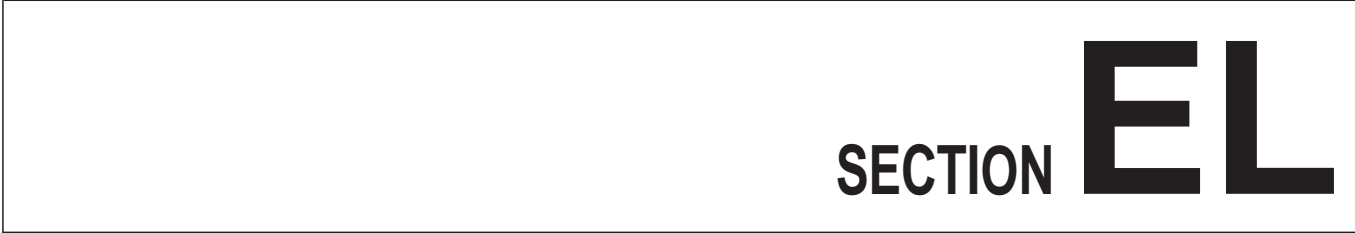


ELECTRICAL SYSTEM

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MODIFICATION NOTICE:

Wiring diagrams have been changed.

EC

FE

CONTENTS

| | | | |
|---|---|---|----|
| PRECAUTIONS | 2 | Schematic | 5 |
| Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" | 2 | Wiring Diagram - WARN - | 6 |
| BATTERY | 3 | LOCATION OF ELECTRICAL UNITS | 12 |
| Service Data and Specifications (SDS) | 3 | Engine Compartment | 12 |
| STARTING SYSTEM | 4 | Passenger Compartment | 13 |
| Service Data and Specifications (SDS) | 4 | HARNES LAYOUT | 14 |
| WARNING LAMPS | 5 | Main Harness | 14 |

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IDX

PRECAUTIONS

Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER” used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger in a frontal collision. The SRS system composition which is available to NISSAN MODEL D22 is as follows (The composition varies according to the destination and optional equipment.):

Driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on passenger side), seat belt pre-tensioner, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.

Information necessary to service the system safely is included in the **RS section** of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the RS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. Spiral Cable and wiring harnesses (except “SEAT BELT PRE-TENSIONER”) covered with yellow insulation either just before the harness connectors or for the complete harness are related to the SRS.

BATTERY

Service Data and Specifications (SDS)

| Applied model | General areas | | |
|---------------|---------------|--------|------------------|
| | KA24DE | TD25 | |
| | Standard | | Option |
| Type | 55D23R | 95D31R | 80D26R 80D26L |
| Capacity | V-AH 12-48 | 12-64 | 12-55 |

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STARTING SYSTEM

Service Data and Specifications (SDS)

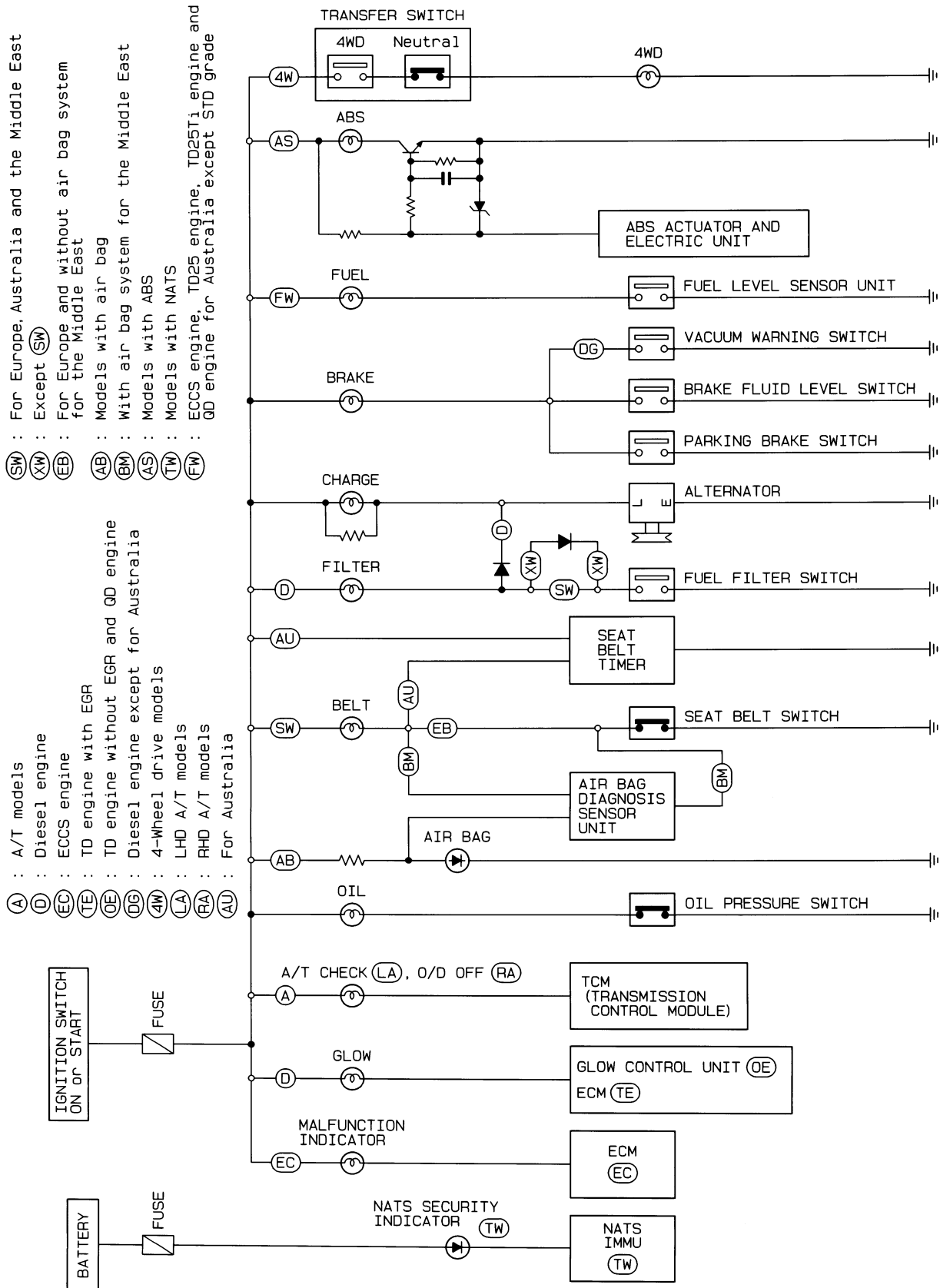
STARTER

| | | | | |
|---|------------|------------------------------------|-----------------|---------------------------|
| Type | M0T60081A | | S13-327 | |
| | MITSUBISHI | | HITACHI | |
| | Reduction | | | |
| Applied model | 2WD | 4WD | 2WD | 4WD |
| | KA24DE | | TD25 | |
| | Standard | | | |
| System voltage | V | 12 | | |
| No-load | | | | |
| Terminal voltage | V | 11.0 | | |
| Current | A | Less than 90 | Less than 160 | |
| Revolution | rpm | More than 2,500 | More than 4,000 | |
| Minimum diameter of commutator | mm (in) | 28.8 (1.134) | 35.5 (1.398) | |
| Minimum length of brush | mm (in) | 7.0 (0.276) | 9.0 (0.354) | |
| Brush spring tension | N (kg, lb) | 11.8 - 23.5 (1.2 - 2.4, 2.6 - 5.3) | | — |
| Movement "ℓ" in height of pinion assembly | mm (in) | 0.5 - 2.0 (0.020 - 0.079) | | 0.3 - 1.5 (0.012 - 0.059) |

