

PG

SECTION

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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PRECAUTIONS

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PRECAUTIONS

Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system may include seat belt switch inputs and dual stage front air bag modules. If equipped with dual stage front air bag modules, the SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

The vehicle may be equipped with a passenger air bag deactivation switch. Because no rear seat exists where a rear-facing child restraint can be placed, the switch is designed to turn off the passenger air bag so that a rear-facing child restraint can be used in the front passenger seat. The switch is located in the center of the instrument panel, near the ashtray. When the switch is turned to the ON position, the passenger air bag is enabled and could inflate for certain types of collision. When the switch is turned to the OFF position, the passenger air bag is disabled and will not inflate. A passenger air bag OFF indicator on the instrument panel lights up when the passenger air bag is switched OFF. The driver air bag always remains enabled and is not affected by the passenger air bag deactivation switch.

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/INFINITI 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 SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.
- The vehicle may be equipped with a passenger air bag deactivation switch which can be operated by the customer. When the passenger air bag is switched OFF, the passenger air bag is disabled and will not inflate. When the passenger air bag is switched ON, the passenger air bag is enabled and could inflate for certain types of collision. After SRS maintenance or repair, make sure the passenger air bag deactivation switch is in the same position (ON or OFF) as when the vehicle arrived for service.

Wiring Diagrams and Trouble Diagnosis

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When you read wiring diagrams, refer to the following:

- [GI-13, "How to Read Wiring Diagrams".](#)
- [PG-9, "POWER SUPPLY ROUTING"](#) for power distribution circuit.

When you perform trouble diagnosis, refer to the following:

- [GI-9, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES".](#)
- [GI-25, "How to Perform Efficient Diagnosis for an Electrical Incident".](#)

Check for any Service bulletins before servicing the vehicle.

HARNESS CONNECTOR

HARNESS CONNECTOR

PFP:24010

Description

HARNESS CONNECTOR (TAB-LOCKING TYPE)

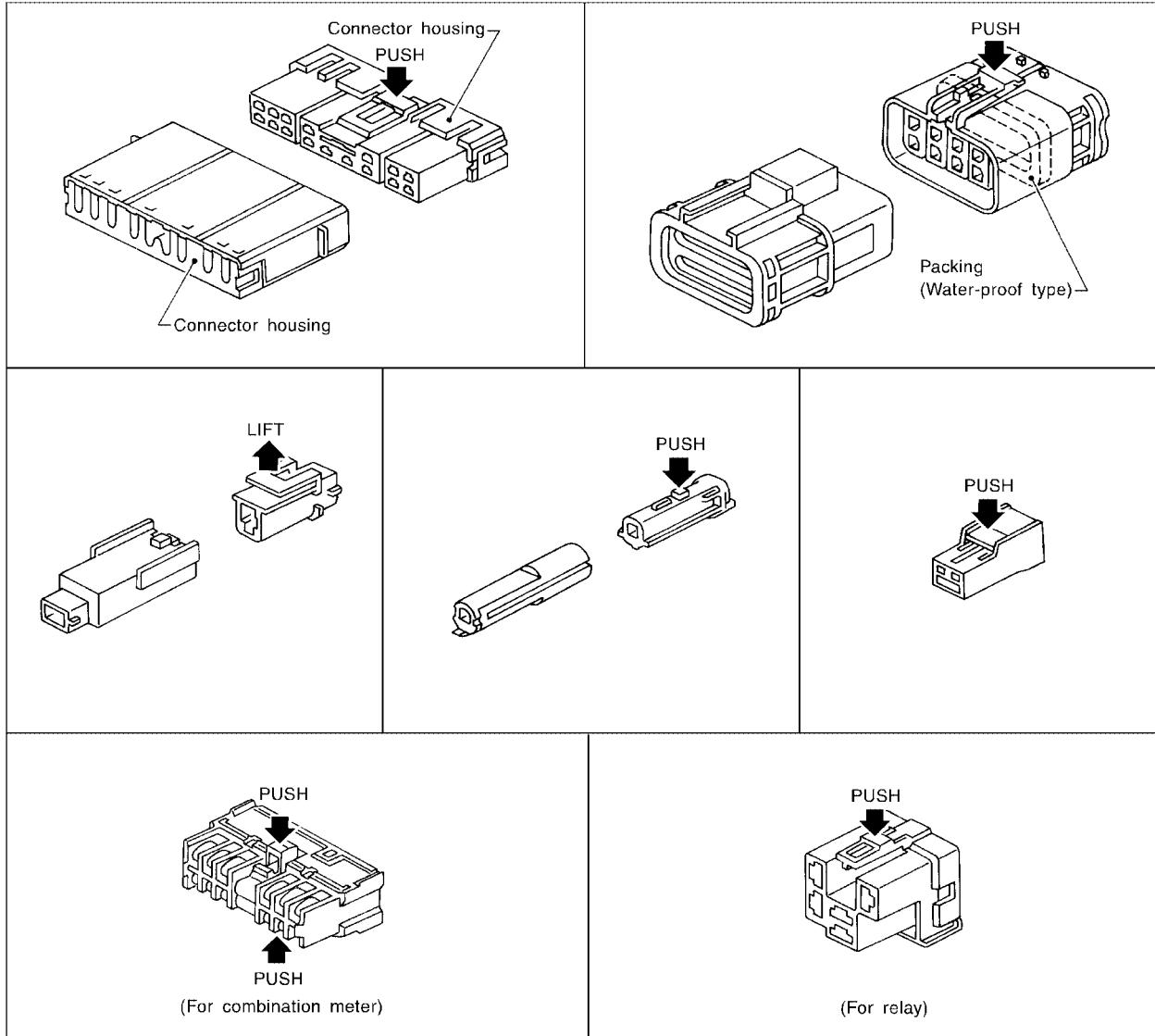
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

Refer to the next page for description of the slide-locking type connector.

CAUTION:

Do not pull the harness or wires when disconnecting the connector.

[Example]



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HARNESS CONNECTOR

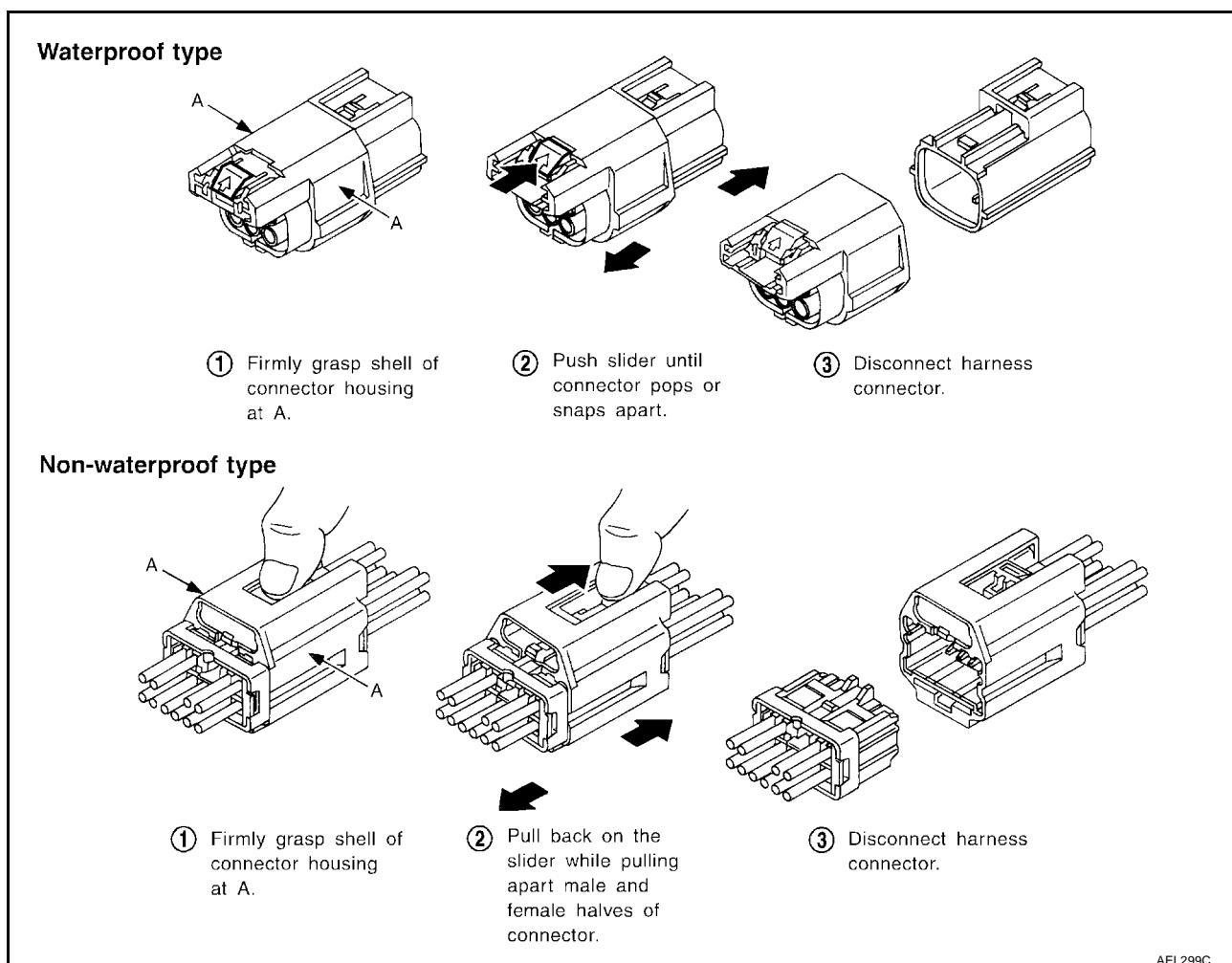
HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.
- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the illustration below.

CAUTION:

- **Do not pull the harness or wires when disconnecting the connector.**
- **Be careful not to damage the connector support bracket when disconnecting the connector.**

[Example]



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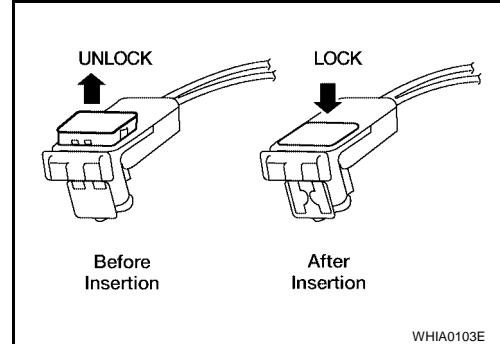
HARNESS CONNECTOR

HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

- SRS direct-connect type harness connectors are used on certain SRS components such as air bag modules and seat belt pre-tensioners.
- Always pull up to release black locking tab prior to removing connector from SRS component.
- Always push down to lock black locking tab after installing connector to SRS component. When locked, the black locking tab is level with the connector housing.

CAUTION:

- **Do not pull the harness or wires when removing connectors from SRS components.**



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STANDARDIZED RELAY

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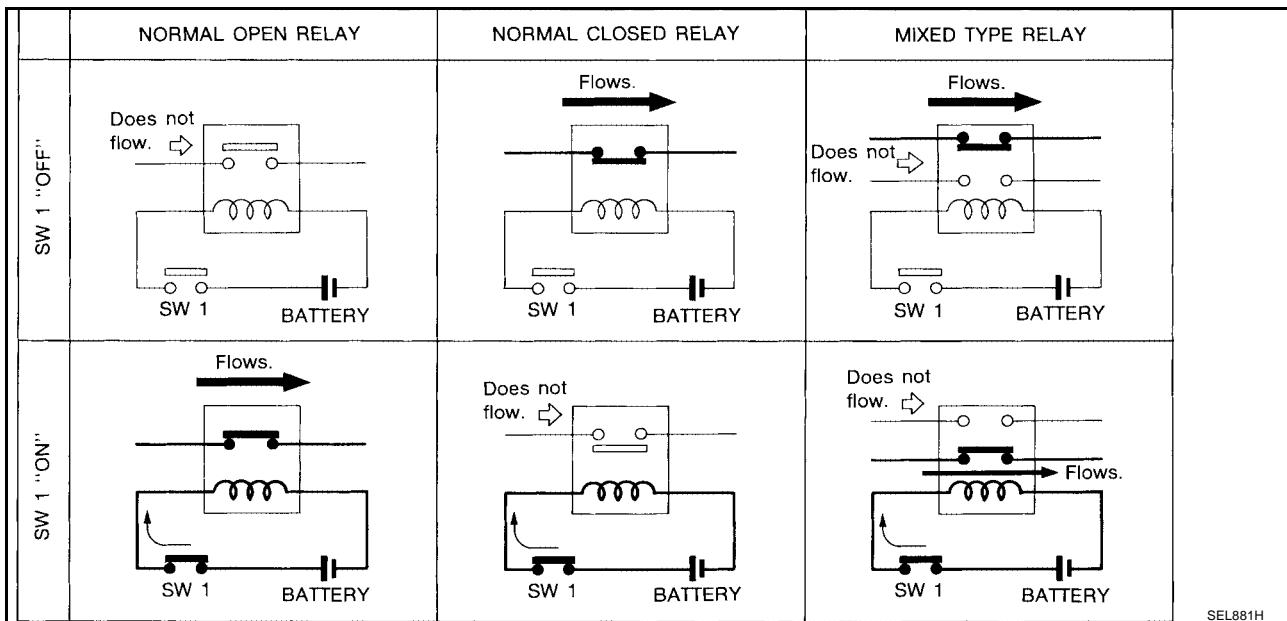
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STANDARDIZED RELAY

