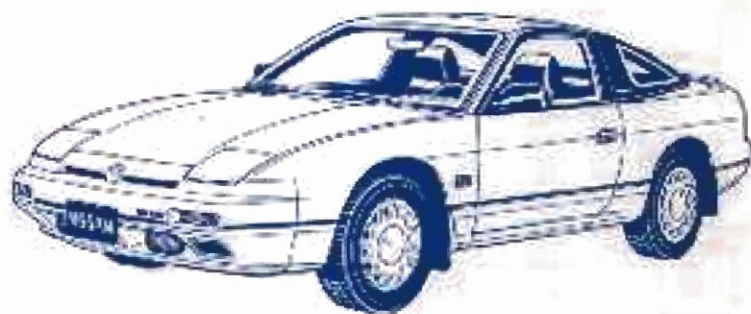




NISSAN 200SX

**MODEL S13 SERIES
SUPPLEMENT-I**



SERVICE MANUAL

NISSAN 200SX

MODEL S13 SERIES

FOREWORD

This supplement contains information concerning necessary service procedures and relevant data for the model S13 series face-lift.

All information, illustrations and specifications contained in this supplement are based on the latest product information available at the time of publication. If your NISSAN model differs from the specifications contained in this supplement, consult your NISSAN dealer for information.

The right is reserved to make changes in specifications and methods at any time without notice.

QUICK REFERENCE INDEX

GENERAL INFORMATION —————	GI
MAINTENANCE —————	MA
ENGINE MECHANICAL —————	EM
ENGINE LUBRICATION & COOLING SYSTEMS —	LC
ENGINE FUEL & EMISSION CONTROL SYSTEM —	EF & EC
ENGINE CONTROL, FUEL & EXHAUST SYSTEMS —	FE
CLUTCH —————	CL
MANUAL TRANSMISSION —————	MT
AUTOMATIC TRANSMISSION —————	AT
PROPELLER SHAFT & DIFFERENTIAL CARRIER —	PD
FRONT AXLE & FRONT SUSPENSION —————	FA
REAR AXLE & REAR SUSPENSION —————	RA
BRAKE SYSTEM —————	BR
STEERING SYSTEM —————	ST
BODY —————	BF
HEATER & AIR CONDITIONER —————	HA
ELECTRICAL SYSTEM —————	EL

HOW TO USE THIS MANUAL

- ▶ This Service Manual contains the new service procedures, service data and specifications for the face-lifted model S13 series which has been in production since September, 1989.
- ▶ This Service Manual does not contain the service procedures, etc. which are the same as those for former models.*
Please use this manual in conjunction with the NISSAN model S13 series Service Manual (Pub. No. SM9E-0S13G0).

Servicing of model S13 series which was manufactured in and after September, 1989.

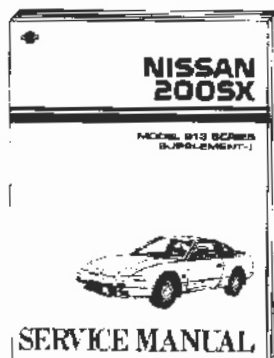
Specific section titles are printed white on a black background in the QUICK REFERENCE INDEX.

YES

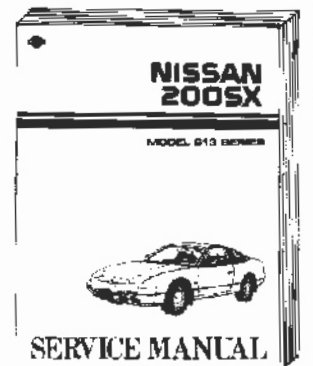
NO

Those sections which are printed black on a white background are not contained in this manual.

Service procedures and service data are added or changed.
Only the added or changed points are introduced in these chapters.



Service procedures are the same as those for the former models*.
Refer to the NISSAN model S13 series Service Manual (Pub. No. SM9E-0S13G0).



*Former models: Models before the model S13 series introduced in September, 1989.

IMPORTANT SAFETY NOTICE

The proper performance of service is essential for both the safety of the mechanic and the efficient functioning of the vehicle.

The service methods in this Service Manual are described in such a manner that the service may be performed safely and accurately.

Service varies with the procedures used, the skills of the mechanic and the tools and parts available. Accordingly, anyone using service procedures, tools or parts which are not specifically recommended by NISSAN must first completely satisfy himself that neither his safety nor the vehicle's safety will be jeopardized by the service method selected.

GENERAL INFORMATION

SECTION **GI**

GI

APPLIED FROM :

For Europe

JN100RS13U0100001

Except for Europe

RS13-501501

OUTLINE OF MODIFICATIONS :

- A viscous coupling type L.S.D. has been added to models for Europe.
- An anti-lock braking system has been added to R.H.D. models except those for Europe.
- A low-back seat with lumbar support has been added to models for Europe.
- A headlamp aiming control has been added to models for West Germany.

CONTENTS

IDENTIFICATION INFORMATION.....GI-2

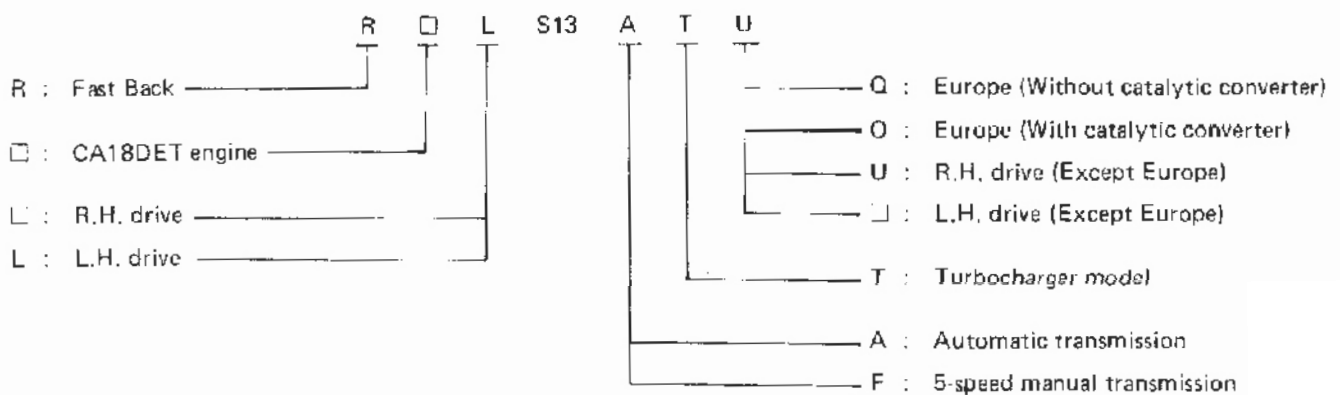
IDENTIFICATION INFORMATION

Model Variation

Desti- nation	Body	Model			Engine	Transmission	Differential carrier
		L.H. drive		R.H. drive			
		With catalytic converter	Without catalytic converter				
Europe	Fast Back	—	—	RS13FTQ	CA18DET	FS5W71C	R200 R200V*
		—	—	RS13ATQ		RE4R01A	
		RLS13FTO	—	—		FS5W71C	
		RLS13ATO	—	—		RE4R01A	
		—	RLS13FTQ	—		FS5W71C	
		—	RLS13ATQ	—		RE4R01A	
Except Europe		—	—	RS13FTU		FS5W71C	R200
		—	—	RS13ATU		RE4R01A	
		—	RLS13FT	—		FS5W71C	
		—	RLS13AT	—		RE4R01A	

*: With viscous L.S.D.

Prefix and suffix designations



□ : means no indication.

IDENTIFICATION INFORMATION

Wheels and Tires

		Conventional	T type*2
Road wheel			
Steel		6JJ x 15	4T x 15
Aluminum		6JJ x 15*1	4T x 16*3
Offset	mm (in)	40 (1.57)	40 (1.57)
Tire size		195/60 R15 86H	T125/70D15
		195/60 R15 87V*2	T135/70D16*3

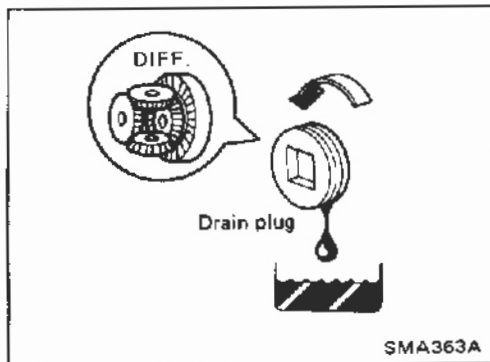
*1: Option

*2: For Europe

*3: With viscous L.S.D.

CONTENTS

CHASSIS AND BODY MAINTENANCE	MA-2
SERVICE DATA AND SPECIFICATIONS (S.D.S.)	MA-3



Changing Differential Gear Oil

1. Drain oil and refill with new gear oil.
2. Check oil level.

Oil capacity:

Europe

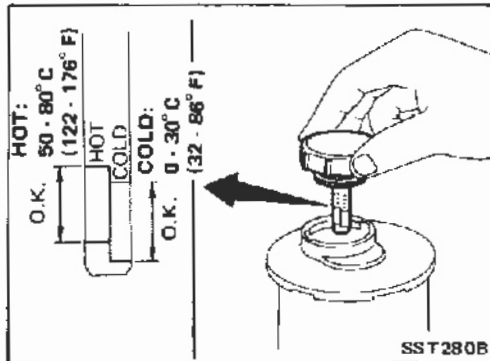
1.8 ℓ (3-1/8 Imp pt)

Except Europe

1.2 ℓ (2-1/8 Imp pt)

Drain plug:

 : 39 - 59 N·m (4 - 6 kg-m, 29 - 43 ft-lb)



Checking Power Steering Fluid Level

Check fluid level.

Fluid level should be checked using "HOT" range on dipstick at fluid temperatures of 50 to 80°C (122 to 176°F) or using "COLD" range on dipstick at fluid temperatures of 0 to 30°C (32 to 86°F).

CAUTION:

- Do not overfill.
- Recommended fluid is Automatic Transmission Fluid "DEXRON™" type.

Chassis and Body Maintenance**INSPECTION AND ADJUSTMENT****Wheel bearing**

	Front	Rear
Wheel bearing axle end play mm (in)	0.03 (0.0012) or less	0.05 (0.0020) or less
Wheel bearing lock nut Tightening torque N·m (kg-m, ft-lb)	147 - 216 (15 - 22, 108 - 159)	206 - 275 (21 - 28, 152 - 203)

TIGHTENING TORQUE

Unit	N·m	kg-m	ft-lb
Final drive			
Drain plug	39 - 59	4 - 6	29 - 43
Filler plug	39 - 59	4 - 6	29 - 43
Front axle and front suspension			
Tie-rod lock nut	37 - 46	3.8 - 4.7	27 - 34
Rear axle and rear suspension			
Toe adjusting pin	69 - 88	7.0 - 9.0	51 - 65
Camber adjusting pin	69 - 88	7.0 - 9.0	51 - 65

ENGINE FUEL & EMISSION CONTROL SYSTEM

SECTION **EF & EC**

MODIFICATION NOTICE :

The following wiring diagrams have been changed.

- Power source and ground circuit for E.C.U.
- Crank angle sensor
- Acceleration cut control

EF & EC

CONTENTS

ENGINE AND EMISSION CONTROL OVERALL SYSTEM	EF & EC-2
TROUBLE DIAGNOSES	EF & EC-3

E.C.C.S Wiring Diagram - See pull-out following EL section.

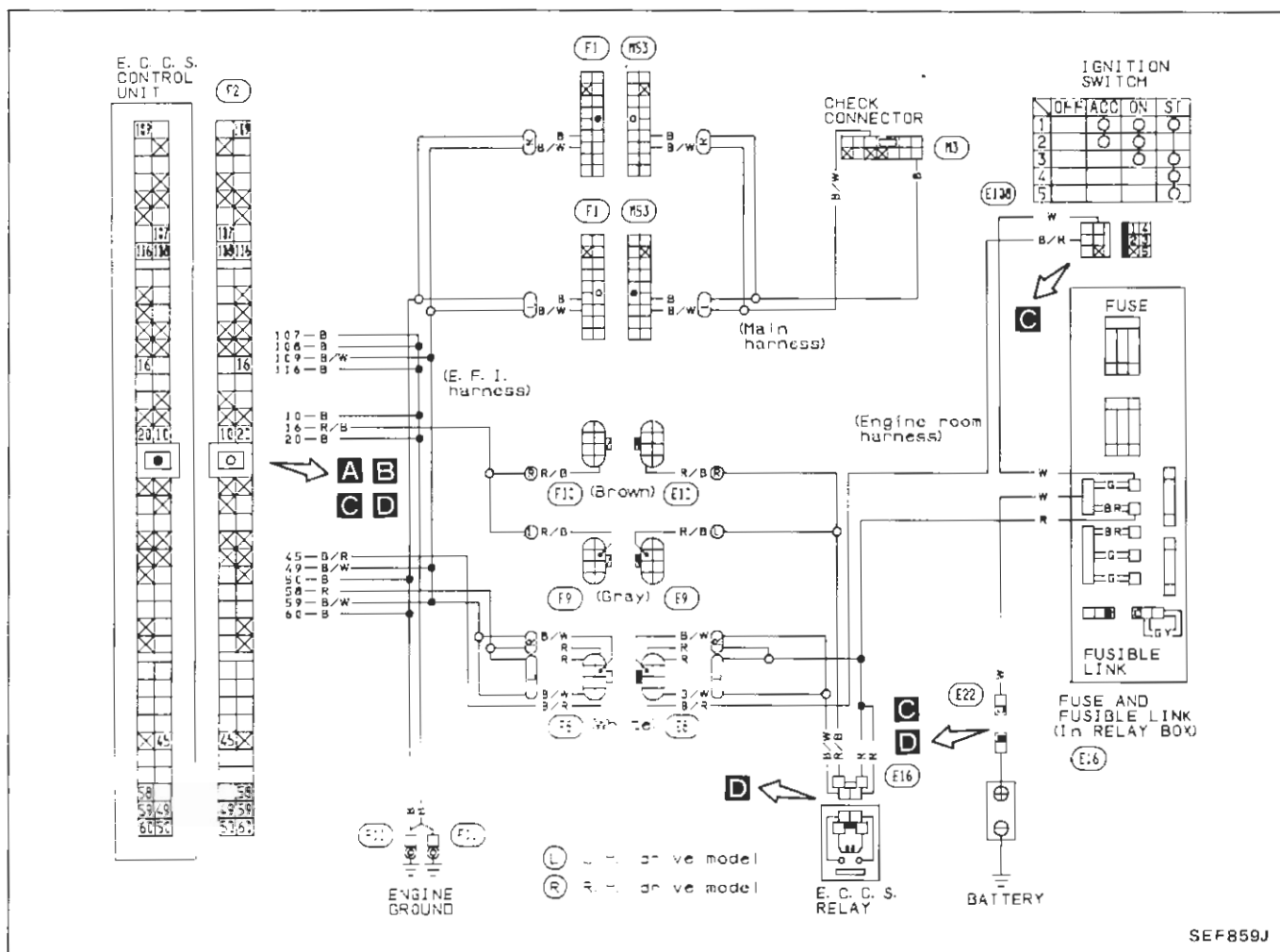
Circuit Diagram



TROUBLE DIAGNOSES

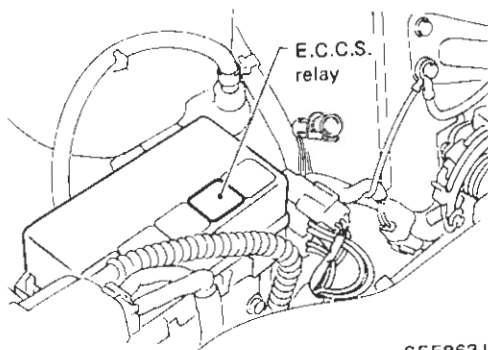
Diagnostic Procedure 1

POWER SOURCE & GROUND CIRCUIT FOR E.C.U. (Not self-diagnostic item)



SEF859J

Component location

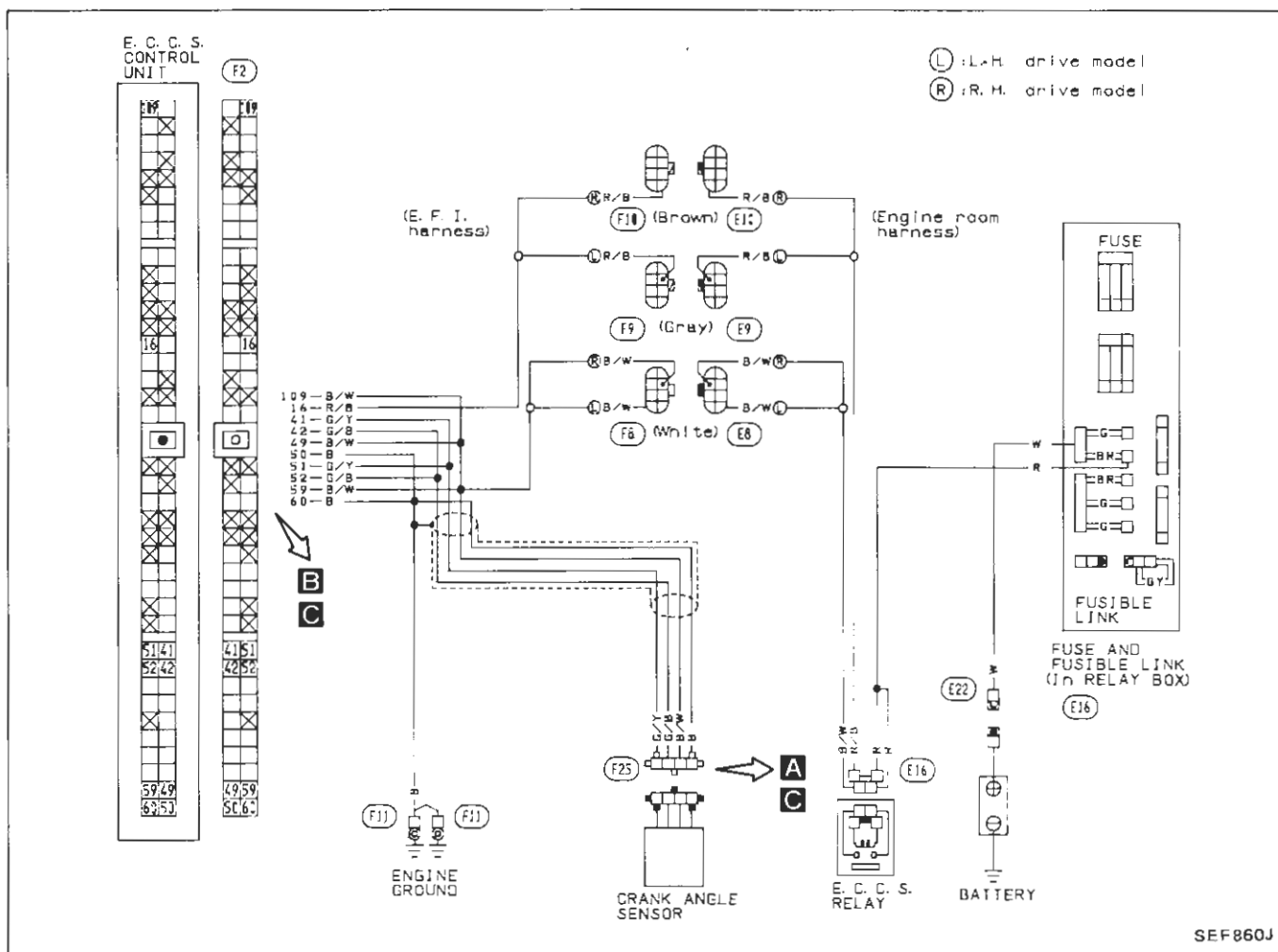


SEF863J

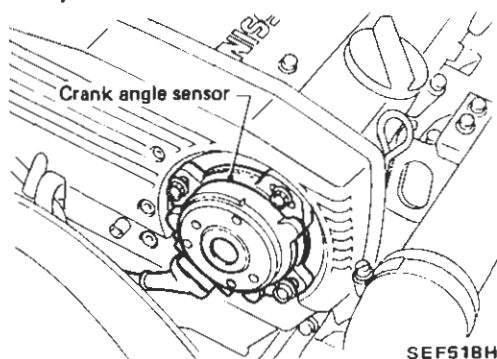
TROUBLE DIAGNOSES

Diagnostic Procedure 2

CRANK ANGLE SENSOR (Code No. 11)

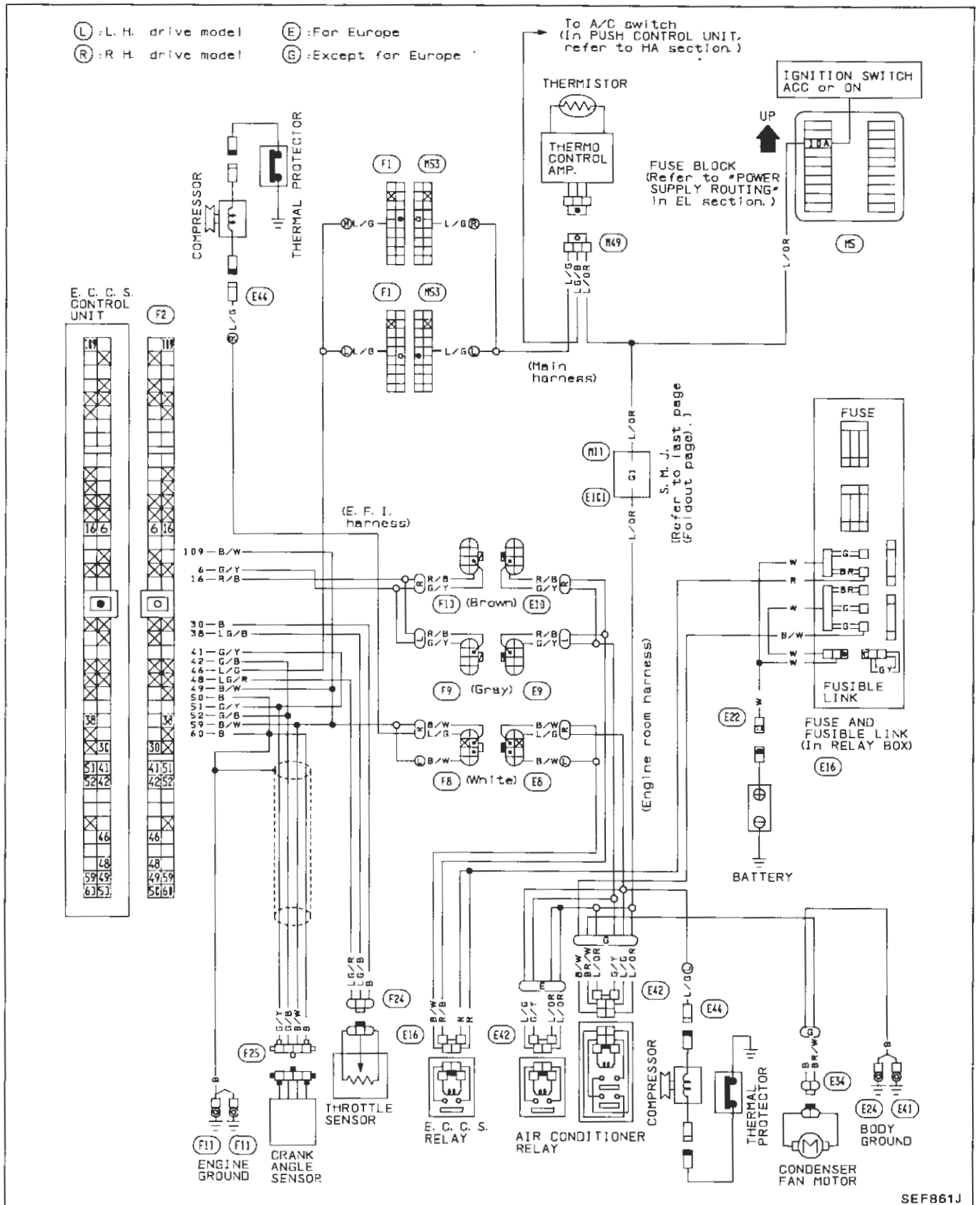


Component location



Diagnostic Procedure 18

ACCELERATION CUT CONTROL (Not self-diagnostic item)



For inspection of this system, refer to HA section.

