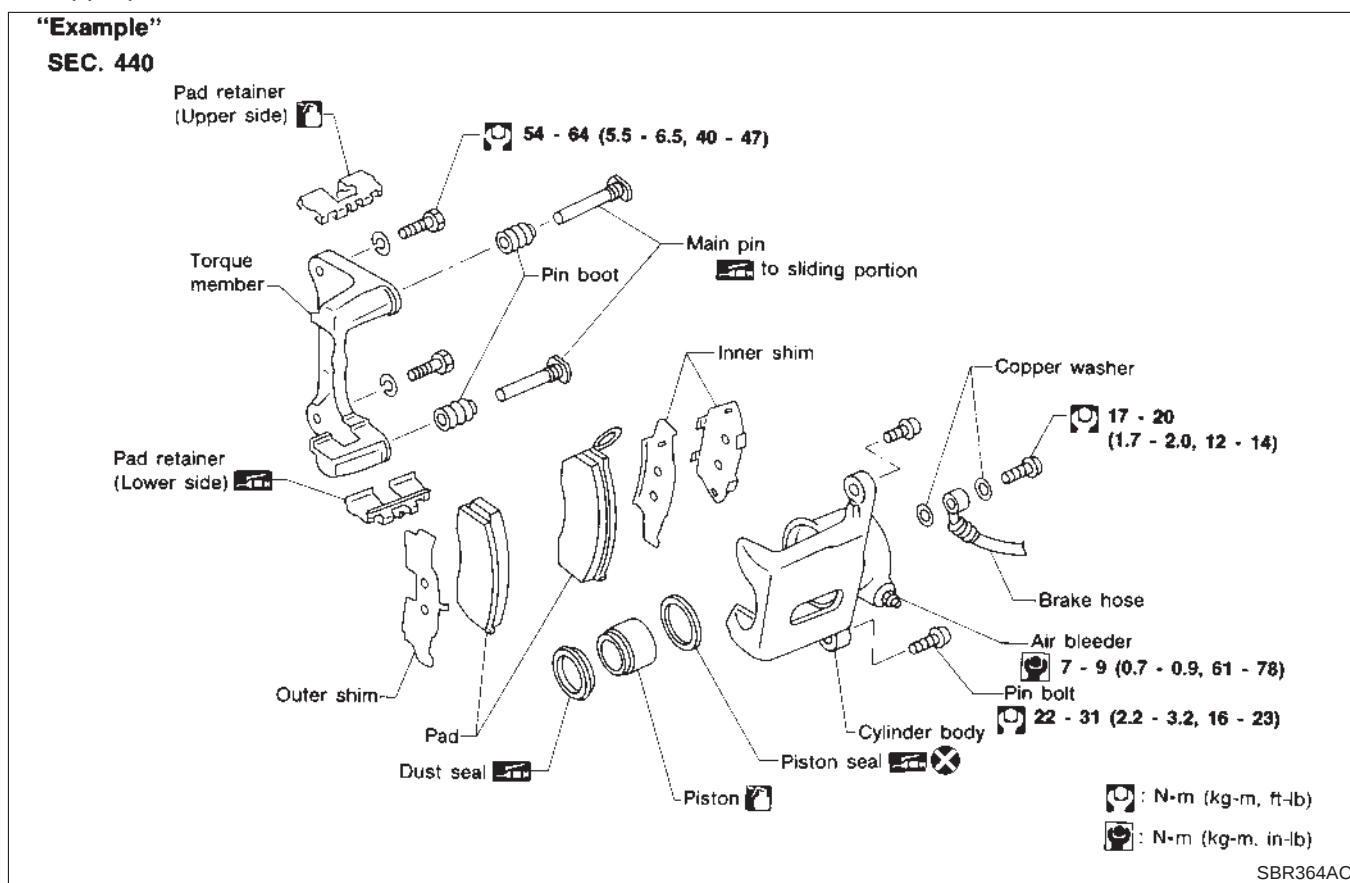


HOW TO USE THIS MANUAL

- **ALPHABETICAL INDEX** is provided at the end of this manual so that you can rapidly find the item and page you are searching for.
- **A QUICK REFERENCE INDEX**, a black tab (e.g. **BR**) is provided on the first page. You can quickly find the first page of each section by matching it to the section's black tab.
- **THE CONTENTS** are listed on the first page of each section.
- **THE TITLE** is indicated on the upper portion of each page and shows the part or system.
- **THE PAGE NUMBER** of each section consists of two letters which designate the particular section and a number (e.g. "BR-5").
- **THE LARGE ILLUSTRATIONS** are exploded views (See below.) and contain tightening torques, lubrication points, section number of the **PARTS CATALOG** (e.g. SEC. 440) and other information necessary to perform repairs.
The illustrations should be used in reference to service matters only. When ordering parts, refer to the appropriate **PARTS CATALOG**.



- **THE SMALL ILLUSTRATIONS** show the important steps such as inspection, use of special tools, knacks of work and hidden or tricky steps which are not shown in the previous large illustrations. Assembly, inspection and adjustment procedures for the complicated units such as the automatic transaxle or transmission, etc. are presented in a step-by-step format where necessary.
- The **UNITS** given in this manual are primarily expressed as the SI UNIT (International System of Unit), and alternatively expressed in the metric system and in the yard/pound system.

"Example"

Tightening torque:

59 - 78 N·m (6.0 - 8.0 kg·m, 43 - 58 ft·lb)

- **TROUBLE DIAGNOSES** are included in sections dealing with complicated components.
- **SERVICE DATA AND SPECIFICATIONS** are contained at the end of each section for quick reference of data.
- The following **SYMBOLS AND ABBREVIATIONS** are used:

HOW TO READ WIRING DIAGRAMS

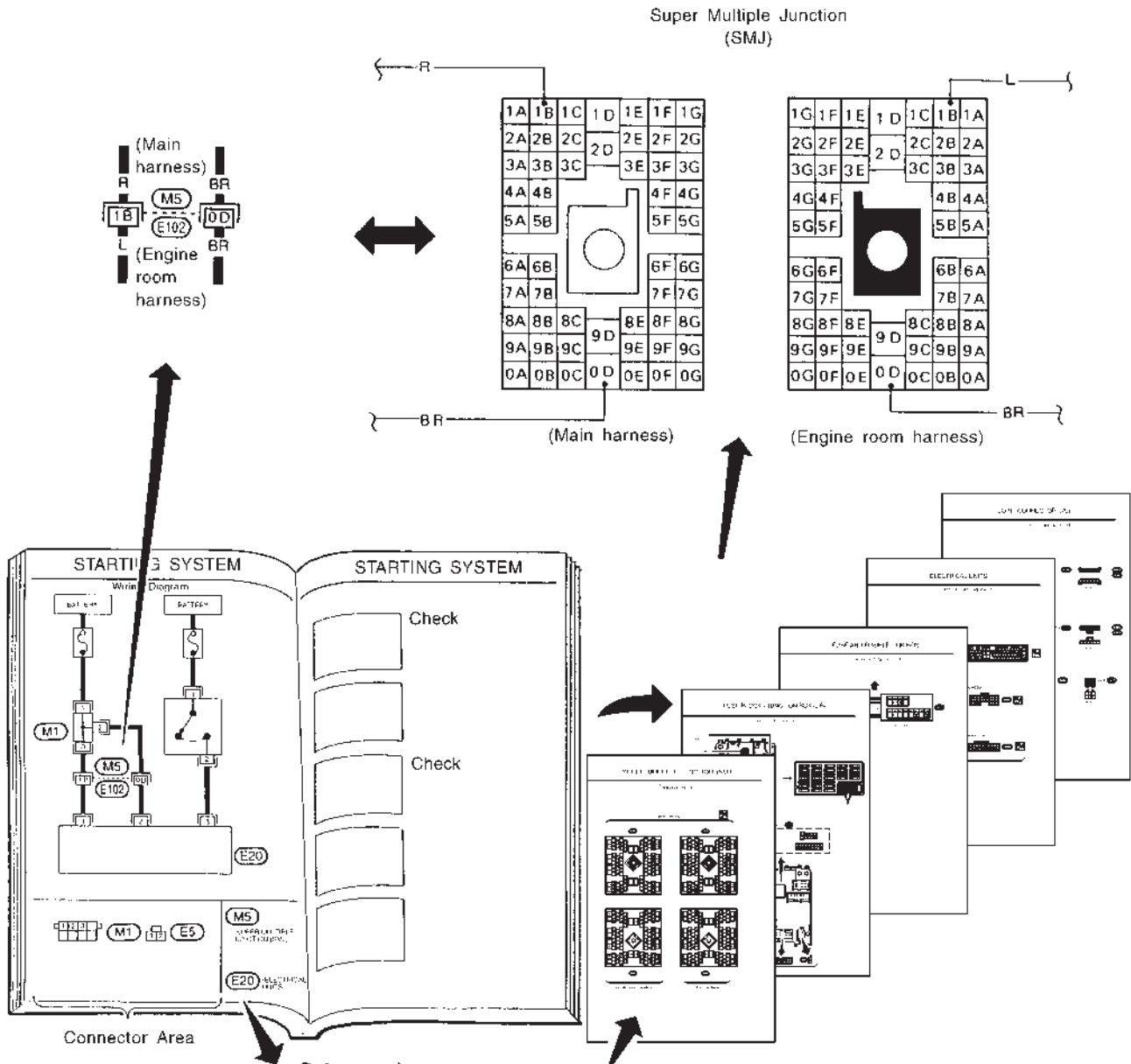
Description (Cont'd)

REFERENCE AREA

=NFGI0003S0207

The Reference Area of the wiring diagram contains references to additional electrical reference pages at the end of the manual. If connector numbers and titles are shown in the Reference Area of the wiring diagram, these connector symbols are not shown in the Connector Area.

Example



Refer to the electrical reference pages at the end of the manual for the terminal arrangement of the connectors shown here in the "Reference Area".

SGI092A

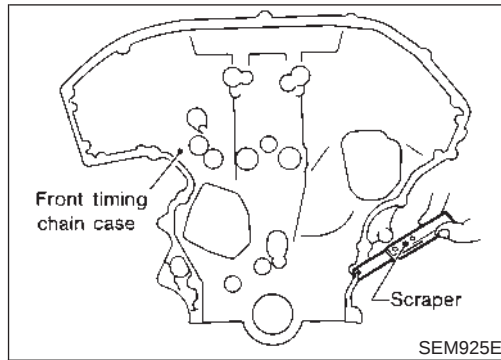
Super multiple junction (SMJ)

In a wiring diagram, the SMJ connectors include a letter of the alphabet in the terminal number.

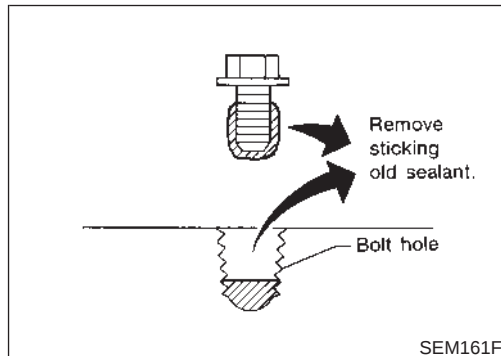
SMJ connector numbers are shown in the Reference Area of the wiring diagram. SMJ terminal arrangement can be found on the electrical reference pages at the end of the manual. For terminal arrangement of these connectors, refer to "SUPER MULTIPLE JUNCTION (SMJ)" electrical reference page at the end of the

TIMING CHAIN

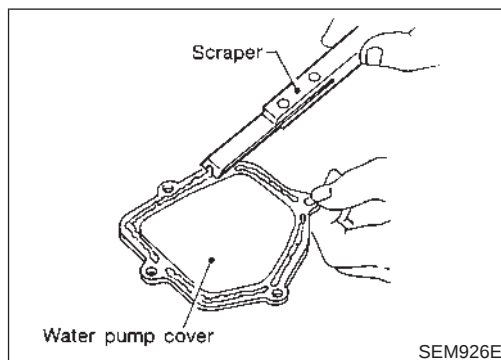
Removal (Cont'd)



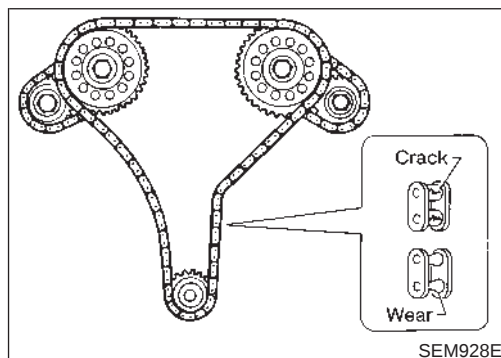
39. Use a scraper to remove all traces of liquid gasket from front timing chain case.



- Remove old liquid gasket from the bolt hole and thread.

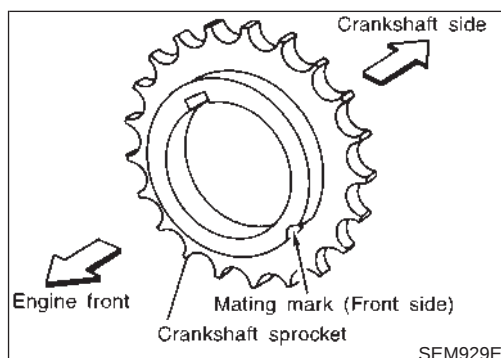


40. Use a scraper to remove all traces of liquid gasket from water pump cover.



Inspection

Check for cracks and excessive wear at roller links. Replace chain if necessary. NFEM0013



Installation

1. Install crankshaft sprocket on crankshaft. NFEM0014
- Make sure that mating marks on crankshaft sprocket face front of engine.

TROUBLE DIAGNOSIS — BASIC INSPECTION

Basic Inspection (Cont'd)

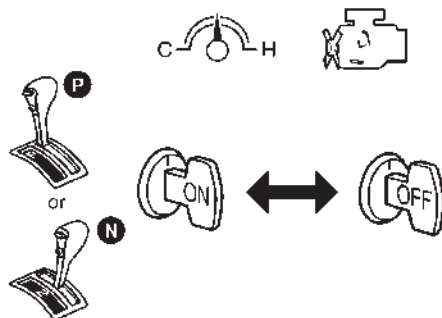
8 RESET THROTTLE POSITION SENSOR IDLE POSITION MEMORY

 With CONSULT-II

NOTE:

Always warm up engine to normal operating temperature. If engine is cool, the throttle position sensor idle position memory will not be reset correctly.

1. Remove feeler gauge.
2. Start engine.
3. Warm up engine to normal operating temperature.
4. Select "CLSD THL POS" in "DATA MONITOR" mode.
5. Stop engine. (Turn ignition switch "OFF".)
6. Turn ignition switch "ON" and wait at least 5 seconds.



SEF864V

7. Turn ignition switch "OFF" and wait at least 10 seconds.
8. Repeat steps 6 and 7 until "CLSD THL POS" signal changes to "ON".