*: Not include the current of the magnet switch circuit

WARNING LAMPS

Schematic

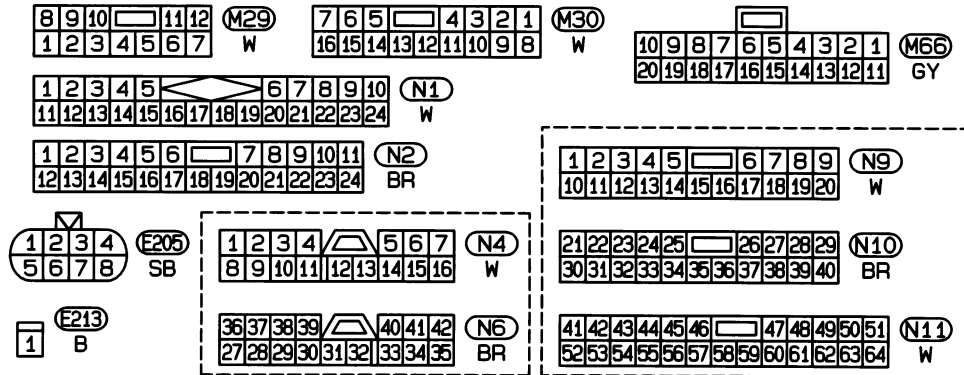
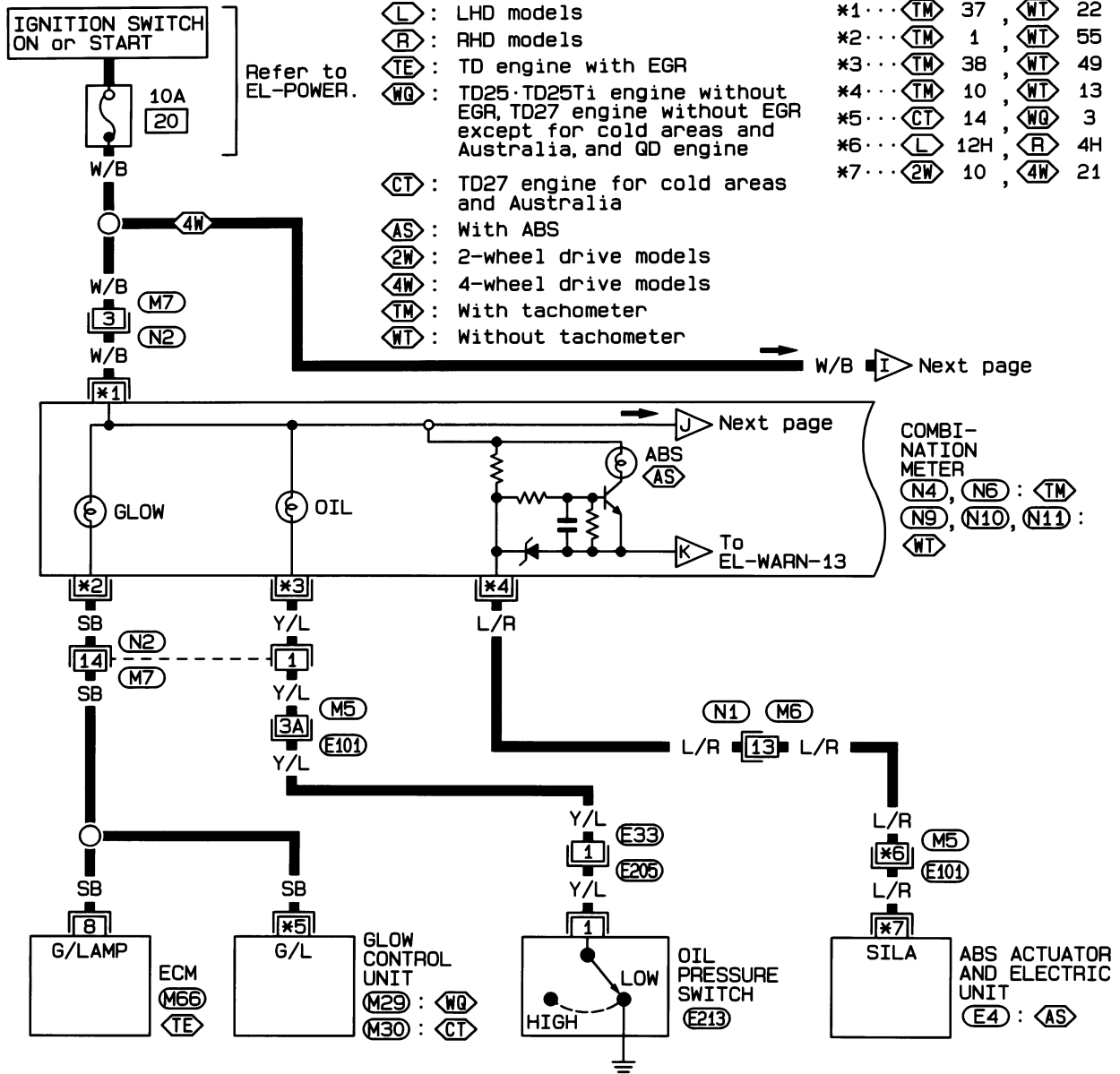