PROPELLER SHAFT & DIFFERENTIAL CARRIER

SECTION **PD**

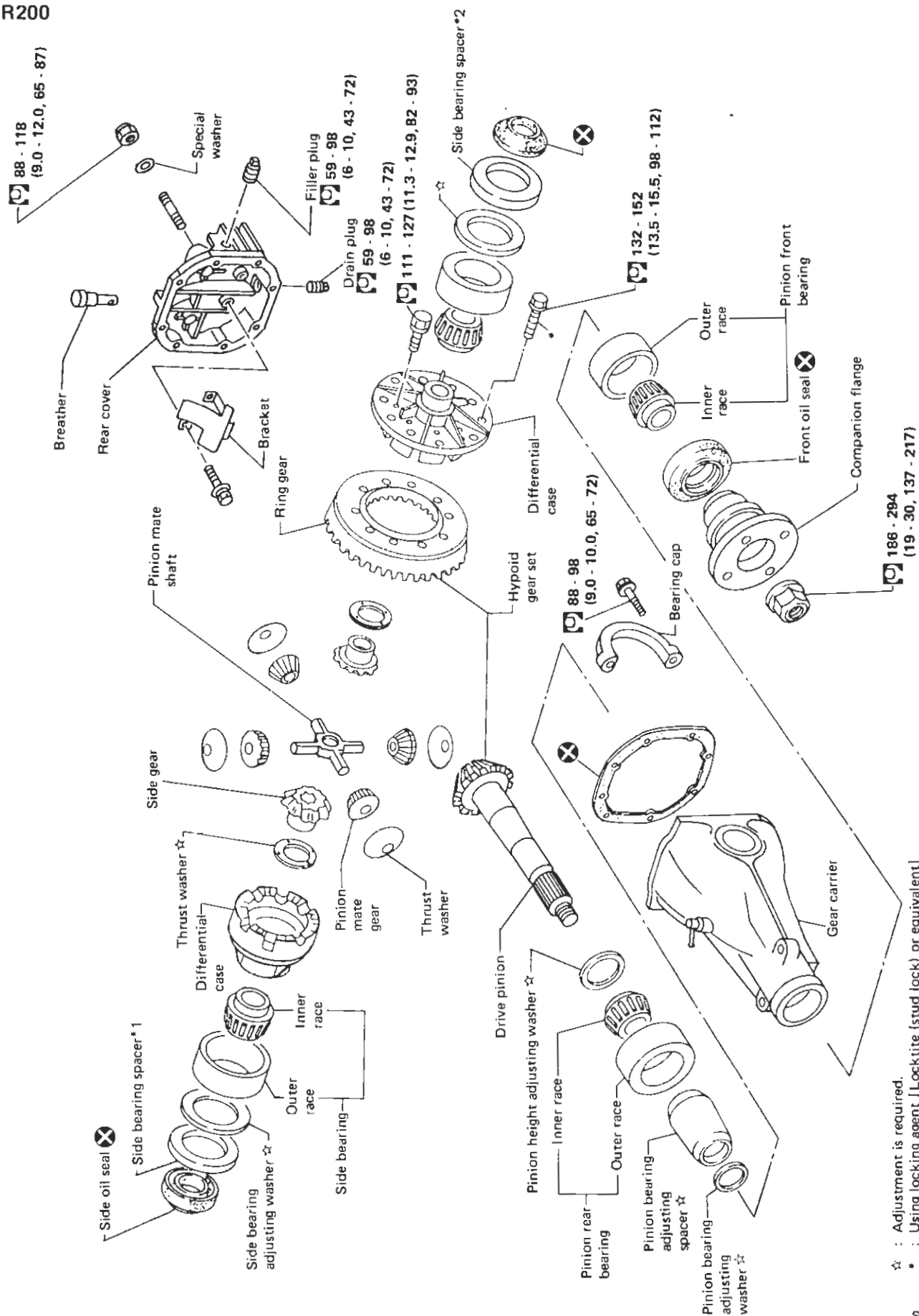
CONTENTS

FINAL DRIVE	PD-2
DISASSEMBLY (R200V)	PD-4
ASSEMBLY (R200V)	PD-5
DIFFERENTIAL GEAR OIL COOLER SYSTEM	PD-6
SERVICE DATA AND SPECIFICATIONS (S.D.S.)	PD-9

PD

FINAL DRIVE

R200

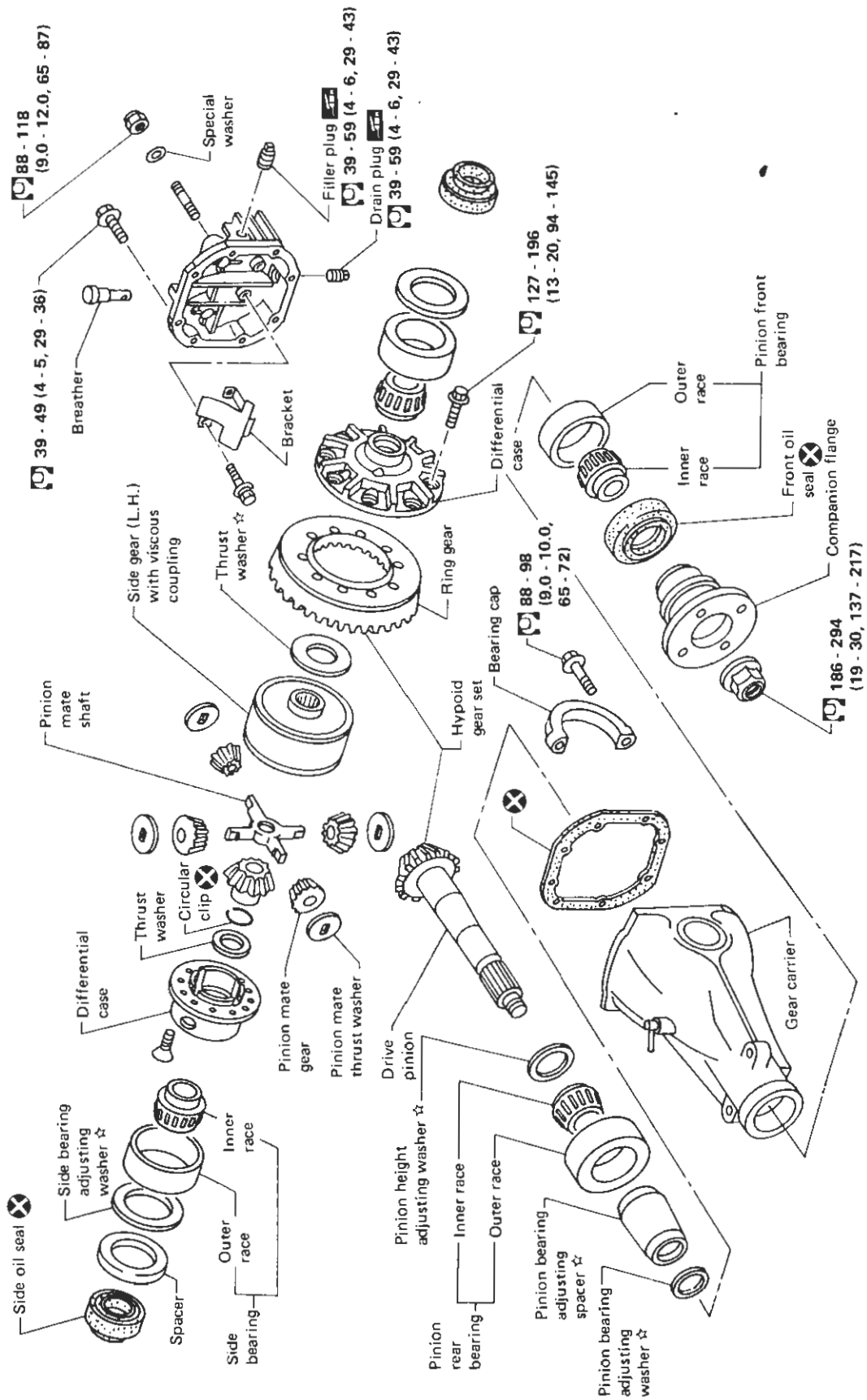


- ☆ : Adjustment is required.
- ⬢ : Using locking agent (Loctite (stud lock) or equivalent)
- ⬢ : N·m (kg·m, ft·lb)
- *1 : Models with gear ratio smaller than 4.000
- *2 : Models with gear ratio larger than 4.000

SPD005A

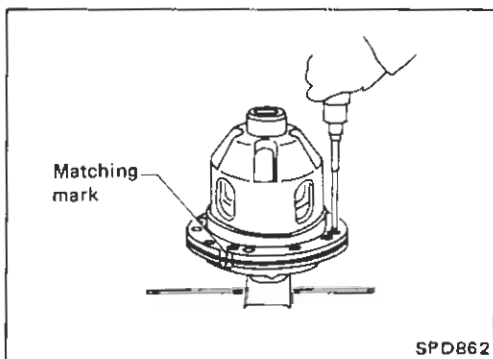
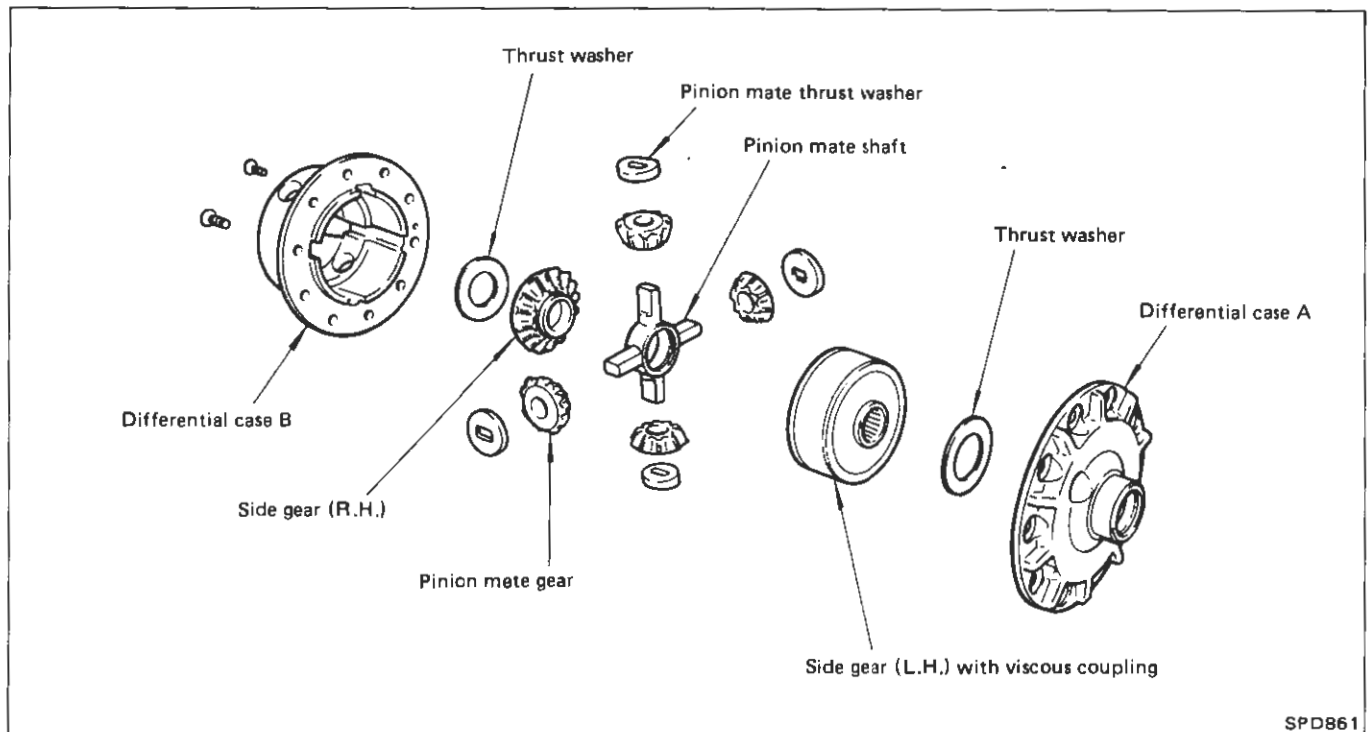
FINAL DRIVE

R200V



☆ : Adjustment is required.
 ⓧ : Using locking agent (Locktite (stud lock) or equivalent)
 [] : N-m (kg-m, ft-lb)

SPD993



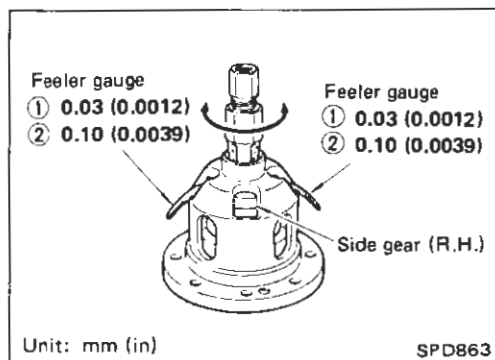
Disassembly

1. Loosen screws on differential cases A and B.
2. Separate differential cases A and B.

Inspection

CONTACT SURFACES

1. Clean the disassembled parts in suitable solvent and blow dry with compressed air.
2. If following surfaces are found to be burred or scratched, smooth with oil stone.
 - Differential case A
 - Differential case B
 - Side gear
 - Pinion mate gear
 - Pinion mate shaft
3. Check viscous coupling for oil leakage. If it is faulty, replace it with new one.



Adjustment

THRUST WASHER SELECTION

Whenever side gears or pinion mate gears are replaced, select suitable thrust washers as follows:

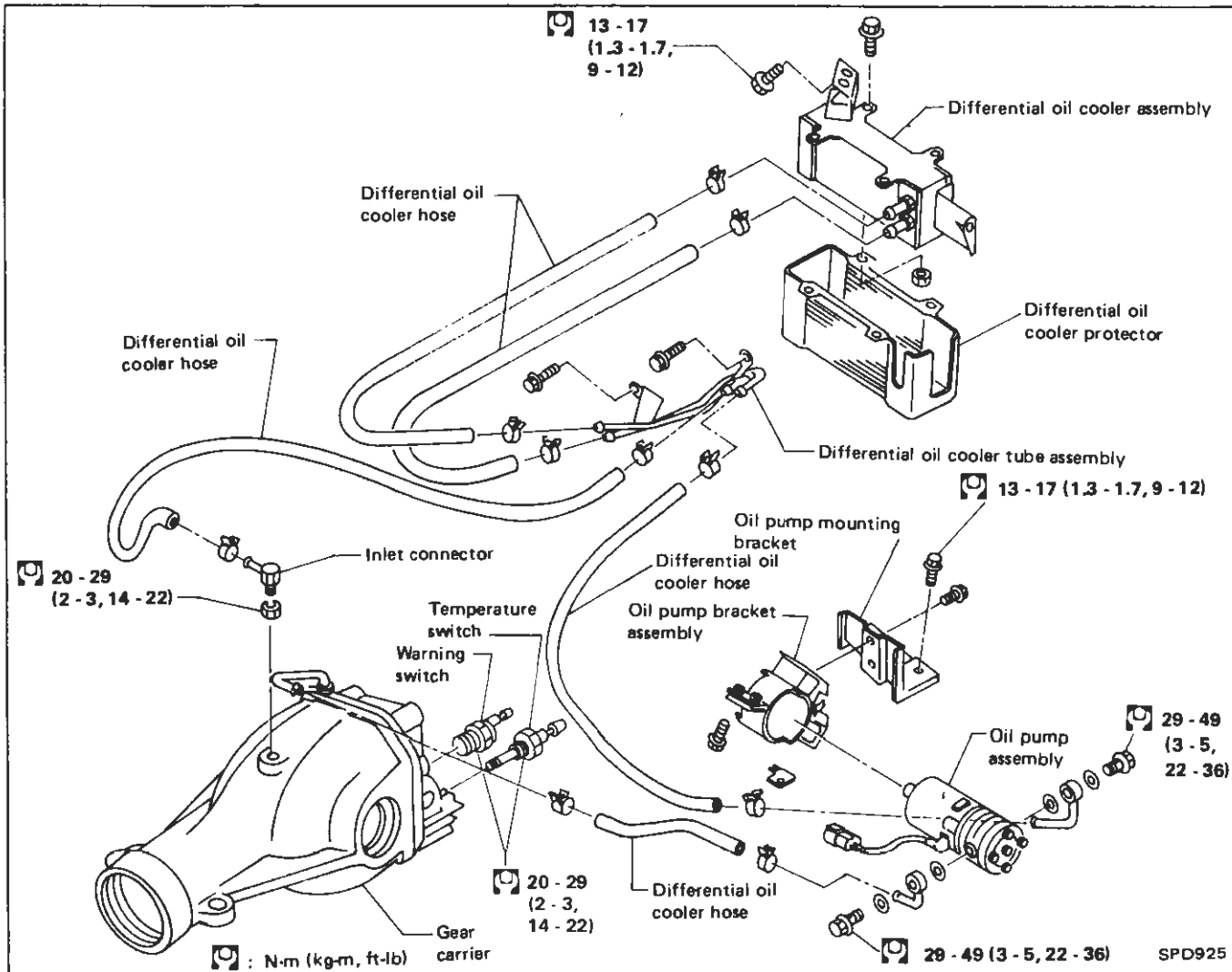
1. Clean side gears and pinion mate gears using white gasoline.
2. Before assembling gears, apply hypoid gear oil to frictional surfaces.
3. Install the previously removed thrust washer on right side gear. On left side gear, install a suitable thrust washer. Temporarily tighten differential cases using two screws.
4. Position differential assembly so that right side gear is on the upper side. Place a 0.03 mm (0.0012 in) feeler gauge (for example) between right side gear and thrust washer.

Do not place feeler gauge at groove side of differential case.

5. Also place a 0.03 mm (0.0012 in) additional feeler gauge between right side gear and thrust washer so that it is positioned diagonal to (180° apart from) the feeler gauge described previously.
 6. Rotate right side gear with a suitable tool attached to splines. If right side gear cannot be rotated, replace thrust washer used on left side gear with a thinner one.
 7. Replace both 0.03 mm (0.0012 in) feeler gauges with 0.10 mm (0.0039 in) gauges. At this point, make sure right side gear does not rotate. If it does, replace thrust washer on left side gear with a thicker one so that right side gear does not rotate.
 8. As explained in above example, select suitable thrust washers to ensure that:
 - a) Both side gears rotate. [0.03 mm (0.0012 in) feeler gauges are used in this case.]
 - b) Side gear is held stationary. [0.10 mm (0.0039 in) gauges are used in this case.]
- (Refer to S.D.S.)

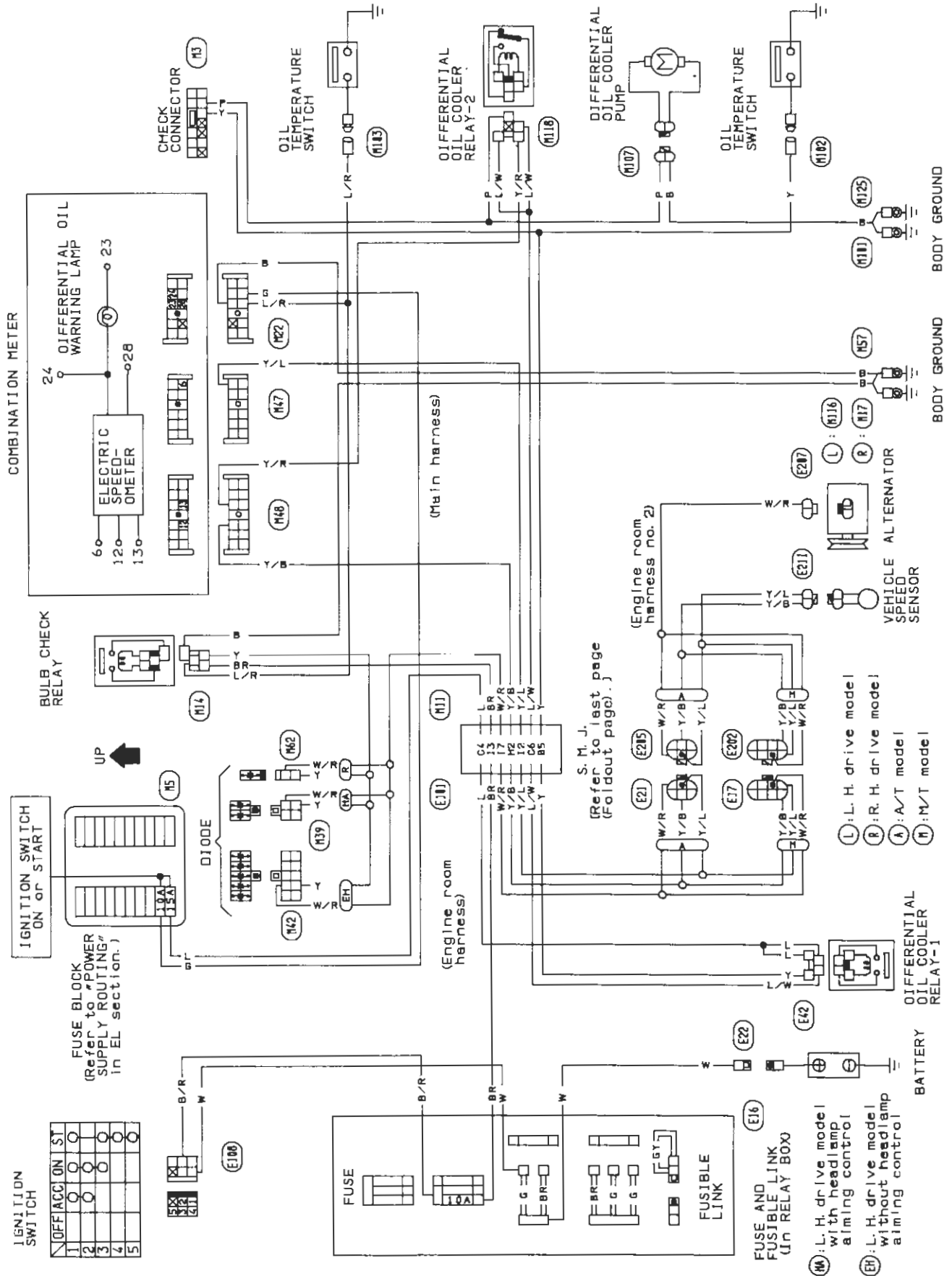
DIFFERENTIAL GEAR OIL COOLER SYSTEM

Removal and Installation



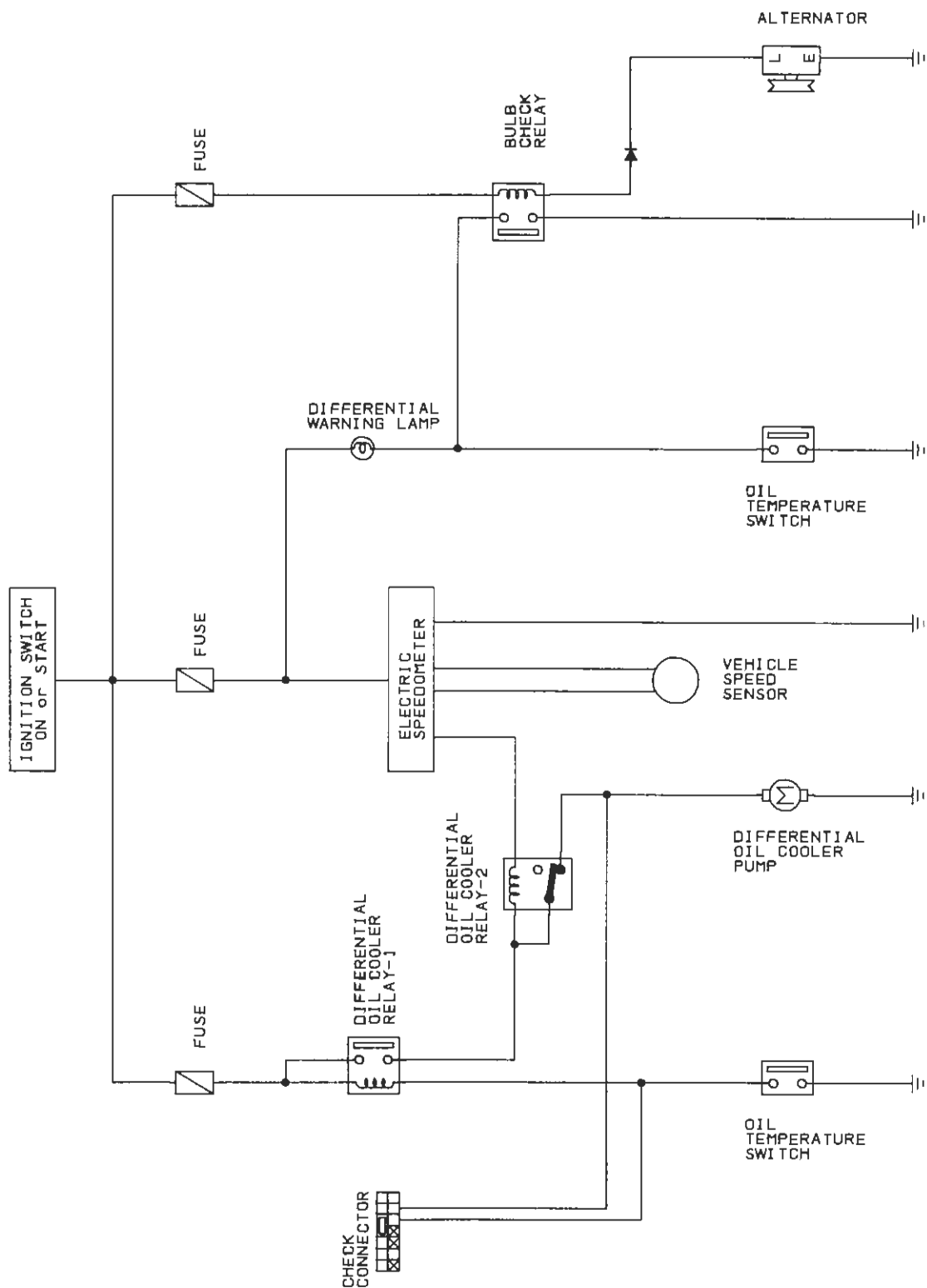
DIFFERENTIAL GEAR OIL COOLER SYSTEM

Wiring Diagram/Differential Oil Cooler System



DIFFERENTIAL GEAR OIL COOLER SYSTEM

Schematic/Differential Oil Cooler System



SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Final Drive

GENERAL SPECIFICATIONS

Applied model	Europe		Except Europe		
			R.H.D.		L.H.D.
	Standard	Optional	Standard	Optional	
Final drive model	R200	R200V	R200	R200	
Ring gear pitch diameter mm (in)	205 (8.07)				
Number of pinions	4				2
Gear ratio	3.916		4.363	3.916	4.083
Number of teeth					
Ring gear	47		48	47	49
Drive pinion	12		11	12	12
Oil capacity (approx.) ℓ (Imp pt)	1.8 (3-1/8)		1.2 (2-1/8)		

INSPECTION AND ADJUSTMENT

Side gear adjustment

Side gear backlash (Clearance between side gear and differential case) mm (in)	0.03 - 0.09 (0.0012 - 0.0035)
--	-------------------------------

Available side gear thrust washers (R200)

Thickness mm (in)	Part number
0.775 (0.0305)	38424-E3000
0.825 (0.0325)	38424-E3001
0.875 (0.0344)	38424-E3002
0.925 (0.0364)	38424-E3003

Available side gear thrust washers (R200V)

Thickness mm (in)	Part number
0.80 (0.0315)	38424-40F00
0.85 (0.0335)	38424-40F08
0.90 (0.0354)	38424-40F01
0.95 (0.0374)	38424-40F09
1.00 (0.0394)	38424-40F02
1.05 (0.0413)	38424-40F10
1.10 (0.0433)	38424-40F03
1.15 (0.0453)	38424-40F11
1.20 (0.0472)	38424-40F04
1.25 (0.0492)	38424-40F12
1.30 (0.0512)	38424-40F05
1.35 (0.0531)	38424-40F13
1.40 (0.0551)	38424-40F06
1.45 (0.0571)	38424-40F14
1.50 (0.0591)	38424-40F07

Drive pinion preload adjustment

Drive pinion bearing preload adjusting method	Adjusting washer end spacer
Drive pinion preload N·m (kg-cm, in-lb) With front oil seal	1.1 - 1.4 (11 - 14, 9.5 - 12.2)

Available drive pinion bearing preload adjusting washers

Thickness mm (in)	Part number
3.80 - 3.82 (0.1496 - 0.1504)	38125-61001
3.82 - 3.84 (0.1504 - 0.1512)	38126-61001
3.84 - 3.86 (0.1512 - 0.1520)	38127-61001
3.86 - 3.88 (0.1520 - 0.1528)	38128-61001
3.88 - 3.90 (0.1528 - 0.1535)	38129-61001
3.90 - 3.92 (0.1535 - 0.1543)	38130-61001
3.92 - 3.94 (0.1543 - 0.1551)	38131-61001
3.94 - 3.96 (0.1551 - 0.1559)	38132-61001
3.96 - 3.98 (0.1559 - 0.1567)	38133-61001
3.98 - 4.00 (0.1567 - 0.1575)	38134-61001
4.00 - 4.02 (0.1575 - 0.1583)	38135-61001
4.02 - 4.04 (0.1583 - 0.1591)	38136-61001
4.04 - 4.06 (0.1591 - 0.1598)	38137-61001
4.06 - 4.08 (0.1598 - 0.1606)	38138-61001
4.08 - 4.10 (0.1606 - 0.1614)	38139-61001

Available drive pinion bearing preload adjusting spacers

Length mm (in)	Part number
54.50 (2.1457)	38165-B4000
54.80 (2.1575)	38165-B4001
55.10 (2.1693)	38165-B4002
55.40 (2.1811)	38165-B4003
55.70 (2.1929)	38165-B4004
56.00 (2.2047)	38165-61001

**FRONT AXLE &
FRONT SUSPENSION**

SECTION

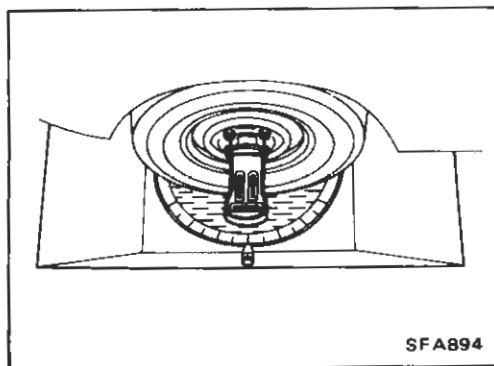
FA

CONTENTS

CHECK AND ADJUSTMENT — On-vehicle.....FA-2

FRONT SUSPENSION.....FA-3





Front Wheel Alignment

CAMBER, CASTER AND KINGPIN INCLINATION

Camber, caster and kingpin inclination are preset at factory and cannot be adjusted.