Description

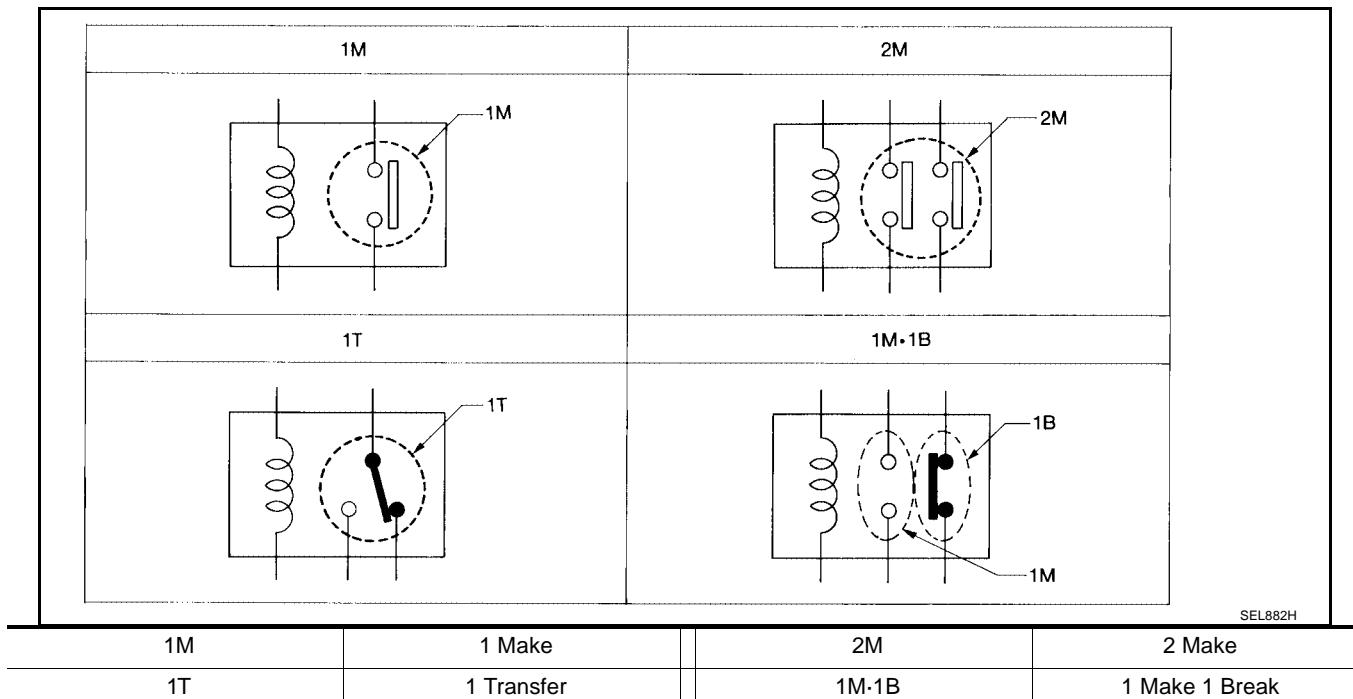
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

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



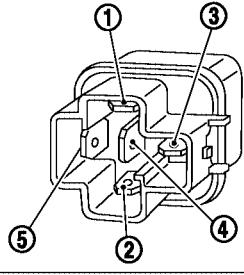
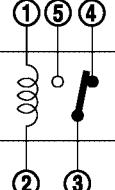
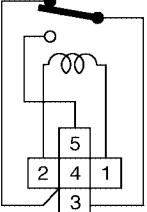
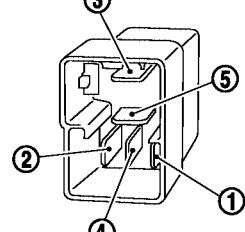
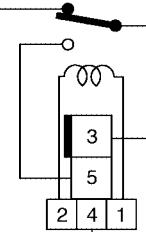
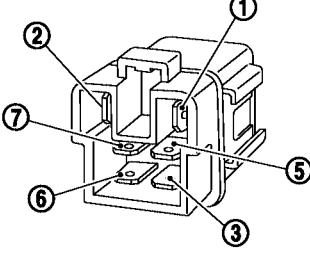
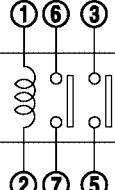
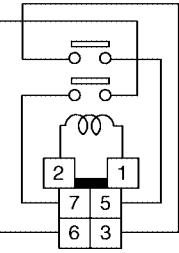
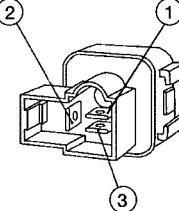
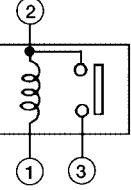
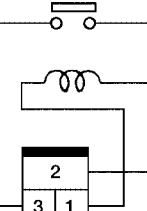
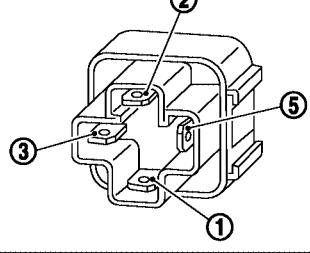
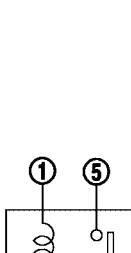
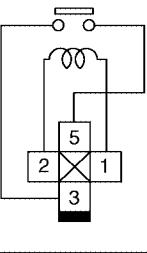
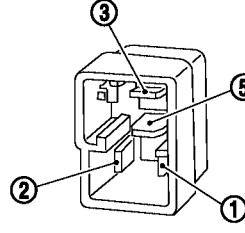
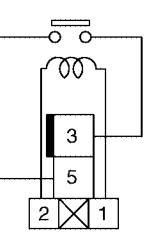
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TYPE OF STANDARDIZED RELAYS



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STANDARDIZED RELAY

| Type | Outer view | Circuit | Connector symbol and connector | Case color |
|------|---|---|---|------------|
| 1T |  |  |  | BLACK |
| |  | |  | |
| 2M |  |  |  | BROWN |
| 1M |  |  |  | BLACK |
| |  |  |  | |
| |  | |  | BLUE |
| | | | | |

The arrangement of terminal numbers on the actual relays may differ from those shown above.

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POWER SUPPLY ROUTING

POWER SUPPLY ROUTING

Circuit Diagram

NOTE:

For detailed ground distribution information, refer to [PG-17, "Ground Distribution"](#).

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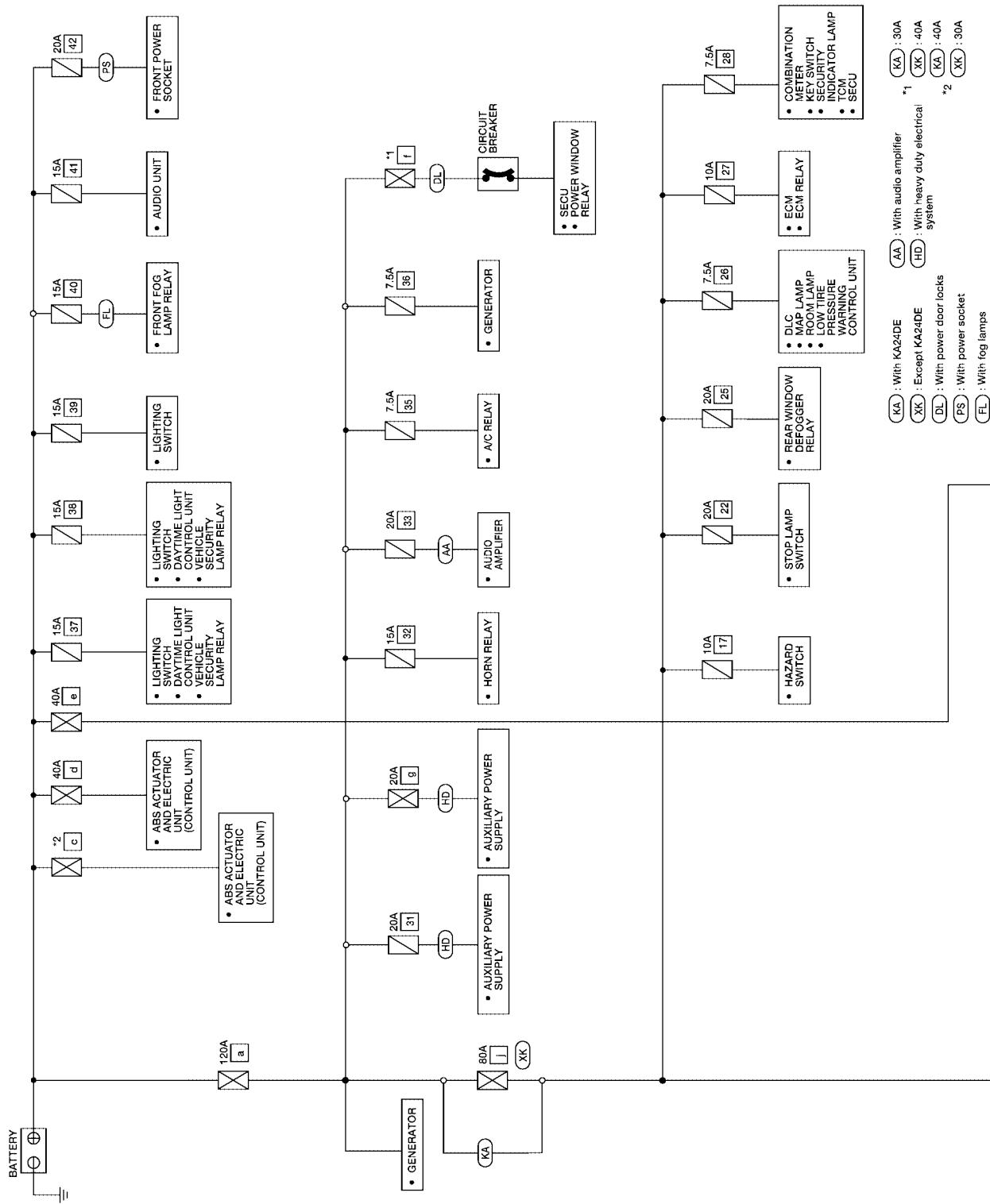
M

T

G

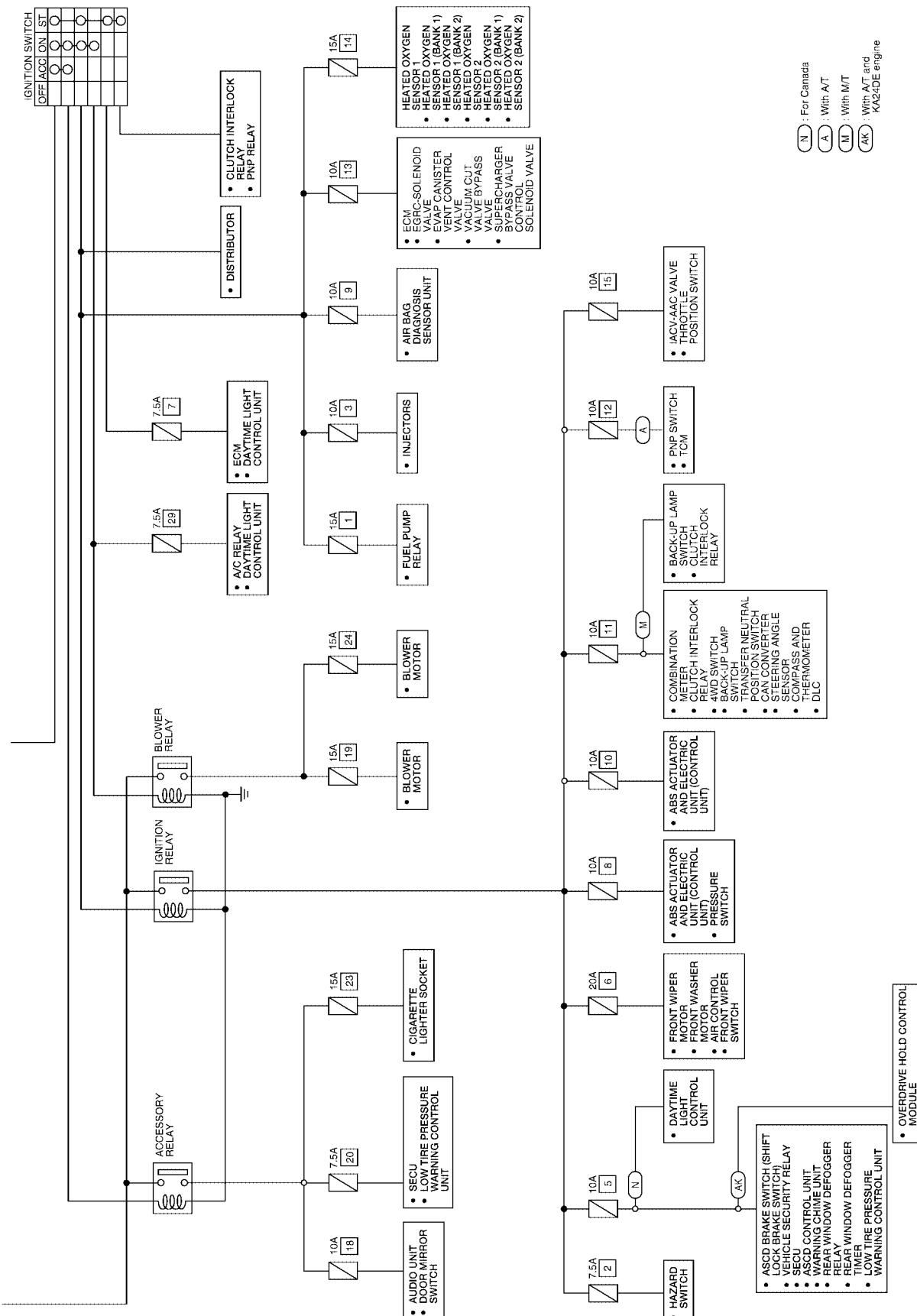
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WKWA0835E