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WARNING LAMPS

Wiring Diagram — WARN —

EL-WARN-01



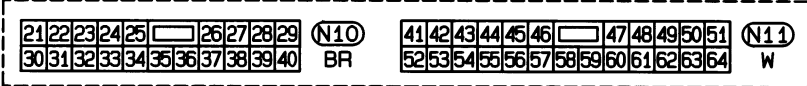
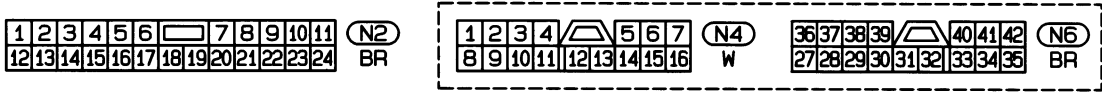
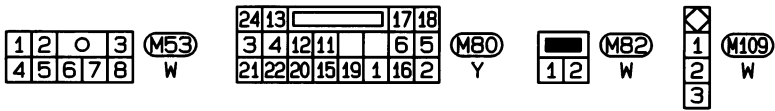
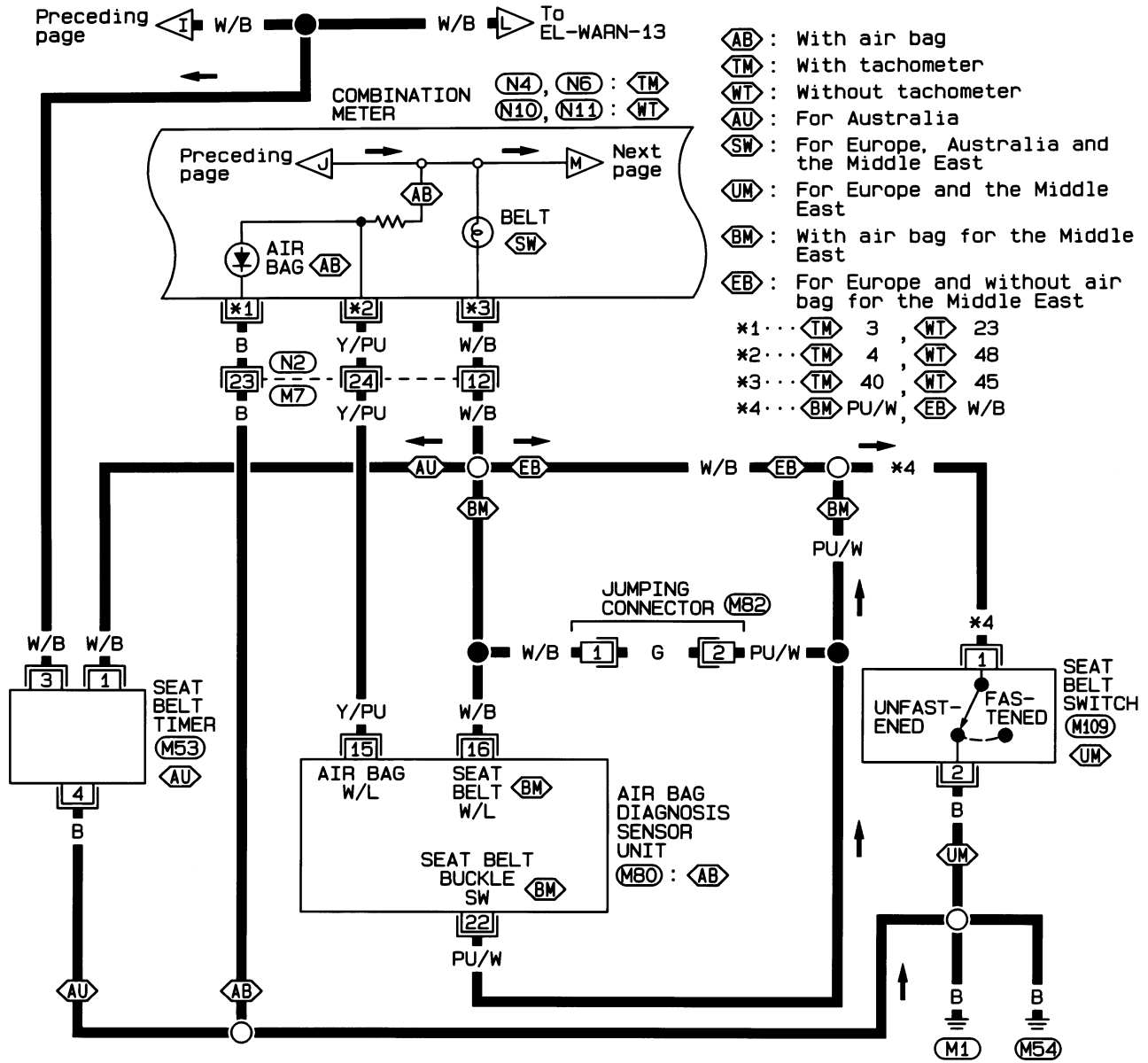
Refer to last page (Foldout page).

M5, E101
E4

WARNING LAMPS

Wiring Diagram — WARN — (Cont'd)