1. Measure camber, caster and kingpin inclination of both right and left wheels with a suitable alignment gauge.

Camber:

$-1^{\circ}25'$ to $5'$

Caster:

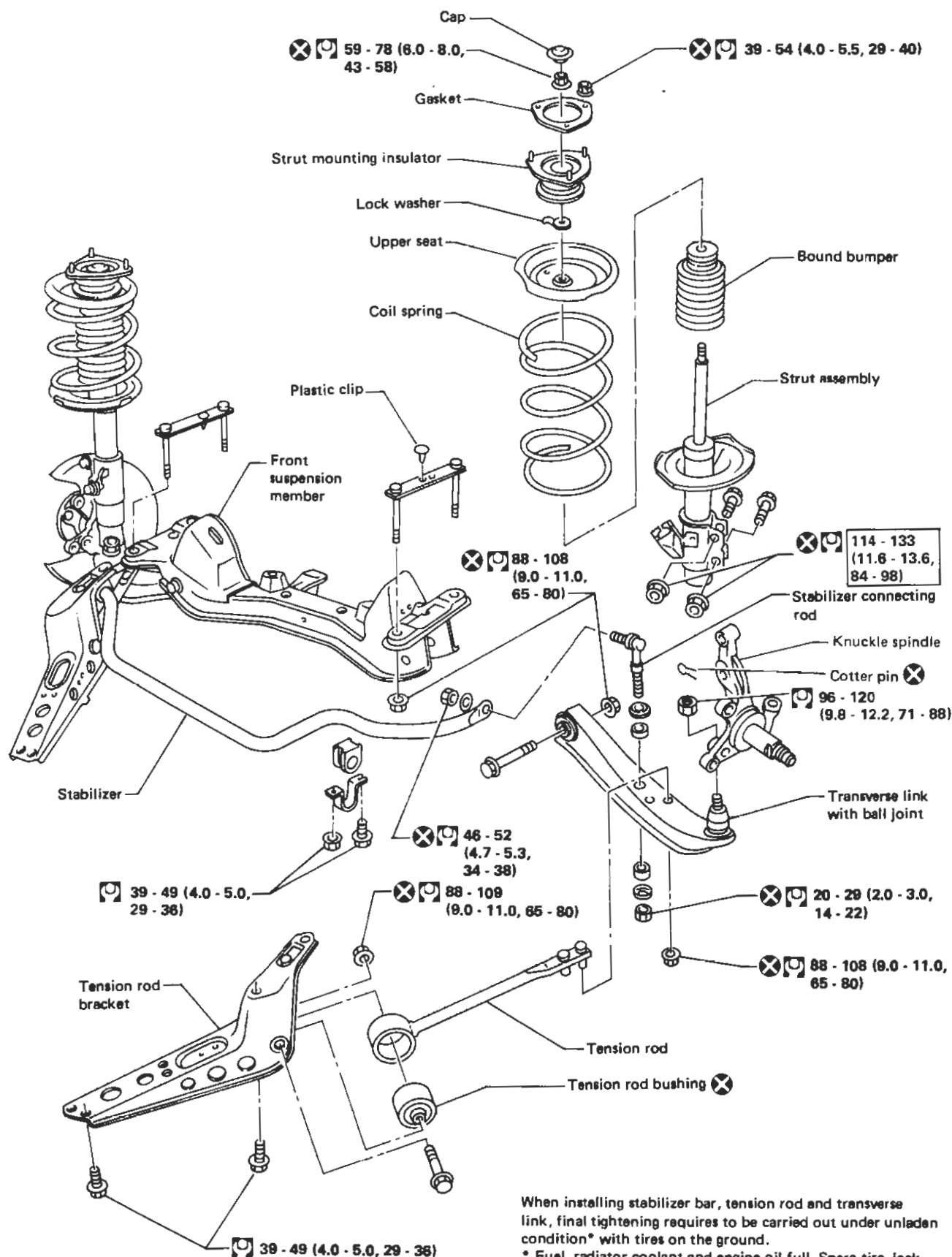
$5^{\circ}55'$ - $7^{\circ}25'$

Kingpin inclination:

$12^{\circ}25'$ - $13^{\circ}55'$

2. If camber, caster and kingpin inclination are not within specification, inspect and replace any damaged or worn front suspension parts.

FRONT SUSPENSION



⊗ : N·m (kg·m, ft·lb)

When installing stabilizer bar, tension rod and transverse link, final tightening requires to be carried out under unladen condition* with tires on the ground.
 * Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

SFA875A

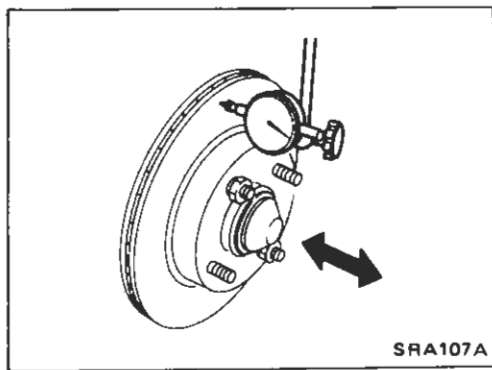
REAR AXLE & REAR SUSPENSION

SECTION **RA**

CONTENTS

CHECK AND ADJUSTMENT — On-vehicle	RA-2
REAR AXLE — Wheel Hub and Axle Housing	RA-3
REAR AXLE — Drive Shaft	RA-4
REAR SUSPENSION	RA-5
SERVICE DATA AND SPECIFICATIONS (S.D.S.)	RA-6

RA



Rear Wheel Bearing

- Check tightening torque of wheel bearing lock nut.

: **206 - 275 N·m**
(21 - 28 kg-m, 152 - 203 ft-lb)

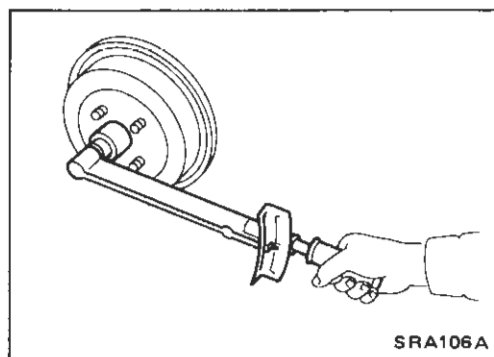
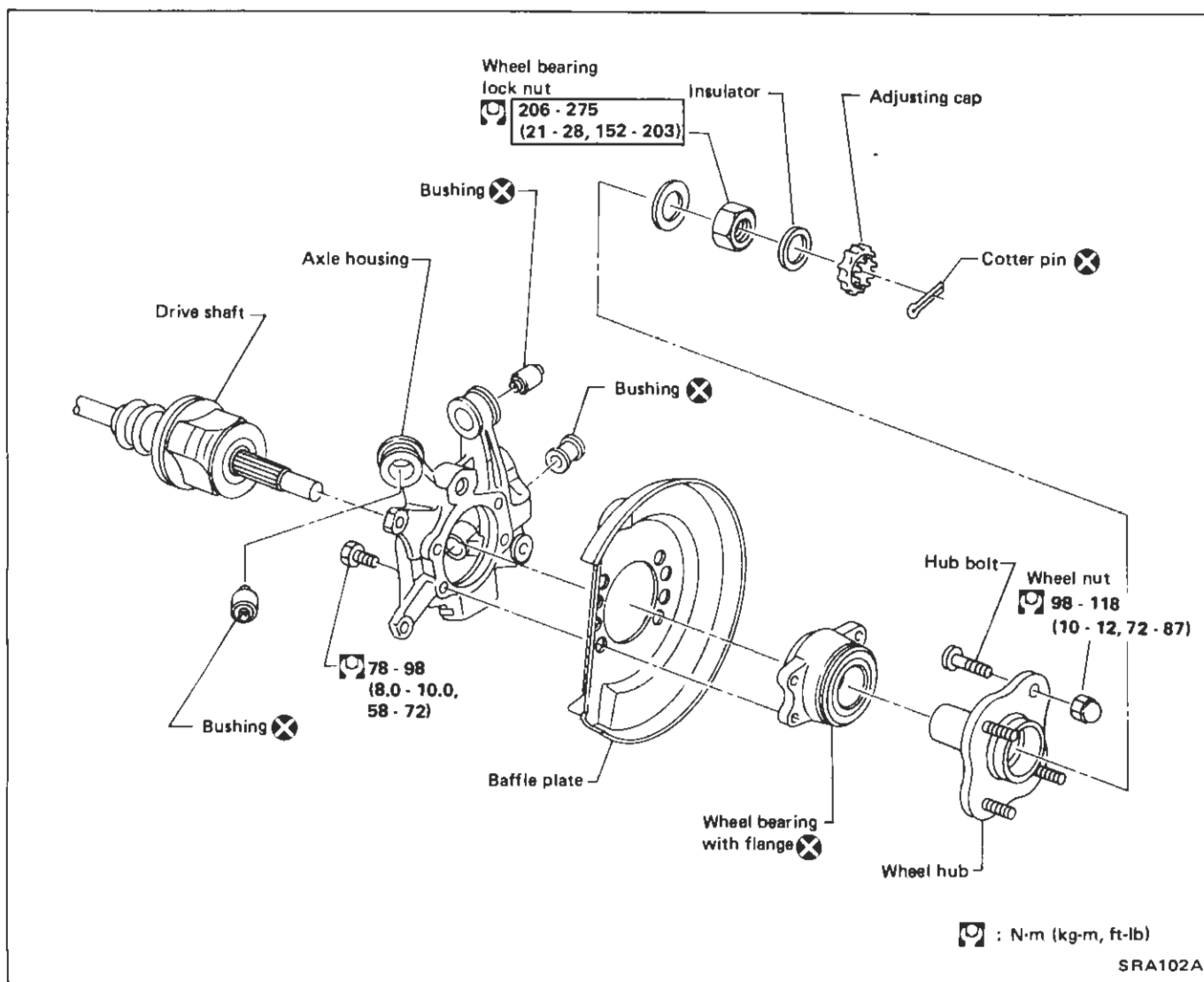
- Check that wheel bearings operates smoothly.
- Check axial end play.

Axial end play:

0.05 mm (0.0020 in) or less

If axial end play is not within specification or wheel bearing does not turn smoothly, replace wheel bearing assembly.
Refer to REAR AXLE — Wheel Hub and Axle Housing.

REAR AXLE — Wheel Hub and Axle Housing

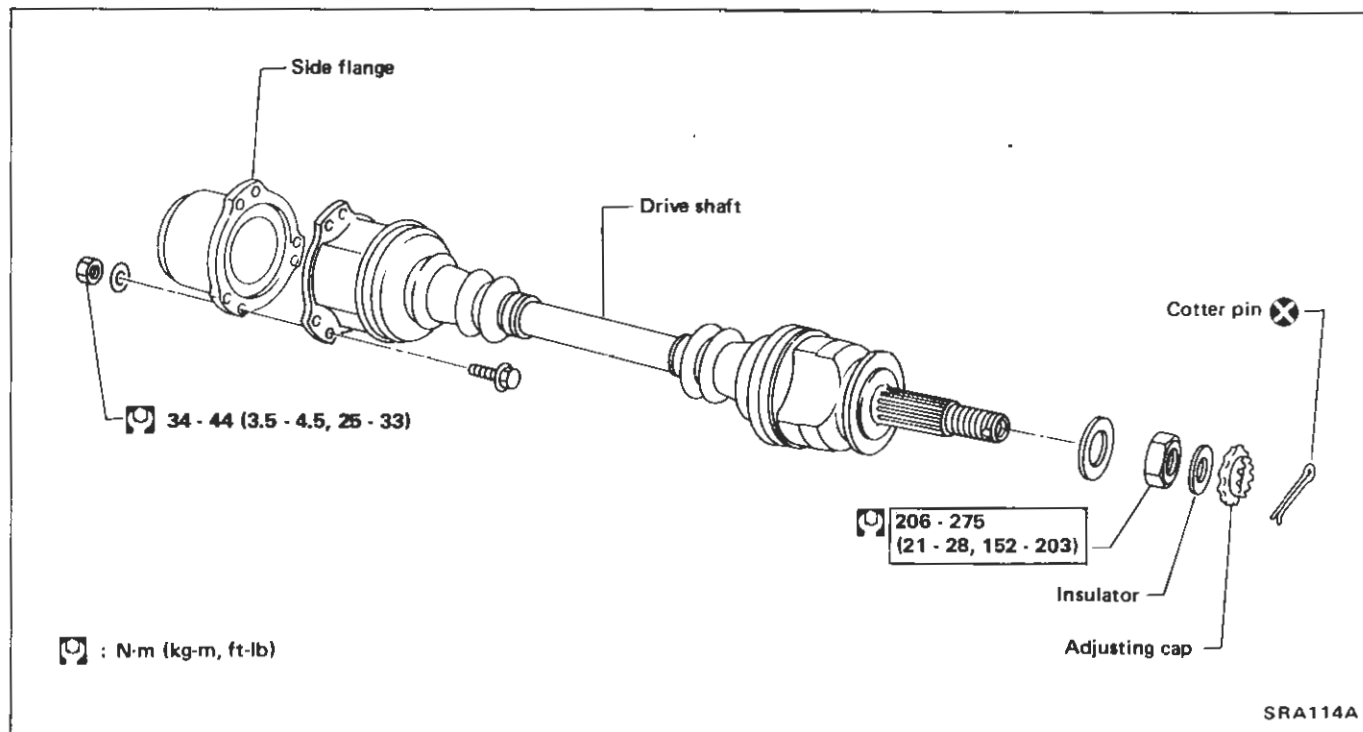


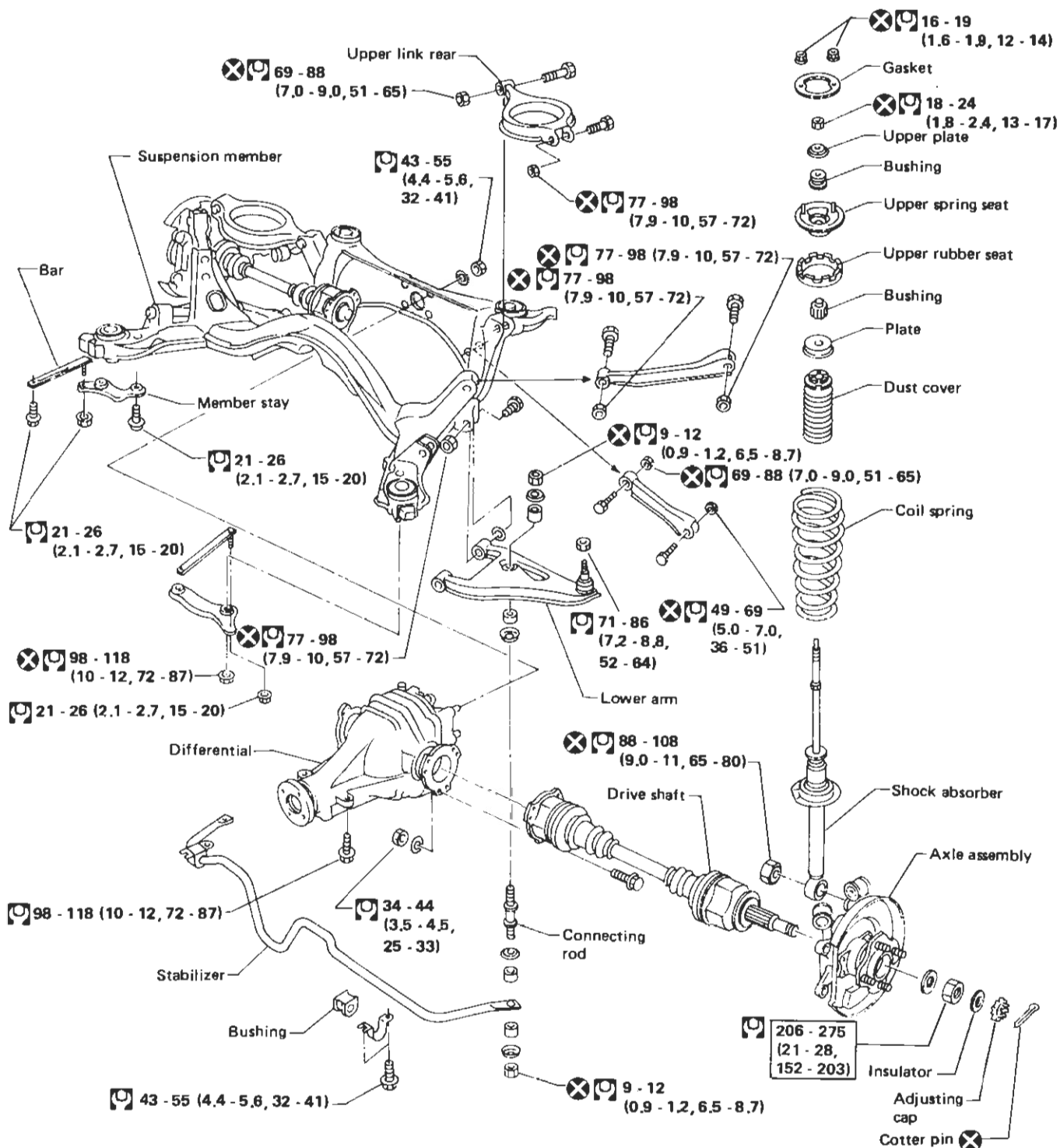
Installation

- Install axle housing with wheel hub.
- Tighten wheel bearing lock nut.

□: 206 - 275 N·m
(21 - 28 kg·m, 152 - 203 ft·lb)

REAR AXLE — Drive Shaft





Do not jack up at lower arm.
When installing each rubber part, final tightening must be carried out under unladen condition* with tires on ground.

* Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

: N.m {kg-m, ft-lb}

SRA144A

SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Inspection and Adjustment

WHEEL BEARING

Wheel bearing axial end play mm (in)	0.05 (0.0020) or less
Wheel bearing lock nut Tightening torque N·m (kg-m, ft-lb)	206 - 275 (21 - 28, 152 - 203)

BRAKE SYSTEM

SECTION **BR**

CONTENTS

ANTI-LOCK BRAKING SYSTEM	BR-2
SERVICE DATA AND SPECIFICATIONS (S.D.S.)	BR-4

BR

Wiring Diagram

[illegible]

Wiring Diagram (Cont'd)

COMBINATION METER
ANTI-LOCK WARNING LAMP
24 0 5

STOP LAMP SWITCH
To stop lamp

BATTERY

IGNITION SWITCH ON or START

FUSE BLOCK
(Refer to "POWER SUPPLY ROUTING" in EL section.)

UP

FRONT WHEEL SENSOR R. H.

BODY GROUND

ACTUATOR RELAY

SOLENOID VALVE
FRONT L. H.
FRONT R. H.
REAR

MOTOR RELAY

MOTOR

CONTROL UNIT

LEGEND:
A: A/T model
M: M/T model
E: For Europe
G: Except for Europe

REAR SENSOR

FRONT WHEEL SENSOR L. H.

BCDY GROUND

ALTERNATOR

FUSE AND FUSIBLE LINK (In RELAY BOX)

FUSIBLE LINK (In RELAY BOX)

BATTERY

WIRING DIAGRAM:
The diagram shows the electrical system for a vehicle. It includes a battery connected to a fuse block and a control unit. The fuse block contains fuses for the ignition switch, stop lamp switch, and various sensors. The control unit is connected to the fuse block and the sensors. The sensors include a front wheel sensor (R. H. and L. H.), a rear sensor, and a combination meter. The diagram also shows the wiring for the actuator relay, solenoid valve, motor relay, and motor. The wiring is color-coded and labeled with letters and numbers. A legend at the bottom right indicates the model-specific wiring: A: A/T model, M: M/T model, E: For Europe, G: Except for Europe. The diagram is a detailed technical drawing showing the electrical connections between various components of a vehicle.

SERVICE DATA AND SPECIFICATIONS (S.D.S.)

General Specifications

Destination		Except Europe		Europe (Without A.B.S. *)	Europe (With A.B.S. *)
Front brake					
Brake model		CL18VB		CL25VA	
Cylinder bore diameter mm (in)		48.1 (1.894)		57.2 (2.252)	
Pad length x width x thickness mm (in)		100.8 x 44.3 x 10.0 (3.97 x 1.744 x 0.394)		134.1 x 45.3 x 11.0 (5.28 x 1.783 x 0.433)	
Rotor outer diameter x thickness mm (in)		250 x 18 (9.84 x 0.71)		257 x 22 (10.12 x 0.87)	
Rear brake					
Brake model		CL9H		AD9	
Cylinder bore diameter mm (in)		33.96 (1.3370)		34.93 (1.3752)	
Pad length x width x thickness mm (in)		75.0 x 40.0 x 9.5 (2.953 x 1.575 x 0.374)		93.8 x 33.4 x 10.0 (3.693 x 1.315 x 0.394)	
Rotor outer diameter x thickness mm (in)		258 x 9 (10.16 x 0.35)		266 x 9 (10.47 x 0.35)	
Master cylinder					
Cylinder bore diameter mm (in)		20.64 (13/16)	22.22 (7/8)*	22.22 (7/8)	23.81 (15/16)
Control valve					
Valve model		Proportioning valve (within master cylinder)			
Sprit point x reducing ratio kPa (bar, kg/cm ² , psi)		3,923 (39.2, 40, 569) x 0.4			
Brake booster					
Booster model		M23, G23		M195T	
Diaphragm diameter mm (in)		230 (9.06)		Primary 205 (8.07) Secondary 180 (7.09)	
Brake fluid					
Recommended brake fluid		DOT 3			
Parking brake					
Control type		Center lever			
Parking drum brake					
Brake model		—		DS17HD	
Lining					
Width x thickness x length mm (in)		—		154.1 x 25.0 x 3.0 (6.07 x 0.984 x 0.118)	
Drum inner diameter mm (in)		—		172.0 (6.77)	

*Anti-lock Braking System

SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Inspection and Adjustment

FRONT DISC BRAKE

Unit: mm (in)

Item \ Brake model	CL1BVB	CL25VA
Pad wear limit Minimum thickness	2.0 (0.079)	
Rotor repair limit Minimum thickness	16.0 (0.630)	20.0 (0.787)
Maximum runout	0.07 (0.0028)	

REAR DISC BRAKE

Unit: mm (in)

Item \ Brake model	CL9H	AD9
Pad wear limit Minimum thickness	1.5 (0.059)	2.0 (0.079)
Rotor repair limit Minimum thickness	8.0 (0.315)	
Maximum runout	0.07 (0.0028)	

PARKING DRUM BRAKE

Unit: mm (in)

Brake model	DS17H
Lining replacement limit Minimum thickness	1.5 (0.059)
Drum repair limit Maximum inner diameter	173.0 (6.81)

BRAKE PEDAL

Unit: mm (in)

Model	L.H.D.	R.H.D.
Free height M/T	177.0 - 187.0 (6.97 - 7.36)	178.0 - 188.0 (7.01 - 7.40)
A/T	186.0 - 196.0 (7.32 - 7.72)	188.0 - 198.0 (7.40 - 7.80)
Depressed height [under force of 490 N (50 kg, 110 lb) with engine running]	100 (3.94) or more	105 (4.13) or more
Clearance between pedal stopper and threaded end of stop lamp switch	0.3 - 1.0 (0.012 - 0.039)	
Clearance between pedal stopper and threaded end of A.S.C.D. switch	0.3 - 1.0 (0.012 - 0.039)	
Pedal free play at clevis	1 - 3 (0.04 - 0.12)	

PARKING BRAKE

Item \ Control type	Center lever
Number of notches [under force of 196 N (20 kg, 44 lb)]	6 - 8
Number of notches (when warning switch comes on)	1

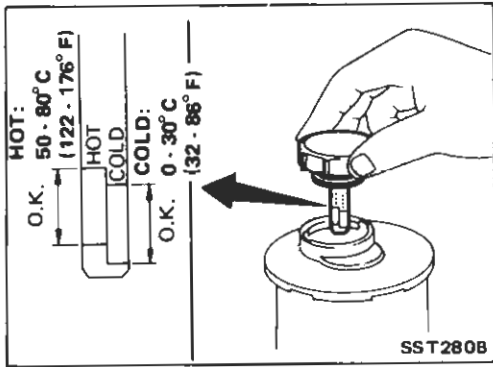
STEERING SYSTEM

SECTION ST

CONTENTS

ON-VEHICLE INSPECTION (Power steering).....ST-2

ST



Checking Fluid Level

Check fluid level.

