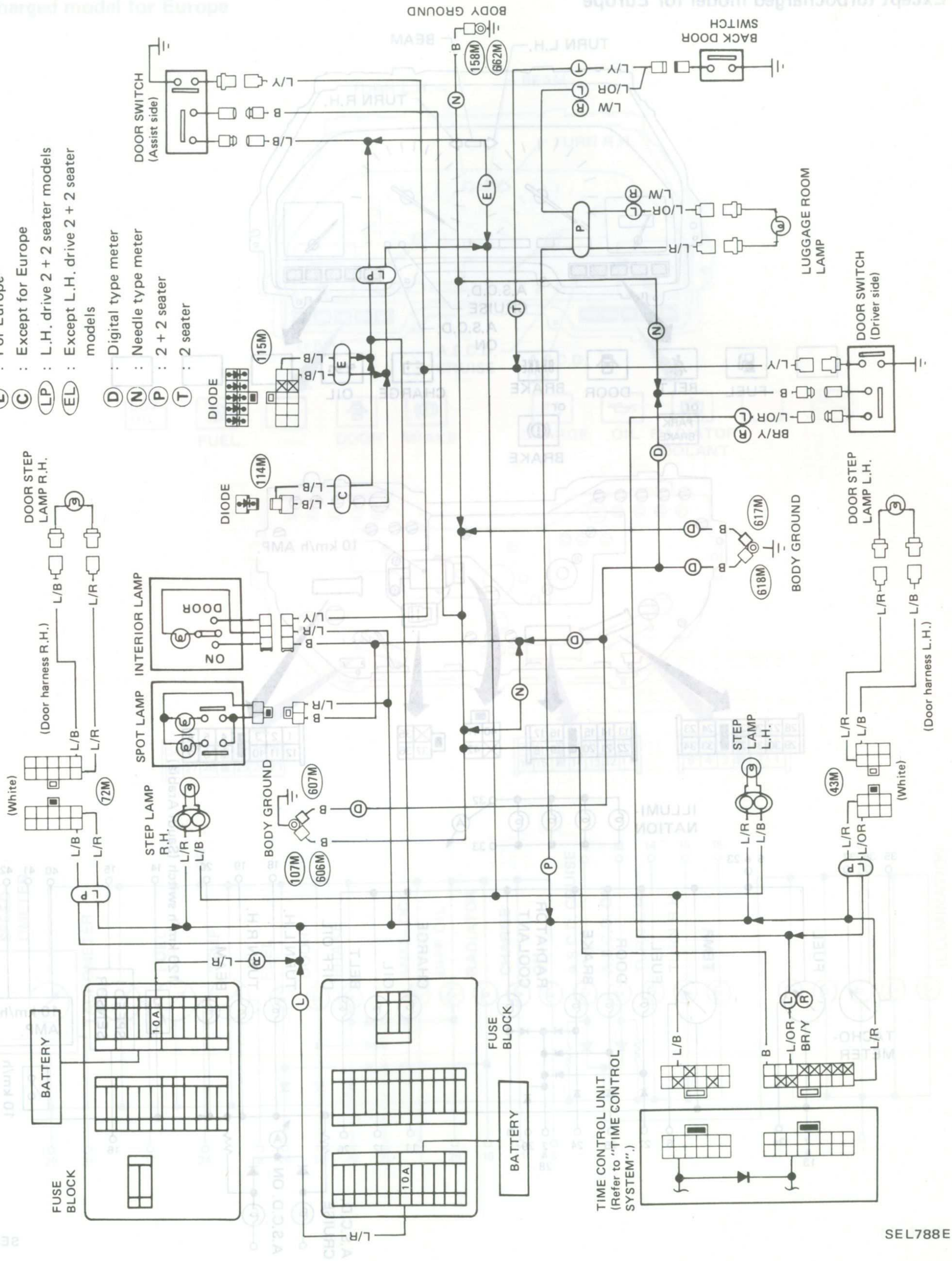
Illumination/Wiring Diagram (Cont'd)

R.H. drive model



INTERIOR LAMP

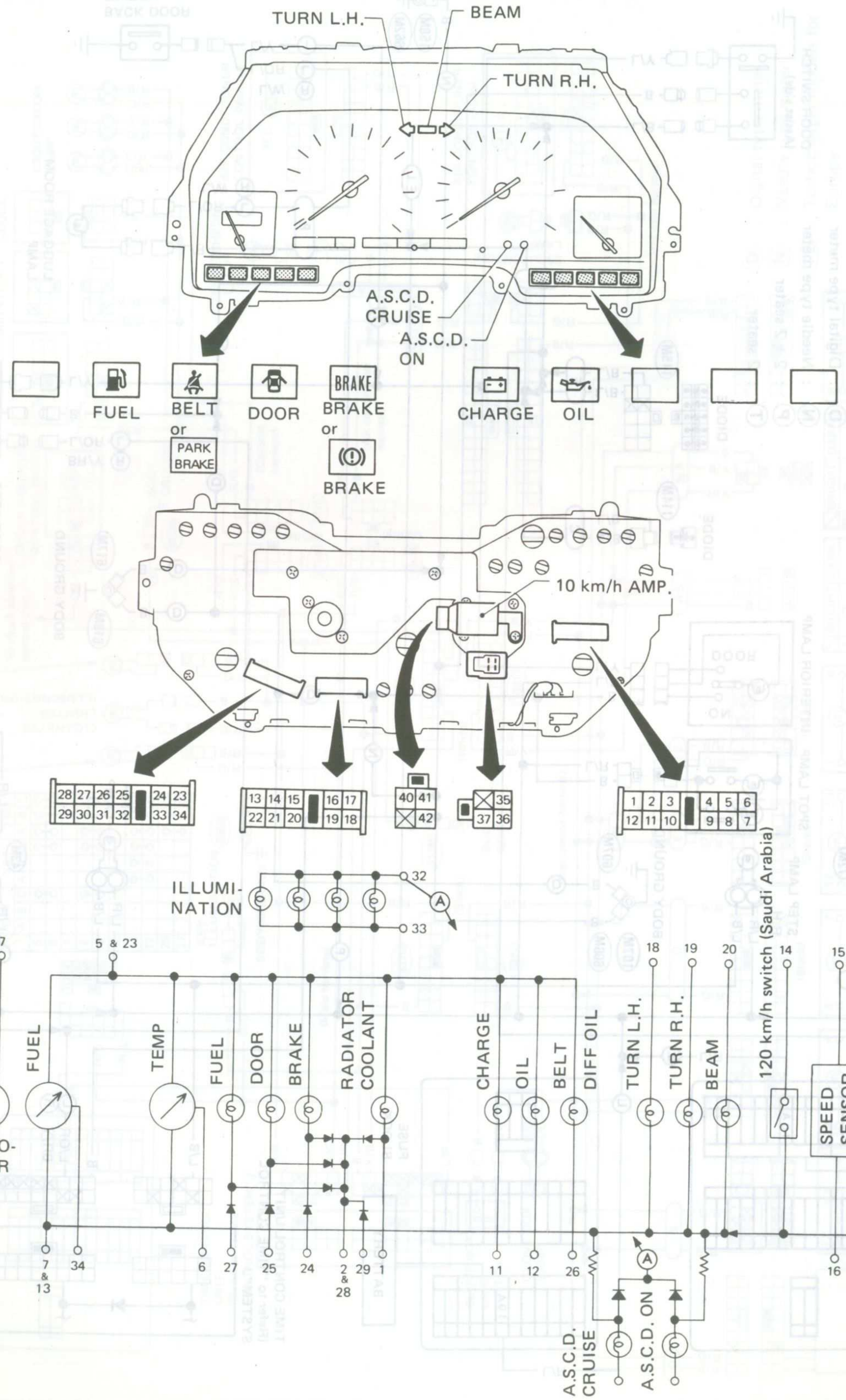
Interior, Luggage and Step Lamps/Wiring Diagram



METER AND GAUGES —Needle Type Combination Meter

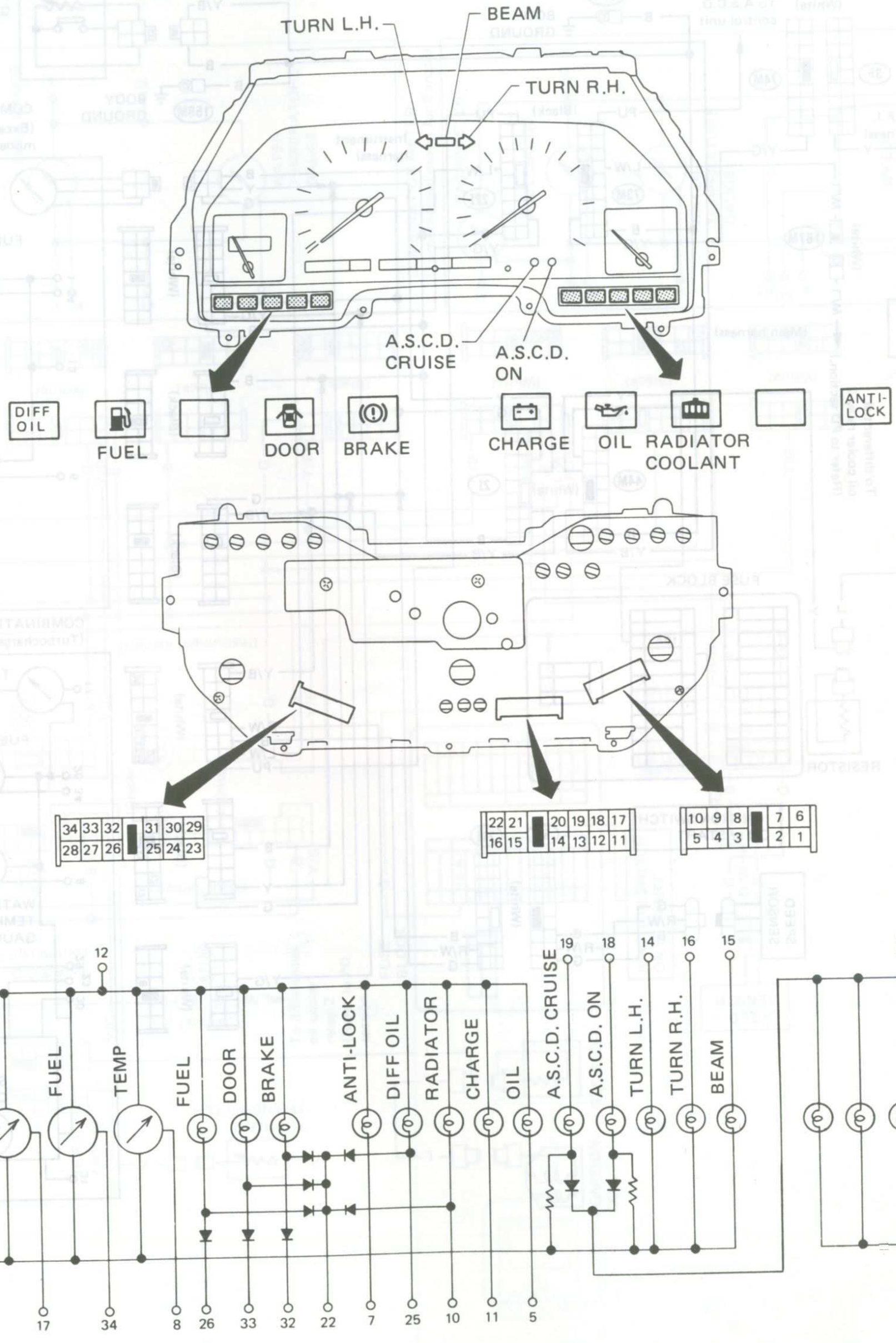
Combination Meter

Except turbocharged model for Europe



Combination Meter (Cont'd)

Turbocharged model for Europe

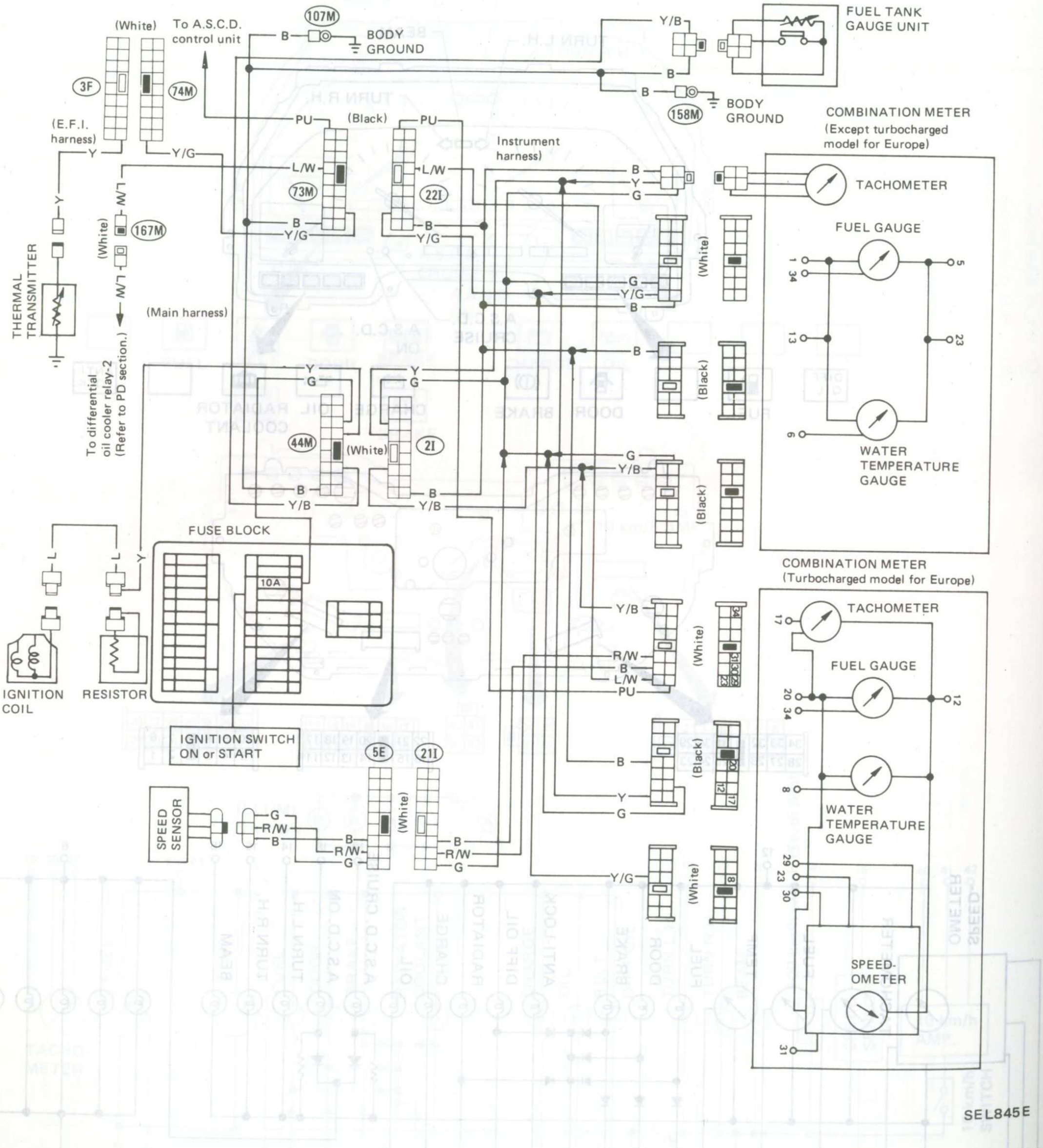


SEL844E

METER AND GAUGES —Needle Type Combination Meter

—— Speed, Tacho, Fuel and Water Temperature Gauges/Wiring Diagram ——

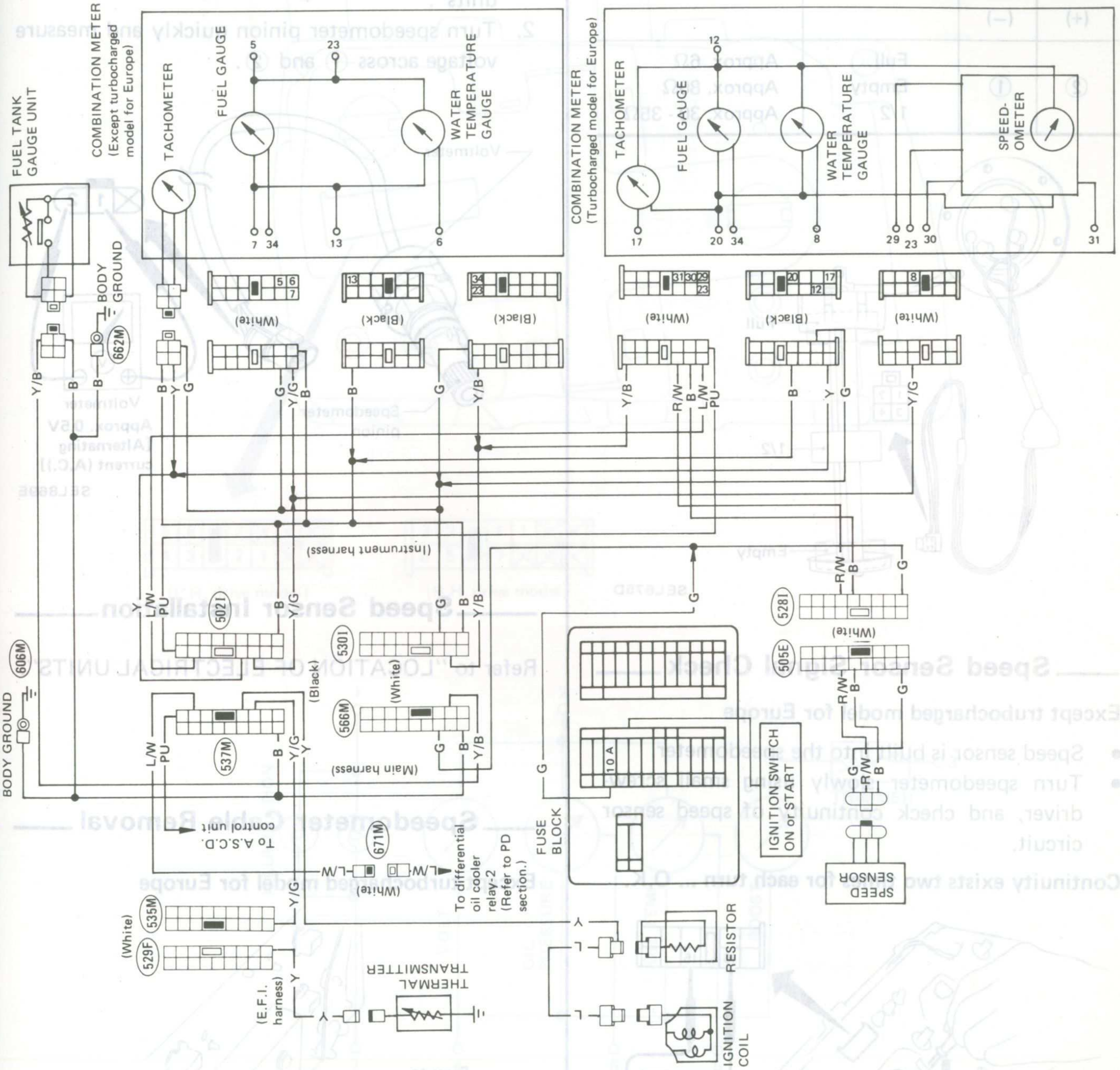
L.H. drive model



SEL845E

Speed, Tacho, Fuel and Water Temperature Gauges /Wiring Diagram (Cont'd)

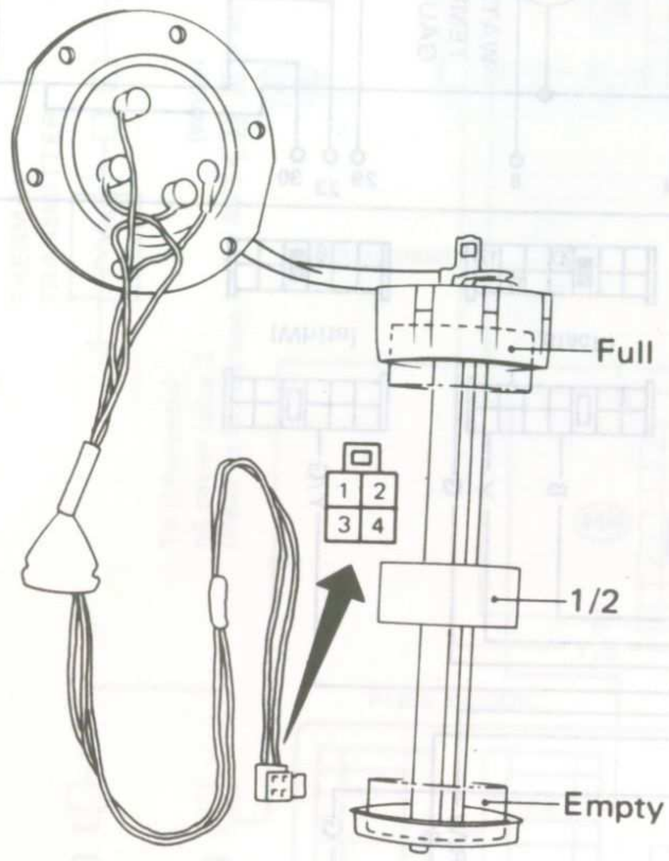
R.H. drive model



Fuel Tank Gauge Check

- For removal, refer to FE section.

Ohmmeter terminal (+)	Ohmmeter terminal (–)	Float position	Resistance value
②	①	Full	Approx. 6Ω
		Empty	Approx. 80Ω
		1/2	Approx. 30 - 35Ω



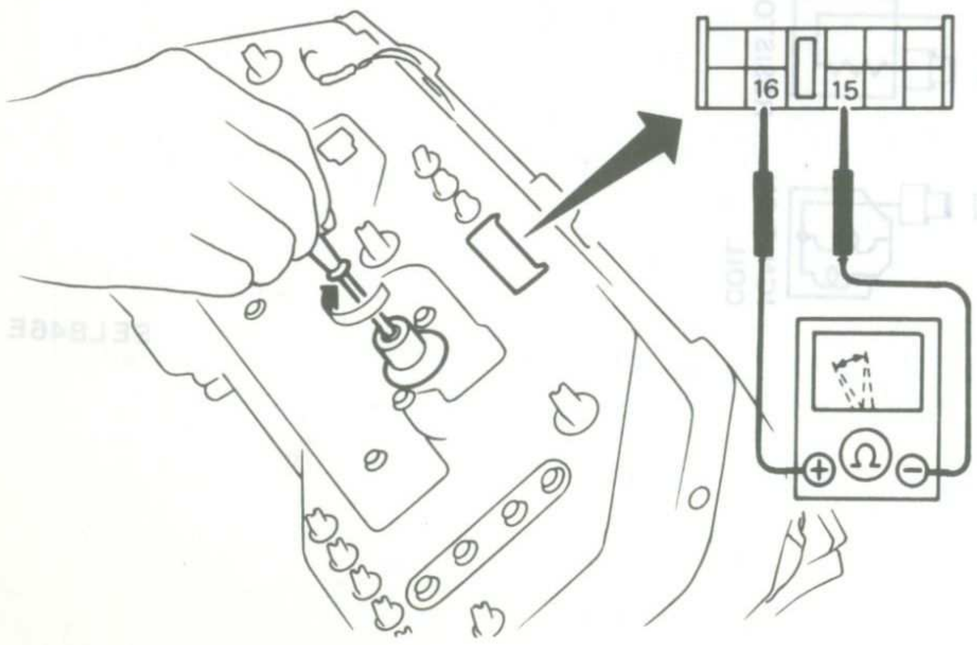
SEL675D

Speed Sensor Signal Check

Except trubocharged model for Europe

- Speed sensor is built into the speedometer.
- Turn speedometer slowly using small screw-driver, and check continuity of speed sensor circuit.

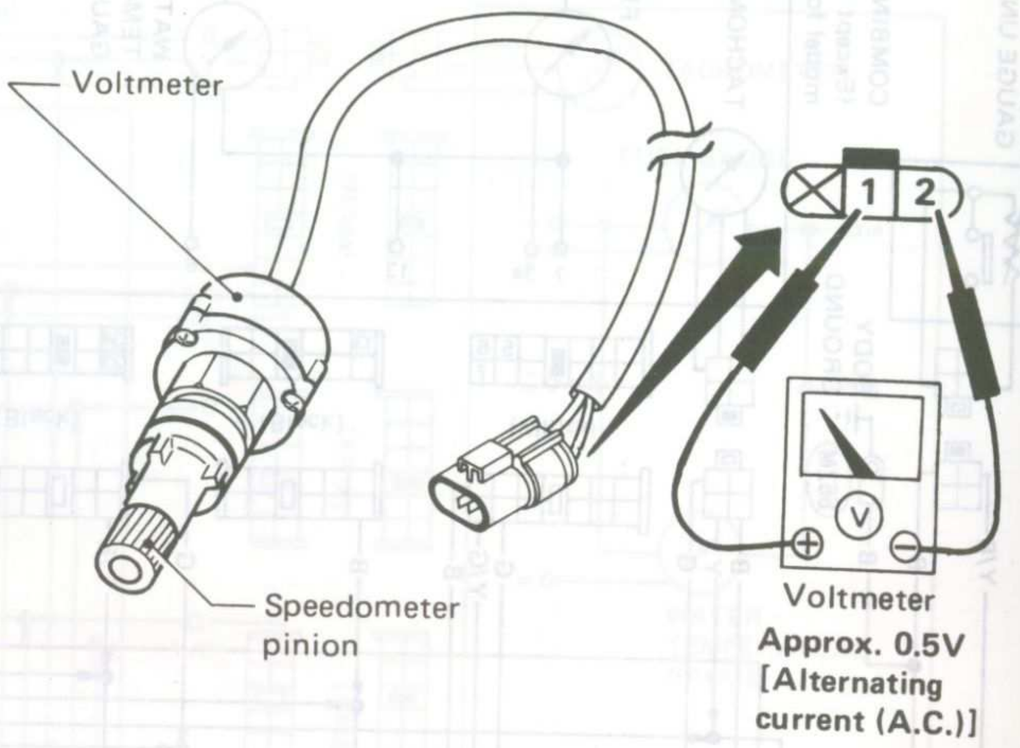
Continuity exists two times for each turn ... O.K.



SEL696D

Turbocharged model for Europe

1. Remove speed sensor from transmission.
   Location: Refer to "Location of Electrical units".
2. Turn speedometer pinion quickly and measure voltage across ① and ②.



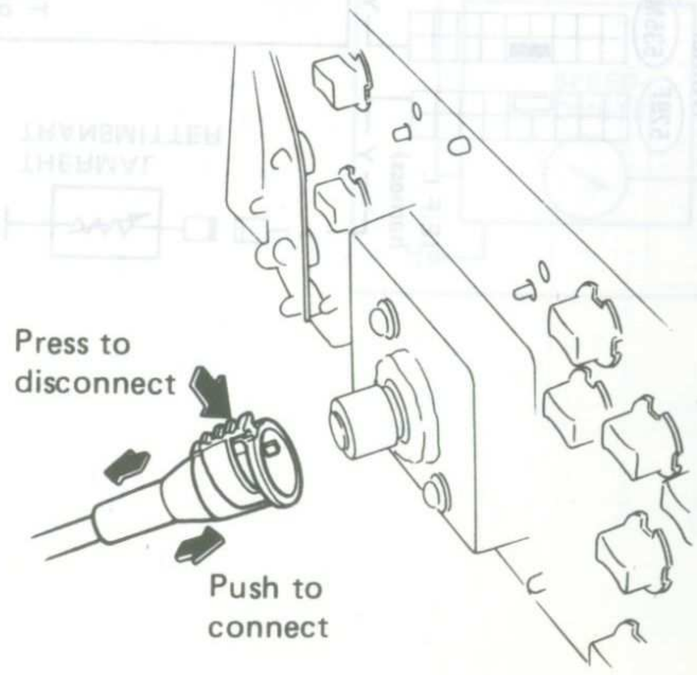
SEL869E

Speed Sensor Installation

Refer to "LOCATION OF ELECTRICAL UNITS".

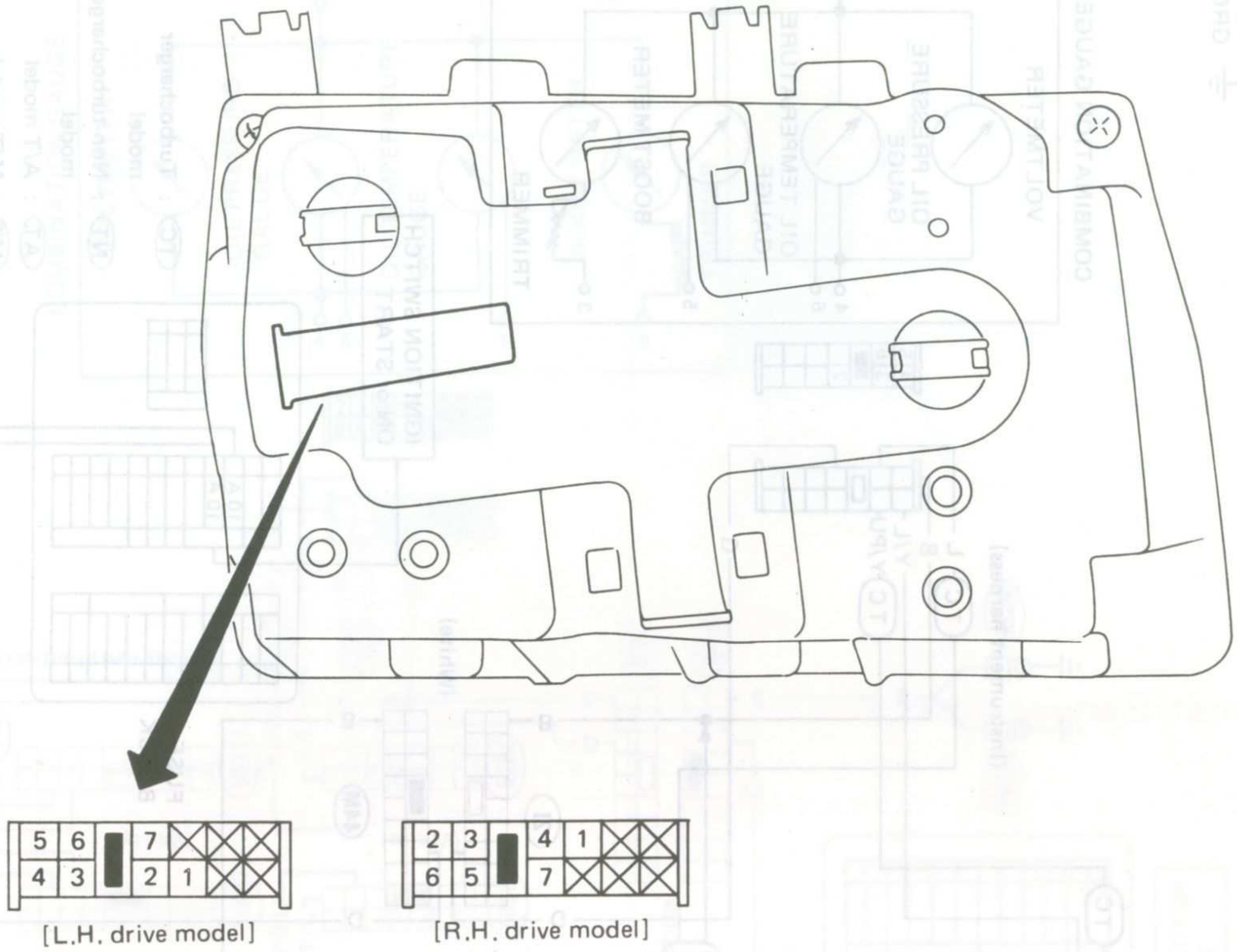
Speedometer Cable Removal

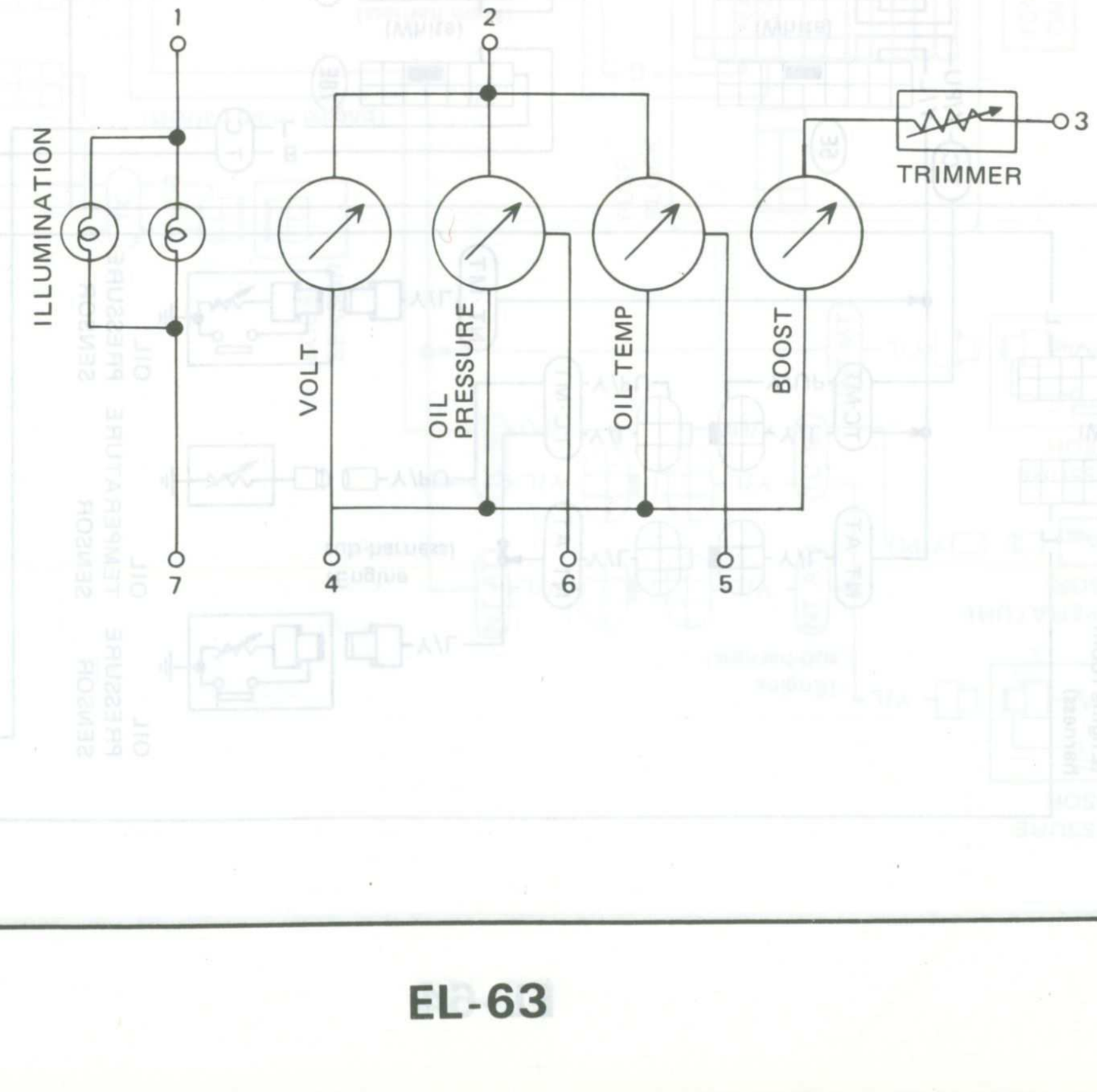
Except turbocharged model for Europe



SEL692D

Combination Gauge



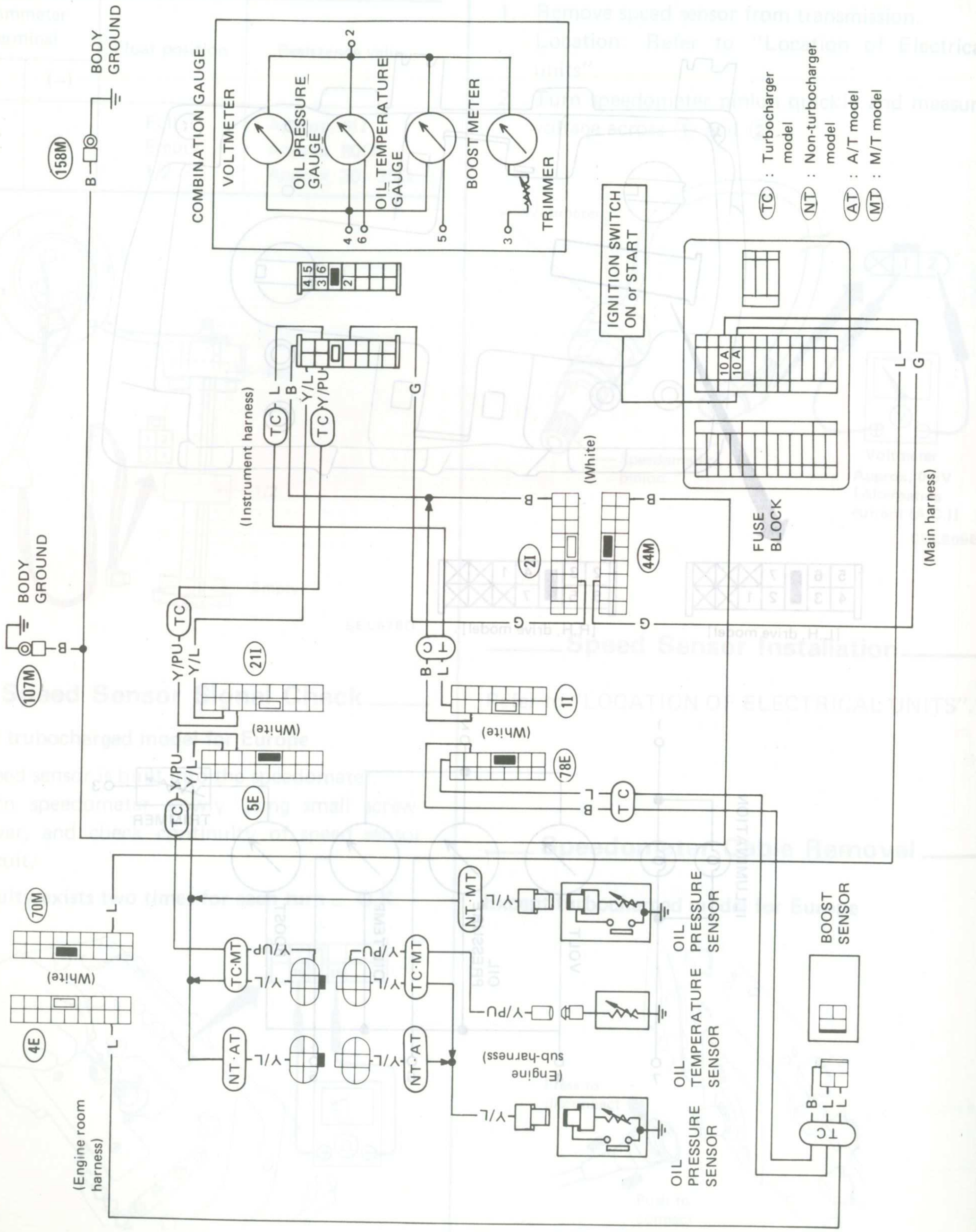


SEL847E

METER AND GAUGES —Needle Type Combination Gauge

Oil Temp., Oil Pressure, Boost and Volt Gauges/Wiring Diagram

L.H. drive model

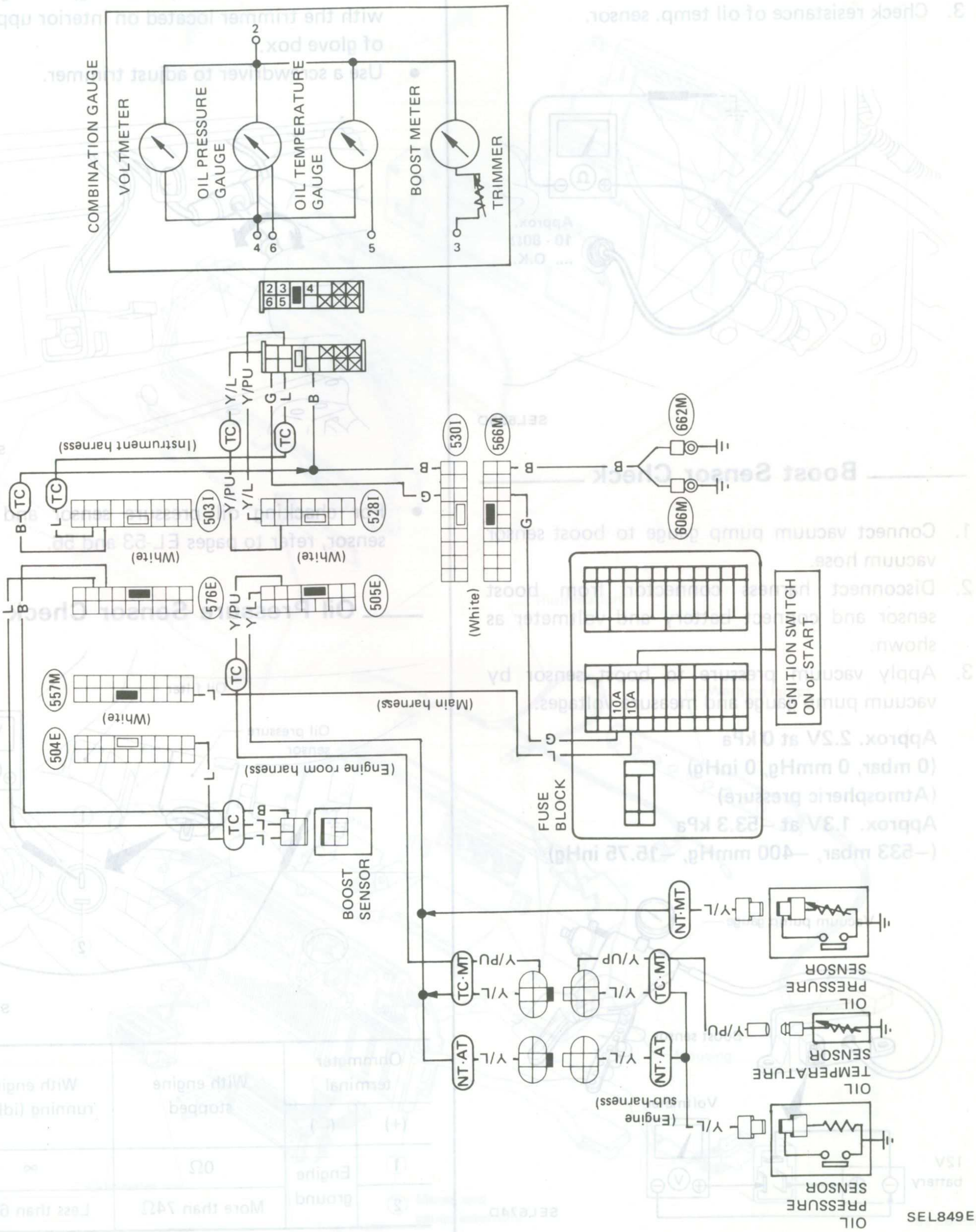


SEL848E

METER AND GAUGES —Needle Type Combination Gauge

— Oil Temp., Oil Pressure, Boost and Volt Gauges/Wiring Diagram (Cont'd) —

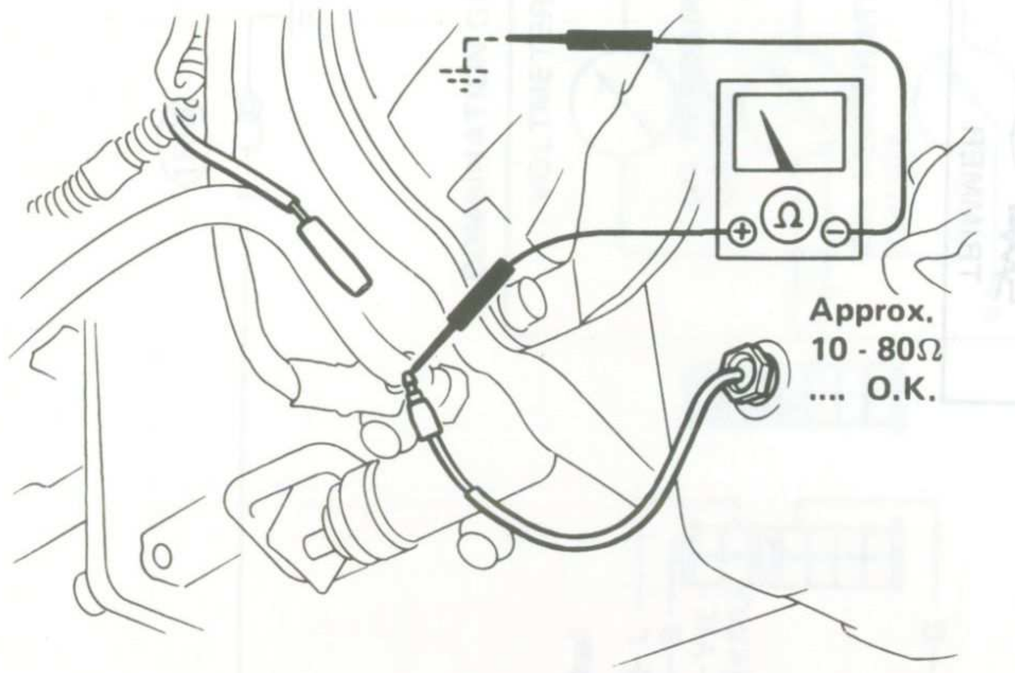
R.H. drive model



METER AND GAUGES —Needle Type Combination Gauge

Oil Temp. Sensor Check

1. Warm up engine.
2. Stop engine and turn ignition switch OFF.
3. Check resistance of oil temp. sensor.

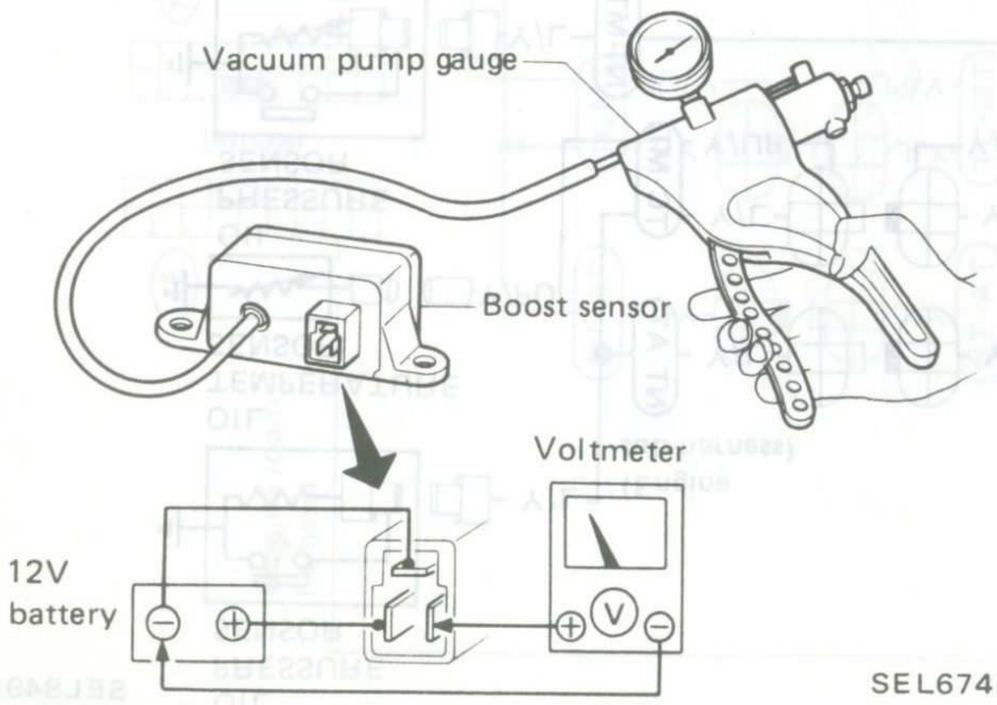


SEL695D

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.

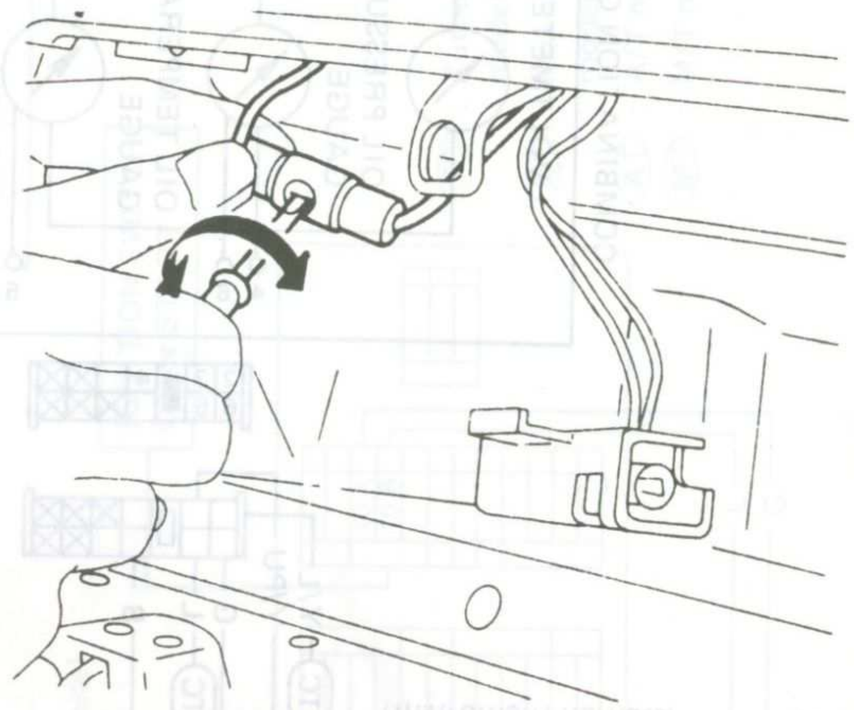
Approx. 2.2V at 0 kPa
(0 mbar, 0 mmHg, 0 inHg)
(Atmospheric pressure)
Approx. 1.3V at –53.3 kPa
(–533 mbar, –400 mmHg, –15.75 inHg)



SEL674D

Boost Gauge Trimmer Adjustment

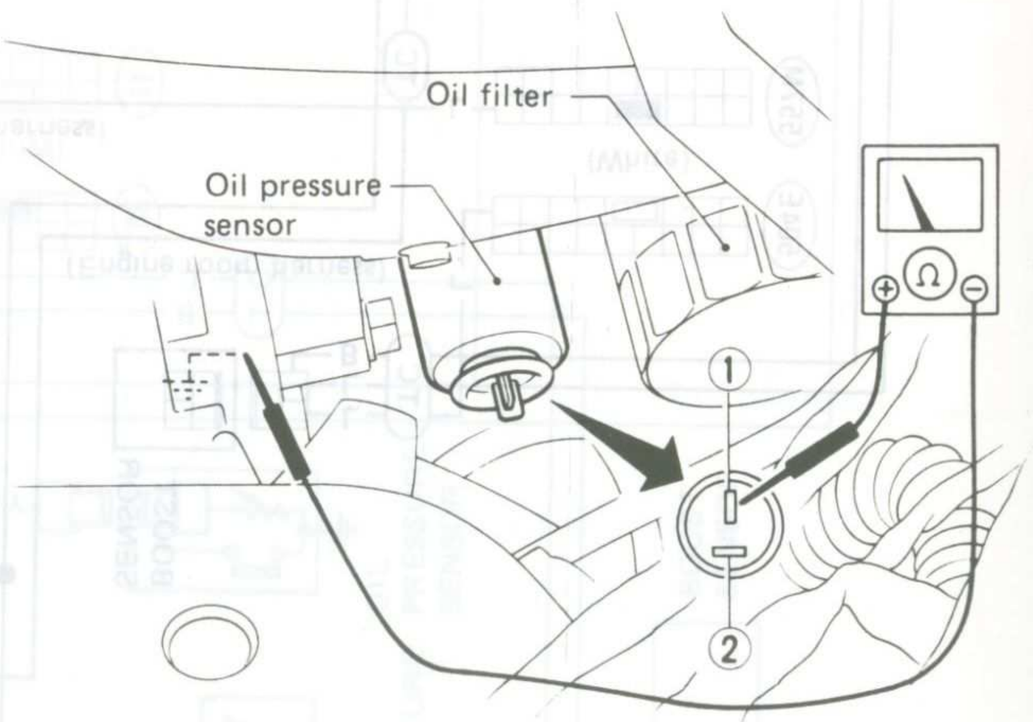
- When boost gauge does not give proper reading, adjust 0 kPa (0 mbar, 0 mmHg, 0 inHg) point with the trimmer located on interior upper wall of glove box.
- Use a screwdriver to adjust trimmer.



SEL273B

- For checking oil pressure sensor and boost sensor, refer to pages EL-53 and 56.

Oil Pressure Sensor Check



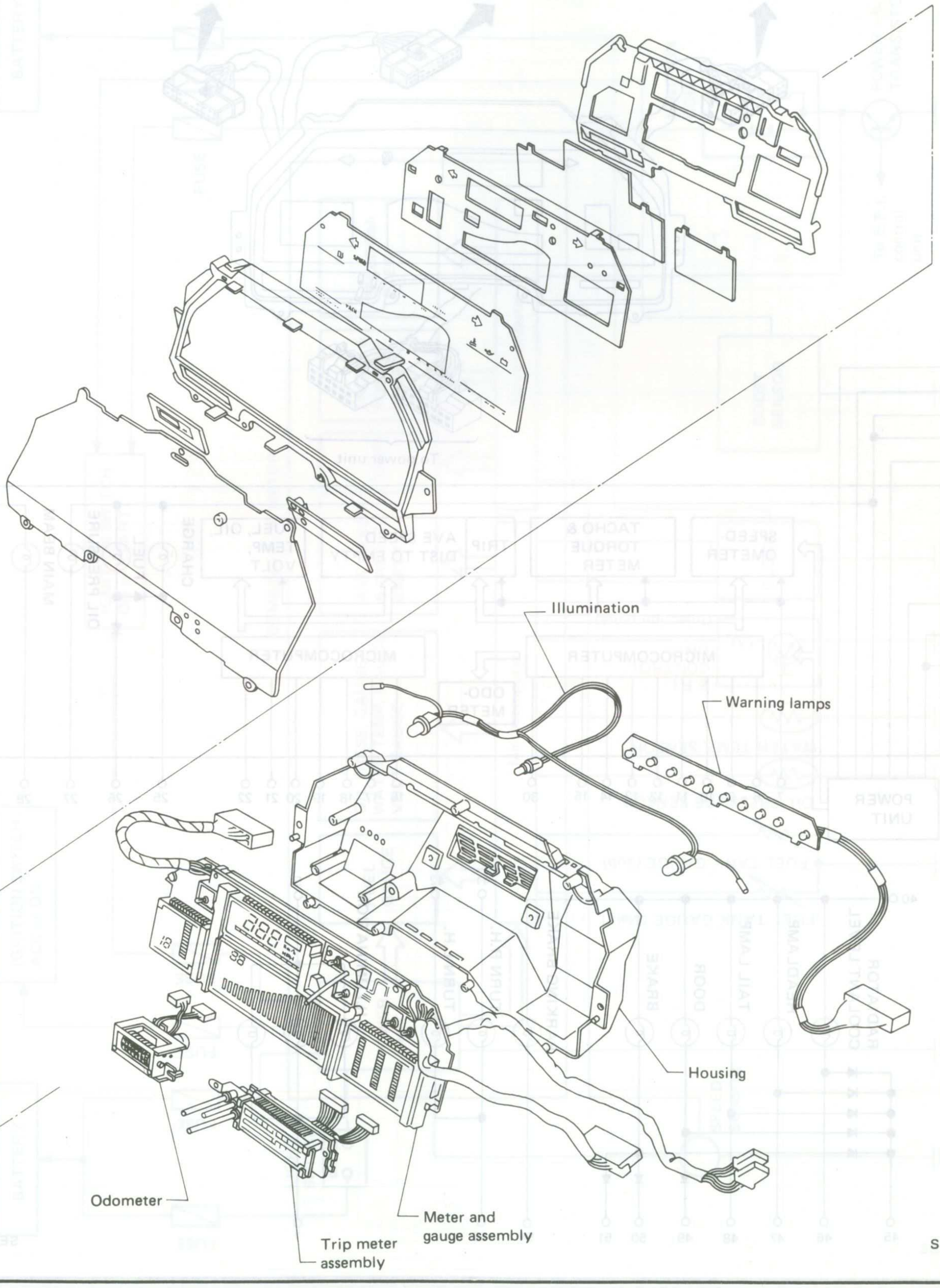
SEL678D

Ohmmeter terminal		With engine stopped	With engine running (idling)
(+)	(–)		
①	Engine ground	0Ω	∞
②		More than 74Ω	Less than 60Ω

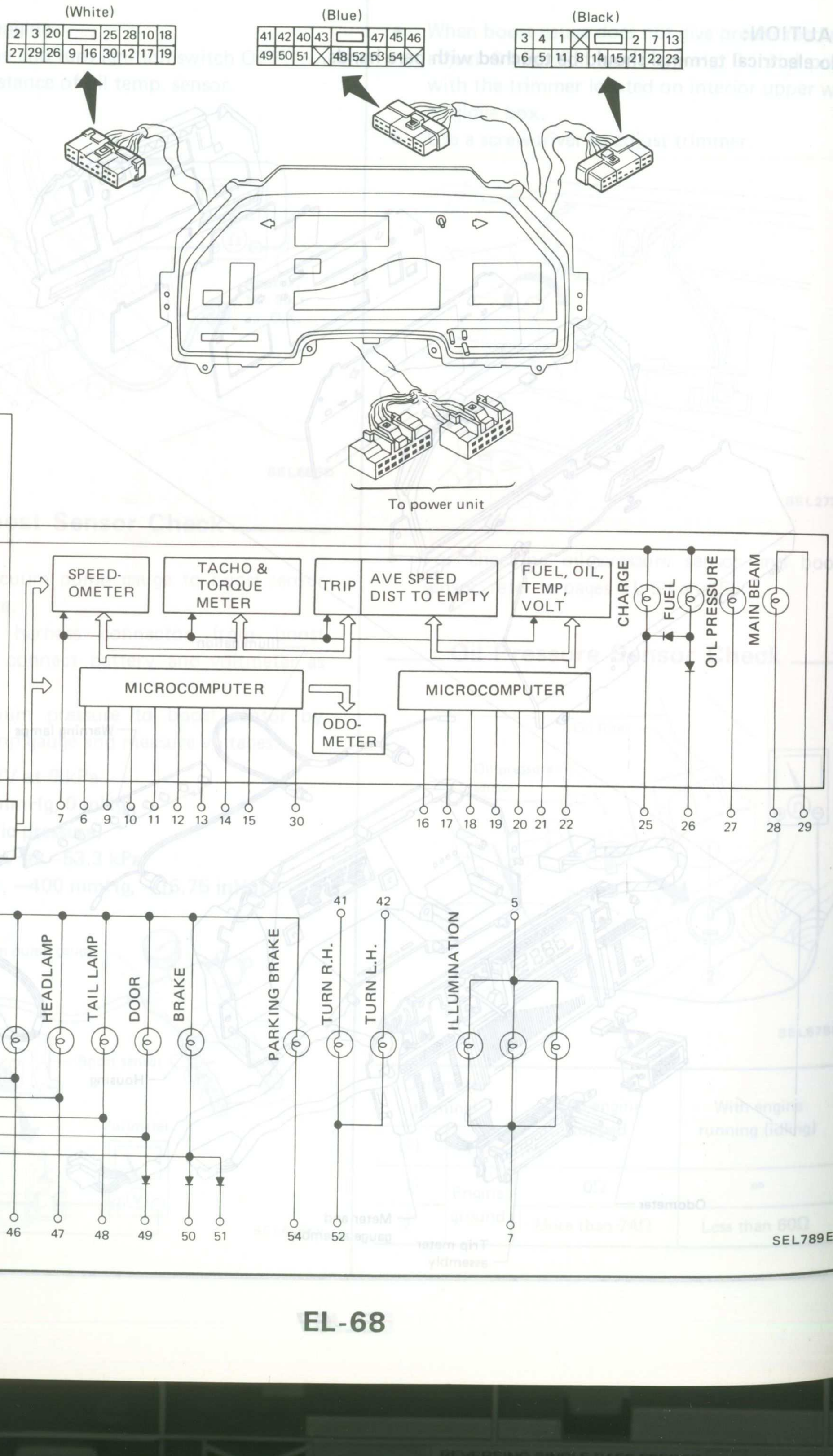
METER AND GAUGES — Digital Type Combination Meter

Combination Meter

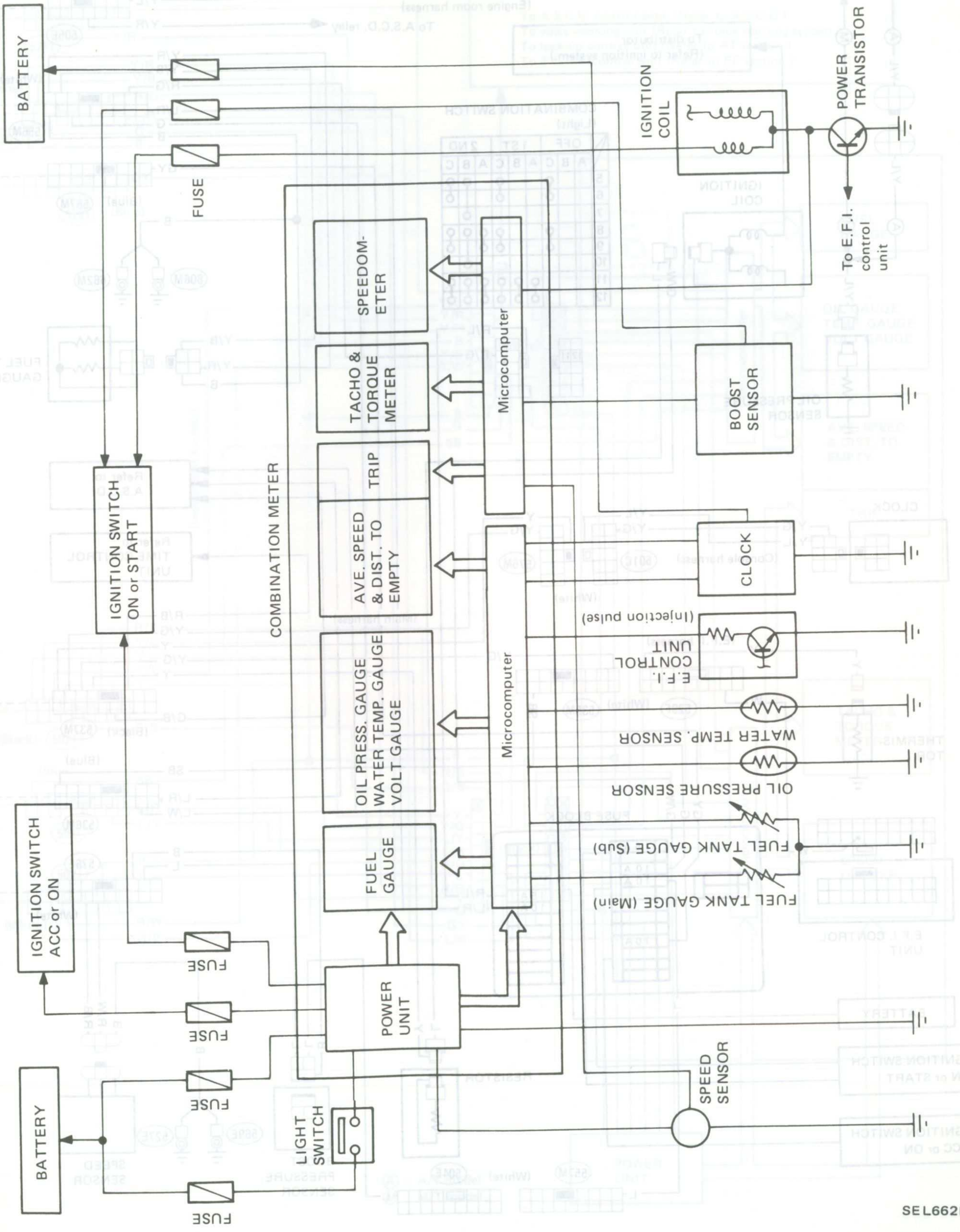
CAUTION:
No electrical terminal should be touched with bare hands.