EL-WARN-02

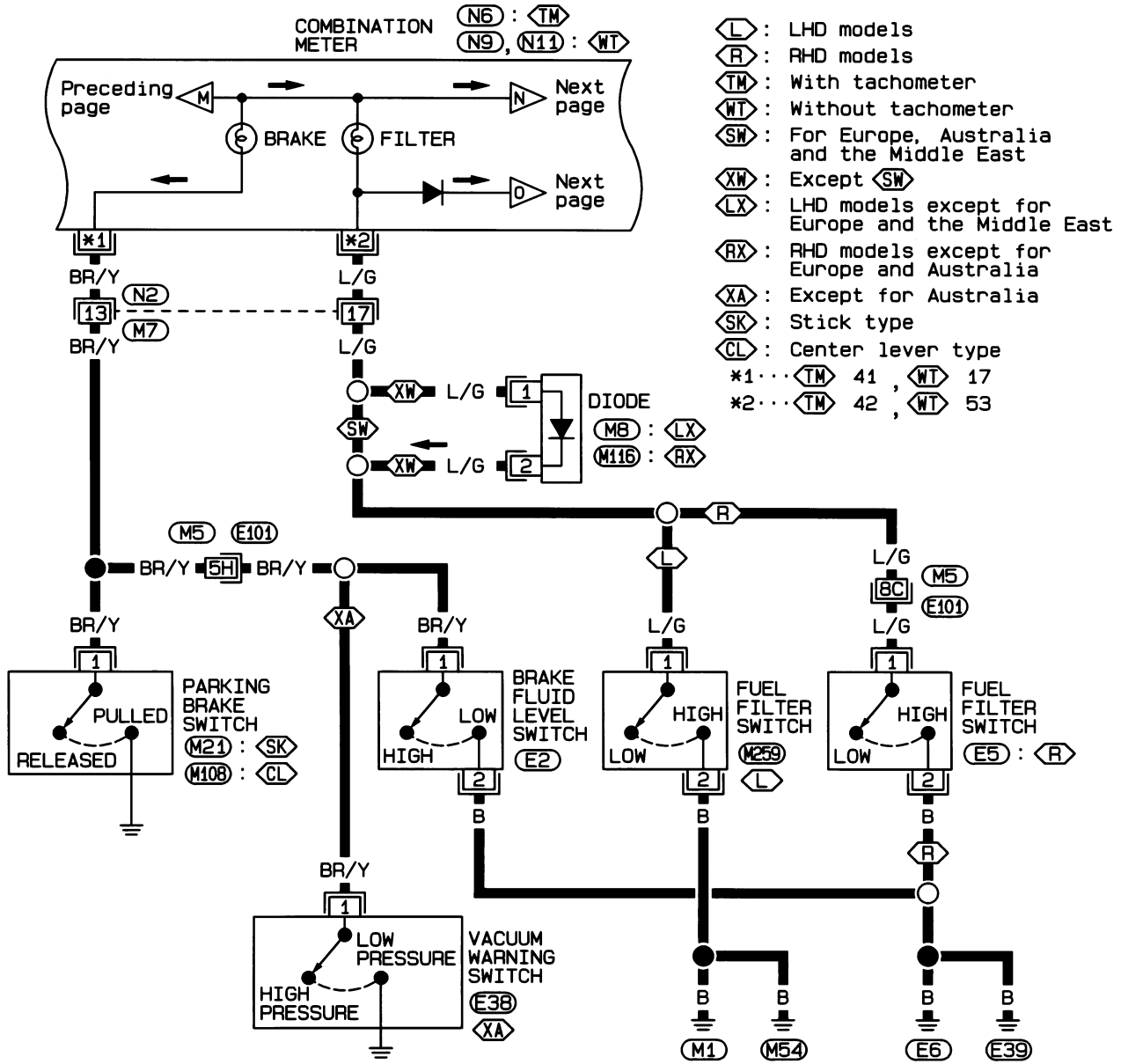


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WARNING LAMPS

Wiring Diagram — WARN — (Cont'd)

EL-WARN-03



1 2 (MB), (M116) 1 (M21) W 1 (M108), (E38) B, GY 2 1 (M259), (E5) BR, BR

1 2 3 4 5 6 7 8 9 10 11 (N2) 36 37 38 39 40 41 42 (N6)
 12 13 14 15 16 17 18 19 20 21 22 23 24 BR 27 28 29 30 31 32 33 34 35 BR

1 2 3 4 5 6 7 8 9 (N9) 41 42 43 44 45 46 47 48 49 50 51 (N11)
 10 11 12 13 14 15 16 17 18 19 20 W 52 53 54 55 56 57 58 59 60 61 62 63 64 W

1 (E2)
 2 GY

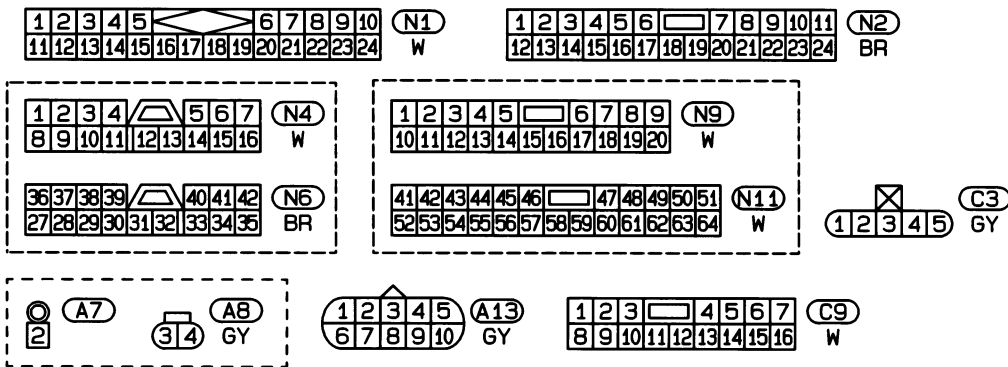
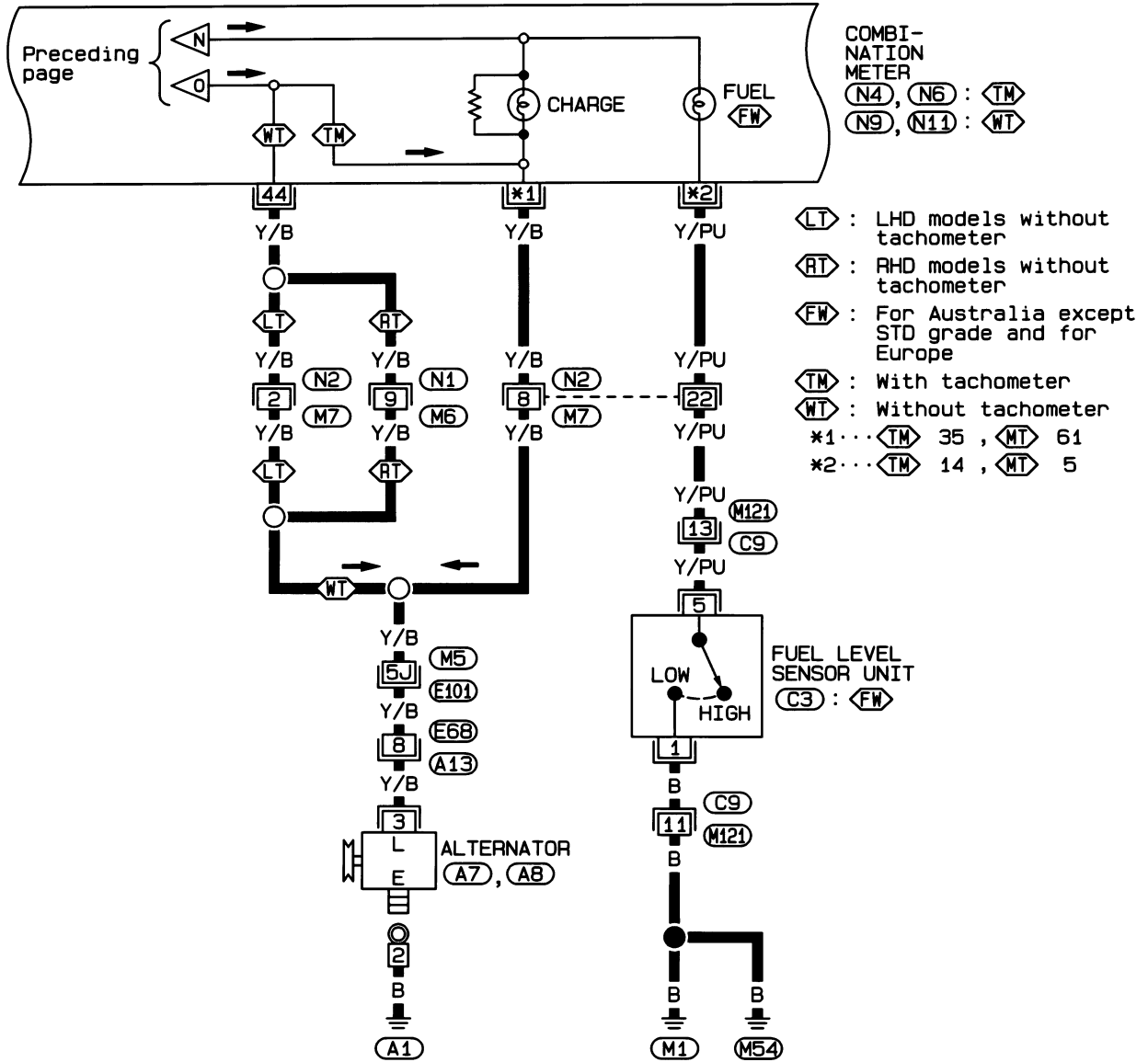
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(M5), (E101)