POWER SUPPLY ROUTING



WKWA0653E

(N) For Canada
(A) With A/T
(M) With M/T
(AK) With A/T and KA24DE engine

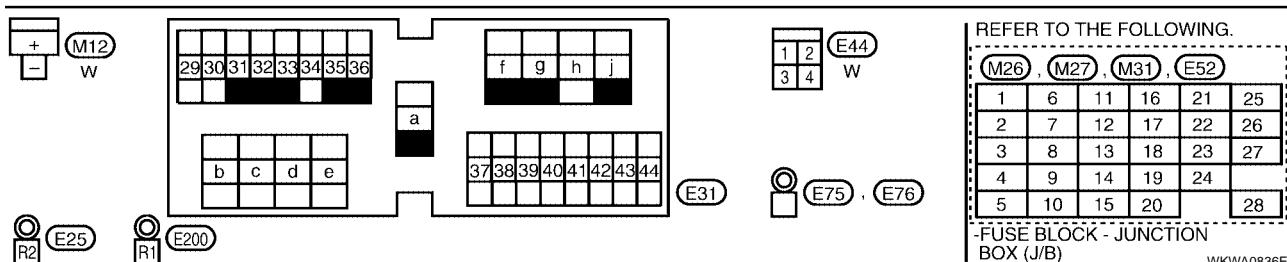
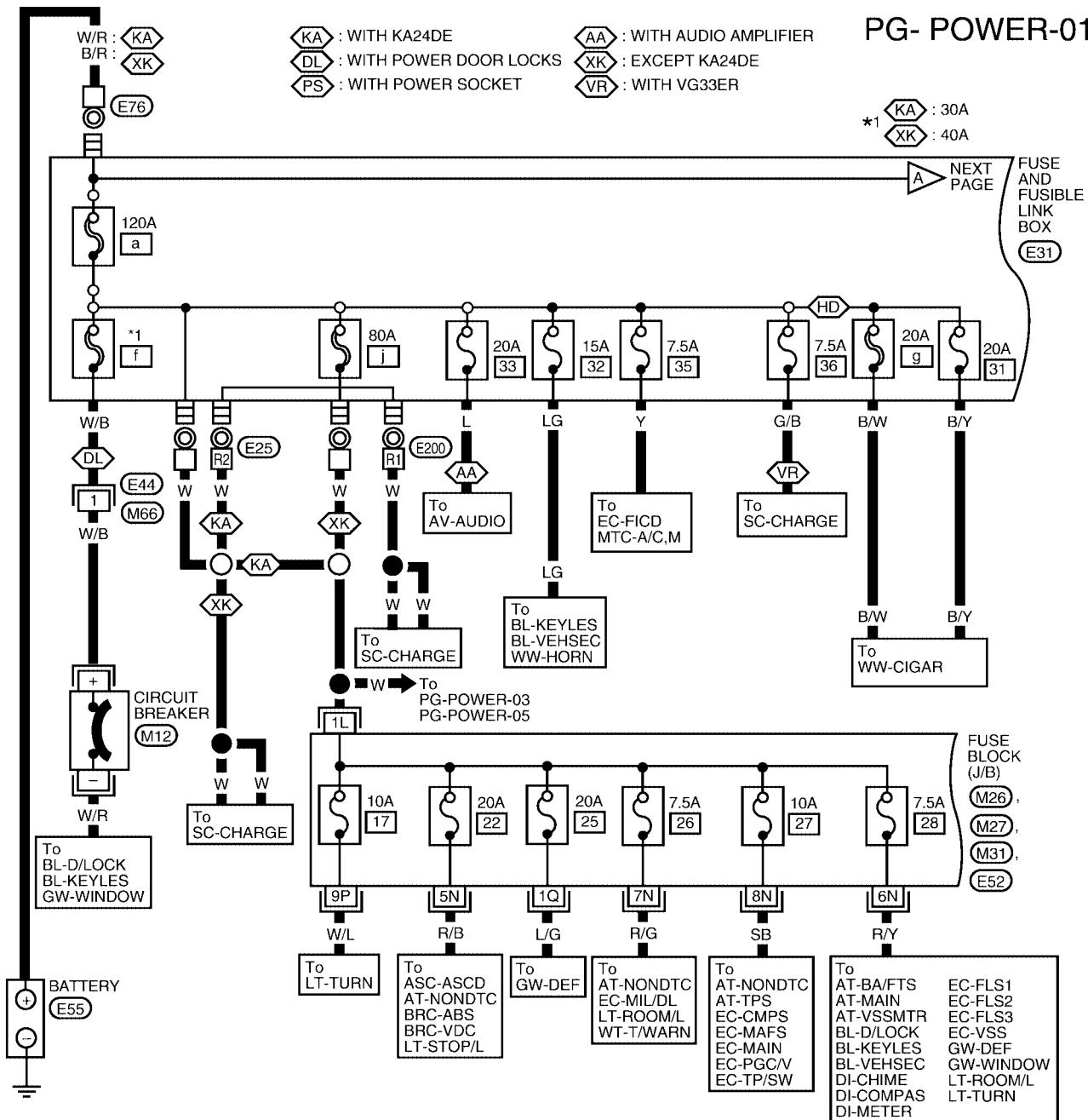
POWER SUPPLY ROUTING

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Wiring Diagram — POWER — BATTERY POWER SUPPLY — IGNITION SW. IN ANY POSITION

NOTE:

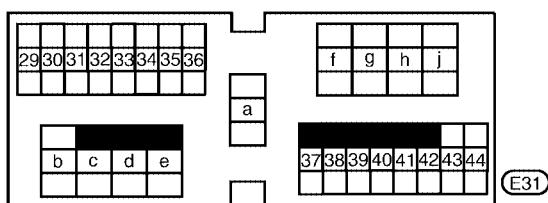
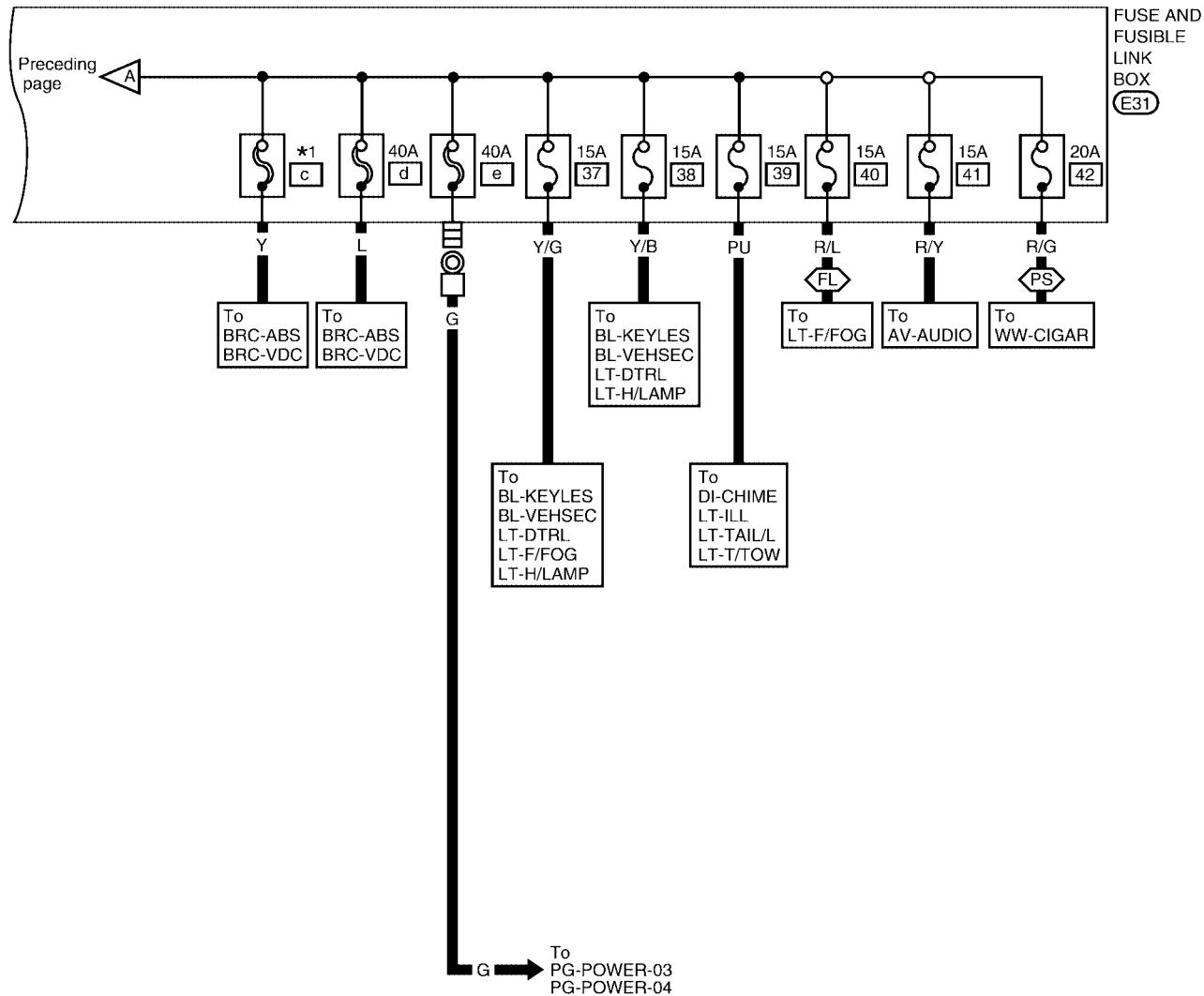
For detailed ground distribution information, refer to [PG-17, "Ground Distribution"](#).



POWER SUPPLY ROUTING

PG-POWER-02

- (PS) : With power socket
 - (FL) : With fog lamps
 - (KA) : With KA24DE engine
 - (XK) : Except with KA24DE engine
- *1 (KA) : 40A
(XK) : 30A



WKWA0386E

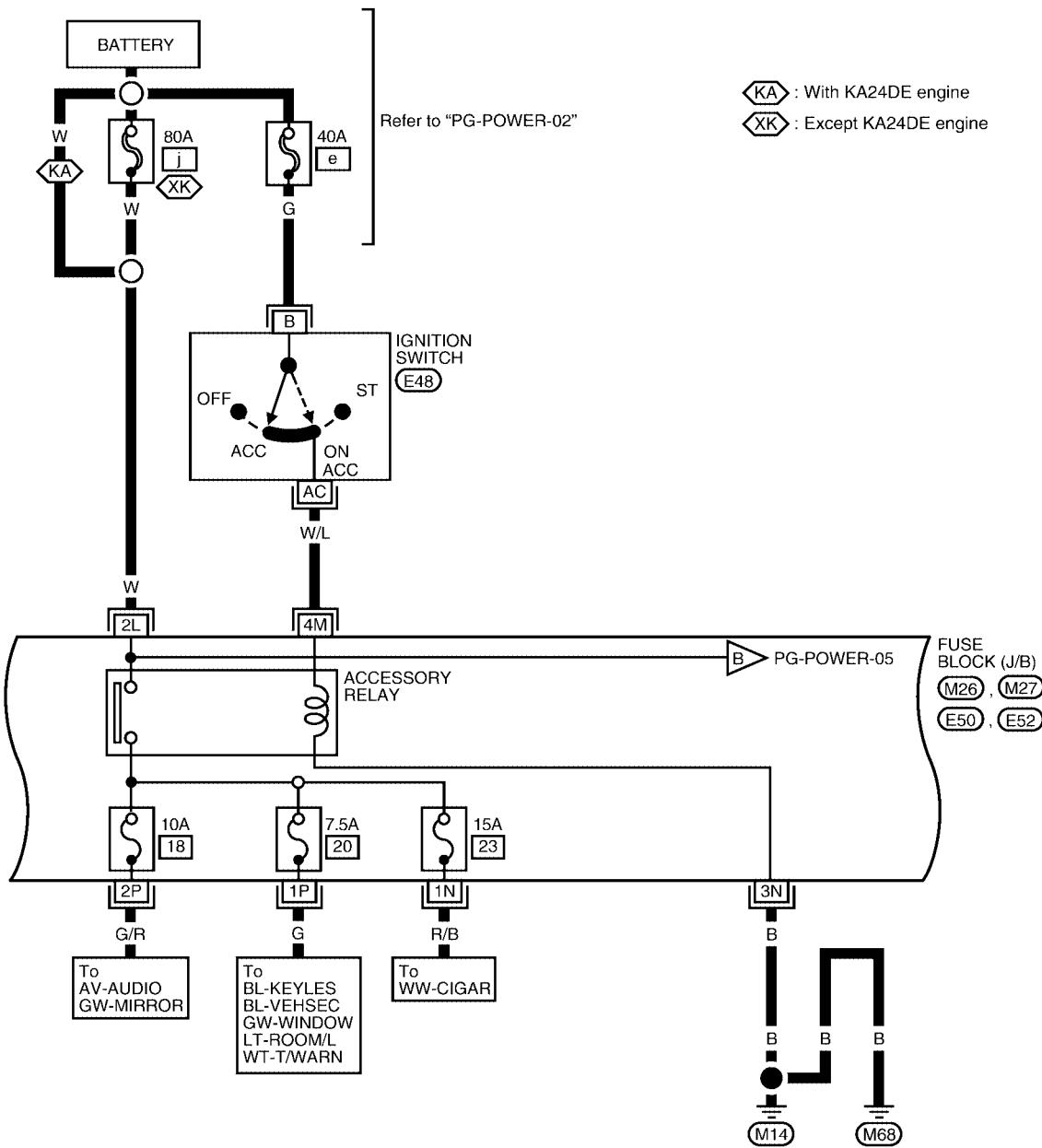
POWER SUPPLY ROUTING

ACCESSORY POWER SUPPLY — IGNITION SW. IN ACC OR ON

NOTE:

For detailed ground distribution information, refer to [PG-17, "Ground Distribution"](#).