Fluid level should be checked using "HOT" range on dipstick at fluid temperatures of 50 to 80°C (122 to 176°F) or using "COLD" range on dipstick at fluid temperatures of 0 to 30°C (32 to 86°F).

CAUTION:

- Do not overfill.
- Recommended fluid is Automatic Transmission Fluid "DEXRON™" type.

BODY

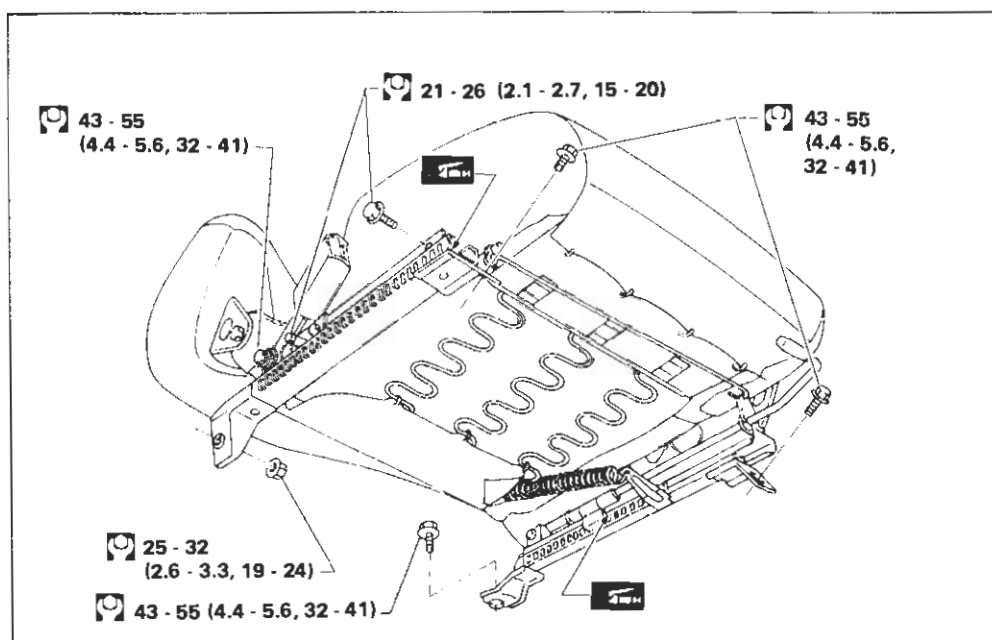
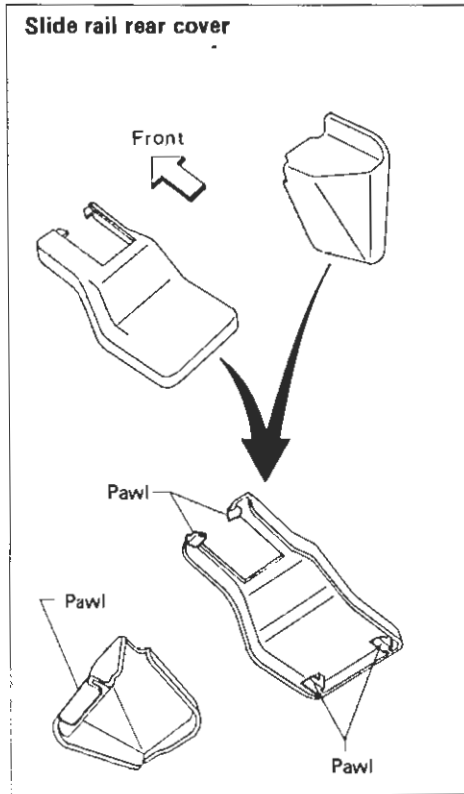
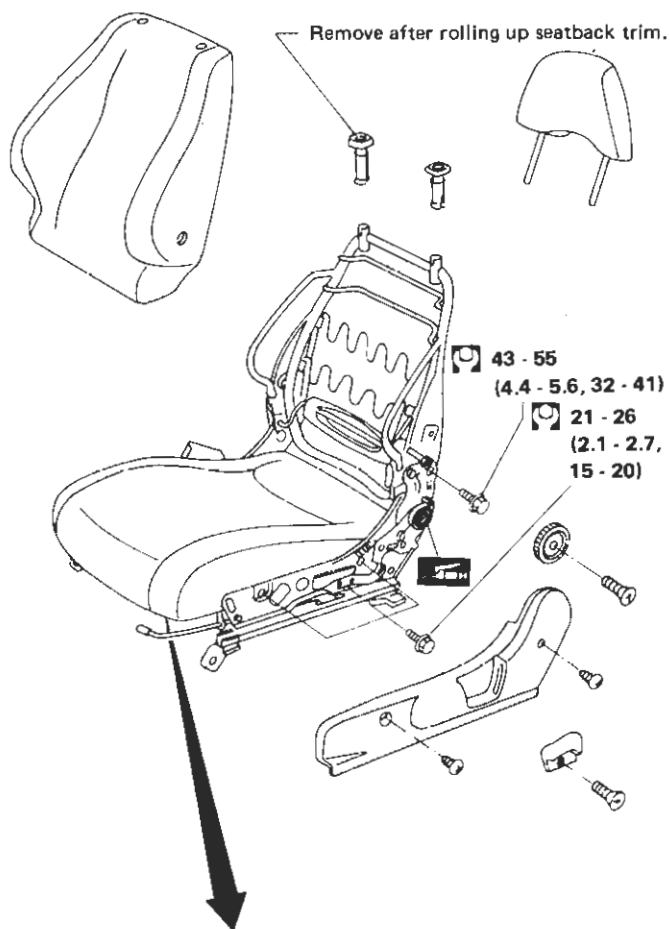
SECTION BF

CONTENTS

SEAT	BF-2
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BF

Front Seat



HEATER & AIR CONDITIONER

SECTION **HA**

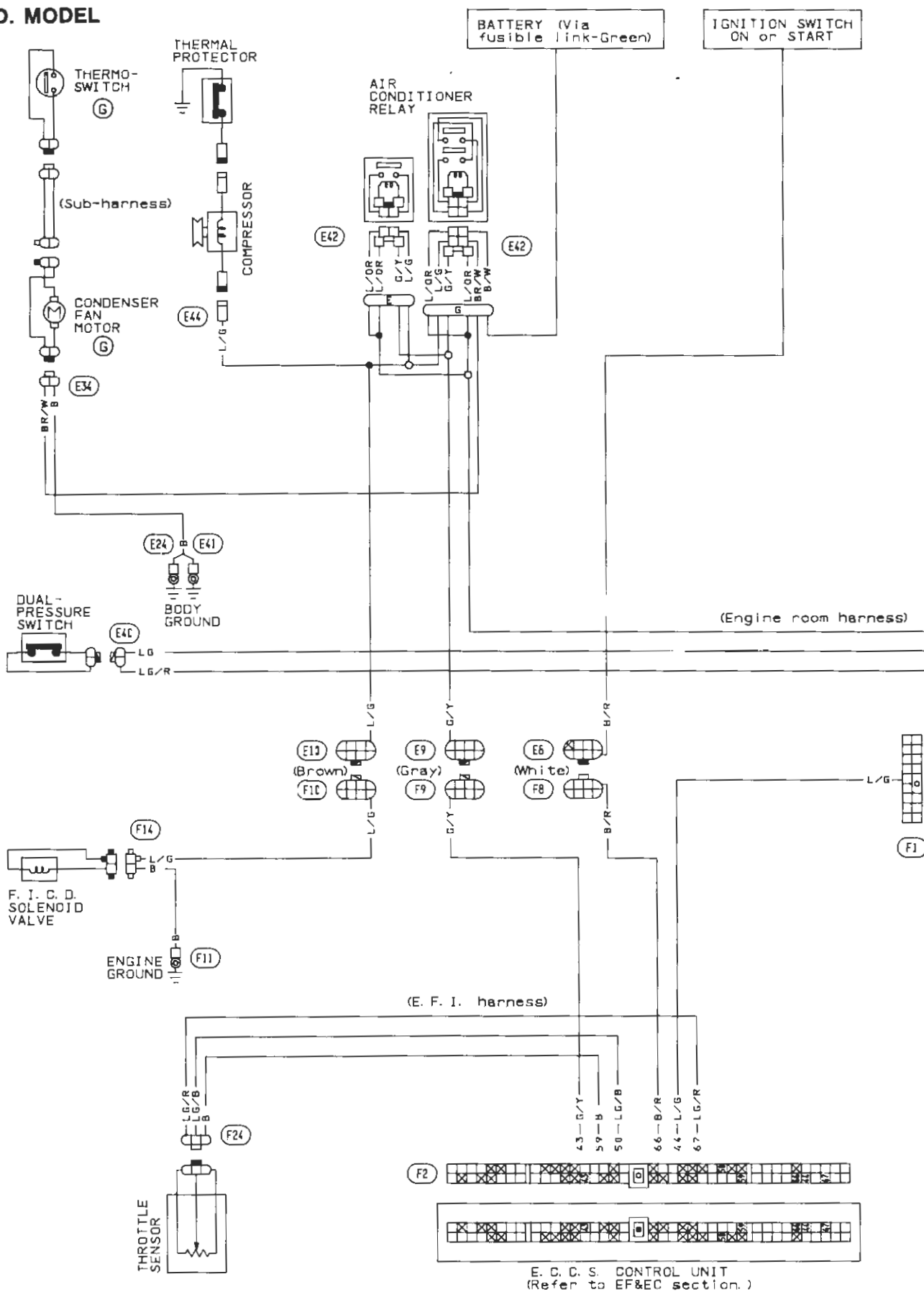
CONTENTS

A/C ELECTRICAL CIRCUIT	HA-2
------------------------------	------

HA

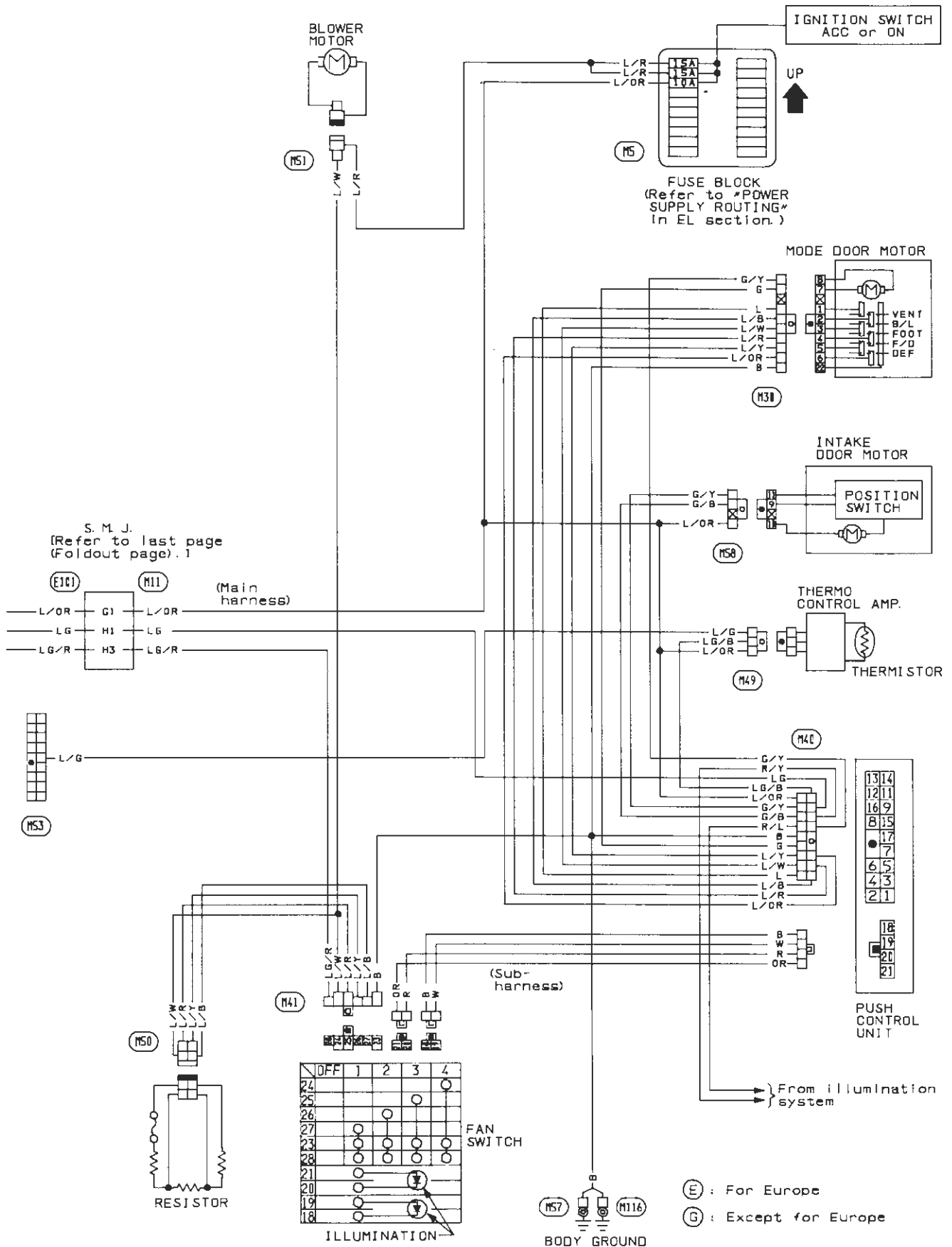
L.H.D. MODEL

Wiring Diagram



A/C ELECTRICAL CIRCUIT

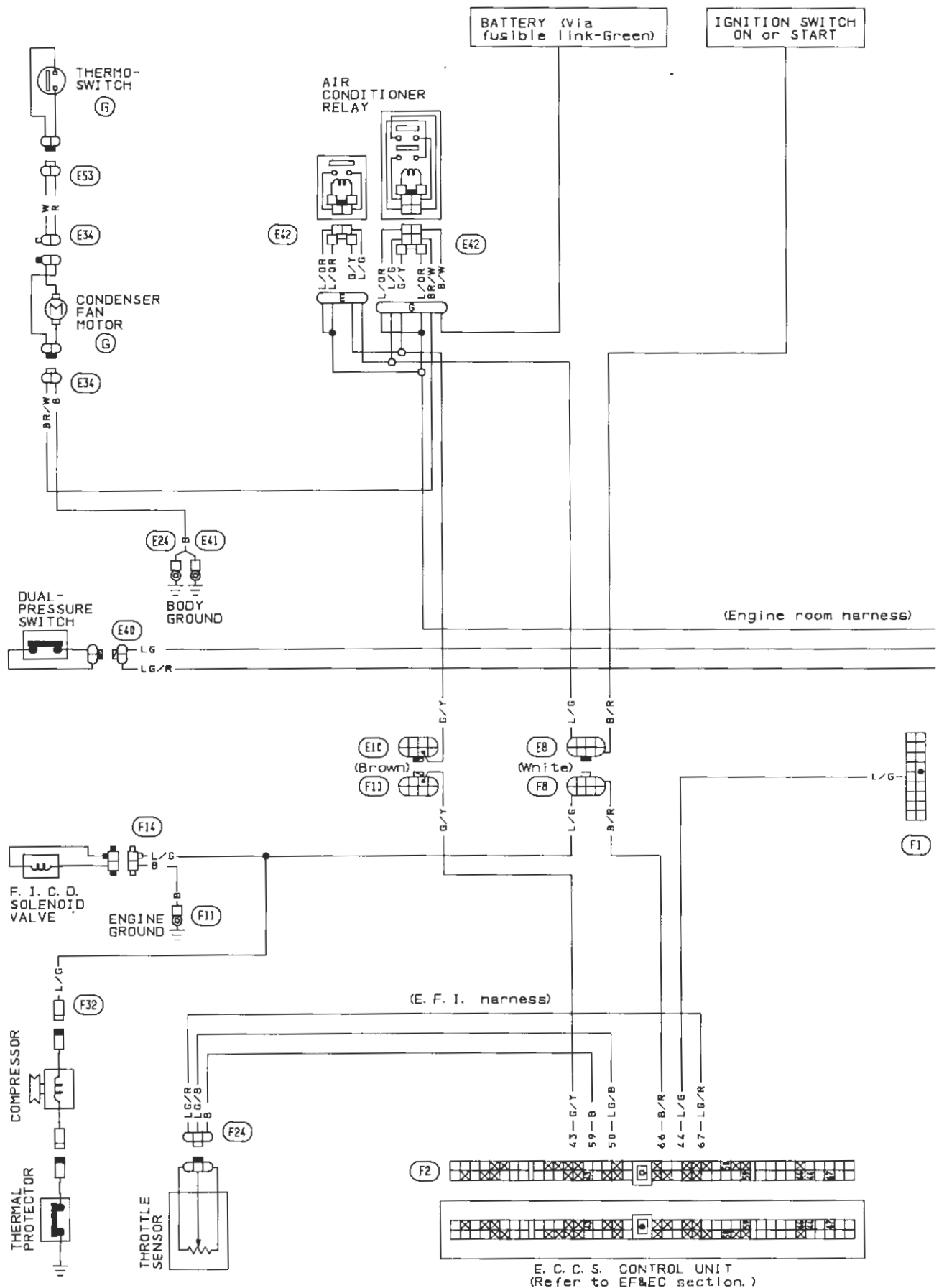
Wiring Diagram (Cont'd)



A/C ELECTRICAL CIRCUIT

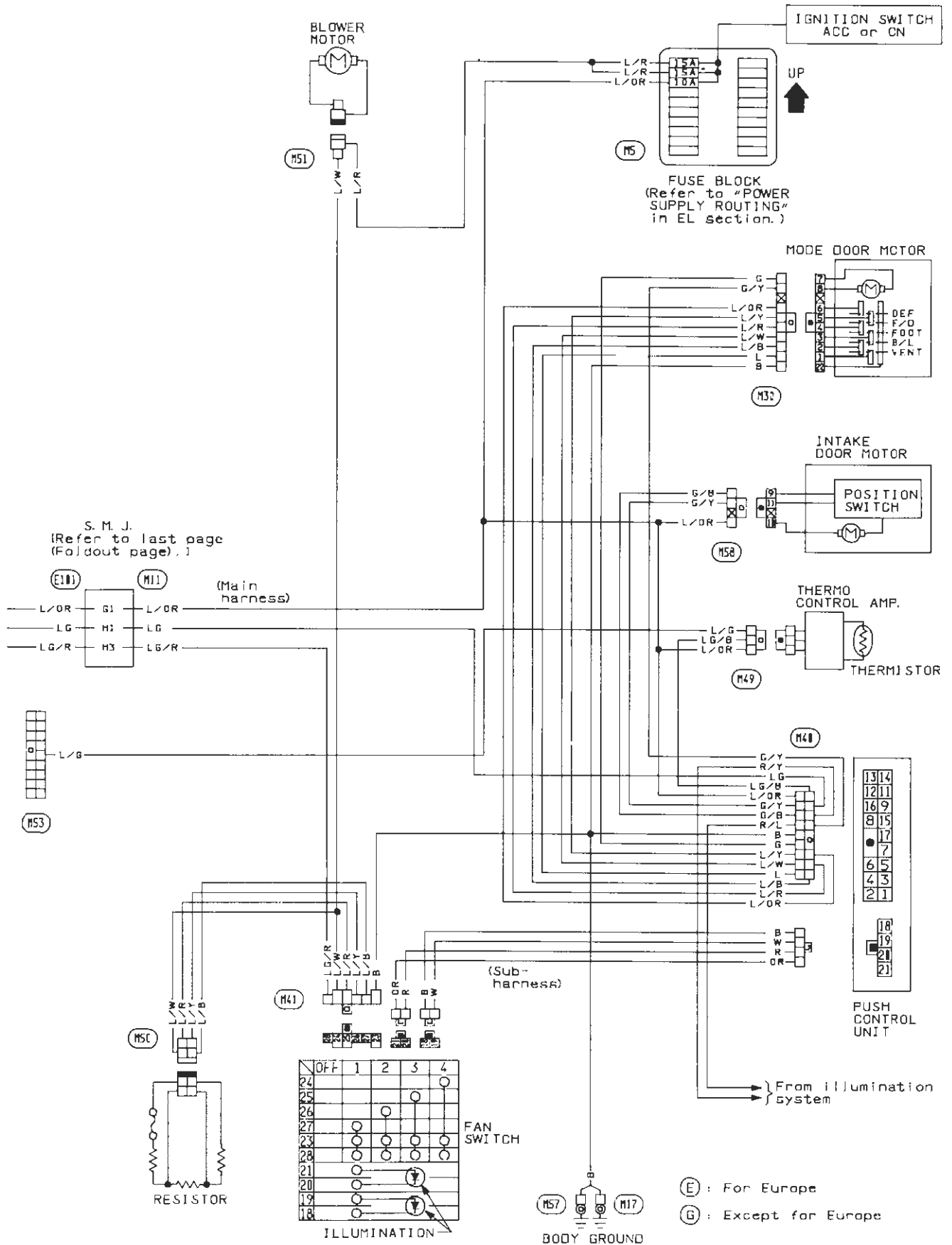
Wiring Diagram (Cont'd)

R.H.D. MODEL



A/C ELECTRICAL CIRCUIT

Wiring Diagram (Cont'd)



ELECTRICAL SYSTEM

SECTION **EL**

CONTENTS

POWER SUPPLY ROUTING	EL- 2
CHARGING SYSTEM	EL- 4
HEADLAMP	EL- 5
HEADLAMP — Headlamp Aiming Control —	EL- 8
EXTERIOR LAMP	EL-16
INTERIOR LAMP	EL-18
METER AND GAUGES	EL-19
WARNING LAMPS AND CHIME	EL-20
WIPER AND WASHER	EL-22
LOCATION OF ELECTRICAL UNITS	EL-23
HARNESS LAYOUT	EL-24
SUPER MULTIPLE JUNCTION (S.M.J.)	EL-35

WIRING DIAGRAM REFERENCE CHART

E.C.C.S. (Ignition system)	EF & EC SECTION
DIFFERENTIAL OIL COOLER	PD SECTION
4-WHEEL SKID CONTROL	BR SECTION
HEATER AND AIR CONDITIONER	HA SECTION

Wiring Diagram

Legend:

- L → Differential oil cooler
- g → Meter and Gauges, Daytime light control unit, Auto antenna timer, Rear window defogger relay, Headlamp washer timer
- G/W → Turn signal
- L → Radio, Audio, Meter illumination (Liquid crystal), Auto antenna timer
- L/W → Rear window wiper and washer, Door mirror system
- LG → Windshield wiper and washer
- OR/B → Cigarette lighter
- L/ON → Heater and Air conditioner
- L/N → Blower motor

Model Codes:

- (DL) : Model with daytime light system
- (ED) : Model without daytime light system
- (HA) : Model with headlamp aiming control
- (EH) : Model without headlamp aiming control

Components and Connections:

- Ignition System:** Ignition switch, Ignition relay, Accessory relay-1, Accessory relay-2.
- Lighting System:** Daytime light control unit, Lighting switch, Bulb check relay, Fuel pump, Air regulator, E.C.C.S. system, Retractor relay, Headlamp L.H., Headlamp R.H., Horn.
- Accessories:** Interior lamp, Spot, Foot, Luggage room, Radio, Audio, Clock, A.T. control unit, Auto antenna timer, Rear fog lamp, Headlamp aiming motor, Stop lamp, Hazard warning lamp, Headlamp timer, Retractor relay, Exterior lamps, Clearance L.H., License, Tail L.H., Headlamp timer, Warning buzzer, Tail lamp R.H., Clearance lamp R.H., Headlamp aiming switch, Illumination, Glove box lamp, E.C.C.S. control unit, Daytime light control unit, Back-up lamp, Inhibitor switch, A/T control unit.

Wiring Details:

- Power window system:** Connected to Ignition relay and Accessory relay-1.
- Door lock system:** Connected to Ignition relay and Accessory relay-2.
- Body Ground:** Connected to various components including the battery and the main harness.
- Fuse and Fusible Link:** Located in the relay box, connected to the battery and various systems.