WARNING LAMPS

Wiring Diagram — WARN — (Cont'd)

EL-WARN-04

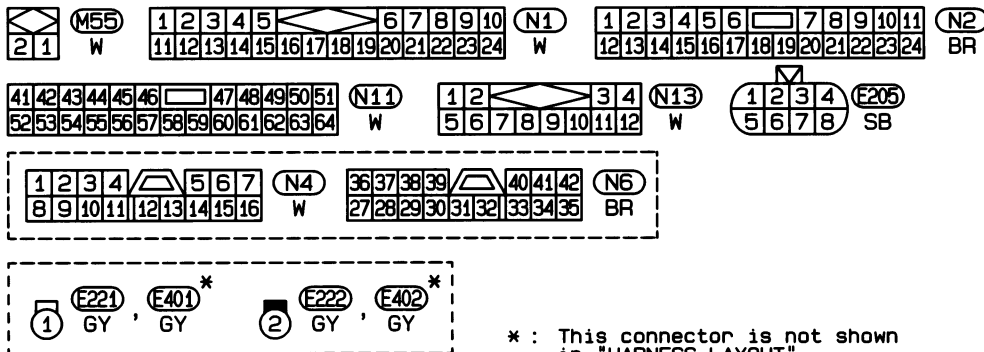
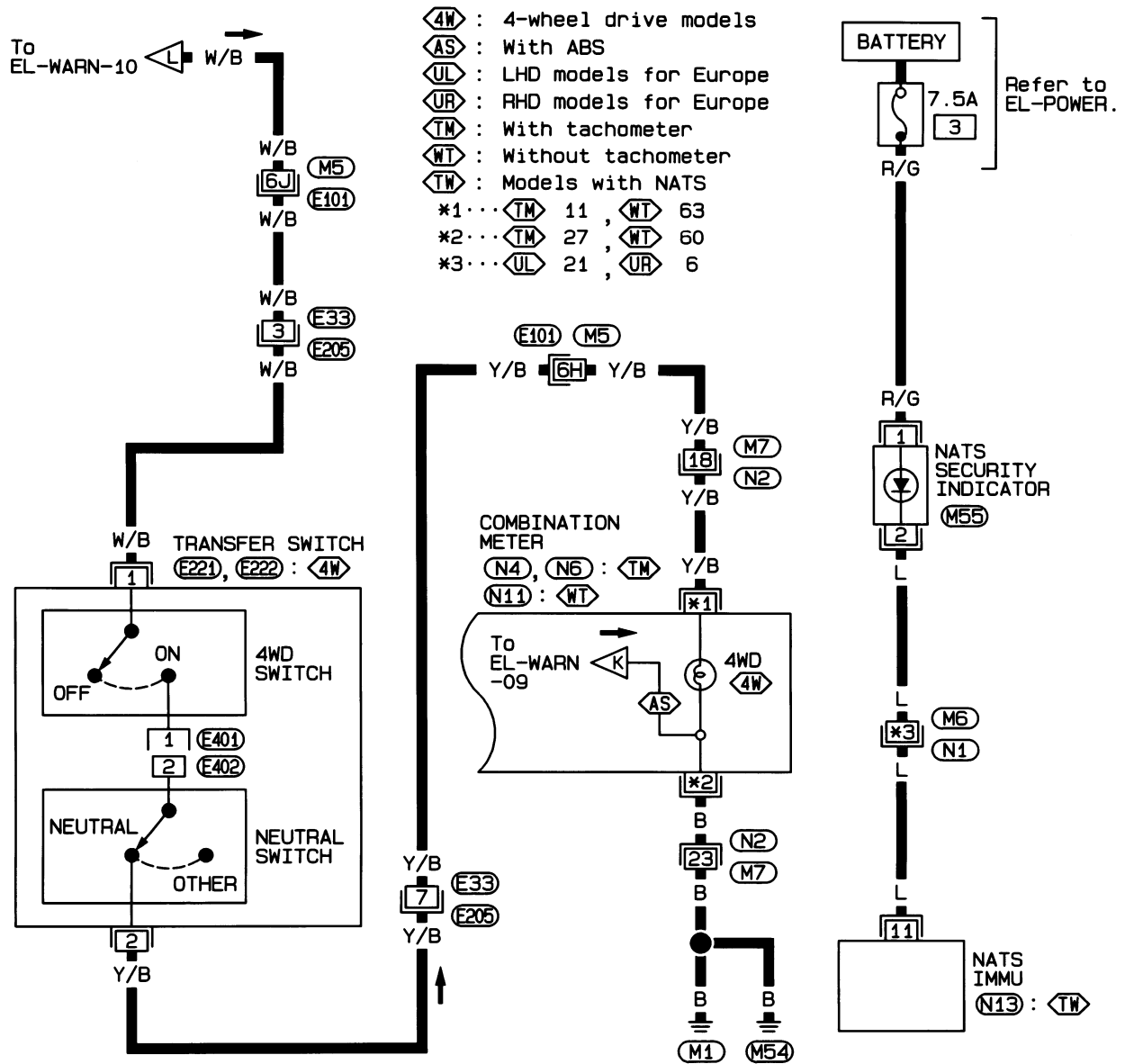


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WARNING LAMPS

Wiring Diagram — WARN — (Cont'd)

EL-WARN-05



Refer to last page (Foldout page).