DATA MONITOR	
MONITOR	NO DTC
CLSD THL POS	ON

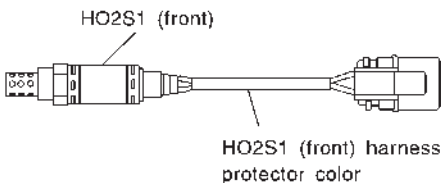
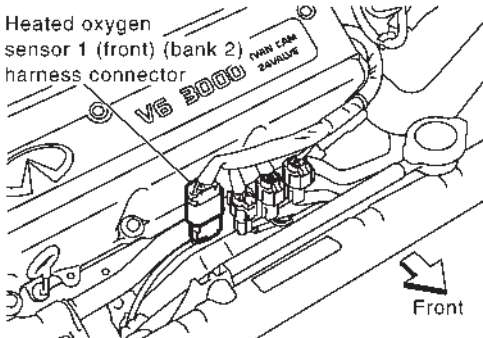
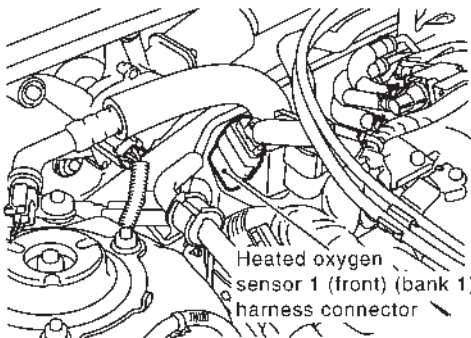
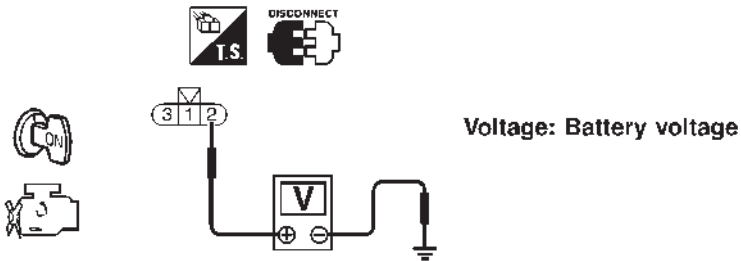
SEF061Y

▶

GO TO 13.

HEATED OXYGEN SENSOR 1 HEATER (FRONT)

Diagnostic Procedure (Cont'd)

2	CHECK HEATED OXYGEN SENSOR 1 (FRONT) POWER SUPPLY CIRCUIT
1. Turn ignition switch "OFF". 2. Check heated oxygen sensor 1 (front) harness protector color.  HO2S1 (front) HO2S1 (front) harness protector color HO2S1 (front) (bank 1): Black HO2S1 (front) (bank 2): Blue 3. Disconnect corresponding heated oxygen sensor 1 (front) harness connector.  Heated oxygen sensor 1 (front) (bank 2) harness connector VS 3000 Front  Heated oxygen sensor 1 (front) (bank 1) harness connector 4. Turn ignition switch "ON". 5. Check voltage between HO2S1 (front) terminal 2 and ground with CONSULT-II or tester.  Voltage: Battery voltage OK or NG	
OK	▶ GO TO 4.
NG	▶ GO TO 3.

3	DETECT MALFUNCTIONING PART
Check the following. ● Harness connectors M46, F44 ● Fuse block (J/B) connector M19 ● 15A fuse ● Harness for open or short between heated oxygen sensor 1 (front) and fuse	
▶	Repair harness or connectors.

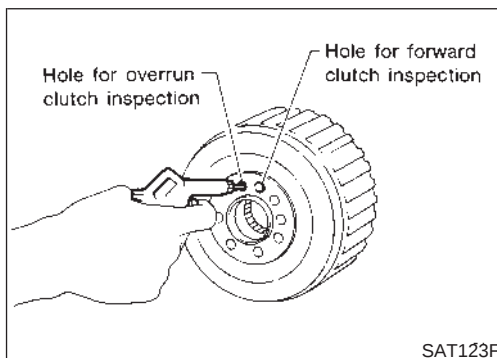
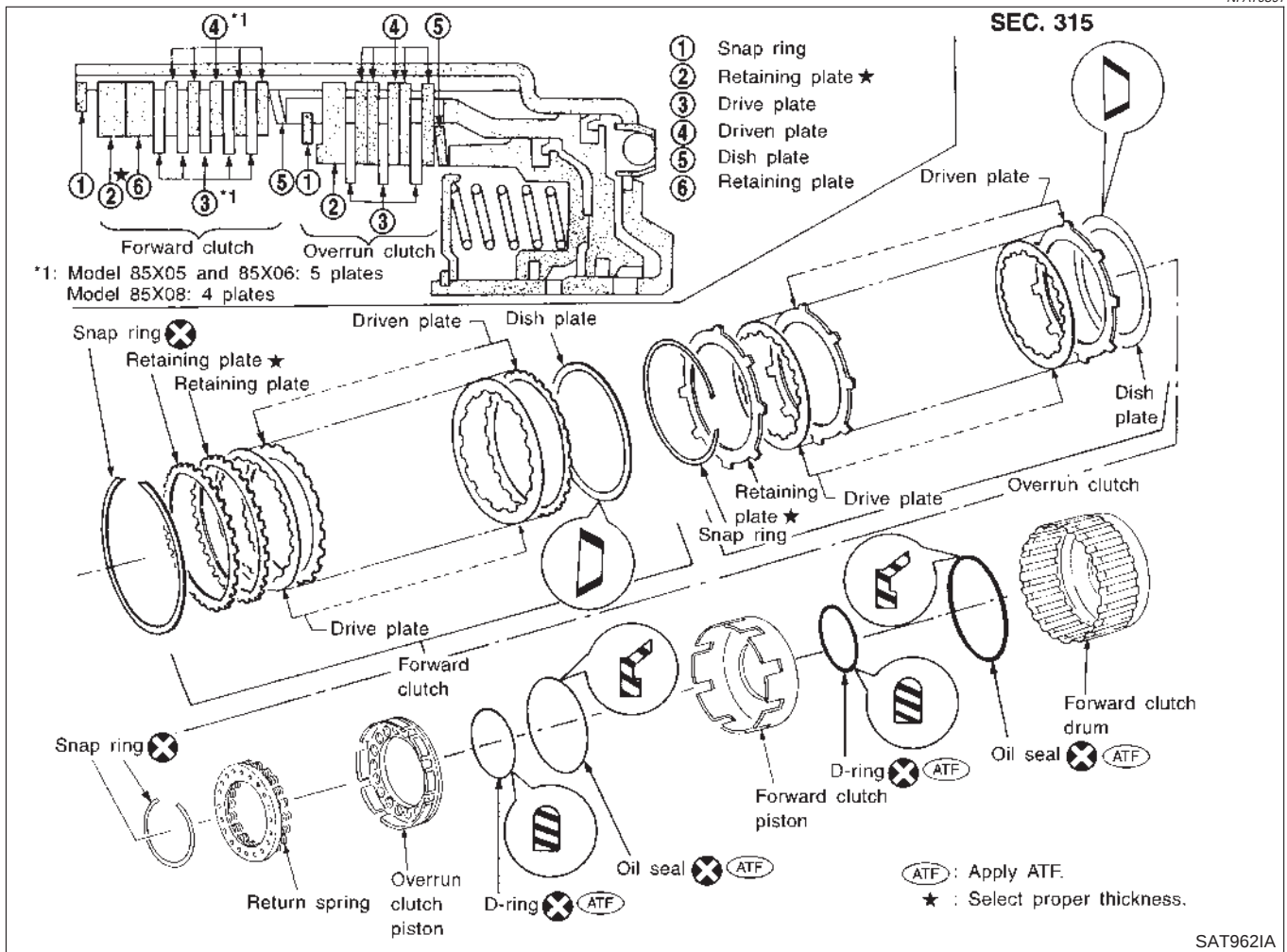
TROUBLE DIAGNOSIS — GENERAL DESCRIPTION