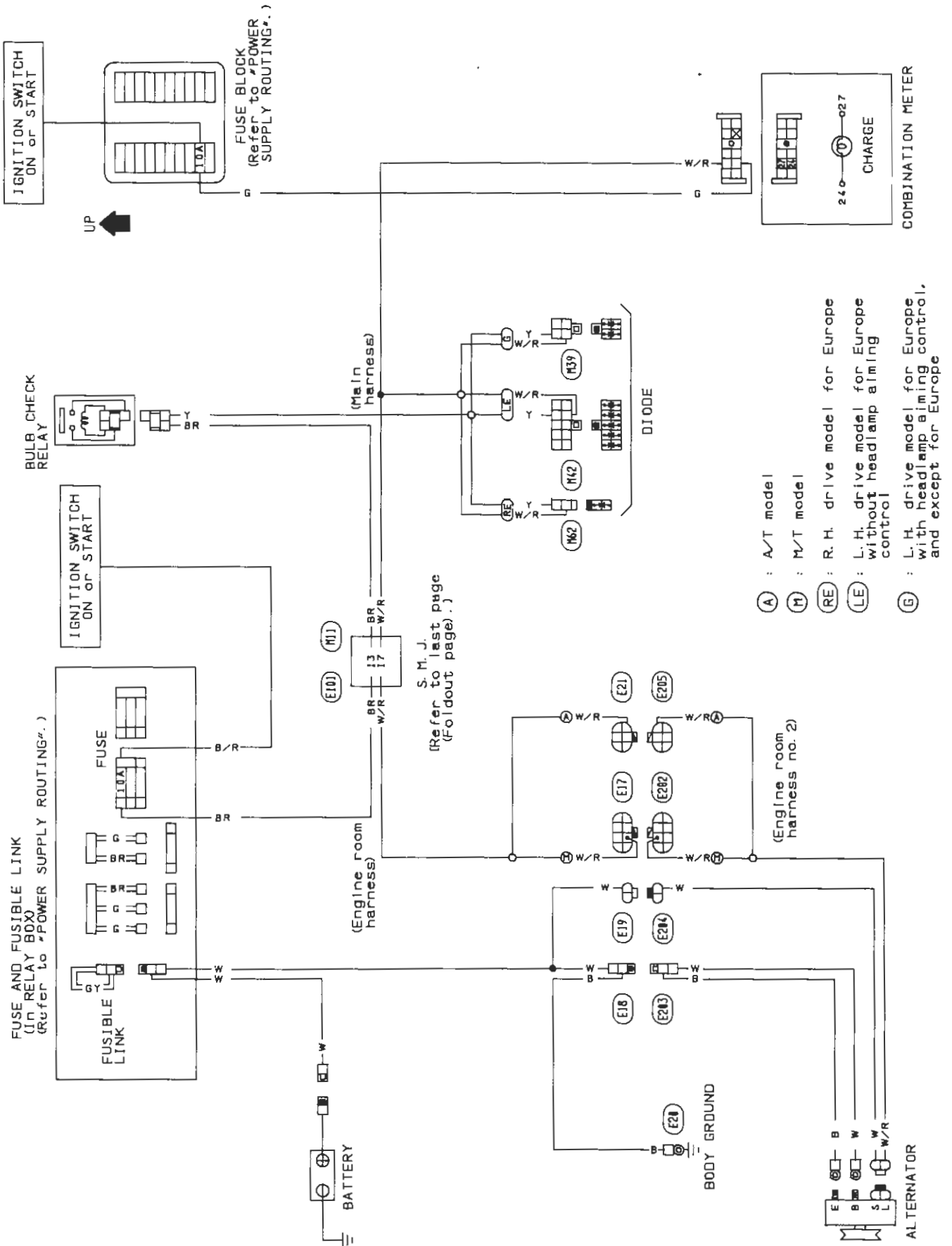
Notes:

- S. H. J. (Refer to last page (foldout page).)
- (Engine room harness)

Wiring Diagram (Cont'd)

CHARGING SYSTEM

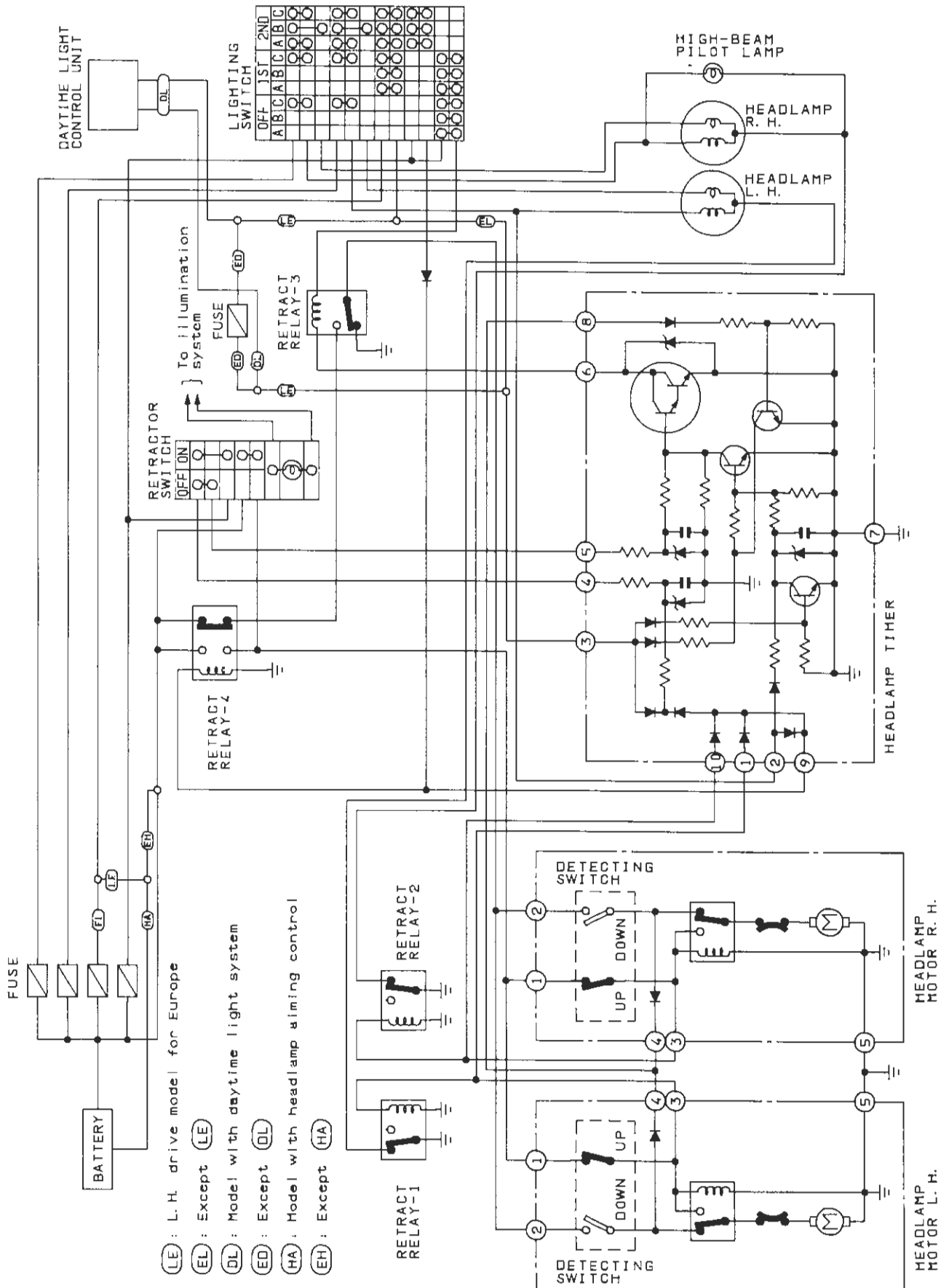
Wiring Diagram



SEL847N

Schematic

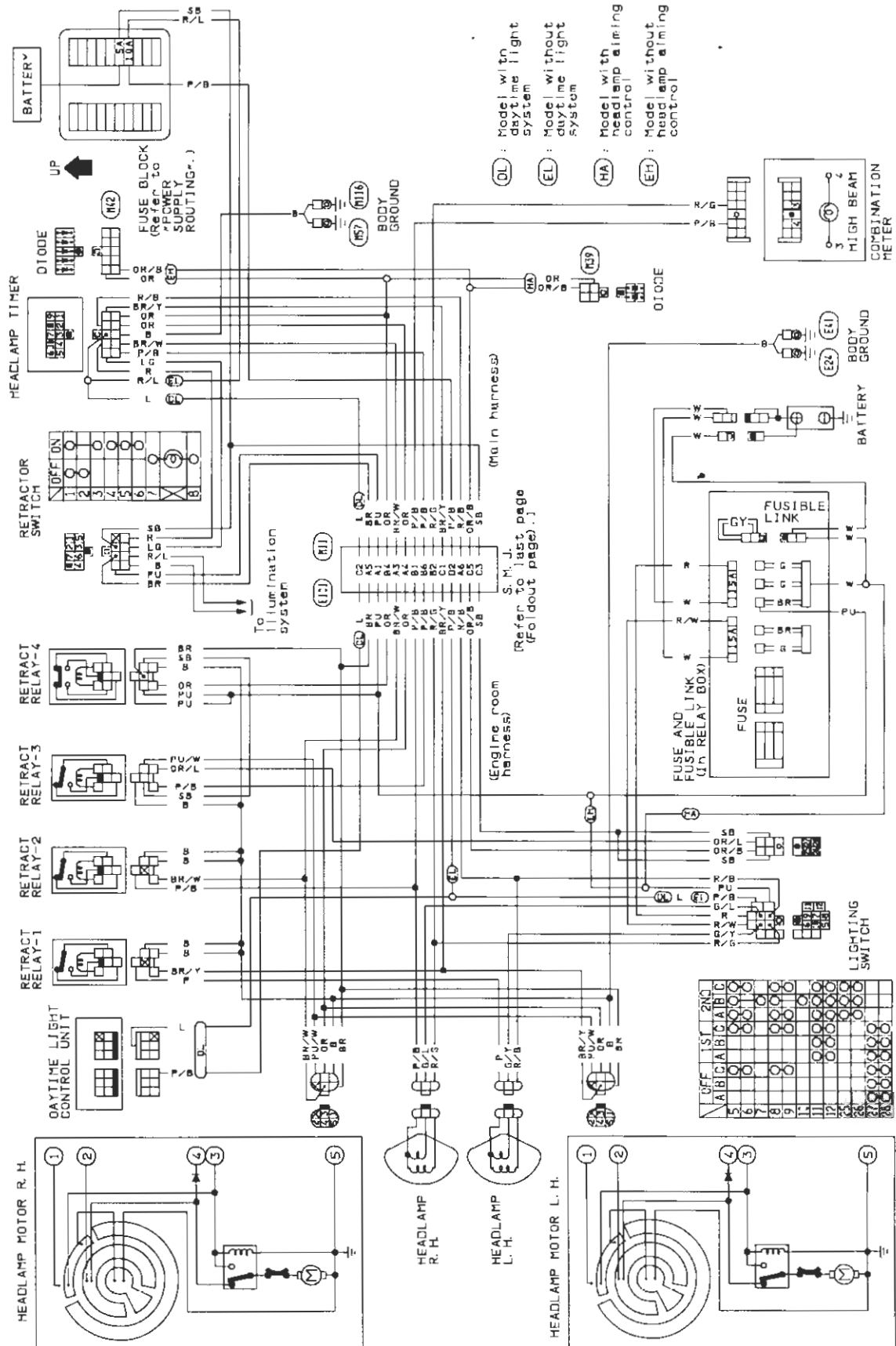
MODEL WITHOUT DIM-DIP LAMP SYSTEM



HEADLAMP

Wiring Diagram

L.H. DRIVE MODEL FOR EUROPE



Wiring Diagram (Cont'd)

HEADLAMP MOTOR R. H.

HEADLAMP MOTOR L. H.

HEADLAMP R. H.

HEADLAMP L. H.

HEADLAMP TIMER

HEADLAMP

HEADLAMP

LIGHTING SWITCH

FUSE AND FUSIBLE LINK (IN RELAY BOX)

FUSE

FUSIBLE LINK

BATTERY

BODY GROUND

RETRACTOR RELAY-1

RETRACTOR RELAY-2

RETRACTOR RELAY-3

RETRACTOR RELAY-4

RETRACTOR SWITCH

HIGH BEAM

COMBINATION METER

DIODE

FUSE BLOCK (Refer to supply routing.)

DIODE

UP

ILLUMINATION SYSTEM

(Main harness)

(Engine room harness)

S. M. J.

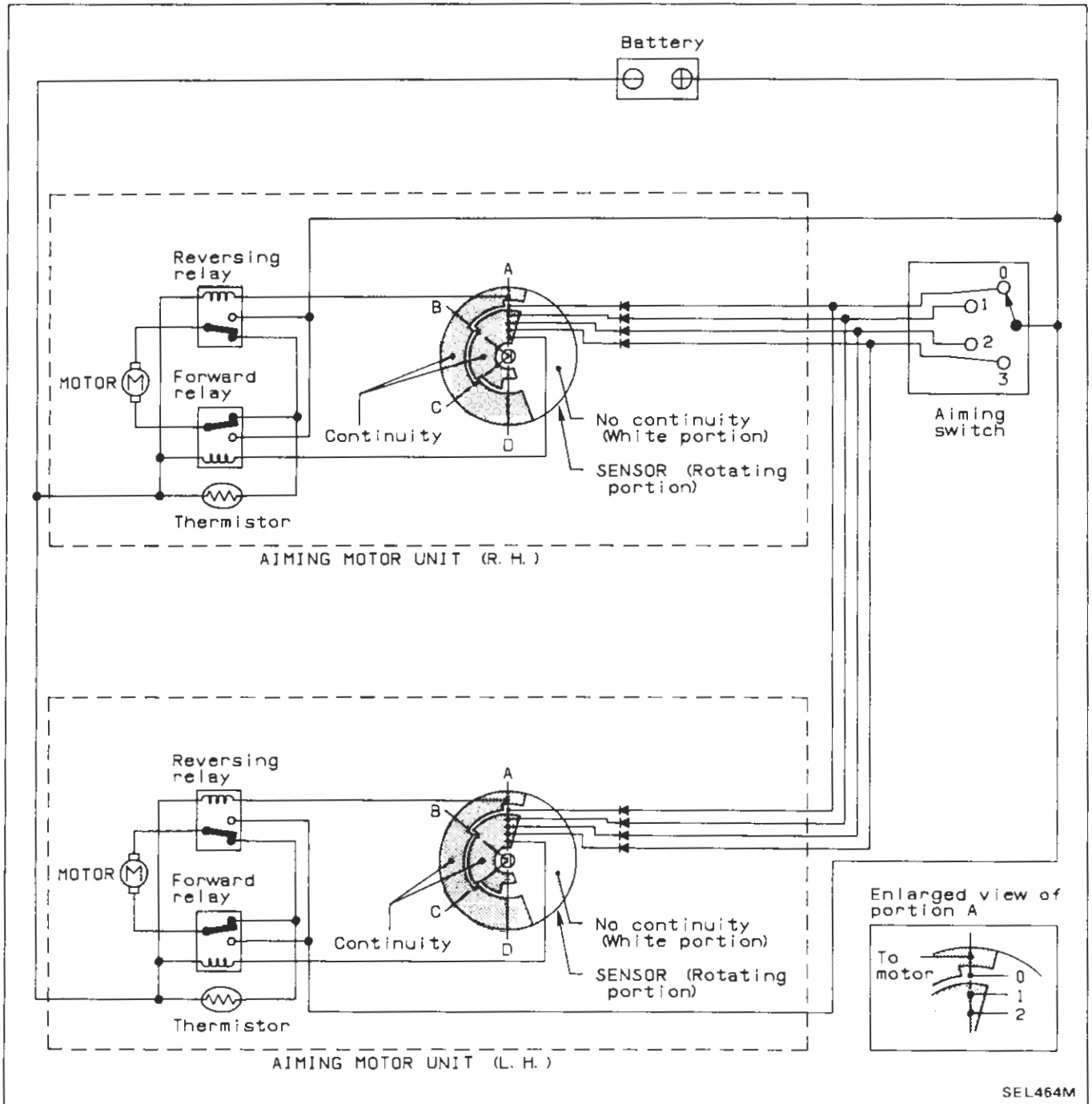
Refer to last page (foldout page.)

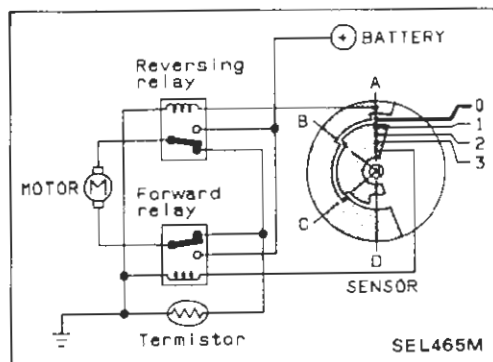
Legend:

- (L) : L. H. drive model
- (E) : For Europe
- (R) : R. H. drive model
- (E) : Except for Europe

Description

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



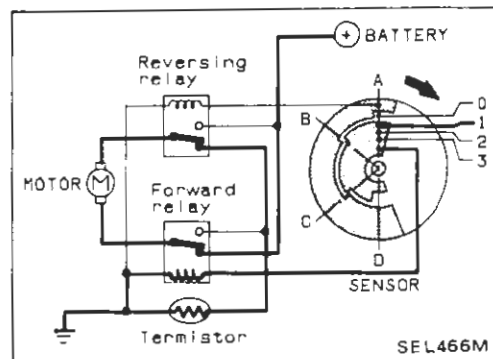


CIRCUIT OPERATION

[Example]

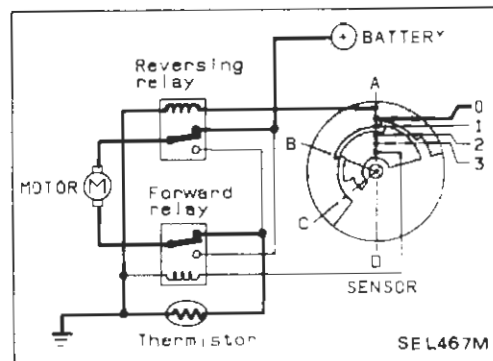
Aiming switch "0"

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



Aiming switch "0" → "1"

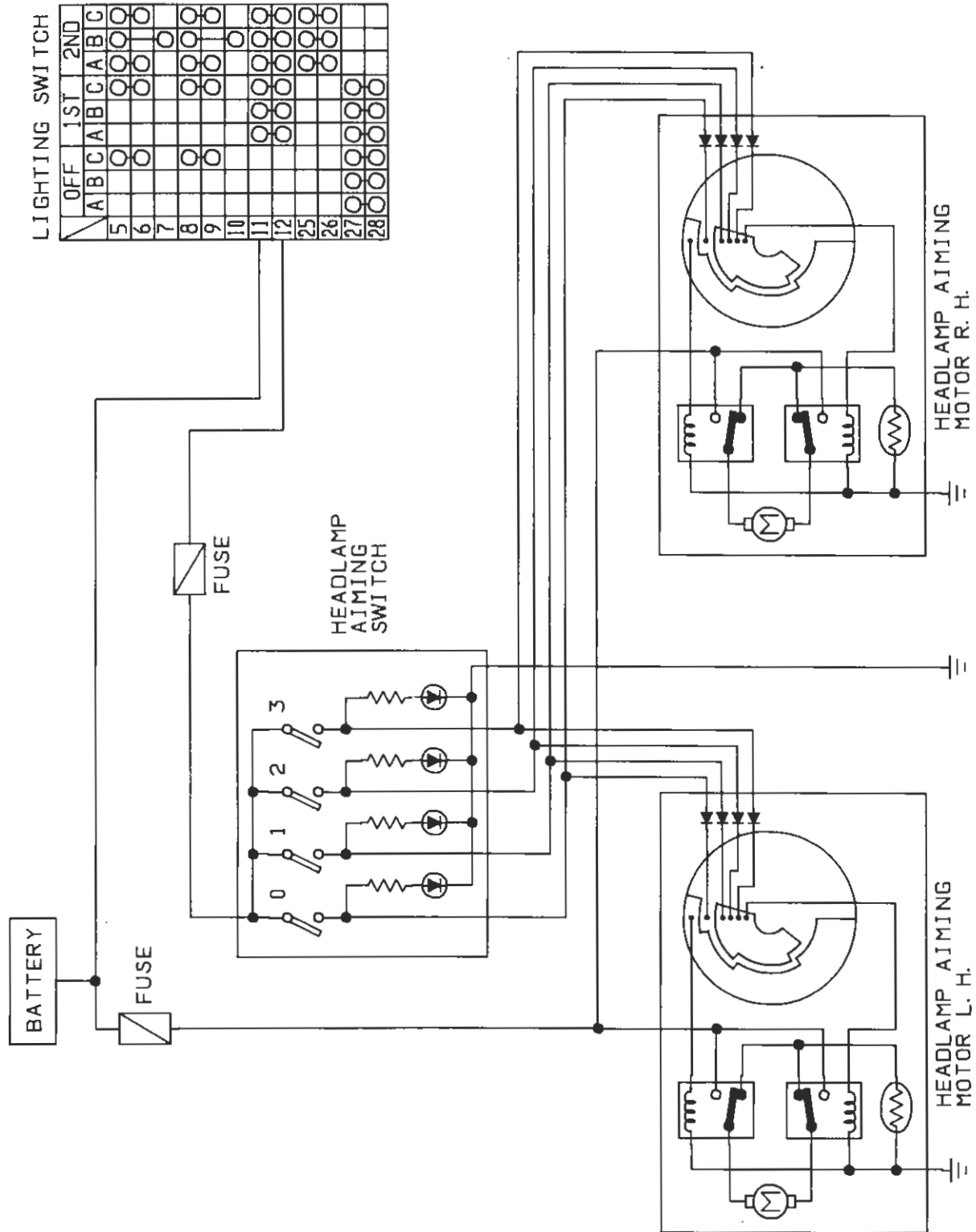
- When the aiming switch is moved from "0" to "1", power is applied to the motor through the relay operated by the sensor's conductive section. The headlamps will then move in the "DOWN" direction.
- The motor continues to rotate while the rotary unit of the sensor moves from point A to point B.
- The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



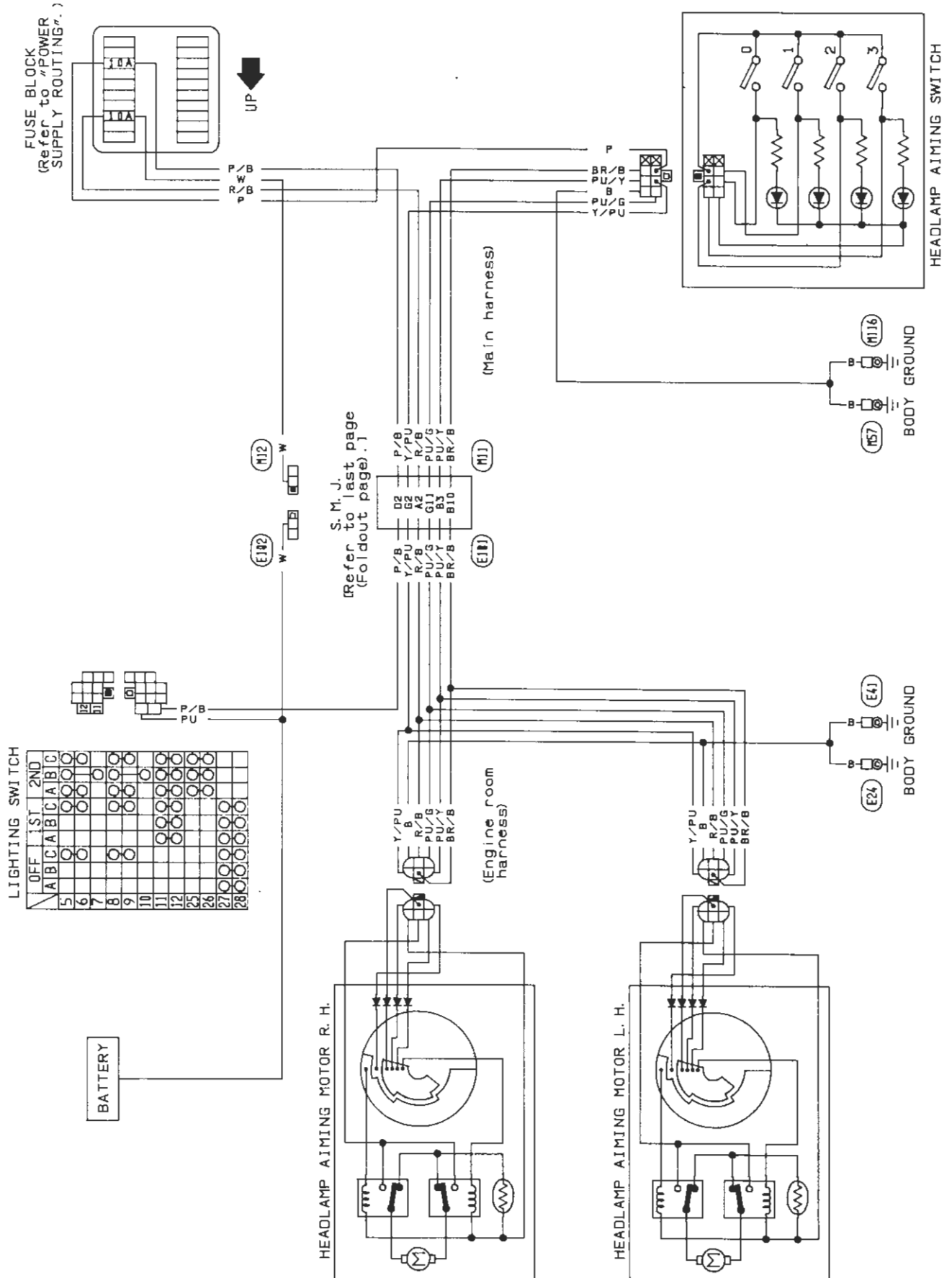
Aiming switch "1" → "0"

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

Schematic

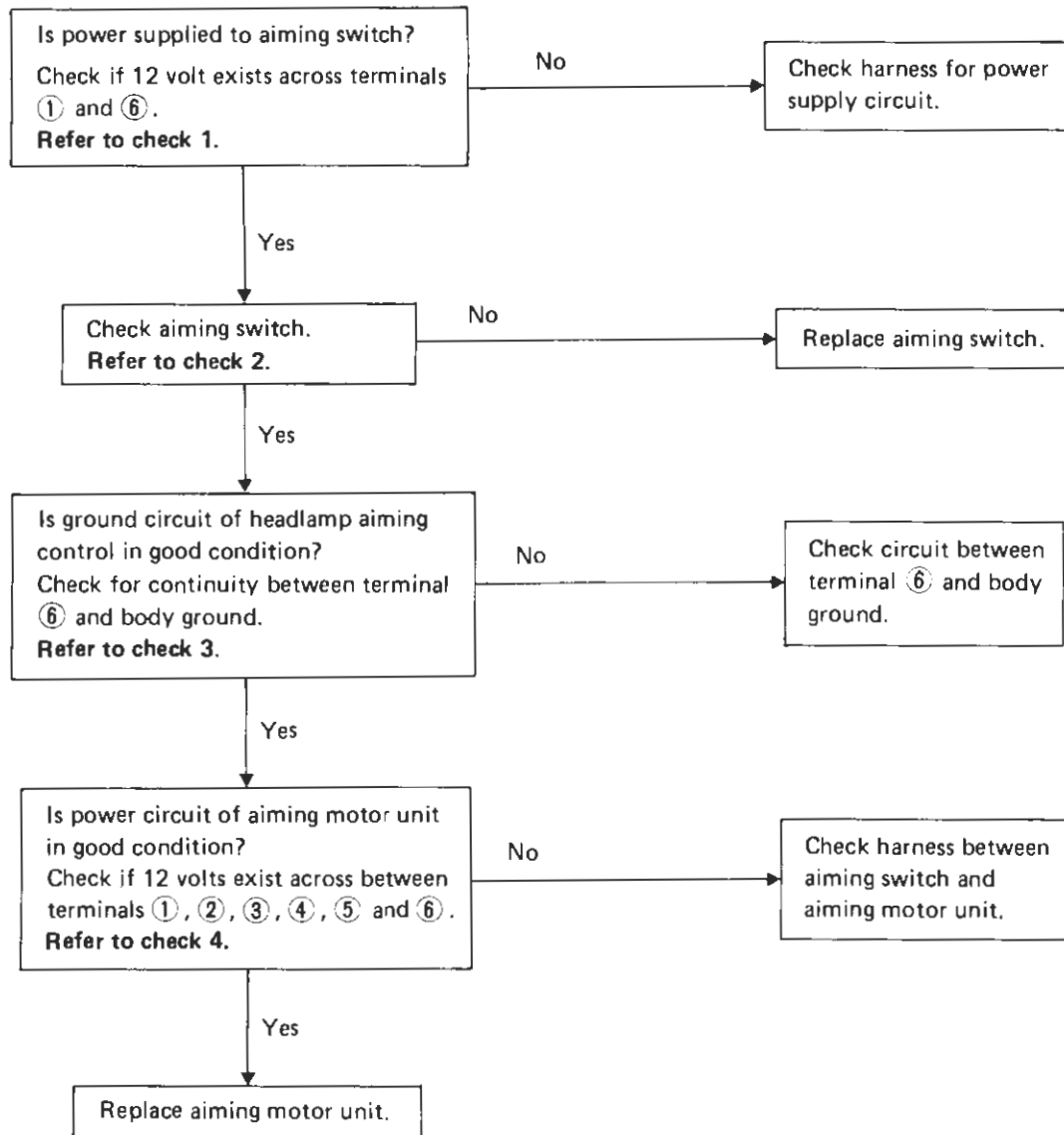


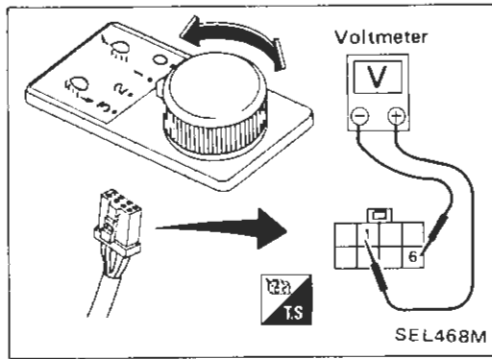
Wiring Diagram



Trouble-shooting

SYMPTOM: Headlamp aiming does not operate.