M5, E101

WARNING LAMPS

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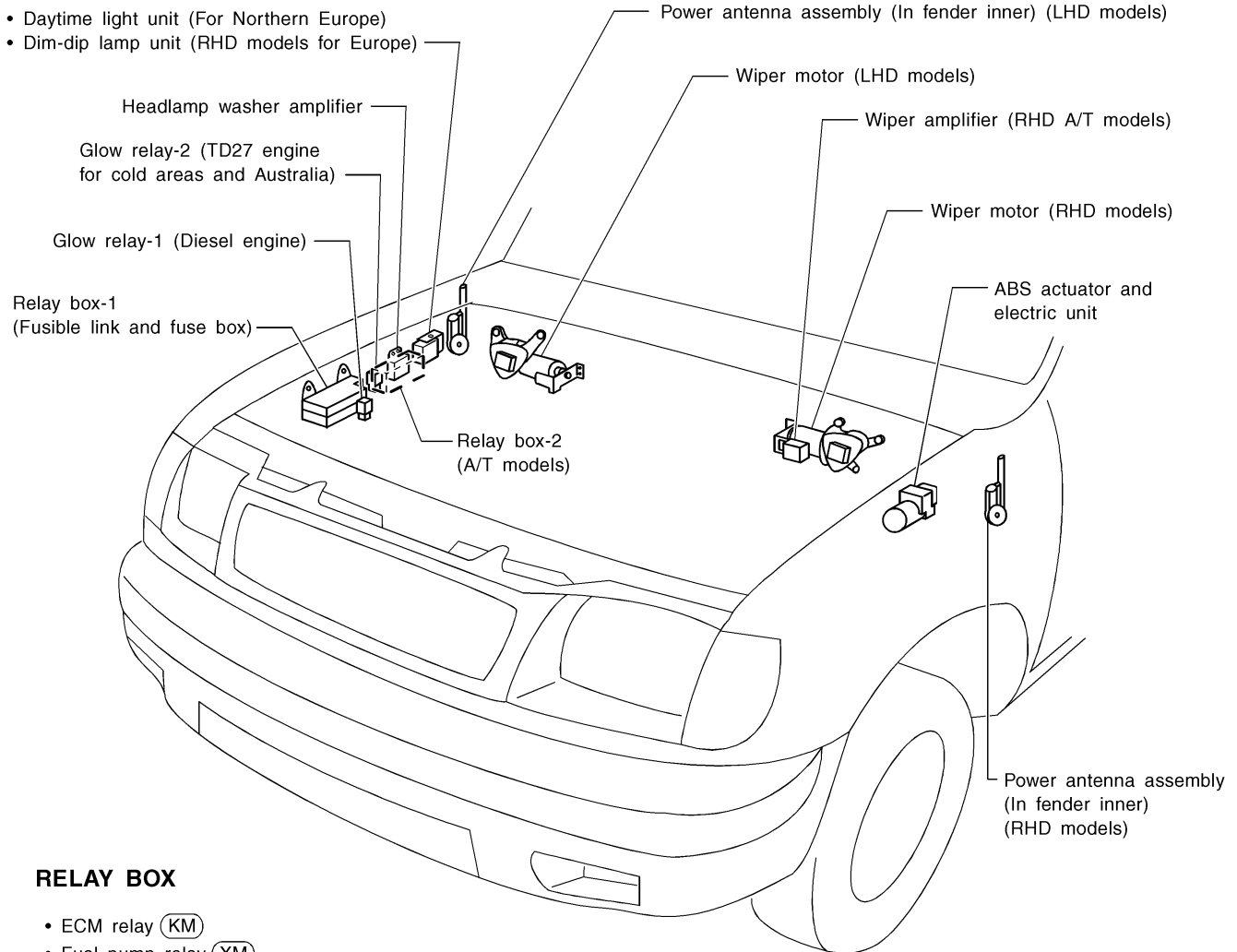
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LOCATION OF ELECTRICAL UNITS

Engine Compartment



RELAY BOX

- ECM relay (KM)
- Fuel pump relay (XM)
- Automatic choke relay (Z engine)
- Fuel heater relay (RHD models for Europe)

- ECM relay (XM)
- Fuel pump relay (KM)
- Cooling fan relay (TD25Ti, TD27 and QD32 engines with air conditioner)
- Horn relay
- Air conditioner relay

- Cooling fan relay (KM)
- Defogger relay (M/T models)
- Park/Neutral position (PNP) relay (A/T models)

- Relay box-2
- Defogger relay (A/T models except for the Middle East)

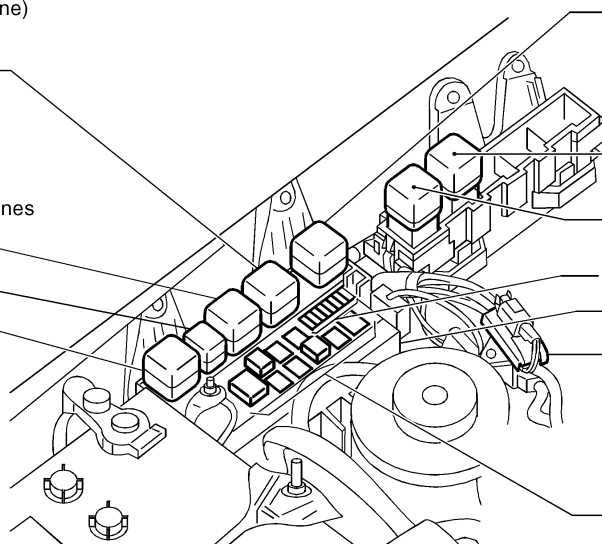
- Cooling fan relay (A/T models for the Middle East)

- Fuse
- Relay box-1
- Dropping resistor (A/T models)