Symptom Chart (Cont'd)

Items	Symptom	Condition	Diagnostic Item	Reference Page	
				EURO-OBd	EXCEPT FOR EURO-OBd
No Down Shift	Failure to change gear from D ₄ to D ₃ .	ON vehicle	1. Fluid level	AT-78	
			2. Throttle position sensor (Adjustment)	EC-151	
			3. Overrun clutch solenoid valve	AT-201	AT-246
			4. Shift solenoid valve A	AT-182	AT-236
			5. Line pressure solenoid valve	AT-176	AT-267
			6. Control valve assembly	AT-346	
		OFF vehicle	7. Low & reverse brake	AT-406	
			8. Overrun clutch	AT-401	
	Failure to change gear from D ₃ to D ₂ or from D ₄ to D ₂ .	ON vehicle	1. Fluid level	AT-78	
			2. Throttle position sensor (Adjustment)	EC-151	
			3. Shift solenoid valve A	AT-182	AT-236
			4. Shift solenoid valve B	AT-187	AT-241
			5. Control valve assembly	AT-346	
		OFF vehicle	6. High clutch	AT-396	
			7. Brake band	AT-418	
	Failure to change gear from D ₂ to D ₁ or from D ₃ to D ₁ .	ON vehicle	1. Fluid level	AT-78	
			2. Throttle position sensor (Adjustment)	EC-151	
			3. Shift solenoid valve A	AT-182	AT-236
			4. Shift solenoid valve B	AT-187	AT-241
			5. Control valve assembly	AT-346	
		OFF vehicle	6. Low one-way clutch	AT-352	
			7. High clutch	AT-396	
			8. Brake band	AT-78	

Forward and Overrun Clutches COMPONENTS

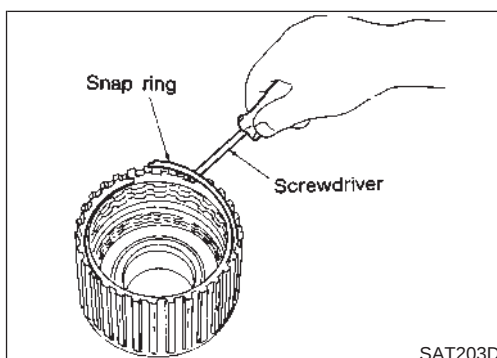
NFAT0397



DISASSEMBLY

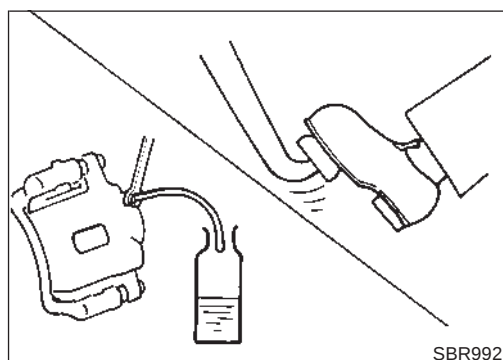
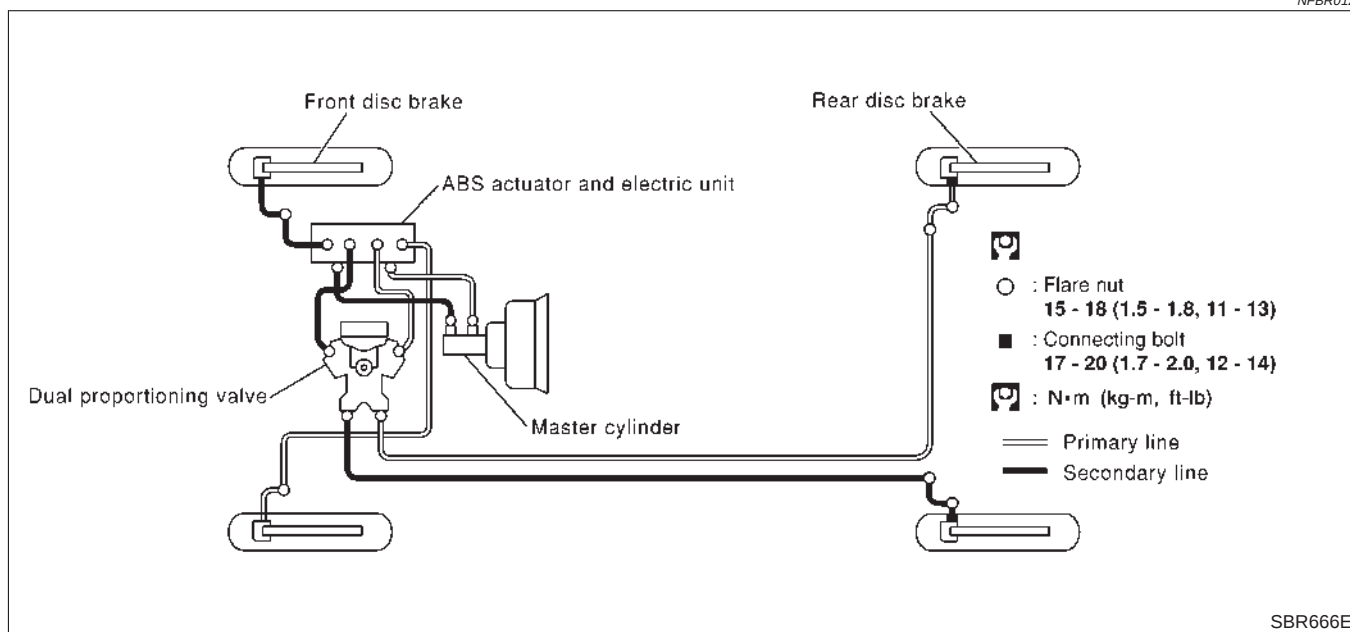
NFAT0398

1. Check operation of forward clutch and overrun clutch.
 - a. Install bearing retainer on forward clutch drum.
 - b. Apply compressed air to oil hole of forward clutch drum.
 - c. Check to see that retaining plate moves to snap ring.
 - d. If retaining plate does not contact snap ring:
 - D-ring might be damaged.
 - Oil seal might be damaged.
 - Fluid might be leaking past piston check ball.
2. Remove snap ring for forward clutch.
3. Remove drive plates, driven plates, retaining plate and dish plate for forward clutch.



Hydraulic Circuit

NFBR0122



Removal

NFBR0123

CAUTION:

- Be careful not to splash brake fluid on painted areas; it may cause paint damage. If brake fluid is splashed on painted areas, wash it away with water immediately.
 - All hoses must be free from excessive bending, twisting and pulling.
1. Connect vinyl tube to air bleeder valve.
 2. Drain brake fluid from each air bleeder valve by depressing brake pedal.
 3. Remove flare nut connecting brake tube and hose, then withdraw lock spring.
 4. Cover openings to prevent entrance of dirt whenever disconnecting brake line.

Inspection

NFBR0124

Check brake lines (tubes and hoses) for cracks, deterioration or other damage. Replace any damaged parts.