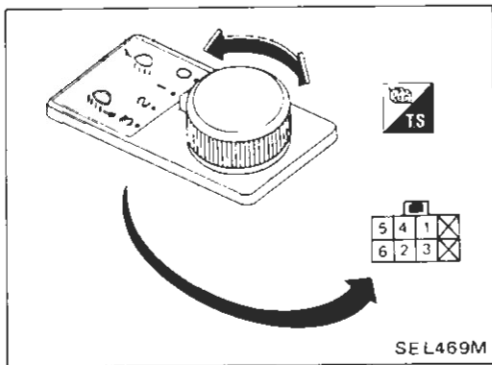


Terminal Check

CHECK 1 POWER SUPPLY CIRCUIT CHECK (For aiming switch)

1. Disconnect aiming switch connector, and connect a voltmeter:
2. Turn lighting switch to "1st".
3. Measure voltage across between terminals ① and ⑥ .

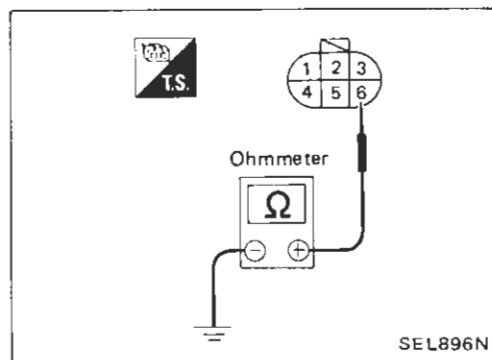
Voltmeter terminal		Voltage [V]
(+)	(-)	
①	⑥	Approx. 12



CHECK 2 AIMING SWITCH OPERATION CHECK

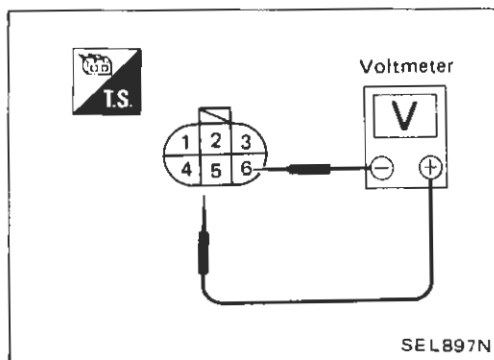
1. Disconnect aiming switch connector, and connect an ohmmeter to the switch.
2. Check for continuity between terminals at each switch position.

Terminal	1	2	3	4	5
Switch position					
0	○	○			
1	○		○		
2	○			○	
3	○				○



CHECK 3 GROUND CIRCUIT CHECK

1. Disconnect aiming motor unit connector.
2. Check for continuity between terminal ⑥ and body ground.
Continuity exists O.K.



Terminal Check (Cont'd)

CHECK 4 POWER SUPPLY CIRCUIT CHECK

(For aiming motor unit)

1. Disconnect aiming motor unit connector, and connect a voltmeter.
2. Turn lighting switch to "1ST".
3. Measure voltage across terminals ⑥ and ①, ②, ③, ④ and ⑤, respectively.

Voltmeter terminals		Voltage [V]	Aiming switch position
(+)	(-)		
①	⑥	Approx. 12	"0"
		0	Except "0"
②		Approx. 12	"1"
		0	Except "1"
③		Approx. 12	"2"
		0	Except "2"
④		Approx. 12	"3"
		0	Except "3"
⑤		Approx. 12	—

Aiming Adjustment

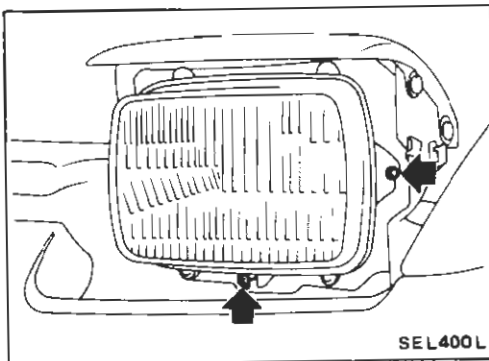
When performing headlamp aiming adjustment, use an aiming machine, aiming wall screen or headlamp tester. For operating instructions of any aimer, it should be in good repair, calibrated and used according to respective operation manuals supplied with the unit.

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

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

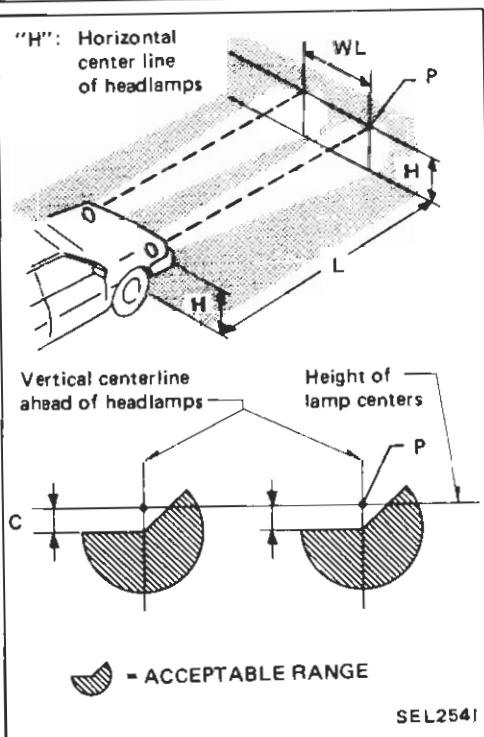
CAUTION:

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



LOW BEAM

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



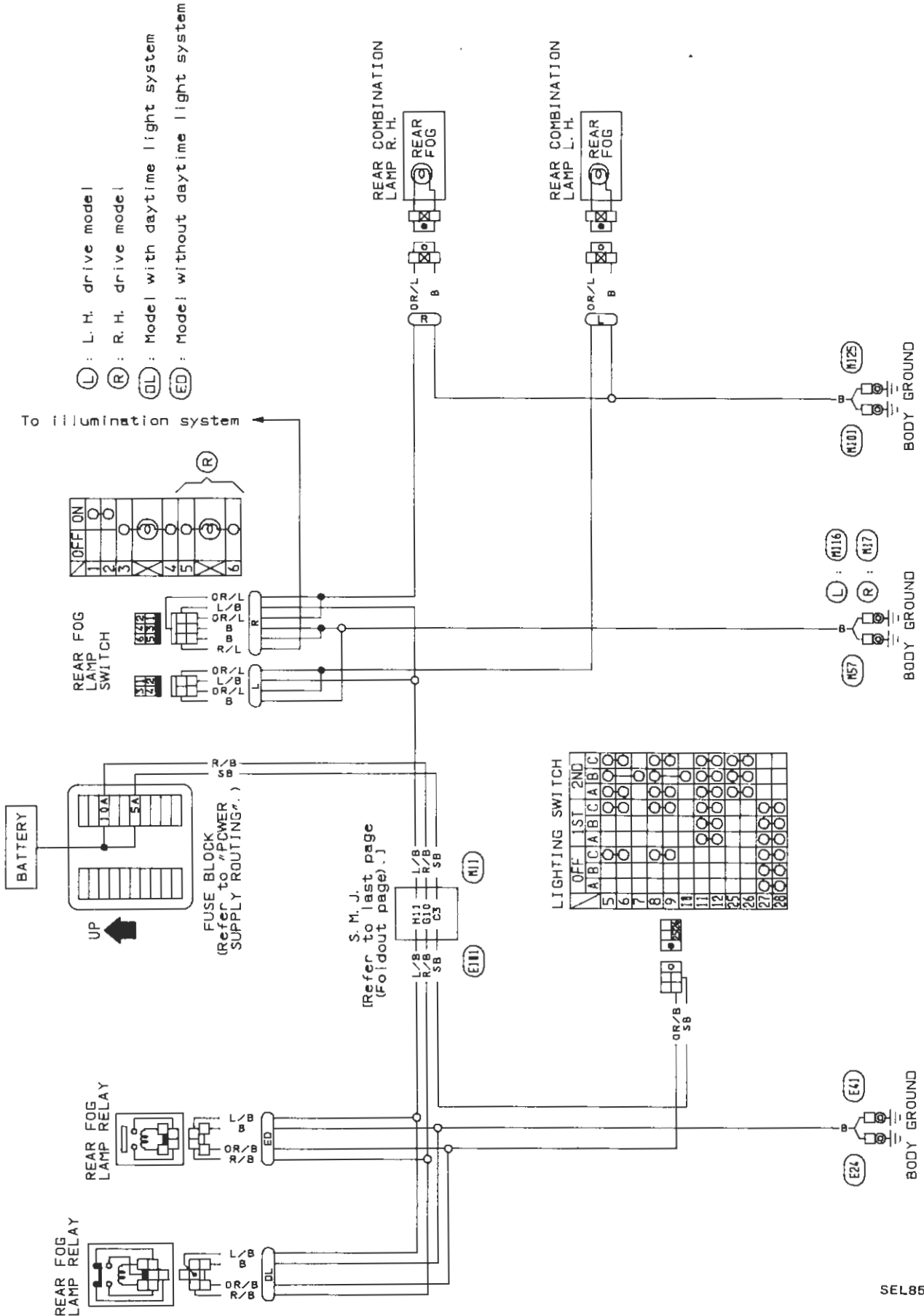
- Adjust headlamps so that main axis of light is parallel to center line of body and is aligned with point P shown in illustration.
- Figure to the left shows headlamp aiming pattern for driving on right side of road; for driving on left side of road, aiming pattern is reversed.
- Dotted lines in illustration show center of headlamp.
 - "H": Horizontal center line of headlamps
 - "WL": Distance between each headlamp center
 - "L": 5,000 mm (196.85 in)
 - "C": 65 - 75 mm (2.56 - 2.95 in)

CAUTION:

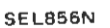
Be sure aiming switch is set to "0" when performing aiming adjustment on vehicles equipped with headlamp aiming control.

EXTERIOR LAMP

Rear Fog Lamp/Wiring diagram



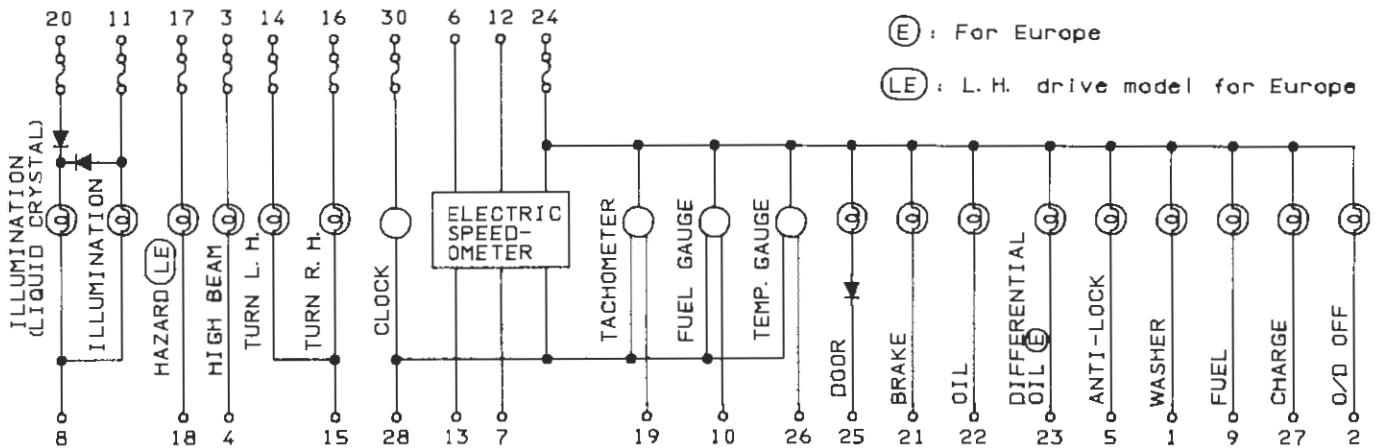
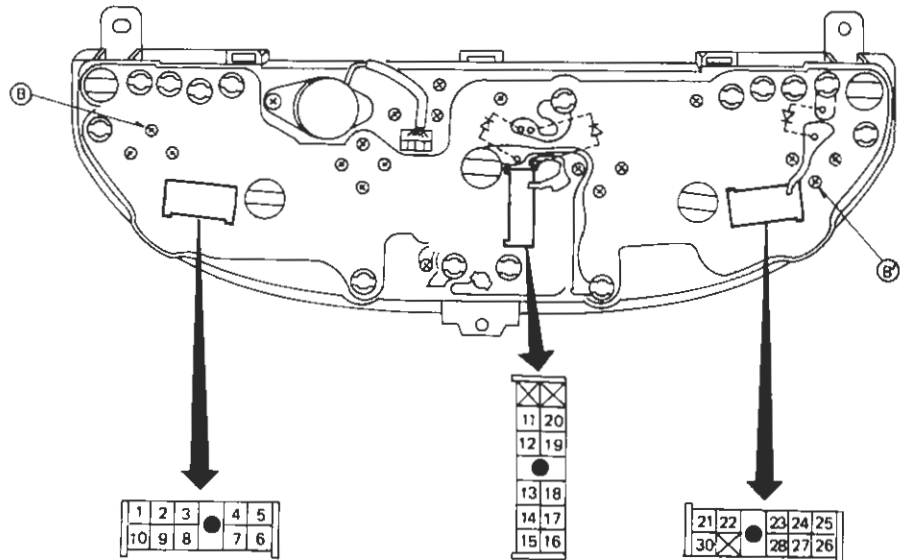
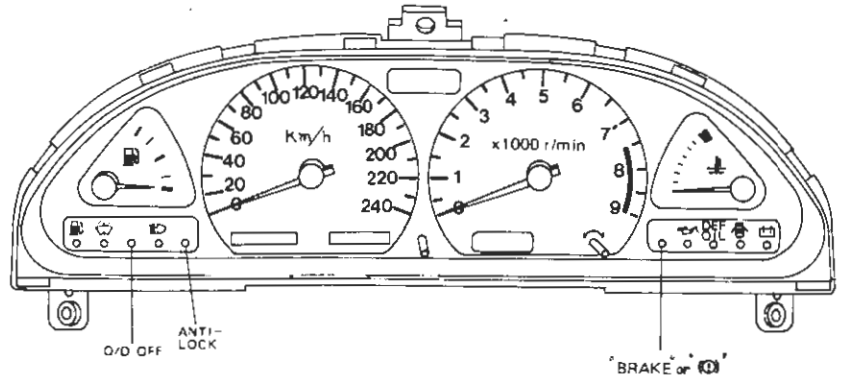
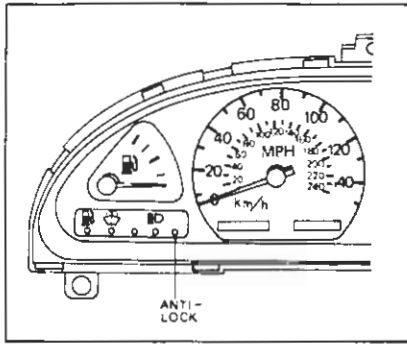
SEL855N