Combination Meter (Cont'd)



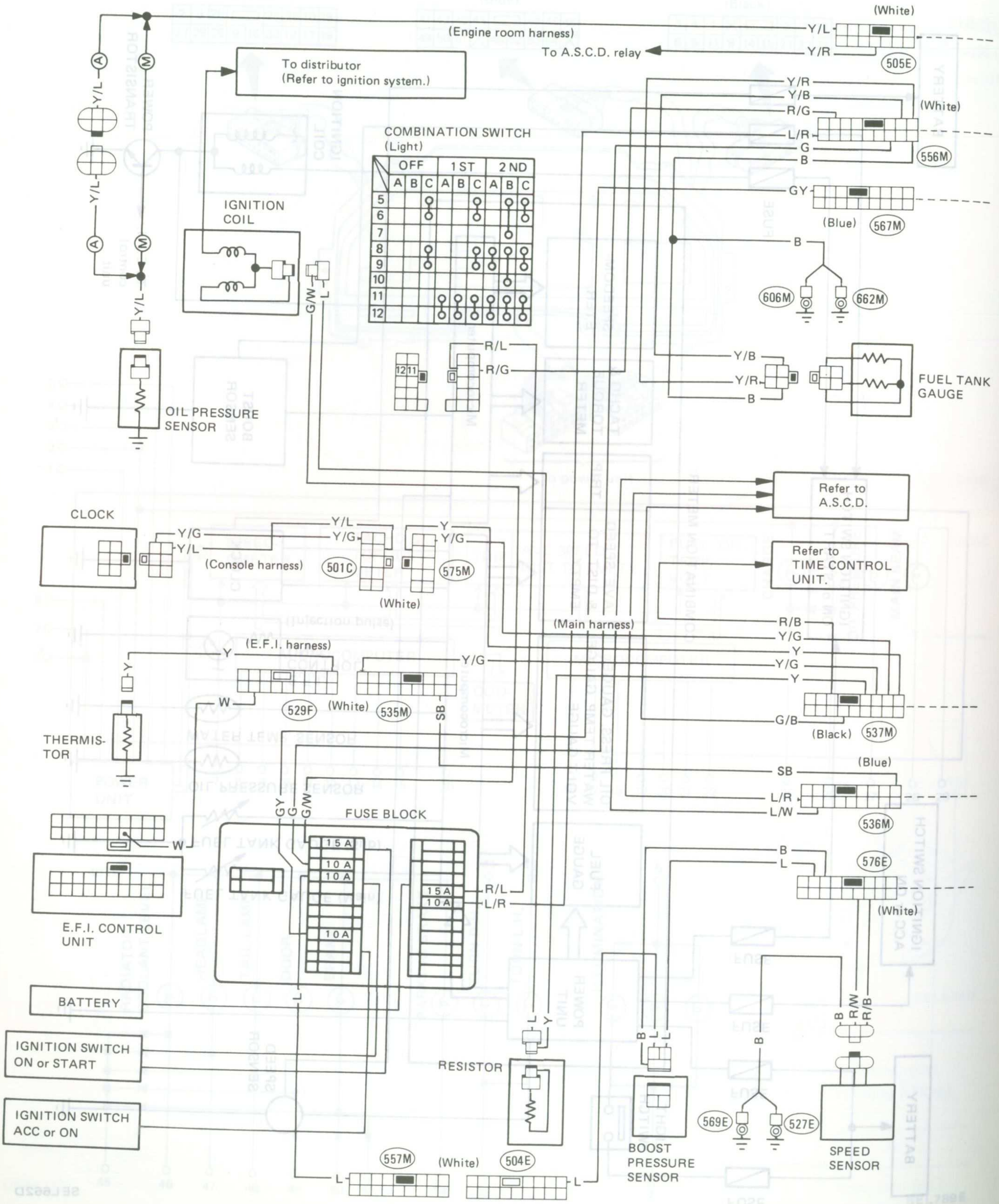
Schematic



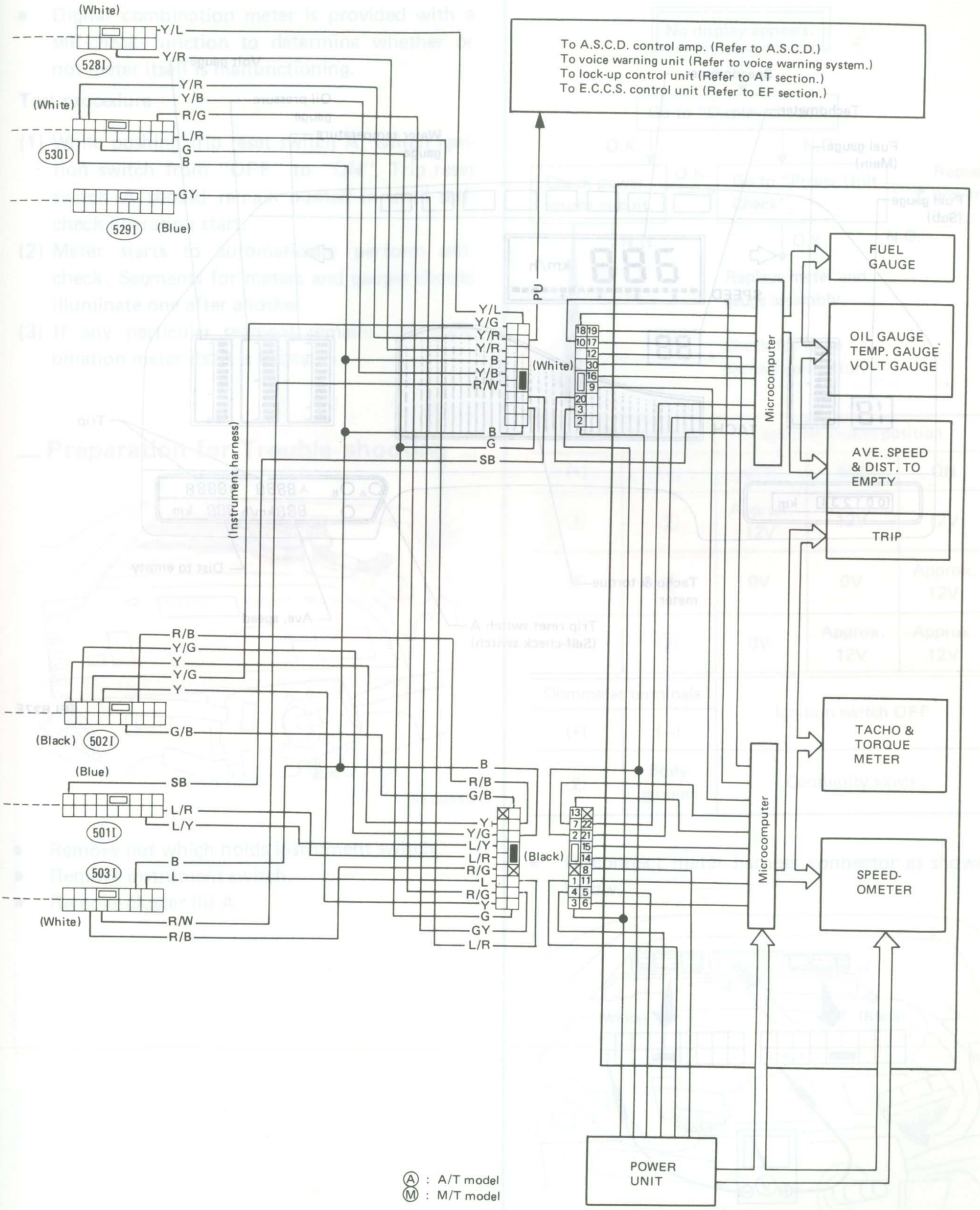
SEL662D

METER AND GAUGES — Digital Type Combination Meter

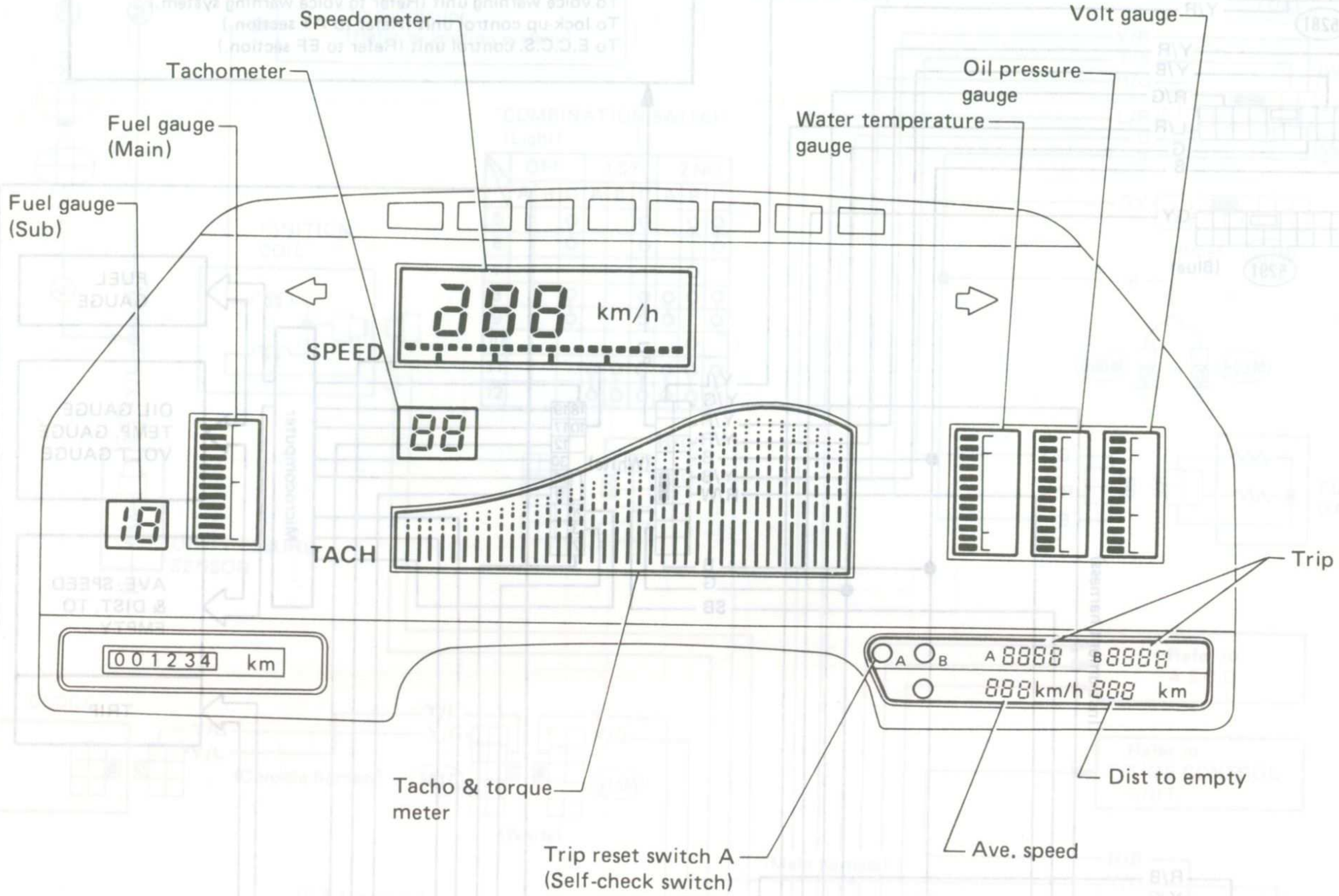
Wiring Diagram



Wiring Diagram (Cont'd)



Display Check



SEL827E

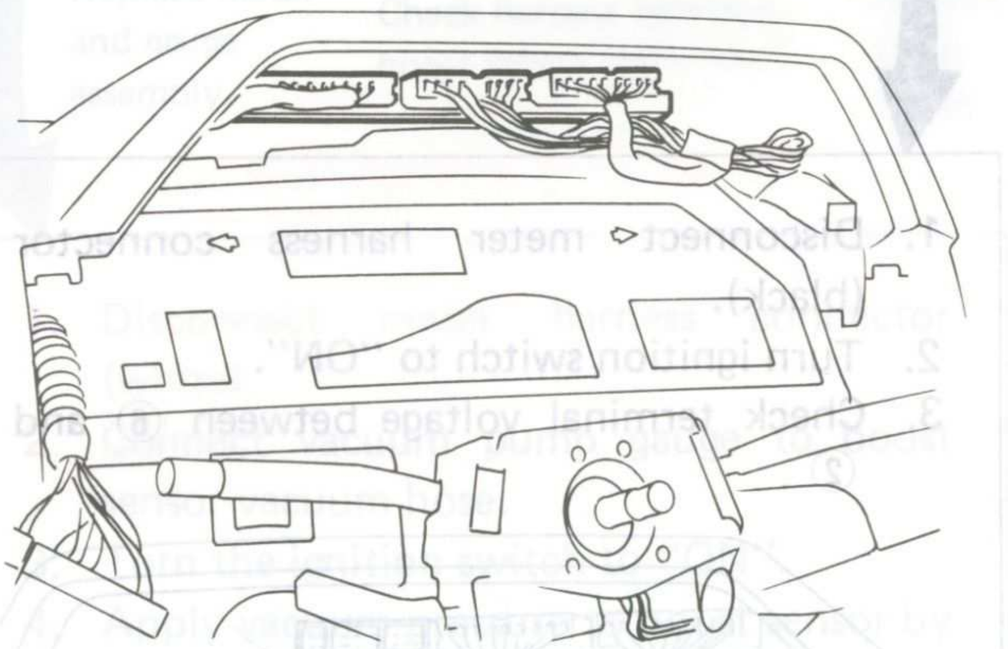
Display Check (Cont'd)

- Digital combination meter is provided with a self-check function to determine whether or not meter itself is malfunctioning.

Test procedure

(1) While pushing trip reset switch A, switch ignition switch from "OFF" to "ON". Trip reset switch A should remain pushed in until self-check operation start.
(2) Meter starts to automatically perform self-check. Segments for meters and gauges should illuminate one after another.
(3) If any particular segment remains off, combination meter itself is faulty.

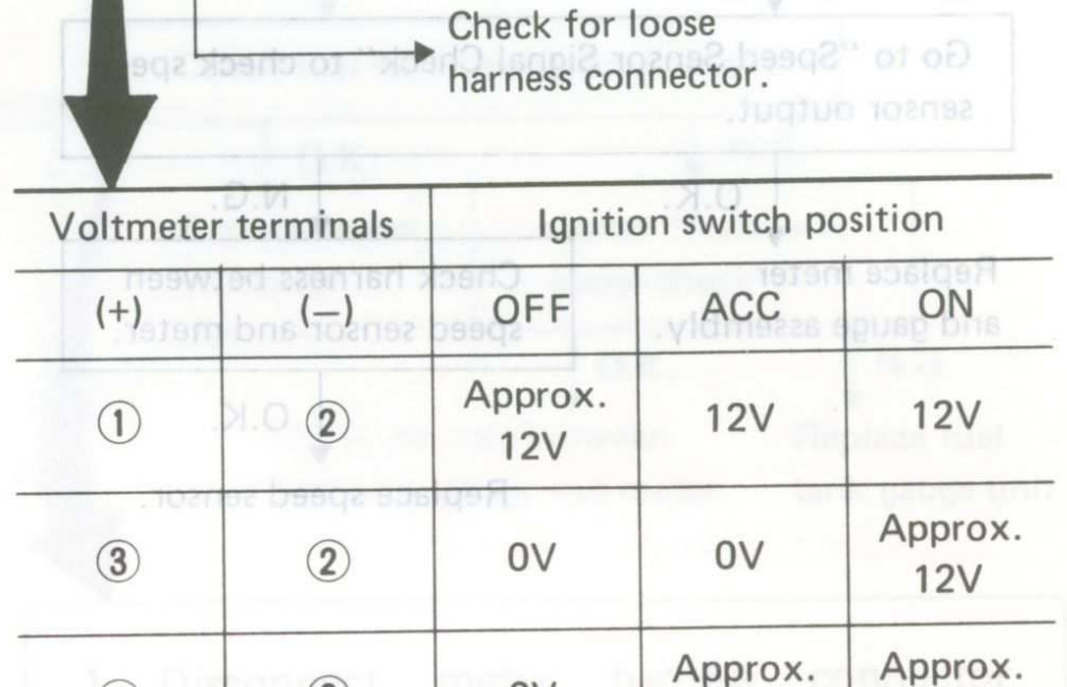
Preparation for Trouble-shooting



SEL665D

- Remove nut which holds instrument switch.
- Remove instrument switch.
- Remove cluster lid A.

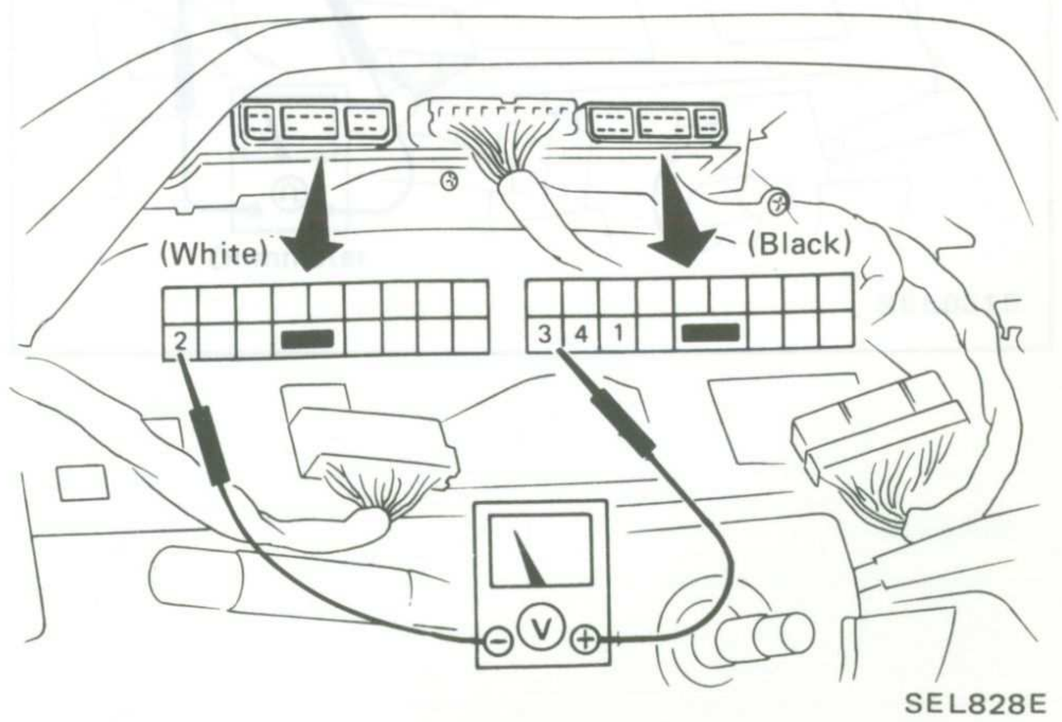
Trouble-shooting



Voltmeter terminals		Ignition switch position		
(+)	(–)	OFF	ACC	ON
①	②	Approx. 12V	12V	12V
③	②	0V	0V	Approx. 12V
④	②	0V	Approx. 12V	Approx. 12V

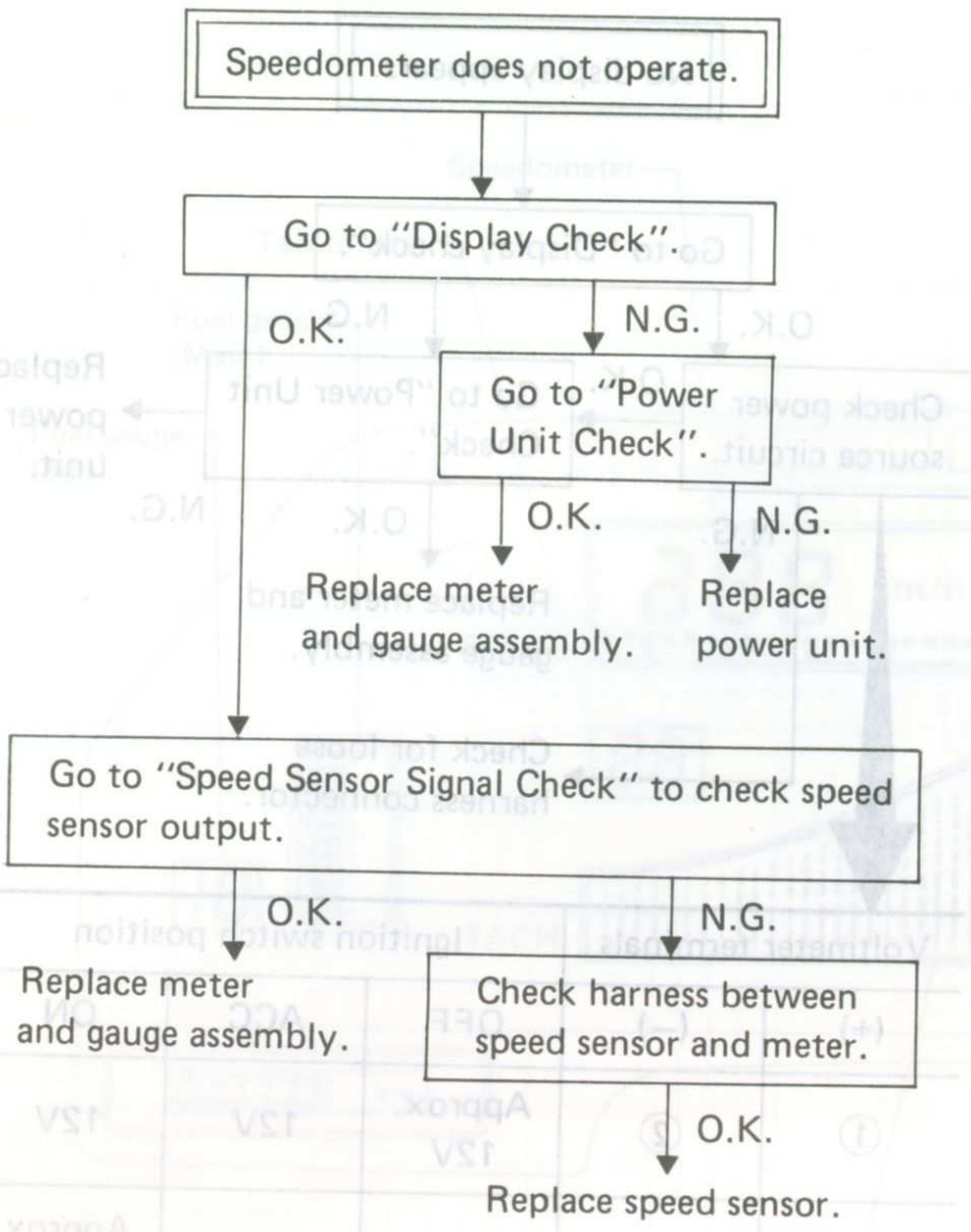
Ohmmeter terminals		Ignition switch OFF
(+)	(–)	
②	Body ground	Continuity exists

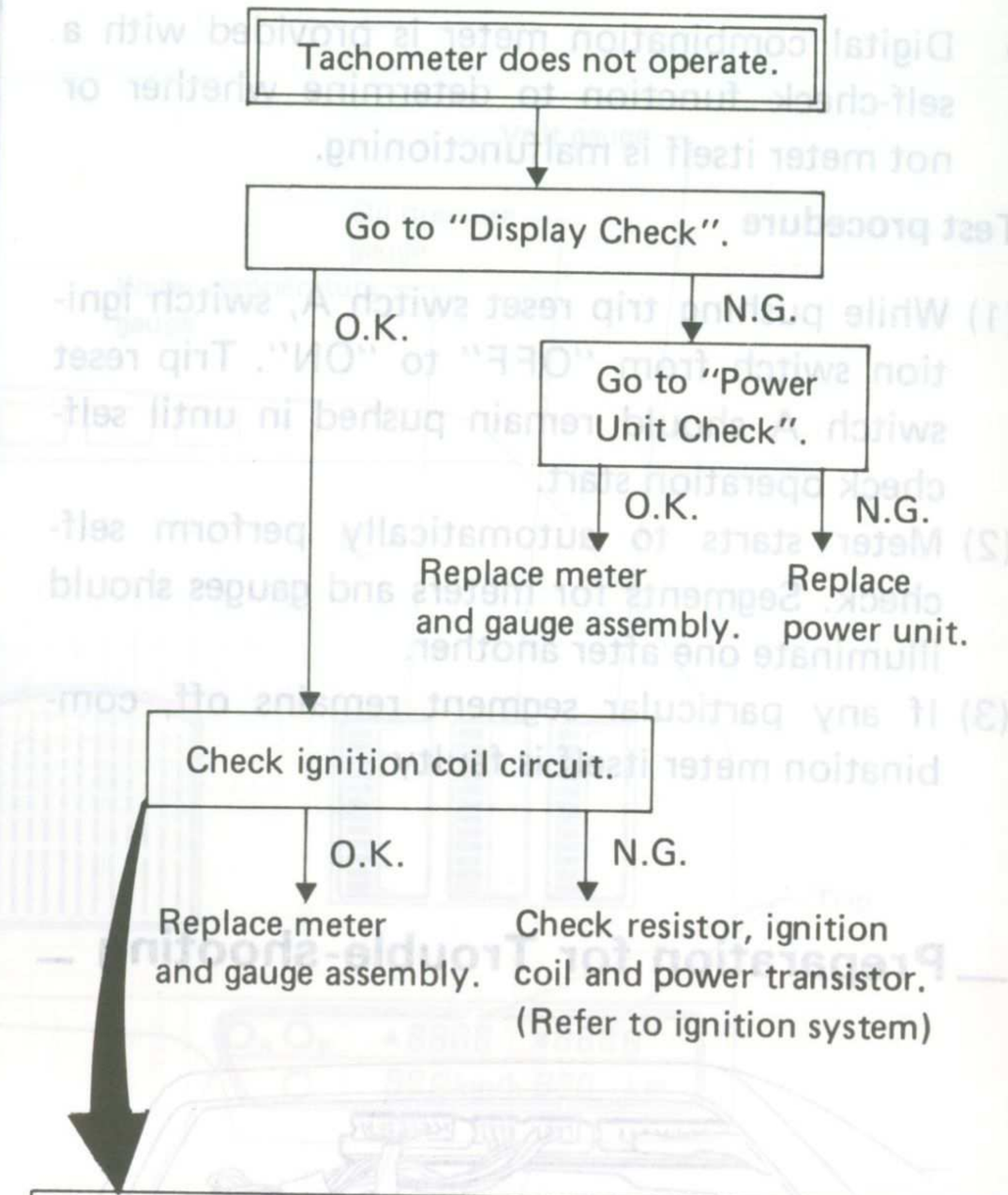
- Disconnect meter harness connector as shown below.



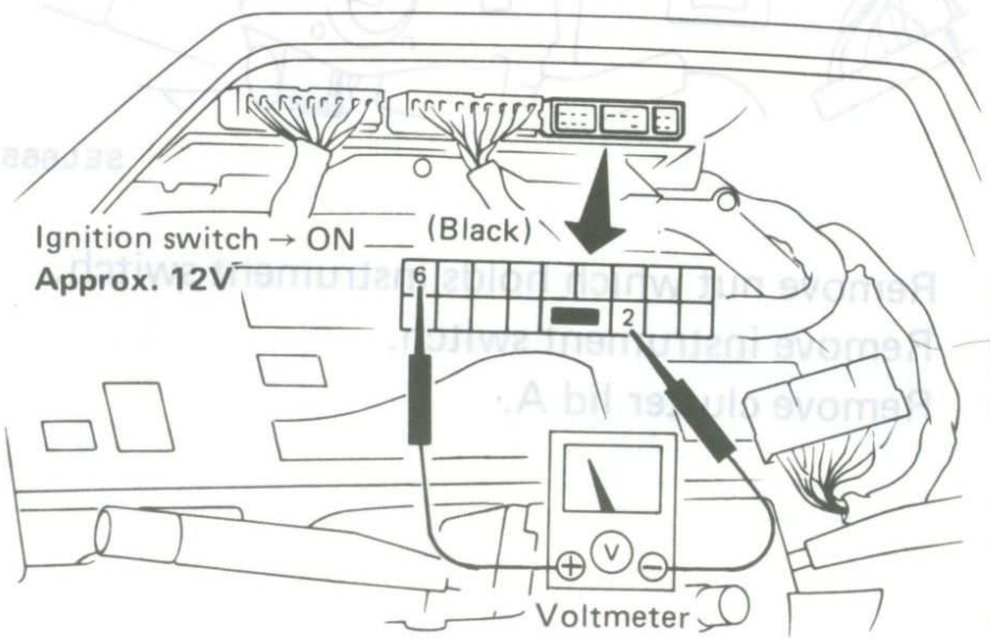
SEL828E

Trouble-shooting (Cont'd)



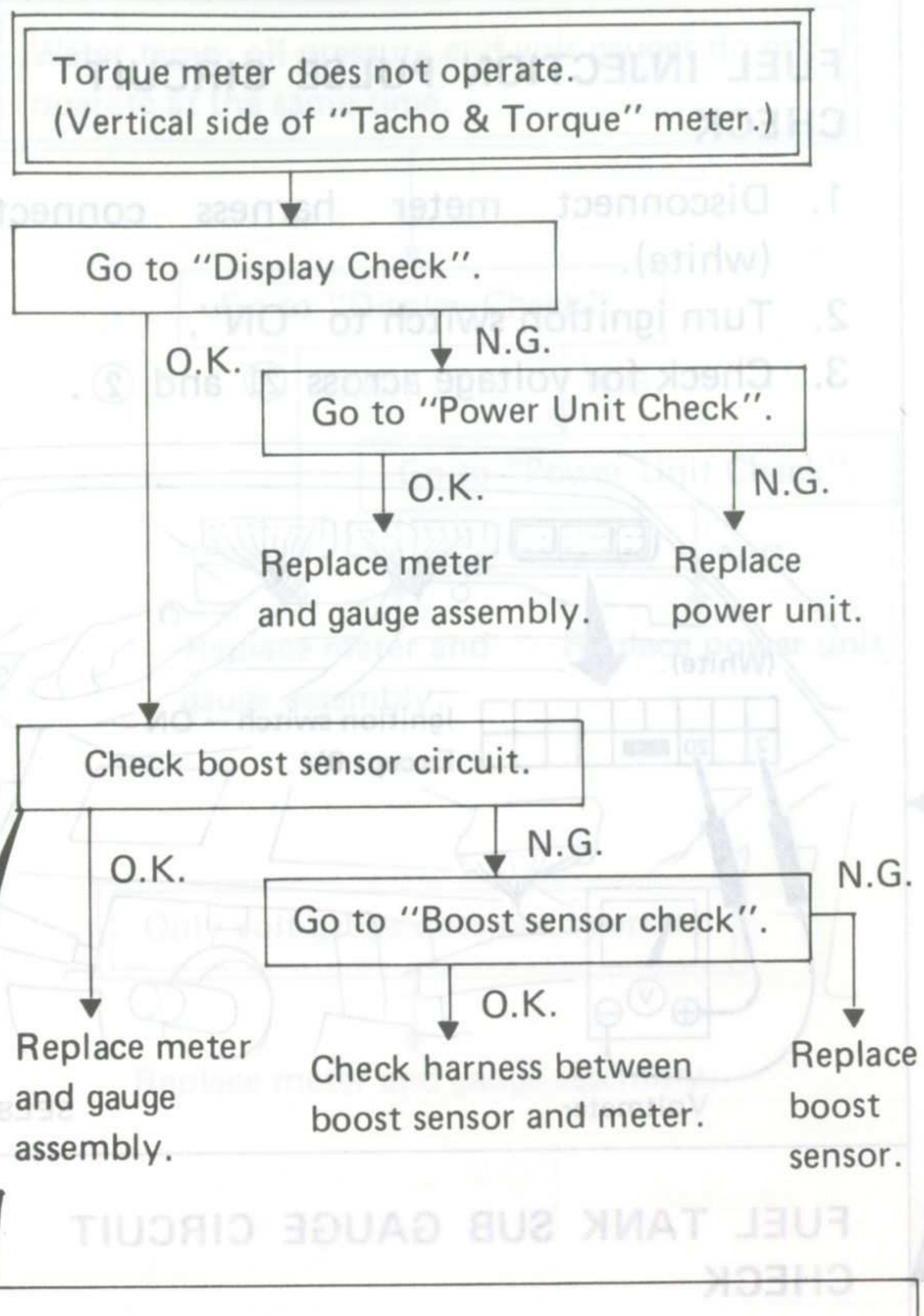


1. Disconnect meter harness connector (black).
2. Turn ignition switch to "ON".
3. Check terminal voltage between ⑥ and ② .

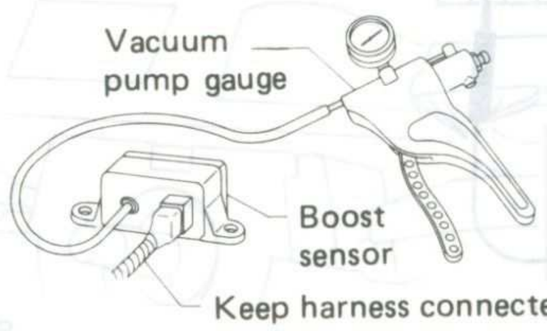


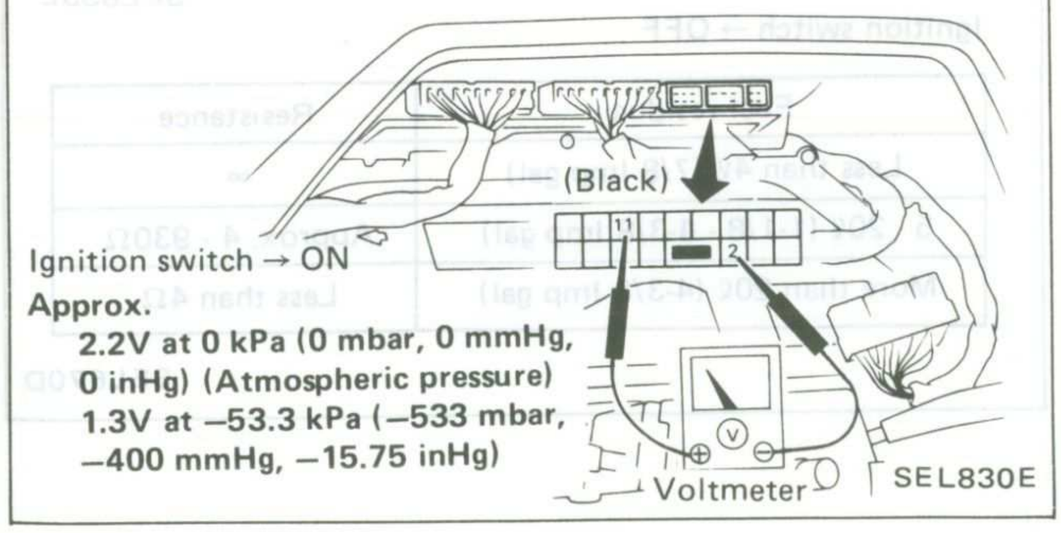
SEL829E

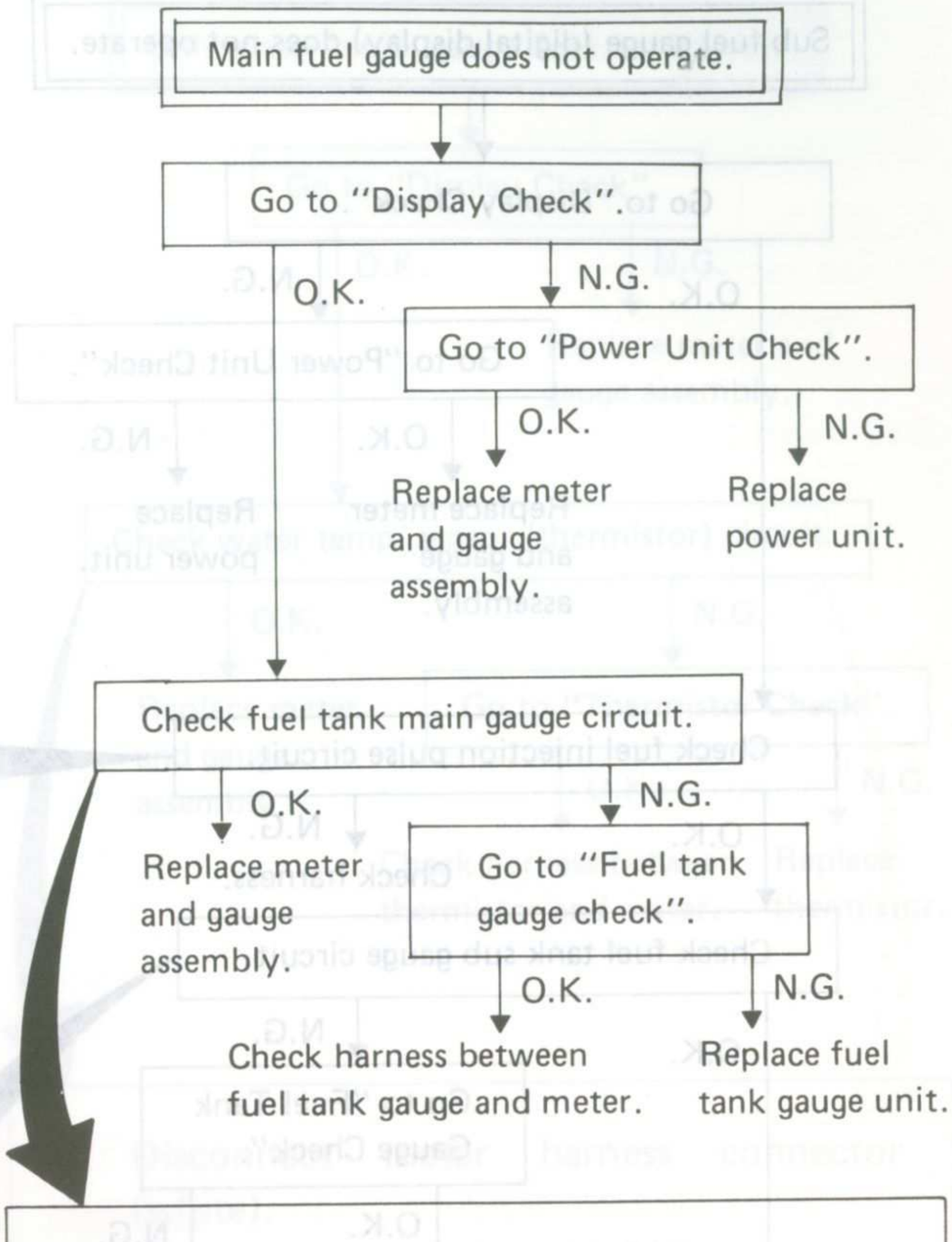
Trouble-shooting (Cont'd)



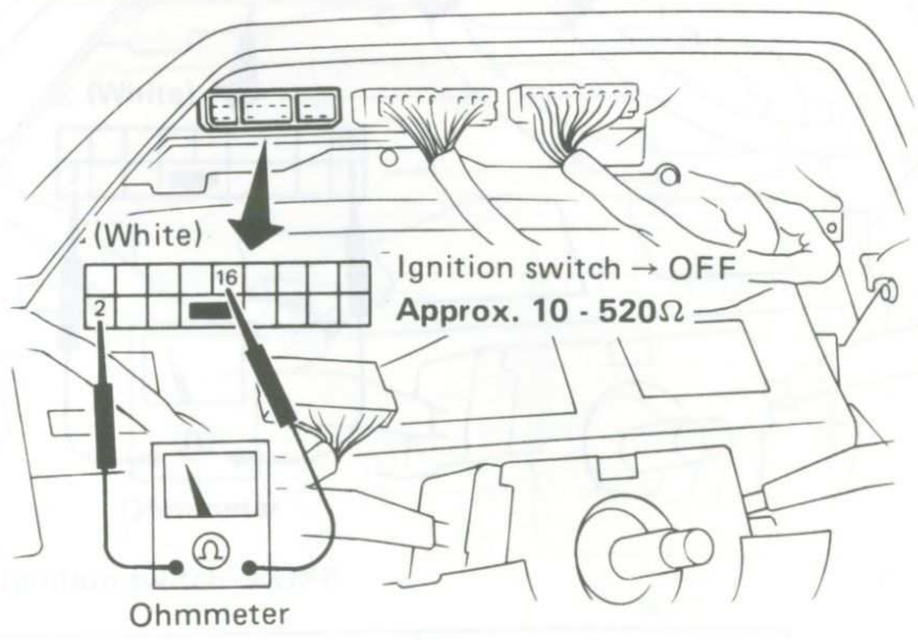
1. Disconnect meter harness connector (white).
2. Connect vacuum pump gauge to boost sensor vacuum hose.
3. Turn the ignition switch to "ON".
4. Apply vacuum pressure to boost sensor by vacuum pump gauge and measure voltage across ⑪ and ② .



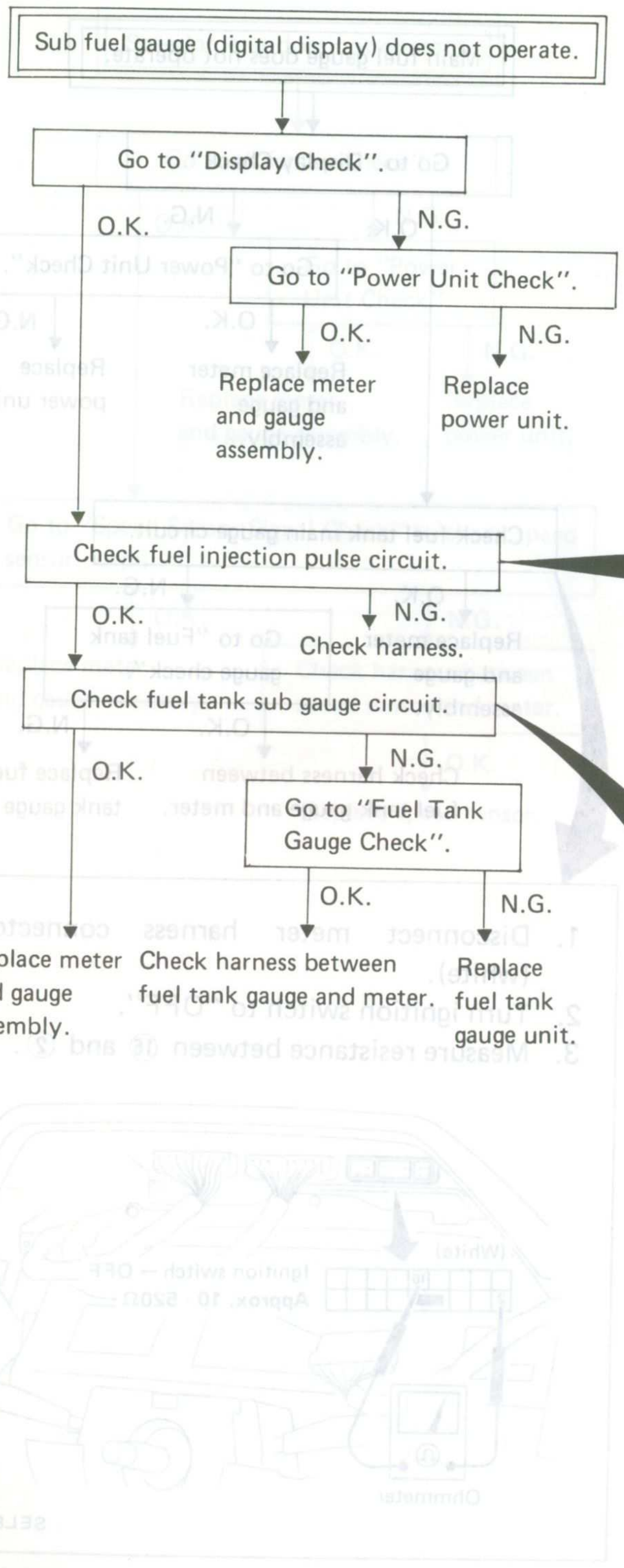




1. Disconnect meter harness connector (white).
2. Turn ignition switch to "OFF".
3. Measure resistance between ⑯ and ② .

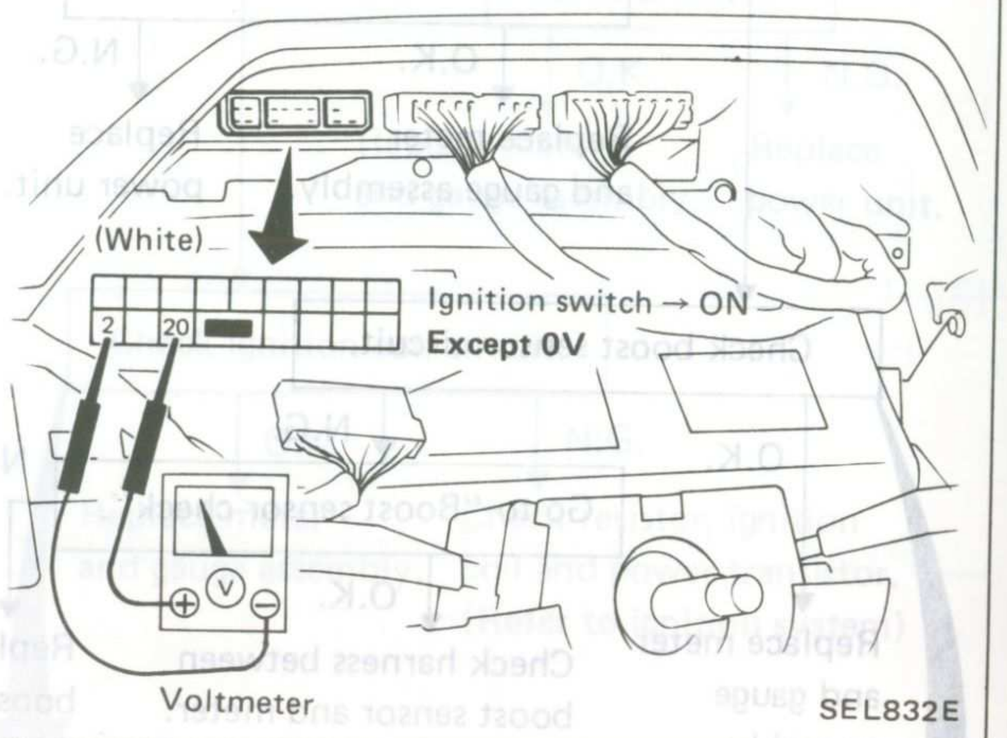


Trouble-shooting (Cont'd)



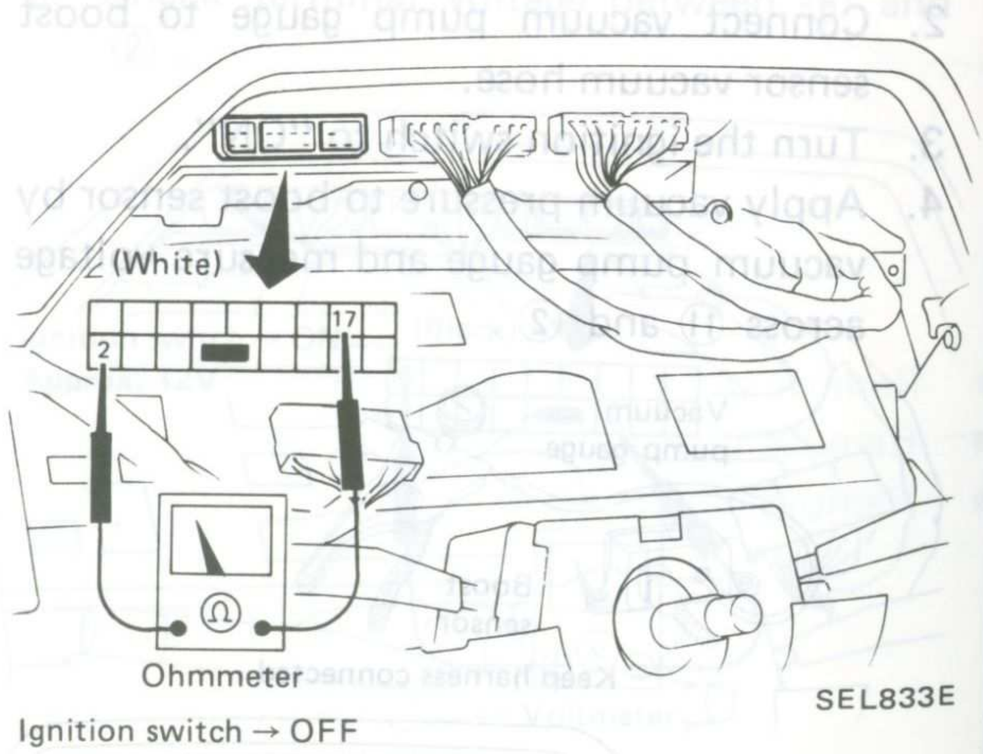
FUEL INJECTION PULSE CIRCUIT CHECK

1. Disconnect meter harness connector (white).
2. Turn ignition switch to "ON".
3. Check for voltage across ⑳ and ② .



FUEL TANK SUB GAUGE CIRCUIT CHECK

1. Turn ignition switch to "OFF".
2. Measure resistance between ⑰ and ② .



Ignition switch → OFF

Fuel residue	Resistance
Less than 4ℓ (7/8 Imp gal)	∞
5 - 20ℓ (1-1/8 - 4-3/8 Imp gal)	Approx. 4 - 930Ω
More than 20ℓ (4-3/8 Imp gal)	Less than 4Ω

SEL670D

Trouble-shooting (Cont'd)

Water temp, oil pressure and volt gauges do not operate at the same time.

→ Go to "Display Check".
- O.K. → Replace meter and gauge assembly.
- N.G. → Go to "Power Unit Check".
  - O.K. → Replace meter and gauge assembly.
  - N.G. → Replace power unit.

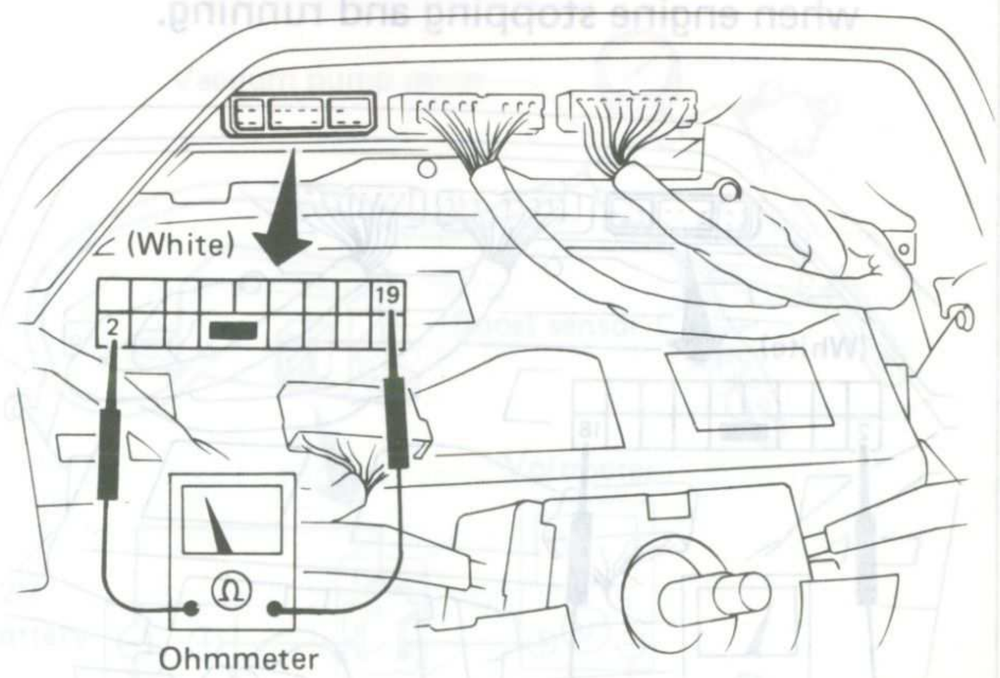
Only volt gauge does not operate.

→ Replace meter and gauge assembly.

Only water temp. gauge does not operate.

→ Go to "Display Check".
- O.K. → Check water temp. sensor (thermistor) circuit.
  - O.K. → Replace meter and gauge assembly.
  - N.G. → Go to "Thermistor Check".
    - O.K. → Check harness between thermistor and meter.
    - N.G. → Replace thermistor.
- N.G. → Replace meter and gauge assembly.

1. Disconnect meter harness connector (white).
2. Turn ignition switch to "OFF".
3. Measure resistance between ⑲ and ② .



Ignition switch → OFF

Engine coolant temperature	Resistance
60°C (140°F) or less	70Ω or more
60°C (140°F) or more	Approx. 10 - 70Ω

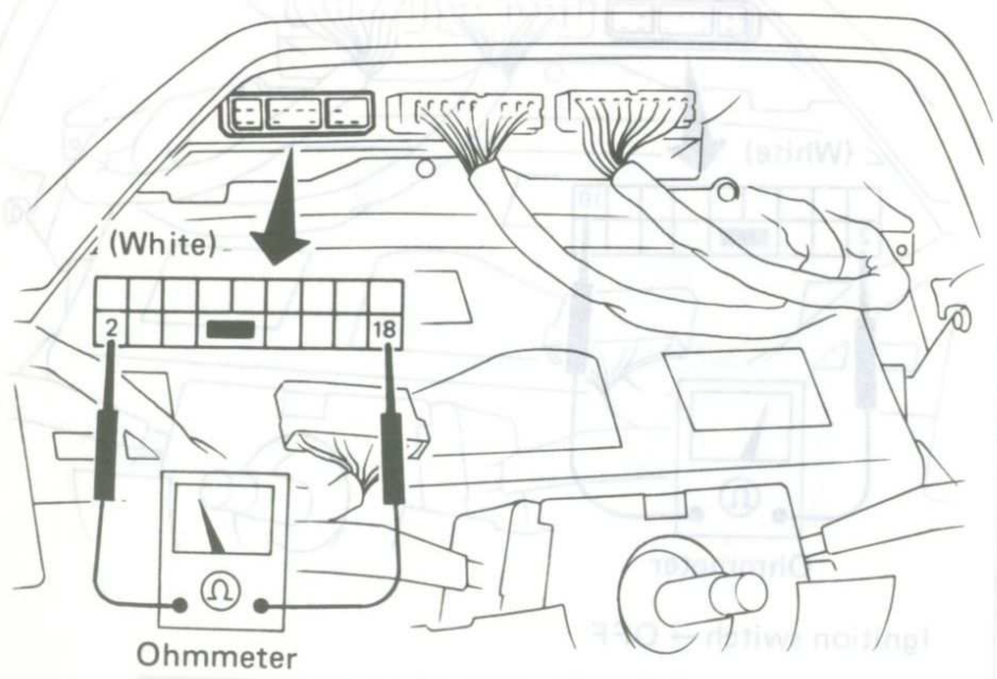
SEL834E

Trouble-shooting (Cont'd)

Only oil pressure gauge does not operate.