- Fusible link

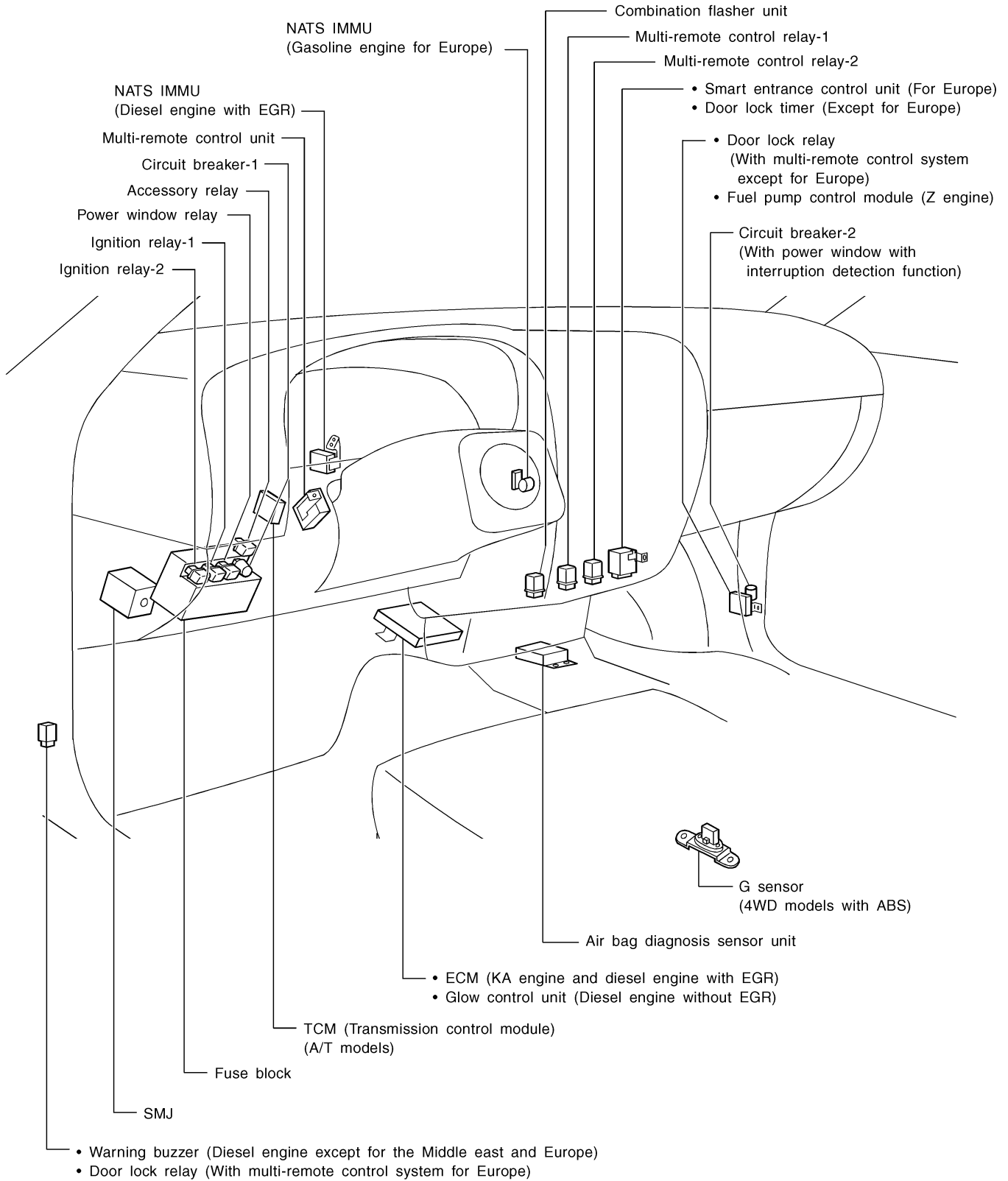
(KM) : KA engine M/T models for the Middle East

(XM) : ECCS engine except (KM)



LOCATION OF ELECTRICAL UNITS

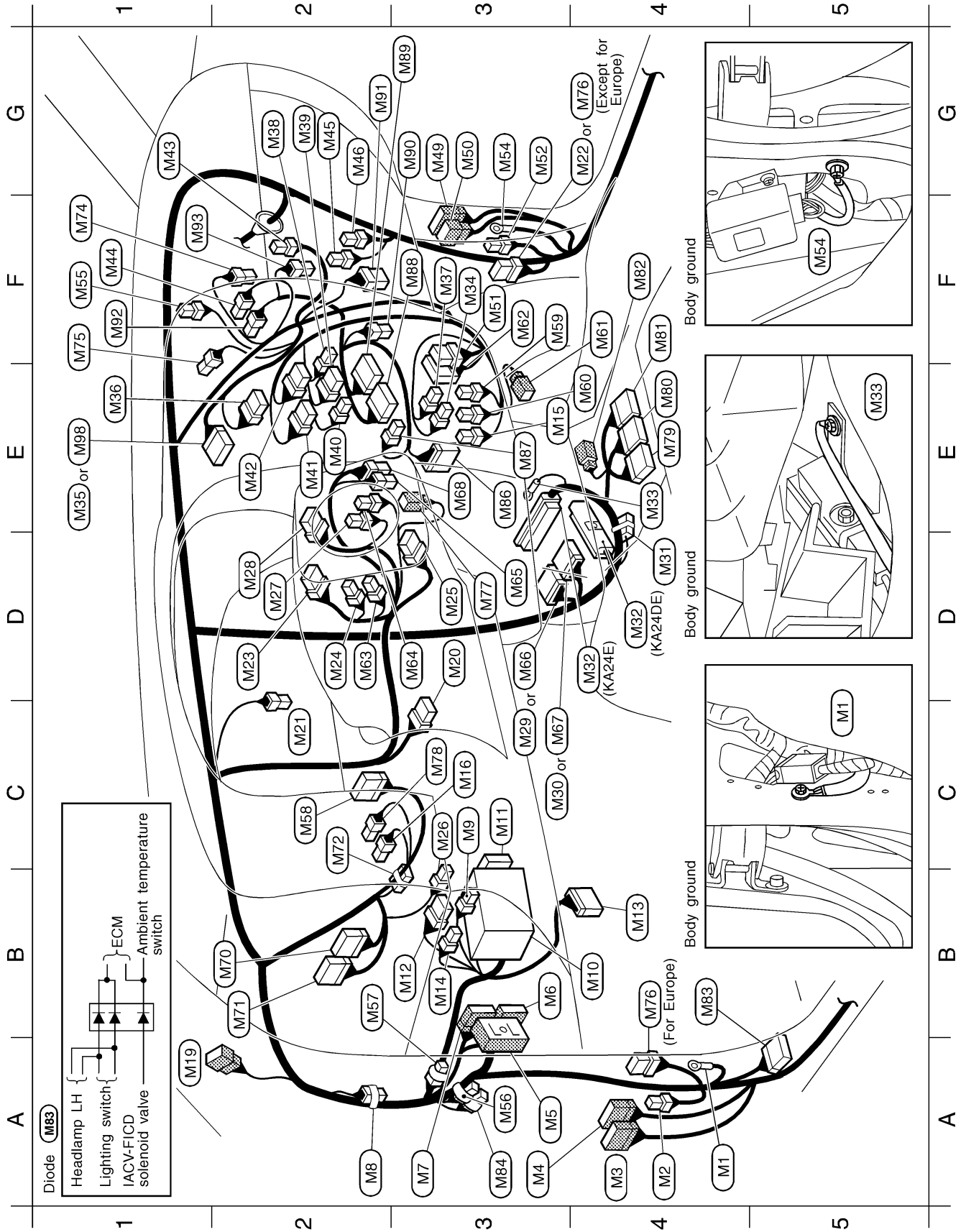
Passenger Compartment



HARNESS LAYOUT

Main Harness

INSTRUMENT PANEL — LHD MODELS



HARNESS LAYOUT

Main Harness (Cont'd)