PG-POWER-03



B i1 ST E48
R AC i2 W

Refer to the following.

M26, M27, E50, E52

| | | | | | |
|---|----|----|----|----|----|
| 1 | 6 | 11 | 16 | 21 | 25 |
| 2 | 7 | 12 | 17 | 22 | 26 |
| 3 | 8 | 13 | 18 | 23 | 27 |
| 4 | 9 | 14 | 19 | 24 | |
| 5 | 10 | 15 | 20 | | 28 |

-FUSE BLOCK - JUNCTION BOX (J/B)

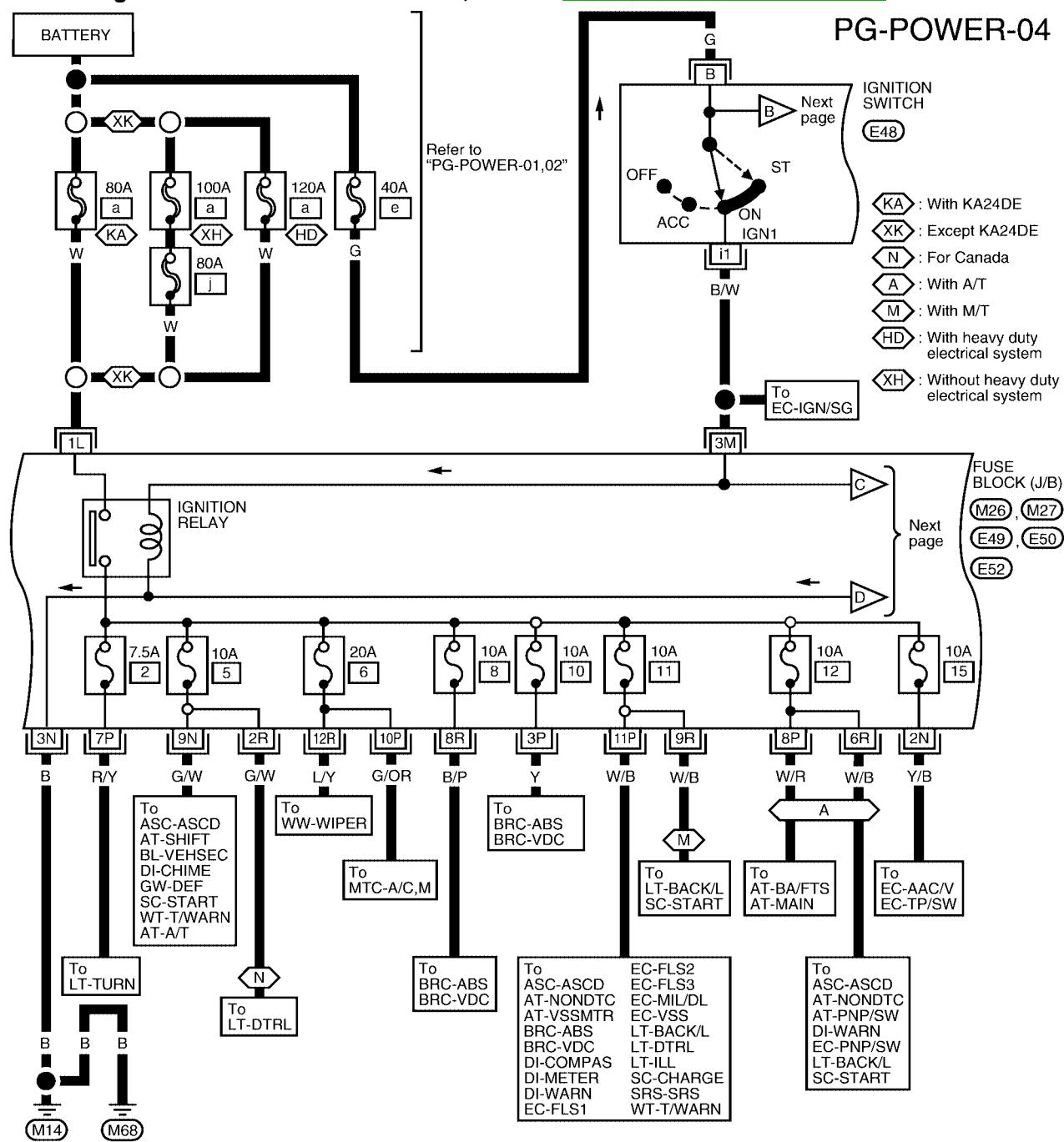
WKWA0654E

POWER SUPPLY ROUTING

IGNITION POWER SUPPLY — IGNITION SW. IN ON AND/OR START

NOTE:

For detailed ground distribution information, refer to PG-17, "Ground Distribution".



B i1 ST
 R AC i2
 W

Refer to the following.

(M26), (M27), (E49), (E50),
(E52)

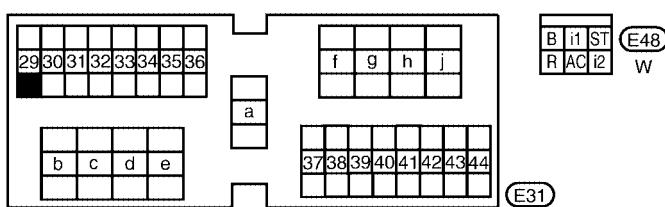
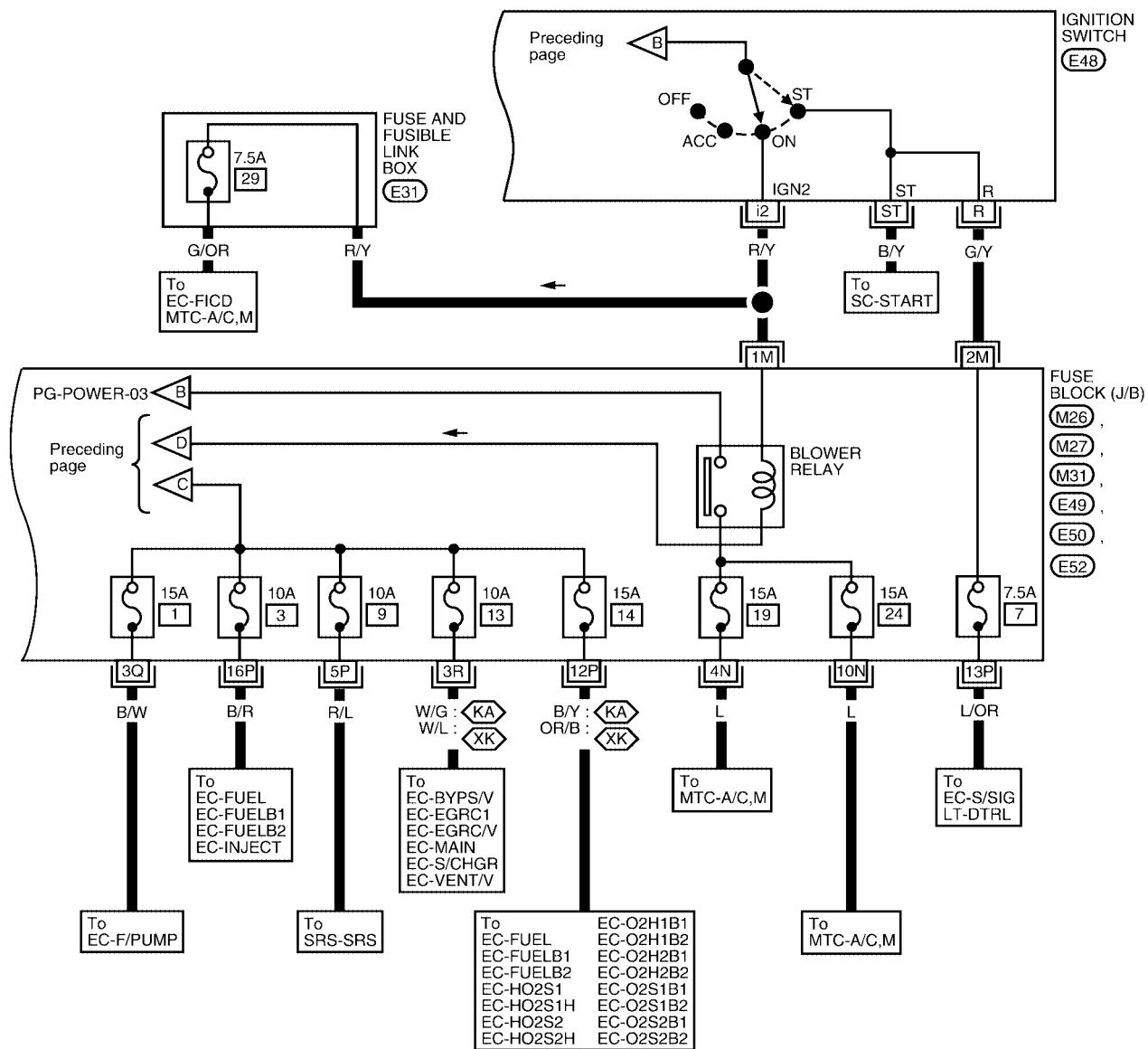
| | | | | | |
|---|----|----|----|----|----|
| 1 | 6 | 11 | 16 | 21 | 25 |
| 2 | 7 | 12 | 17 | 22 | 26 |
| 3 | 8 | 13 | 18 | 23 | 27 |
| 4 | 9 | 14 | 19 | 24 | |
| 5 | 10 | 15 | 20 | | 28 |

-FUSE BLOCK - JUNCTION BOX (J/B)

POWER SUPPLY ROUTING

PG-POWER-05

(KA) : With KA24DE engine
 (XK) : Except KA24DE engine



Refer to the following.

| | | | | | |
|-----|-----|-----|-----|----|----|
| M26 | M27 | M31 | E49 | | |
| E50 | E52 | | | | |
| 1 | 6 | 11 | 16 | 21 | 25 |
| 2 | 7 | 12 | 17 | 22 | 26 |
| 3 | 8 | 13 | 18 | 23 | 27 |
| 4 | 9 | 14 | 19 | 24 | |
| 5 | 10 | 15 | 20 | | 28 |

-FUSE BLOCK - JUNCTION BOX (J/B)

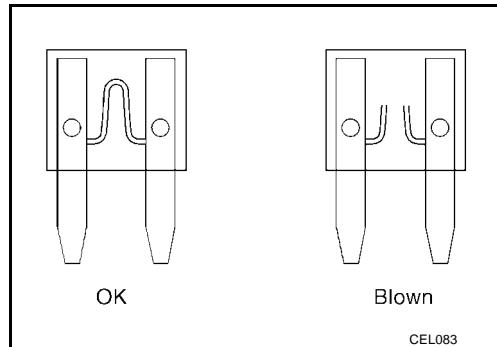
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POWER SUPPLY ROUTING

Inspection

FUSE

- If fuse is blown, be sure to eliminate cause of problem before installing new fuse.
- Use fuse of specified rating. Never use fuse of more than specified rating.
- Do not partially install fuse; always insert it into fuse holder properly.
- Remove fuse for "ELECTRICAL PARTS (BAT)" if vehicle is not used for a long period of time.

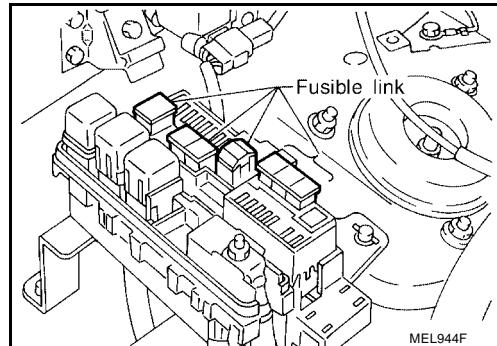


FUSIBLE LINK

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

CAUTION:

- 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.
- Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any other wiring harness, vinyl or rubber parts.

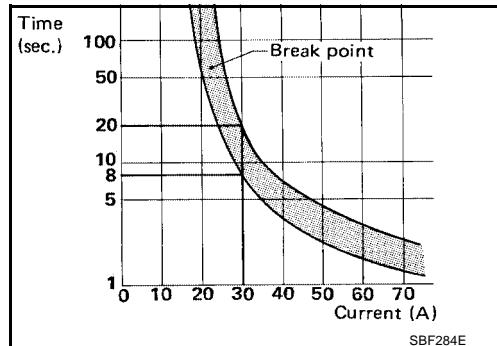


CIRCUIT BREAKER

For example, when current is 30A, the circuit is broken within 8 to 20 seconds.

Circuit breakers are used in the following systems.