→ Go to "Display Check".
- O.K. → Check oil pressure sensor circuit.
  - O.K. → Replace meter and gauge assembly.
  - N.G. → Go to "Oil Pressure Sensor Check".
    - O.K. → Check harness between oil pressure sensor and meter.
    - N.G. → Replace oil pressure sensor.
- N.G. → Replace meter and gauge assembly.

1. Disconnect meter harness connector (white).
2. Measure resistance between ⑱ and ② when engine stopping and running.



Ohmmeter

Engine	Resistance
Stop	Approx. 75Ω or more
Idling	Approx. 60Ω or less

SEL835E

"Trip", "Ave. speed" and "Dist to empty" meters do not operate at the same time.

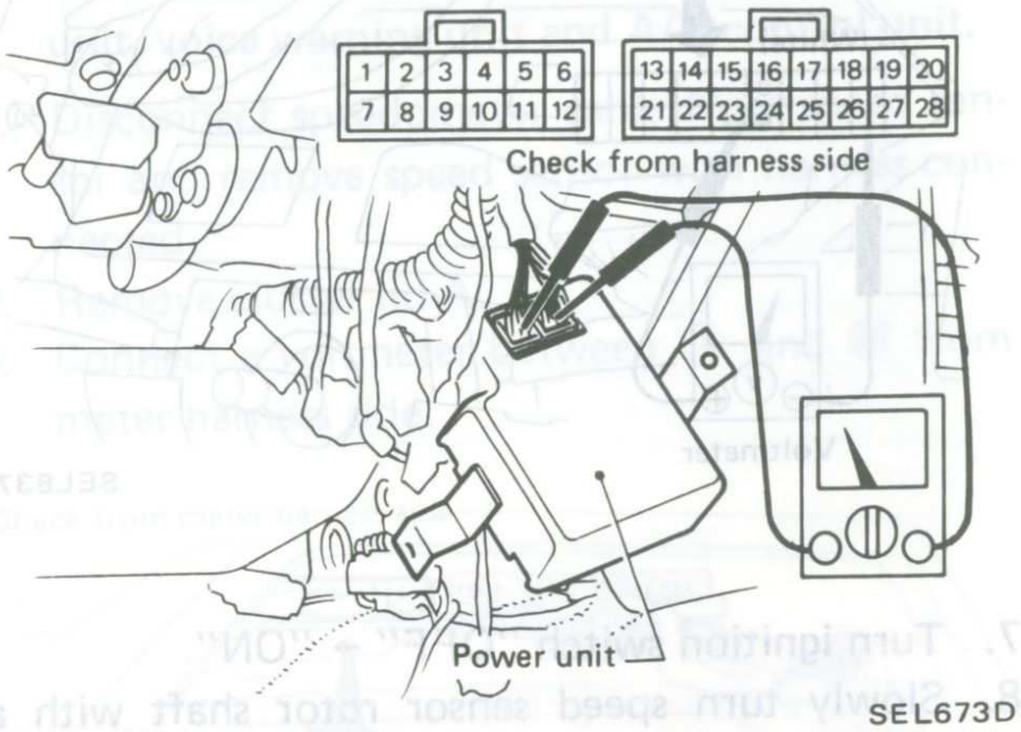
→ Go to "Display Check".
- O.K. → Replace trip meter assembly.
- N.G. → Go to "Power Unit Check".
  - O.K. → Replace trip meter assembly.
  - N.G. → Replace power unit.

Only "Ave. speed" meter does not operate.

→ Go to "Display Check".
- O.K. → Check clock for proper operation.
  - O.K. → Check harness between clock and meter.
    - O.K. → Replace trip meter assembly.
  - N.G. → Replace clock.
- N.G. → Replace trip meter assembly.

Power Unit Check

- Remove power unit with harness connected.
- Perform voltage and continuity tests. Refer to chart below.



- Turn ignition switch to "ON".

Voltmeter terminal (+)	Voltmeter terminal (–)	Voltage [V]	Remarks
①	⑦	Approx. 12	Check when no display appears.
②	⑦	Approx. 5	Check when no display appears.
④	⑦	Approx. 19	Check when no display appears.
⑧	⑦	Approx. 5	Check when no display appears.
⑦	③	Approx. 22	Check when no display appears.
⑦	⑨	Approx. 28.5	Check when no display appears.
⑦	⑪	More than 6	For speedometer
⑦	㉑	More than 6	For tachometer
⑦	㉓	More than 6	For Temp, Oil, Volt gauge
⑦	㉕	More than 6	For Fuel gauge
⑦	㉗	More than 6	For "Trip", "Ave. speed" & "Dist to empty" meter.

- Turn ignition switch to "OFF".

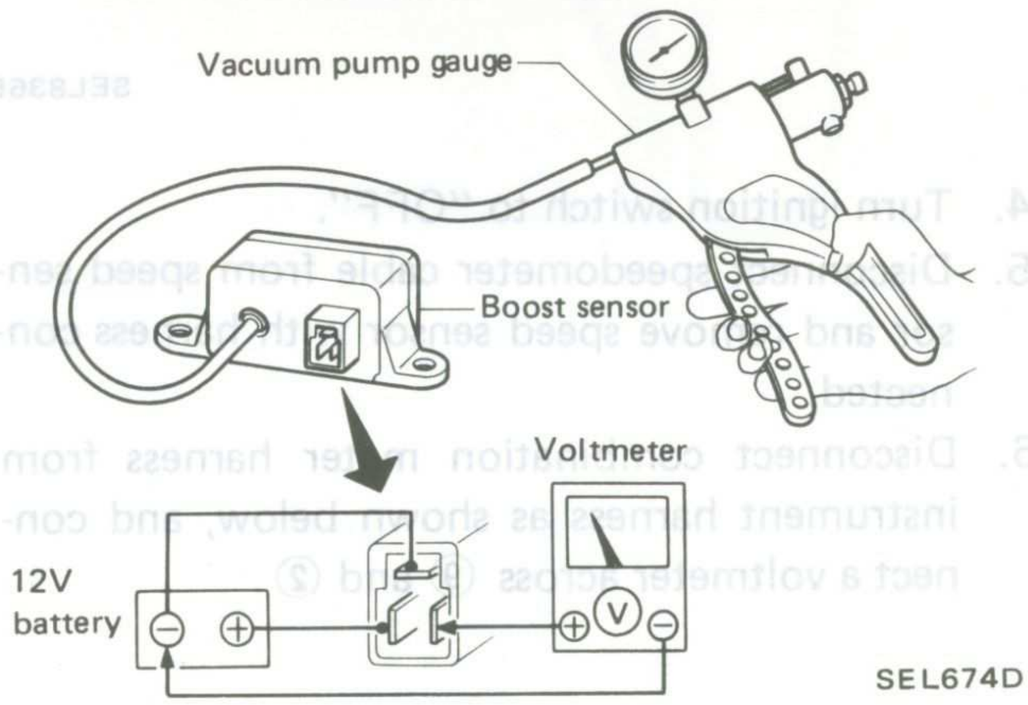
Ohmmeter (+)	Ohmmeter (–)	Continuity	Remarks
⑦	Body ground	Yes	Check when no display appears.

If specified voltage or continuity is not produced, replace power unit.

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.

   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)



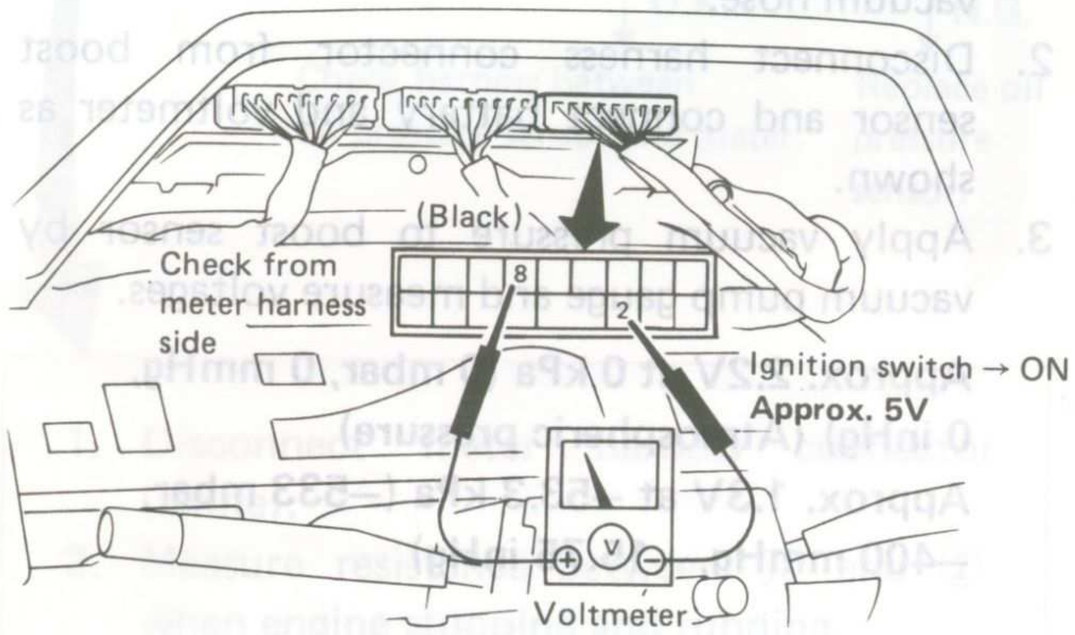
Speed Sensor Signal Check

SPEED SENSOR OUTPUT CHECK

When speedometer is functioning properly, this test is not necessary. Go to "Meter Output check".

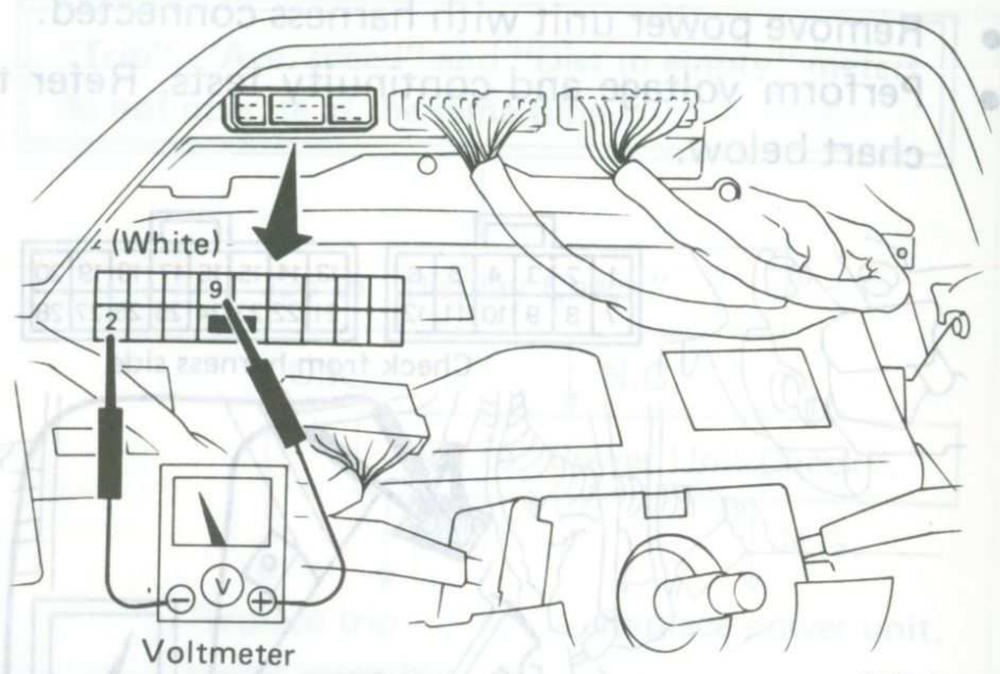
1. Remove cluster lid A.
2. Connect a voltmeter between ⑧ and ② on combination meter side. Combination meter harness connector should remain connected to instrument harness.
3. Switch ignition switch from "OFF" to "ON". Voltmeter should indicate approximately 5 volts when switch is "ON".

If voltmeter indicates no voltage, go to "Power Unit Check".



SEL836E

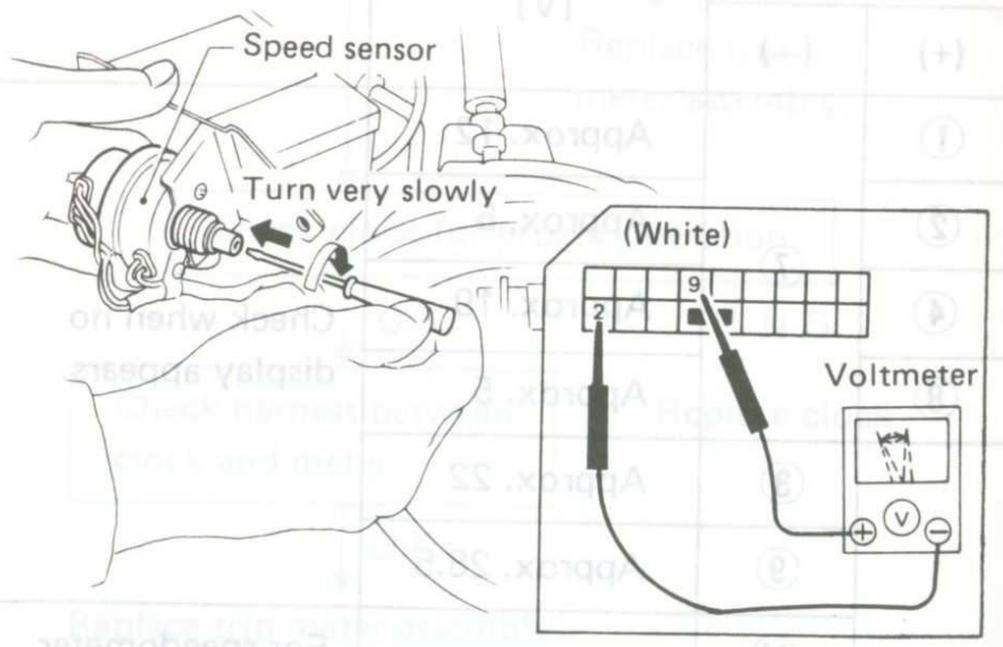
4. Turn ignition switch to "OFF".
5. Disconnect speedometer cable from speed sensor and remove speed sensor with harness connected.
6. Disconnect combination meter harness from instrument harness as shown below, and connect a voltmeter across ⑨ and ② .



SEL837E

7. Turn ignition switch "OFF" → "ON".
8. Slowly turn speed sensor rotor shaft with a suitable screwdriver to make sure voltmeter pointer deflects.

Do not turn rotor shaft quickly as voltmeter deflects 24 times per revolution of rotor shaft.



SEL838E

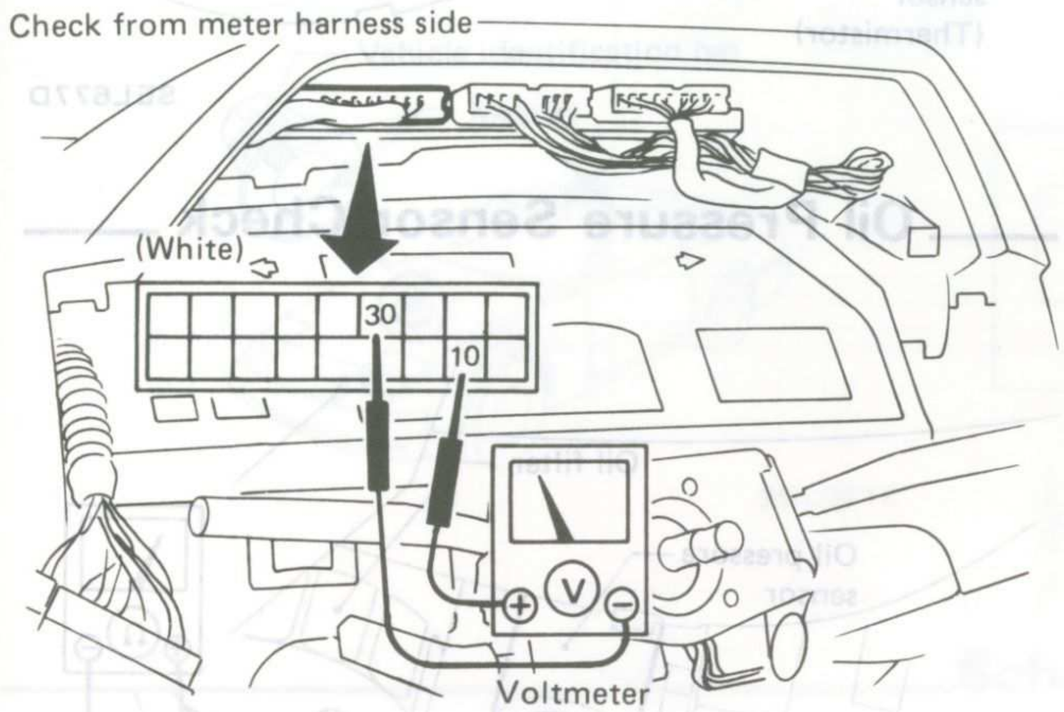
If voltmeter pointer does not deflect, replace speed sensor.

Speed Sensor Signal Check (Cont'd)

METER OUTPUT CHECK

- **Combination meter emits speed sensor signal to control E.C.C.S. control unit, A.S.C.D. control unit, voice warning unit and A/T control unit.**

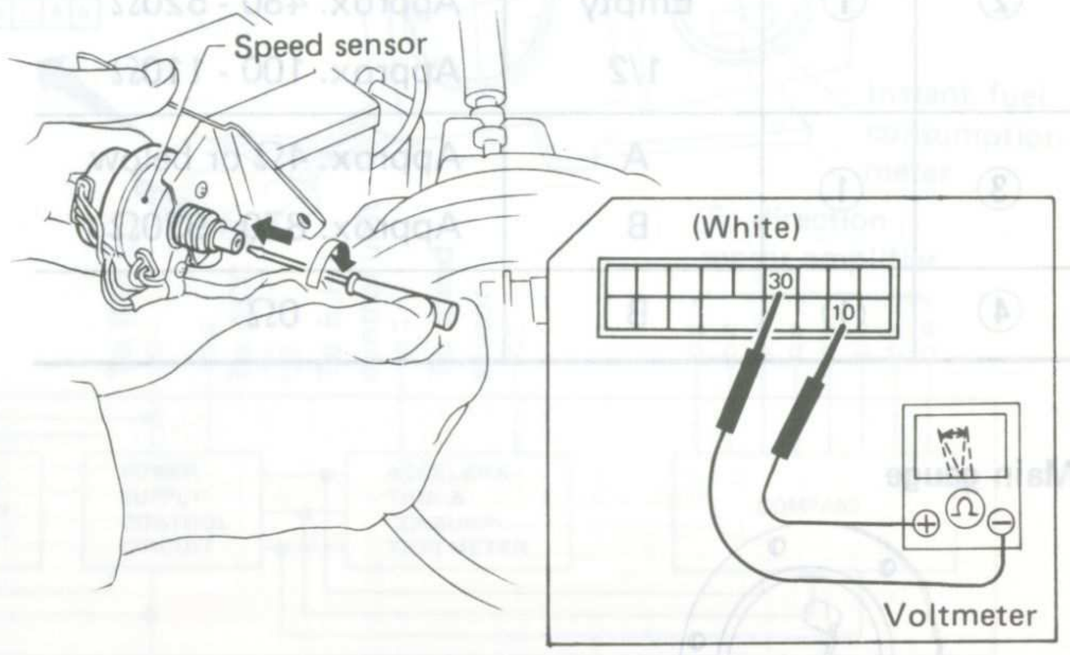
1. Disconnect speedometer cable from speed sensor and remove speed sensor with harness connected.
2. Remove cluster lid A.
3. Connect a voltmeter between ⑩ and ㉚ from meter harness side.



SEL839E

4. Turn ignition switch "OFF" → "ON".
5. Slowly turn speed sensor rotor shaft with a suitable screwdriver to make sure ohmmeter pointer deflects.

Ohmmeter pointer deflects twice for each rotation of rotor shaft.



SEL840E

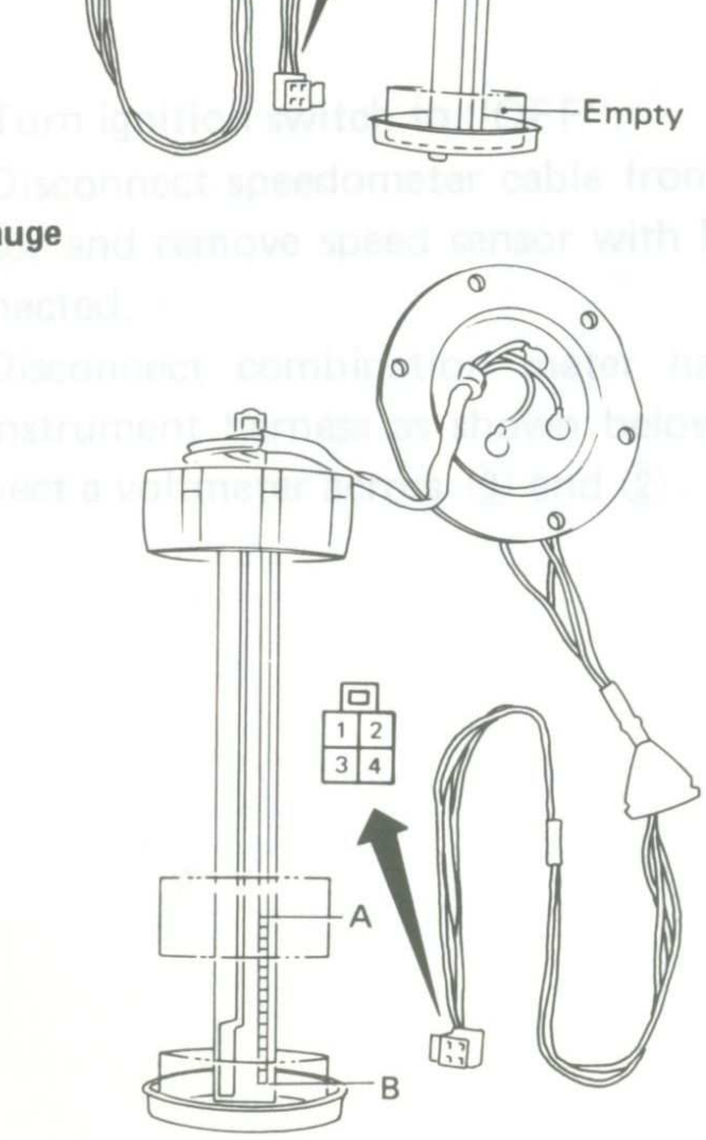
If ohmmeter pointer does not deflect, go to "Speed Sensor Output Check". (Refer to back page)

Fuel Tank Gauge Check

- For removal, refer to FE section.

Ohmmeter terminal (+)	Ohmmeter terminal (–)	Float position	Resistance value
②	①	Full	Approx. 10 - 20Ω
		Empty	Approx. 480 - 520Ω
		1/2	Approx. 100 - 110Ω
③	①	A	Approx. 4Ω or below
		B	Approx. 870 - 930Ω
④	①	B	0Ω

Main gauge



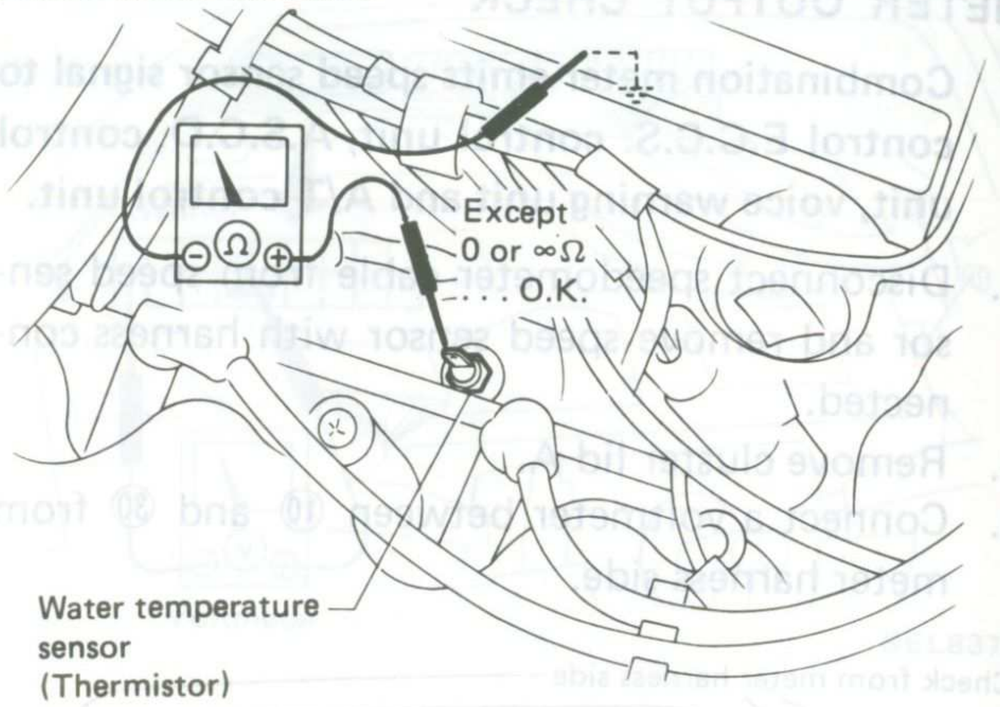
SEL675D

Sub gauge

SEL676D

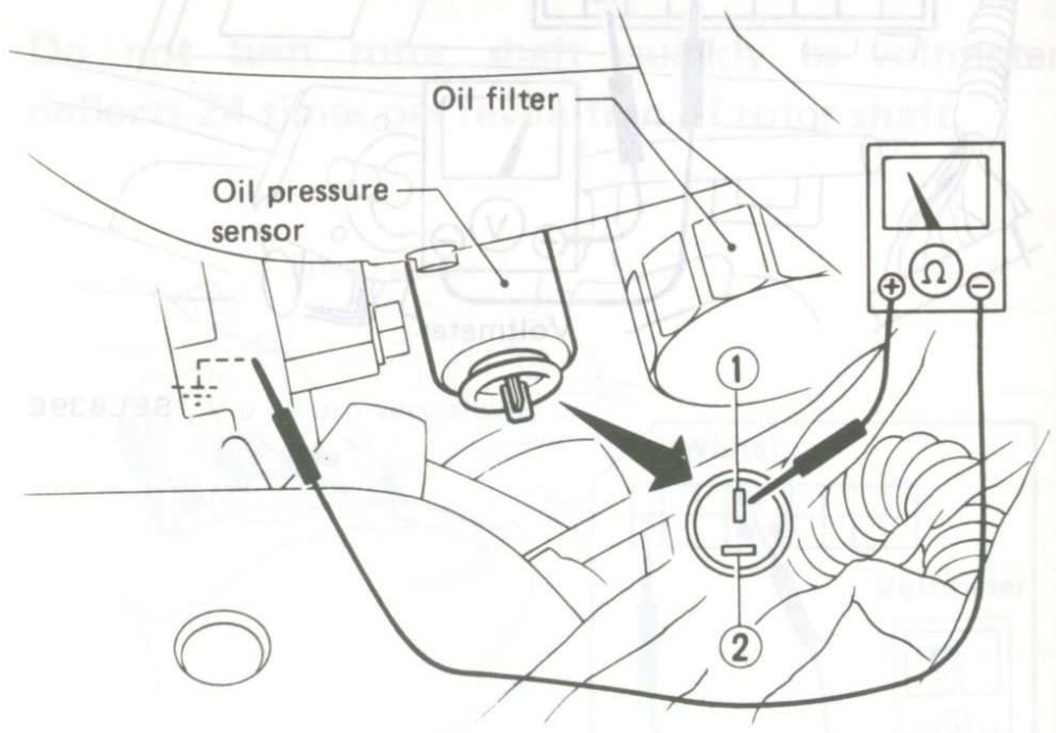
Water Temp. Sensor Check

Cylinder head R.H. side



SEL677D

Oil Pressure Sensor Check



SEL678D

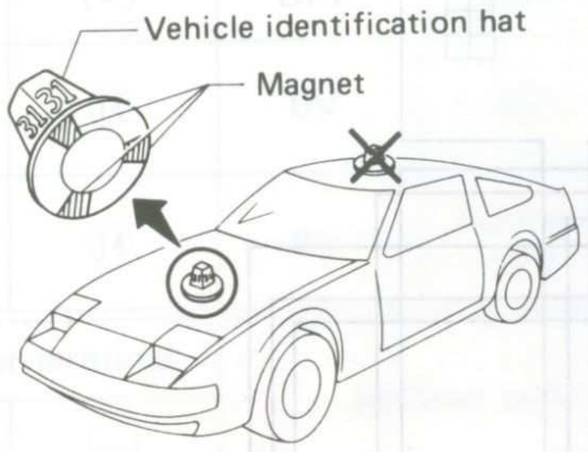
Ohmmeter terminal (+)	Ohmmeter terminal (–)	With engine stopped	With engine running (idling)
①	Engine ground	0Ω	∞
②		More than 74Ω	Less than 60Ω

METER AND GAUGES —Digital Type Combination Gauge

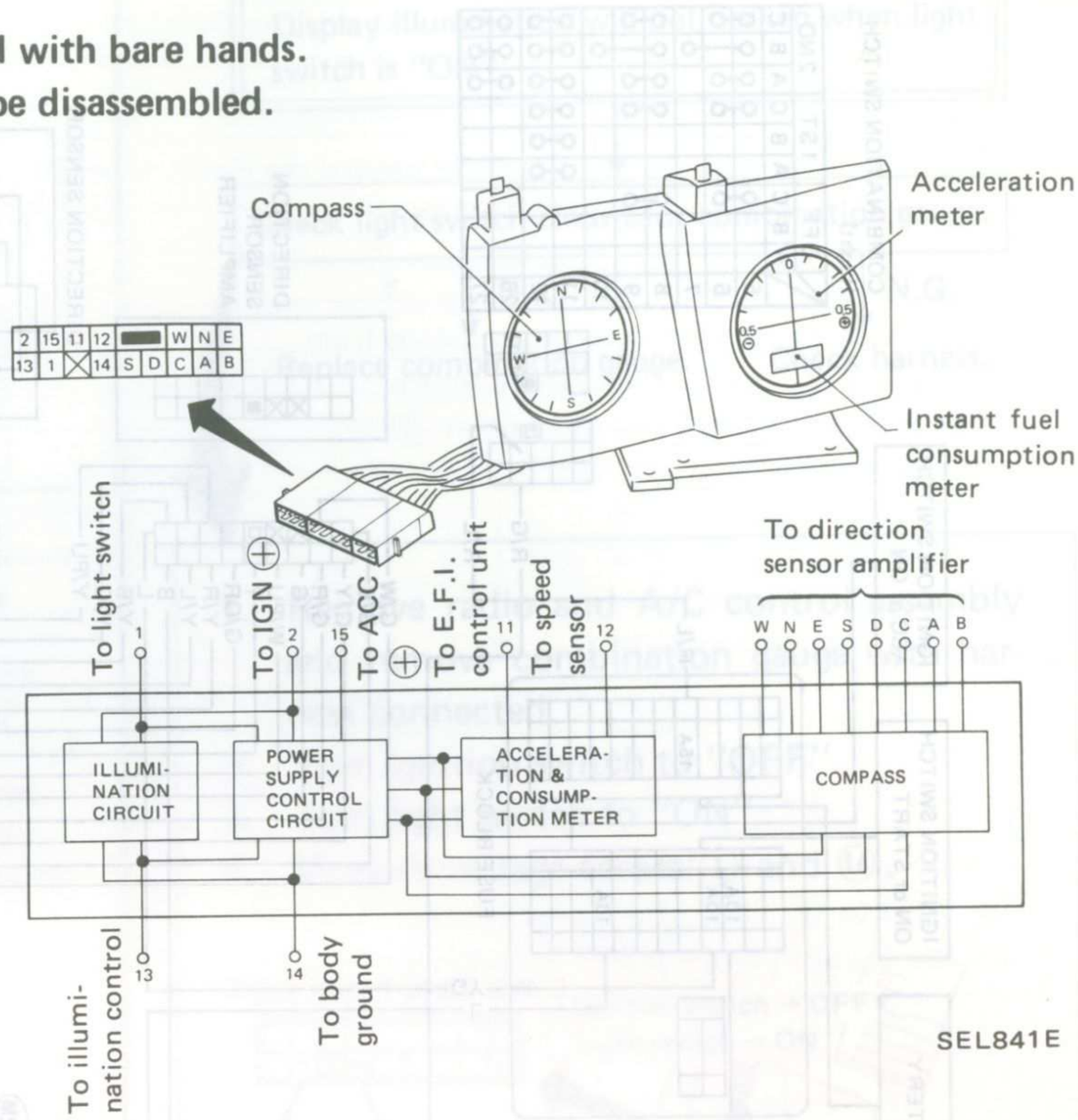
Combination Gauge

CAUTION:

- Never touch the combination gauge terminal with bare hands.
- Digital type combination gauge should not be disassembled.
- Do not place any magnet on roof. (e.g., CB antenna with magnet base)
- Place vehicle identification hat with magnet on engine hood, NOT ON ROOF. Otherwise, roof will become magnetized which will cause the direction sensor to malfunction, resulting in erroneous operation of the compass.

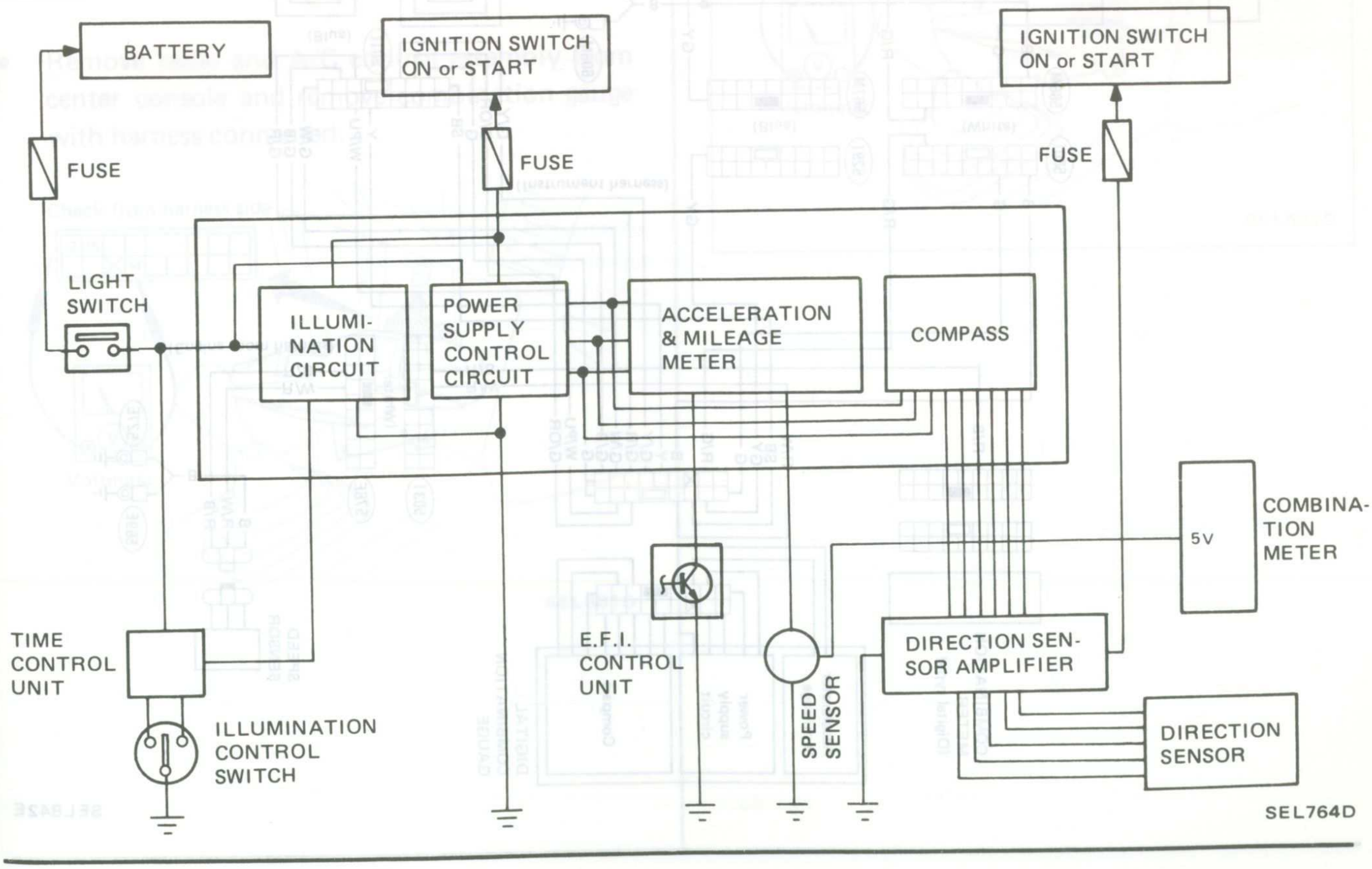


SEL321E



SEL841E

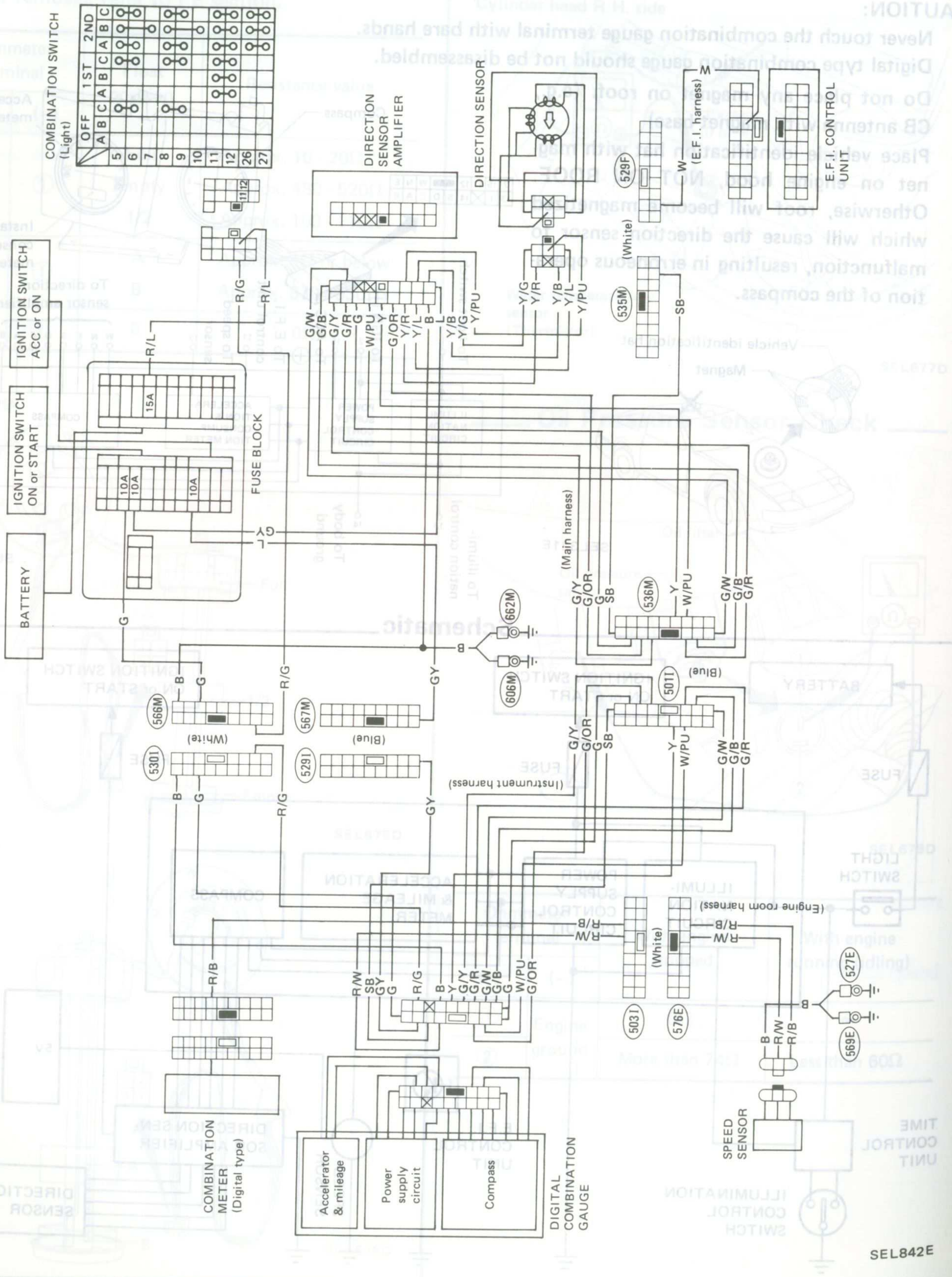
Schematic



SEL764D

METER AND GAUGES — Digital Type Combination Gauge

Wiring Diagram



SEL842E

Trouble-shooting

No display appears.

Check power supply circuit for combination gauge.

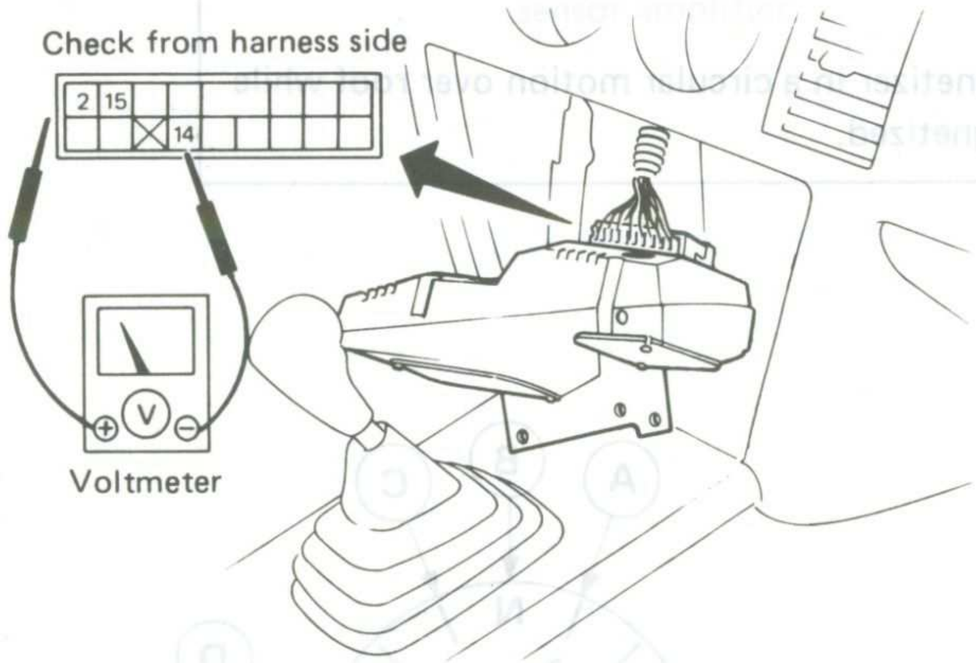
O.K. → Replace combination gauge.

N.G. → Check harness.

Voltmeter terminal		Ignition switch position		
(+)	(–)	OFF	ACC	ON
②	⑭	0V	0V	Approx. 12V
⑮	⑭	0V	Approx. 12V	Approx. 12V

Ohmmeter terminal		Ignition switch OFF
(+)	(–)	
⑭	Body ground	Continuity exists.

- Remove radio and A/C control assembly from center console and remove combination gauge with harness connected.



SEL681D

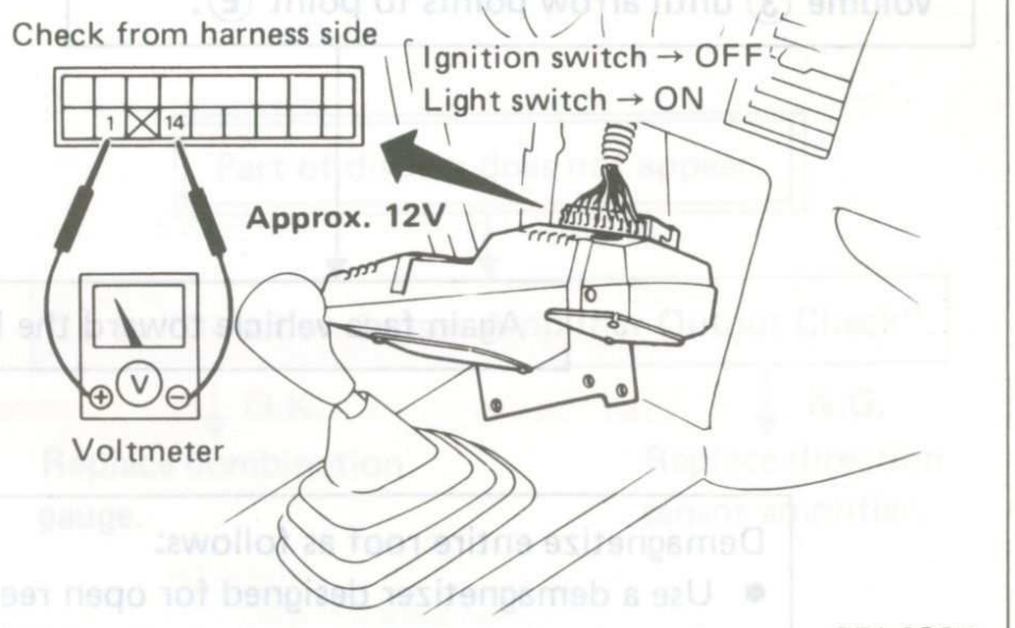
Display illumination will not darken when light switch is "ON".

Check light switch circuit for combination gauge.

O.K. → Replace combination gauge.

N.G. → Check harness.

1. Remove radio and A/C control assembly and remove combination gauge with harness connected.
2. Turn ignition switch to "OFF".
3. Turn light switch to "ON".
4. Measure voltage across ① and ⑭.



SEL682D

Trouble-shooting (Cont'd)

COMPASS

Compass will not indicate direction in which vehicle is being driven.

↓

Face vehicle toward the North to make sure arrow points to "N".

Display deviates by one graduation.

Slowly turn volume ① until arrow moves from Ⓐ (Ⓒ) to Ⓒ (Ⓐ). Then slowly return volume ① until arrow points to point Ⓑ.

Display deviates by two or more graduations.

When arrow deviates toward West, move switch ② to (+); when it deviates toward the East, move switch to (–). Return switch ② to Neutral when arrow stays between points Ⓐ and Ⓒ.

↓

Face vehicle toward the East to make sure arrow points to "E".

Display deviates by one graduation.

Slowly turn volume ③ until arrow moves from Ⓓ (Ⓕ) to Ⓕ (Ⓓ). Then slowly return volume ③ until arrow points to point Ⓔ.

Display deviates by two or more graduations.

When arrow deviates toward the North, move switch ④ to (+); when it deviates toward the South, move switch to (–). Return switch ④ to Neutral when arrow stays between points Ⓓ and Ⓕ.

↓

Again face vehicle toward the North to make sure arrow points to "N".

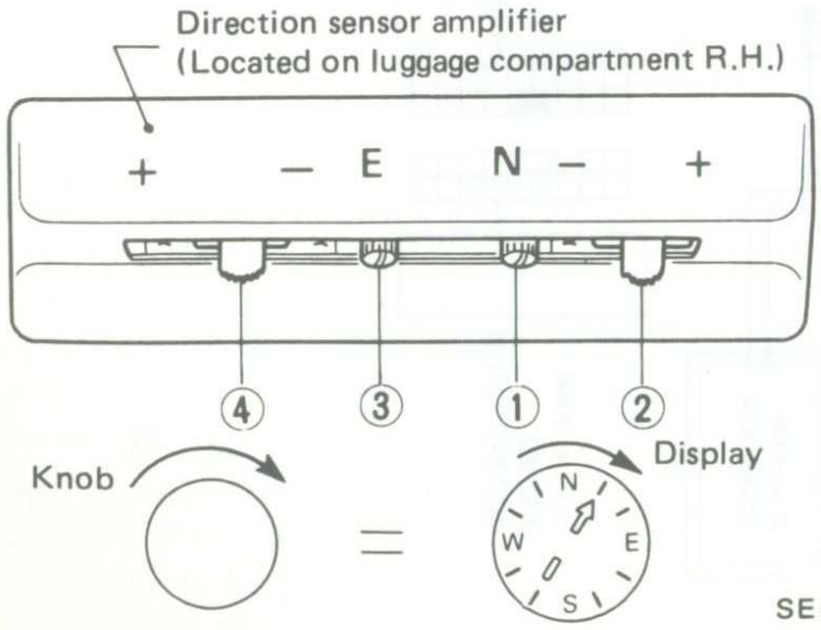
↓

Still incorrect.

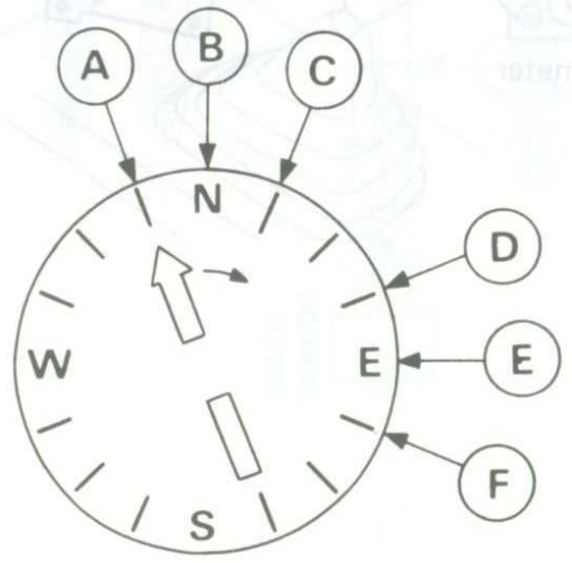
↓

Demagnetize entire roof as follows:

- Use a demagnetizer designed for open reel tapes.
- Spread a sheet of thin cloth over roof. Move demagnetizer in a circular motion over roof while lightly touching the cloth. Roof will then be demagnetized.



SEL683D



SEL684D

Trouble-shooting (Cont'd)

Arrow will not illuminate, but N, E, W, S and scale will.

→ Go to "Direction Sensor Amplifier Output Check".

- O.K. → Go to "Compass Input Check".
  - O.K. → Replace combination gauge.
  - N.G. → Check harness between compass and amplifier.
- N.G. → Go to "Direction Sensor Check".
  - O.K. → Replace direction sensor amplifier.
  - N.G. → Replace direction sensor.

Direction of arrow will not change when vehicle moves in its direction.

→ Check for any facility/equipment which produces powerful magnetic lines in the vicinity of vehicle or if vehicle is parked on iron plates or in an iron-material warehouse.

- No → Go to "Direction Sensor Amplifier Output Check".
- Yes → Move vehicle to a place that is free from magnetic fields and check to see if compass functions normally.
  - No → Go to "Direction Sensor Amplifier Output Check".
  - Yes → Check for any facility/equipment which produces powerful magnetic lines in the vicinity of vehicle or if vehicle is parked on iron plates or in an iron-material warehouse.

All arrows illuminate.

→ Go to "Compass Input Check".

- O.K. → Replace combination gauge.
- N.G. → Check harness between compass and direction sensor amplifier.

Part of display does not appear.

→ Go to "Direction Sensor Amplifier Output Check".

- O.K. → Replace combination gauge.
- N.G. → Replace direction sensor amplifier.

Trouble-shooting (Cont'd)

Irrelevant arrows are displayed.

Go to "Direction Sensor Amplifier Output Check".

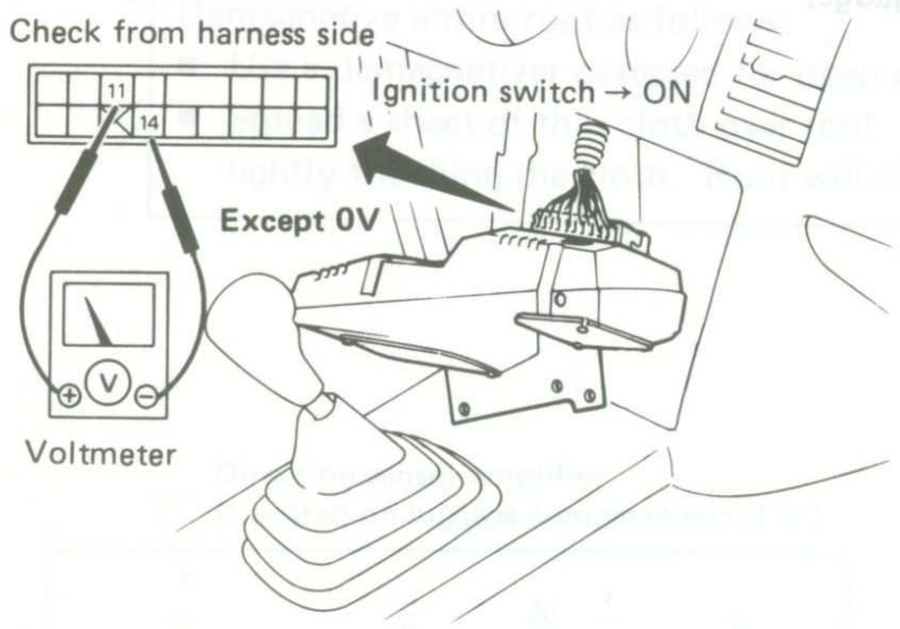
O.K. → Check for loose harness connector to combination gauge.

O.K. → Replace combination gauge.

N.G. → Check for loose harness connector to amplifier.

O.K. → Replace amplifier.

1. Remove radio and A/C control assembly from center console. Remove combination gauge with harness connected.
2. Turn ignition switch to "ON".
3. Check to determine if voltage is produced across ⑪ and ⑭.



SEL685D

ACCELERATION & MILEAGE METERS

Arrow remains at "0" despite acceleration/deceleration.

Does speedometer operate?

Yes → Check harness between combination gauge and speed sensor.

N.G. → Replace combination gauge.

No → Replace speed sensor.

Mileage meter registers "0" or abnormal value.

Does speedometer operate?

Yes → Check fuel injection pulse circuit for combination gauge.

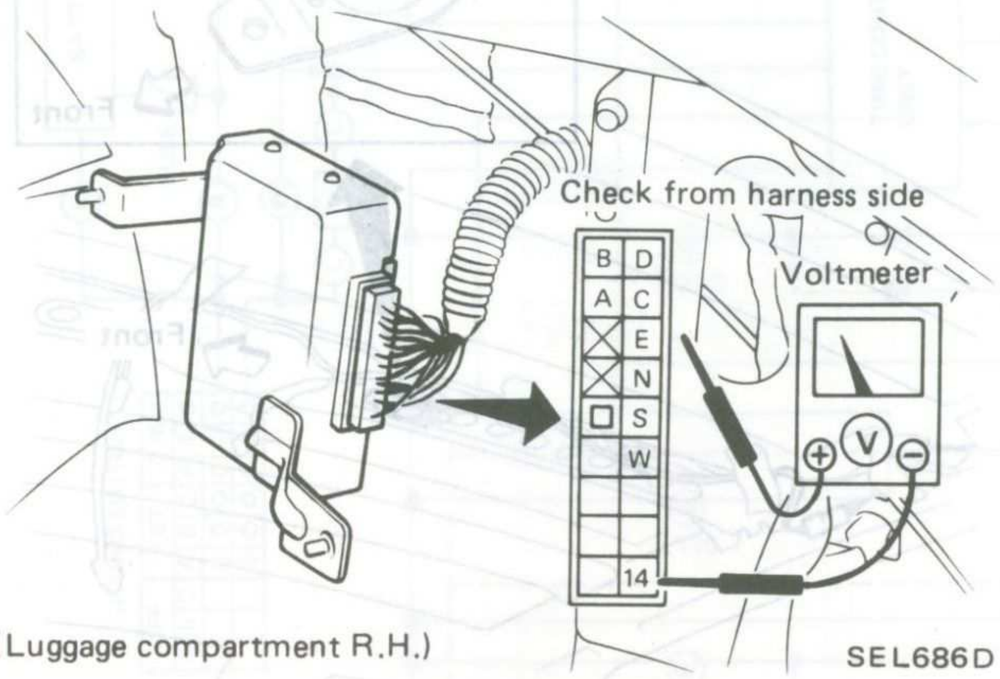
O.K. → Replace combination gauge.

N.G. → Check harness between combination gauge and E.F.I. control unit.

No → Replace speed sensor.

Direction Sensor Amplifier Output Check

- Connect direction sensor amplifier harness (if disconnected).
- Using a directional magnet, determine the direction in which car faces. Check voltage across terminals as indicated in chart below.
- Turn ignition switch to "ON".

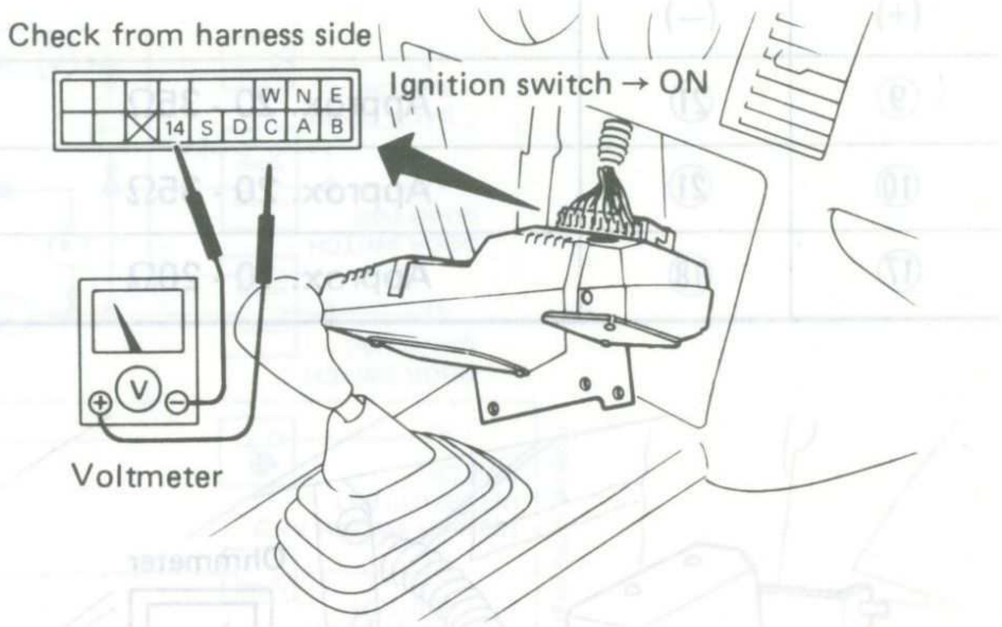


(Luggage compartment R.H.)