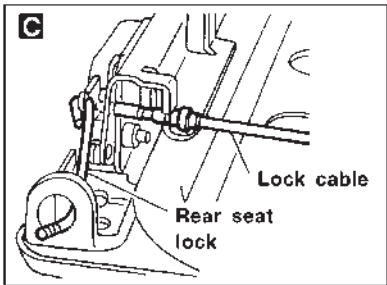
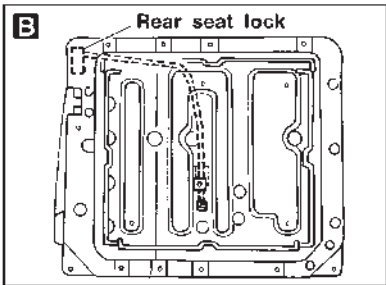
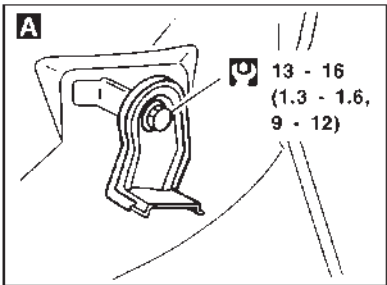
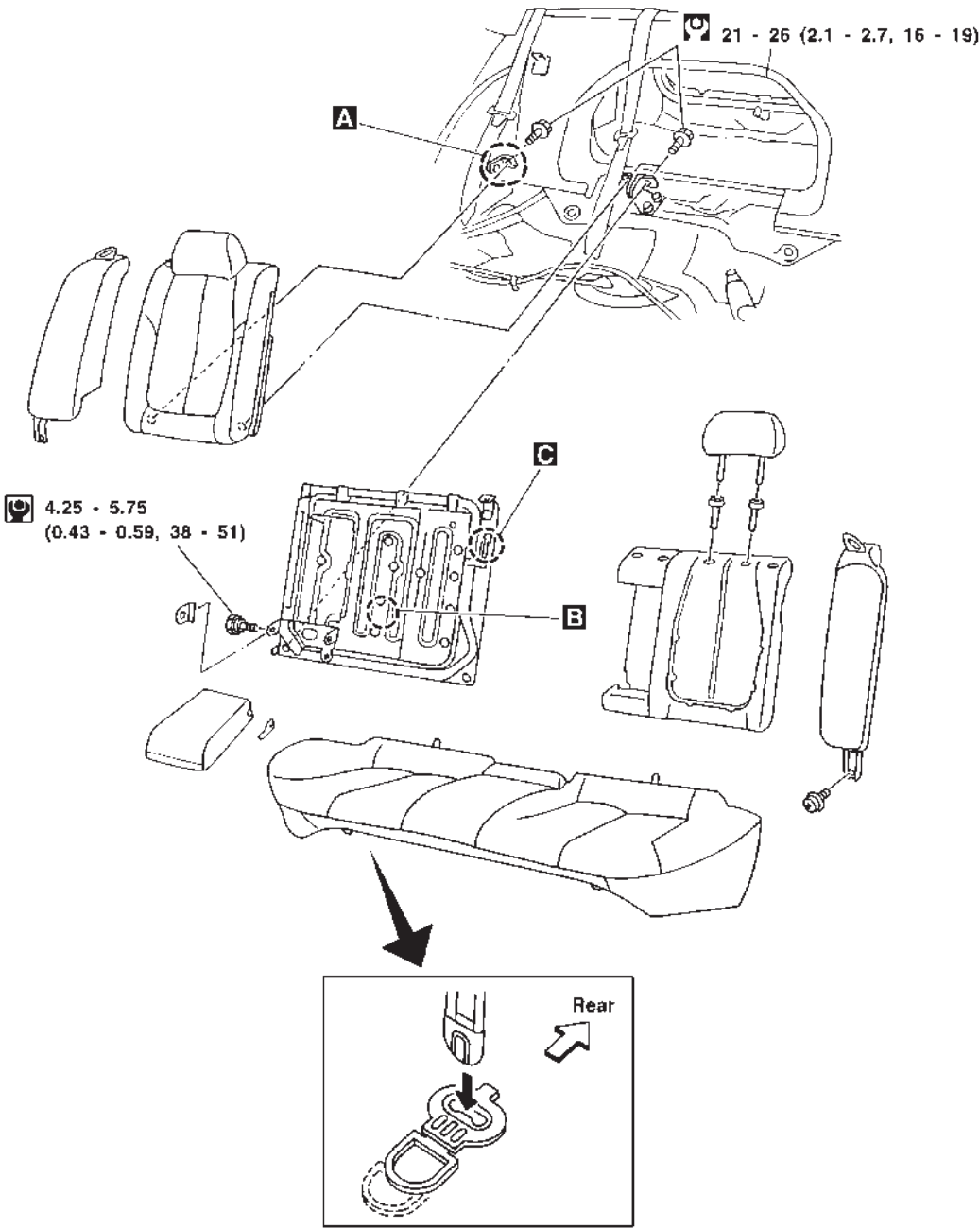
REAR SEAT

Removal and Installation

Removal and Installation

NFBT0019

SEC. 880



: N•m (kg-m, ft-lb)
 : N•m (kg-m, in-lb)

SBT079A

Magnet Clutch

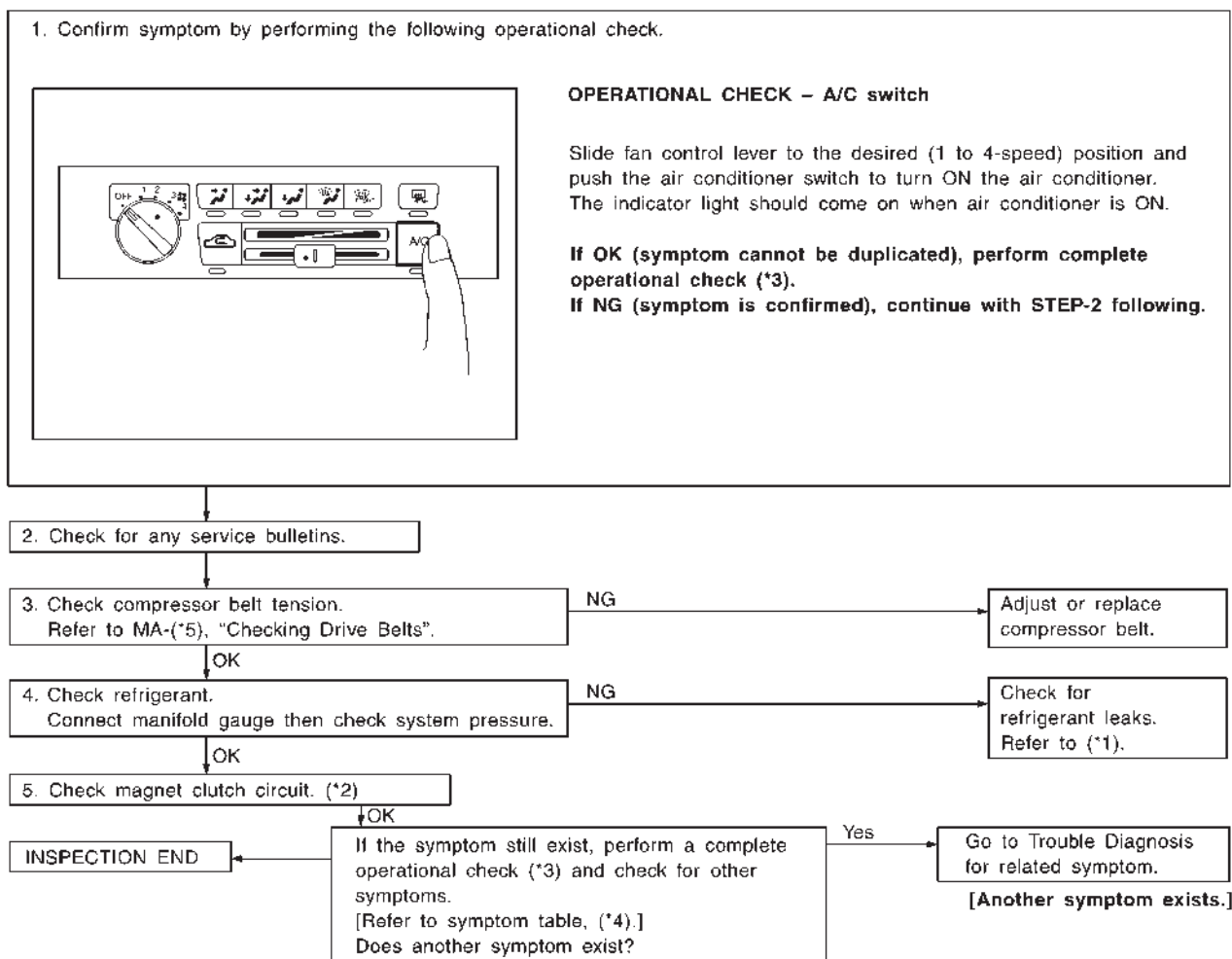
TROUBLE DIAGNOSIS PROCEDURE FOR MAGNET CLUTCH