- power window
- power door lock
- remote keyless entry
- room lamp



GROUND

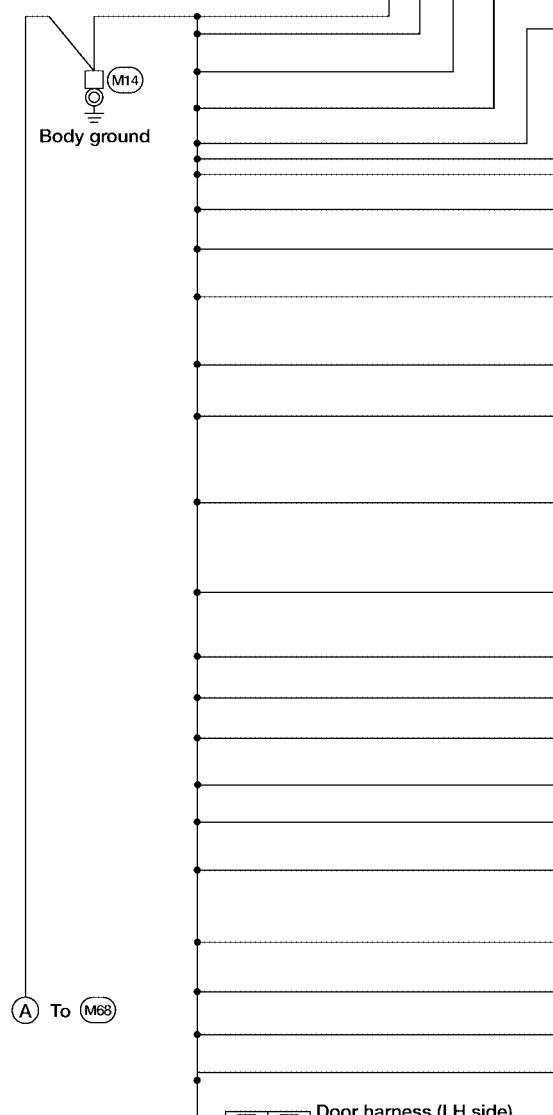
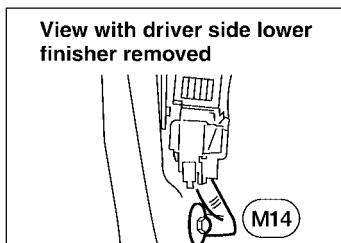
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EKS003NR

GROUND

Ground Distribution MAIN HARNESS

Body ground



| CONNECTOR NUMBER | CONNECT TO |
|------------------|--|
| (M5) | Clutch interlock switch (Terminal No. 2) (with M/T) |
| (M6) | Vehicle security relay (Terminal No. 3) (with power door locks) (with A/T except KA24DE) |
| (M11) | Warning chime unit (Terminal No. 8) (without power door locks) |
| (M13) | Power window relay (Terminal No. 1) (with power windows) |
| (M19) | Seat belt buckle switch LH (Terminal No. 2) |
| (M20) | Front door switch LH |
| (M27) | Fuse block (J/B) (Terminal No. 3N) <ul style="list-style-type: none"> Accessory relay Blower relay Ignition relay |
| (M28) | Illumination control switch (Terminal No. 5) |
| (M32) | Data link connector (Terminal No. 4) |
| (M35) | A/T device (shift lock) (Terminal No. 1) (with VG engine and A/T) |
| (M35) | A/T device (overdrive control switch) (Terminal No. 5) (with A/T) |
| (M36) | Overdrive control switch (with KA engine and A/T) |
| (M38) | Combination meter (Terminal No. 13) <ul style="list-style-type: none"> Four wheel drive indicator Turn signal indicators ABS warning lamp |
| (M76) | ATP relay (Terminal Nos. 2 and 4) (with 4-wheel drive and A/T) |
| (M12) | Smart entrance control unit (Terminal No. 64) (with power door locks) |
| (M14) | Air bag diagnosis sensor unit (Terminal No. 2) |
| (M19) | ASCD control unit (Terminal No. 17) (with ASCD) |
| (M22) | Rear window defogger timer (if equipped) |
| (M24) | Passenger air bag deactivation switch (King Cab models) |
| (M26) | Passenger air bag deactivation switch indicator (King Cab models) |
| (M30) | Overdrive hold control module (Terminal No. 4) (with KA engine and A/T) |
| (M45) | Steering angle sensor (Terminal No. 1) |
| (M49) | VDC off switch (Terminal No. 1) |
| (M150) | Seat belt buckle switch RH (Terminal No. 3) |
| (D7) | Main power window and door lock/unlock switch (with power door locks) (Terminal No. 10) |
| (D9) | Front door key cylinder switch LH (with power door locks) (Terminal No. 2) |
| (D10) | Door mirror switch (Terminal No. 3) |

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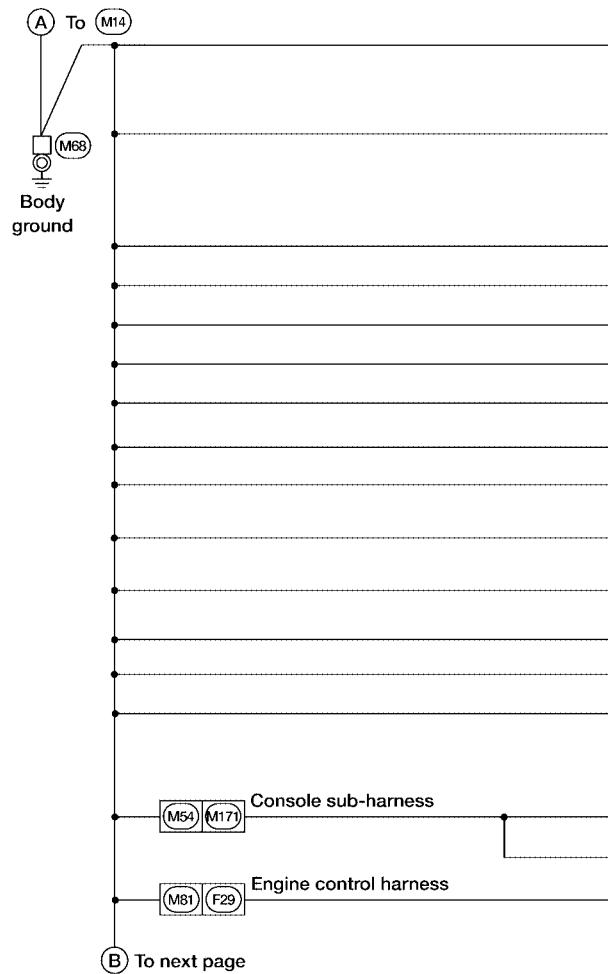
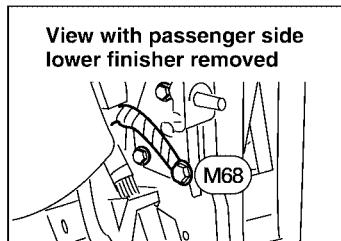
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L

M

GROUND

Body ground



| CONNECTOR NUMBER | CONNECT TO |
|------------------|---|
| (M38) | Combination meter (high beam indicator) (Terminal No.10) |
| (M39) | Combination meter (Terminal No. 33) Air bag warning lamp Fuel gauge Speedometer Water temperature gauge • Tachometer |
| (M45) | Combination flasher unit |
| (M52) | Cigarette lighter socket |
| (M57) | Fan switch (Terminal No. 6) |
| (M60) | Intake sensor |
| (M95) | Air control (Terminal No. 8) (with A/C) |
| (M111) | Smart entrance control unit (Terminal No. 43) |
| (M128) | ASCD relay (Terminal No. 2) |
| (M129) | Overdrive cancel relay (Terminal No. 2) (with KA engine and A/T) |
| (M130) | Overdrive cancel relay (Terminal No. 5) (with KA engine and A/T) |
| (M132) | Audio amplifier |
| (M132) | Audio amplifier (Terminal No. 11) |
| (M136) | Cargo lamp switch (Terminal No. 5) |
| (M143) | Low tire pressure warning control unit (Terminal No. 11) |
| (M147) | CAN-LAN converter (Terminal No. 10) |
| (M172) | Front power socket - 1 |
| (M173) | Front power socket - 2 |
| (P29) | ECM (Terminal No. 66) |

WKIA0345E

GROUND

A
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PG
L
M

Body ground



(B) To previous page

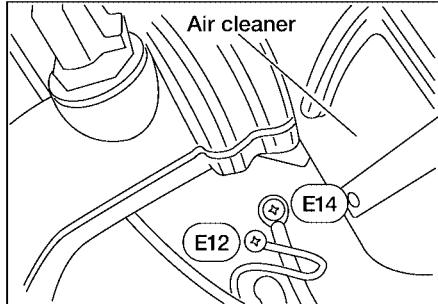
| CONNECTOR NUMBER | CONNECT TO |
|------------------|---|
| (C13) | Fuel level sensor unit (Terminal No. E) • Fuel level sensor unit • Tank fuel temperature sensor |
| (C14) | Fuel pump |
| (T1) | Rear stop/tail lamp LH (Terminal No. 2) • Stop lamp • Tail lamp |
| (T2) | Rear turn signal lamp LH |
| (T3) | Back-up lamp LH |
| (T4) | License plate lamp LH |
| (T5) | License plate lamp RH |
| (T7) | Rear stop/tail lamp RH (Terminal No. 2) • Stop lamp • Tail lamp |
| (T8) | Rear turn signal lamp RH |
| (T9) | Back-up lamp RH |
| (R2) | Map lamp |
| (R3) | High-mounted stop lamp |
| (R4) | Room lamp (2 door models) |
| (R9) | Compass and thermometer (Terminal No. 2) |
| (R11) | Cargo lamp |
| (D107) | Door lock /unlock switch RH (with power door locks) |

WKIA0346E

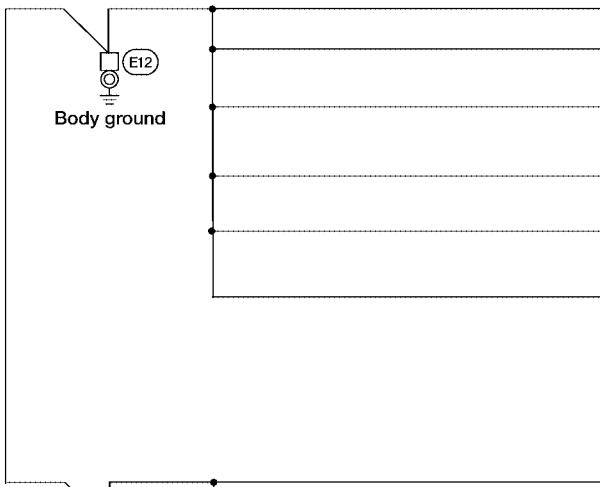
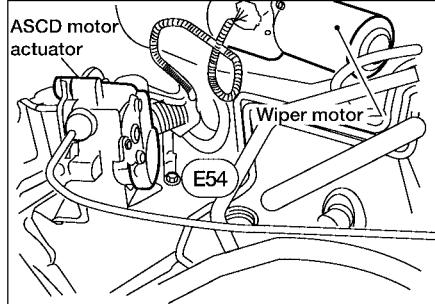
GROUND

ENGINE ROOM HARNESS KA24DE

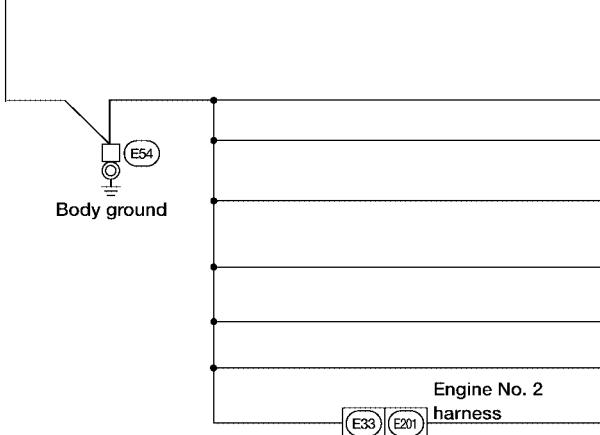
Body ground



Body ground



| CONNECTOR NUMBER | CONNECT TO |
|------------------|---|
| (E5) | Washer fluid level switch (for Canada) |
| (E7) | Headlamp LH |
| (E13) | Front combination lamp LH (Terminal No.2) • Parking lamp • Turn signal lamp |
| (E37) | Brake fluid level switch |
| (E39) | ABS actuator and electric unit (control unit) (Terminal No. 16) |
| (E46) | Front wiper switch (Terminal No. 17) |



| CONNECTOR NUMBER | CONNECT TO |
|------------------|---|
| (E1) | Headlamp RH |
| (E17) | Daytime light control unit (Terminal No. 9) (for Canada) |
| (E19) | Front combination lamp RH (Terminal No.2) • Parking lamp • Turn signal lamp |
| (E27) | Park neutral position (PNP) relay (Terminal No. 1) |
| (E27) | Park neutral position (PNP) relay (Terminal No. 6) |
| (E42) | Front wiper motor (Terminal No. E) |
| (E218) | Park neutral position (PNP) relay (Terminal No. 2) |

WKIA0347E

GROUND

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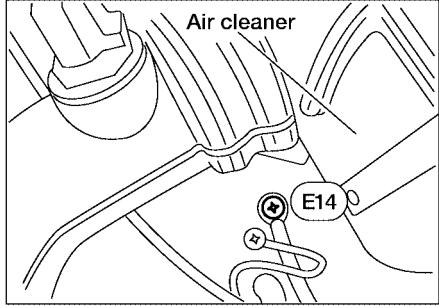
PG

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WKWA0331E

Body ground



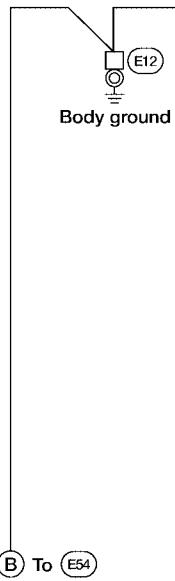
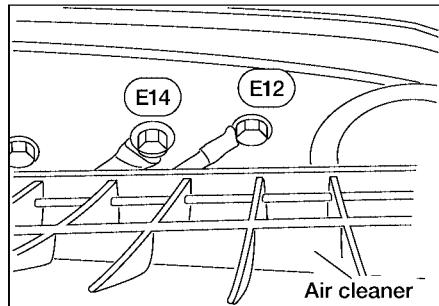
| CONNECTOR NUMBER | CONNECT TO |
|------------------|--|
| (E39) | ABS actuator and electric unit (control unit) (Terminal No. 47) |