SEL686D

Compass Input Check

- Remove radio and A/C control assembly from center console and remove combination gauge with harness connected.
- Check voltages across terminals as indicated in chart below.
- Turn ignition switch ON.

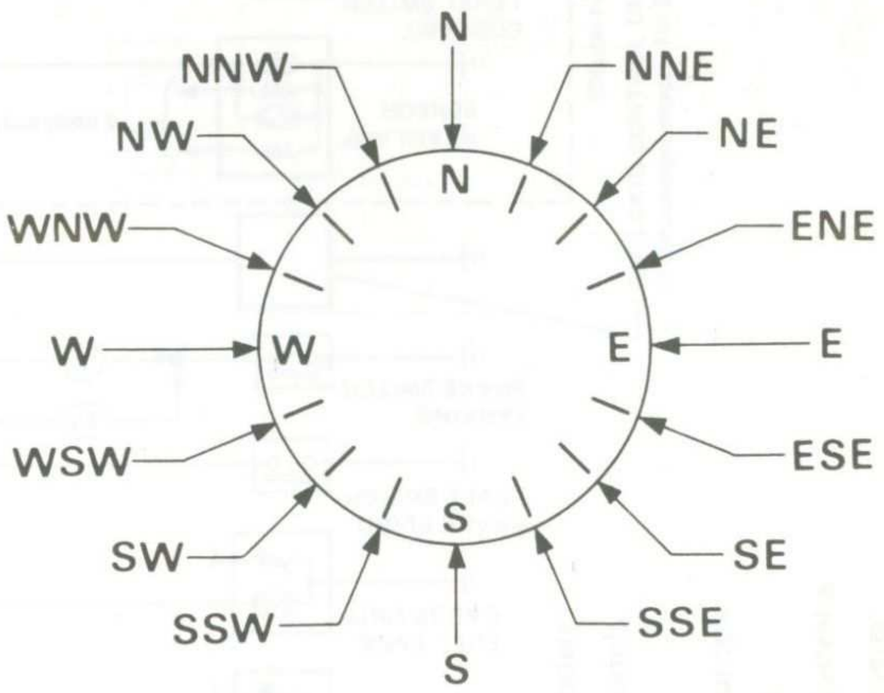


SEL687D

Voltmeter terminal (−)		⑭							
	(+)	Ⓝ	Ⓔ	Ⓢ	Ⓦ	Ⓑ	Ⓐ	Ⓒ	Ⓓ
Direction in which vehicle faces	NW	1	0	0	0	0	1	1	1
	NNW	1	0	0	0	1	0	1	1
	N	1	0	0	0	1	1	0	1
	NNE	1	0	0	0	1	1	1	0
	NE	0	1	0	0	1	1	1	0
	ENE	0	1	0	0	1	1	0	1
	E	0	1	0	0	1	0	1	1
	ESE	0	1	0	0	0	1	1	1
	SE	0	0	1	0	0	1	1	1
	SSE	0	0	1	0	1	0	1	1
	S	0	0	1	0	1	1	0	1
	SSW	0	0	1	0	1	1	1	0
	SW	0	0	0	1	1	1	1	0
	WSW	0	0	0	1	1	1	0	1
	W	0	0	0	1	1	0	1	1
	WNW	0	0	0	1	0	1	1	1

1: More than 4V
0: Less than 1V

CAUTION:
Before performing voltage measurements, ensure that there is no equipment or facility which would produce powerful magnet lines in the vicinity of vehicle.



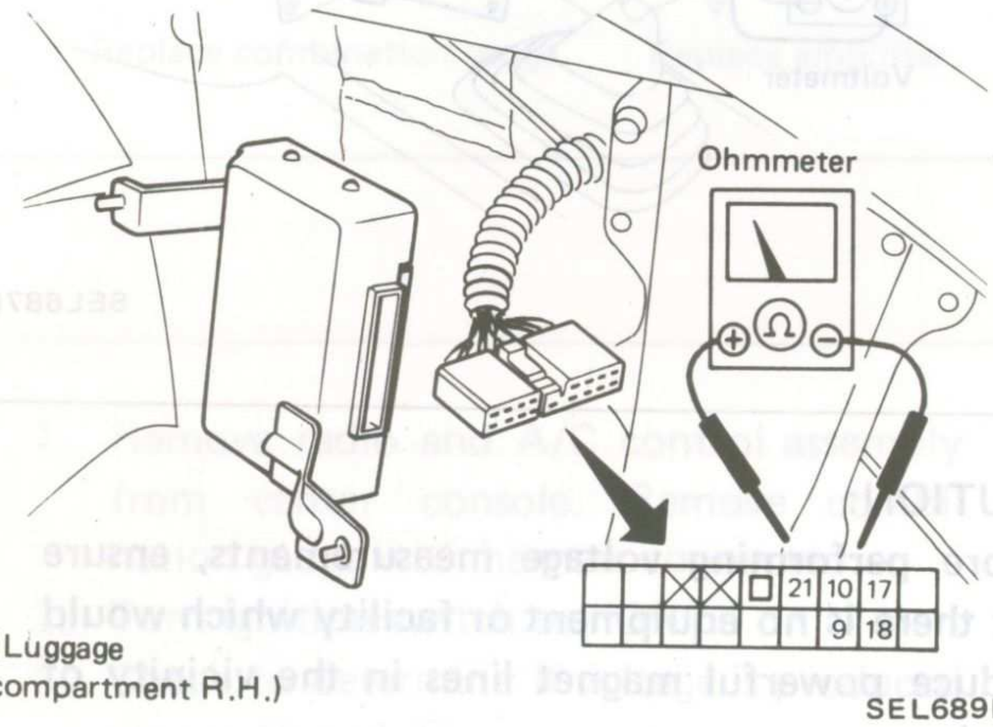
SEL688D

METER AND GAUGES —Digital Type Combination Gauge

Direction Sensor Check

- Disconnect harness connector from direction sensor amplifier.
- Measure resistance values between terminals on harness side.

Ohmmeter terminal		Resistance
(+)	(–)	
⑨	㉑	Approx. 20 - 35Ω
⑩	㉑	Approx. 20 - 35Ω
⑰	⑱	Approx. 10 - 20Ω

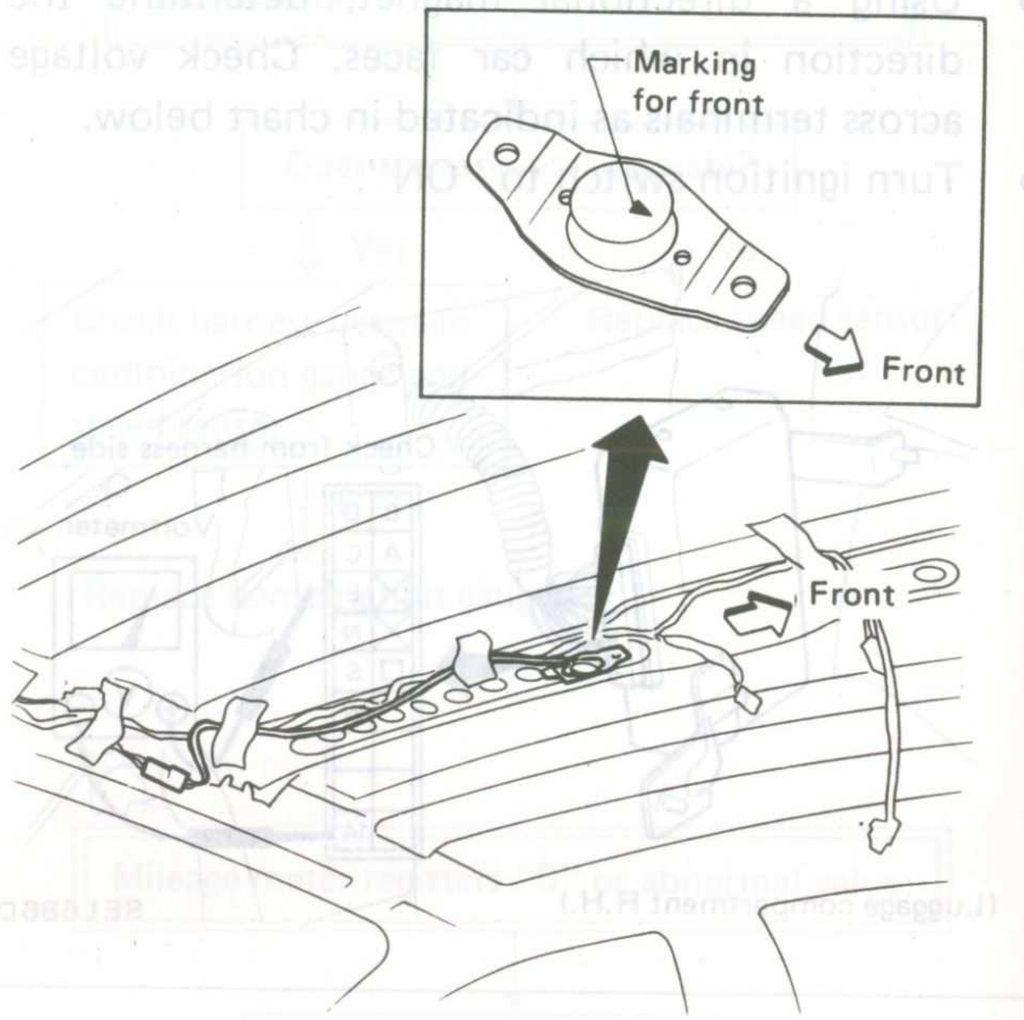


(Luggage compartment R.H.)

SEL689D

Direction Sensor Installation

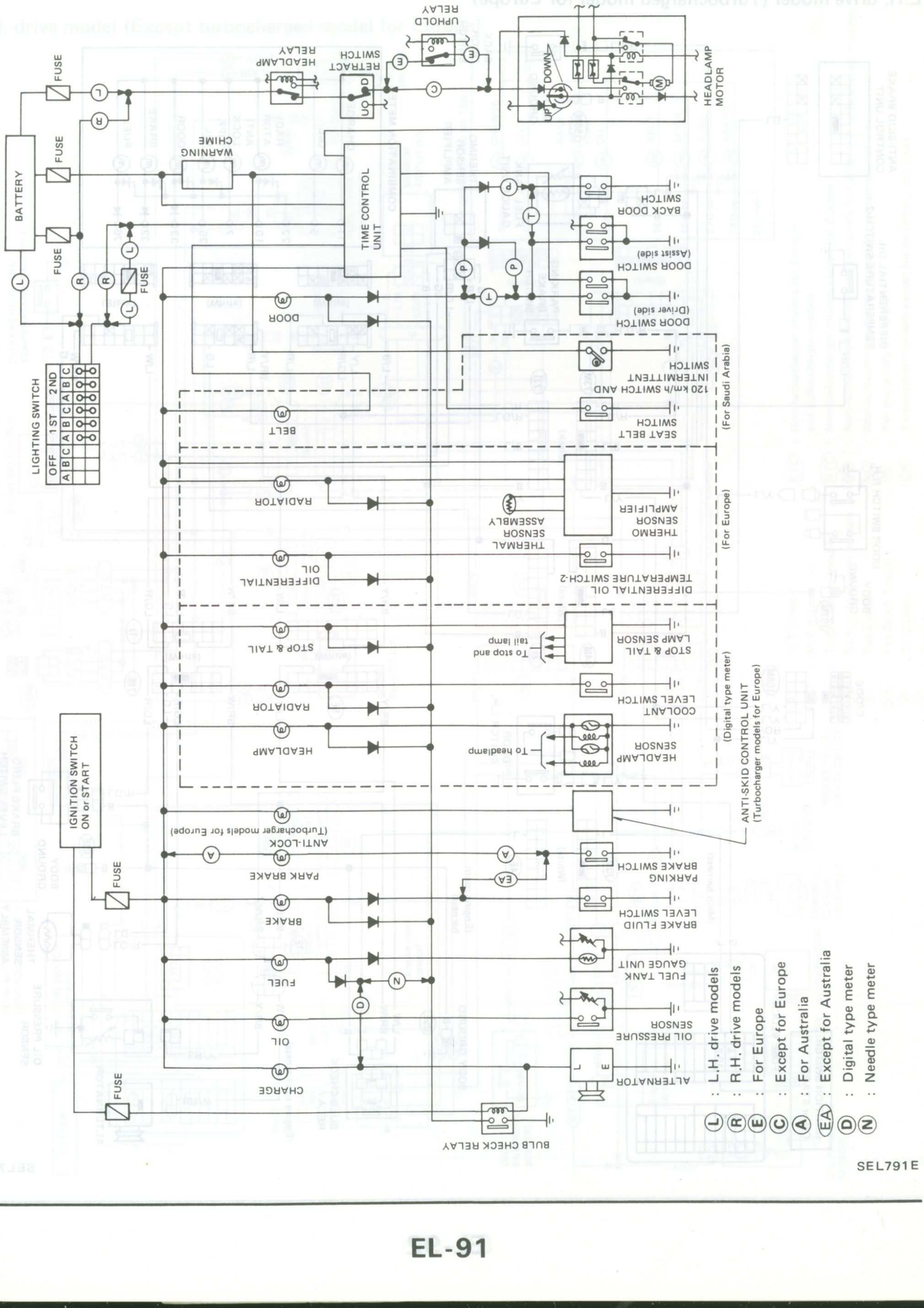
- When installing direction sensor in the vehicle, face it in the direction as shown in figure below.



SEL742D

WARNING LAMPS AND CHIME

Schematic

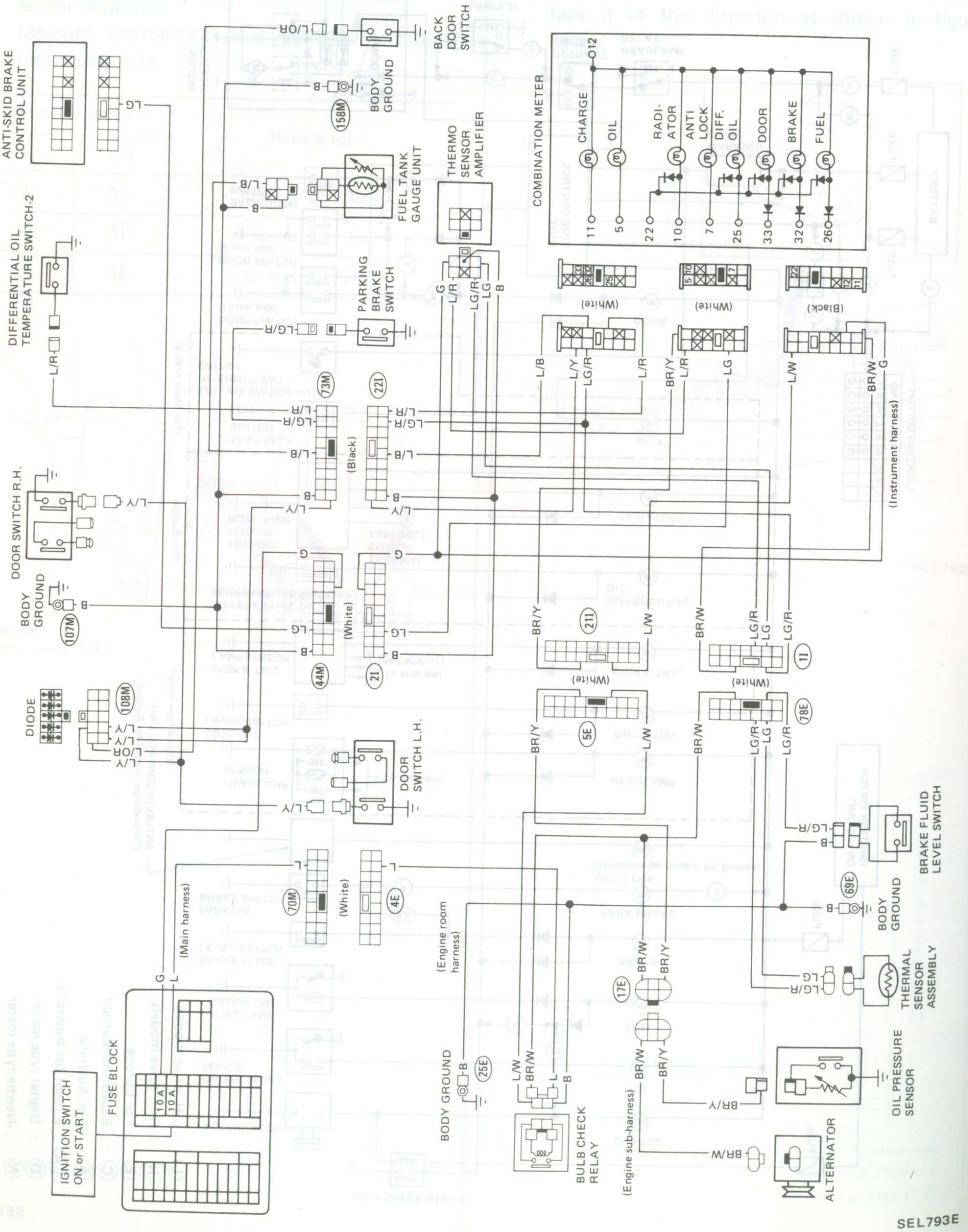


SEL791E

WARNING LAMPS AND CHIME

— Warning Lamps/Wiring Diagram — For Needle Type Combination Meter —

L.H. drive model (Turbocharged model for Europe)

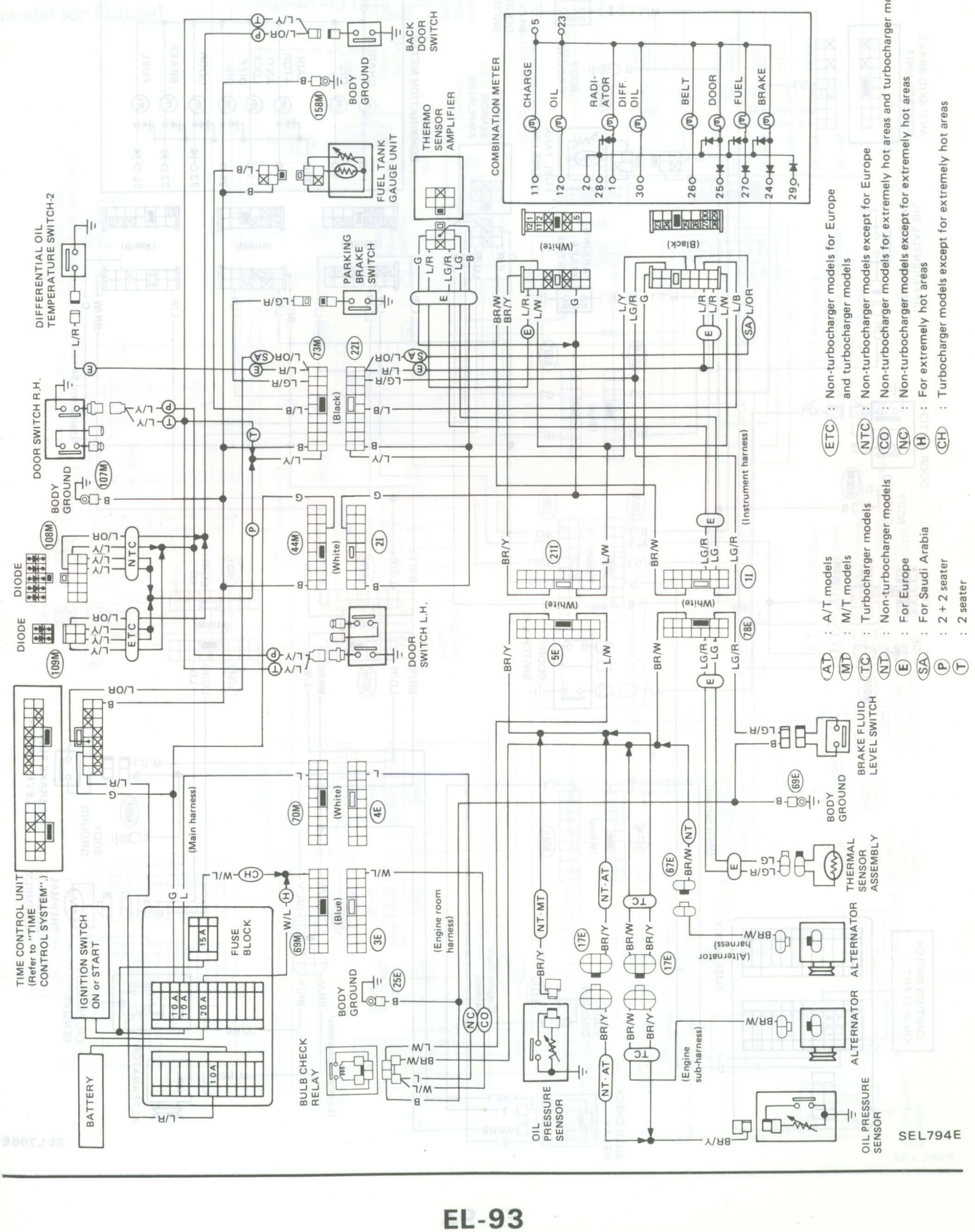


SEL793E

WARNING LAMPS AND CHIME

Warning Lamps/Wiring Diagram — For Needle Type Combination Meter — (Cont'd)

L.H. drive model (Except turbocharged model for Europe)



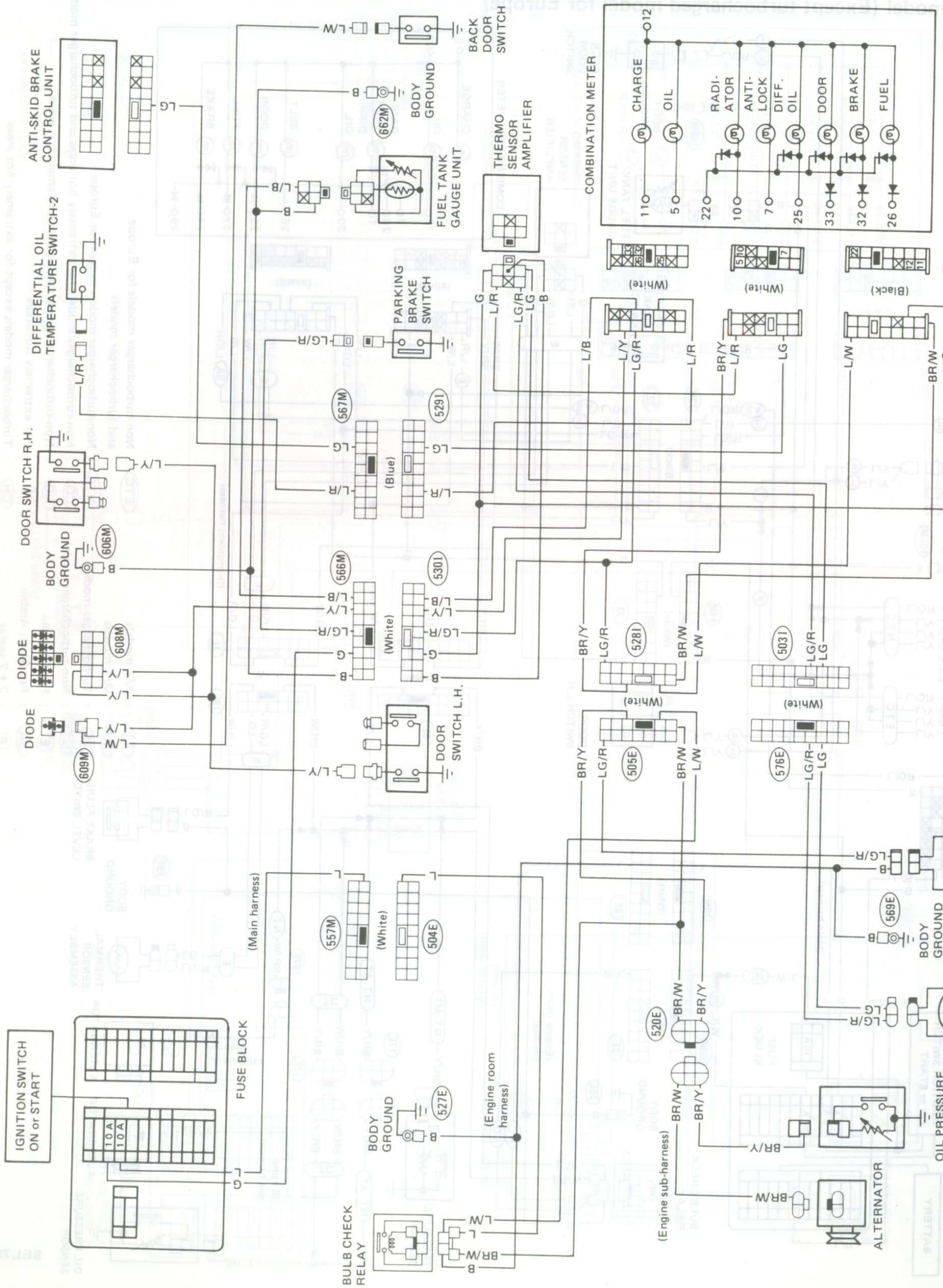
ETC : Non-turbocharger models for Europe and turbocharger models
NTC : Non-turbocharger models except for Europe
CO : Non-turbocharger models for extremely hot areas and turbocharger models
NC : Non-turbocharger models except for extremely hot areas
(H) : For extremely hot areas
CH : Turbocharger models except for extremely hot areas

AT : A/T models
MT : M/T models
TC : Turbocharger models
NT : Non-turbocharger models except for Europe
(E) : For Europe
SA : For Saudi Arabia
(P) : 2 + 2 seater
(T) : 2 seater

WARNING LAMPS AND CHIME

Warning Lamps/Wiring Diagram — For Needle Type Combination Meter — (Cont'd)

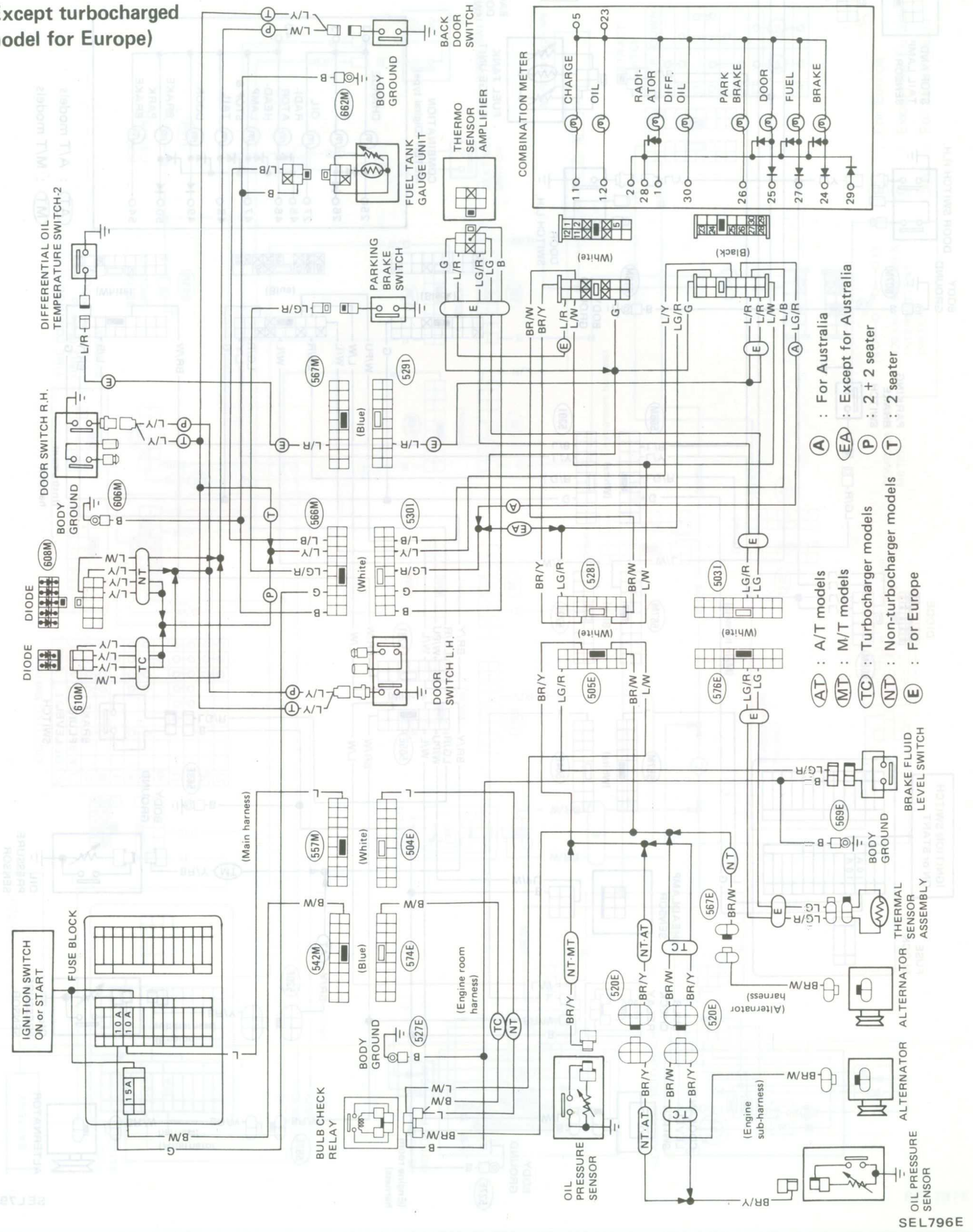
R.H. drive model (Turbocharged model for Europe)



WARNING LAMPS AND CHIME

Warning Lamps/Wiring Diagram — For Needle Type Combination Meter — (Cont'd)

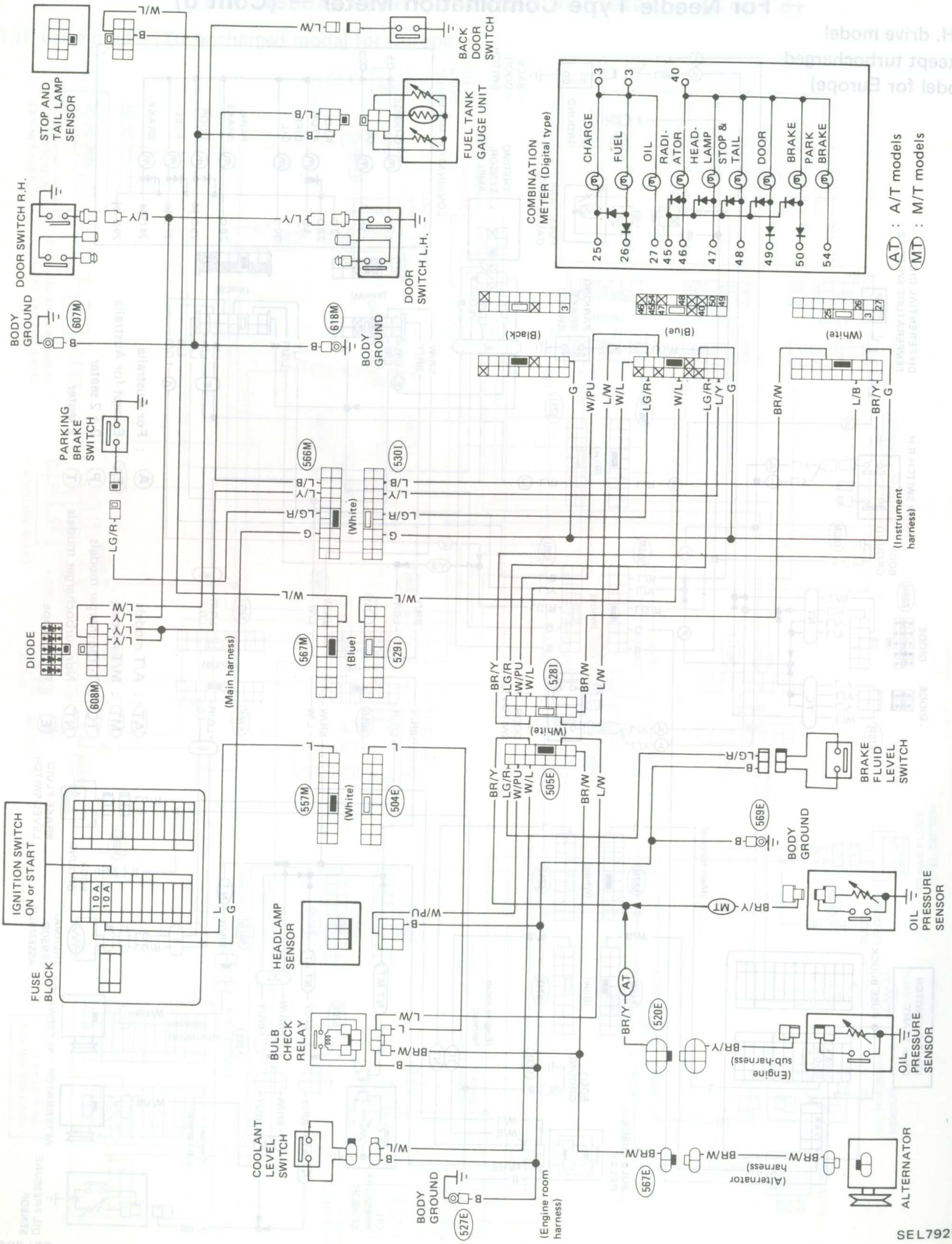
R.H. drive model (Except turbocharged model for Europe)



SEL796E

WARNING LAMPS AND CHIME

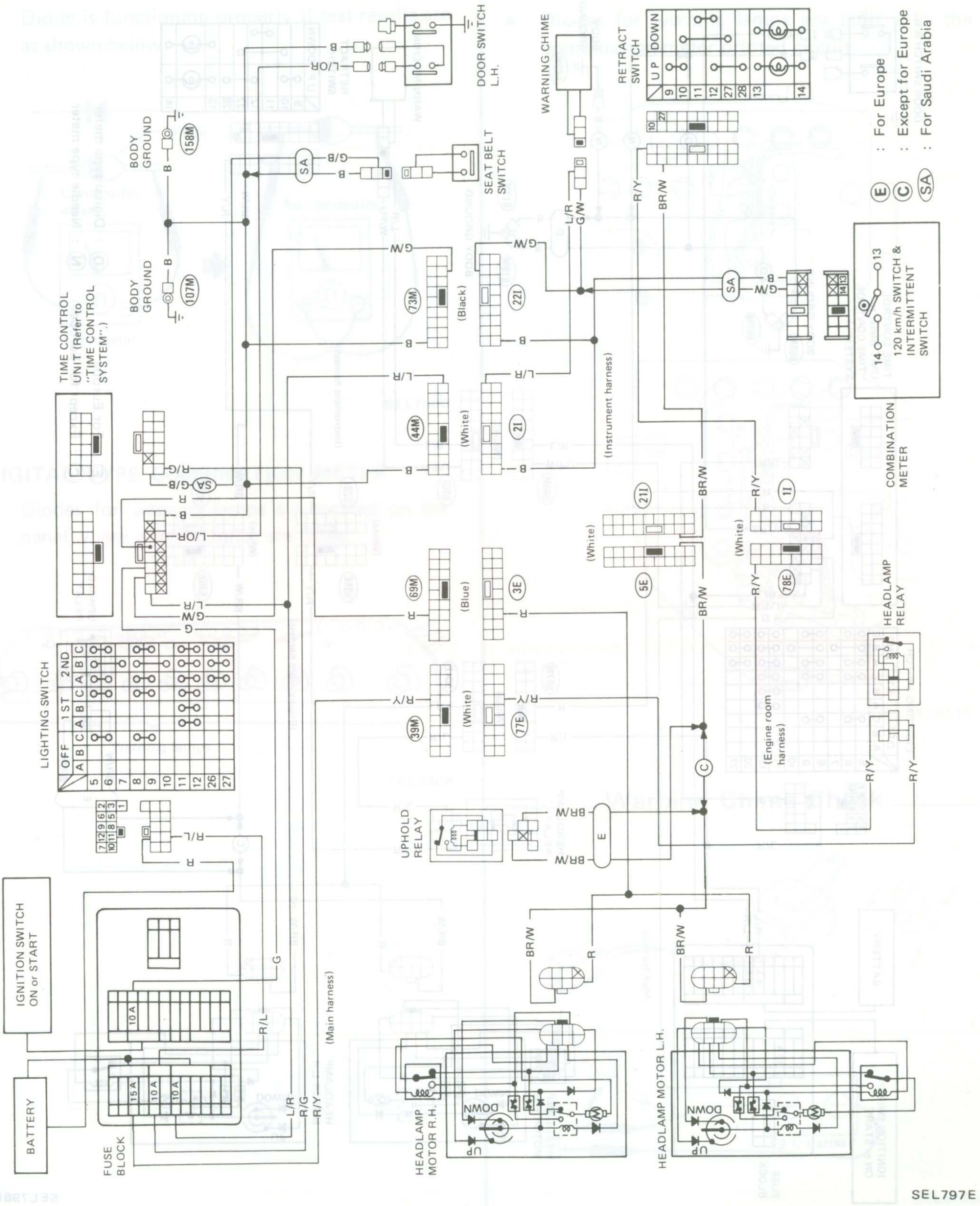
— Warning Lamps/Wiring Diagram — For Digital Type Combination Meter —



WARNING LAMPS AND CHIME

Warning Chime/Wiring Diagram

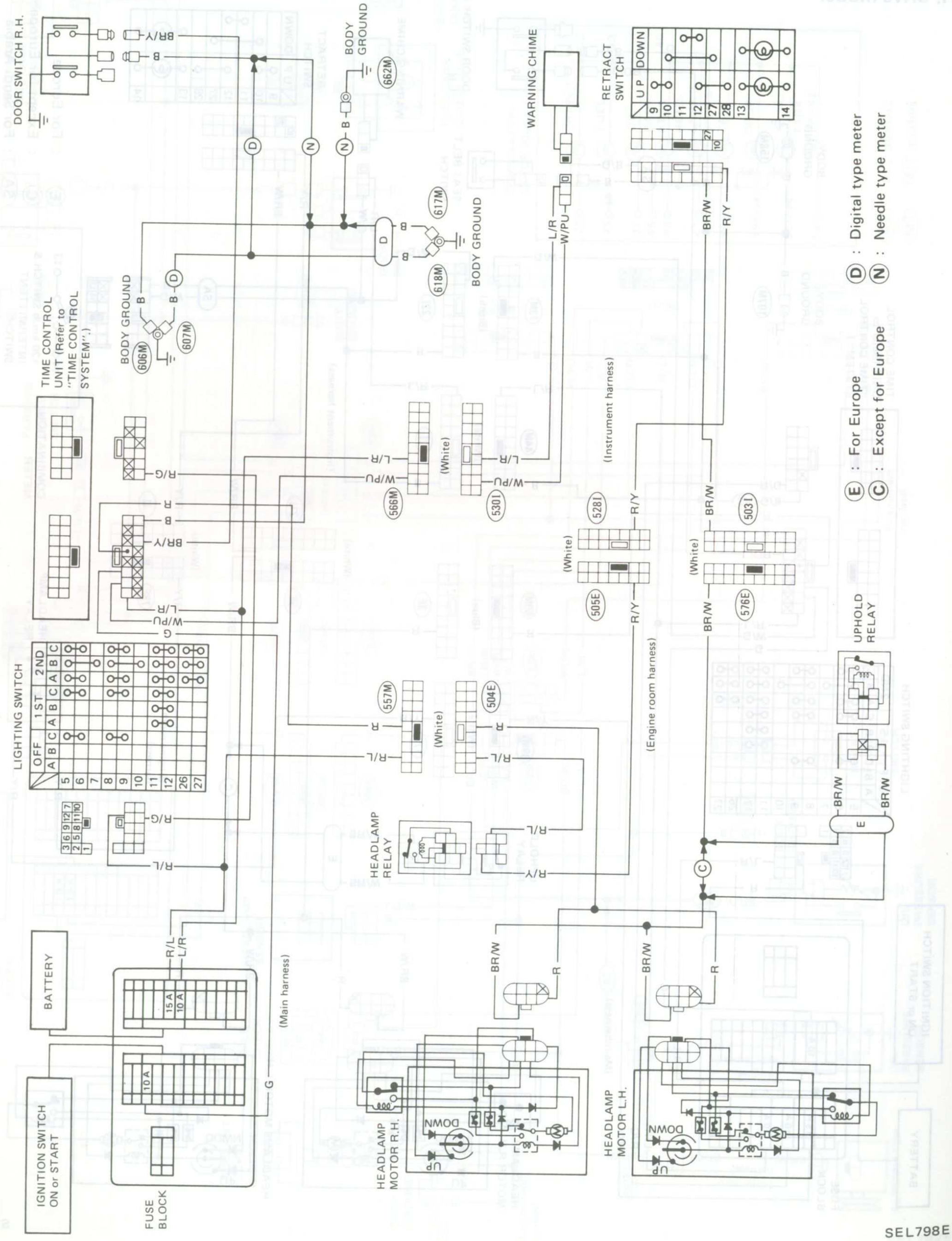
L.H. drive model



WARNING LAMPS AND CHIME

Warning Chime/Wiring Diagram (Cont'd)

R.H. drive model

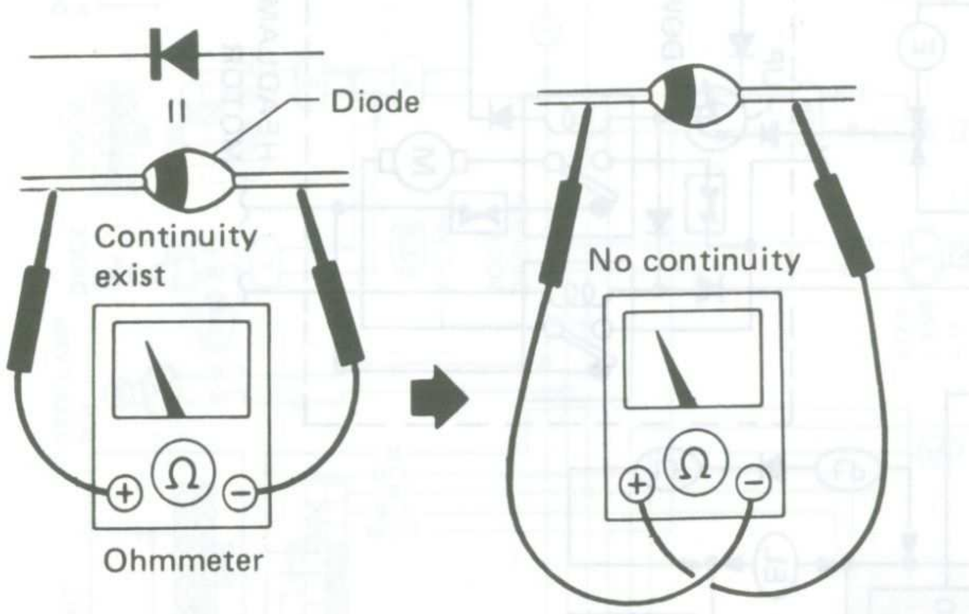


SEL798E

WARNING LAMPS AND CHIME

Diode Check

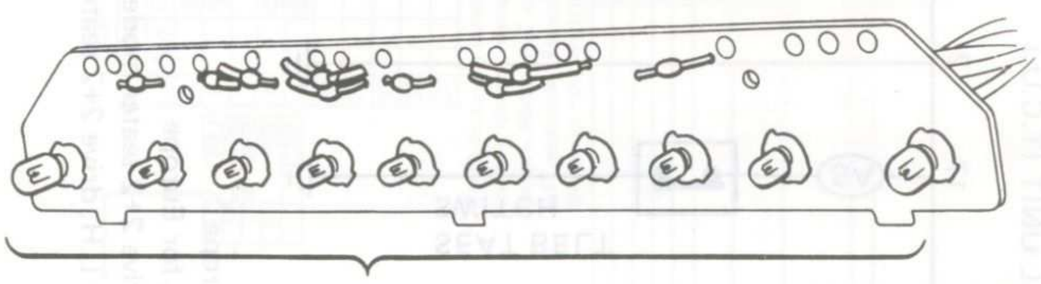
- Check continuity using an ohmmeter.
- Diode is functioning properly if test results are as shown below.



SEL700D

DIGITAL TYPE COMBINATION METER

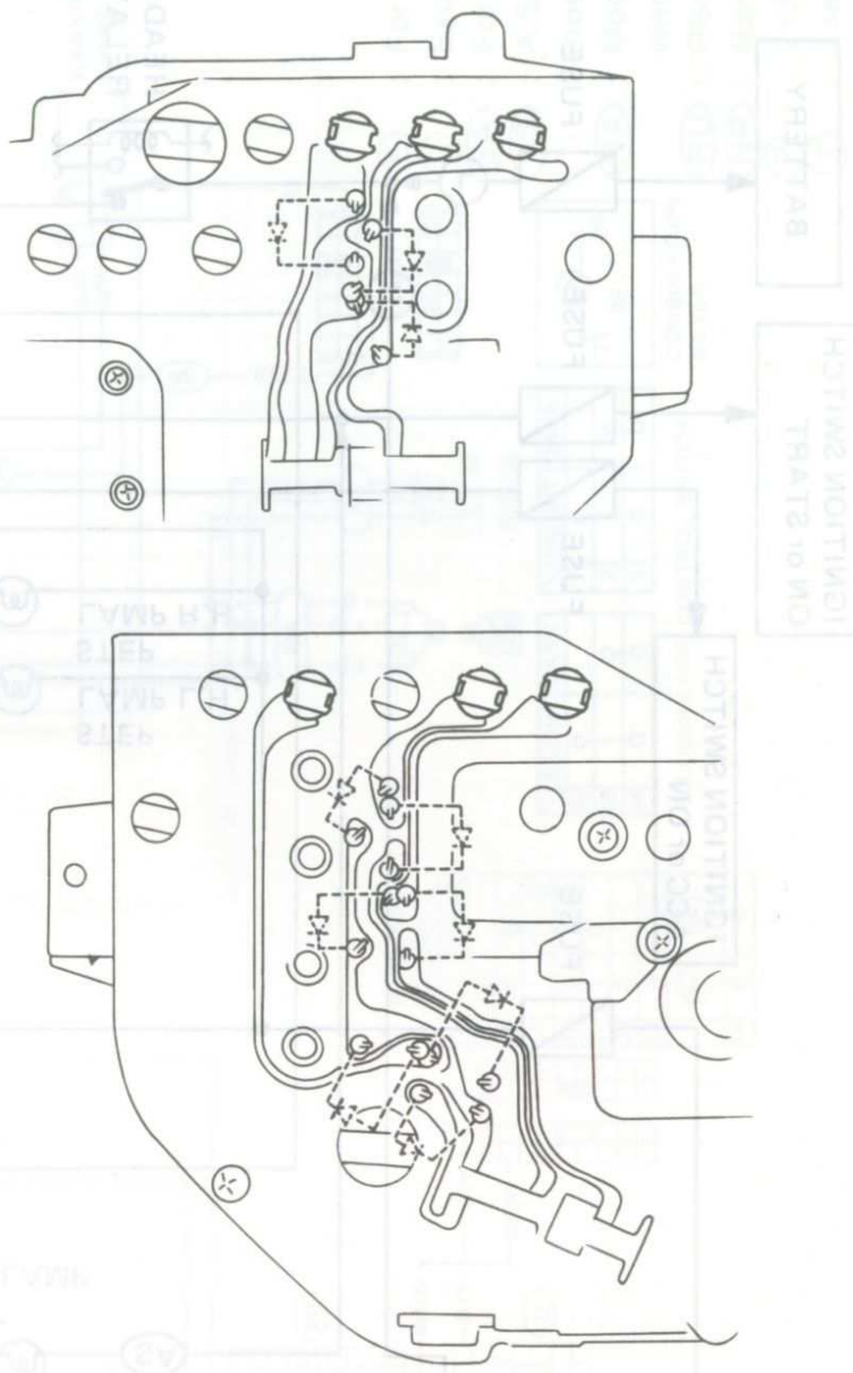
- Diodes for warning lamps are located on the panel where warning bulbs are fitted.



SEL850E

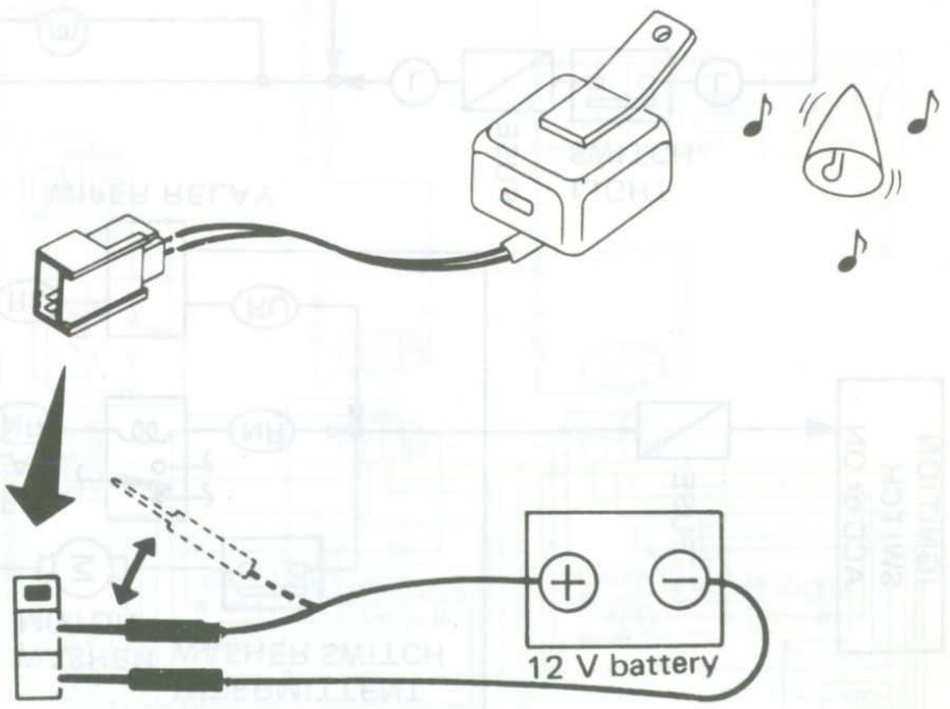
NEEDLE TYPE COMBINATION METER

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



SEL851E

Warning Chime Check

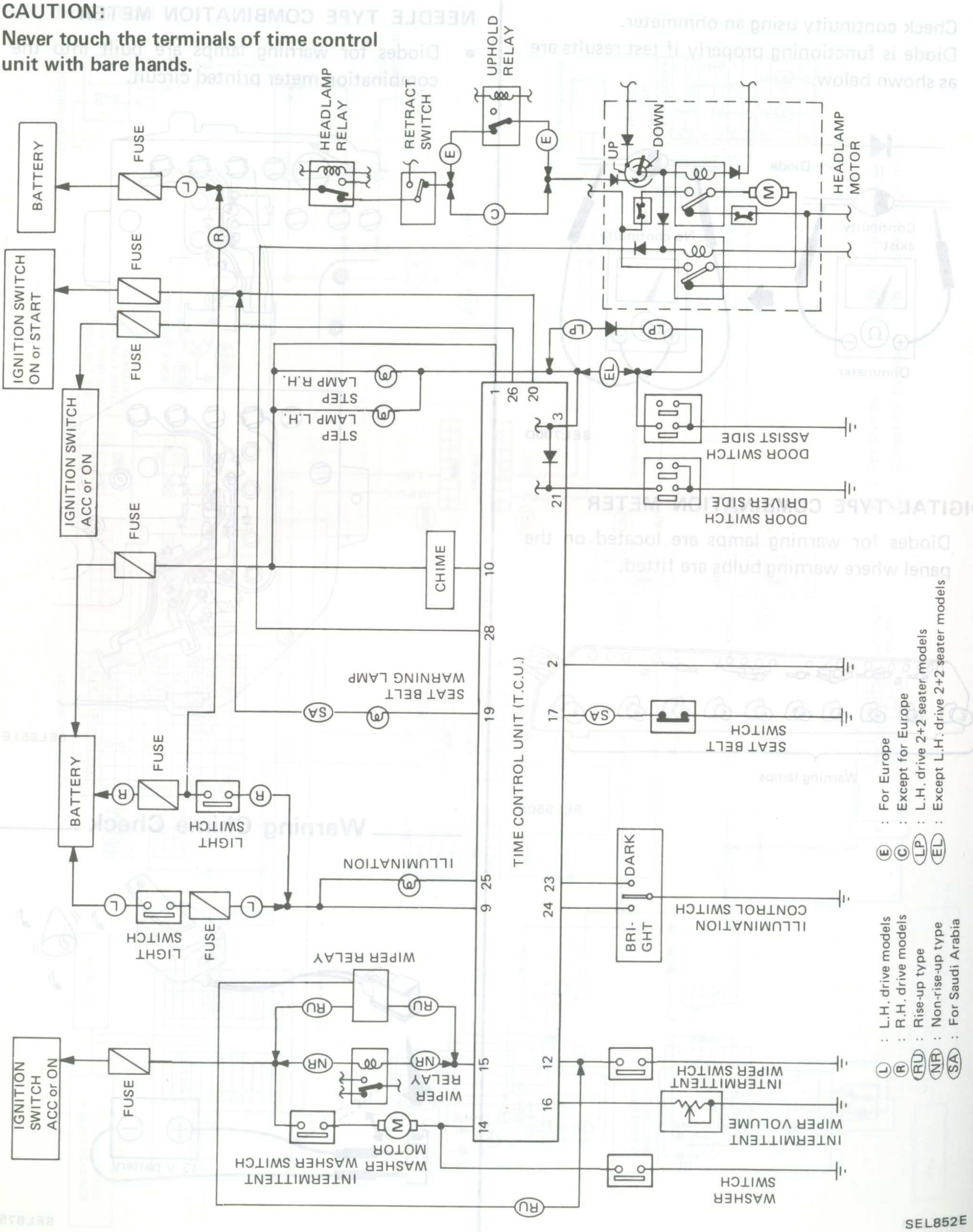


SEL875D

TIME CONTROL SYSTEM

Schematic

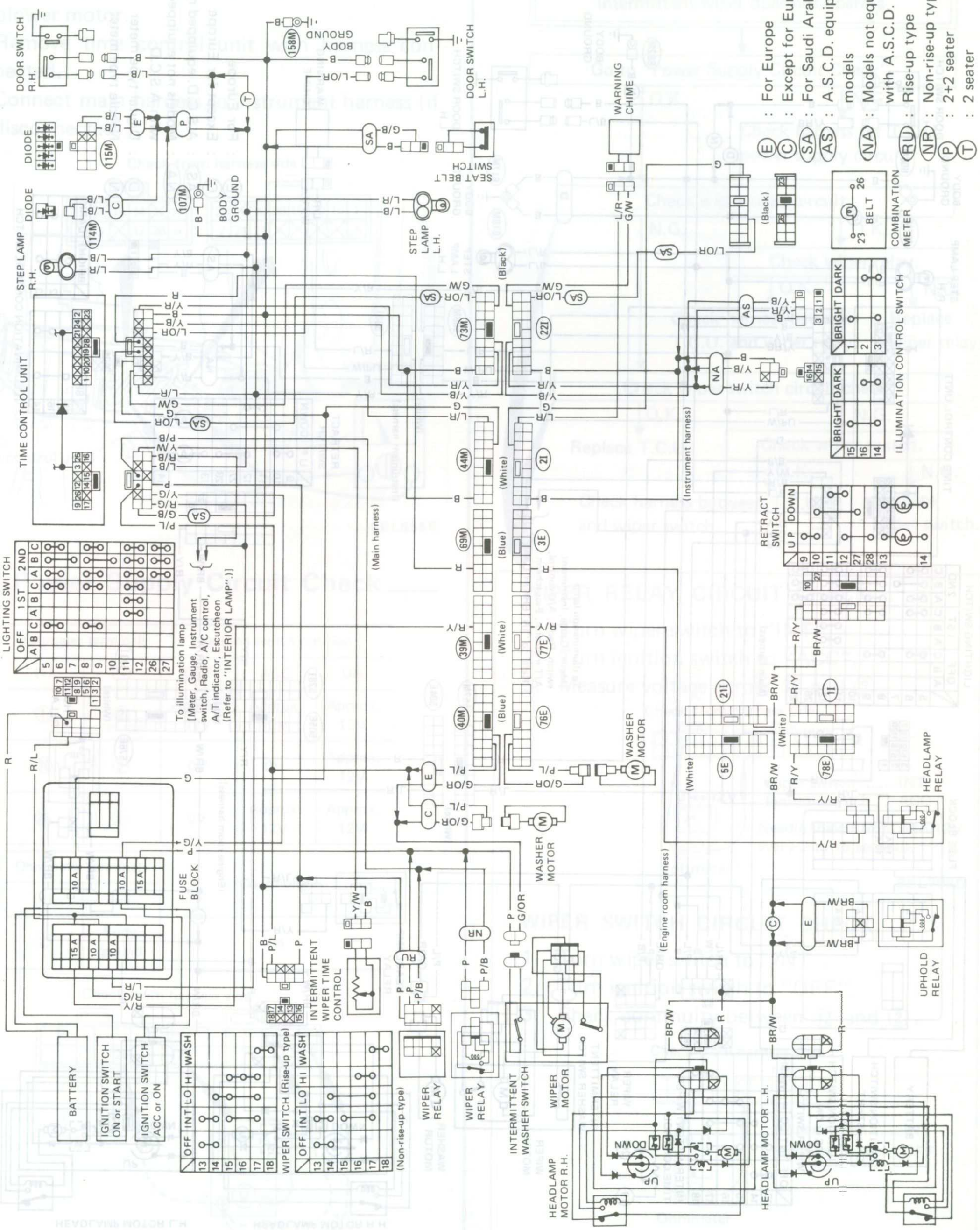
CAUTION:
Never touch the terminals of time control unit with bare hands.