=NFHA0119

Symptom:

- Magnet clutch does not operate when A/C switch and fan switch are ON.

Inspection Flow



RHA446HA

*1: HA-214

*3: HA-161

*5: MA-15

*2: HA-184

*4: HA-160

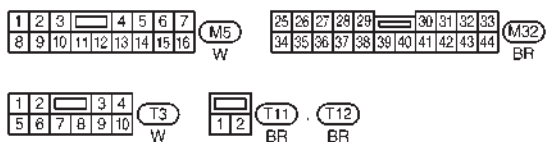
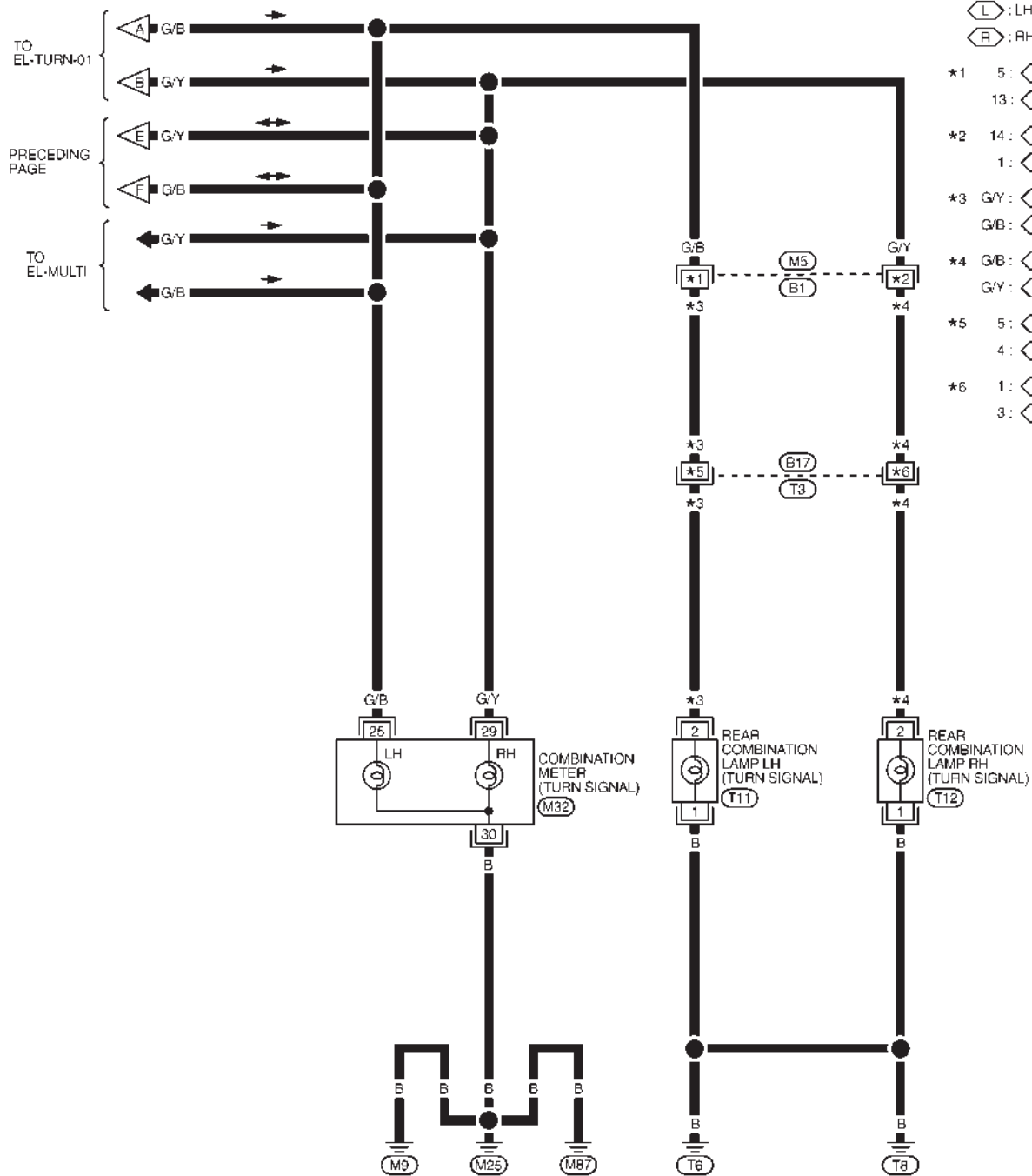
TURN SIGNAL AND HAZARD WARNING LAMPS

Wiring Diagram — TURN — (Cont'd)

EL-TURN-03

 : LHD MODELS
 : RHD MODELS

- *1 5:  13: 
- *2 14:  1: 
- *3 G/Y:  G/B: 
- *4 G/B:  G/Y: 
- *5 5:  4: 
- *6 1:  3: 