Body ground

GROUND

VG33E and VG33ER

Body ground



| CONNECTOR NUMBER | CONNECT TO |
|------------------|---|
| (E5) | Washer fluid level switch |
| (E7) | Headlamp LH |
| (E9) | Hood switch (with vehicle security system) |
| (E13) | Front combination lamp LH (Terminal No.2) • Parking lamp • Turn signal lamp |
| (E37) | Brake fluid level switch |
| (E39) | ABS actuator and electric unit (control unit) (Terminal No. 16) |
| (E46) | Front wiper switch (Terminal No. 17) |
| (E56) | Front fog lamp relay (Terminal No. 1) (with fog lamps) |
| (E58) | Front fog lamp LH (Terminal No. 2) (if equipped) |
| (E68) | Ambient air temperature switch |

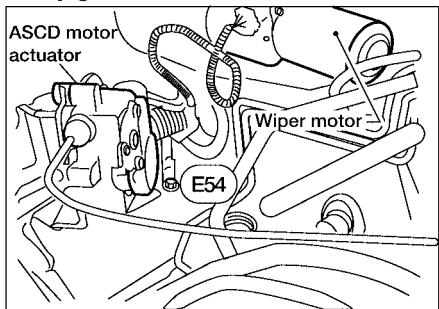
B To (E54)

WKIA0348E

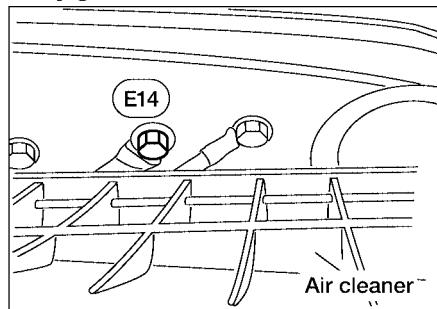
GROUND

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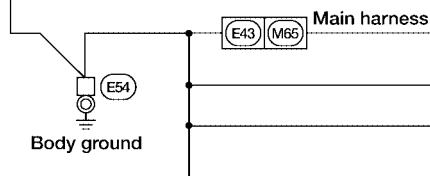
Body ground



Body ground



(B) To E12



Body ground

| CONNECTOR NUMBER | CONNECT TO |
|------------------|--|
| (M6) | Vehicle security relay (Terminal No. 4) (with vehicle security system) |
| (E1) | Headlamp RH |
| (E17) | Daytime light control unit (Terminal No. 9) (for Canada) |
| (E19) | Front combination lamp RH (Terminal No. 2) • Parking lamp • Turn signal lamp |
| (E22) | Vehicle security lamp relay (Terminal No. 2) |
| (E27) | Park/neutral position (PNP) relay (Terminal No. 1) (with A/T) |
| (E27) | Park/neutral position (PNP) relay (Terminal No. 6) (with A/T) |
| (E42) | Front wiper motor (Terminal No. E) |
| (E57) | Front fog lamp RH (Terminal No. 2) (with fog lamps) |

PG

Body ground

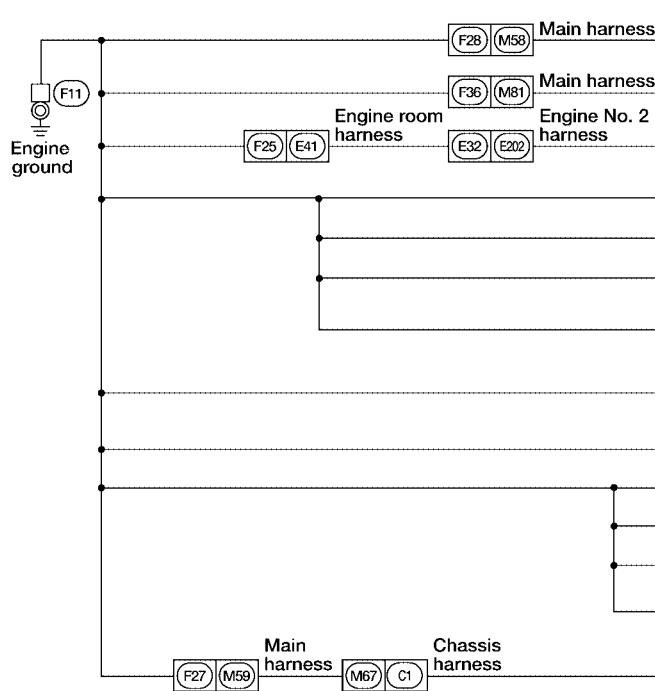
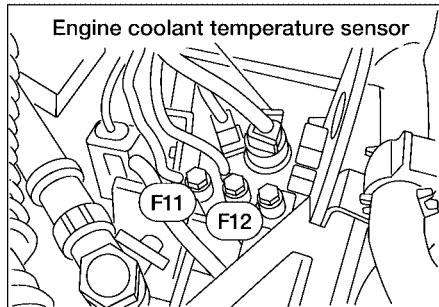
| CONNECTOR NUMBER | CONNECT TO |
|------------------|--|
| (E39) | ABS actuator and electric unit (control unit) (Terminal No. 47) |

WKIA0349E

GROUND

ENGINE CONTROL HARNESS KA24DE

Engine ground



| CONNECTOR NUMBER | CONNECT TO |
|------------------|---|
| (M21) | Heated oxygen sensor 2 (Terminal No. 4) |
| (M32) | Data link connector (Terminal No. 5) |
| (E211) | Crankshaft position sensor (OBD) (shield wire) |
| (F1) | Mass air flow sensor (shield wire) |
| (F2) | Knock sensor (shield wire) |
| (F3) | Throttle position sensor (shield wire) |
| (F13) | Distributor (camshaft position sensor) (shield wire) |
| (F13) | Distributor (camshaft position sensor) (Terminal No. 6) |
| (F14) | Resistor (ignition coil) (shield wire) |
| (F29) | ECM (Terminal No. 10) |
| (F29) | ECM (Terminal No. 19) |
| (F29) | ECM (Terminal No. 25) |
| (F29) | ECM (Terminal No. 32) |
| (C7) | Evap control system pressure sensor (shield wire) |

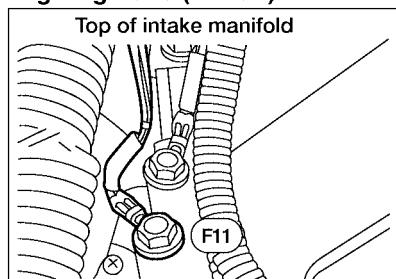
| CONNECTOR NUMBER | CONNECT TO |
|------------------|---|
| (F7) | IACV-FICD solenoid valve |
| (F13) | Distributor (power transistor) (Terminal No. 2) |
| (F29) | ECM (Terminal No. 116) |
| (F29) | ECM (Terminal No. 124) |

WKIA0350E

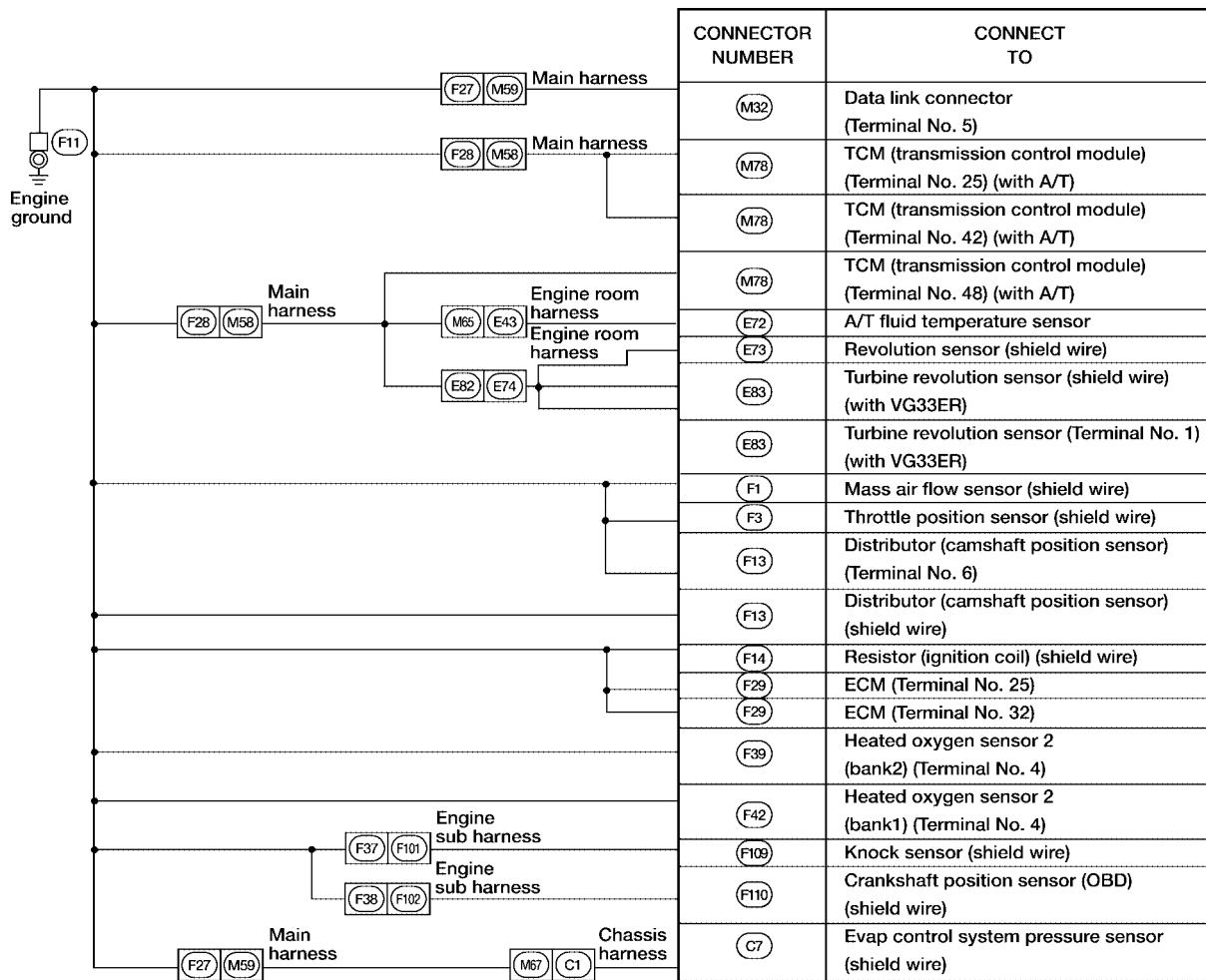
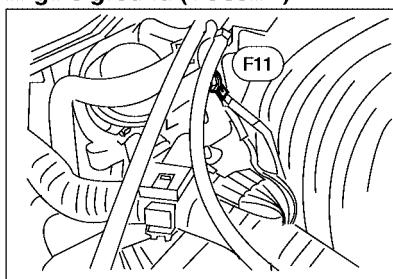
GROUND

VG33E and VG33ER

Engine ground (VG33E)



Engine ground (VG33ER)



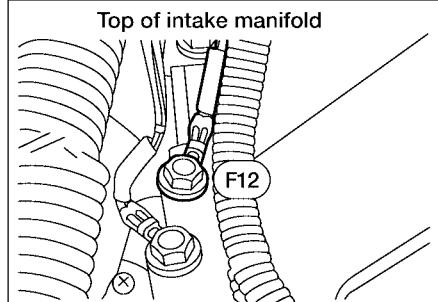
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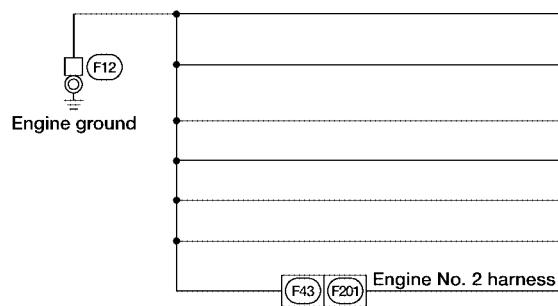
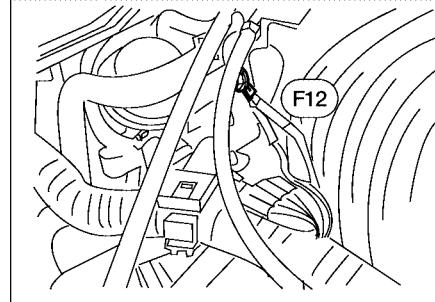
L
M

GROUND

Engine ground (VG33E)



Engine ground (VG33ER)



| CONNECTOR NUMBER | CONNECT TO |
|------------------|--|
| (F8) | Power steering pressure switch |
| (F13) | Distributor (power transistor) (Terminal No. 2) |
| (F29) | ECM (Terminal No. 10) |
| (F29) | ECM (Terminal No. 19) |
| (F29) | ECM (Terminal No. 116) |
| (F29) | ECM (Terminal No. 124) |
| (F218) | Park/neutral position (PNP) switch (with M/T) |

WKIA0352E

GROUND

ENGINE NO. 2 HARNESS KA24DE

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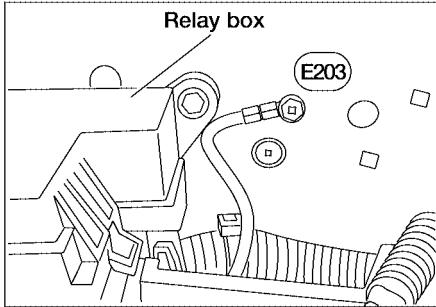
J

K

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Body ground



| CONNECTOR NUMBER | CONNECT TO |
|------------------|------------|
| (E206) | Generator |