TIME CONTROL SYSTEM

Wiring Diagram

L.H. drive model



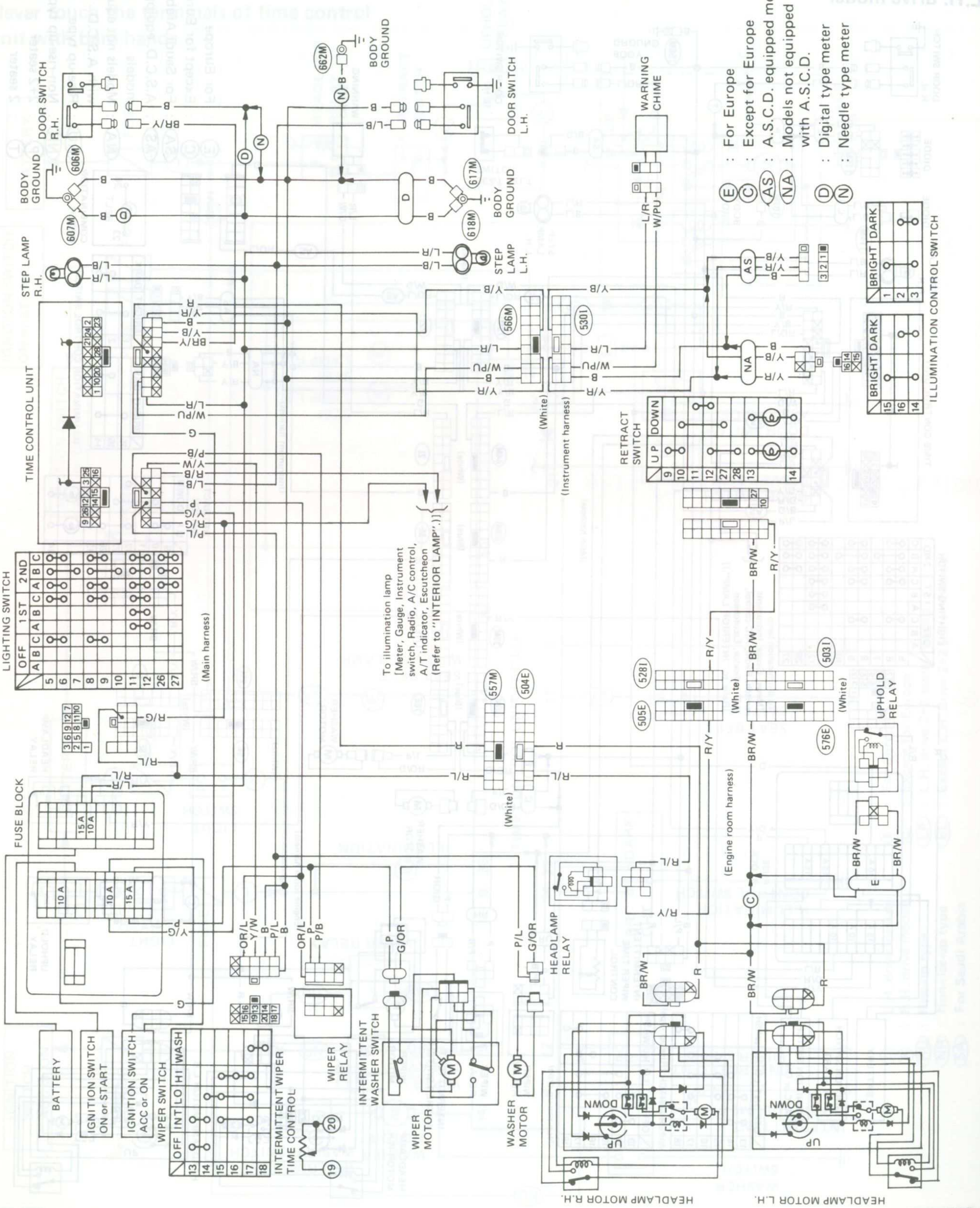
: For Europe
: Except for Europe
: For Saudi Arabia
: A.S.C.D. equipped models
: Models not equipped with A.S.C.D.
: Rise-up type
: Non-rise-up type
: 2+2 seater
: 2 seater

SEL853E

TIME CONTROL SYSTEM

Wiring Diagram (Cont'd)

R.H. drive model

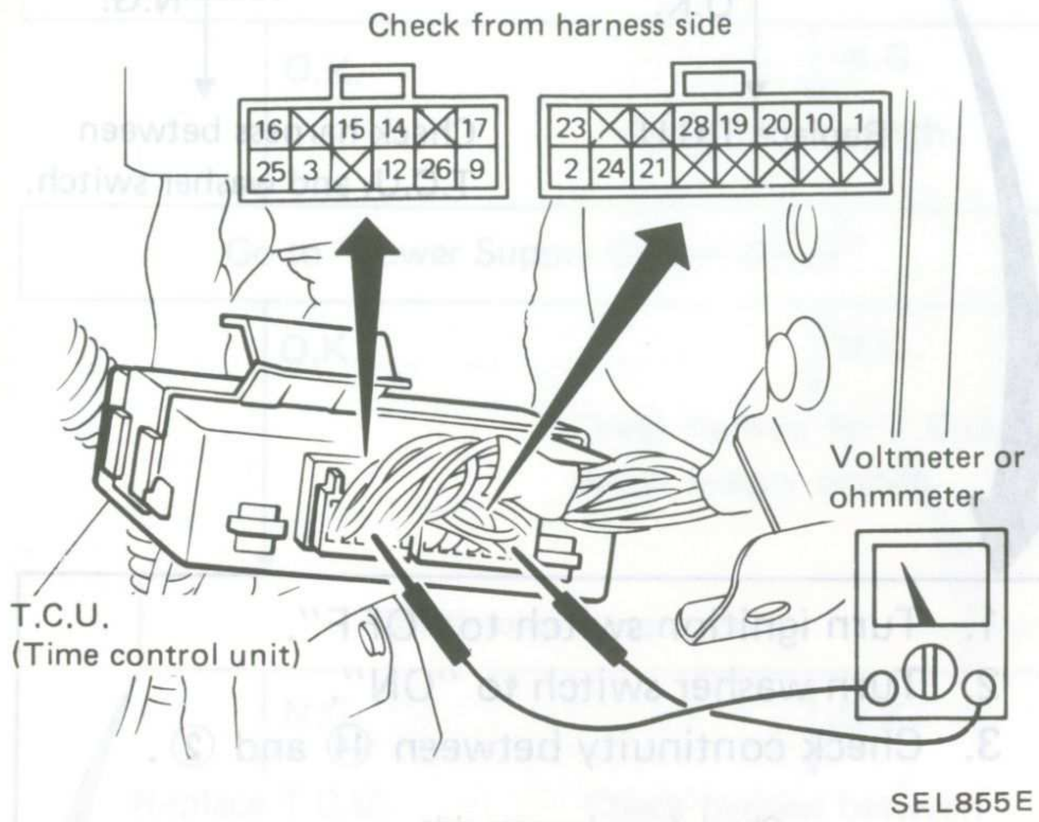


SEL854E

TIME CONTROL SYSTEM

Preparation for Trouble-shooting

1. Remove assist side dash side cover and remove blower motor.
2. Remove time control unit with harness connected.
3. Connect main harness to instrument harness (if disconnected).

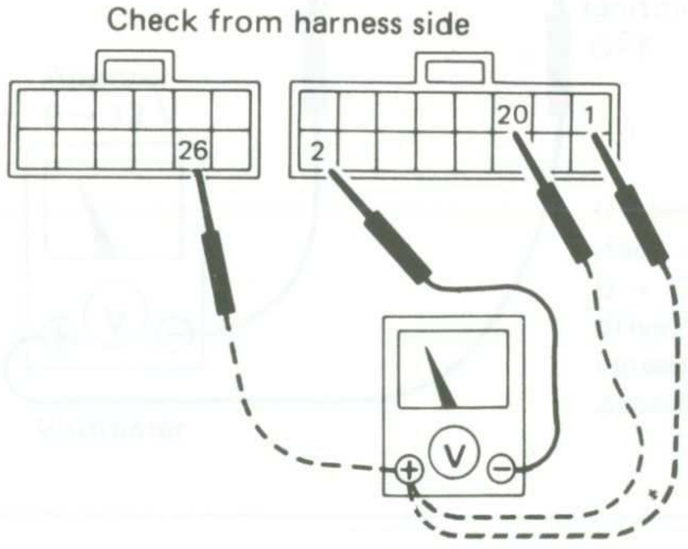


SEL855E

Power Supply Circuit Check

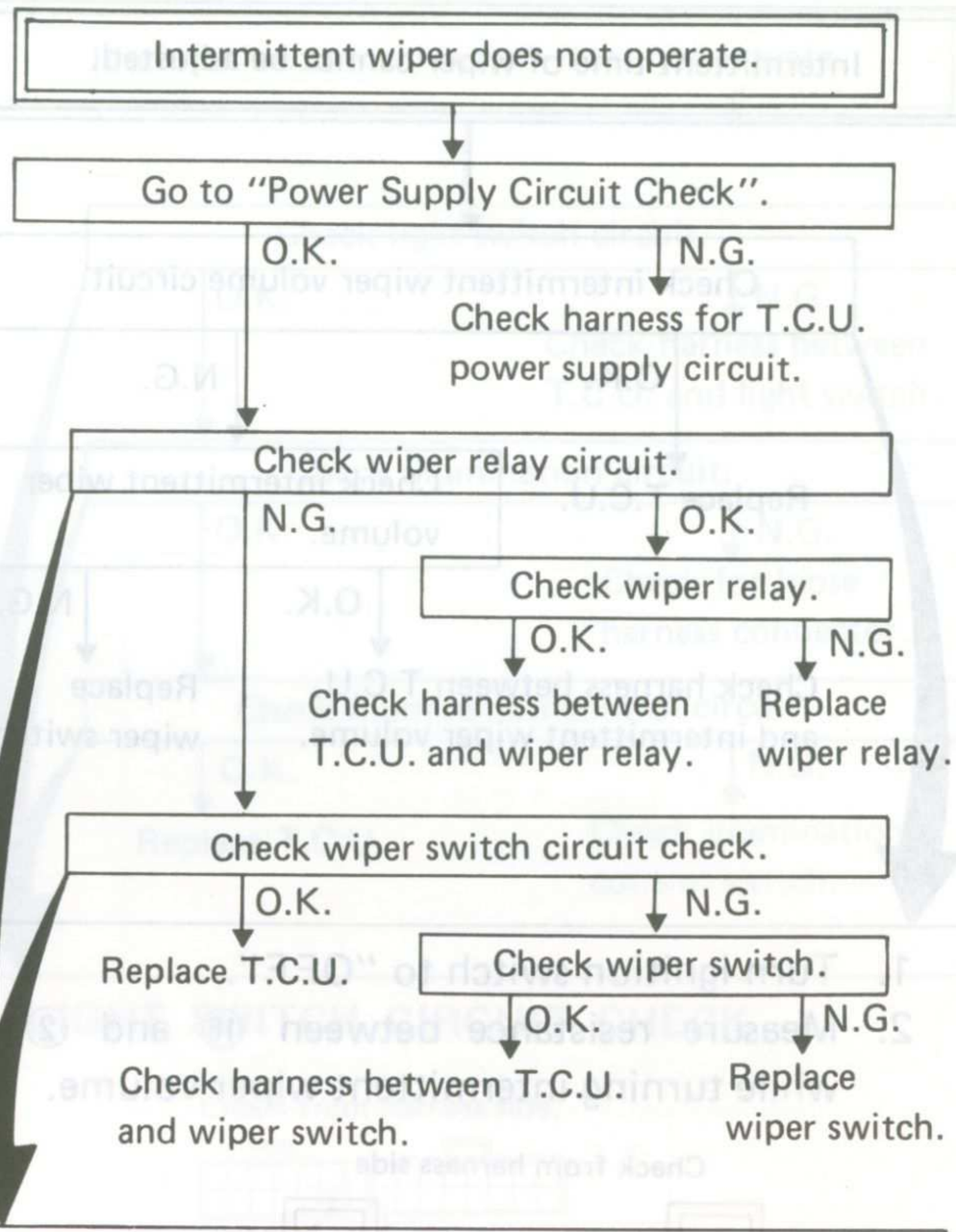
Voltmeter terminals		Ignition switch position		
(+)	(−)	OFF	ACC	ON
①	②	Approx. 12V	Approx. 12V	Approx. 12V
⑳	②	0V	0V	Approx. 12V
㉖	②	0V	Approx. 12V	Approx. 12V

Ohmmeter terminals		Continuity
(+)	(−)	
②	Body ground	Yes



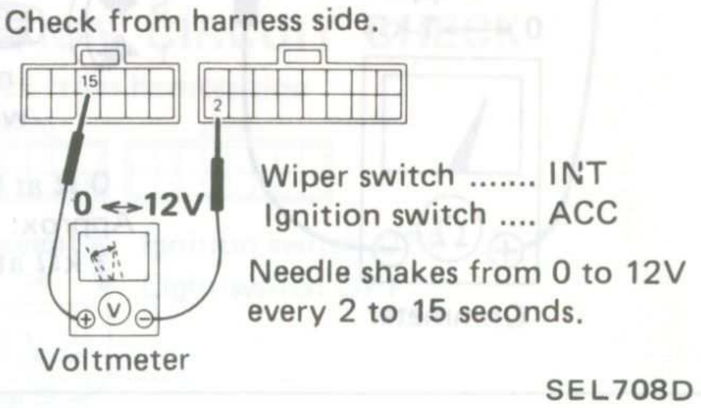
SEL724D

Trouble-shooting



WIPER RELAY CIRCUIT CHECK

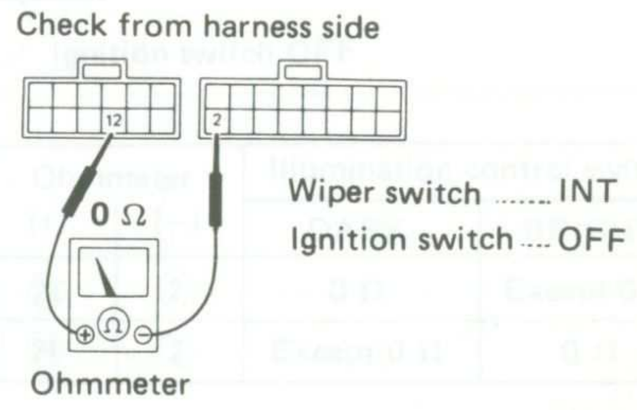
1. Turn wiper switch to "INT".
2. Turn ignition switch to "ACC".
3. Measure voltage across ⑮ and ② .



SEL708D

WIPER SWITCH CIRCUIT CHECK

1. Turn wiper switch to "INT".
2. Turn ignition switch to "OFF".
3. Check continuity between ⑫ and ② .



SEL709D

TIME CONTROL SYSTEM

Trouble-shooting (Cont'd)

Intermittent time of wiper cannot be adjusted.

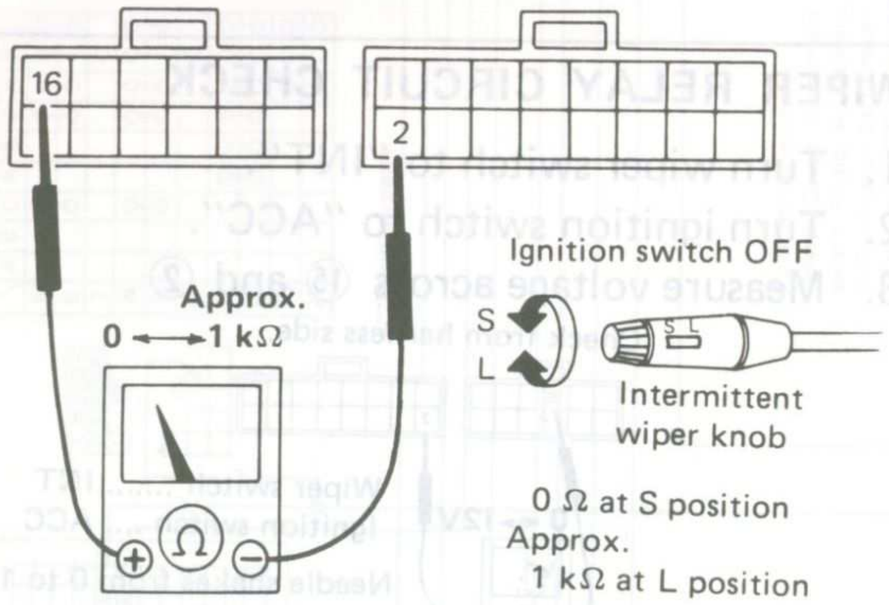
Check intermittent wiper volume circuit.

O.K. → Replace T.C.U.

N.G. → Check intermittent wiper volume.

- O.K. → Check harness between T.C.U. and intermittent wiper volume.
- N.G. → Replace wiper switch.

1. Turn ignition switch to "OFF".
2. Measure resistance between ⑯ and ② while turning intermittent wiper volume.



SEL710D

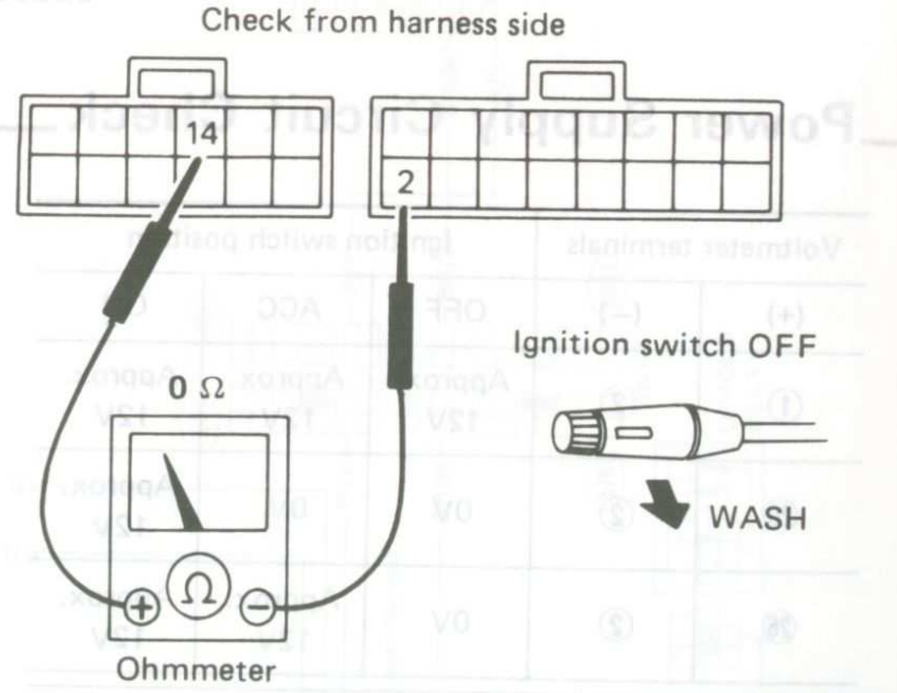
Wiper and washer activate individually but not in combination.

Check washer switch circuit.

O.K. → Replace T.C.U.

N.G. → Check harness between T.C.U. and washer switch.

1. Turn ignition switch to "OFF".
2. Turn washer switch to "ON".
3. Check continuity between ⑭ and ② .



SEL711D

TIME CONTROL SYSTEM

Trouble-shooting (Cont'd)

Step lamps do not fade out after driver's door is closed.

↓

Check if door warning lamp goes off after all doors are closed.

O.K. ↓ / N.G. → Check door switch.

↓

Go to "Power Supply Circuit Check".

O.K. ↓ / N.G. → Check harness for T.C.U. power supply circuit.

↓

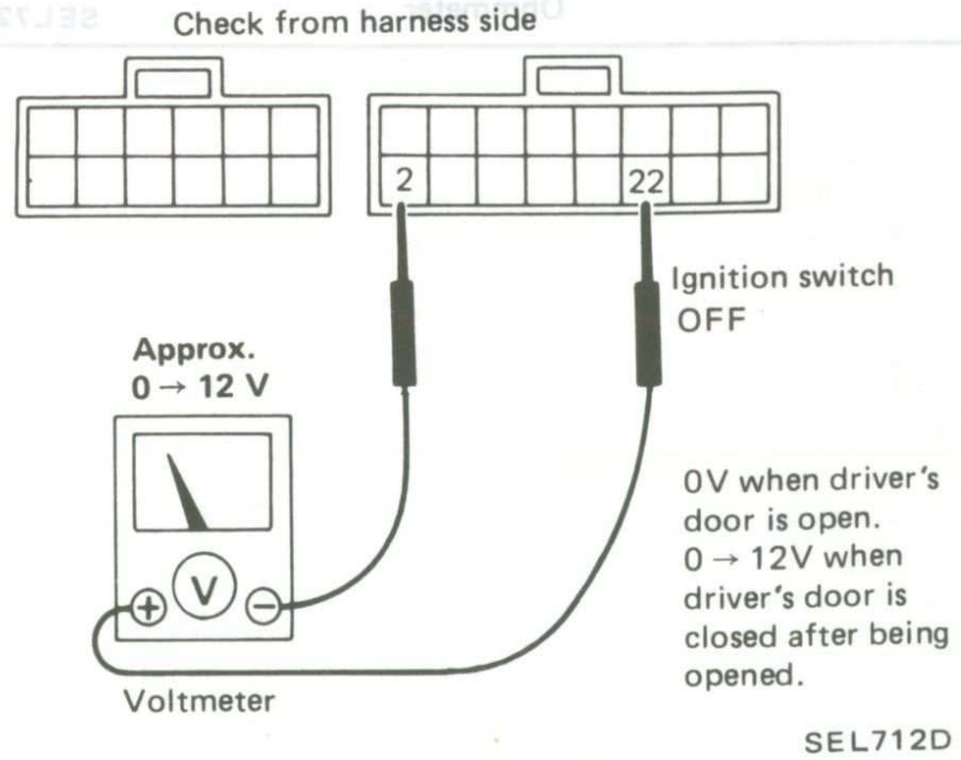
Check step lamp circuit.

N.G. → Replace T.C.U.

O.K. → Check harness between T.C.U. and step lamps.

INTERIOR LAMP CIRCUIT CHECK

1. Turn ignition switch to "OFF".
2. Measure voltage across ㉒ and ② .



SEL712D

Illumination control system does not actuate.

↓

Check light switch circuit.

O.K. ↓ / N.G. → Check harness between T.C.U. and light switch.

↓

Check illumination circuit.

O.K. ↓ / N.G. → Check for loose harness connector.

↓

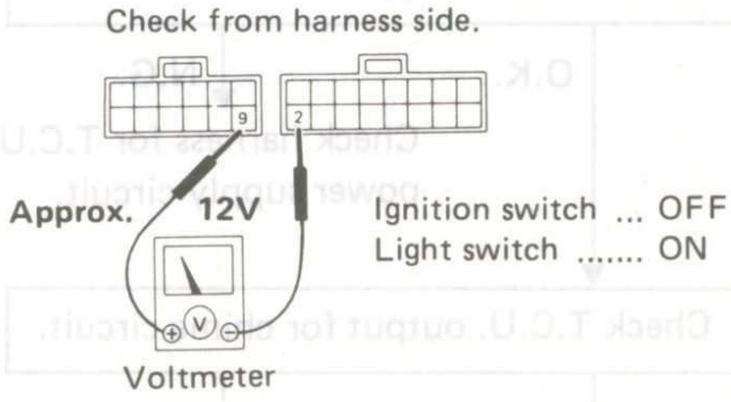
Check illumination control circuit.

O.K. ↓ / N.G. →

Replace T.C.U.

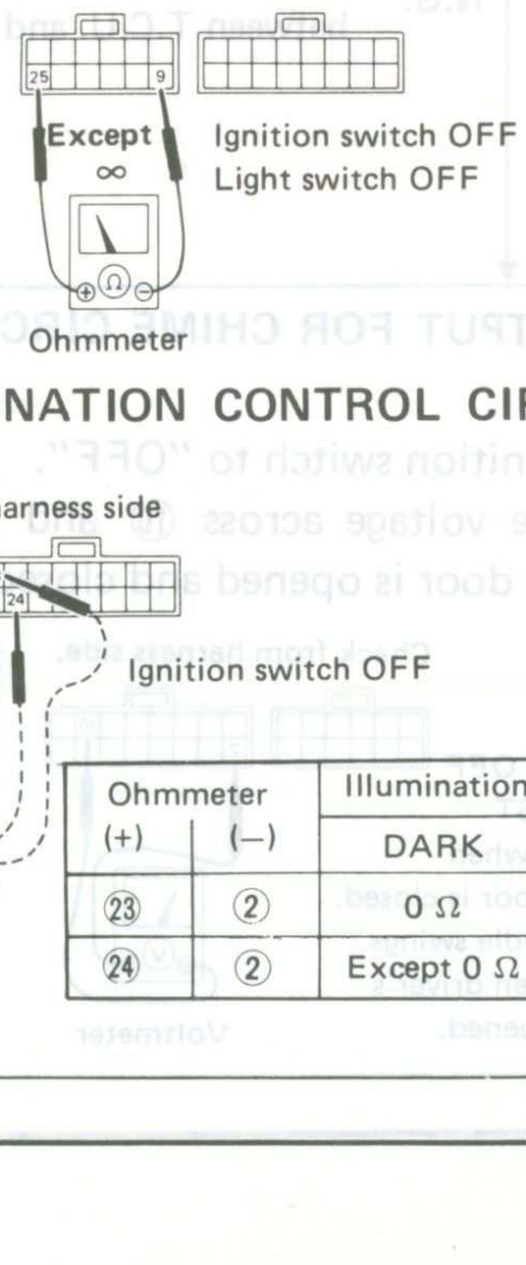
Check illumination control switch.

LIGHT SWITCH CIRCUIT CHECK



SEL715D

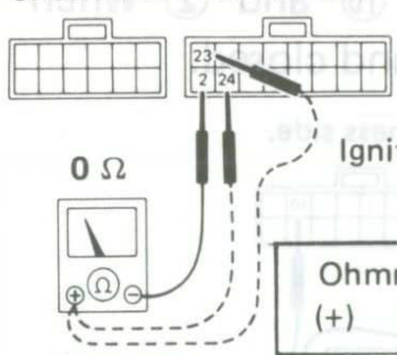
ILLUMINATION CIRCUIT CHECK



SEL716D

ILLUMINATION CONTROL CIRCUIT CHECK

Check from harness side



Ohmmeter (+)	Ohmmeter (−)	Illumination control switch: DARK	Illumination control switch: BRIGHT
㉓	②	0 Ω	Except 0 Ω
㉔	②	Except 0 Ω	0 Ω

SEL717D

TIME CONTROL SYSTEM

Trouble-shooting (Cont'd)

Light warning chime does not activate.

Check if other warning chimes function.

O.K. / N.G.

Go to "Light switch circuit check". (Refer to back page.)

O.K. / N.G.

Replace T.C.U.

Check harness between T.C.U. and light switch.

Go to "Power Supply Circuit Check".

O.K. / N.G.

Check harness for T.C.U. power supply circuit.

Check T.C.U. output for chime circuit.

O.K.

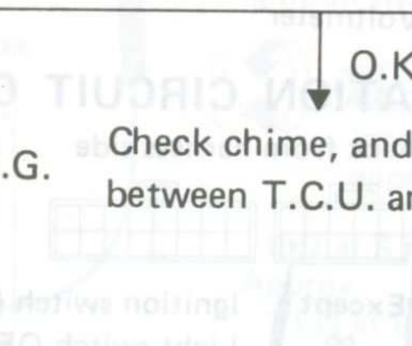
N.G.

Check chime, and harness between T.C.U. and chime.

T.C.U. OUTPUT FOR CHIME CIRCUIT CHECK

1. Turn ignition switch to "OFF".
2. Measure voltage across ⑩ and ② when driver's door is opened and closed.

Check from harness side.



Voltmeter

Ignition switch ... OFF
Light switch ... 1ST

- Approx. 12V when driver's side door is closed.
- Voltmeter needle swings (0 ↔ 12V) when driver's side door is opened.

SEL718D

Seat belt warning chime does not activate.

Check if other warning chimes function.

N.G. / O.K.

Check seat belt switch circuit.

O.K. / N.G.

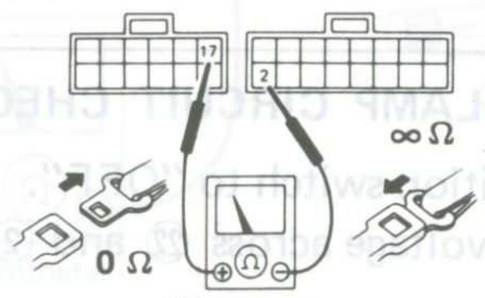
Replace T.C.U.

Check seat belt switch, and harness between T.C.U. and seat belt switch.

SEAT BELT SWITCH CIRCUIT CHECK

1. Turn ignition switch to "OFF".
2. Unfasten driver's seat belt.
3. Check for continuity between ⑰ and ②.
4. Fasten driver's seat belt.
5. Check to determine if continuity does not exist between ⑰ and ②.

Check from harness side



Ohmmeter

SEL721D

Trouble-shooting (Cont'd)

Seat belt warning lamp does not go off nor come on.

↓

Go to "Power Supply Circuit Check".

O.K. ↓

N.G. → Check harness for T.C.U. power supply circuit.

Check belt warning circuit.

N.G. ↓

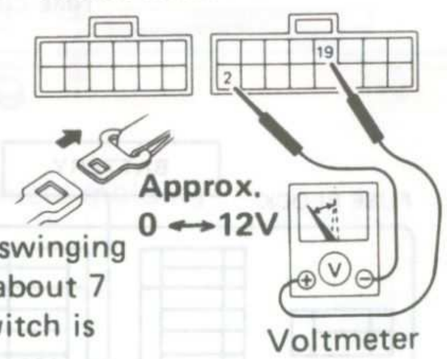
O.K. → Check warning lamp.

Replace T.C.U.

BELT WARNING CIRCUIT CHECK

1. Unfasten seat belt.
2. Measure voltage across ⑲ and ② when ignition switch is "ON".

Check from harness side.



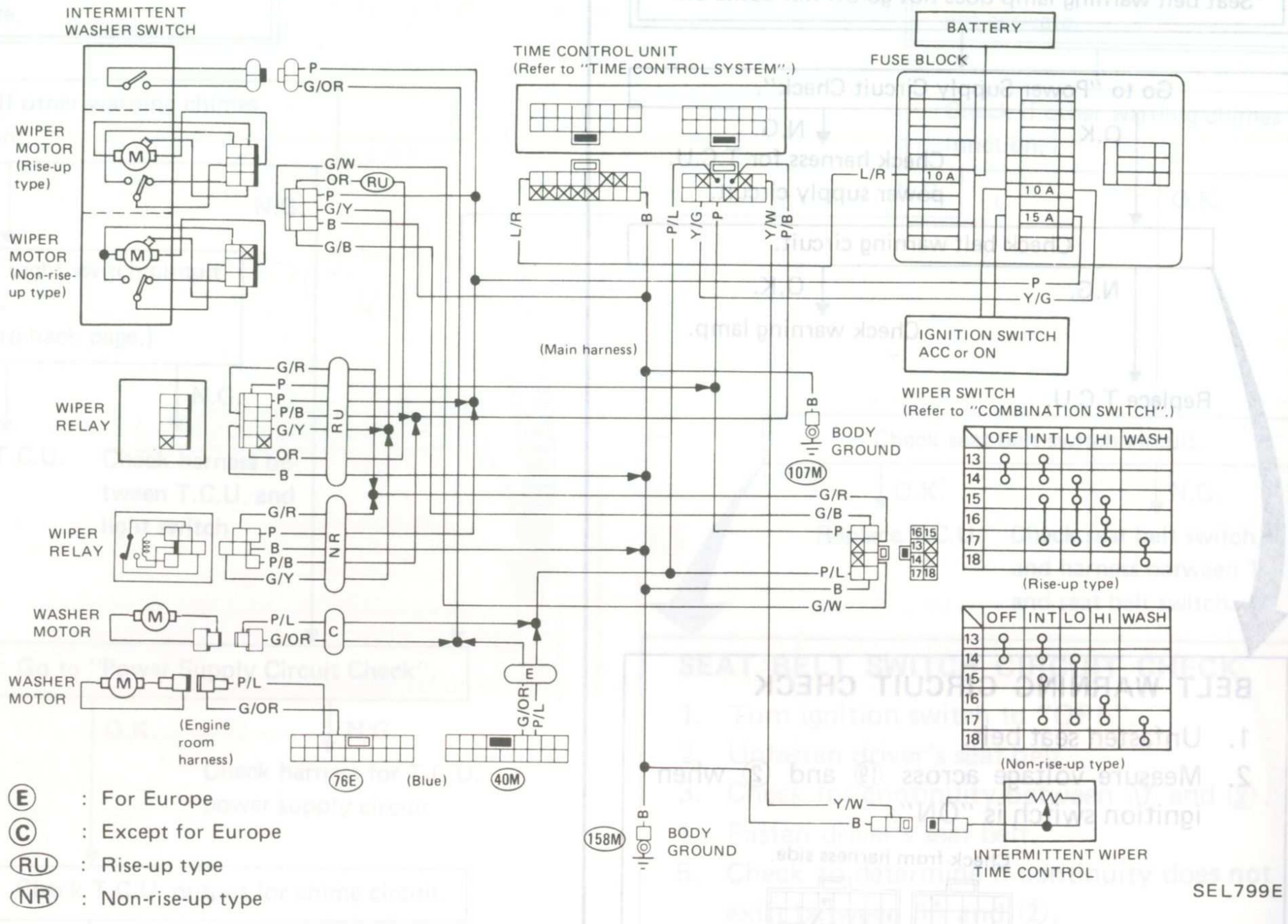
Voltmeter needle keeps swinging (approx. 0 ↔ 12V) for about 7 seconds after ignition switch is turned ON.

SEL720D

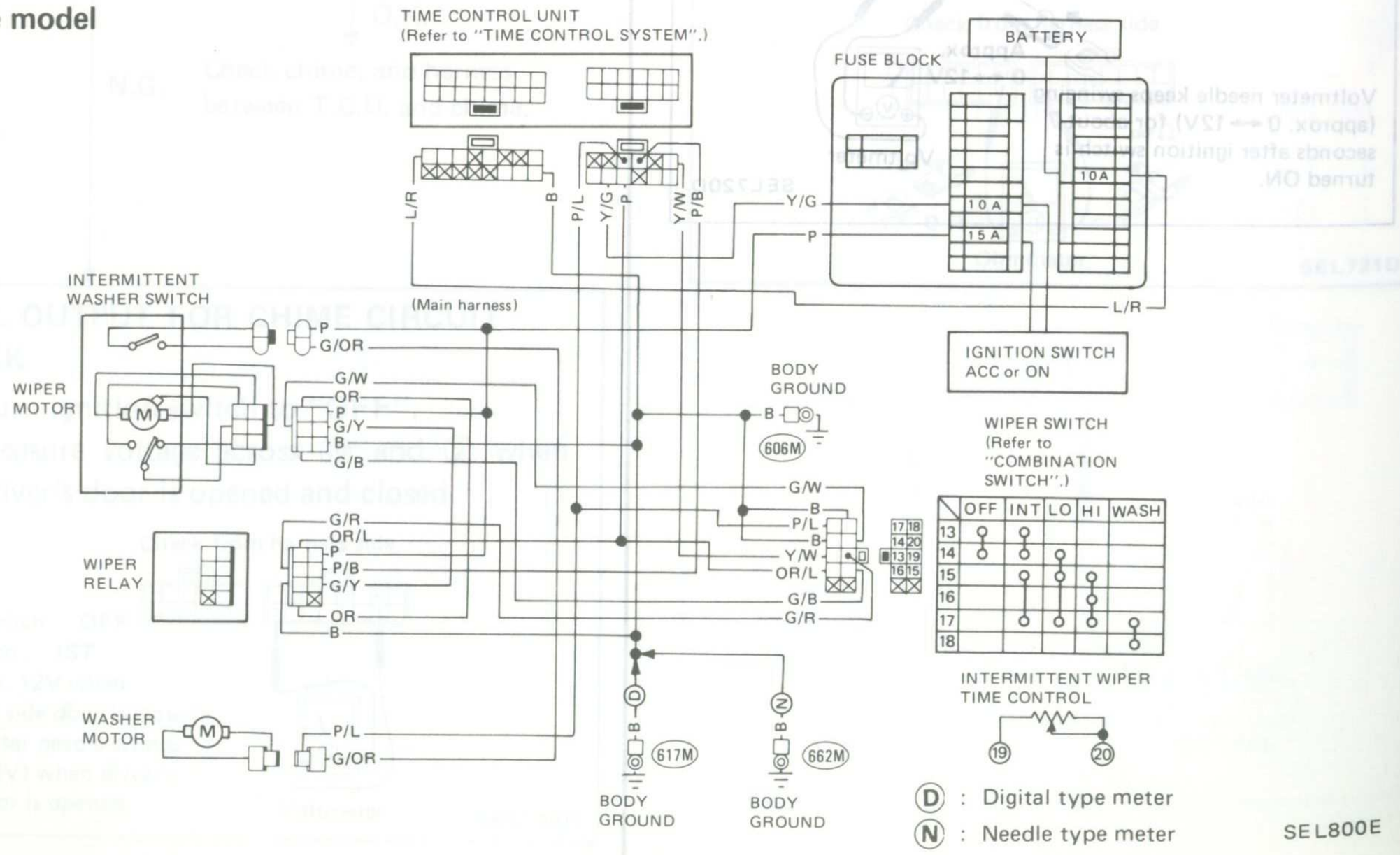
WIPER AND WASHER

Windshield Wiper and Washer/Wiring Diagram

L.H. drive model



R.H. drive model



Windshield Wiper and Washer/Installation

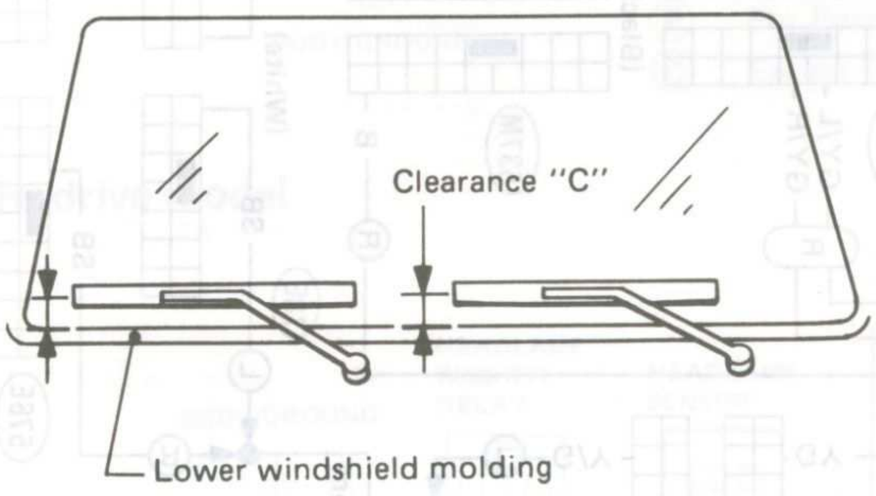
WIPER ARM

1. Prior to wiper arm installation, set wiper switch to "LOW" to operate wiper motor and then turn it "OFF" (Auto Stop).
2. Adjust wiper blades within clearance "C".
3. Tighten windshield wiper arm nuts to specified torque.

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

4. Eject washer fluid. Set wiper switch to "LOW" to operate wiper motor and then turn it "OFF".
5. Ensure that wiper blades stop within clearance "C".

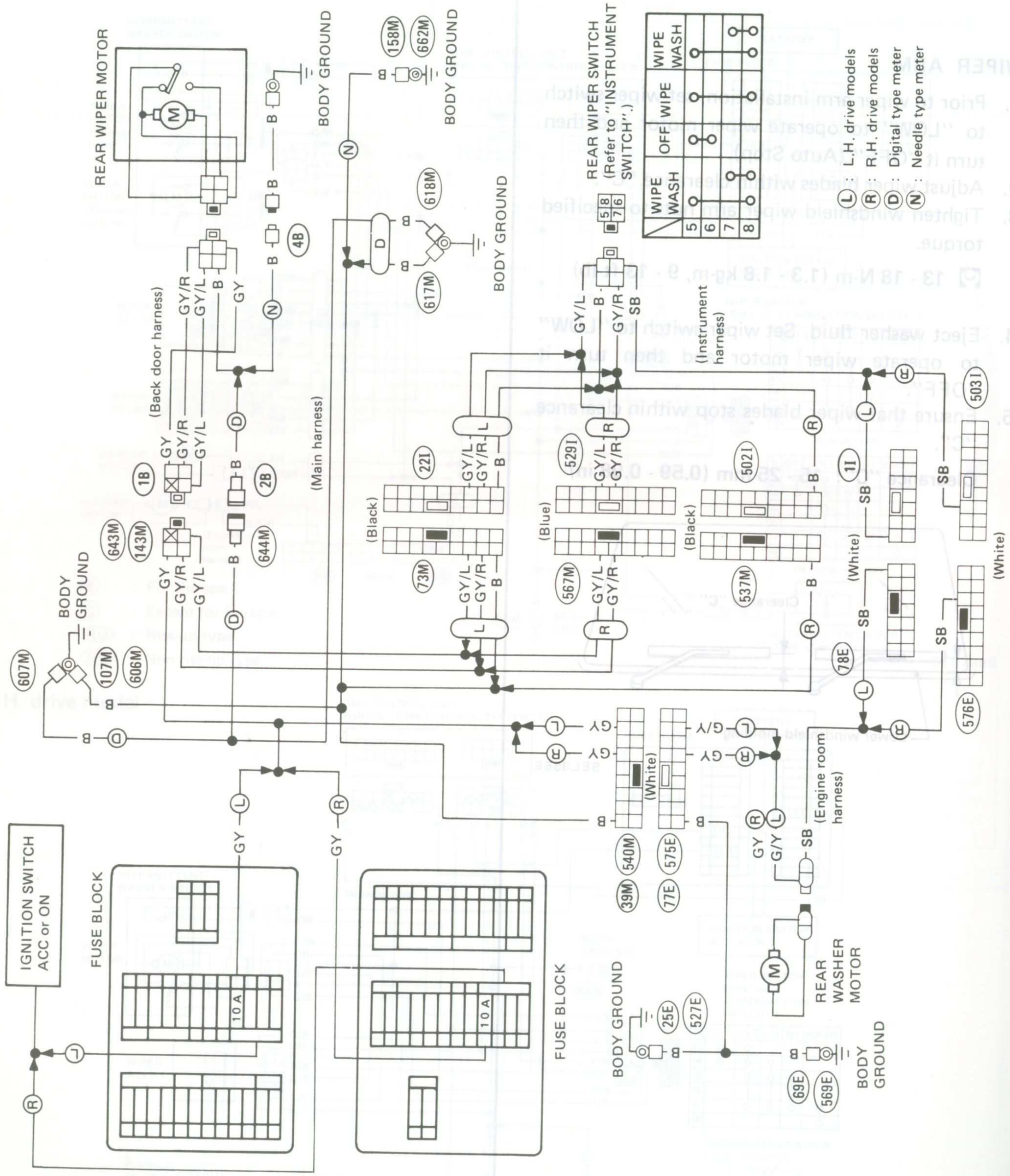
   Clearance "C": 15 - 25 mm (0.59 - 0.98 in)



SEL355E

WIPER AND WASHER

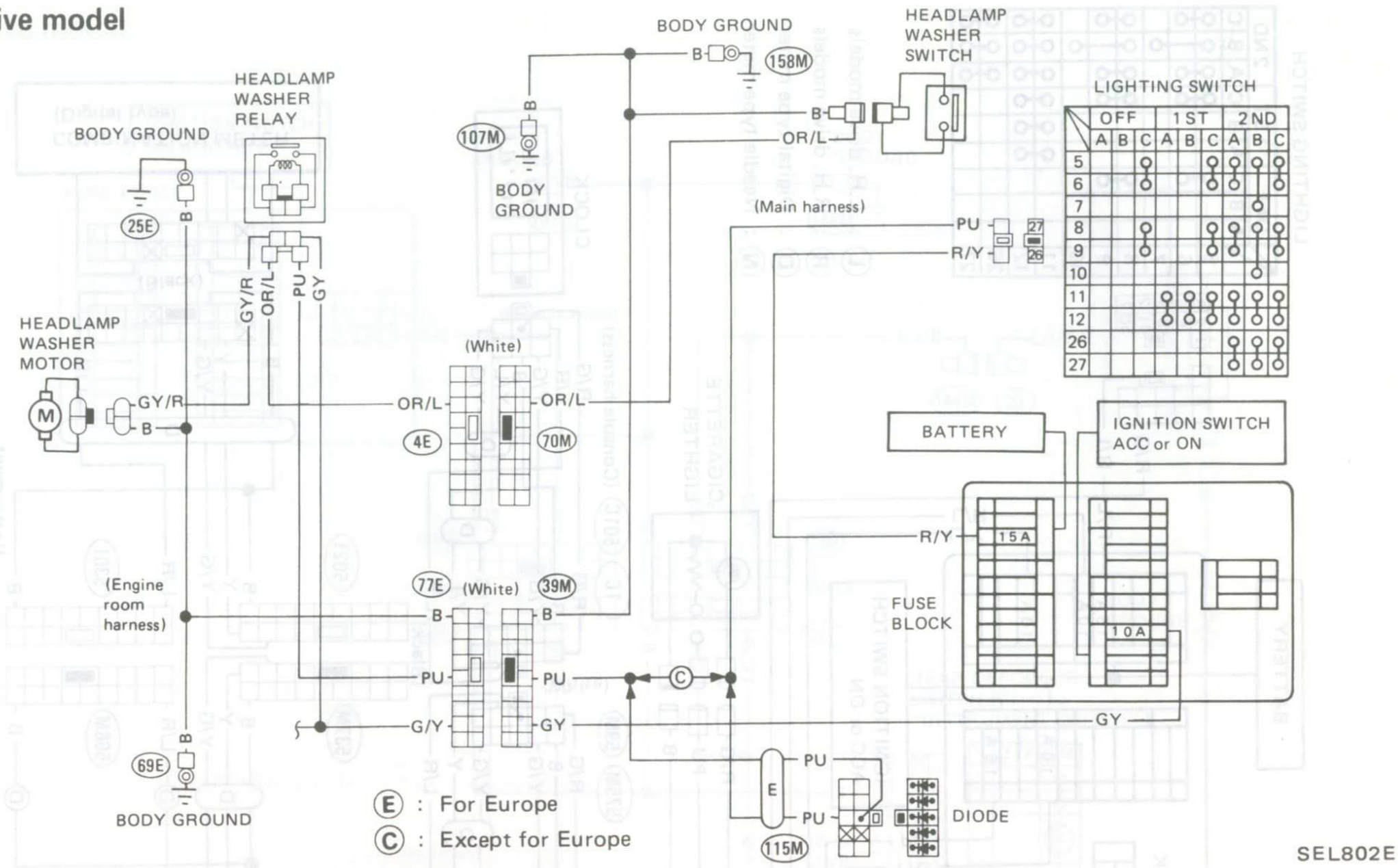
Rear Wiper and Washer/Wiring Diagram



WIPER AND WASHER

Headlamp Washer/Wiring Diagram

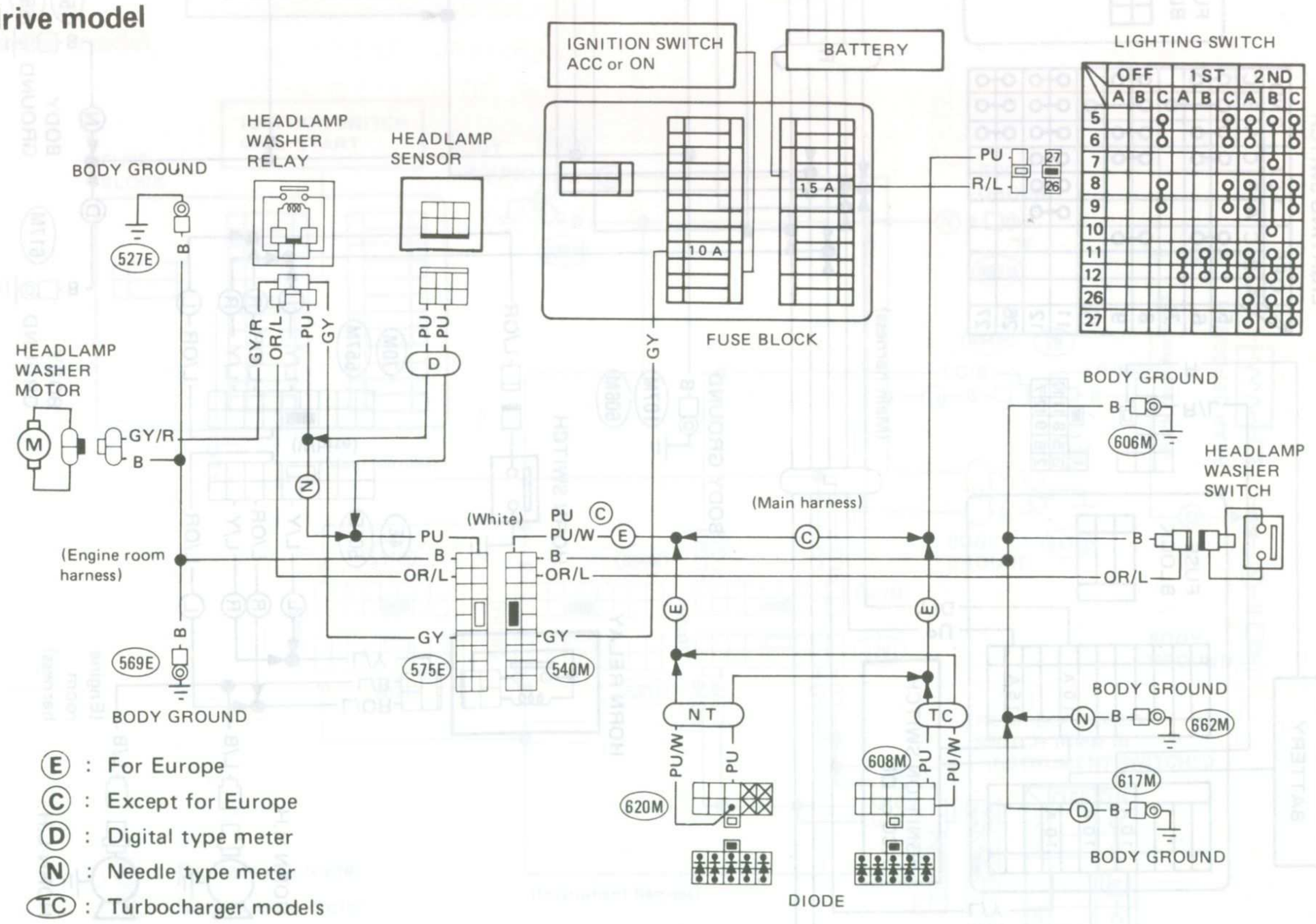
L.H. drive model



E : For Europe
C : Except for Europe

SEL802E

R.H. drive model

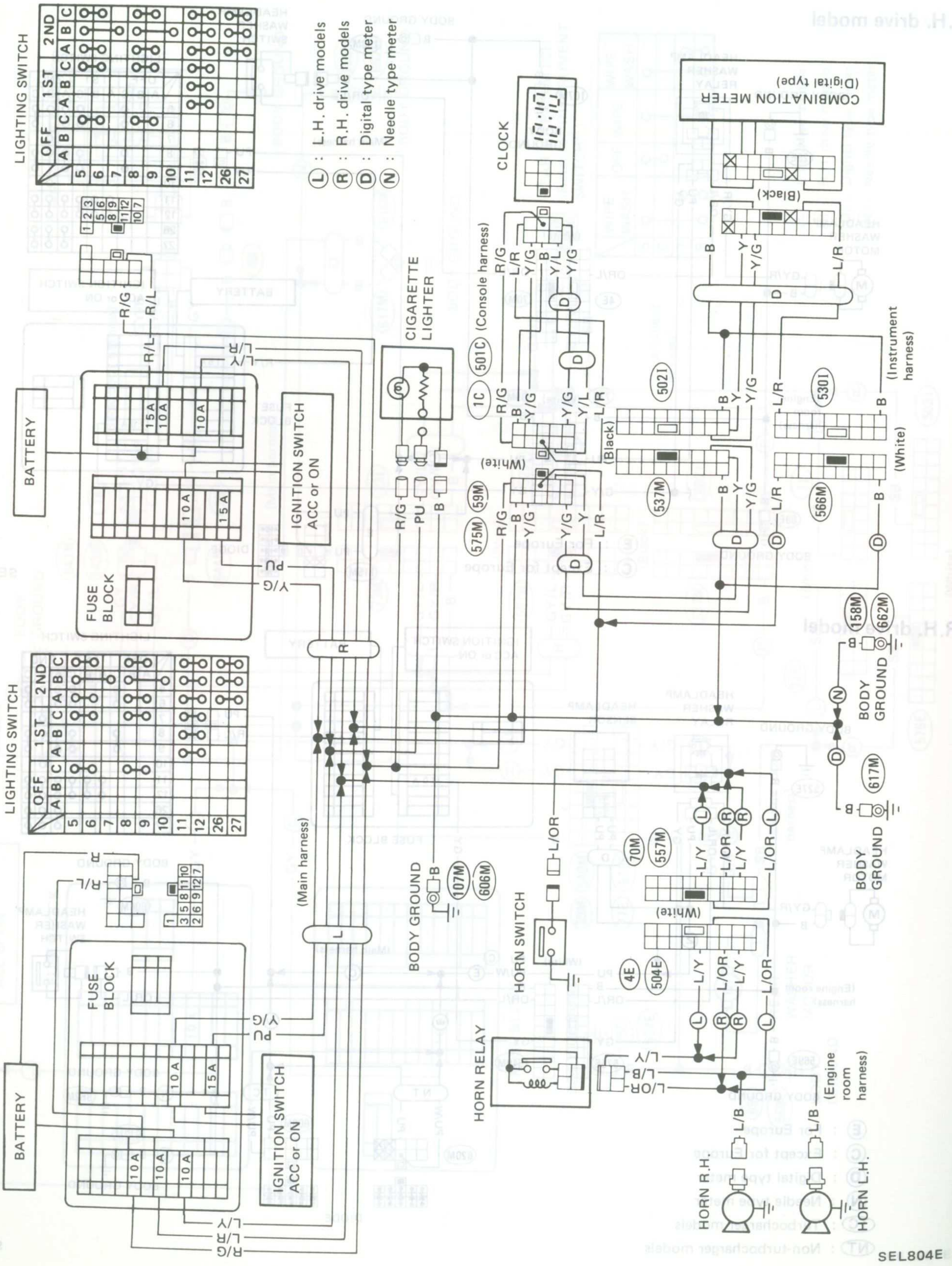


E : For Europe
C : Except for Europe
D : Digital type meter
N : Needle type meter
TC : Turbocharger models
NT : Non-turbocharger models

SEL803E

HORN, CIGARETTE LIGHTER, CLOCK

Wiring Diagram

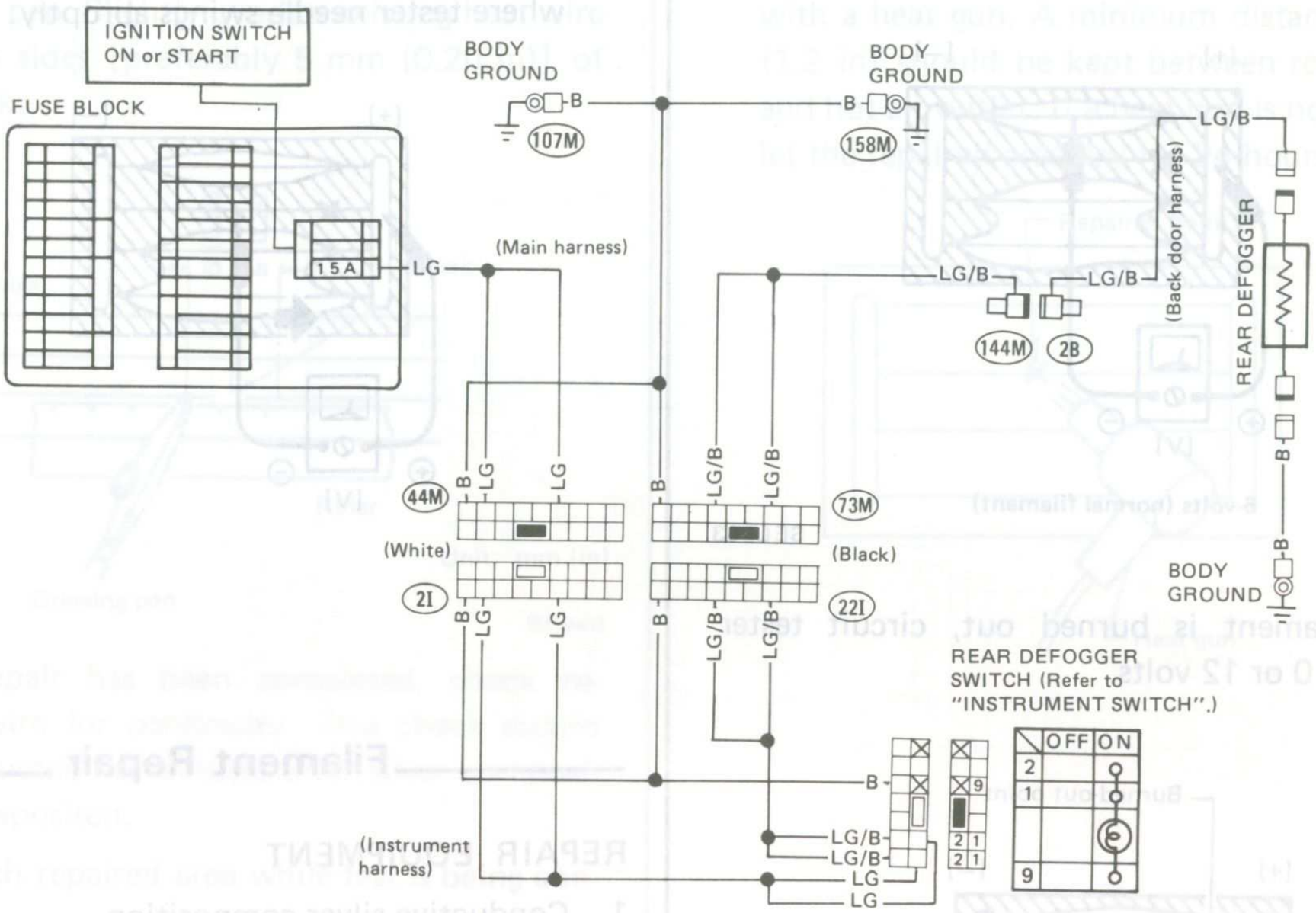


SEL804E

REAR WINDOW DEFOGGER

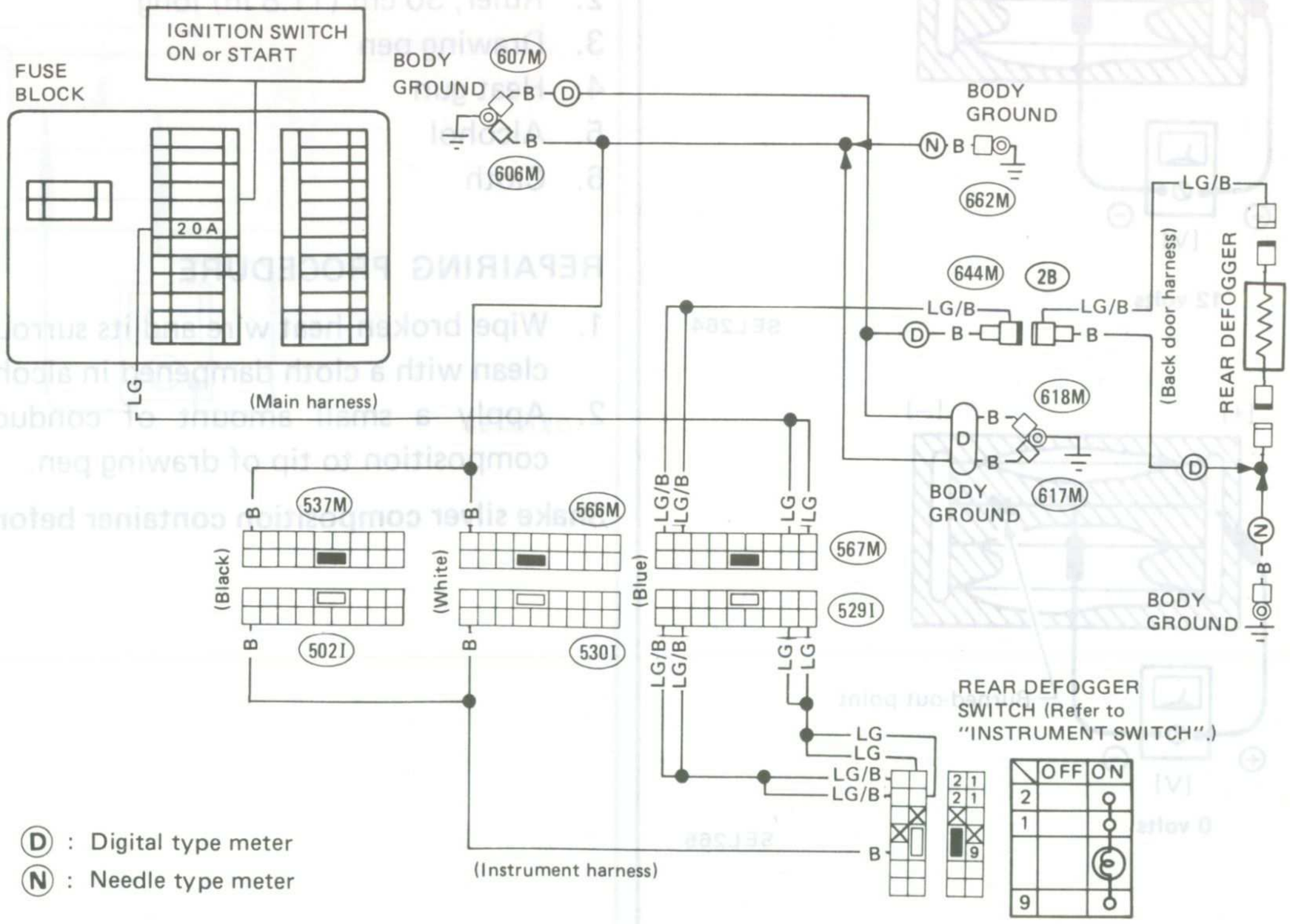
Wiring Diagram

L.H. drive model



SEL805E

R.H. drive model

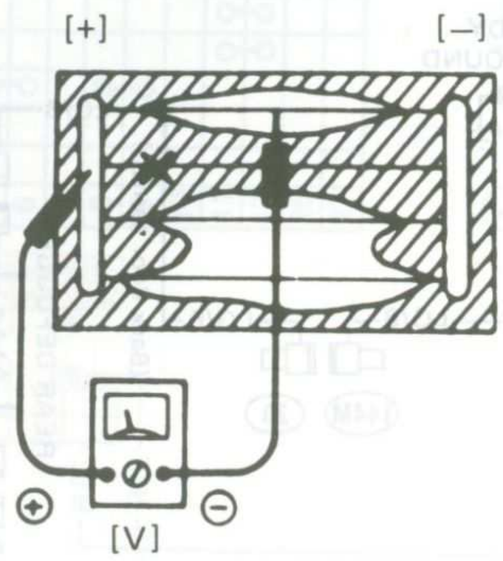


SEL806E

REAR WINDOW DEFOGGER

Filament Check

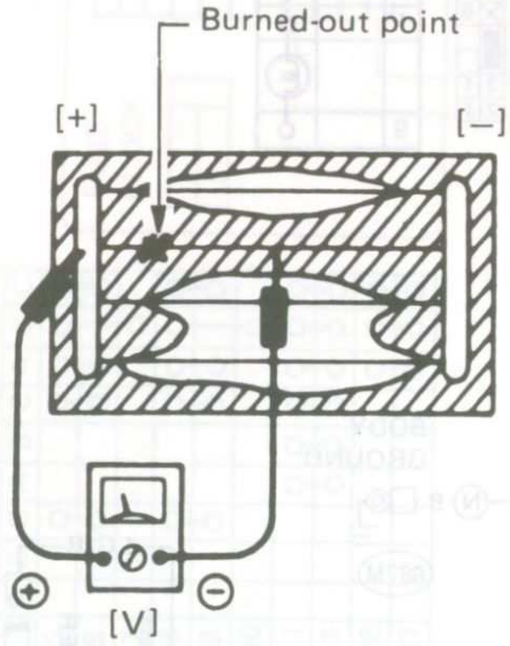
1. Attach probe circuit tester (in volt range) to middle portion of each filament.