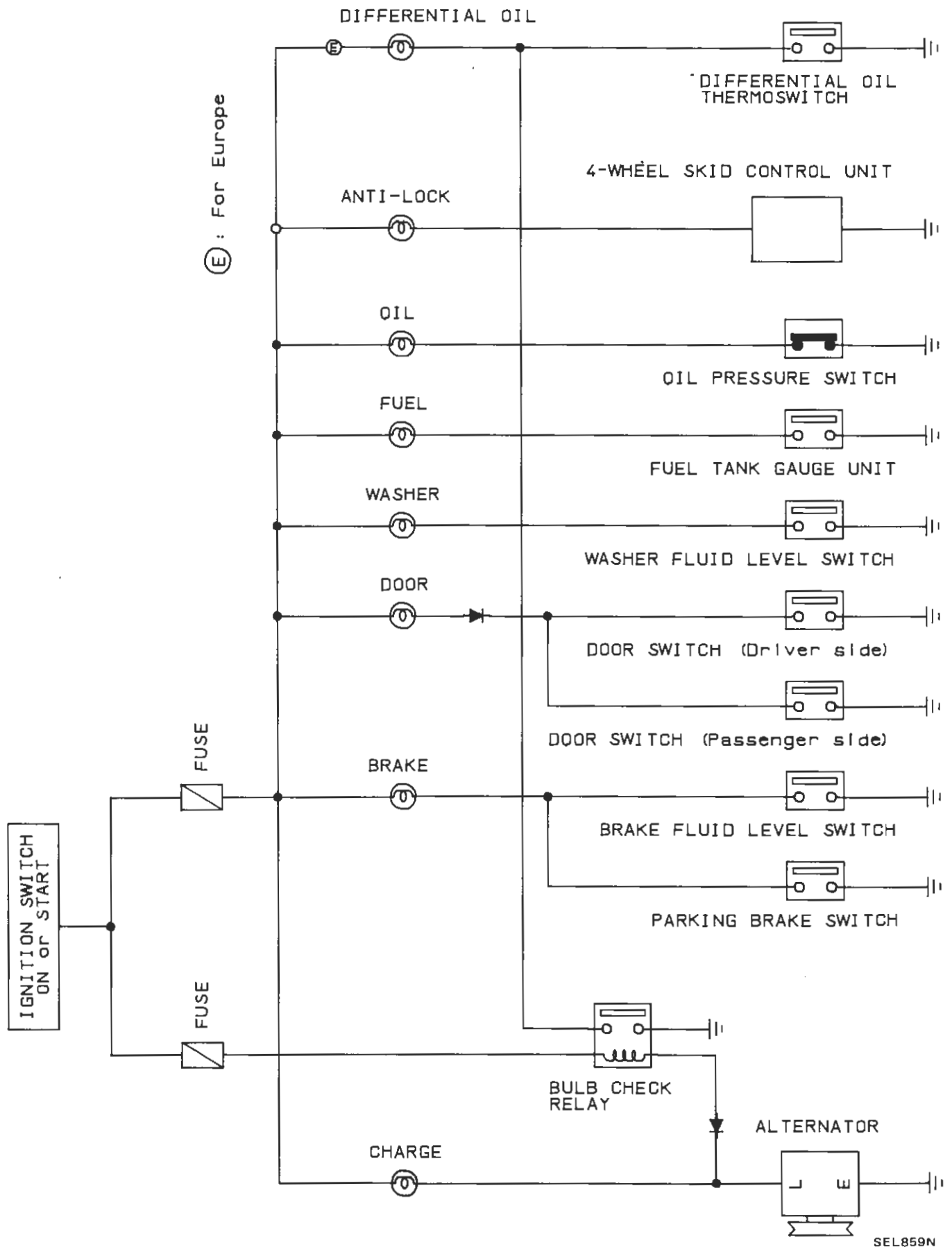


METER AND GAUGES

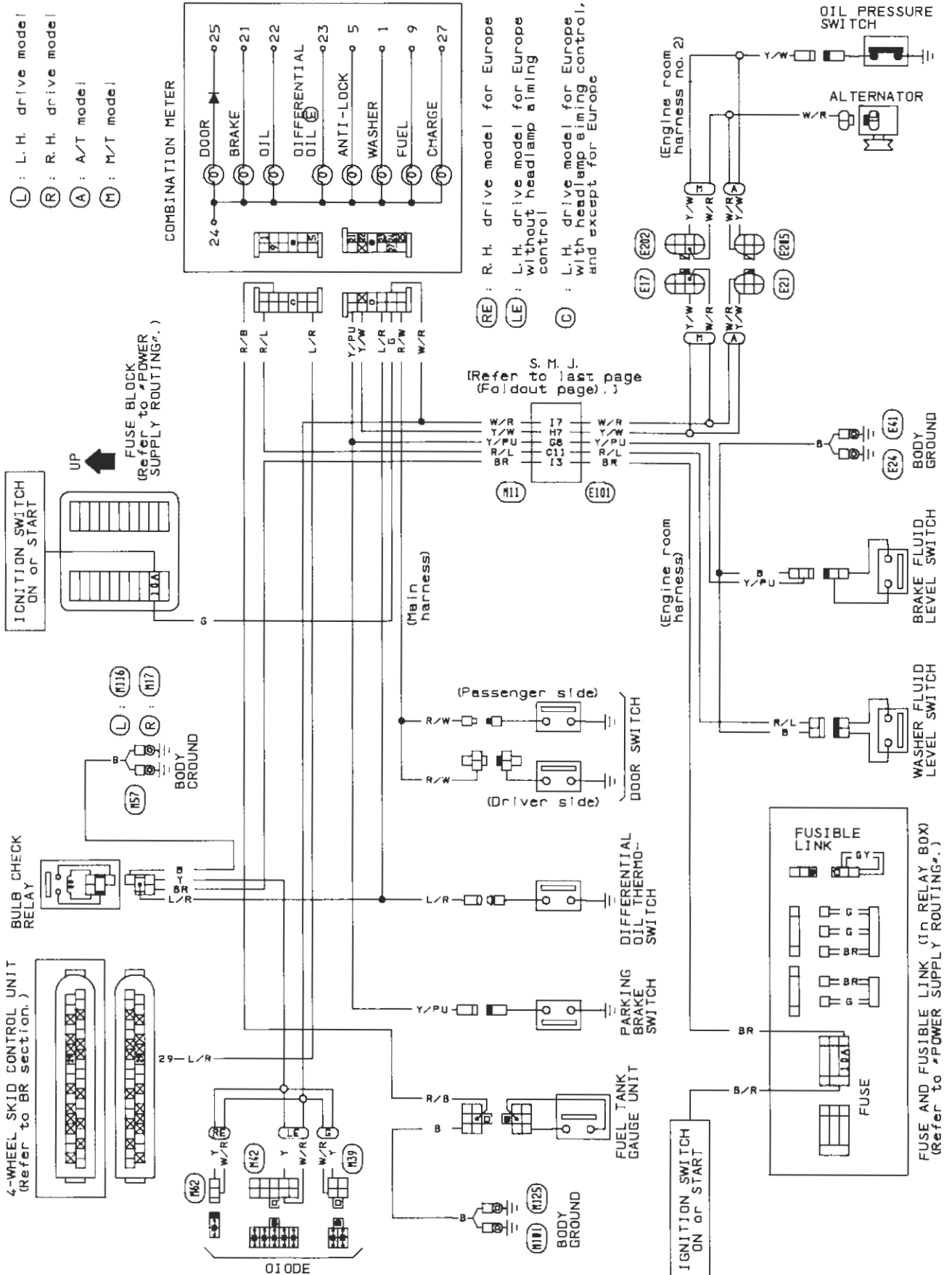
Combination Meter



Warning Lamps/Schematic

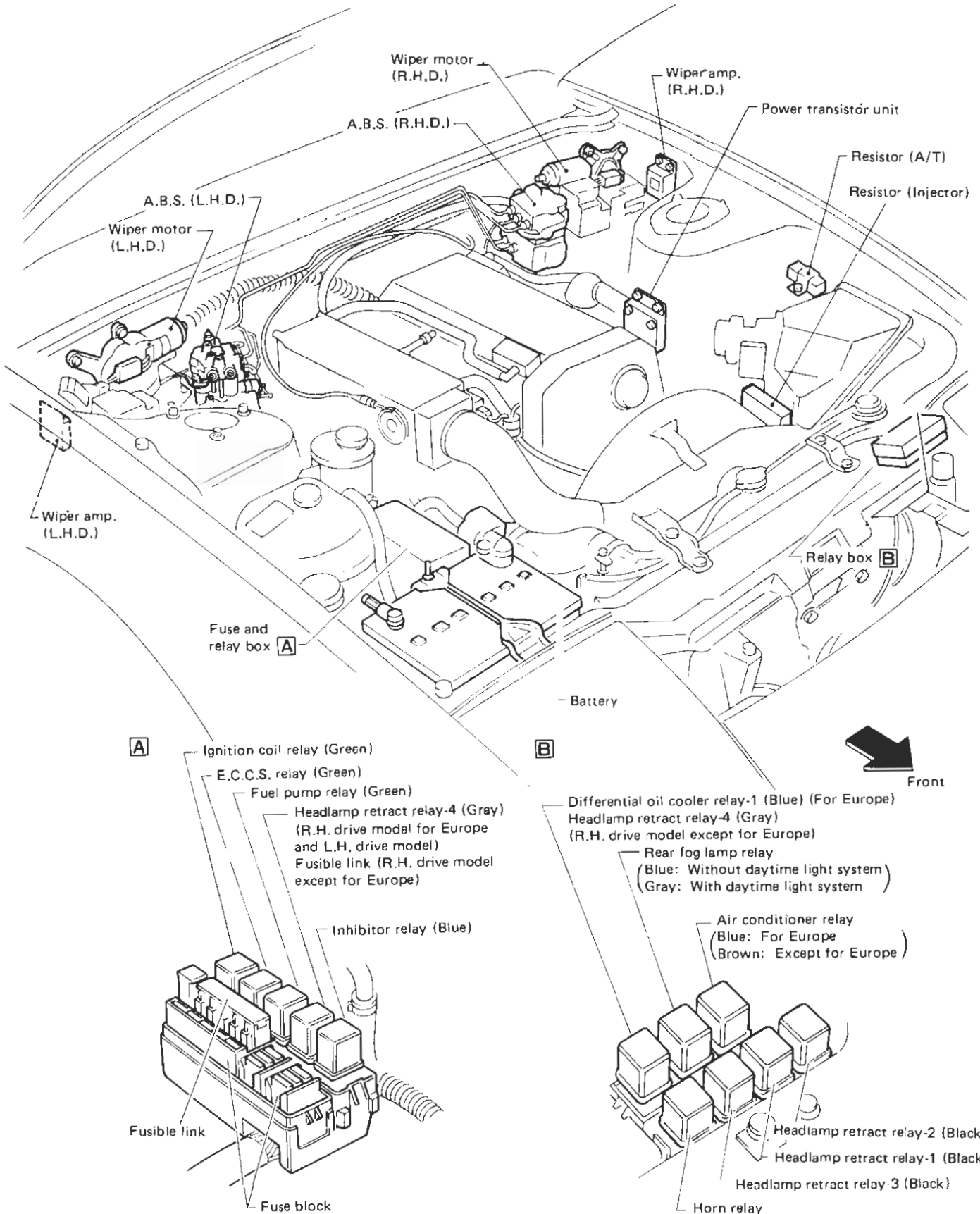


Warning Lamps/Wiring Diagram





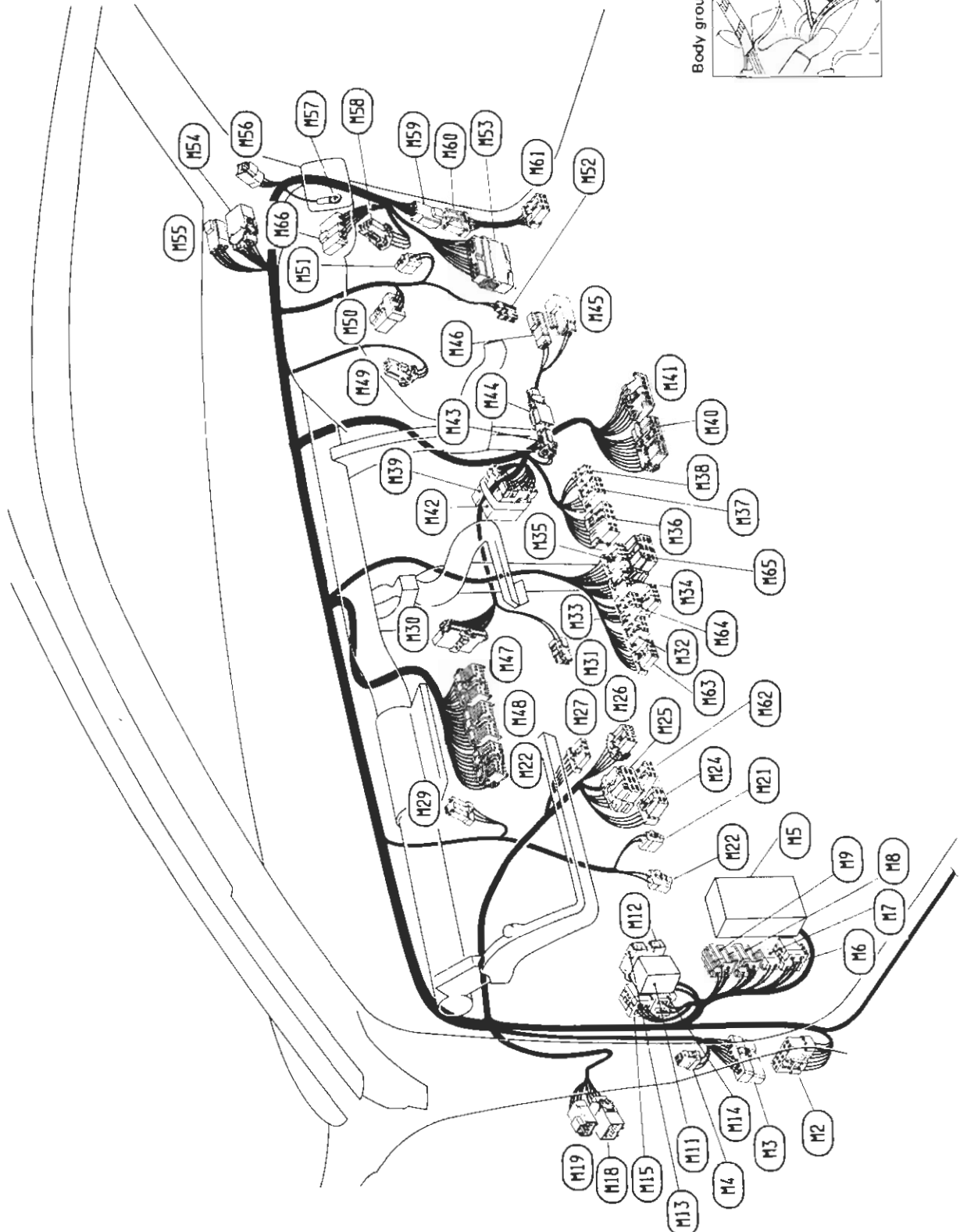
Engine Compartment



HARNESS LAYOUT

Main Harness

L.H. DRIVE MODEL

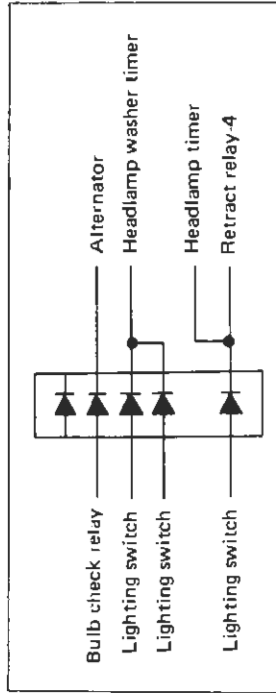


HARNESS LAYOUT

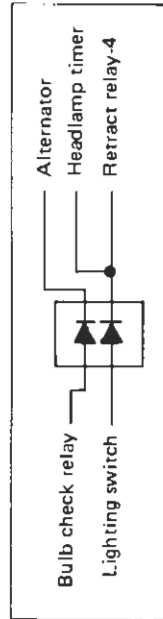
Main Harness (Cont'd)

- (N56) : To room lamp harness (R1)
- (N57) : Body ground
- (N58) : Intake door motor
- (N59) : To sub-harness (N64)
- (N60) : To main harness (N55)
- (N61) : Door lock timer
- (N62) : Rear wiper and washer switch (For Europe)
- (N63) : Headlamp aiming switch
- (N64) : Headlamp retract switch (For Europe)
- (N65) : Hazard switch (For Europe)
- (N66) : To engine room harness (E119) (For Europe with headlamp aiming control)

Diode (N42)



Diode (N39)

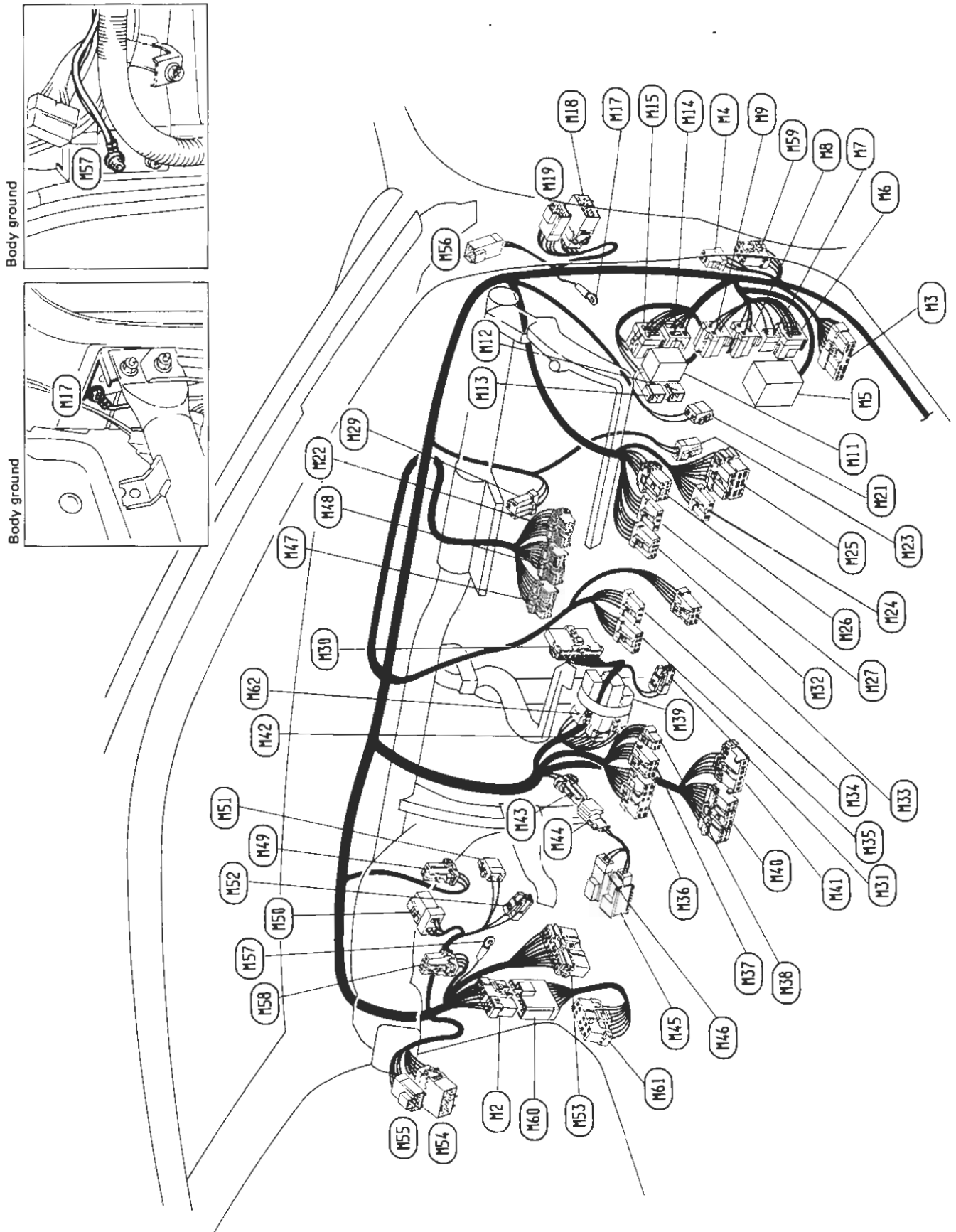


- (N2) : Headlamp timer
- (N3) : Check connector
- (N4) : Warning buzzer
- (N5) : Fuse block
- (N6) : Ignition relay
- (N7) : Circuit breaker (Model with power window system)
- (N8) : Accessory relay-2
- (N9) : Accessory relay-1
- (N10) : To engine room harness (E181)
- (N11) : To engine room harness (E182) (Blue)
- (N12) : To engine room harness (E183) (Black)
- (N13) : Bulb check relay
- (N14) : Rear window defogger relay
- (N15) : To door harness L.H. (D1)
- (N16) : To door harness L.H. (D2)
- (N17) : Kickdown switch (A/T model)
- (N18) : Combination meter
- (N19) : Stop lamp switch
- (N20) : Rear fog lamp switch
- (N21) : Headlamp retract switch (Except for Europe)
- (N22) : Illumination control amplifier
- (N23) : Not used
- (N24) : Combination flasher unit
- (N25) : Mode door motor
- (N26) : Foot lamp L.H.
- (N27) : Headlamp washer switch
- (N28) : Rear wiper and washer switch (Except for Europe)
- (N29) : Rear window defogger switch
- (N30) : Hazard switch (Except for Europe)
- (N31) : Radio
- (N32) : Radio
- (N33) : Cassette deck
- (N34) : Diode (For Europe with headlamp aiming control and except for Europe)
- (N35) : Push control unit
- (N36) : Fan switch
- (N37) : Diode (For Europe without headlamp aiming control)
- (N38) : To sub-harness (N44)
- (N39) : To main harness (N43)
- (N40) : Glove box lamp
- (N41) : Glove box lamp switch
- (N42) : Combination meter
- (N43) : Combination meter
- (N44) : Thermo control amplifier
- (N45) : Heater resistor
- (N46) : Blower motor
- (N47) : Foot lamp R.H.
- (N48) : To E.F.I. harness (I1)
- (N49) : To door harness R.H. (D11)
- (N50) : To door harness R.H. (D12)

HARNESS LAYOUT

Main Harness (Cont'd)

R.H. DRIVE MODEL

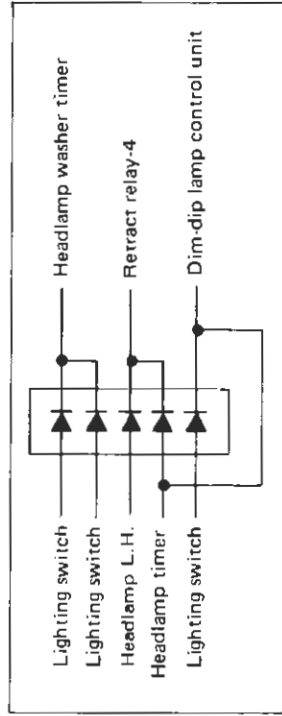


HARNESS LAYOUT

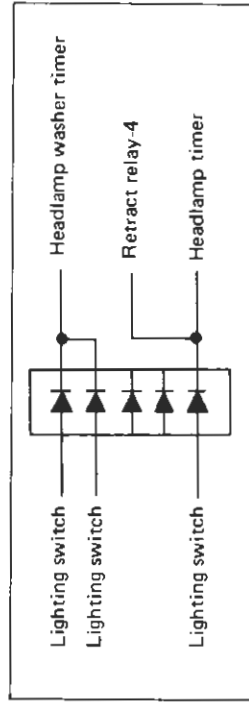
Main Harness (Cont'd)

- (N58) : Heater resistor
- (N61) : Blower motor
- (N52) : Foot lamp R.H.
- (N53) : To E.F.I. harness (F1)
- (N64) : To door harness L.H. (Q11)
- (N65) : To door harness L.H. (Q12)
- (N56) : To room lamp harness (R1)
- (N57) : Body ground
- (N58) : Intake door motor
- (N59) : Door lock timer
- (N62) : To main harness
- (N61) : Headlamp timer
- (N62) : Diode (For Europe)

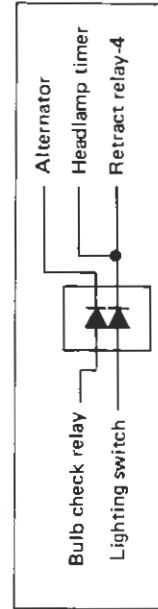
Diode (M42) (Model with dim-dip lamp system)



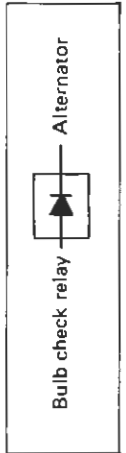
Diode (M42) (Model without dim-dip lamp system)



Diode (N39)



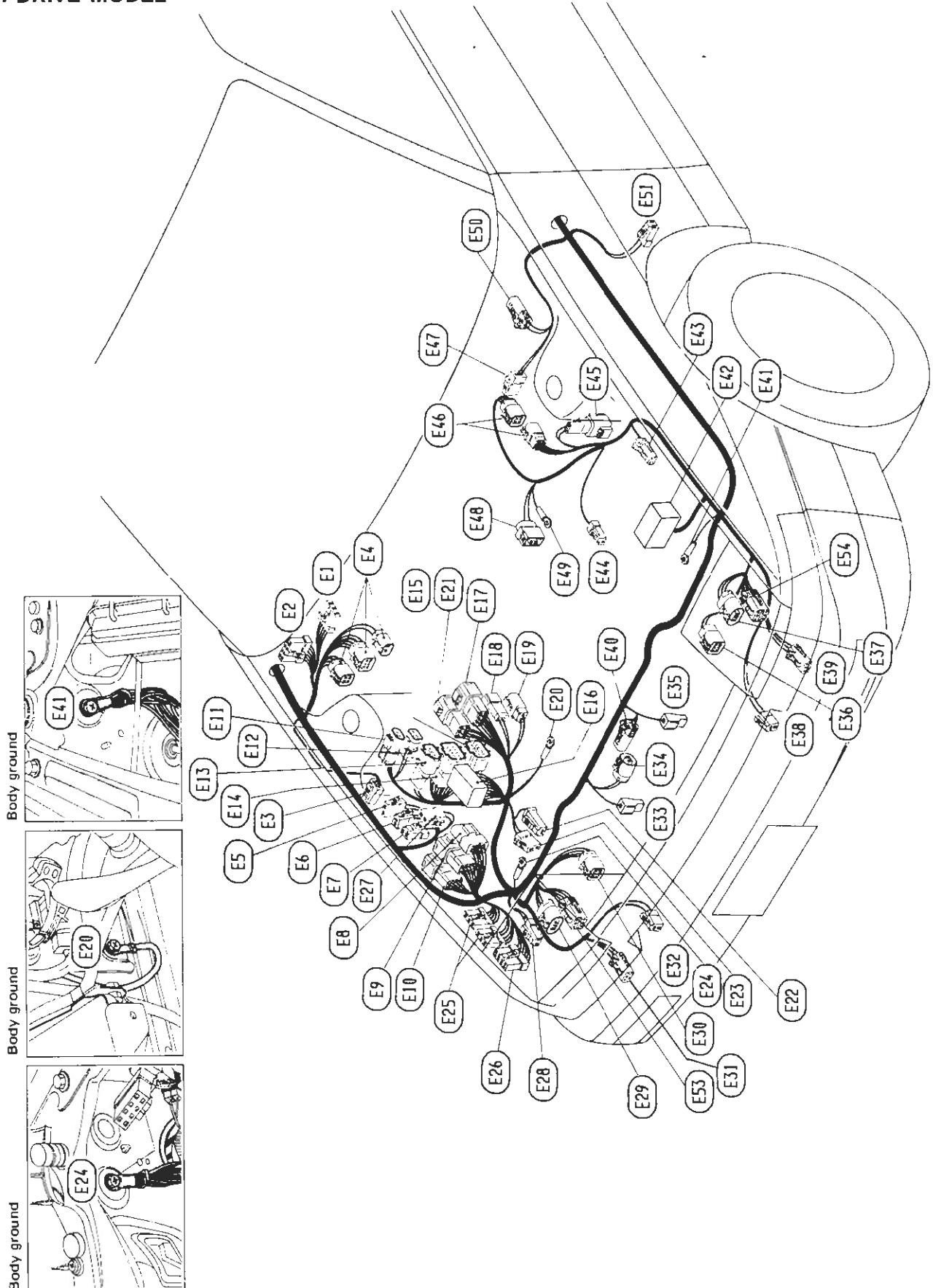
Diode (N62)



- (N2) : To sub-harness (N64)
- (N3) : Check connector
- (N4) : Warning buzzer
- (N5) : Fuse block
- (N6) : Ignition relay
- (N7) : Circuit breaker (Model with power window system)
- (N8) : Accessory relay-2
- (N9) : Accessory relay-1
- (N11) : To engine room harness (E1C1)
- (N12) : To engine room harness (E102) (Blue)
- (N13) : To engine room harness (E103) (Black)
- (N14) : Bulb check relay
- (N15) : Rear window defogger relay
- (N17) : Body ground
- (N18) : To door harness R.H. (Q11)
- (N19) : To door harness R.H. (Q12)
- (N21) : Kickdown switch (A/T model)
- (N22) : Combination meter
- (N23) : Stop lamp switch
- (N24) : Rear fog lamp switch
- (N25) : Headlamp retractor switch
- (N26) : Illumination control amplifier
- (N27) : Not used
- (N29) : Combination flasher unit
- (N31) : Mode door motor
- (N31) : Foot lamp L.H.
- (N32) : Headlamp washer switch
- (N33) : Rear wiper and washer switch
- (N34) : Rear window defogger switch
- (N35) : Hazard switch
- (N36) : Radio
- (N37) : Radio
- (N38) : Cassette deck
- (N39) : Diode (Except for Europe)
- (N40) : Push control unit
- (N41) : Fan switch
- (N42) : Diode (For Europe)
- (N43) : To sub-harness (N44)
- (N44) : To main harness (N43)
- (N45) : Glove box lamp
- (N46) : Glove box lamp switch
- (N47) : Combination meter
- (N48) : Combination meter
- (N49) : Thermo control amplifier

Engine Room Harness

L.H. DRIVE MODEL



Engine Room Harness (Cont'd)

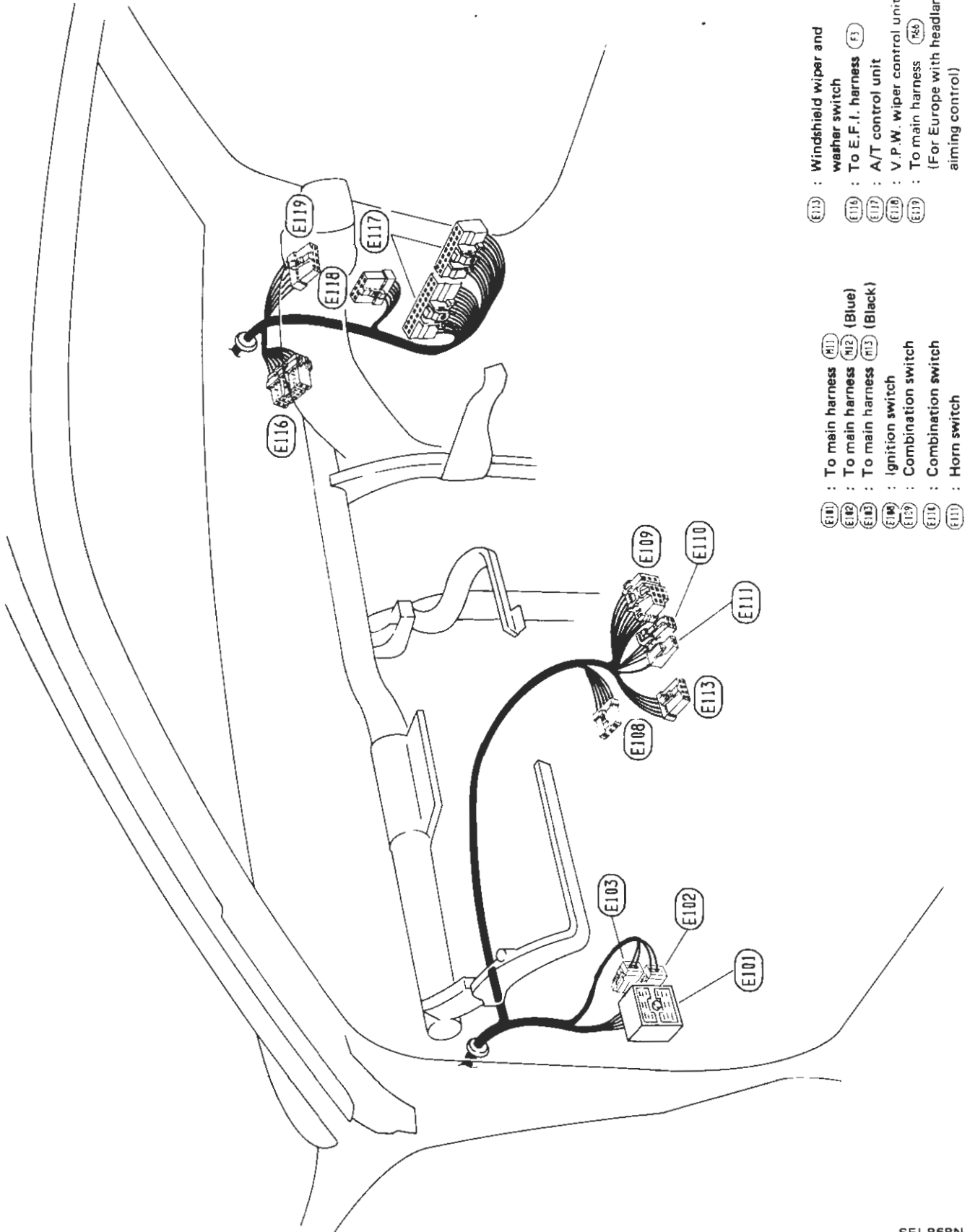
(E1)	: Windshield wiper motor
(E2)	: Windshield wiper amplifier
(E3)	: Side turn signal lamp R.H.
(E4)	: Anti-skid brake actuator
(E5)	: Rear washer motor
(E6)	: Front washer motor
(E7)	: Washer fluid level switch
(E8)	: To E.F.I. harness (E8) (White)
(E9)	: To E.F.I. harness (E9) (Gray)
(E10)	: To E.F.I. harness (E10) (Brown)
(E11)	: To engine room harness no. 2 (E21) (M/T model)
(E12)	: Inhibitor switch (A/T model)
(E13)	: Revolution sensor (A/T model)
(E14)	: Inhibitor switch (A/T model) (Gray)
(E15)	: To solenoid valve sub-harness (A/T model) (Brown)
(E16)	: Relay box (Refer to page EL-23.)
(E17)	: To engine room harness no. 2 (E22) (M/T model)
(E18)	: To engine room harness no. 2 (E23)
(E19)	: To engine room harness no. 2 (E24)
(E20)	: Body ground
(E21)	: To engine room harness no.2 (E25) (A/T model)
(E22)	: Battery
(E23)	: Battery
(E24)	: Body ground
(E25)	: Daytime light control unit
(E26)	: Headlamp washer amplifier
(E27)	: Headlamp washer motor

(E28)	: Not used
(E29)	: Headlamp R.H.
(E30)	: Headlamp motor R.H.
(E31)	: Front combination lamp R.H.
(E32)	: Daytime light R.H.
(E33)	: Horn-high
(E34)	: Condenser fan motor
(E35)	: Horn-low
(E36)	: Headlamp motor L.H.
(E37)	: Headlamp L.H.
(E38)	: Daytime light L.H.
(E39)	: Front combination lamp L.H.
(E40)	: Dual-pressure switch
(E41)	: Body ground
(E42)	: Relay box (Refer to page EL-23.)
(E43)	: Dropping resistor (A/T model)
(E44)	: Compressor
(E45)	: Front brake skid sensor L.H.
(E46)	: Power transistor unit
(E47)	: Brake fluid level switch
(E48)	: Pressure regulator control solenoid valve
(E49)	: Body ground for front brake skid sensor L.H.
(E50)	: V.P.W. wiper motor
(E51)	: Side turn signal lamp L.H.
(E52)	: Headlamp aiming motor R.H.
(E53)	: Headlamp aiming motor L.H.