| | | | | |
|--|--|---|--|---|
| <p>A4 (M1) — : Body ground</p> <p>A4 (M2) W/2 : Warning buzzer (Diesel engine except for Europe and the Middle East)</p> <p>A4 (M3) W/20 : To (D1)</p> <p>A3 (M4) W/12 : To (D2) (With power window)</p> <p>A3 (M5) SMJ : To (E101)</p> <p>B3 (M6) W/24 : To (N1)</p> <p>A3 (M7) BR/24 : To (N2)</p> <p>A2 (M8) -/2 : Diode (Diesel engine except for Europe and the Middle East)</p> <p>C3 (M9) L/4 : Accessory relay</p> <p>B4 (M10) — : Fuse block</p> <p>C3 (M11) GY/14 : Data link connector for CONSULT (With air bag, ABS or ECM)</p> <p>B3 (M12) W/6 : Fuse block</p> <p>B4 (M13) B/10 : Check connector (Z24S)</p> <p>B3 (M14) W/4 : Fuse block</p> <p>E3 (M15) B/3 : Combination flasher unit</p> <p>C3 (M16) B/2 : Stop lamp switch</p> <p>A1 (M19) W/6 : To (R1)</p> <p>D3 (M20) W/6 : Ignition switch</p> <p>C2 (M21) W/1 : Parking brake switch (Stick type)</p> <p>G4 (M22) W/6 : Fuel pump control module (Z24S)</p> <p>D2 (M23) BR/8 : Lighting switch • Turn signal lamp switch</p> <p>D2 (M24) BR/4 : Lighting switch</p> <p>D3 (M25) Y/7 : Spiral cable (With air bag)</p> <p>C3 (M26) L/2 : A/T check switch (A/T models)</p> <p>D2 (M27) B/1 : Horn switch (Without air bag)</p> <p>D2 (M28) GY/8 : Wiper and washer switch</p> <p>C3 (M29) W/12 : Glow control unit (TD engine without EGR except for cold areas and QD engine)</p> <p>C3 (M30) W/16 : Glow control unit (TD27 engine for cold areas)</p> <p>D4 (M31) GY/6 : Joint connector-1 (KA engine)</p> <p>D4 (M32) W/64 : ECM (KA24E)</p> <p>E4 (M33) W/48 : ECM (KA24DE)</p> <p>F3 (M34) — : Body ground (KA24E)</p> <p>F3 (M34) W/2 : Ashtray illumination (GL and S-GL grade for the Middle East)</p> <p>E1 (M35) W/10 : Audio unit (For Europe)</p> | <p>E1 (M36) W/6 : Audio unit (KA24E and with 4-speakers radio for Europe)</p> <p>F3 (M37) B/2 : Cigarette lighter</p> <p>G2 (M38) W/3 : A/C switch (Without auto A/C)</p> <p>G2 (M39) W/6 : Fan switch (Without auto A/C)</p> <p>E2 (M40) W/2 : Fan switch illumination (Without auto A/C)</p> <p>E2 (M41) W/8 : Hazard switch</p> <p>E2 (M42) W/6 : Defogger switch (For Europe, SE grade with KA engine with 2WD except for the Middle East and SE grade with diesel engine)</p> <p>G1 (M43) Y/2 : Air bag module passenger side</p> <p>F1 (M44) BR/4 : Thermo control amplifier</p> <p>G2 (M45) BR/4 : Fan resistor (Without auto A/C)</p> <p>G2 (M46) W/2 : Blower motor</p> <p>G3 (M49) W/20 : To (D31)</p> <p>G3 (M50) W/6 : To (D32) (With power window)</p> <p>F3 (M51) W/8 : Door lock timer (With power window except for Europe)</p> <p>G3 (M52) W/2 : Circuit breaker-2 (With power window with interruption detection function)</p> <p>G3 (M54) — : Body ground</p> <p>F1 (M55) W/2 : NATS security indicator (For Europe)</p> <p>A3 (M56) -/2 : Diode (★1)</p> <p>B2 (M57) -/2 : Diode (★1)</p> <p>C2 (M58) W/12 : Multi-remote control unit (★1)</p> <p>F3 (M59) BR/6 : Multi-remote control relay-2 (★1)</p> <p>F4 (M60) B/5 : Multi-remote control relay-1 (★1)</p> <p>F4 (M61) B/2 : Jumping connector (★1)</p> <p>F3 (M62) W/18 : Smart entrance control unit (For Europe)</p> <p>D2 (M63) W/3 : Rear fog lamp switch (For Europe and China)</p> <p>D3 (M64) W/2 : Key switch (For Europe except Single cab)</p> <p>D3 (M65) W/4 : NATS antenna amp. (Diesel engine with EGR)</p> <p>D3 (M66) GY/20 : ECM (Diesel engine with EGR)</p> <p>C3 (M67) GY/16 : ECM (Diesel engine with EGR)</p> <p>E3 (M68) W/8 : NATS IMMU (KA24E)</p> <p>B2 (M70) W/24 : TCM (Transmission control module) (A/T models)</p> | <p>B2 (M71) GY/24 : TCM (Transmission control module) (A/T models)</p> <p>C2 (M72) -/6 : Joint connector-2 (A/T models)</p> <p>F1 (M74) W/2 : Intake air temperature sensor (With auto A/C)</p> <p>F1 (M75) B/2 : Sunload sensor (With auto A/C)</p> <p>B4•G4 (M76) W/6 : Door lock relay (King and Double cab for Europe and ★1)</p> <p>D3 (M77) BR/2 : Key switch (★1 for Turkey except with TD25 engine)</p> <p>C3 (M78) L/2 : Shift lock brake switch (A/T models)</p> <p>E4 (M79) Y/12 : Air bag diagnosis sensor unit (With pre-tensioner seat belt)</p> <p>E4 (M80) Y/20 : Air bag diagnosis sensor unit (With pre-tensioner seat belt)</p> <p>F4 (M81) Y/12 : Air bag diagnosis sensor unit (With pre-tensioner seat belt)</p> <p>F4 (M82) W/2 : Jumping connector (With pre-tensioner seat belt)</p> <p>B4 (M83) L/10 : Diode (KA24DE)</p> <p>A3 (M84) BR/2 : Resistor (A/T models)</p> <p>E3 (M86) BR/10 : Mode door motor (With auto A/C)</p> <p>E3 (M87) W/2 : In-vehicle sensor (With auto A/C)</p> <p>F3 (M88) GY/20 : A/C auto amp. (With auto A/C)</p> <p>G3 (M89) GY/4 : A/C auto amp. (With auto A/C)</p> <p>G3 (M90) L/2 : Aspirator motor (With auto A/C)</p> <p>G2 (M91) B/6 : Air mix door motor (With auto A/C)</p> <p>F1 (M92) W/4 : Fan control amp. (With auto A/C)</p> <p>F1 (M93) W/4 : Intake door motor (With auto A/C)</p> <p>E1 (M98) W/12 : Audio unit (Via sub-harness) (Except for Europe)</p> | <p>Diode (M8) FILTER warning lamp — Fuel filter switch Warning buzzer</p> <p>Diode (M56, M57) Lock and unlock switch — Door lock relay Multi-remote control unit — Door lock relay</p> | <p>★1 : With multi-remote control system</p> <p>★2 : For Europe...Smart entrance control unit Except for Europe...Door lock timer</p> |
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