6 volts (normal filament)

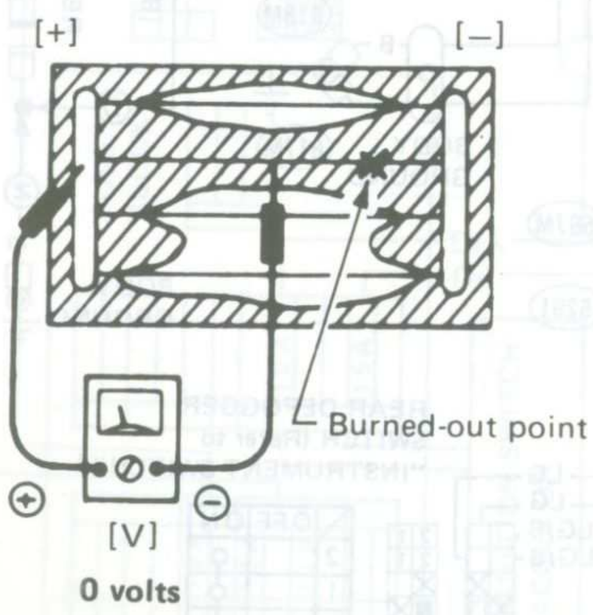
SEL263

2. If a filament is burned out, circuit tester registers 0 or 12 volts.



12 volts

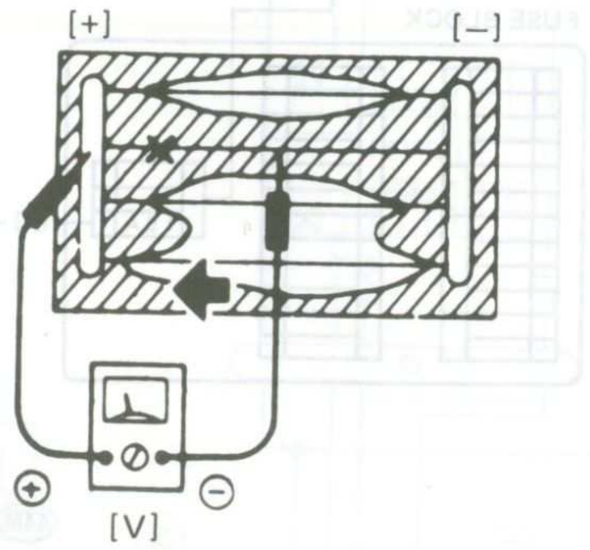
SEL264



0 volts

SEL265

3. To locate burned out point, move probe to left and right along filament to determine point where tester needle swings abruptly.



SEL266

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

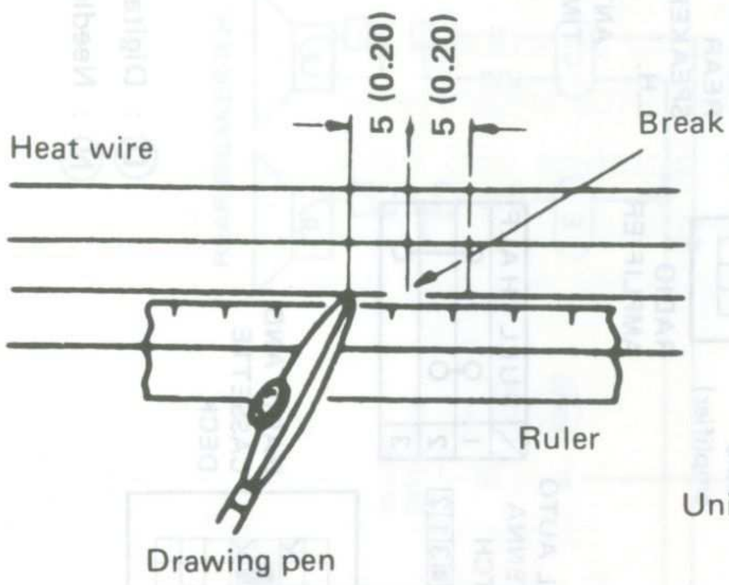
REPAIRING PROCEDURE

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.

Filament Repair (Cont'd)

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.

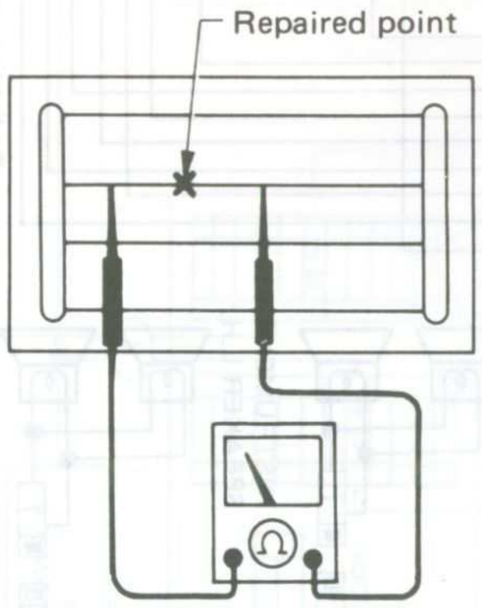


Unit: mm (in)

BE540

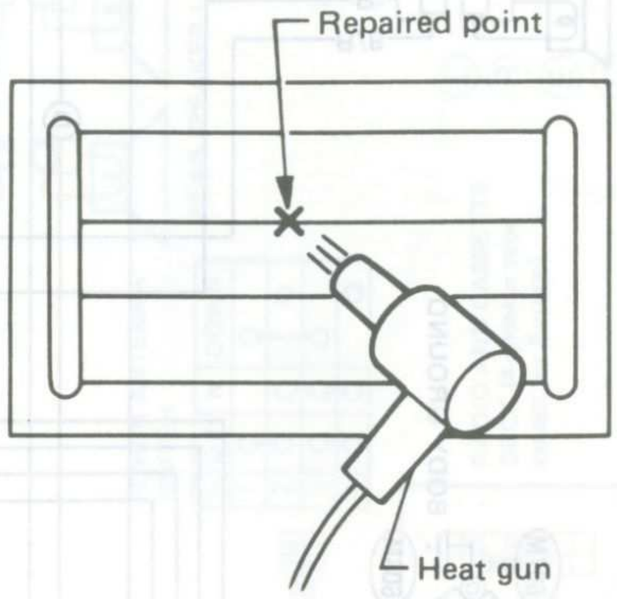
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited.

Do not touch repaired area while test is being conducted.



SEL012D

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.

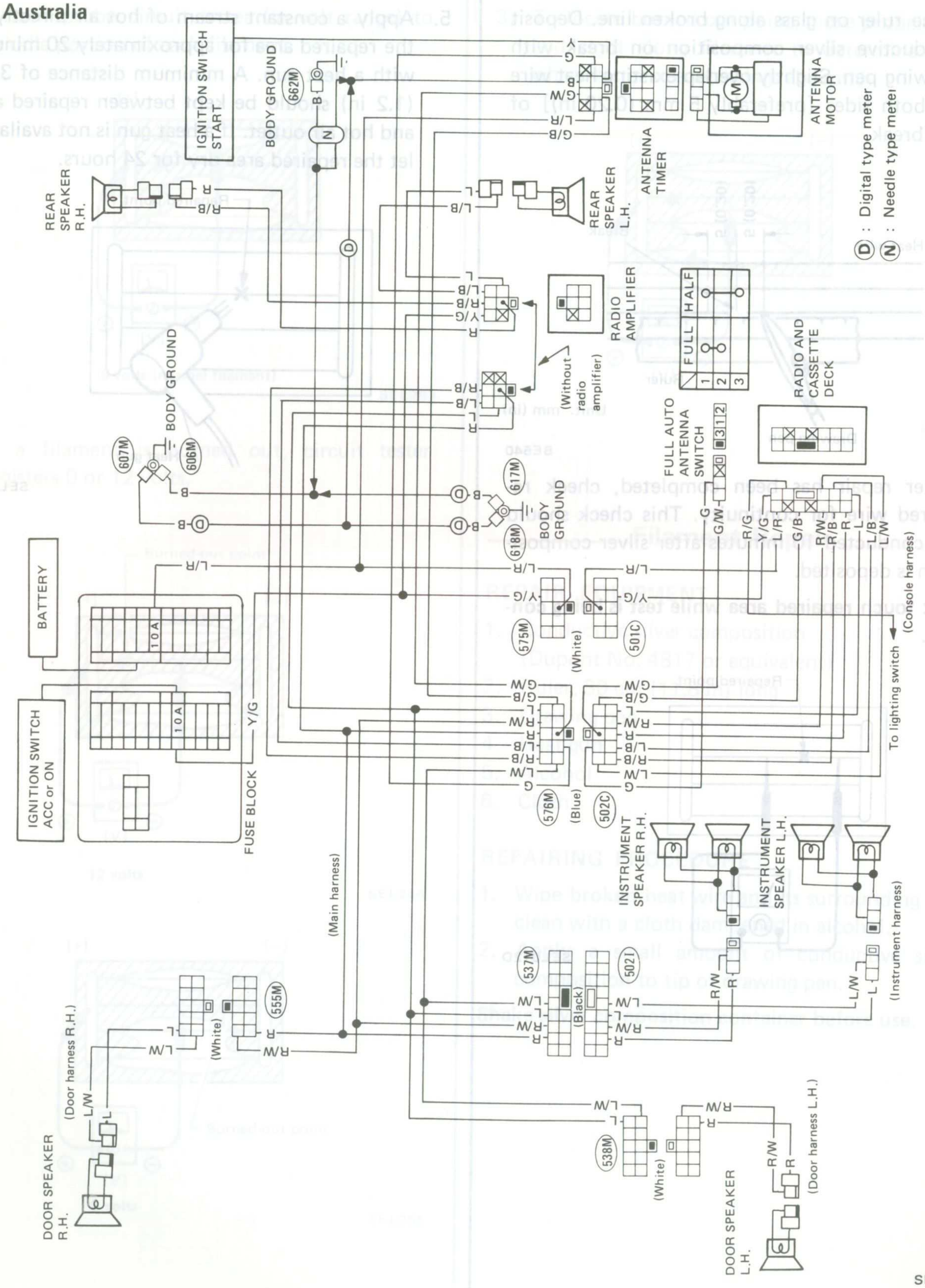


SEL013D

AUDIO AND POWER ANTENNA

Wiring Diagram

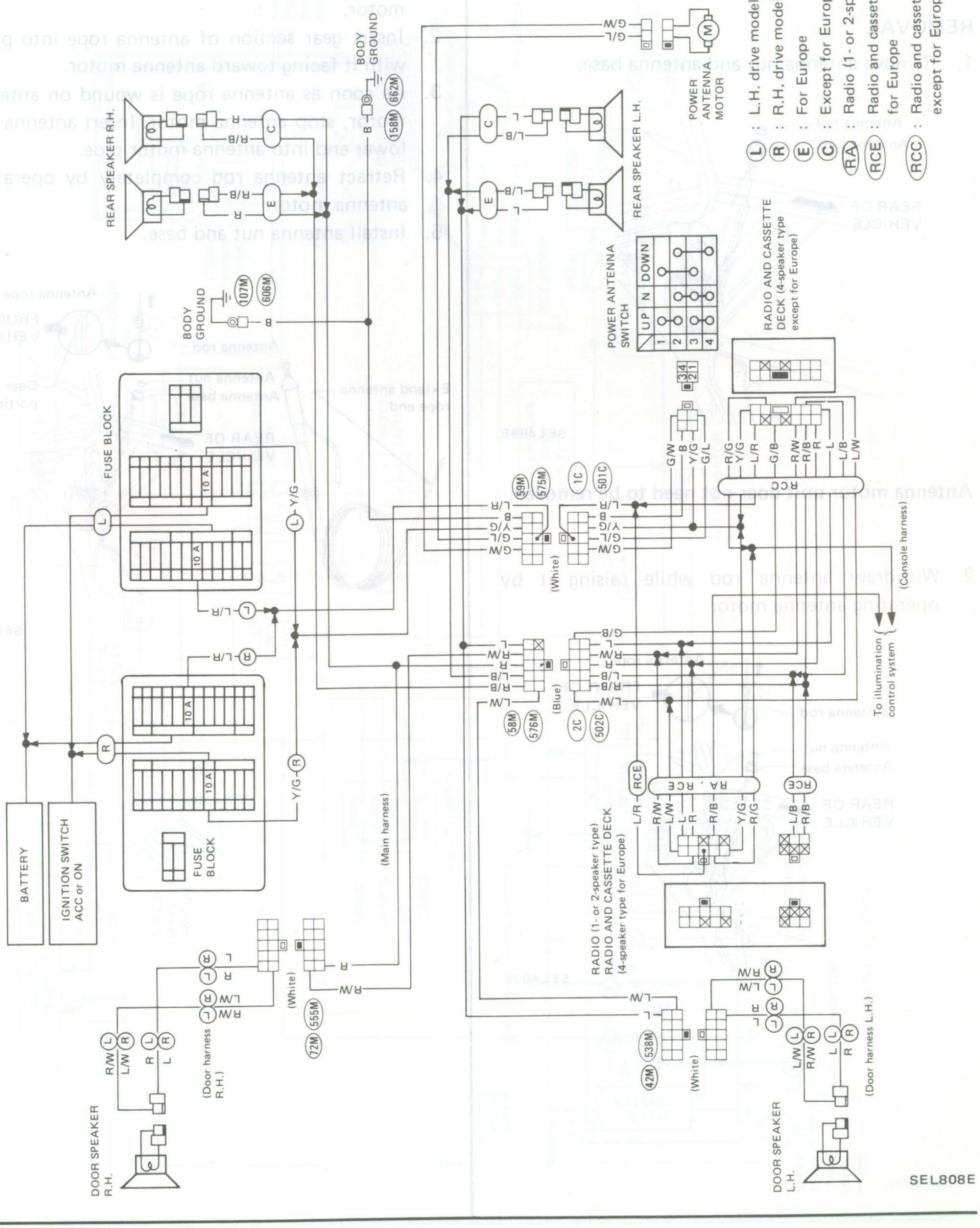
For Australia



AUDIO AND POWER ANTENNA

Wiring Diagram (Cont'd)

Except Australia



(L) : L.H. drive models
(R) : R.H. drive models
(E) : For Europe
(C) : Except for Europe
(RA) : Radio (1- or 2-speaker type)
(RCE) : Radio and cassette deck for Europe
(RCC) : Radio and cassette deck except for Europe

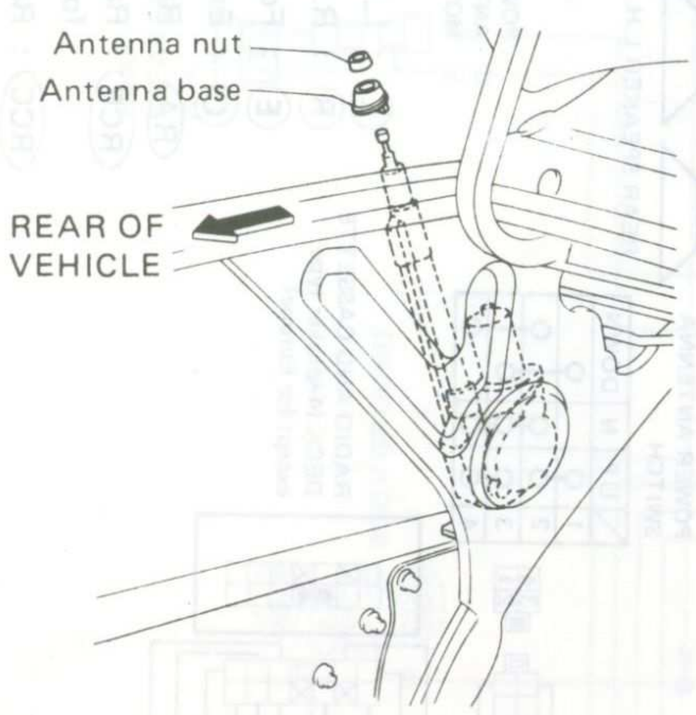
AUDIO AND POWER ANTENNA

Antenna Rod Replacement

Discard antenna rod after it has been removed and install a new one.

REMOVAL

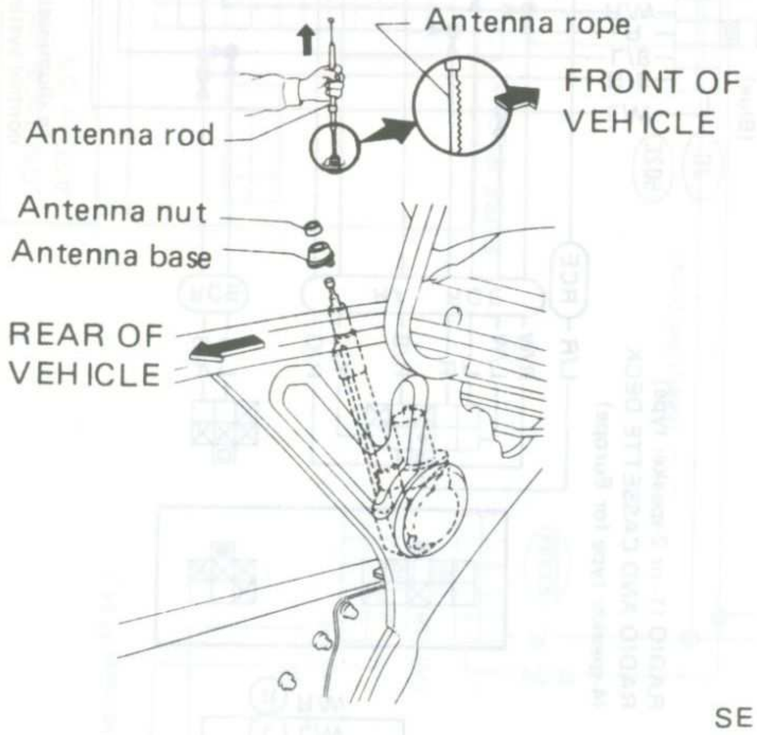
1. Remove antenna nut and antenna base.



SEL488E

Antenna motor unit does not need to be removed.

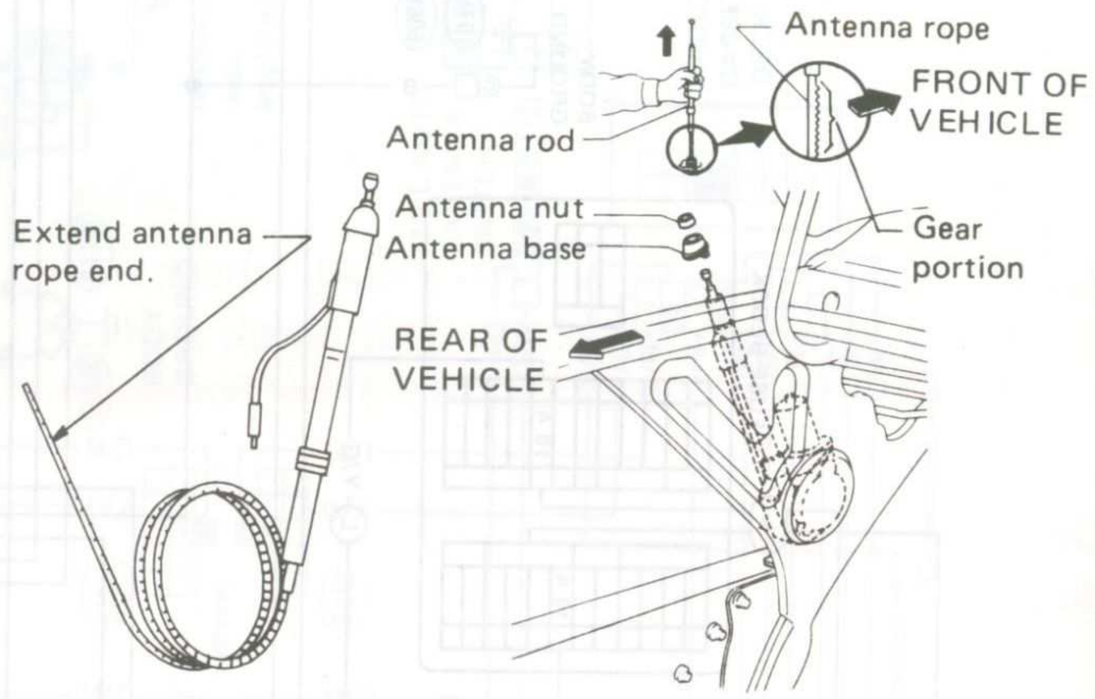
2. Withdraw antenna rod while raising it by operating antenna motor.



SEL490E

INSTALLATION

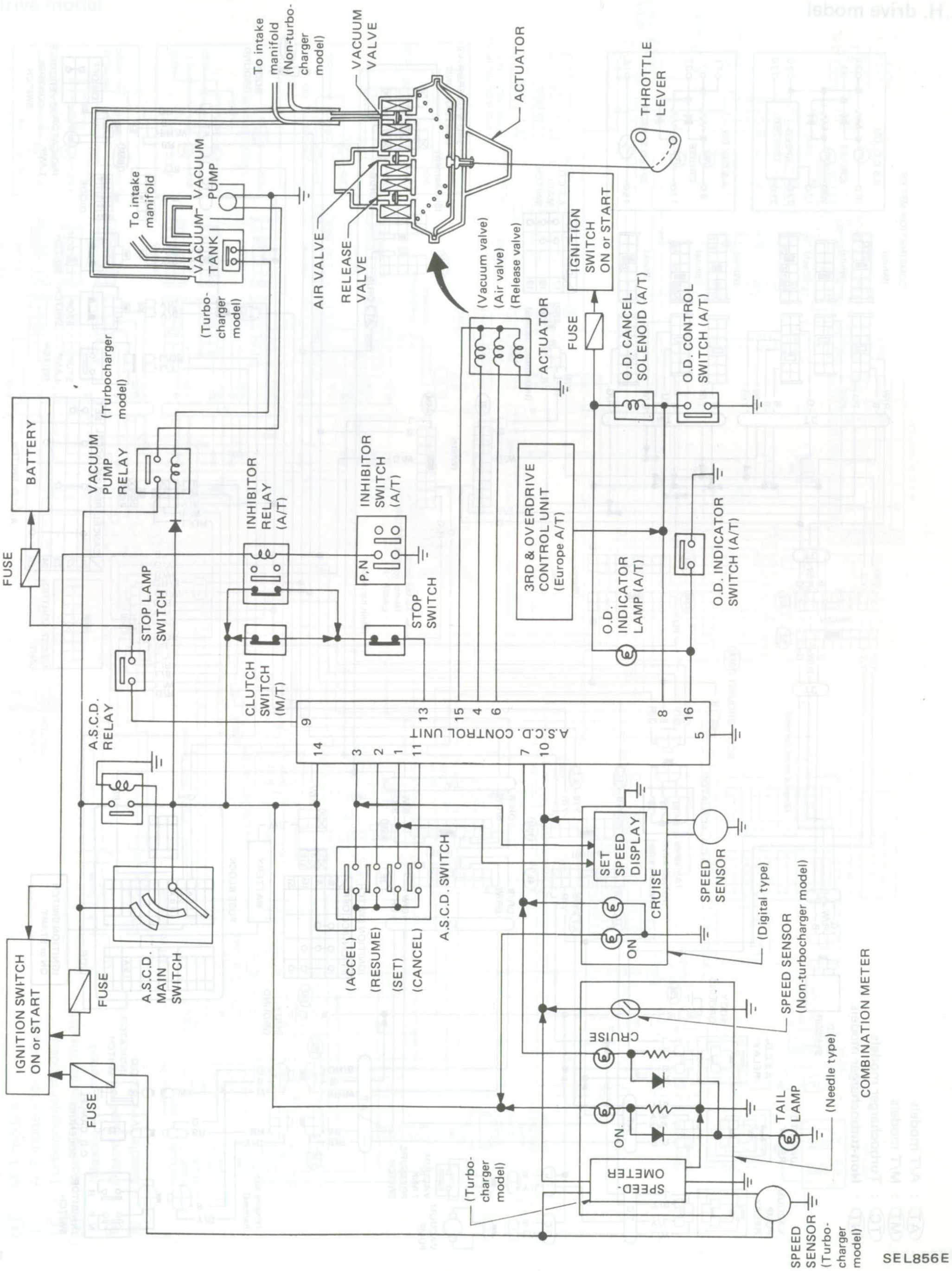
1. Lower antenna rod by operating antenna motor.
2. Insert gear section of antenna rope into place with it facing toward antenna motor.
3. As soon as antenna rope is wound on antenna motor, stop antenna motor. Insert antenna rod lower end into antenna motor pipe.
4. Retract antenna rod completely by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



SEL492E

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

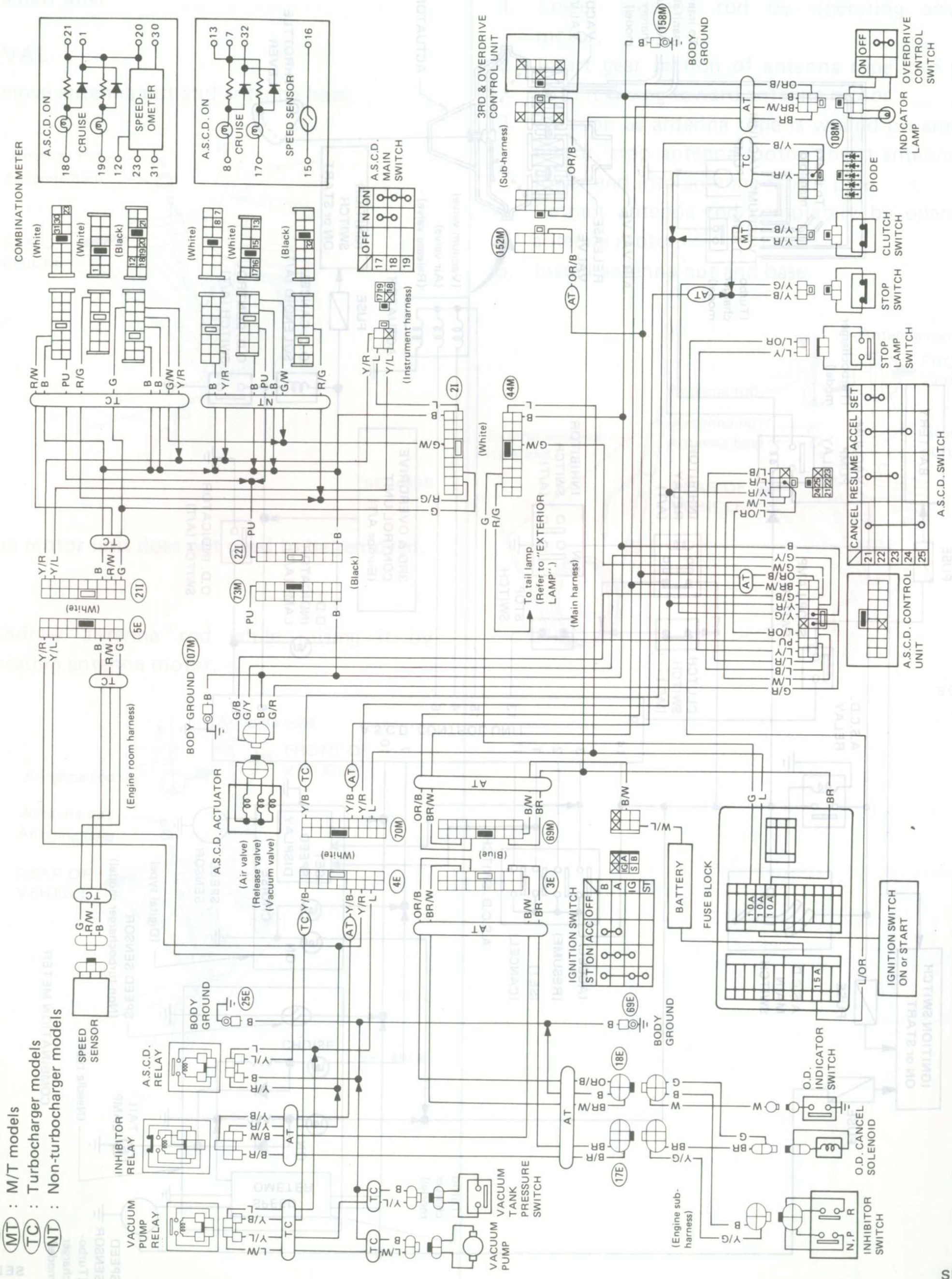
Schematic



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

Wiring Diagram

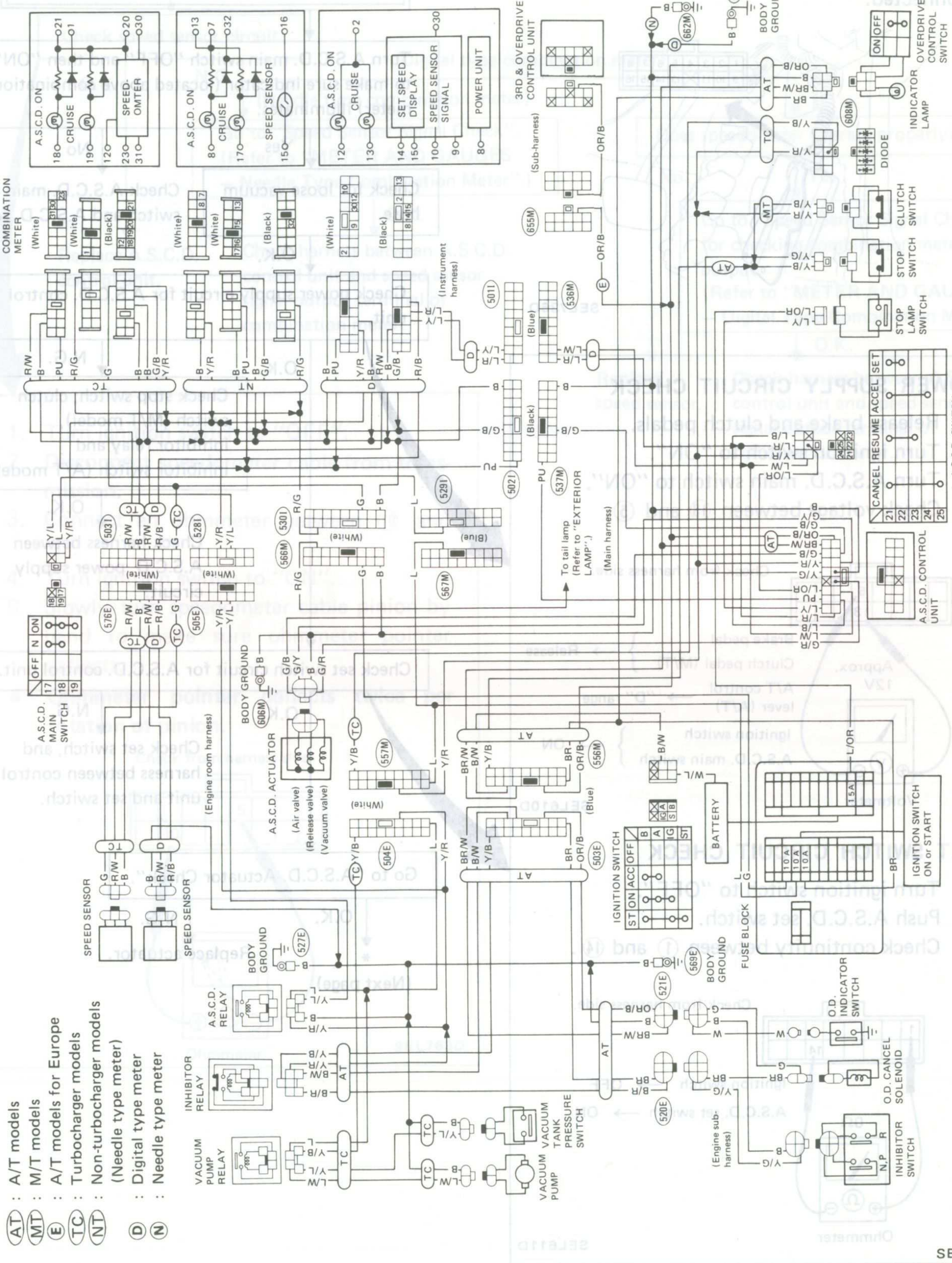
L.H. drive model



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

Wiring Diagram (Cont'd)

R.H. drive model



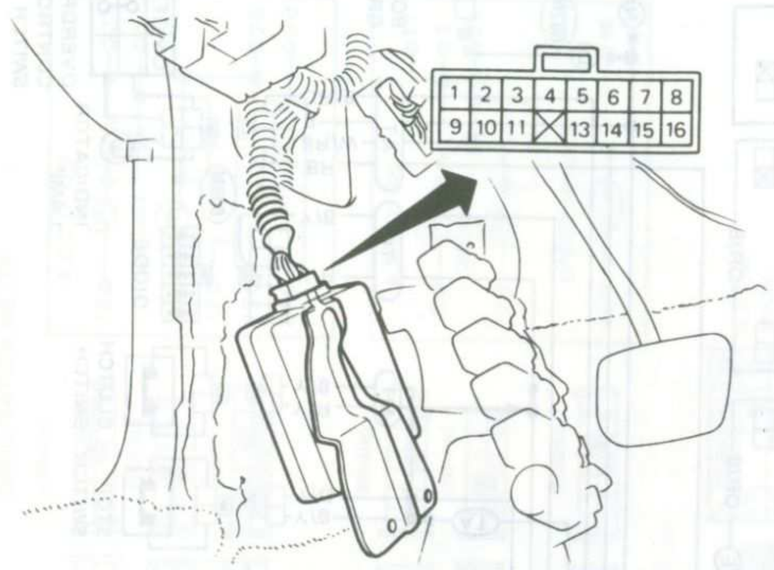
(AT) : A/T models
(MT) : M/T models
(E) : A/T models for Europe
(TC) : Turbocharger models
(NT) : Non-turbocharger models (Needle type meter)
(D) : Digital type meter
(N) : Needle type meter

SEL858E

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

Preparation for Trouble-shooting

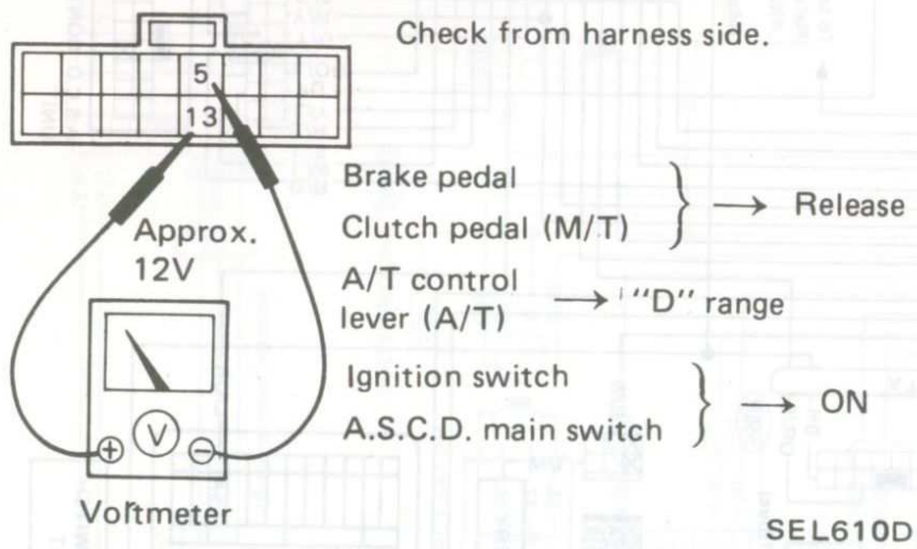
- Remove A.S.C.D. control unit with harness connected.



SEL736D

POWER SUPPLY CIRCUIT CHECK

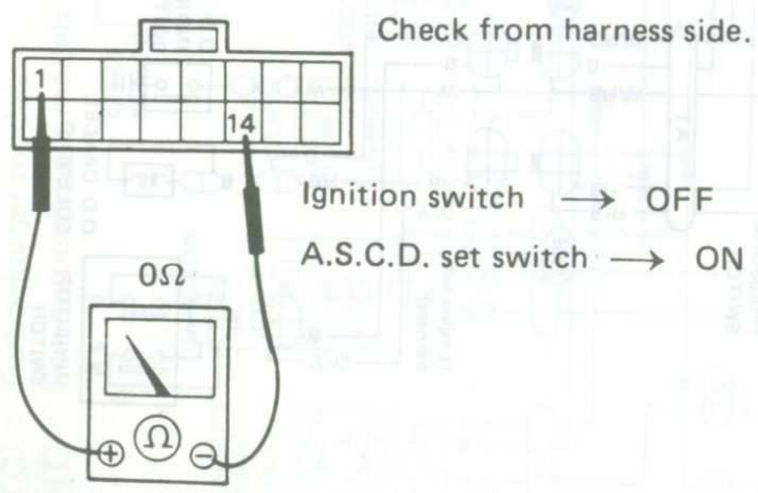
1. Release brake and clutch pedals.
2. Turn ignition switch to "ON".
3. Turn A.S.C.D. main switch to "ON".
4. Check voltage between ⑬ and ⑤.



SEL610D

SET SWITCH CIRCUIT CHECK

1. Turn ignition switch to "OFF".
2. Push A.S.C.D. set switch.
3. Check continuity between ① and ⑭.



SEL611D

Trouble-shooting

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

↓

Turn A.S.C.D. main switch "OFF" and then "ON" to make sure indicator (located above combination meter) illuminates.

↓ Yes

Check for loose vacuum hose.

↓ O.K.

Check power supply circuit for A.S.C.D. control unit.

↓ O.K.

Check set switch circuit for A.S.C.D. control unit.

↓ O.K.

Go to "A.S.C.D. Actuator Check".

↓ O.K.

*

(Next page)

No → Check A.S.C.D. main switch and A.S.C.D. relay.

N.G. → Check stop switch, clutch switch (M/T model), inhibitor relay and inhibitor switch (A/T model).

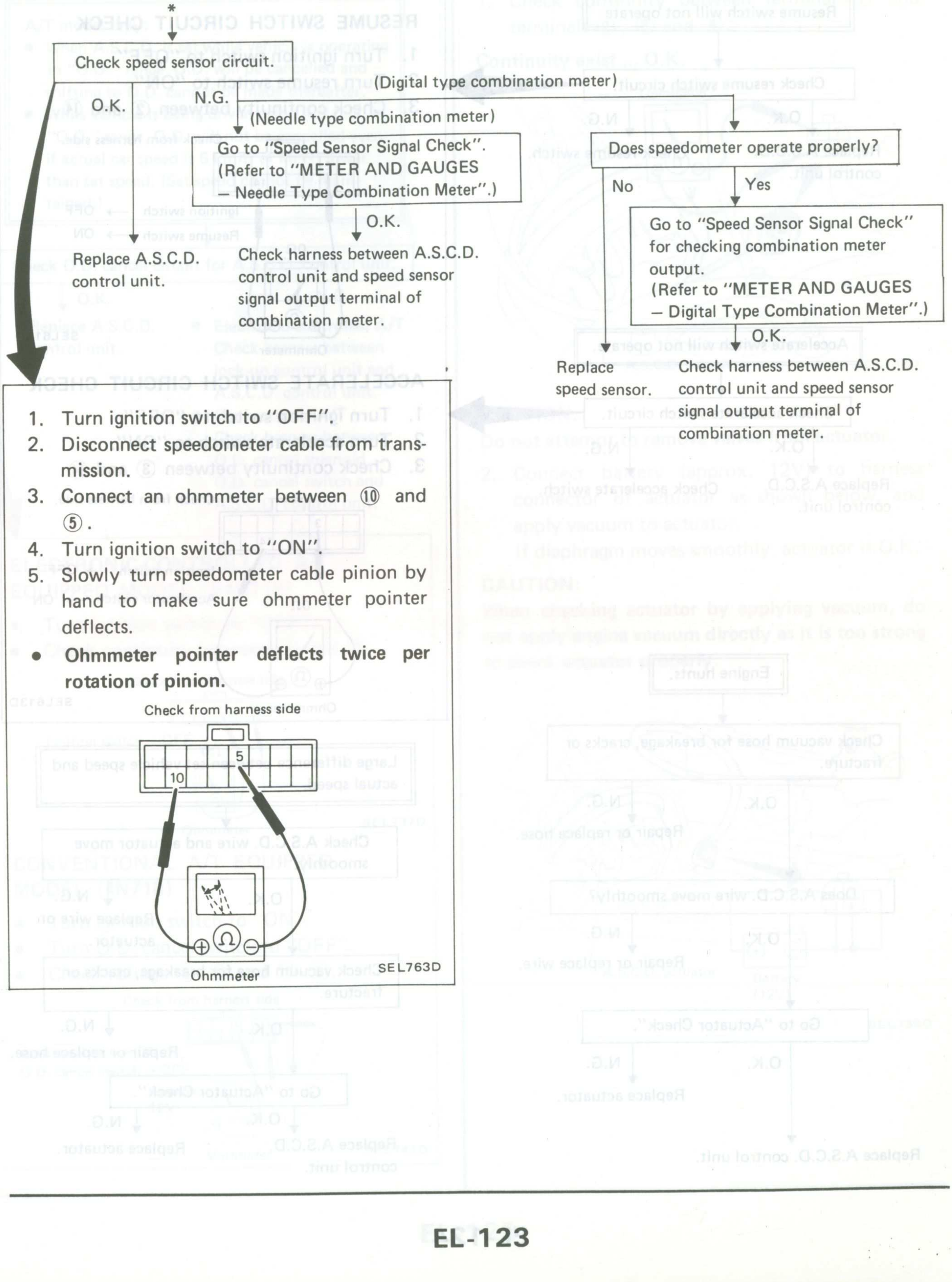
↓ O.K.

Check harness between A.S.C.D. power supply circuit.

N.G. → Check set switch, and harness between control unit and set switch.

N.G. → Replace actuator.

Trouble-shooting (Cont'd)



1. Turn ignition switch to "OFF".
2. Disconnect speedometer cable from transmission.
3. Connect an ohmmeter between ⑩ and ⑤.
4. Turn ignition switch to "ON".
5. Slowly turn speedometer cable pinion by hand to make sure ohmmeter pointer deflects.

- **Ohmmeter pointer deflects twice per rotation of pinion.**

Check from harness side

Ohmmeter

SEL763D

Trouble-shooting (Cont'd)

Resume switch will not operate.

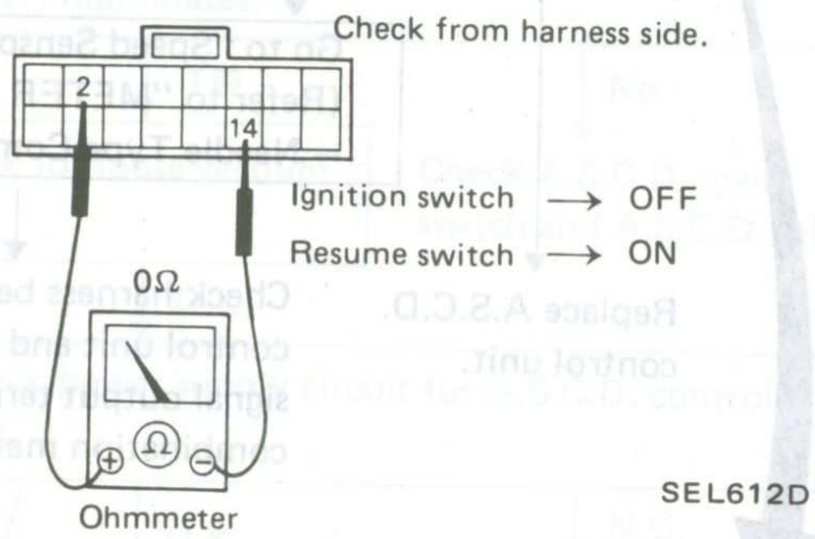
Check resume switch circuit.

O.K. → Replace A.S.C.D. control unit.

N.G. → Check resume switch.

RESUME SWITCH CIRCUIT CHECK

1. Turn ignition switch to "OFF".
2. Turn resume switch to "ON".
3. Check continuity between ② and ⑭.



SEL612D

Accelerate switch will not operate.

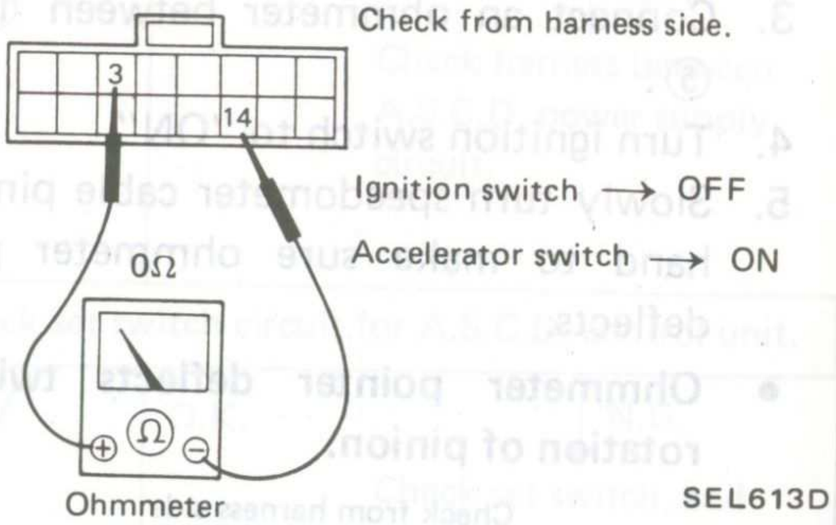
Check accelerate switch circuit.

O.K. → Replace A.S.C.D. control unit.

N.G. → Check accelerate switch.

ACCELERATE SWITCH CIRCUIT CHECK

1. Turn ignition switch to "OFF".
2. Turn accelerate switch to "ON".
3. Check continuity between ③ and ⑭.



SEL613D

Engine hunts.

Check vacuum hose for breakage, cracks or fracture.

O.K.

Does A.S.C.D. wire move smoothly?

O.K.

Go to "Actuator Check".

O.K. → Replace A.S.C.D. control unit.

N.G. → Replace actuator.

N.G. → Repair or replace wire.

N.G. → Repair or replace hose.

Large difference between set vehicle speed and actual speed.

Check A.S.C.D. wire and actuator move smoothly.

O.K.

Check vacuum hose for breakage, cracks or fracture.

O.K.

Go to "Actuator Check".

O.K. → Replace A.S.C.D. control unit.

N.G. → Replace actuator.

N.G. → Replace wire or actuator.

N.G. → Repair or replace hose.

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

Trouble-shooting (Cont'd)

A/T model only:
- When A.S.C.D. is set while vehicle is operating in "O.D." range, O.D. will be cancelled and shifting to O.D. cannot be made thereafter.
- While vehicle is being driven using A.S.C.D. in "O.D." range, O.D. will not be cancelled even if actual car speed is 6 km/h (4 MPH) lower than set speed. (Set speed cannot be maintained.)

↓

Check O.D. cancel circuit for A.S.C.D. control unit.

↓ O.K.

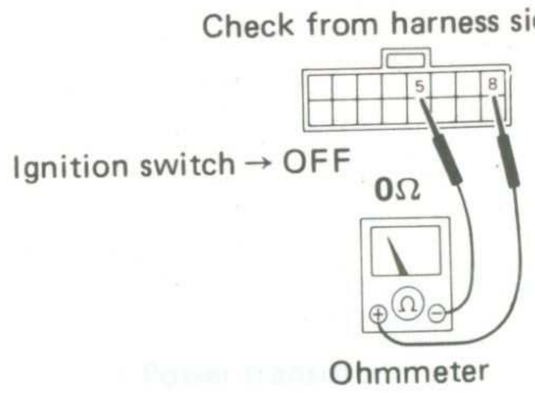
Replace A.S.C.D. control unit.

N.G. ↓

- **Electronic-controlled A/T**
  Check harness between lock-up control unit and A.S.C.D. control unit.
- **Conventional A/T**
  Check harness between O.D. cancel solenoid, O.D. cancel switch and A.S.C.D. control unit.

ELECTRONIC-CONTROLLED A/T EQUIPPED MODEL (E4N71B)

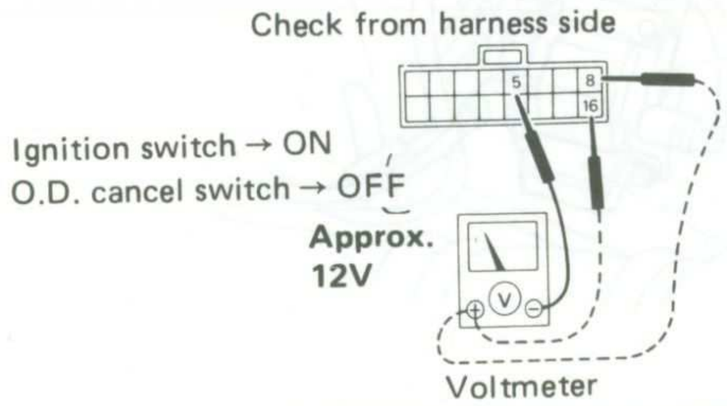
- Turn ignition switch to "OFF".
- Check continuity between ⑧ and ⑤.



SEL737D

CONVENTIONAL A/T EQUIPPED MODEL (4N71B)

- Turn ignition switch to "ON".
- Turn O.D. cancel switch to "OFF".
- Check voltage ⑧ - ⑤ and ⑯ - ⑤.

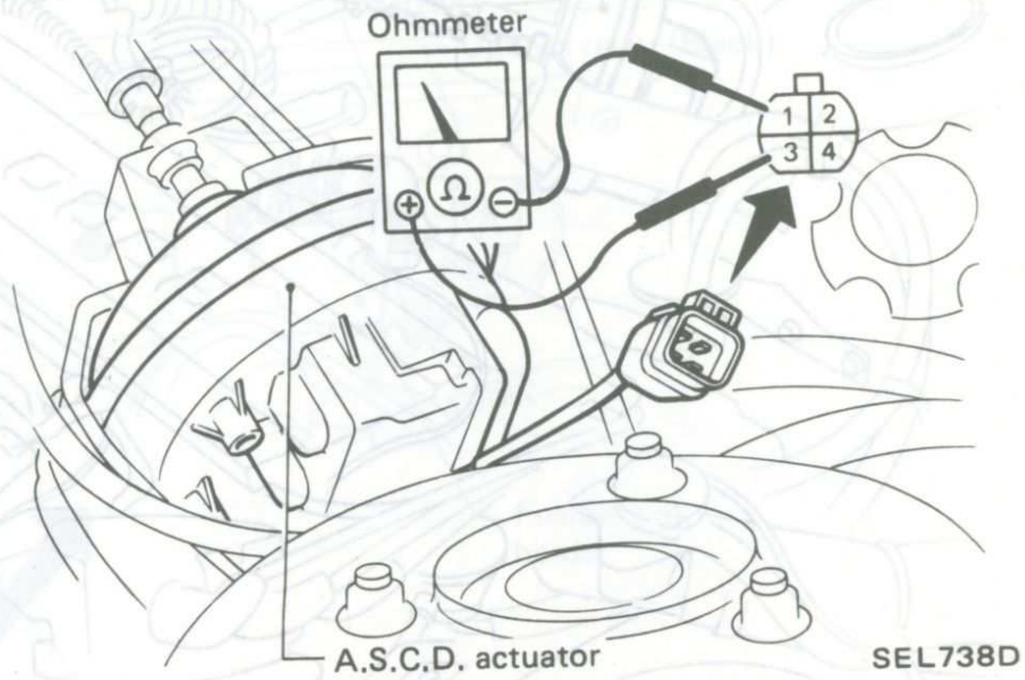


SEL741D

A.S.C.D. Actuator Check

1. Check continuity between terminal ① and terminals ②, ③ and ④.

Continuity exist ... O.K.

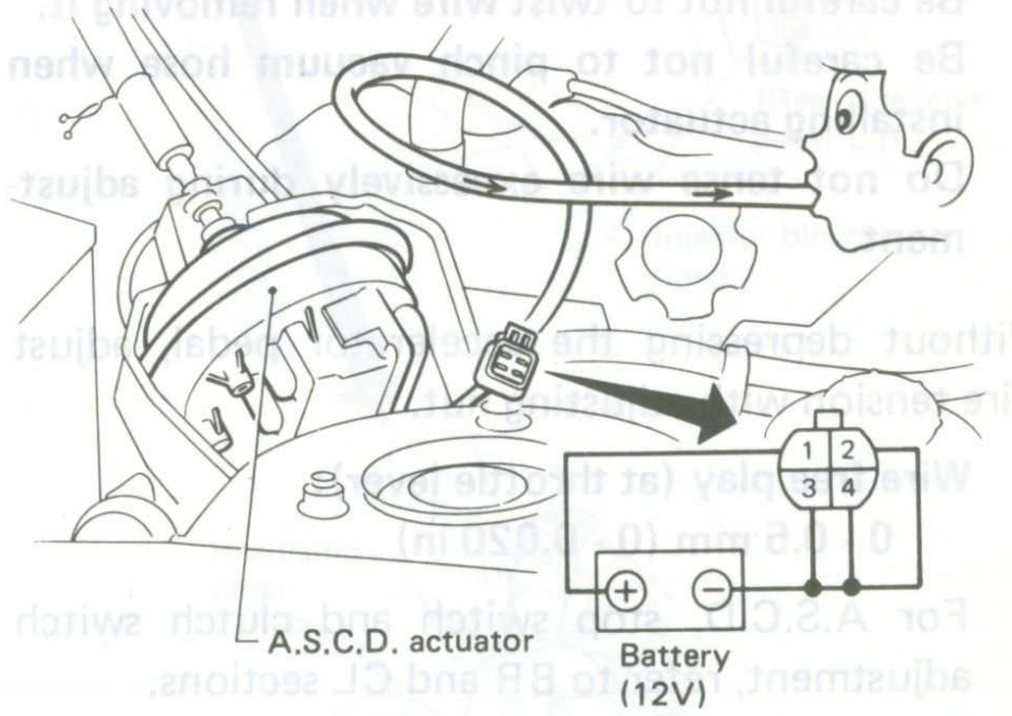


SEL738D

CAUTION:
Do not attempt to remove valves from actuator.

2. Connect battery (approx. 12V) to harness connector of actuator as shown below, and apply vacuum to actuator.
   If diaphragm moves smoothly, actuator is O.K.