Body ground

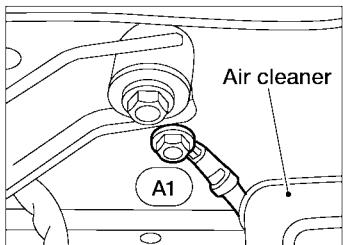
AEL710C

PG

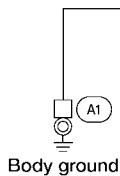
GROUND

GENERATOR HARNESS VG33E and VG33ER

Body ground



| CONNECTOR NUMBER | CONNECT TO |
|------------------|------------|
| (A7) | Generator |



AEL697C

GROUND

ROOM LAMP HARNESS Crew Cab models

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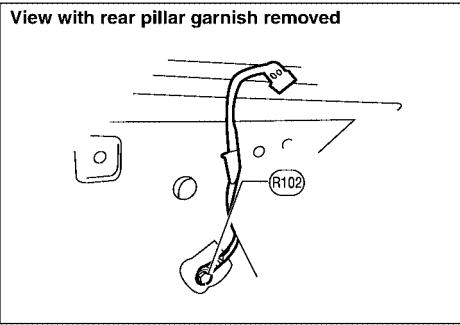
I

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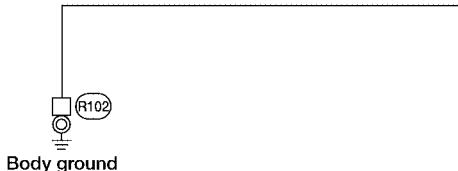
PG

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| CONNECTOR NUMBER | CONNECT TO |
|------------------|--|
| R101 | Rear window defogger (Crew Cab models) |



Body ground

WEL453A

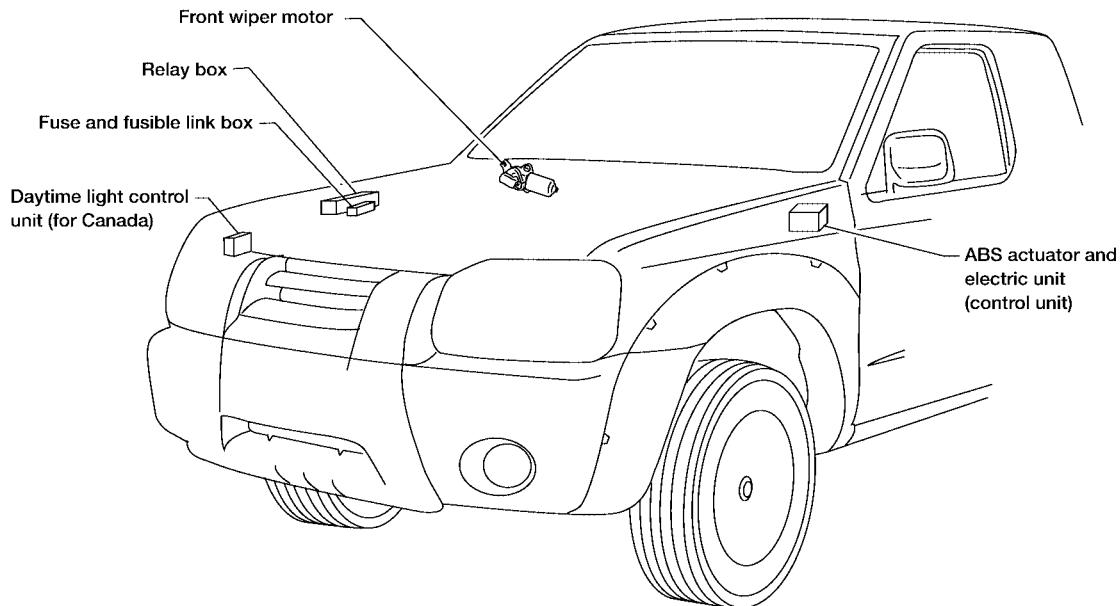
ELECTRICAL UNITS LOCATION

ELECTRICAL UNITS LOCATION

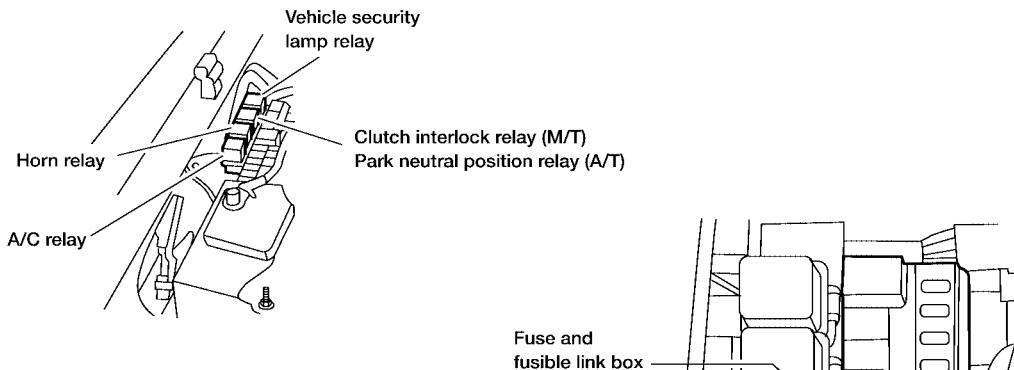
PFP:25230

Engine Compartment

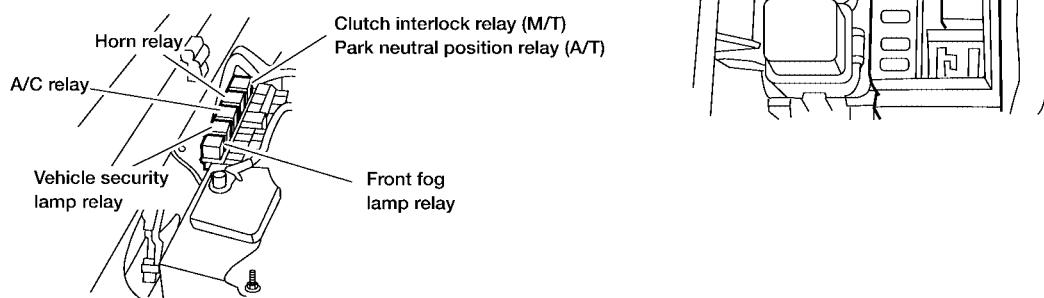
EKS002TA



KA24DE



VG33E and VG33ER

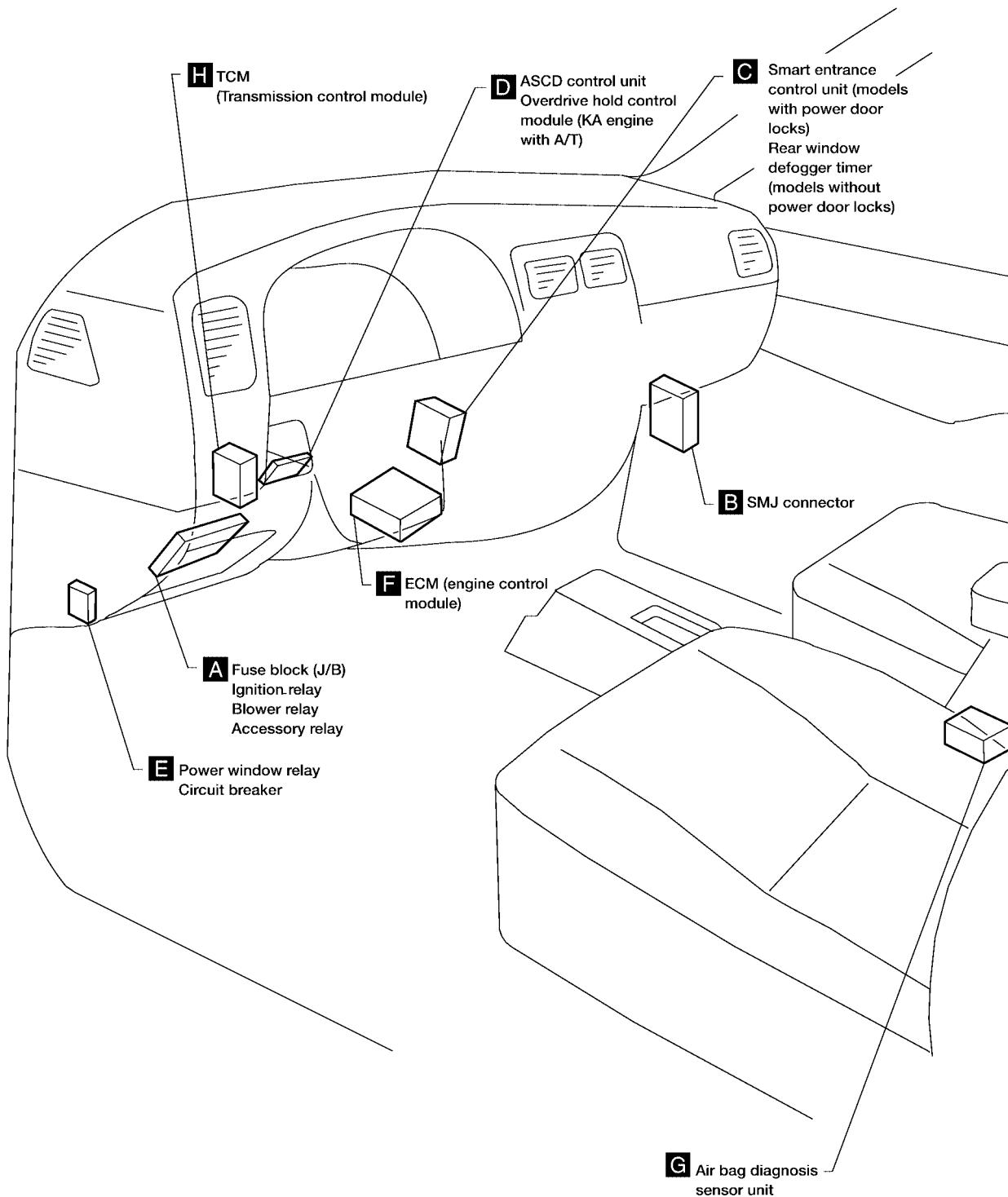


WKIA0327E

ELECTRICAL UNITS LOCATION

Passenger Compartment

EKS002TB



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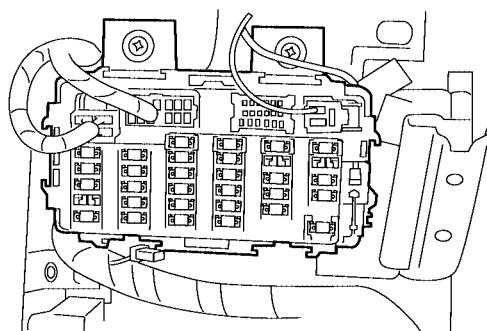
PG

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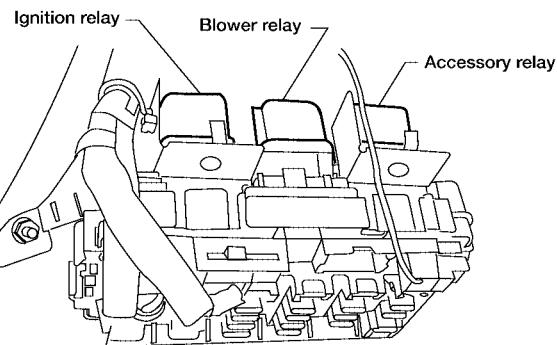
WKIA0325E

ELECTRICAL UNITS LOCATION

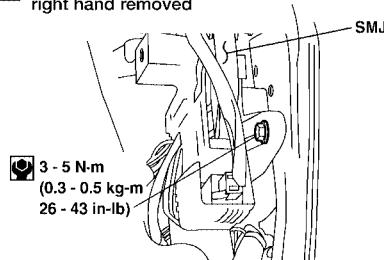
A



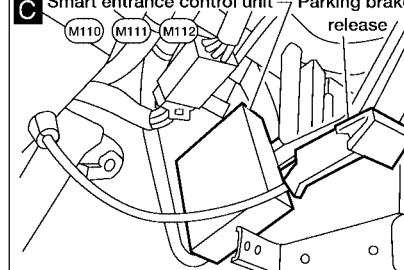
Rear view of fuse block (J/B)



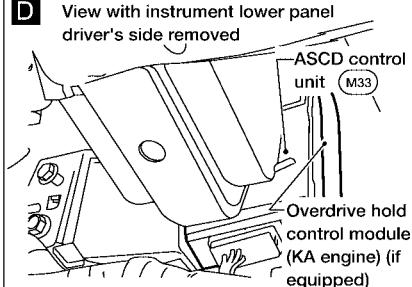
B View with dash side finisher right hand removed



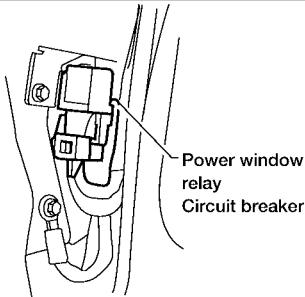
C Smart entrance control unit Parking brake release



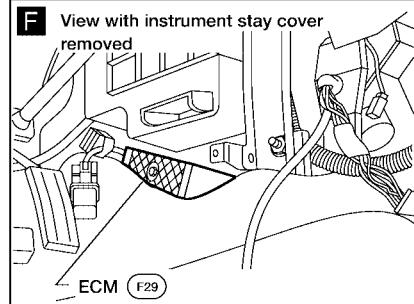
D View with instrument lower panel driver's side removed



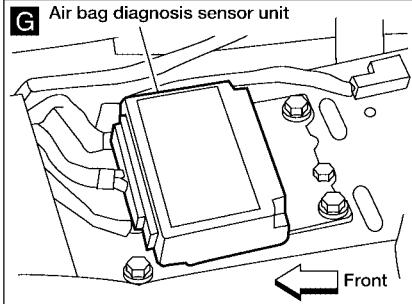
E



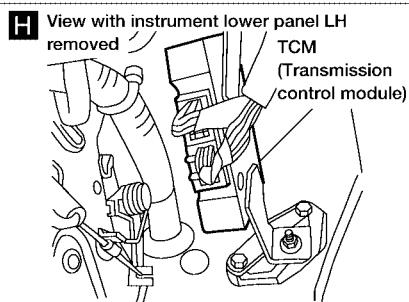
F View with instrument stay cover removed



G Air bag diagnosis sensor unit



H View with instrument lower panel LH removed



HARNESS LAYOUT

PFP:24010

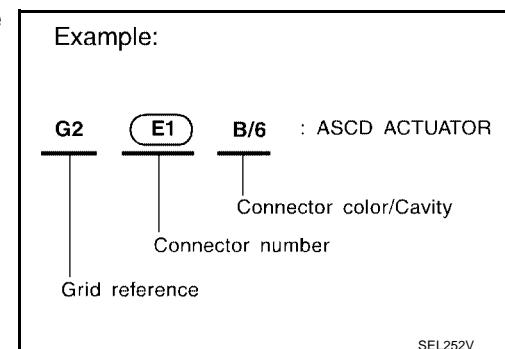
EKS003NY

HARNESS LAYOUT

How to Read Harness Layout

The following Harness Layouts use a map style grid to help locate connectors on the drawings:

- Main Harness
- Engine Room Harness (Engine Compartment)
- Engine Control Harness



TO USE THE GRID REFERENCE

1. Find the desired connector number on the connector list.
2. Find the grid reference.
3. On the drawing, find the crossing of the grid reference letter column and number row.
4. Find the connector number in the crossing zone.
5. Follow the line (if used) to the connector.