HARNESS LAYOUT

Engine Room Harness (Cont'd)

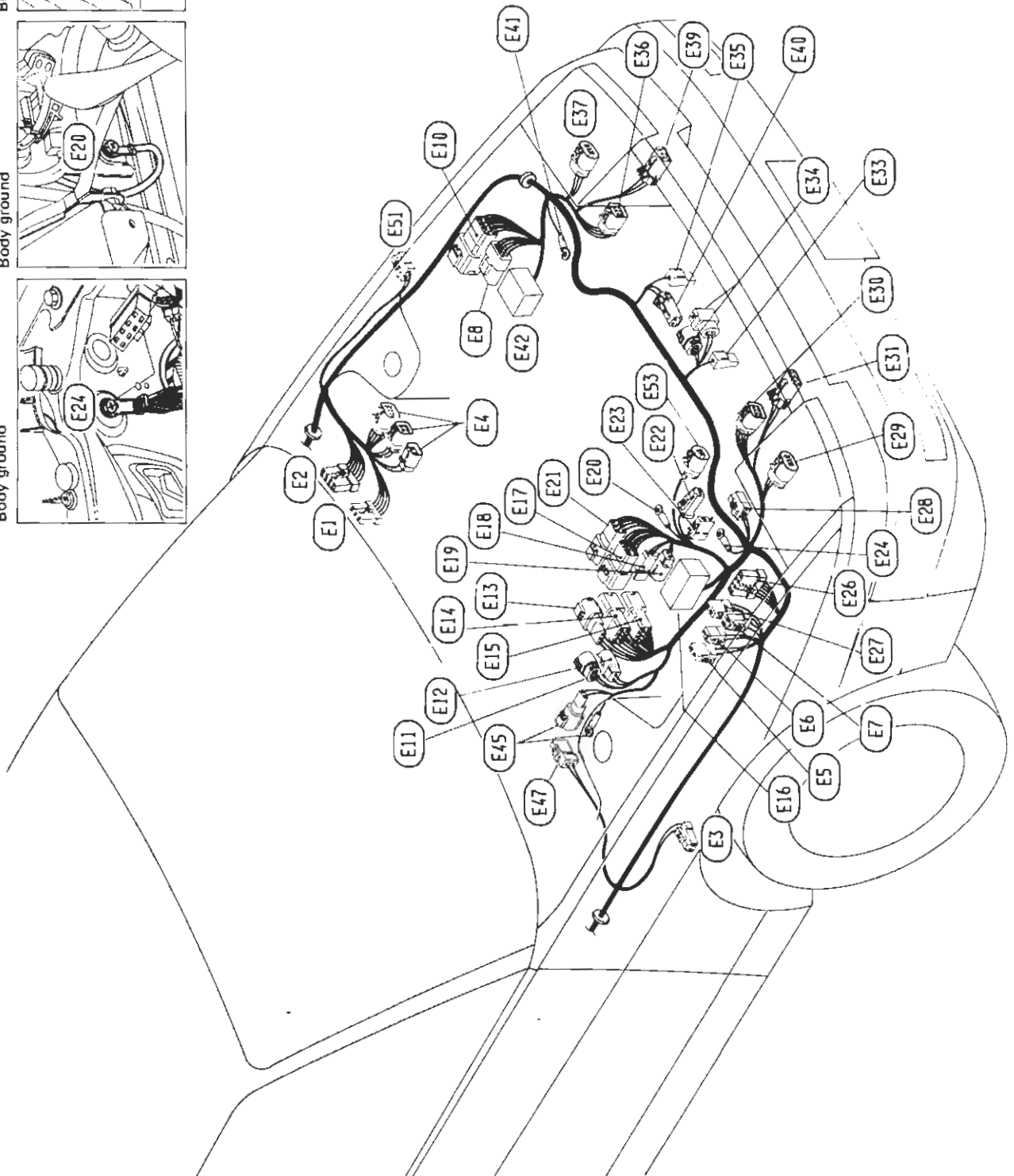
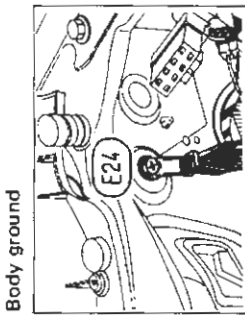
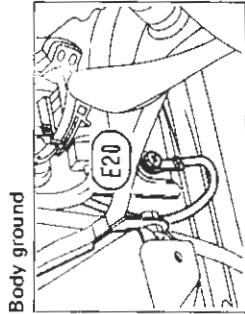
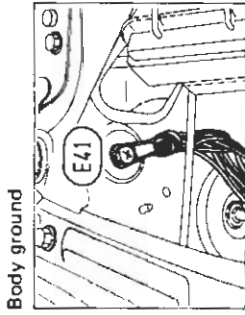
L.H. DRIVE MODEL



HARNESS LAYOUT

Engine Room Harness (Cont'd)

R.H. DRIVE MODEL



HARNESS LAYOUT

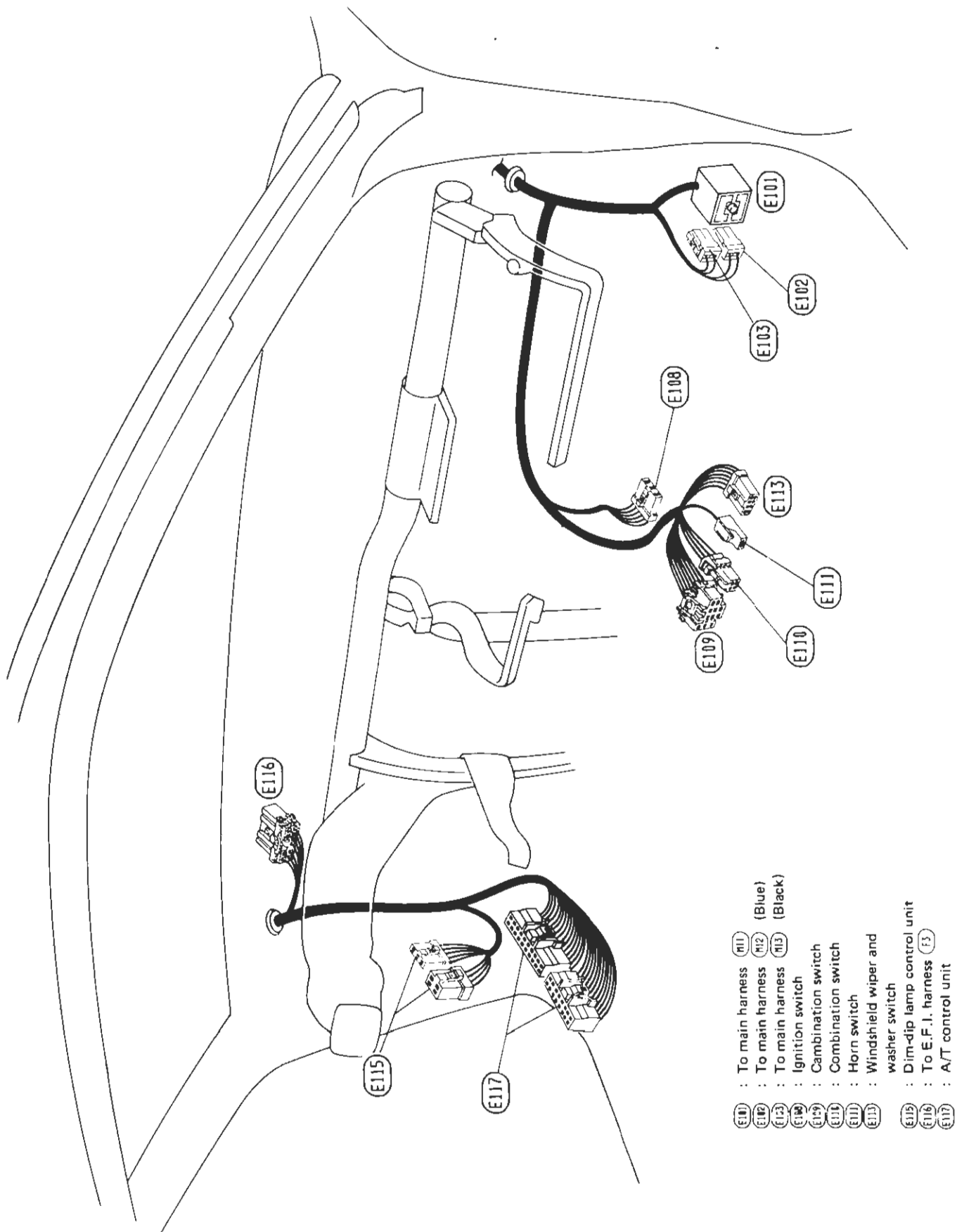
Engine Room Harness (Cont'd)

(E1)	: Windshield wiper motor	(124)	: Body ground
(E2)	: Windshield wiper amplifier	(126)	: Headlamp washer amplifier
(E3)	: Side turn signal lamp R.H.	(127)	: Headlamp washer motor
(E4)	: Antiskid brake actuator	(128)	: Nut used
(E5)	: Rear washer motor	(129)	: Headlamp R.H.
(E6)	: Front washer motor	(130)	: Headlamp motor R.H.
(E7)	: Washer fluid level switch	(131)	: Front combination lamp R.H.
(E8)	: To E.F.I. harness (18) (White)	(132)	: Horn high
(E9)	: To E.F.I. harness (15) (Brown)	(133)	: Condenser fan motor
(E10)	: To engine room harness no. 2 (22) (M/T model)	(134)	: Horn low
(E11)	: To engine room harness no. 2 (22) (M/T model)	(135)	: Headlamp motor L.H.
(E12)	: Inhibitor switch (A/T model)	(136)	: Headlamp L.H.
(E13)	: Revolution sensor (A/T model)	(137)	: Front combination lamp L.H.
(E14)	: Inhibitor switch (A/T model) (Gray)	(138)	: Dual pressure switch
(E15)	: To solenoid valve sub-harness (A/T model) (Brown)	(139)	: Body ground
(E16)	: Relay box (Refer to page EL-23.)	(140)	: Relay box (Refer to page EL-23.)
(E17)	: To engine room harness no. 2 (22) (M/T model)	(141)	: Front brake skid sensor R.H.
(E18)	: To engine room harness no. 2 (22) (M/T model)	(142)	: Brake fluid level switch
(E19)	: To engine room harness no. 2 (22) (M/T model)	(143)	: Side turn signal lamp L.H.
(E20)	: Body ground	(144)	: Thermostat switch
(E21)	: To engine room harness no. 2 (22) (A/T model)		
(E22)	: Battery		
(E23)	: Battery		

HARNESS LAYOUT

Engine Room Harness (Cont'd)

R.H. DRIVE MODEL



SEL870N

Terminal Arrangement

MAIN HARNESS

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
D1	D2								D11	D12	
E1	E2								E11	E12	
F1	F2								F11	F12	
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12



I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12
H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
F1	F2								F11	F12	
E1	E2								E11	E12	
D1	D2								D11	D12	
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12

ENGINE ROOM HARNESS

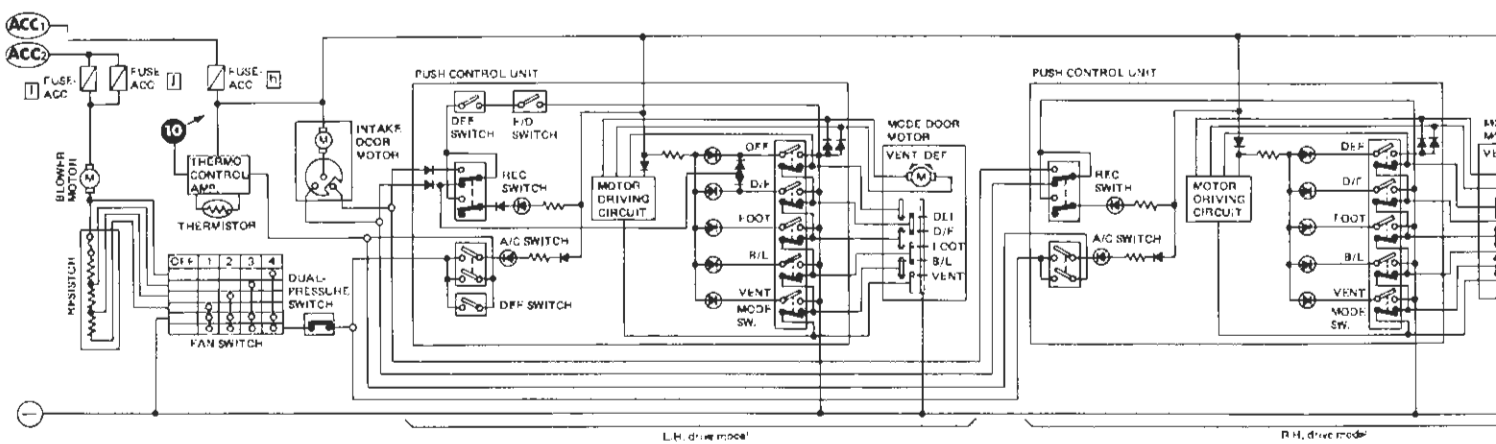
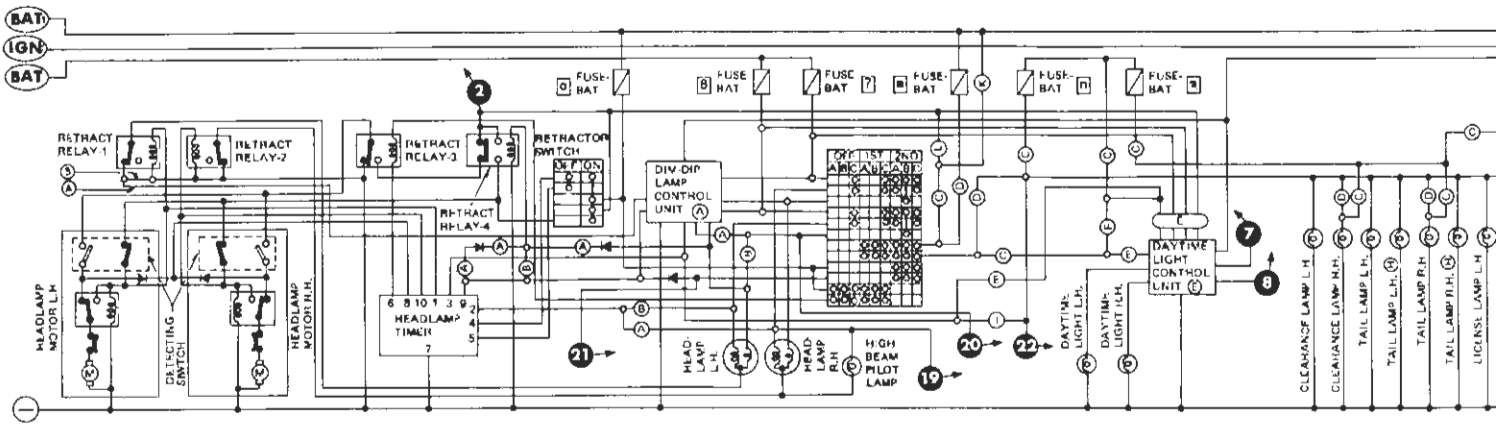
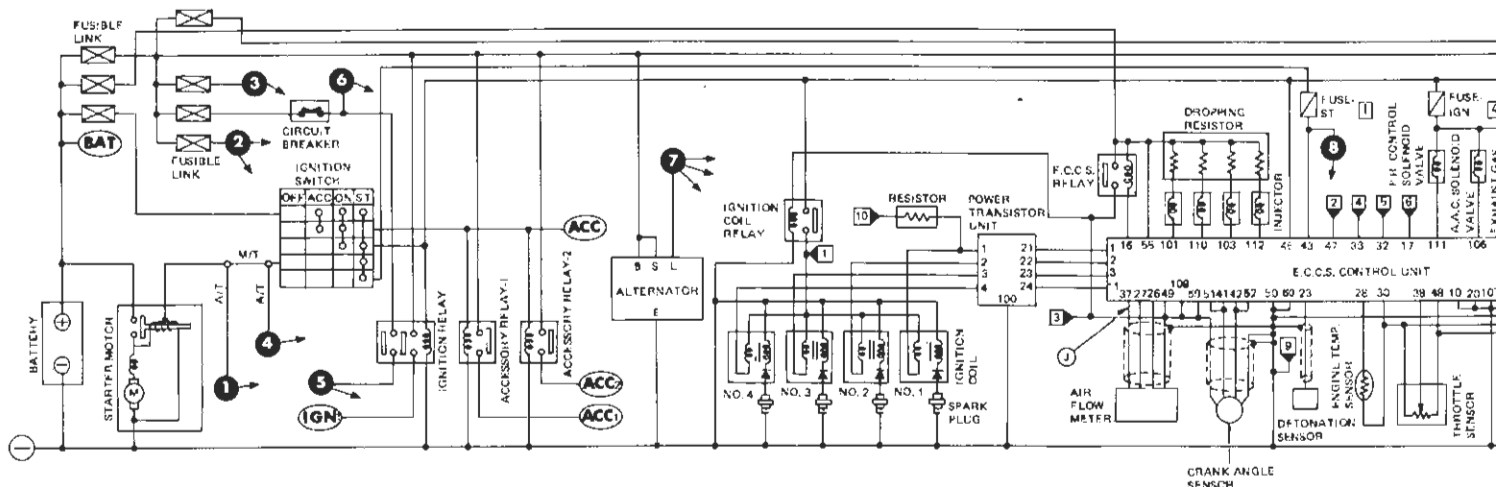
E.C.C.S. CONTROL UNIT

101	102	103	104	105	106	107	108	1	2	3	4	5	6	7	8	9	10	21	22	23	24	25	26	27	28	29	30	41	42	43	44	45	46	47	48	49	50
109	110	111	112	113	114	115	116	11	12	13	14	15	16	17	18	19	20	31	32	33	34	35	36	37	38	39	40	51	52	53	54	55	56	57	58	59	60

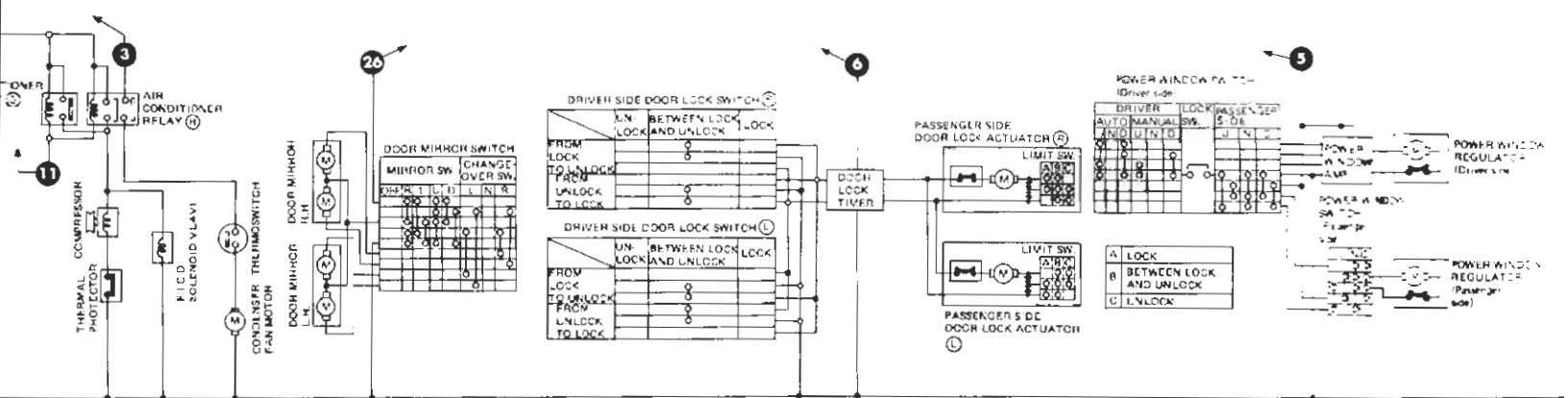
View from harness side

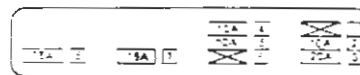
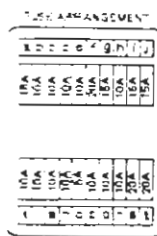
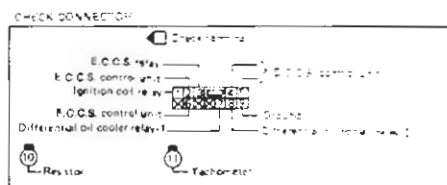
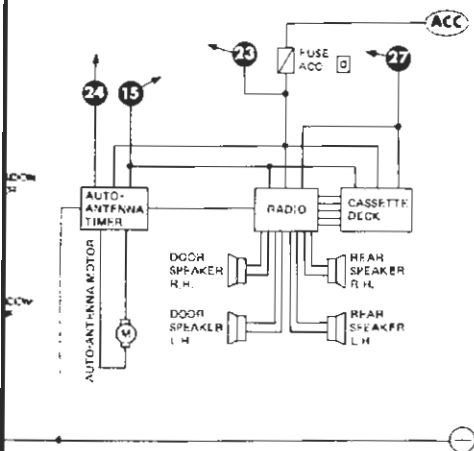
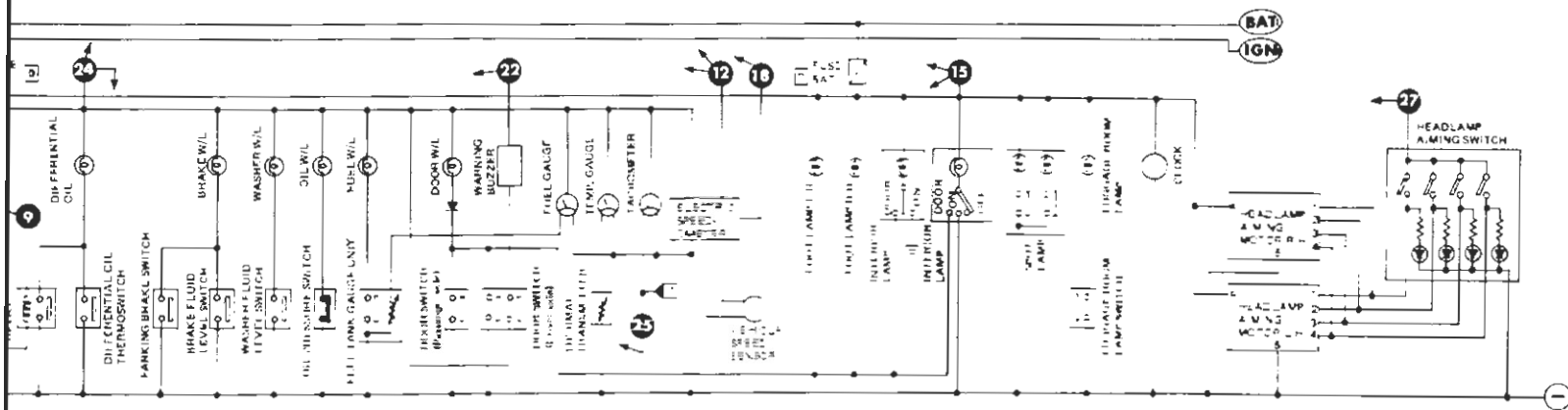


NISSAN 200SX (S13 series) CIRCUIT DIAGRAM



- 1 2 3 4 5 6
- 7
- 8
- 10
- 21
- 19 20 22
- 7 8





- (M,T) : M/T model
- (A,T) : A/T model
- (A,T) : Model with dimmable lamp system
 - ⊖ Except (A)
 - ⊖ L.H. drive model for Europe
 - ⊖ Except (A)
- (A,T) : Model with daytime light system
 - ⊖ L.H. drive model for Europe without daytime light system
 - ⊖ L.H. drive model
 - ⊖ R.H. drive model
 - ⊖ For Europe
 - ⊖ Except for Europe
 - ⊖ Except (A)
- (A,T) : Model without catalyser
 - ⊖ Model with headlamps aiming control
- (L) : L.H. drive model for Europe without headlamps aiming control