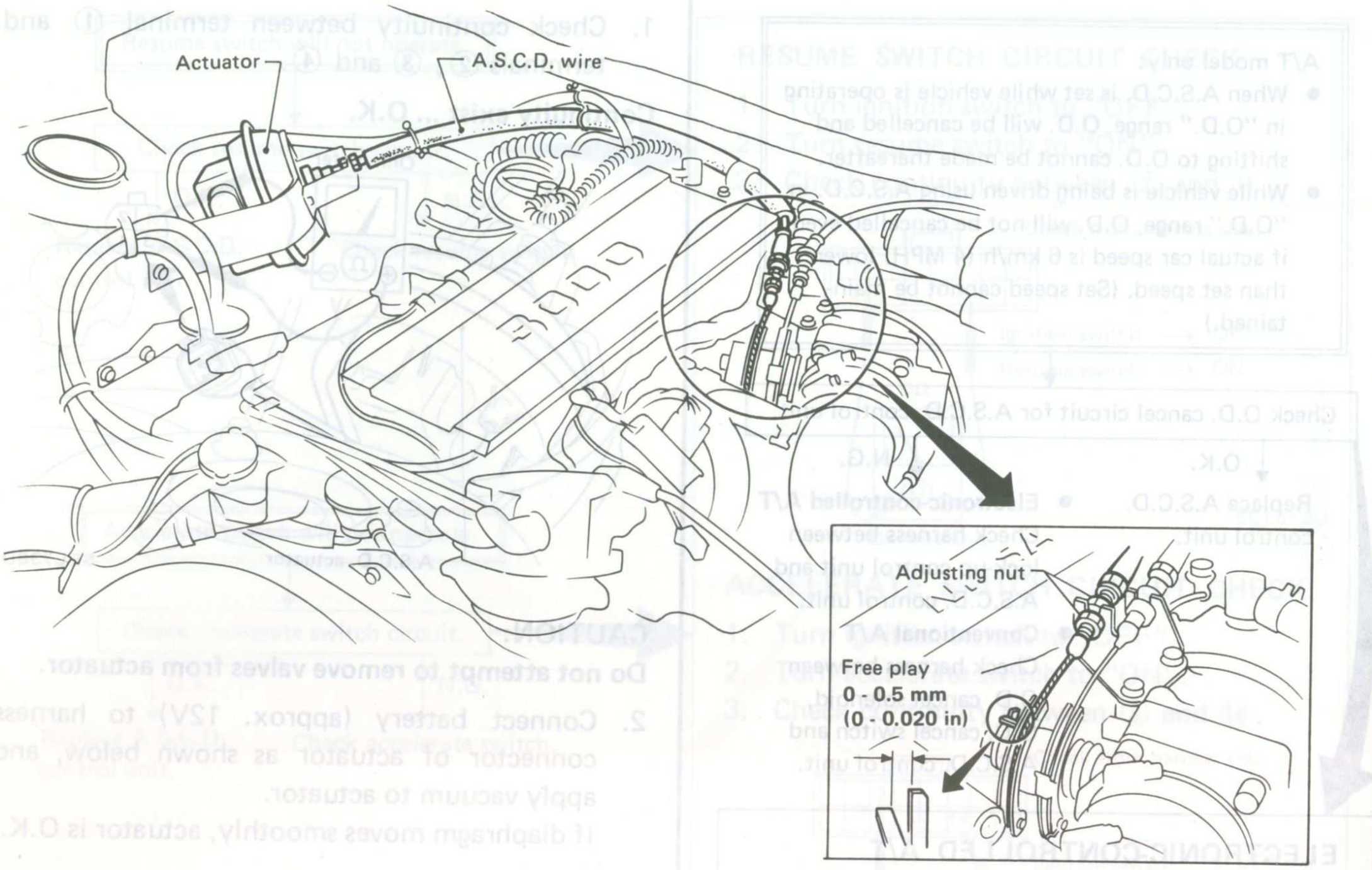
CAUTION:
When checking actuator by applying vacuum, do not apply engine vacuum directly as it is too strong to check actuator properly.



SEL739D

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

A.S.C.D. Wire Adjustment



SEL740D

CAUTION:

- **Be careful not to twist wire when removing it.**
- **Be careful not to pinch vacuum hose when installing actuator.**
- **Do not tense wire excessively during adjustment.**

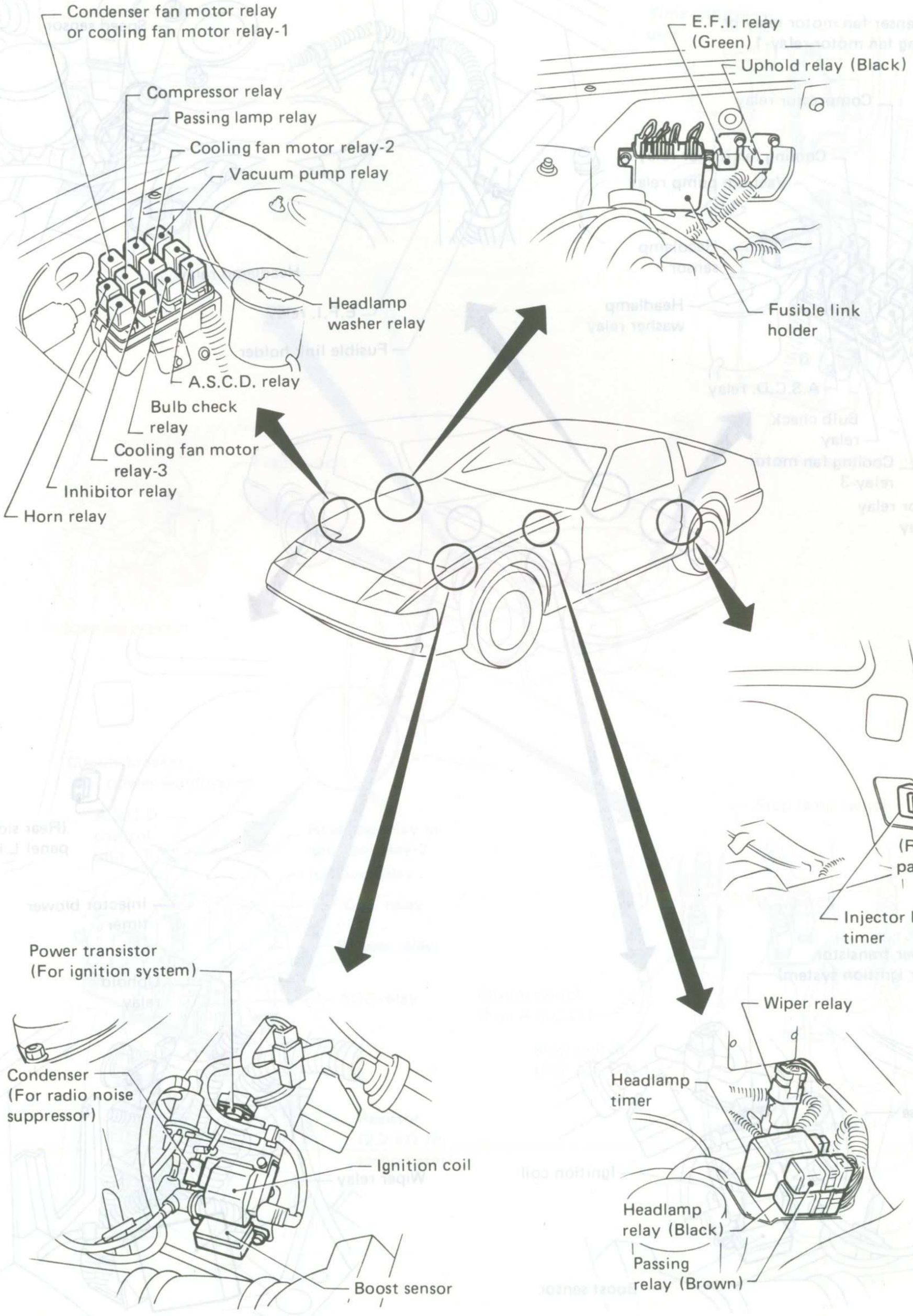
Without depressing the accelerator pedal, adjust wire tension with adjusting nut.

Wire free play (at throttle lever):
0 - 0.5 mm (0 - 0.020 in)

- For A.S.C.D. stop switch and clutch switch adjustment, refer to BR and CL sections.
- For vacuum pump and tank check, refer to HA section.

LOCATION OF ELECTRICAL UNITS

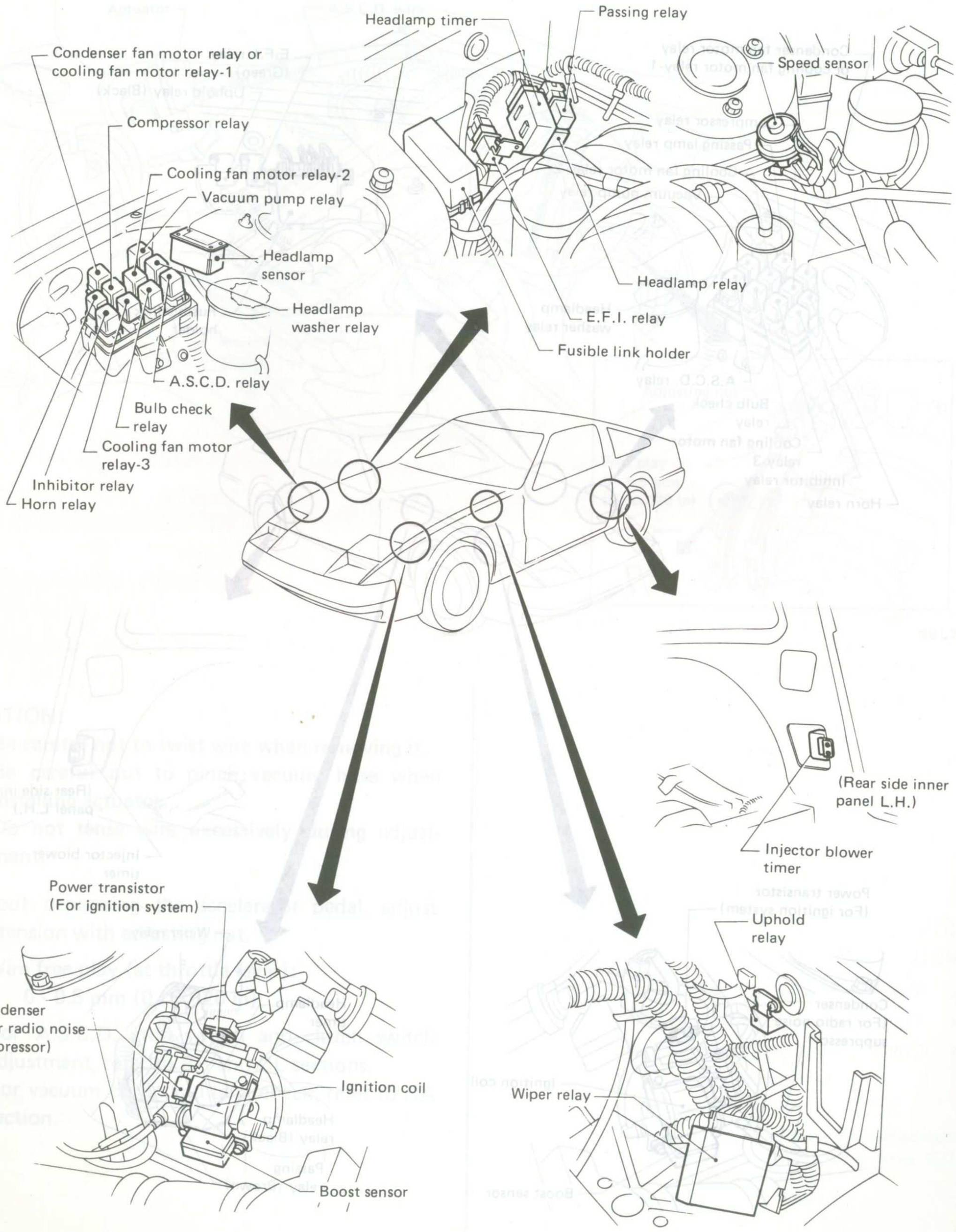
L.H. drive model



SEL859E

LOCATION OF ELECTRICAL UNITS

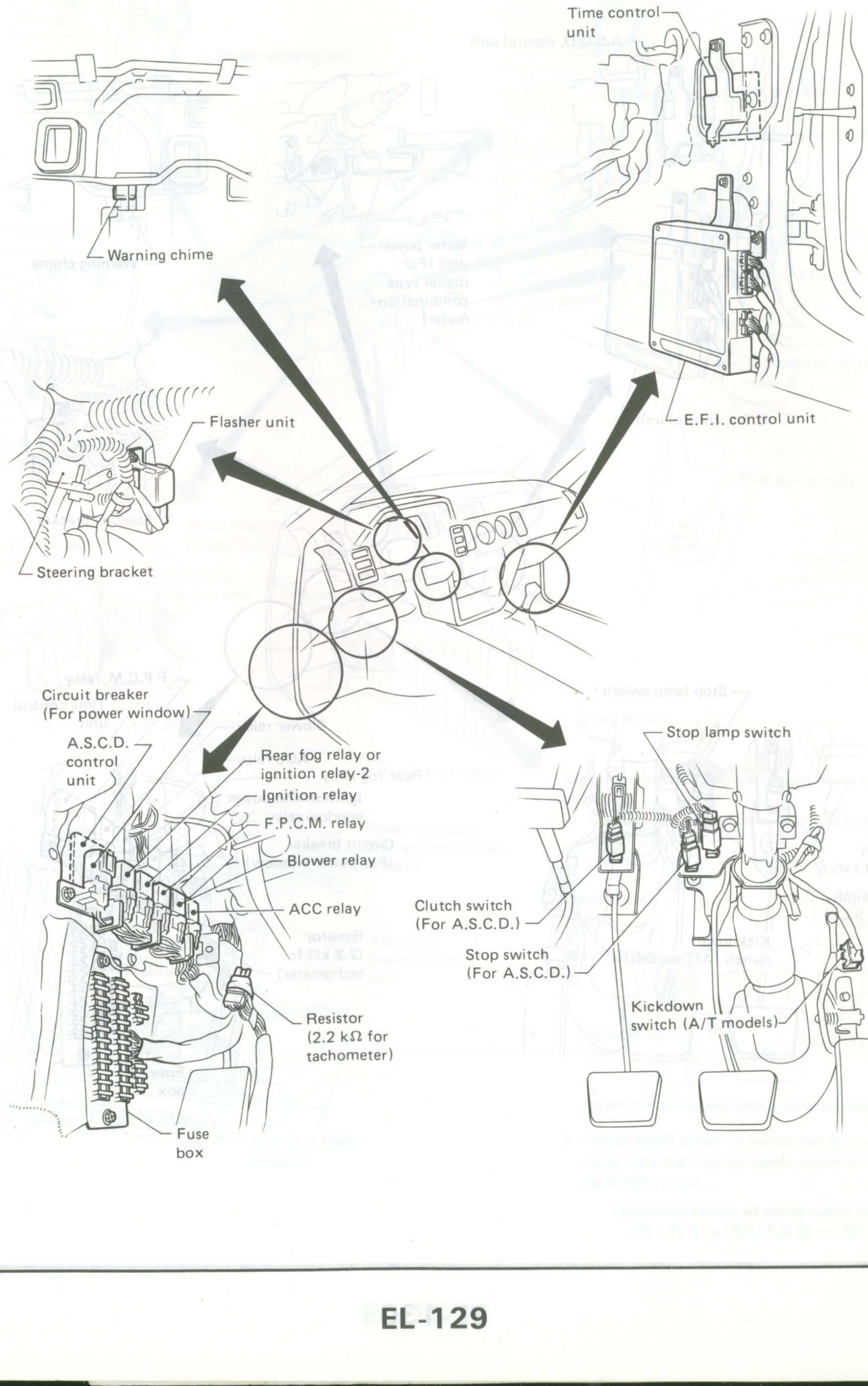
R.H. drive model



SEL860E

LOCATION OF ELECTRICAL UNITS

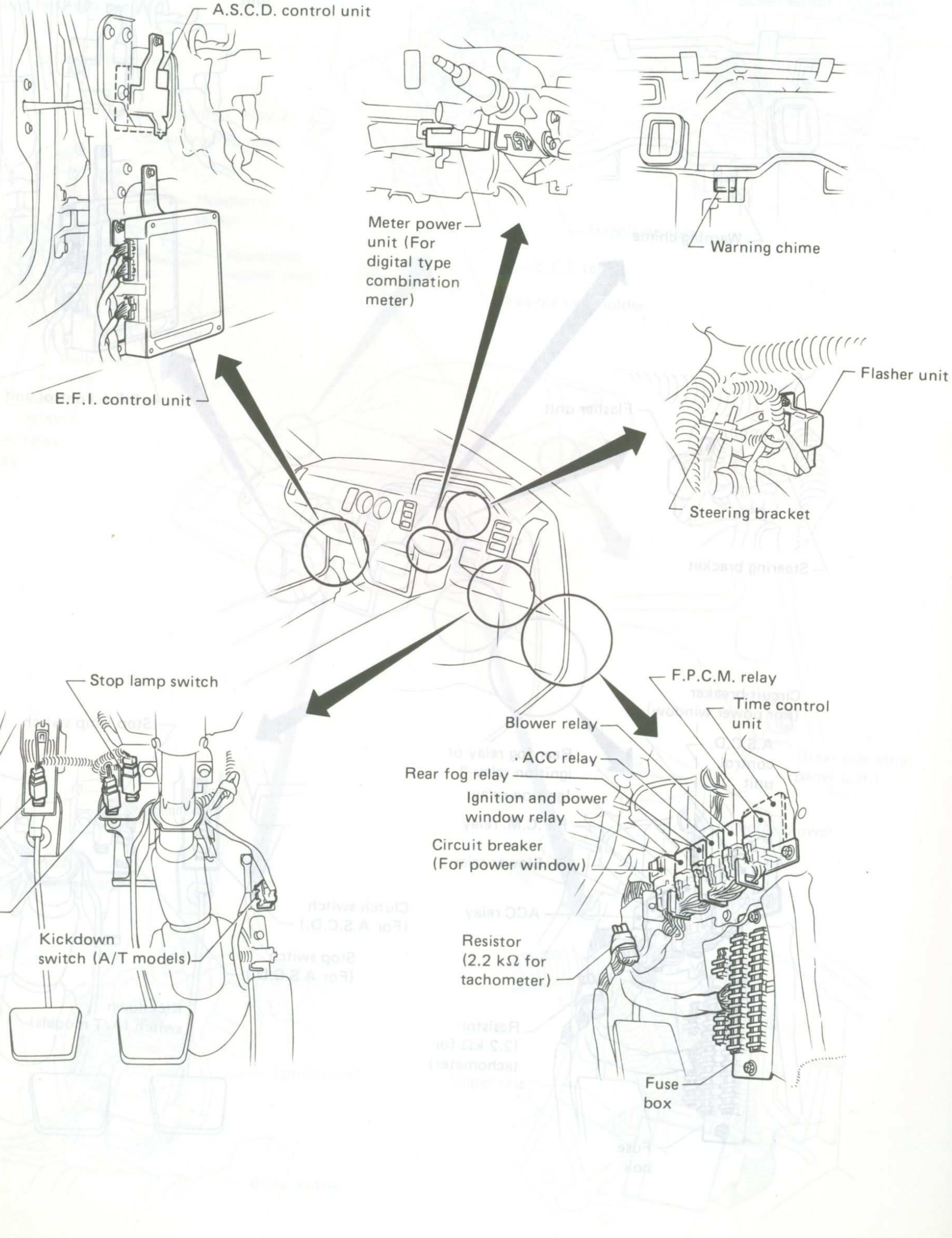
L.H. drive model



SEL861E

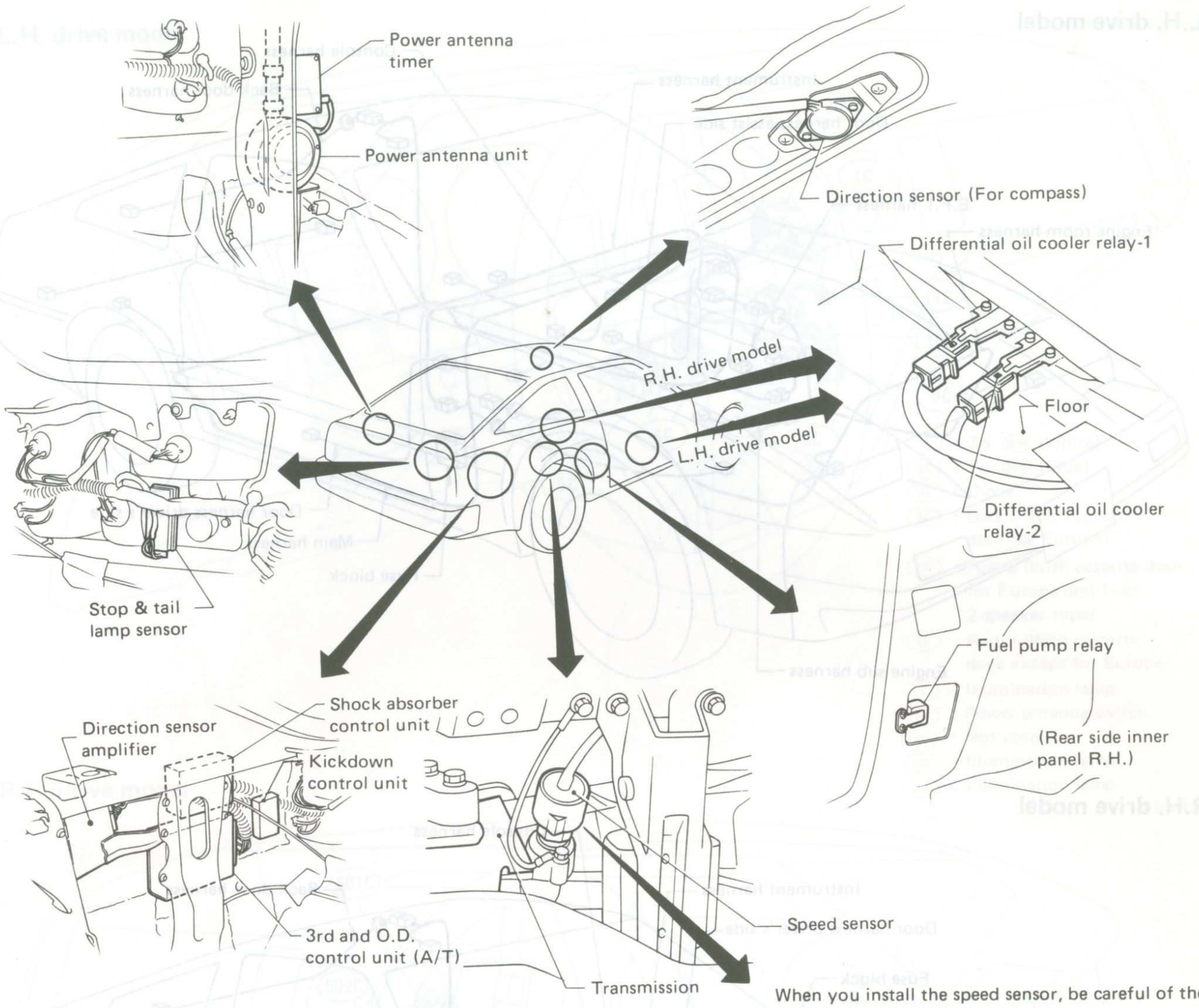
LOCATION OF ELECTRICAL UNITS

R.H. drive model



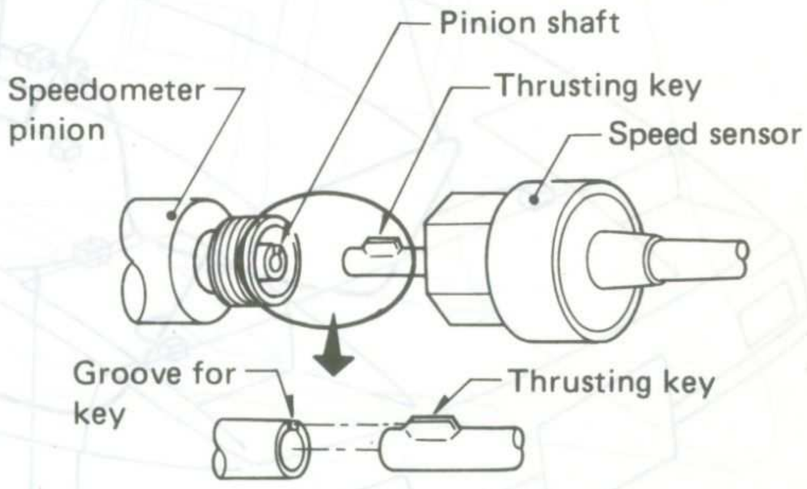
SEL862E

LOCATION OF ELECTRICAL UNITS



When you install the speed sensor, be careful of the following.

1. Connect pinion shaft and thrusting key as shown below.



Insert thrusting key into groove for key.

2. Install speed sensor to speedometer pinion by hand, and then tighten speed sensor nut to the specified torque.

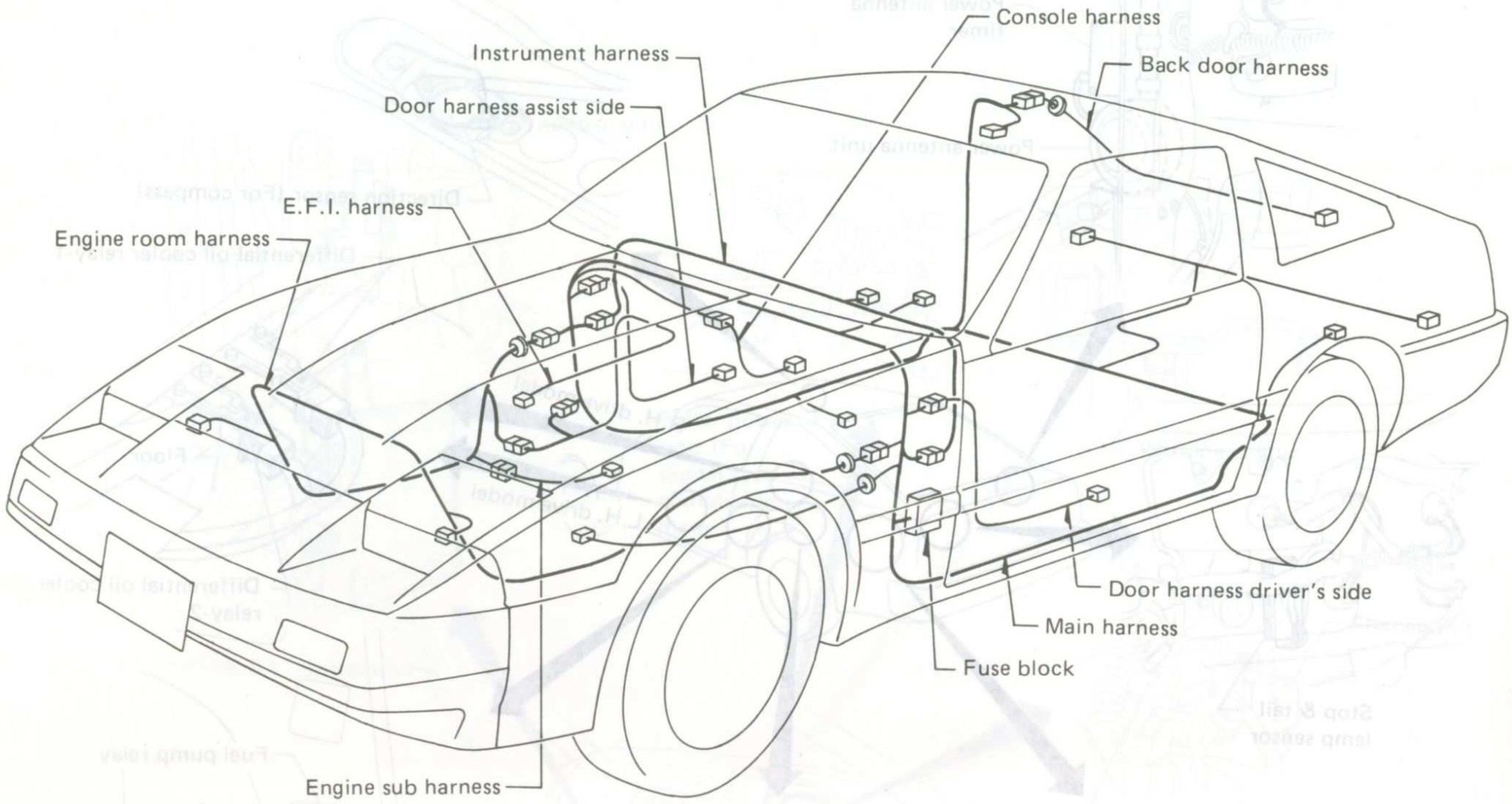
Tightening torque of speed sensor nut:
29 - 49 N·m (3.0 - 5.0 kg-m, 22 - 36 ft-lb)

SEL079F

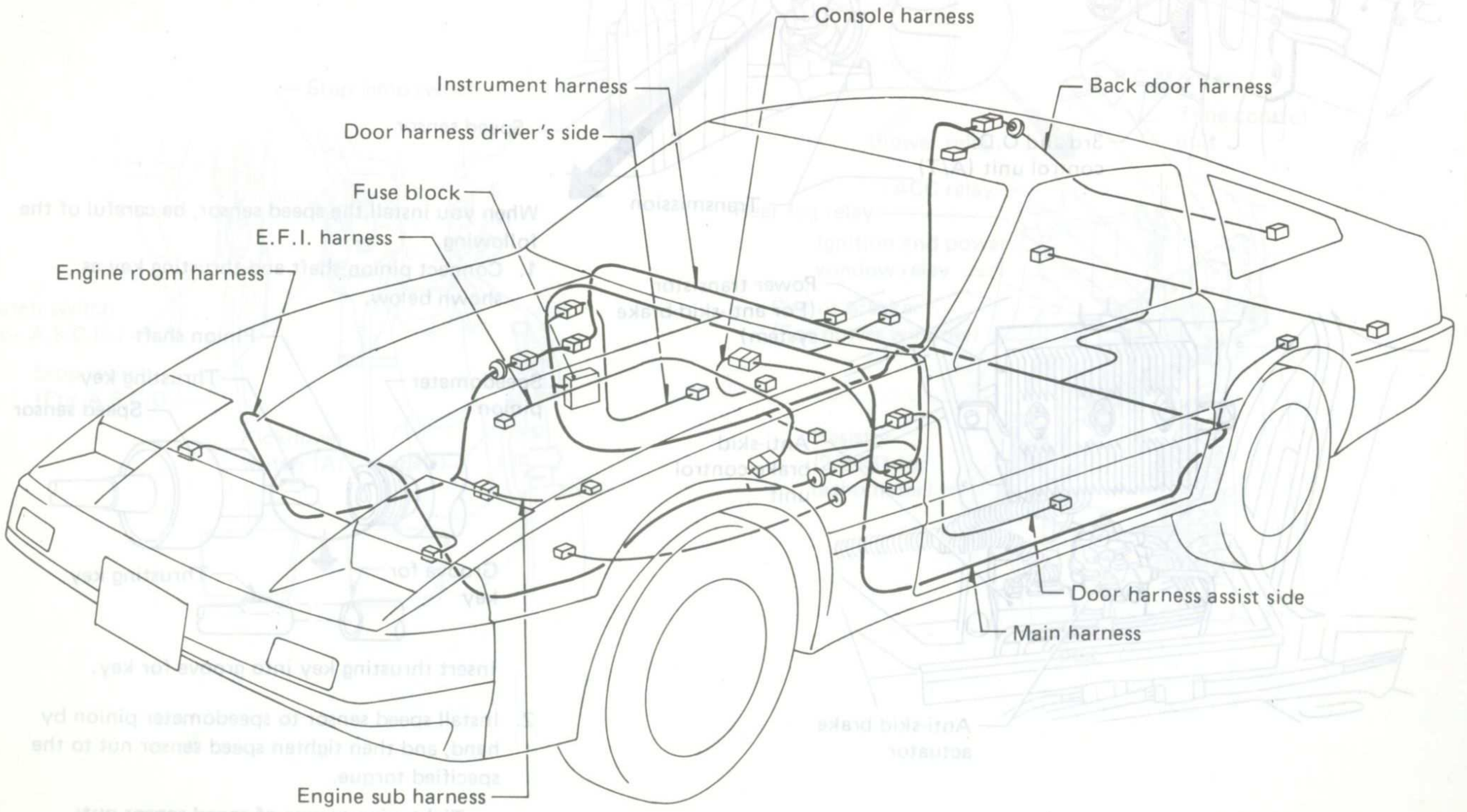
HARNESS LAYOUT

Outline

L.H. drive model



R.H. drive model

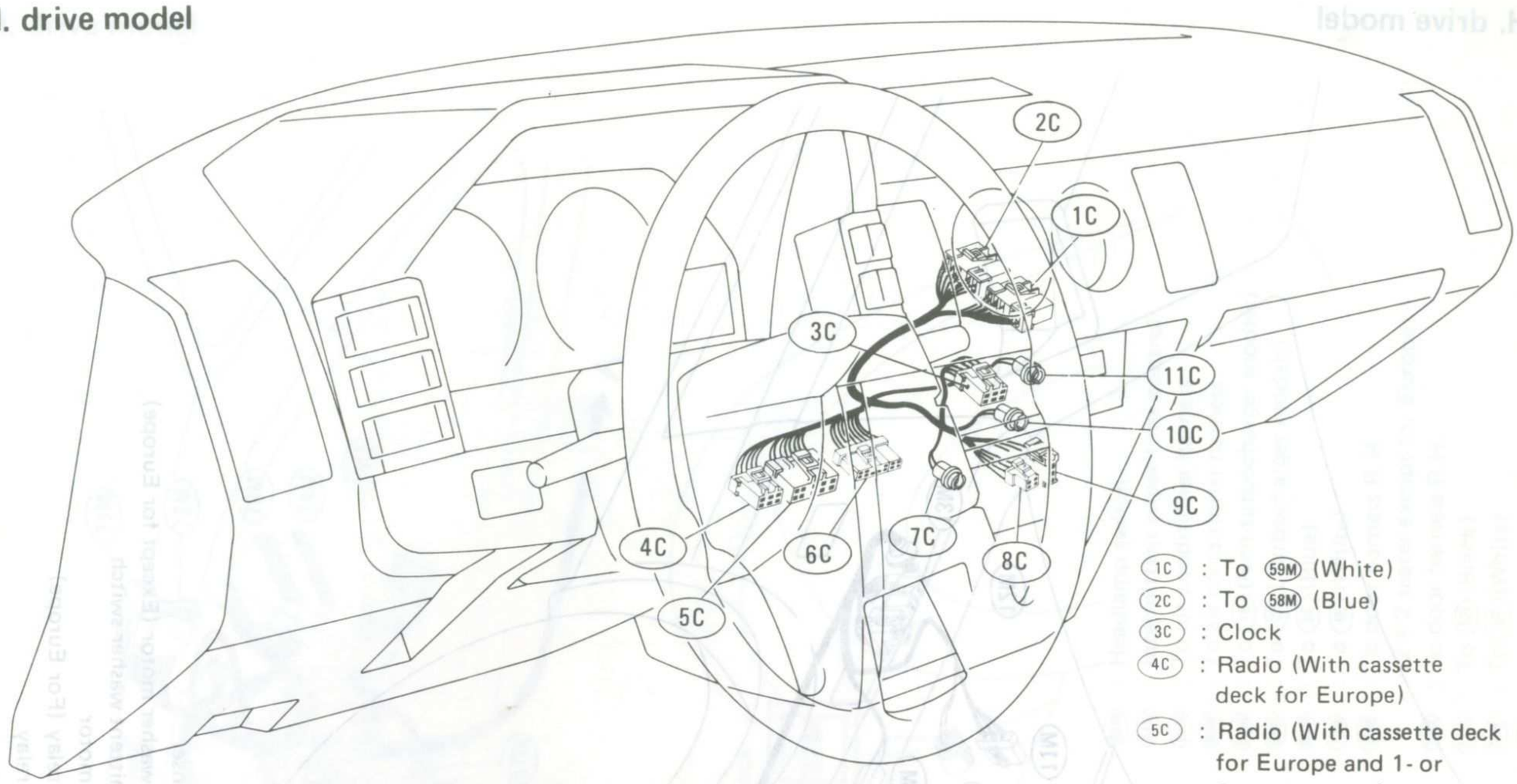


SEL809E

HARNESS LAYOUT

Console Harness

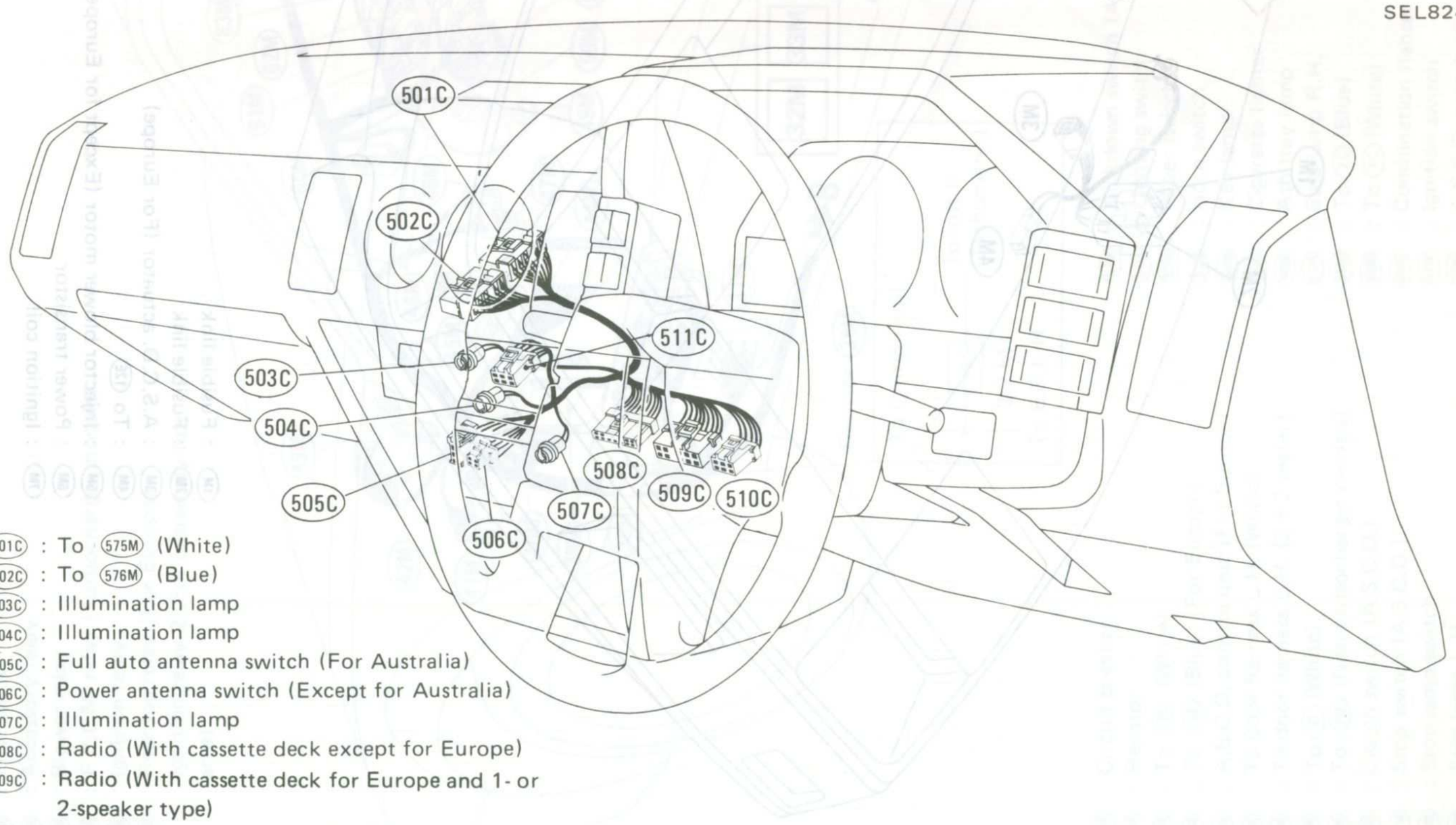
L.H. drive model



(1C) : To (59M) (White)
(2C) : To (58M) (Blue)
(3C) : Clock
(4C) : Radio (With cassette deck for Europe)
(5C) : Radio (With cassette deck for Europe and 1- or 2-speaker type)
(6C) : Radio (With cassette deck except for Europe)
(7C) : Illumination lamp
(8C) : Power antenna switch
(9C) : Not used
(10C) : Illumination lamp
(11C) : Illumination lamp

SEL824E

R.H. drive model



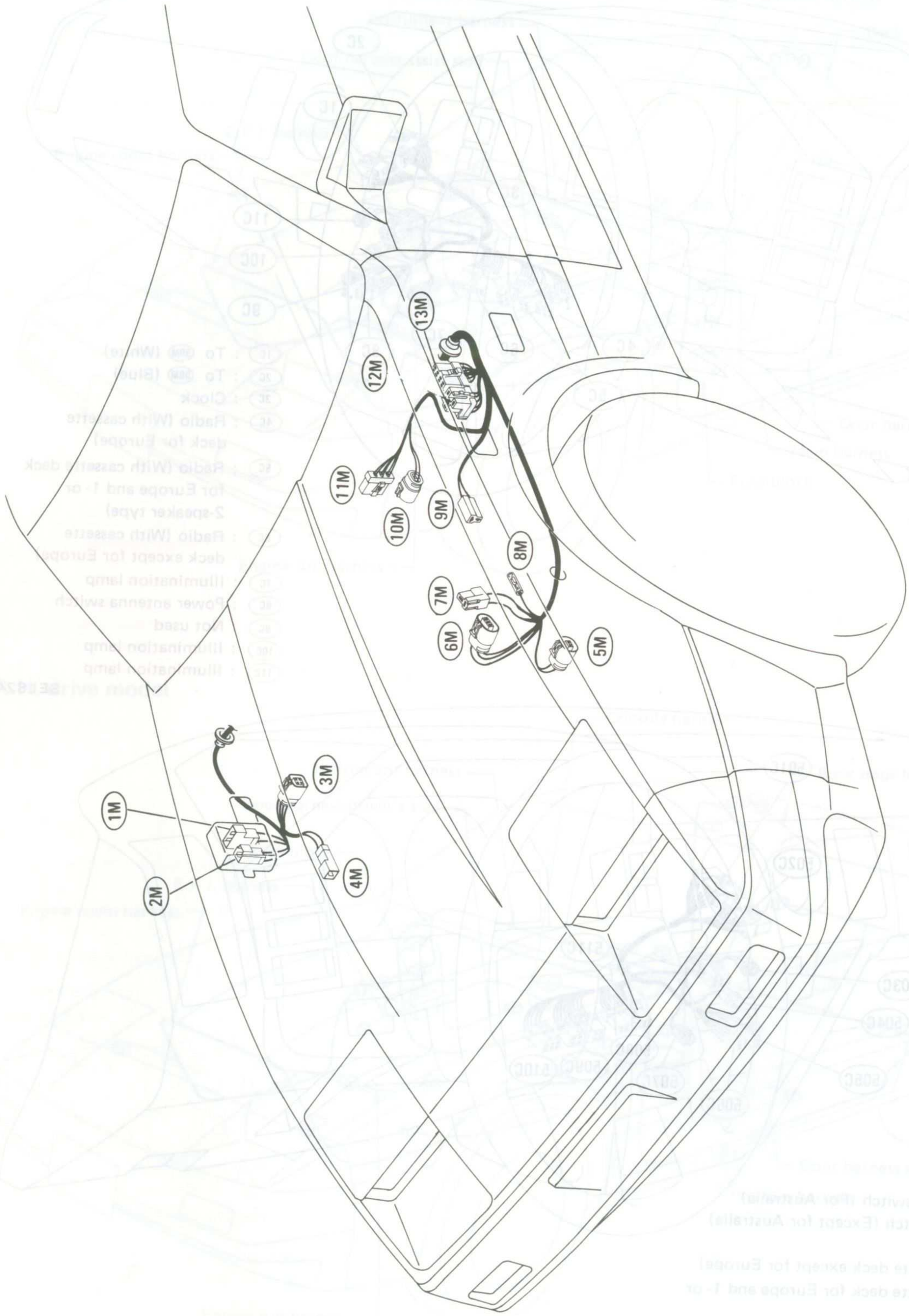
(501C) : To (575M) (White)
(502C) : To (576M) (Blue)
(503C) : Illumination lamp
(504C) : Illumination lamp
(505C) : Full auto antenna switch (For Australia)
(506C) : Power antenna switch (Except for Australia)
(507C) : Illumination lamp
(508C) : Radio (With cassette deck except for Europe)
(509C) : Radio (With cassette deck for Europe and 1- or 2-speaker type)
(510C) : Radio (With cassette deck for Europe)
(511C) : Clock

SEL825E

HARNESS LAYOUT

Main Harness

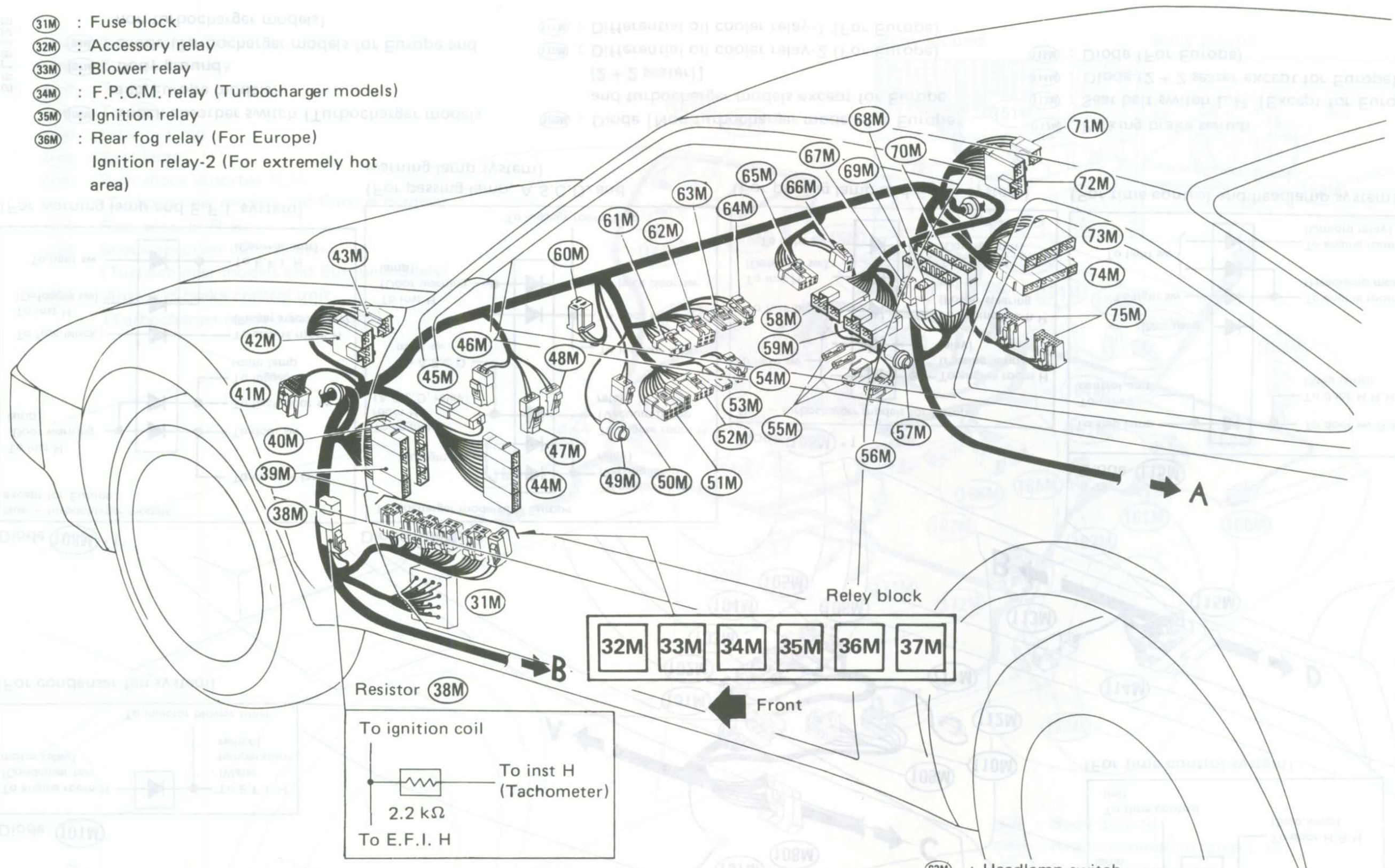
L.H. drive model



8M : Condenser
9M : Front washer motor (Except for Europe)
10M : Intermittent washer switch
11M : Wiper motor
12M : Wiper relay (For Europe)
13M : Wiper relay

1M : Fusible link
2M : Fusible link
3M : A.S.C.D. actuator (For Europe)
4M : To 12E
5M : Injector blower motor (Except for Europe)
6M : Power transistor
7M : Ignition coil

SEL810E

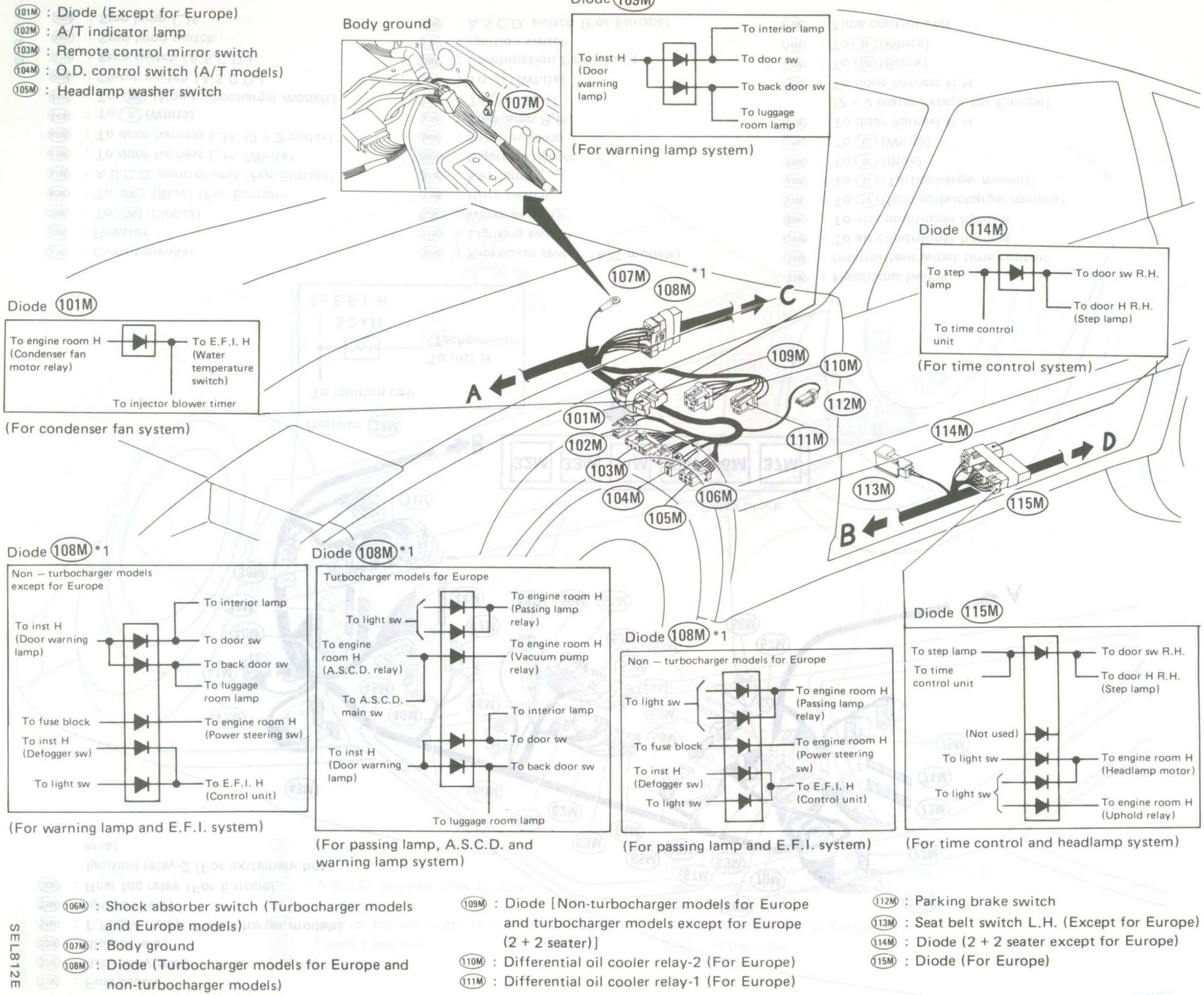


37M : Circuit breaker
38M : Resistor
39M : To 77E (White)
40M : To 76E (Blue) (For Europe)
41M : A.S.C.D. control unit (For Europe)
42M : To door harness L.H. (White)
43M : To door harness L.H. (2 + 2 seater)
44M : To 21 (White)
45M : To 79E (Non-turbocharger models)
46M : Clutch switch (A.S.C.D.)
47M : Stop switch (A.S.C.D.)
48M : Stop lamp switch
49M : Step lamp L.H.
50M : Kickdown switch (A/T models)
51M : Lighting switch
52M : Wiper switch
53M : Horn switch
54M : Key lamp
55M : Cigarette lighter
56M : Ash tray lamp
57M : Step lamp R.H.
58M : To 2C (Blue)
59M : To 1C (White)
60M : Combination flahser unit
61M : Ignition switch
62M : A.S.C.D. switch (For Europe)
63M : Headlamp switch
64M : Intermittent wiper time control
65M : To air conditioner harness
66M : To air conditioner harness
67M : To 1E (Non-turbocharger models)
68M : To 2E (Turbocharger models)
69M : To 3E (Blue)
70M : To 4E (White)
71M : To door harness R.H. (2 + 2 seater except for Europe)
72M : To door harness R.H.
73M : To 22I (Black)
74M : To 3F (White)
75M : Time control unit

SEL811E

Main Harness (Cont'd)

(101M) : Diode (Except for Europe)
(102M) : A/T indicator lamp
(103M) : Remote control mirror switch
(104M) : O.D. control switch (A/T models)
(105M) : Headlamp washer switch

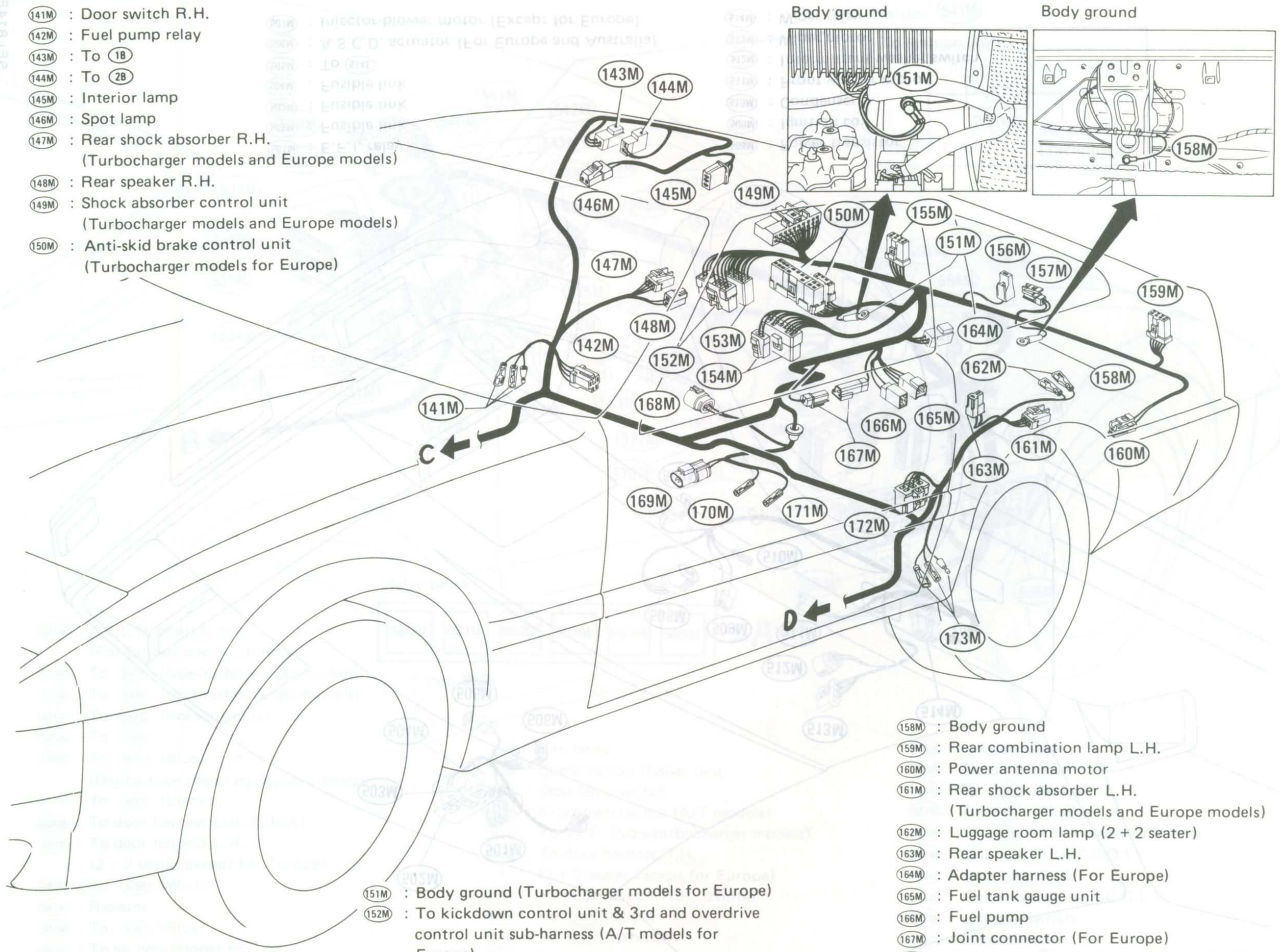


(106M) : Shock absorber switch (Turbocharger models and Europe models)
(107M) : Body ground
(108M) : Diode (Turbocharger models for Europe and non-turbocharger models)
(109M) : Diode [Non-turbocharger models for Europe and turbocharger models except for Europe (2 + 2 seater)]
(110M) : Differential oil cooler relay-2 (For Europe)
(111M) : Differential oil cooler relay-1 (For Europe)
(112M) : Parking brake switch
(113M) : Seat belt switch L.H. (Except for Europe)
(114M) : Diode (2 + 2 seater except for Europe)
(115M) : Diode (For Europe)

SEL812E

Main Harness (Cont'd)

L.H. drive model



(141M) : Door switch R.H.
(142M) : Fuel pump relay
(143M) : To (1B)
(144M) : To (2B)
(145M) : Interior lamp
(146M) : Spot lamp
(147M) : Rear shock absorber R.H.
(Turbocharger models and Europe models)
(148M) : Rear speaker R.H.
(149M) : Shock absorber control unit
(Turbocharger models and Europe models)
(150M) : Anti-skid brake control unit
(Turbocharger models for Europe)

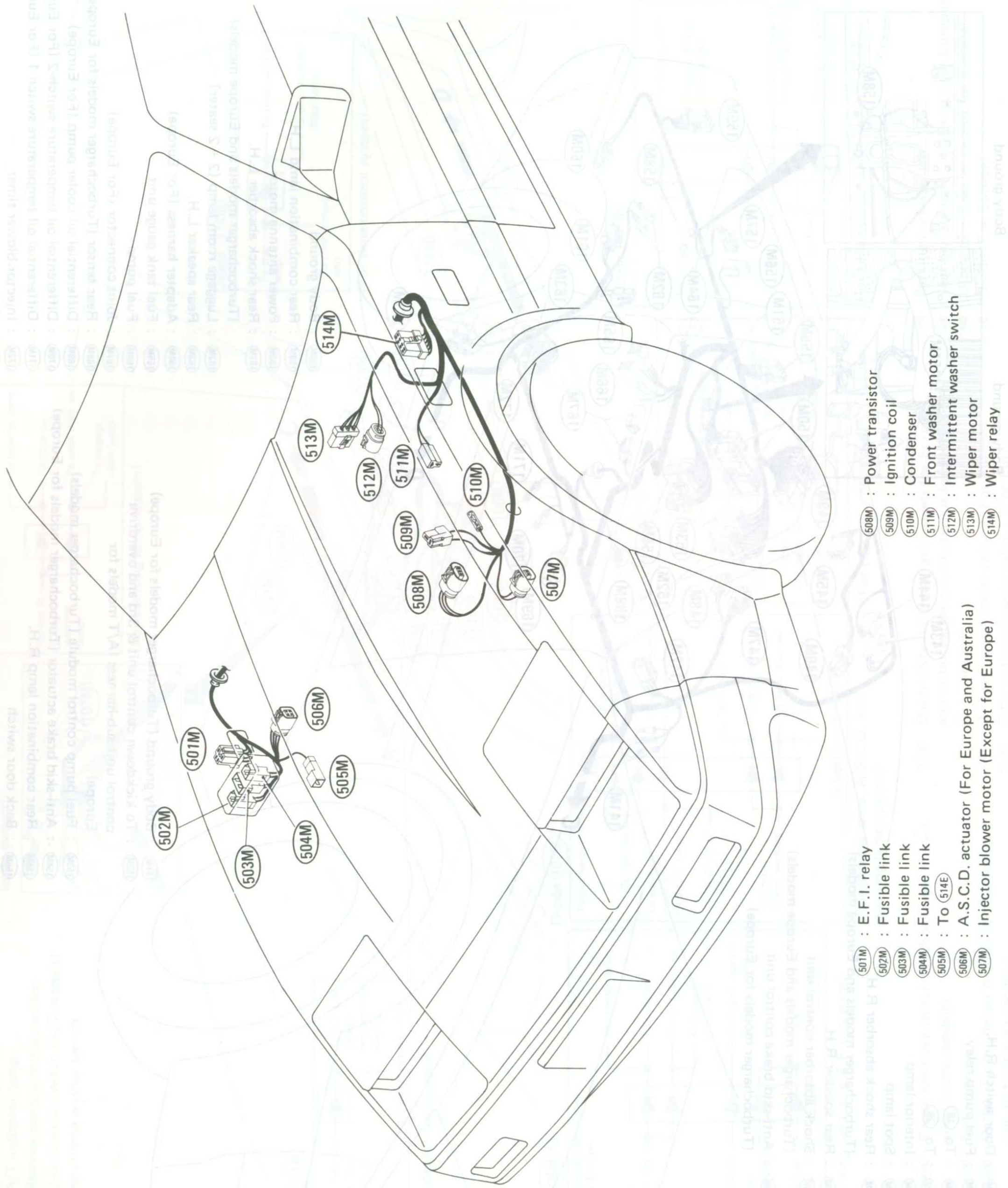
(151M) : Body ground (Turbocharger models for Europe)
(152M) : To kickdown control unit & 3rd and overdrive control unit sub-harness (A/T models for Europe)
(153M) : Fuel pump control module (Turbocharger models)
(154M) : Anti-skid brake actuator (Turbocharger models for Europe)
(155M) : Rear combination lamp R.H.
(156M) : Back door switch
(157M) : License lamp

(158M) : Body ground
(159M) : Rear combination lamp L.H.
(160M) : Power antenna motor
(161M) : Rear shock absorber L.H.
(Turbocharger models and Europe models)
(162M) : Luggage room lamp (2 + 2 seater)
(163M) : Rear speaker L.H.
(164M) : Adapter harness (For Europe)
(165M) : Fuel tank gauge unit
(166M) : Fuel pump
(167M) : Joint connector (For Europe)
(168M) : Rear sensor (Turbocharger models for Europe)
(169M) : Differential oil cooler pump (For Europe)
(170M) : Differential oil temperature switch-2 (For Europe)
(171M) : Differential oil temperature switch-1 (For Europe)
(172M) : Injector blower timer
(173M) : Door switch L.H.