MEL513L

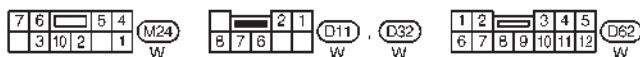
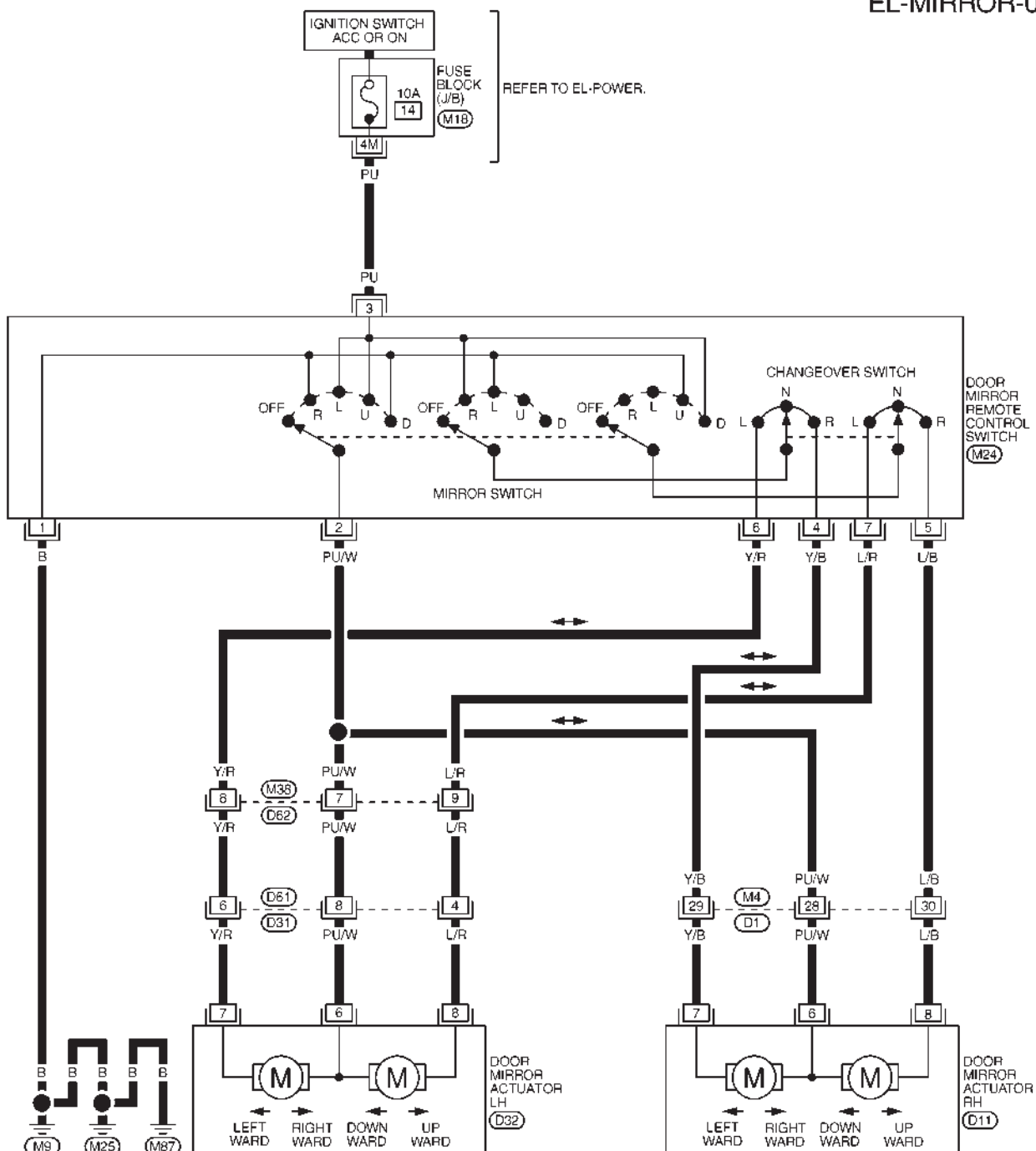
DOOR MIRROR

Wiring Diagram — MIRROR — (Cont'd)

RHD MODELS

NFEL0090S02

EL-MIRROR-02



REFER TO THE FOLLOWING.

- (D1) , (D31) -SUPER
- MULTIPLE JUNCTION (SMJ)
- (M18) -FUSE BLOCK-
- JUNCTION BOX (J/B)