SEL813E

Main Harness (Cont'd)

R.H. drive model

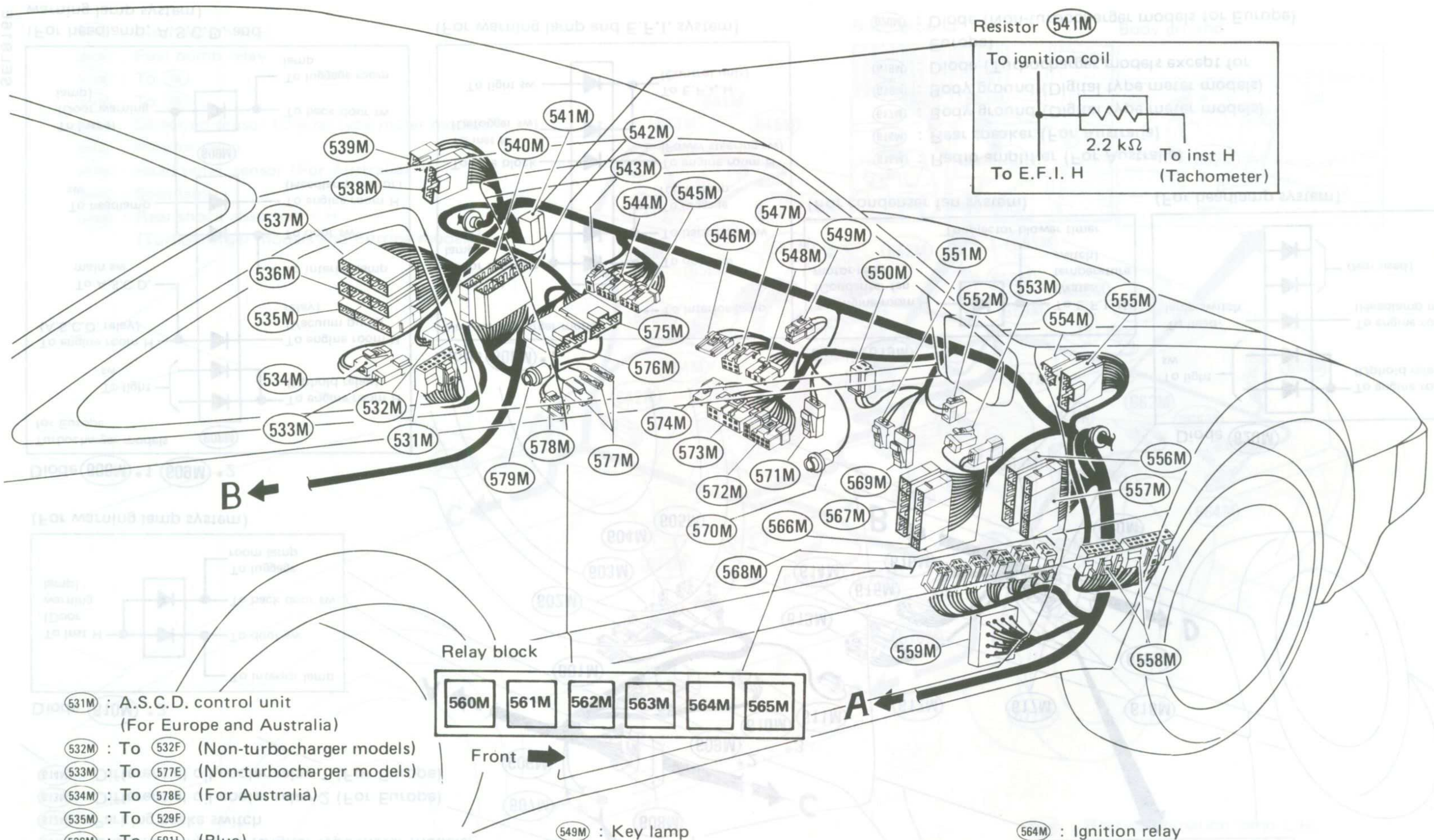


SEL814E

HARNESS LAYOUT

Main Harness (Cont'd)

R.H. drive model



(531M) : A.S.C.D. control unit
(For Europe and Australia)
(532M) : To (532F) (Non-turbocharger models)
(533M) : To (577E) (Non-turbocharger models)
(534M) : To (578E) (For Australia)
(535M) : To (529F)
(536M) : To (501I) (Blue)
(Digital type meter equipped models)
(537M) : To (502I) (Black)
(538M) : To door harness L.H. (White)
(539M) : To door harness L.H.
(2 + 2 seater except for Europe)
(540M) : To (575E) (White)
(541M) : Resistor
(542M) : To (574E) (Blue)
(543M) : To air conditioner harness
(544M) : To air conditioner harness
(545M) : To air conditioner harness (For Australia)
(546M) : Headlamp switch
(547M) : A.S.C.D. switch (For Europe and Australia)
(548M) : Ignition switch

(549M) : Key lamp
(550M) : Combination flasher unit
(551M) : Stop lamp switch
(552M) : Kickdown switch (A/T models)
(553M) : To (501E) (Non-turbocharger models)
(554M) : To door harness R.H.
(2 + 2 seater except for Europe)
(555M) : To door harness R.H. (White)
(556M) : To (503E) (Blue)
(557M) : To (504E) (White)
(558M) : Time control unit
(559M) : Fuse block
(560M) : F.P.C.M. relay (Turbocharger models)
(561M) : Blower relay
(562M) : Accessory relay
(563M) : Rear fog relay (For Europe)

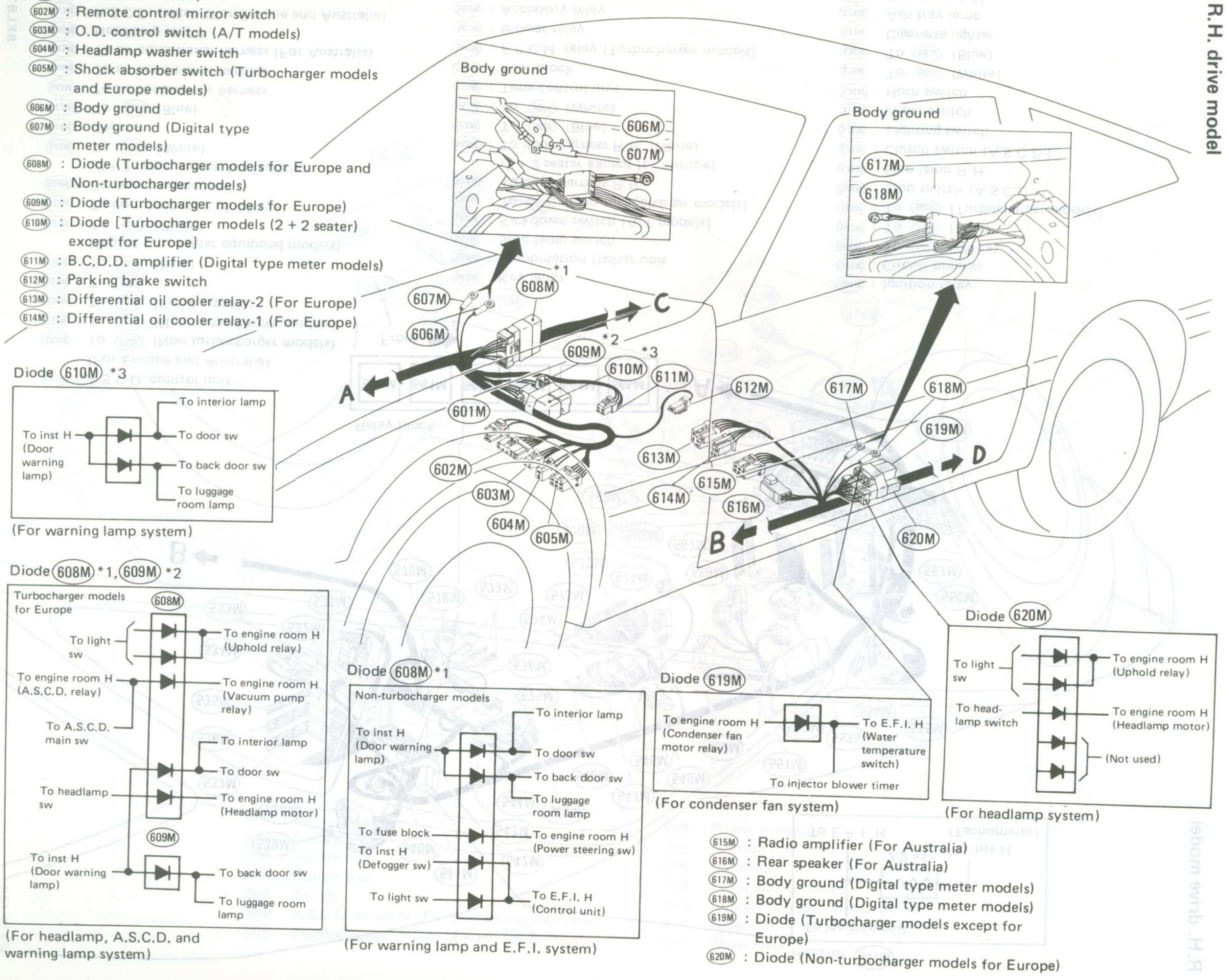
(564M) : Ignition relay
(565M) : Circuit breaker
(566M) : To (530I) (White)
(567M) : To (529I) (Blue)
(568M) : To (502E) (Turbocharger models)
(569M) : Stop switch (A.S.C.D.)
(570M) : Step lamp R.H.
(571M) : Clutch switch (A.S.C.D.)
(572M) : Lighting switch
(573M) : Wiper switch
(574M) : Horn switch
(575M) : To (501C) (White)
(576M) : To (502C) (Blue)
(577M) : Cigarette lighter
(578M) : Ash tray lamp
(579M) : Step lamp L.H.

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Main Harness (Cont'd)

R.H. drive model

(601M) : A/T indicator lamp
(602M) : Remote control mirror switch
(603M) : O.D. control switch (A/T models)
(604M) : Headlamp washer switch
(605M) : Shock absorber switch (Turbocharger models and Europe models)
(606M) : Body ground
(607M) : Body ground (Digital type meter models)
(608M) : Diode (Turbocharger models for Europe and Non-turbocharger models)
(609M) : Diode (Turbocharger models for Europe)
(610M) : Diode [Turbocharger models (2 + 2 seater) except for Europe]
(611M) : B.C.D.D. amplifier (Digital type meter models)
(612M) : Parking brake switch
(613M) : Differential oil cooler relay-2 (For Europe)
(614M) : Differential oil cooler relay-1 (For Europe)



Diode (610M) *3

(For warning lamp system)

Diode (608M) *1, (609M) *2

(For headlamp, A.S.C.D. and warning lamp system)

Diode (608M) *1

(For warning lamp and E.F.I. system)

Diode (619M)

(For condenser fan system)

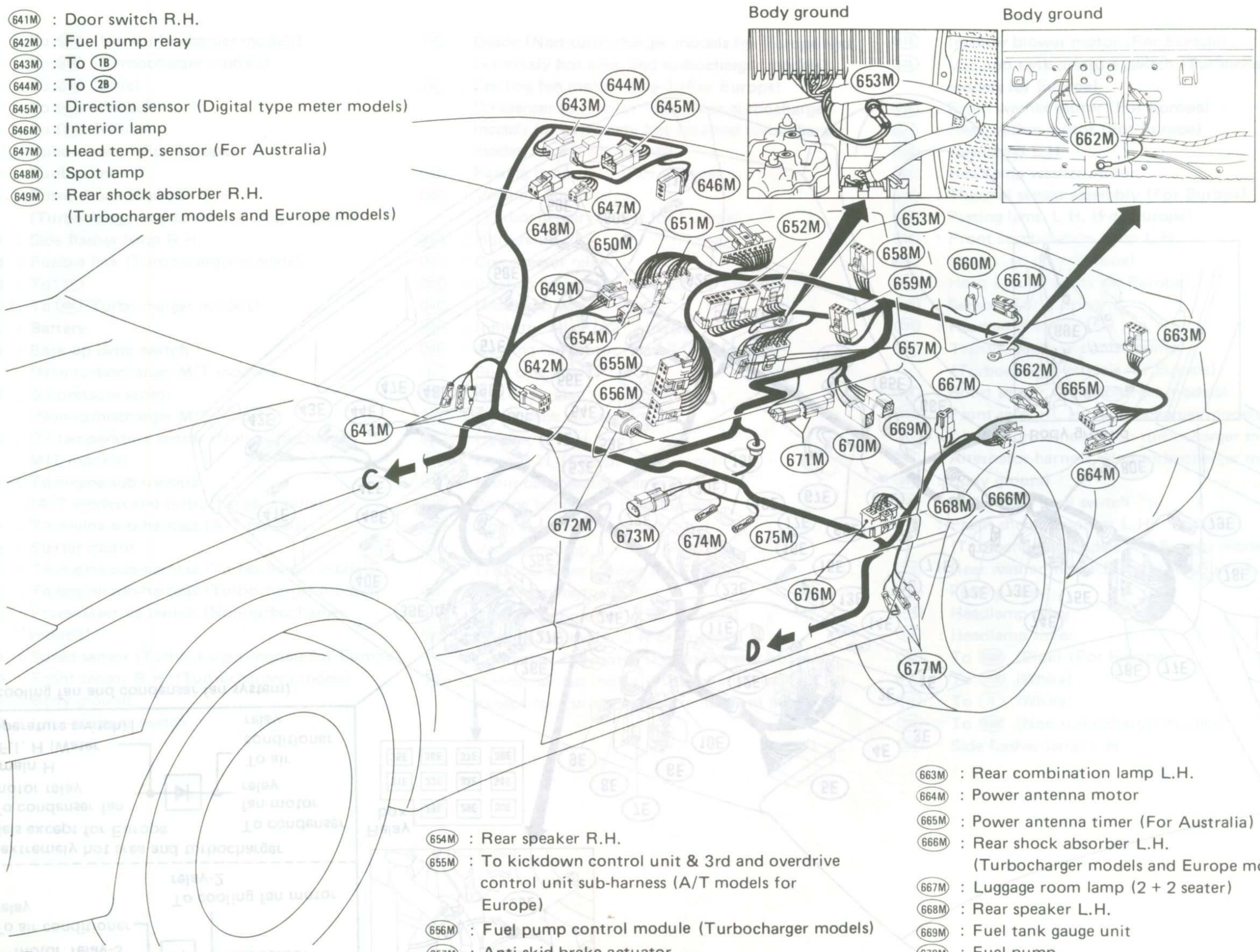
Diode (620M)

(For headlamp system)

(615M) : Radio amplifier (For Australia)
(616M) : Rear speaker (For Australia)
(617M) : Body ground (Digital type meter models)
(618M) : Body ground (Digital type meter models)
(619M) : Diode (Turbocharger models except for Europe)
(620M) : Diode (Non-turbocharger models for Europe)

SEL816E

(641M) : Door switch R.H.
(642M) : Fuel pump relay
(643M) : To (1B)
(644M) : To (2B)
(645M) : Direction sensor (Digital type meter models)
(646M) : Interior lamp
(647M) : Head temp. sensor (For Australia)
(648M) : Spot lamp
(649M) : Rear shock absorber R.H.
(Turbocharger models and Europe models)

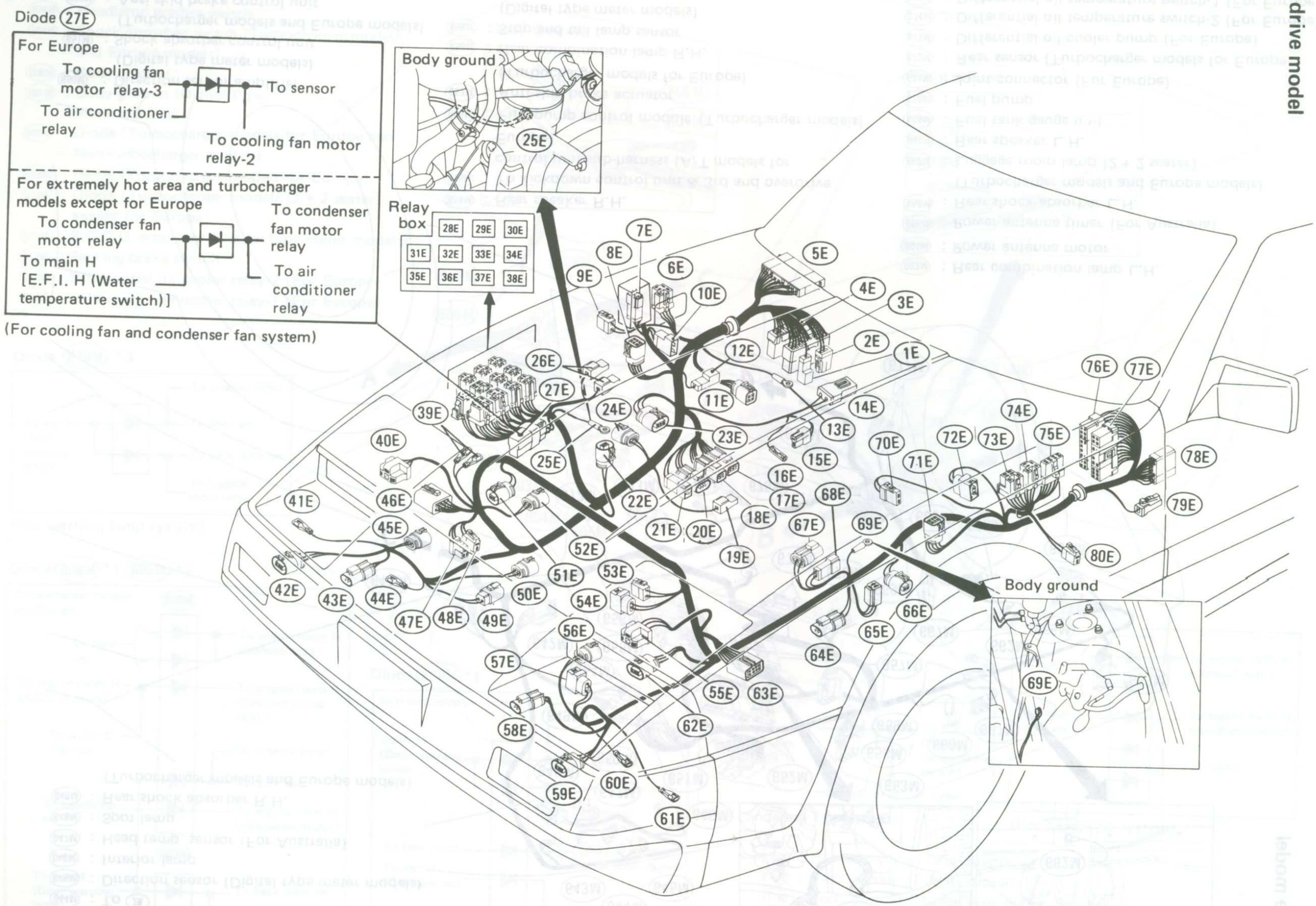


(650M) : Direction sensor amplifier
(Digital type meter models)
(651M) : Shock absorber control unit
(Turbocharger models and Europe models)
(652M) : Anti-skid brake control unit
(Turbocharger models for Europe)
(653M) : Body ground (Turbocharger models for Europe)

(654M) : Rear speaker R.H.
(655M) : To kickdown control unit & 3rd and overdrive control unit sub-harness (A/T models for Europe)
(656M) : Fuel pump control module (Turbocharger models)
(657M) : Anti-skid brake actuator
(Turbocharger models for Europe)
(658M) : Rear combination lamp R.H.
(659M) : Stop and tail lamp sensor
(Digital type meter models)
(660M) : Back door switch
(661M) : License lamp
(662M) : Body ground (Needle type meter models)

(663M) : Rear combination lamp L.H.
(664M) : Power antenna motor
(665M) : Power antenna timer (For Australia)
(666M) : Rear shock absorber L.H.
(Turbocharger models and Europe models)
(667M) : Luggage room lamp (2 + 2 seater)
(668M) : Rear speaker L.H.
(669M) : Fuel tank gauge unit
(670M) : Fuel pump
(671M) : Joint connector (For Europe)
(672M) : Rear sensor (Turbocharger models for Europe)
(673M) : Differential oil cooler pump (For Europe)
(674M) : Differential oil temperature switch-2 (For Europe)
(675M) : Differential oil temperature switch-1 (For Europe)
(676M) : Injector blower timer
(677M) : Door switch L.H.

SEL817E


Diode (27E)
For Europe
To cooling fan motor relay-3
To sensor
To air conditioner relay
To cooling fan motor relay-2
For extremely hot area and turbocharger models except for Europe
To condenser fan motor relay
To condenser fan motor relay
To main H [E.F.I. H (Water temperature switch)]
To air conditioner relay
(For cooling fan and condenser fan system)
Body ground
25E
Relay box
28E 29E 30E
31E 32E 33E 34E
35E 36E 37E 38E
Body ground
69E

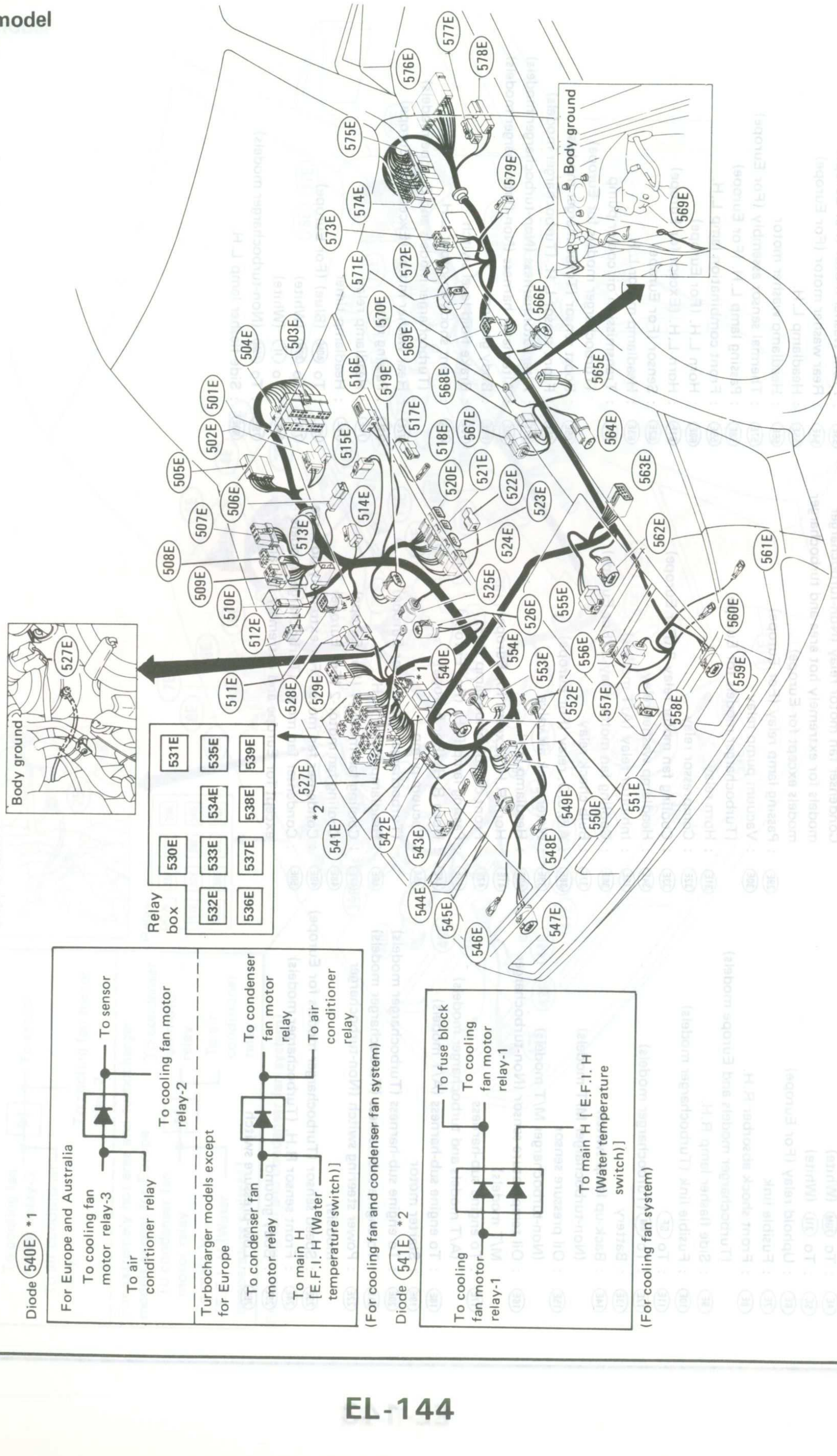
(1E) : To (67M) (Non-turbocharger models)
(2E) : To (68M) (Turbocharger models)
(3E) : To (69M) (Blue)
(4E) : To (70M) (White)
(5E) : To (21I) (White)
(6E) : Uphold relay (For Europe)
(7E) : Fusible link
(8E) : Front shock absorber R.H.
(Turbocharger models and Europe models)
(9E) : Side flasher lamp R.H.
(10E) : Fusible link (Turbocharger models)
(11E) : To (6F)
(12E) : To (4M) (Turbocharger models)
(13E) : Battery
(14E) : Back-up lamp switch
(Non-turbocharger M/T models)
(15E) : Oil pressure sensor
(Non-turbocharger M/T models)
(16E) : Oil temperature sensor (Non-turbocharger M/T models)
(17E) : To engine sub-harness
(A/T models and turbocharger models)
(18E) : To engine sub-harness (A/T models)
(19E) : Starter motor
(20E) : To engine sub-harness (Turbocharger models)
(21E) : To engine sub-harness (Turbocharger models)
(22E) : Power steering switch (Non-turbocharger models)
(23E) : Speed sensor (Turbocharger models for Europe)
(24E) : Front sensor R.H. (Turbocharger models)
(25E) : Body ground
(26E) : Low-pressure switch
(27E) : Diode (Non-turbocharger models for Europe and extremely hot area, and turbocharger models)
(28E) : Cooling fan motor relay-1 (For Europe)
Condenser fan motor relay (Non-turbocharger models for extremely hot area and turbocharger models except for Europe)
(29E) : Passing lamp relay (For Europe)
(30E) : Vacuum pump relay
(Turbocharger models for Europe)
(31E) : Horn relay
(32E) : Compressor relay
(33E) : Cooling fan motor relay-2 (For Europe)
(34E) : Headlamp washer relay
(35E) : Inhibitor relay (A/T models)
(36E) : Cooling fan motor relay-3 (For Europe)
(37E) : Bulb check relay
(38E) : A.S.C.D. relay (For Europe)
(39E) : Water cock air valve
(40E) : Headlamp R.H.
(41E) : Horn R.H. (Except for Europe)
(42E) : Front combination lamp R.H.
(43E) : Passing lamp R.H. (For Europe)
(44E) : Horn R.H. (For Europe)
(45E) : Vacuum pump
(Turbocharger models for Europe)
(46E) : Headlamp motor R.H.
(47E) : Cooling fan motor-1 (For Europe)
(48E) : Cooling fan motor-2 (For Europe)
(49E) : Condenser fan motor (For extremely hot area)
(50E) : Condenser fan motor (Turbocharger models except for Europe and extremely hot area)
(51E) : Injector blower motor (For Europe)
(52E) : Vacuum tank pressure switch (Turbocharger models for Europe)
(53E) : Front washer motor (For Europe)
(54E) : Rear washer motor (For Europe)
(55E) : Headlamp L.H.
(56E) : Headlamp washer motor
(57E) : Thermal sensor assembly (For Europe)
(58E) : Passing lamp L.H. (For Europe)
(59E) : Front combination lamp L.H.
(60E) : Horn L.H. (For Europe)
(61E) : Horn L.H. (Except for Europe)
(62E) : Sensor (For Europe)
(63E) : Headlamp motor L.H.
(64E) : Transmission oil cooler pump
(Turbocharger models for Europe)
(65E) : Boost sensor (Turbocharger models)
(66E) : Front sensor L.H. (Turbocharger models)
(67E) : Alternator harness (Non-turbocharger models)
(68E) : Alternator harness (Non-turbocharger models)
(69E) : Body ground
(70E) : Brake fluid level switch
(71E) : Front shock absorber L.H.
(Turbocharger models and Europe models)
(72E) : Rear washer motor (Except for Europe)
(73E) : Passing relay
(74E) : Headlamp relay
(75E) : Headlamp timer
(76E) : To (40M) (Blue) (For Europe)
(77E) : To (39M) (White)
(78E) : To (11) (White)
(79E) : To (45M) (Non-turbocharger models)
(80E) : Side flasher lamp L.H.

SEL818E

HARNESS LAYOUT

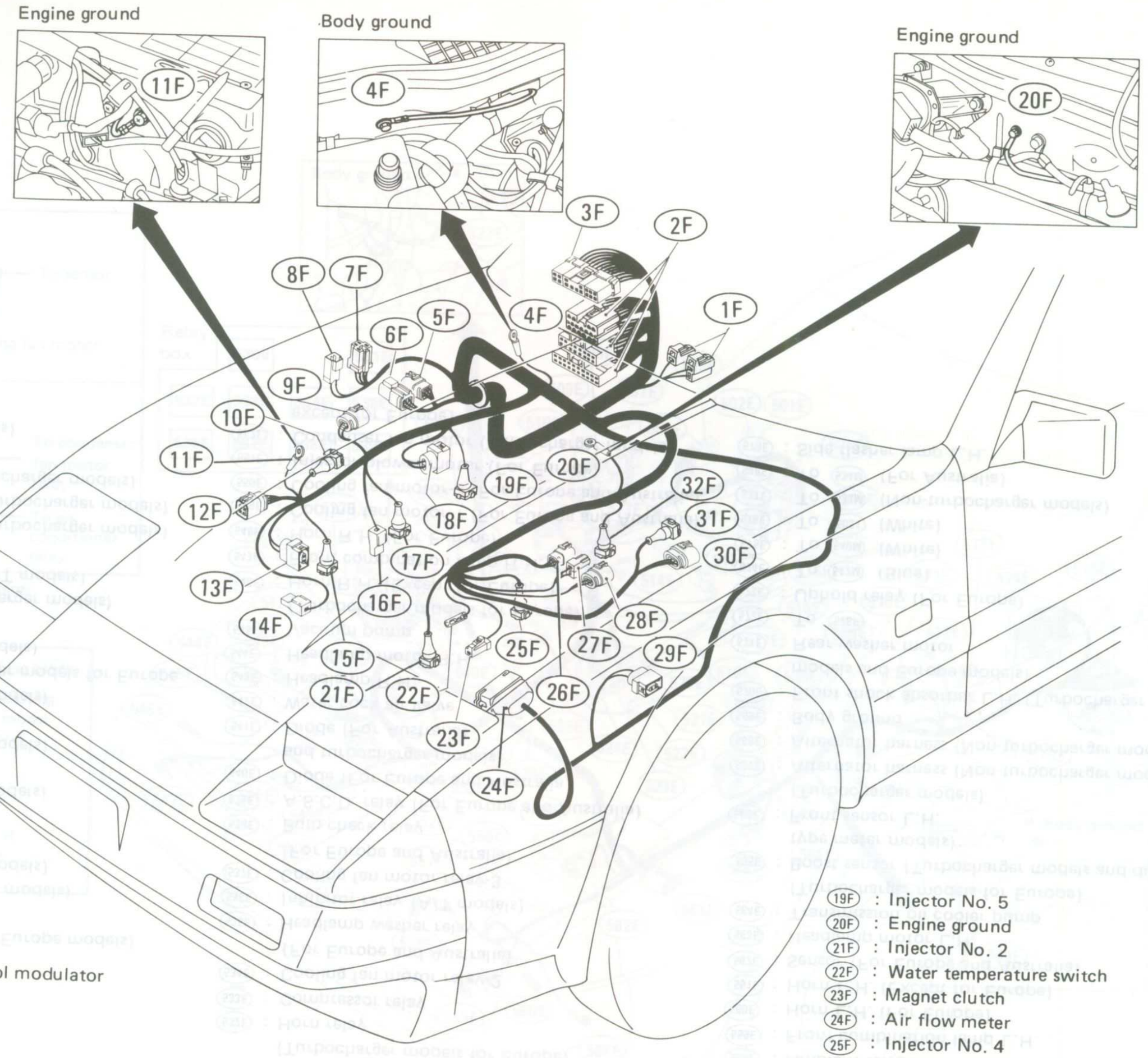
Engine Room Harness (Cont'd)

R.H. drive model



501E : To 553M (Non-turbocharger models)
502E : To 568M (Turbocharger models)
503E : To 556M (Blue)
504E : To 557M (White)
505E : To 528I (White)
506E : Battery
507E : Headlamp timer
508E : Headlamp relay
509E : Passing relay
510E : Fusible link
511E : Front shock absorber R.H.
(Turbocharger models and Europe models)
512E : Side flasher lamp R.H.
513E : Fusible link (Turbocharger models)
514E : To 505M (Turbocharger models)
515E : Brake fluid level switch
516E : Back-up lamp switch
(Non-turbocharger M/T models)
517E : Oil pressure sensor
(Non-turbocharger M/T models)
518E : Oil temperature sensor
(Non-turbocharger M/T models)
519E : Speed sensor (Turbocharger models for Europe and digital type meter models)
520E : To engine sub-harness
(A/T models and turbocharger models)
521E : To engine sub-harness (A/T models)
522E : Starter motor
523E : To engine sub-harness (Turbocharger models)
524E : To engine sub-harness (Turbocharger models)
525E : Front sensor R.H. (Turbocharger models)
526E : Power steering switch
(Non-turbocharger models)
527E : Body ground
528E : Low-pressure switch
529E : Headlamp sensor (Digital type meter models)
530E : Cooling fan motor relay-1 (For Europe and Australia)
Condenser fan motor relay (Turbocharger models except for Europe)
531E : Vacuum pump relay
(Turbocharger models for Europe)
532E : Horn relay
533E : Compressor relay
534E : Cooling fan motor relay-2
(For Europe and Australia)
535E : Headlamp washer relay
536E : Inhibitor relay (A/T models)
537E : Cooling fan motor relay-3
(For Europe and Australia)
538E : Bulb check relay
539E : A.S.C.D. relay (For Europe and Australia)
540E : Diode (For Europe and Australia, and turbocharger models)
541E : Diode (For Australia)
542E : Water cock air valve
543E : Headlamp R.H.
544E : Headlamp motor R.H.
545E : Vacuum pump
(Turbocharger models for Europe)
546E : Horn R.H. (Except for Europe)
547E : Front combination lamp R.H.
548E : Horn R.H. (For Europe)
549E : Cooling fan motor-1 (For Europe and Australia)
550E : Cooling fan motor-2 (For Europe and Australia)
551E : Injector blower motor (For Europe)
552E : Condenser fan motor (Turbocharger models except for Europe)
553E : Radiator coolant level switch
(Digital type meter models)
554E : Vacuum tank pressure switch
(Turbocharger models for Europe)
555E : Headlamp L.H.
556E : Headlamp washer motor
557E : Thermal sensor assembly (For Europe)
558E : Ambient temperature sensor (For Australia))
559E : Front combination lamp L.H.
560E : Horn L.H. (For Europe)
561E : Horn L.H. (Except for Europe)
562E : Sensor (For Europe and Australia)
563E : Headlamp motor L.H.
564E : Transmission oil cooler pump
(Turbocharger models for Europe)
565E : Boost sensor (Turbocharger models and digital type meter models)
566E : Front sensor L.H.
(Turbocharger models)
567E : Alternator harness (Non-turbocharger models)
568E : Alternator harness (Non-turbocharger models)
569E : Body ground
570E : Front shock absorber L.H. (Turbocharger models and Europe models)
571E : Rear washer motor
572E : To 526F
573E : Uphold relay (For Europe)
574E : To 542M (Blue)
575E : To 540M (White)
576E : To 503I (White)
577E : To 533M (Non-turbocharger models)
578E : To 534M (For Australia)
579E : Side flasher lamp L.H.

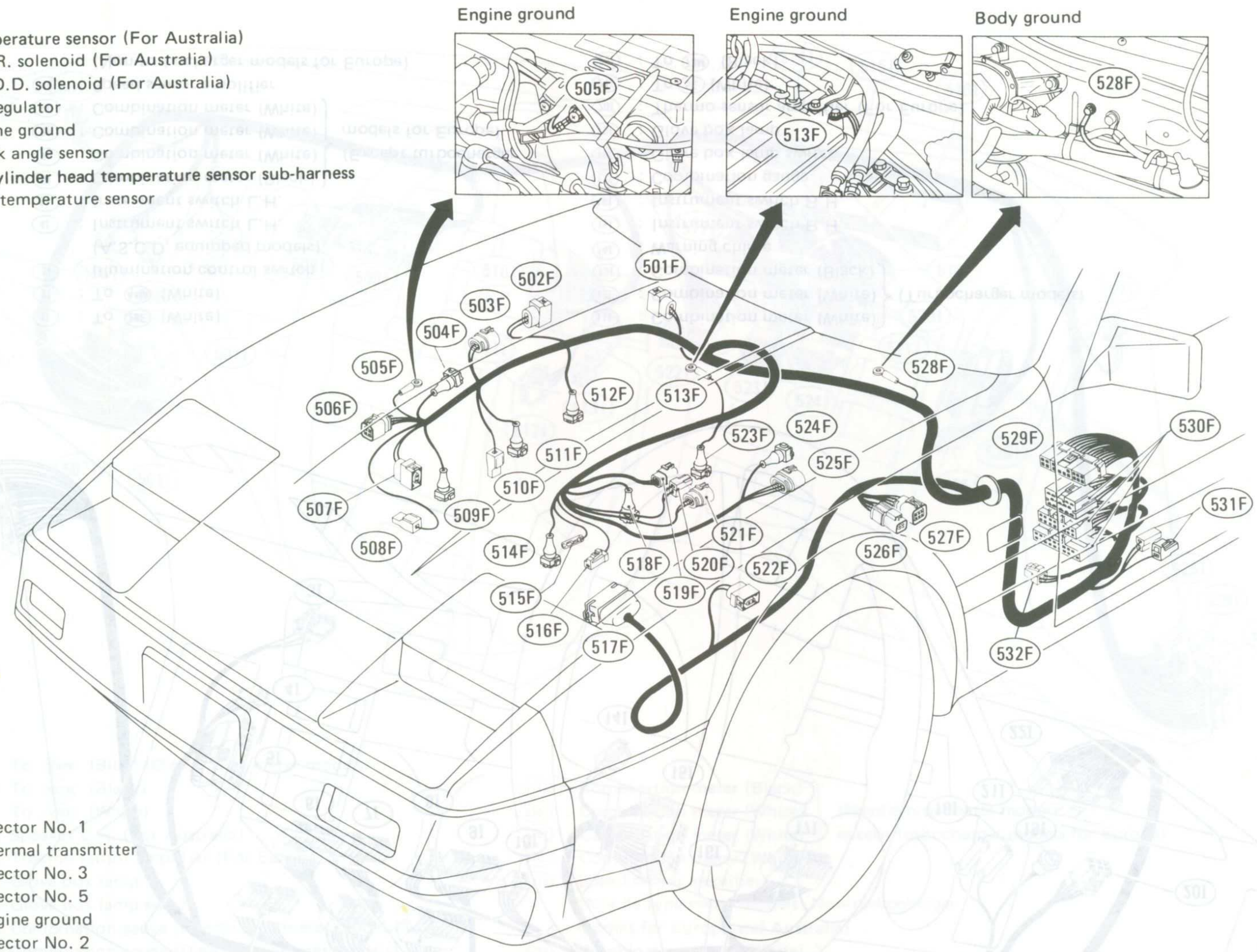
L.H. drive model



1F : Check connector
2F : Control unit
3F : To 74M (White)
4F : Body ground
5F : Pressure regulator control modulator
6F : To 11E
7F : E.F.I. relay
8F : Fusible link
9F : B.C.D.D. solenoid (Non-turbocharger models for Sweden and Switzerland)
10F : Air regulator
11F : Engine ground
12F : Crank angle sensor
13F : To cylinder head temperature sensor sub-harness
14F : Fuel temperature sensor
15F : Injector No. 1
16F : Thermal transmitter
17F : Injector No. 3
18F : E.G.R. solenoid (Non-turbocharger models for Sweden and Switzerland)
19F : Injector No. 5
20F : Engine ground
21F : Injector No. 2
22F : Water temperature switch
23F : Magnet clutch
24F : Air flow meter
25F : Injector No. 4
26F : I.A.A. unit (Non-turbocharger models)
27F : A.A.C. valve (Turbocharger models)
28F : F.I.C.D. solenoid (Turbocharger models)
29F : Pressure regulator control solenoid
30F : Throttle valve sensor (Non-turbocharger models)
31F : Throttle valve switch
32F : Injector No. 6

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(501F) : Temperature sensor (For Australia)
(502F) : E.G.R. solenoid (For Australia)
(503F) : B.C.D.D. solenoid (For Australia)
(504F) : Air regulator
(505F) : Engine ground
(506F) : Crank angle sensor
(507F) : To cylinder head temperature sensor sub-harness
(508F) : Fuel temperature sensor



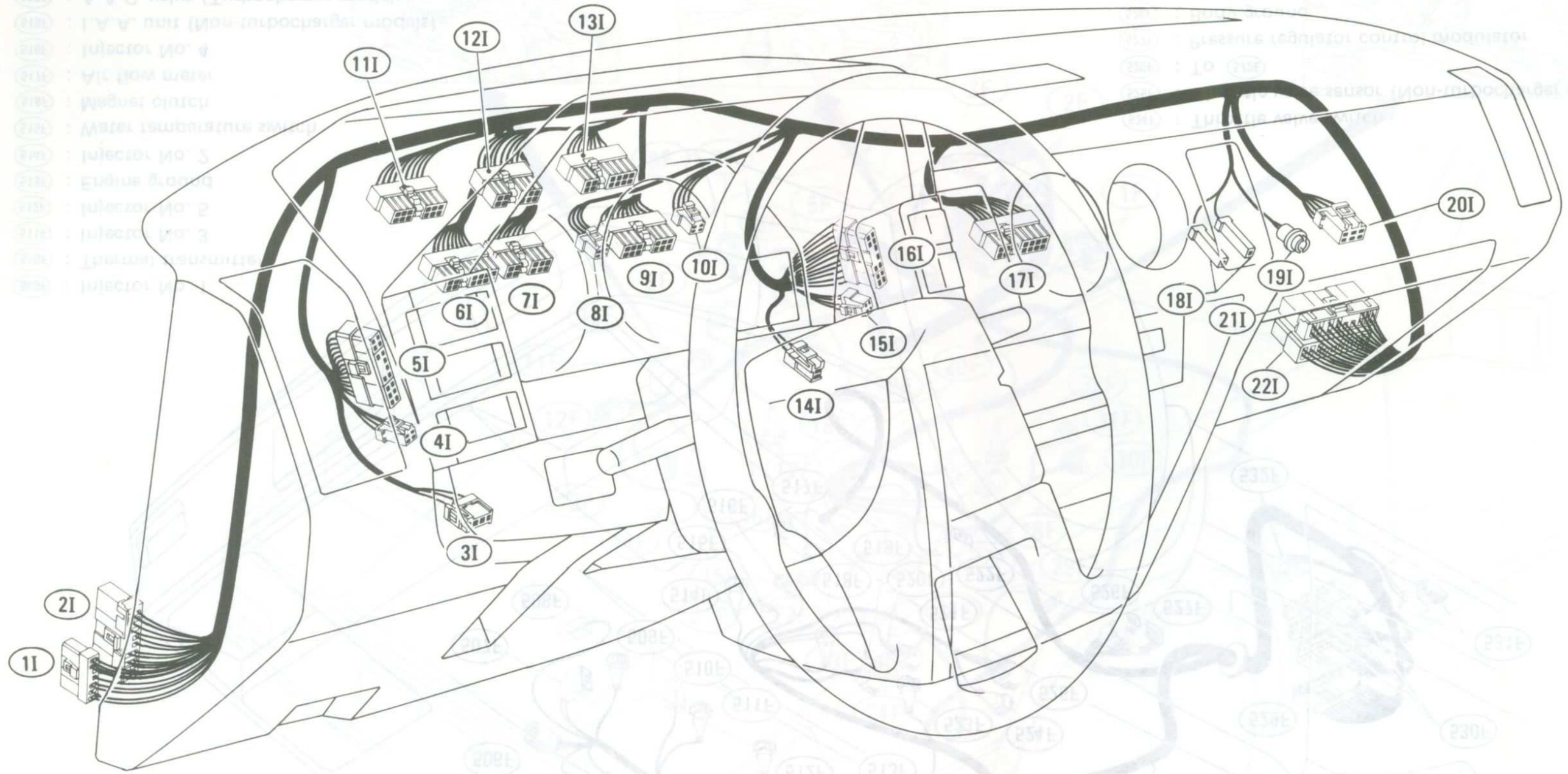
(509F) : Injector No. 1
(510F) : Thermal transmitter
(511F) : Injector No. 3
(512F) : Injector No. 5
(513F) : Engine ground
(514F) : Injector No. 2
(515F) : Water temperature switch
(516F) : Magnet clutch
(517F) : Air flow meter
(518F) : Injector No. 4
(519F) : I.A.A. unit (Non-turbocharger models)
(520F) : A.A.C. valve (Turbocharger models)
(521F) : F.I.C.D. solenoid (Turbocharger models)
(522F) : Pressure regulator control solenoid
(523F) : Injector No. 6

(524F) : Throttle valve switch
(525F) : Throttle valve sensor (Non-turbocharger models)
(526F) : To (572E)
(527F) : Pressure regulator control modulator
(528F) : Body ground
(529F) : To (535M) (White)
(530F) : Control unit
(531F) : Check connector
(532F) : To (532M) (Non-turbocharger models)

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Instrument Harness

L.H. drive model



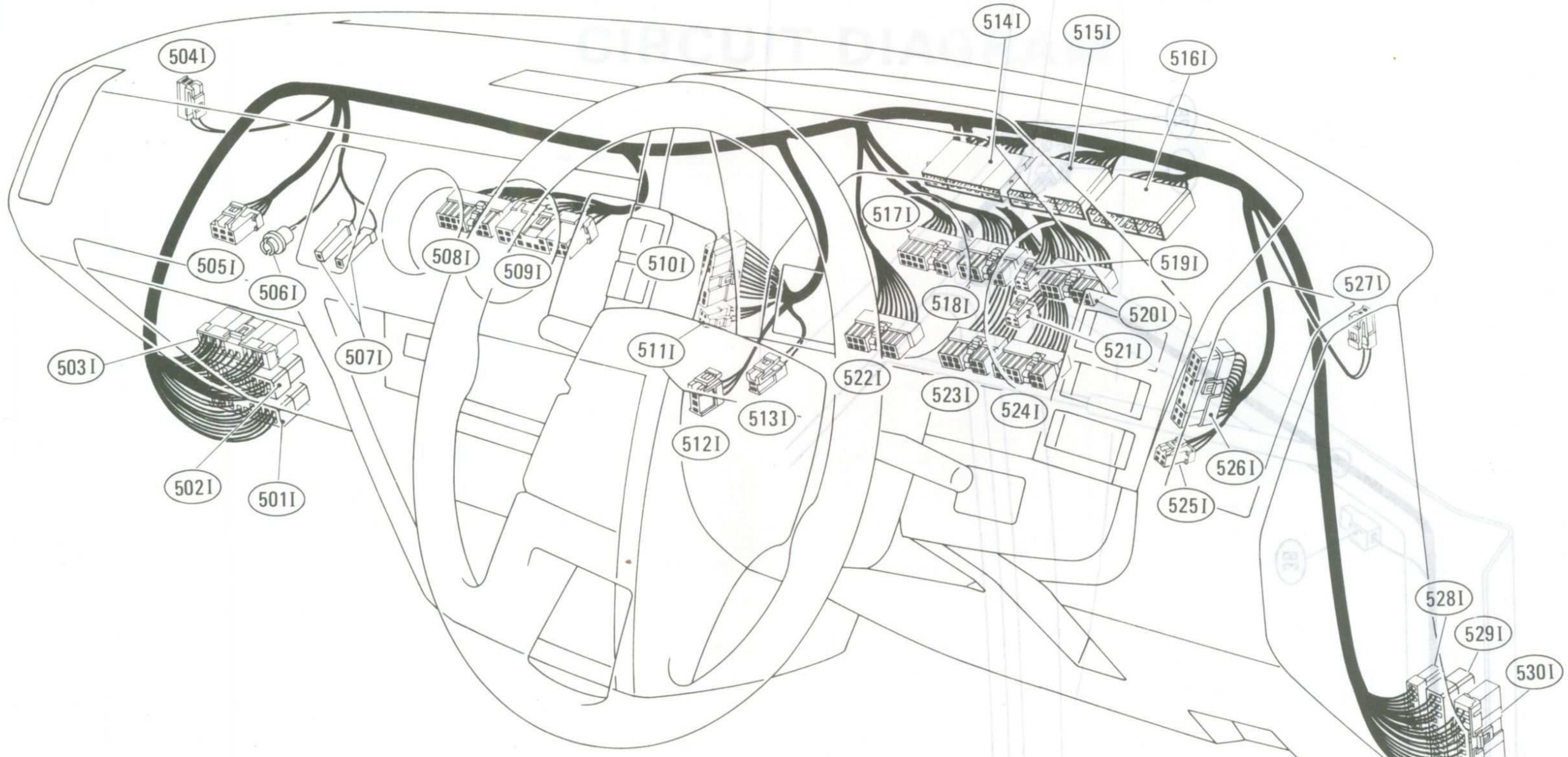
1I : To 78E (White)
2I : To 44M (White)
3I : Illumination control switch (A.S.C.D. equipped models)
4I : Instrument switch L.H.
5I : Instrument switch L.H.
6I : Combination meter (Black)
7I : Combination meter (White)
8I : Combination meter (White)
9I : Combination meter (White)
(6I, 7I, 8I, 9I: Except turbocharger models for Europe)
10I : Speed sensor amplifier (Non-turbocharger models for Europe)
11I : Combination meter (White)
12I : Combination meter (White)
13I : Combination meter (Black)
(11I, 12I, 13I: Turbocharger models)
14I : Warning chime
15I : Instrument switch R.H.
16I : Instrument switch R.H.
17I : Combination gauge
18I : Glove box lamp switch
19I : Glove box lamp
20I : Thermo sensor amplifier (For Europe)
21I : To 5E (White)
22I : To 73M (Black)

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HARNESS LAYOUT

Instrument Harness (Cont'd)

R.H. drive model



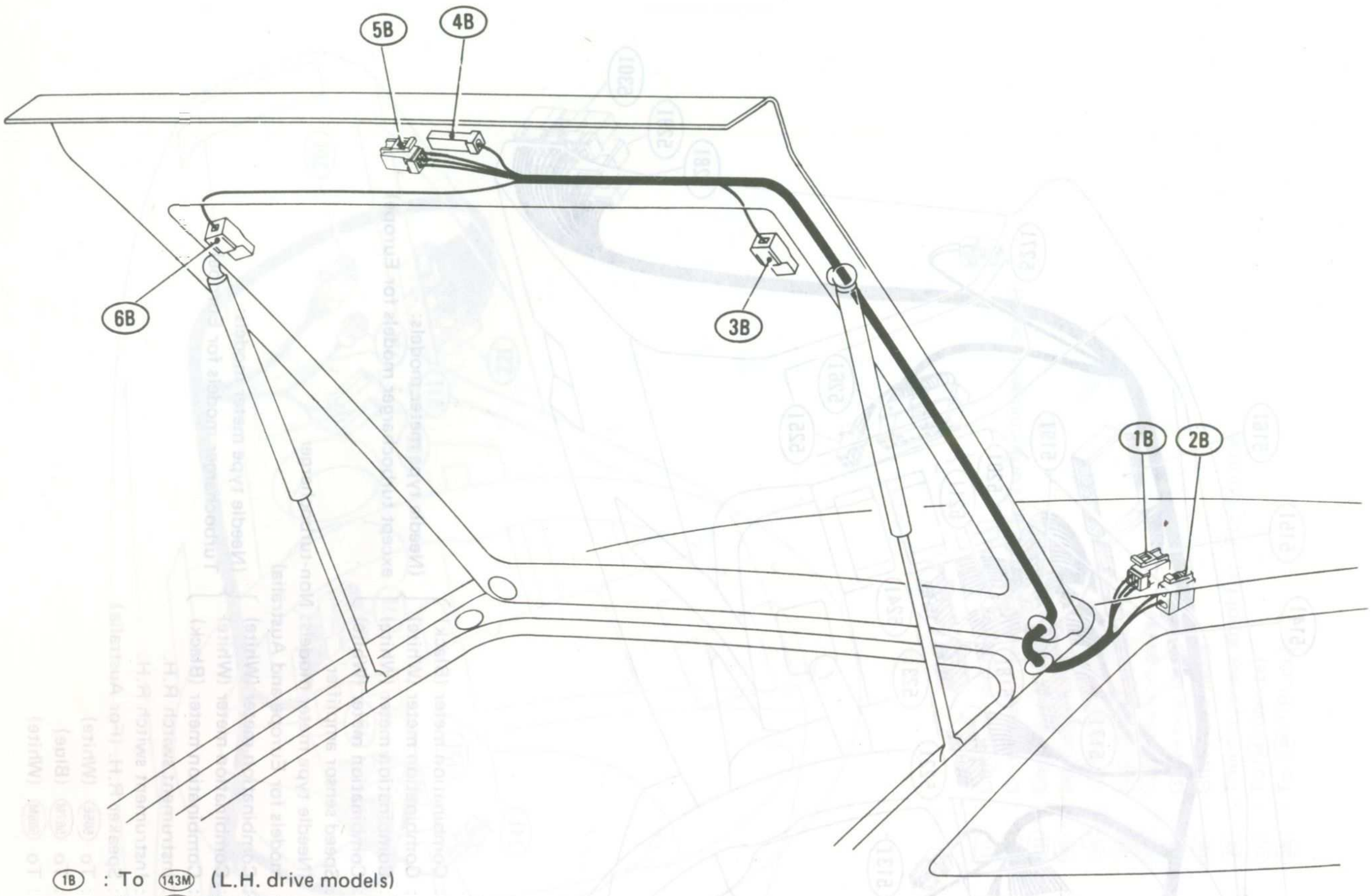
501I : To 536M (Blue) (Digital type meter models)
502I : To 537M (Black)
503I : To 576E (White)
504I : Speaker L.H. (For Australia)
505I : Thermo sensor amplifier (For Europe)
506I : Glove box lamp
507I : Glove box lamp switch
508I : Combination gauge (Needle type meter models)
509I : Combination gauge (Digital type meter models)
510I : Instrument switch L.H.
511I : Instrument switch L.H.
512I : Illumination control switch (A.S.C.D. equipped models)
513I : Warning chime
514I : Combination meter (White)
515I : Combination meter (Blue)
516I : Combination meter (Black)
} (Digital type meter models)

517I : Combination meter (Black)
518I : Combination meter (White)
519I : Combination meter (White)
520I : Combination meter (White)
} (Needle type meter models: except turbocharger models for Europe)
521I : Speed sensor amplifier (Needle type meter models: Non-turbocharger models for Europe and Australia)
522I : Combination meter (White)
523I : Combination meter (White)
524I : Combination meter (Black)
} (Needle type meter models: Turbocharger models for Europe)
525I : Instrument switch R.H.
526I : Instrument switch R.H.
527I : Speaker R.H. (For Australia)
528I : To 505E (White)
529I : To 567M (Blue)
530I : To 566M (White)

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HARNESS LAYOUT

Back Door Harness



(1B) : To (143M) (L.H. drive models)
To (643M) (R.H. drive models)
(2B) : To (144M) (L.H. drive models)
To (644M) (R.H. drive models)
(3B) : Rear defogger
(4B) : Ground cable (Needle type meter models)
(5B) : Rear wiper motor
(6B) : Rear defogger (Digital type meter models)

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