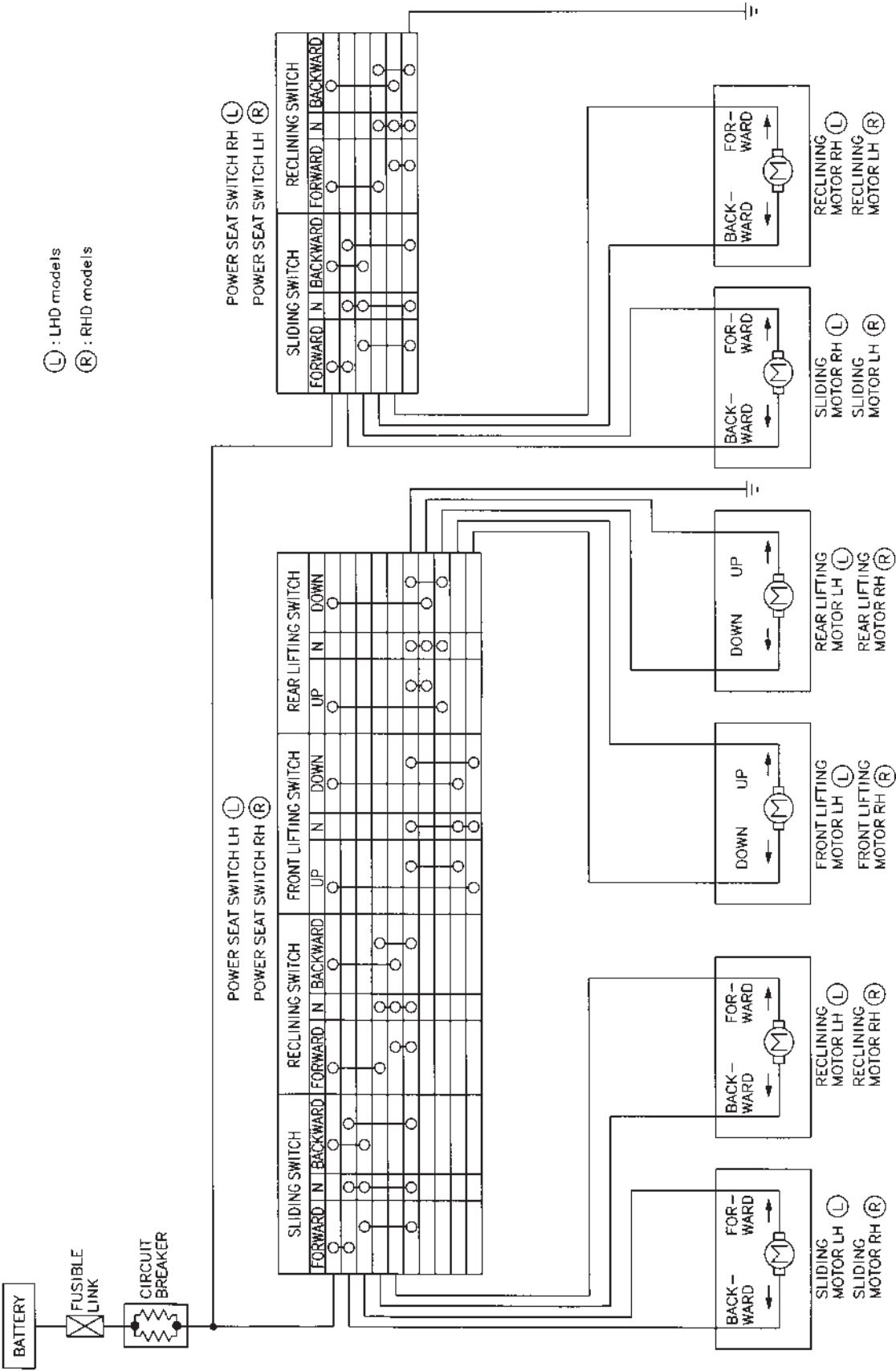
MEL114M

POWER SEAT

Schematic

NFEL0251

Schematic



MEL819K

HARNESS LAYOUT

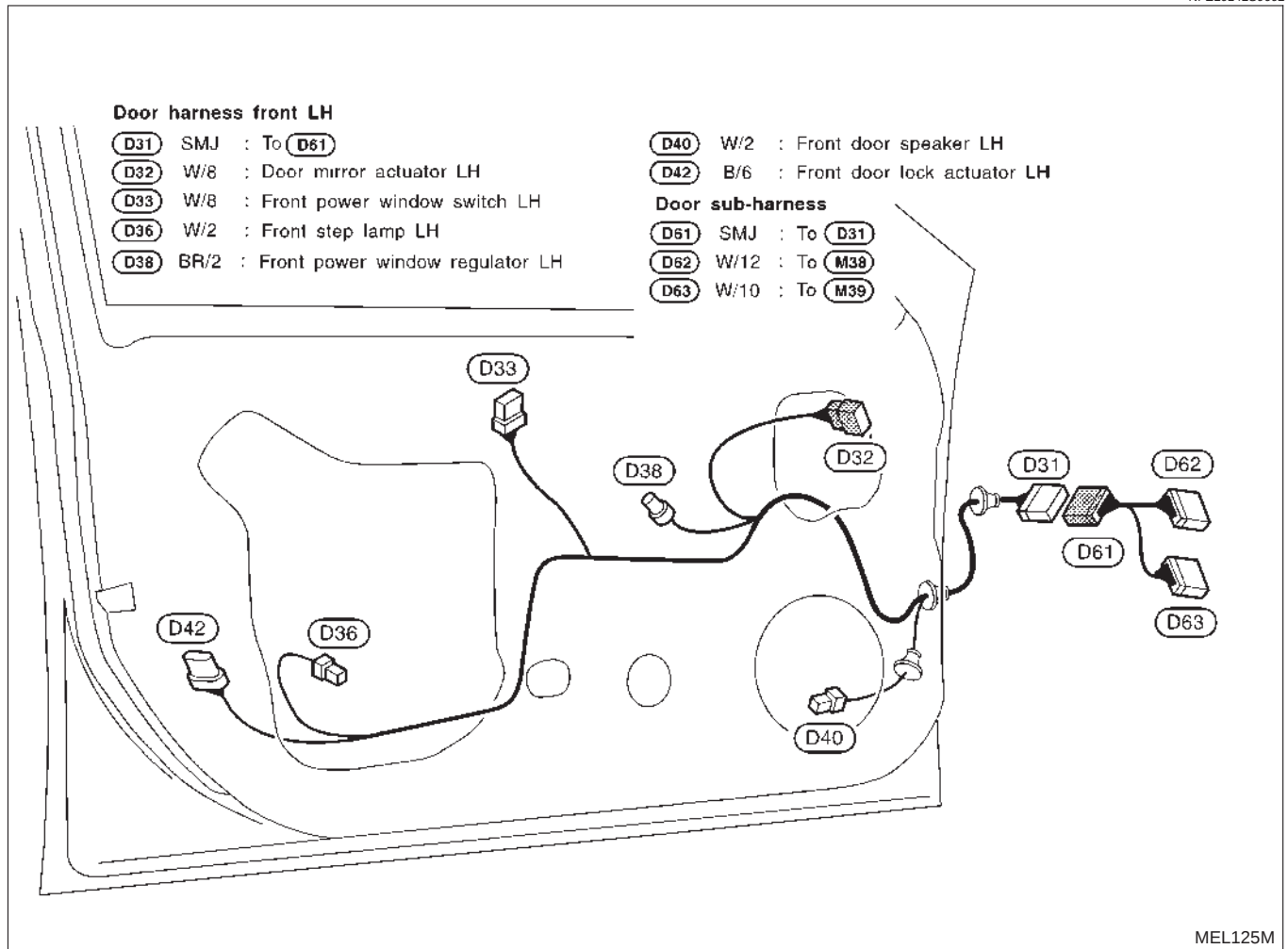
Front Door Harness (Cont'd)

RHD MODELS

LH Side

NFEL0142S06

NFEL0142S0602



ALPHABETICAL INDEX

Mirror defogger EL-174
 Mirror, door BT-52
 Misfire EC-281
 Mode door control linkage
 adjustment HA-62, 168
 Mode door motor HA-57, 166
 Model variation GI-38
 Molding - See Exterior BT-32
 Multi-remote control system EL-271
 Multiport fuel injection (MFI) system EC-28
 Multiport fuel injection precautions GI-6

N

NATS (Nissan Anti-theft System)
 precautions GI-3
 NATS (Nissan Anti-theft System) EL-287
 NATS - Wiring diagram EL-290
 NVH troubleshooting (AX) AX-3
 NVH troubleshooting (BR) BR-6
 NVH troubleshooting (MT) MT-6
 NVH troubleshooting (ST) ST-5
 NVH troubleshooting (SU) SU-16
 NVH troubleshooting CL CL-4
 NVIS (Nissan vehicle immobiliser sys-
 tem) precautions GI-3

O

Oil change (capacity) MA-13
 Oil pan (engine) EM-12
 Oil pressure (engine) LC-4
 Oil pump (A/T) AT-374
 Oil pump (engine) LC-4
 Oil pump regulator valve (engine) LC-6
 Oil seal replacement (engine) EM-34
 On board diagnostic system EC-44
 Operating cylinder (clutch) CL-12
 Overdrive control switch AT-323
 Overrun clutch solenoid valve AT-201, 246
 Overrun clutch AT-401

P

P/ANT - Wiring diagram EL-199
 PCV (positive crankcase ventilation) EC-35
 PGC/V - Wiring diagram EC-316, 460
 PHASE - Wiring diagram EC-305
 PNP/SW - Wiring diagram EC-400, 511
 POS - Wiring diagram EC-297, 389
 POWER - Wiring diagram EL-10
 PST/SW - Wiring diagram EC-544
 Park/Neutral position switch EC-398, 510
 Park/neutral position switch (A/T) AT-122
 Park/neutral position switch (M/T) MT-9
 Parking brake control BR-38
 Parking lamp EL-85

Piston assembly EM-68
 Piston pin inspection EM-60
 Piston ring inspection EM-61
 Piston to bore clearance EM-63
 Power antenna EL-198
 Power door mirror EL-204
 Power seat EL-209
 Power steering fluid level MA-31, ST-7
 Power steering gear ST-15
 Power steering hydraulic pressure ST-9
 Power steering oil pressure switch EC-543
 Power steering oil pump ST-25
 Power steering system bleeding ST-7
 Power supply routing EL-9
 Power transistor & ignition coil EC-369, 495
 Power window EL-241
 Precautions (General) GI-4
 Pressure plate - See Clutch cover CL-18
 Pressure test (A/T) AT-82

R

R/FOG - Wiring diagram EL-93
 R02H-L - Wiring diagram EC-257
 REF - Wiring diagram EC-383
 R02H-R - Wiring diagram EC-256
 ROOM/L - Wiring diagram EL-112
 RR02LH - Wiring diagram EC-217, 228, 239,
 249, 433, 442
 RR02RH - Wiring diagram EC-216, 227, 238,
 248, 432, 441
 Radiator LC-18, 20
 Radio - See Audio EL-183
 Rear air spoiler BT-32
 Rear axle (disc brake type) AX-19
 Rear axle AX-17
 Rear bumper BT-8
 Rear combination lamp removal and
 installation BT-32
 Rear disc brake BR-29
 Rear door BT-11
 Rear fog lamp EL-93
 Rear heated oxygen sensor (HO2S)
 heater EC-254, 440
 Rear heated oxygen sensor (HO2S) EC-212,
 223, 234, 245, 431
 Rear seat belt RS-7
 Rear seat BT-41
 Rear suspension SU-16
 Rear window defogger EL-174
 Rear window BT-50
 Refrigerant connection precaution HA-5, 132
 Refrigerant discharging evacuating
 charging HA-109
 Refrigerant general precaution HA-4, 131
 Refrigerant lines HA-121, 212
 Refrigeration cycle HA-15, 142
 Release bearing (clutch) CL-16
 Removal and installation (A/T) AT-349