CONNECTOR SYMBOL

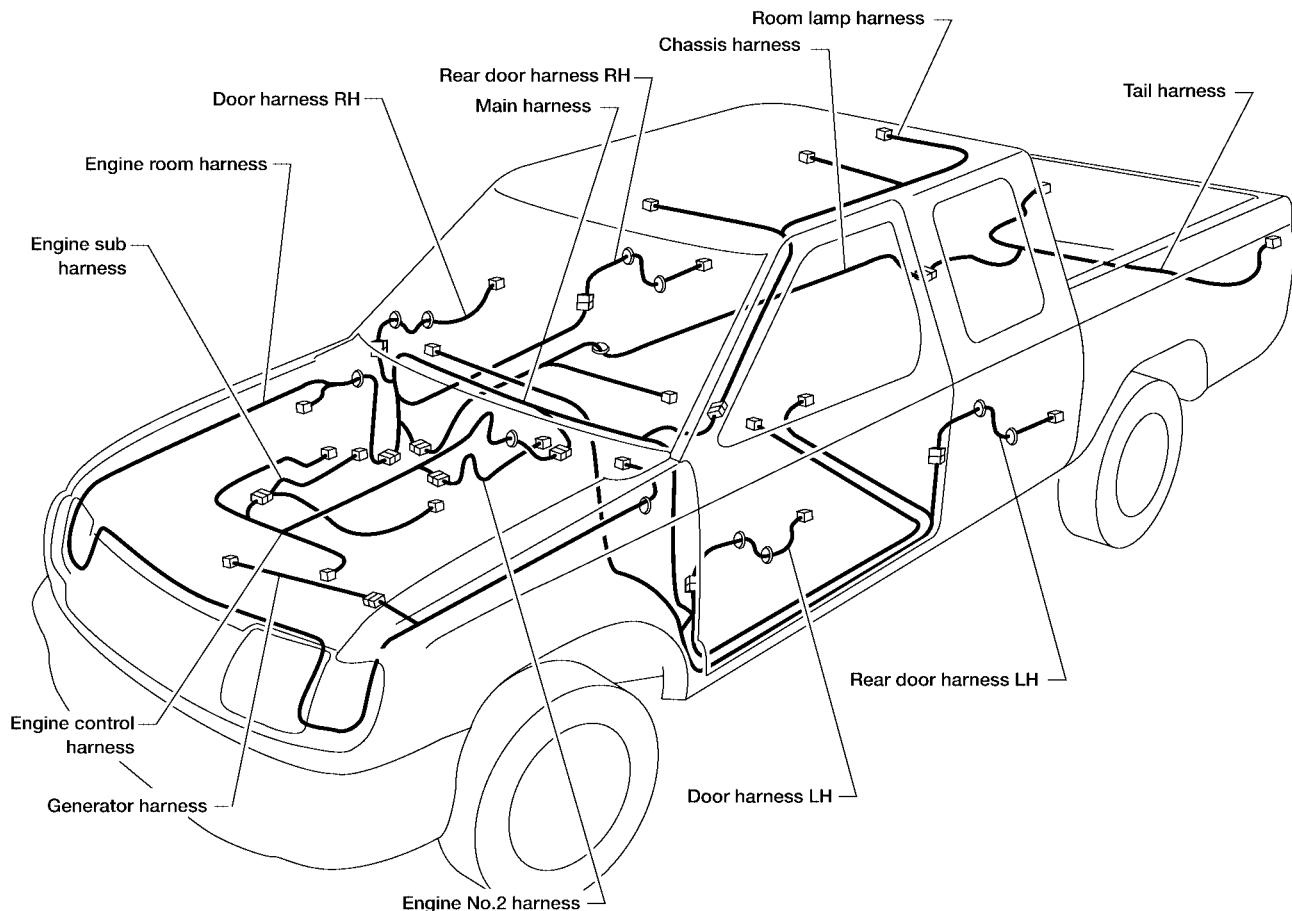
Main symbols of connector (in Harness Layout) are indicated below.

| Connector type | Waterproof type | | Standard type | |
|--|-----------------|--------|---------------|--------|
| | Male | Female | Male | Female |
| ● Cavity: Less than 4 ● Relay connector | | | | |
| ● Cavity: From 5 to 8 | | | | |
| ● Cavity: More than 9 | | | | |
| ● Ground terminal etc. | — | | | |

HARNESS LAYOUT

Outline

EKS003NZ



LEL425A

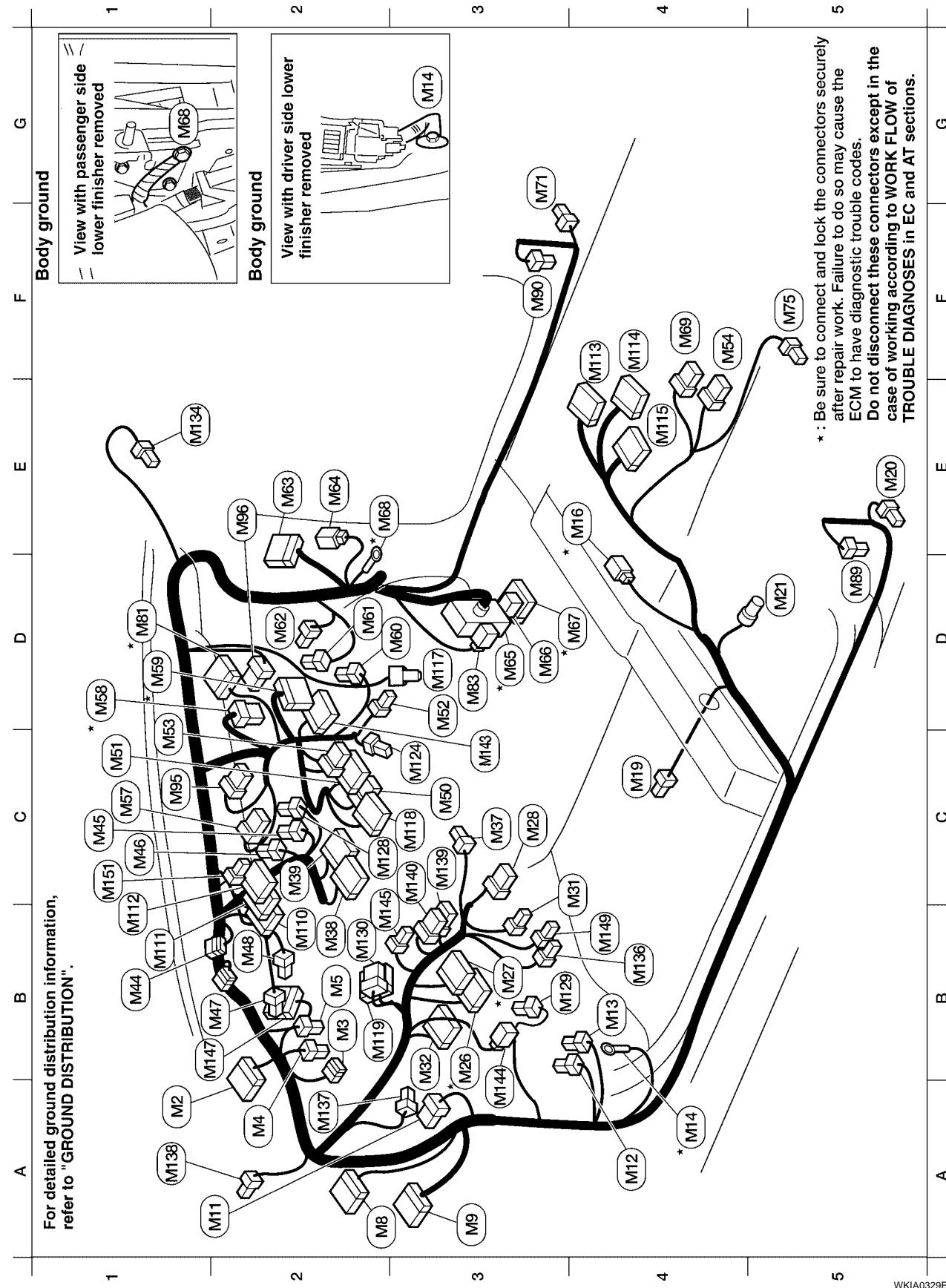
NOTE:

For detailed ground distribution information, refer to [PG-17, "Ground Distribution"](#).

HARNESS LAYOUT

Main Harness (King Cab Models)

EKS00300



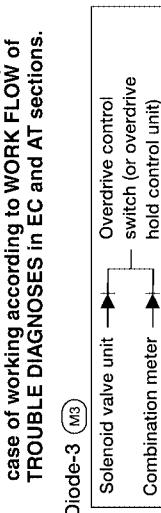
WKIA0329E

PG

HARNESS LAYOUT

| | | | | | | | | |
|---------------------|----------------------------|---|-----------------|---|-----------------|---------------------|---|---|
| A1 | (M2) W/12 | : To (R1) | C1 | (M53) W/8 | : Hazard switch | B1 | (M11) GY/24 | : Smart entrance control unit (with power door locks) |
| B2 | (M3) B/3 | : Diode-3 (with A/T) | F4 | (M54) W/2 | : To (M17) | C2 | (M12) GY/16 | : Smart entrance control unit (with power door locks) |
| B1 | (M4) L/2 | : ASCD clutch switch (with M/T) | C1 | (M57) W/6 | : Fan switch | E4 | (M13) Y/12 | : Air bag diagnosis sensor unit |
| B2 | (M5) L/2 | : Clutch interlock switch (with M/T) | D1 * (M58) W/6 | : To (F28) | E4 | (M14) Y/20 | : Air bag diagnosis sensor unit | |
| A2 | (M6) W/6 | : To (D2) | E1 * (M59) W/16 | : To (F27) | E4 | (M15) Y/12 | : Air bag diagnosis sensor unit | |
| A3 | (M9) W/12 | : To (D1) | D3 (M60) W/3 | : Intake sensor | E4 | (M16) Y/2 | : Passenger air bag module | |
| A2 | (M11) W/8 | : Warning chime unit (without power door locks) | D2 (M61) BR/4 | : Fan resistor | D3 | (M17) Y/2 | : Passenger air bag module | |
| A4 | (M12) W/2 | : Circuit breaker (with power door locks) | D2 (M62) W/2 | : Blower motor | C3 | (M18) W/16 | : Audio unit | |
| B4 | (M13) L/4 | : Power window relay (with power windows) | E2 (M63) W/12 | : To (G10) | B2 | (M19) BR/24 | : ASCD control unit | |
| A4 | (M14) - | : Body ground | E2 (M64) W/2 | : To (G102) | C3 | (M20) W/3 | : Passenger air bag deactivation unit | |
| D4 | * (M16) W/2 | : To (C15) | E3 * (M67) W/18 | : To (C1) | D2 | (M21) W/2 | : Passenger air bag deactivation unit | |
| C4 | (M19) W/3 | : Seatbelt buckle switch | E3 * (M68) - | : Body ground | | | | |
| E5 | (M20) B/3 | : Front door switch LH | F4 (M69) B/6 | :Yaw rate/side G-sensor | C3 | (M22) B/5 | : A/T illumination | |
| D5 | * (M21) GY/4 | : Heated oxygen sensor 2 | G4 (M71) BR/1 | :Front door switch RH | B4 | (M23) L/4 | : ASCD relay | |
| B3 | * (M26) W/16 | : Fuse block (J/B) | F5 (M75) W/4 | : Subwoofer | B2 | (M28) W/6 | : Overdrive cancel relay (with A/T) | |
| B2 | * (M27) W/10 | : Fuse block (J/B) | D1 * (M81) W/20 | : To (F36) | | | | |
| C4 | (M28) W/3 | : Illumination control switch | E3 (M83) W/4 | : To (C11) | E1 | (M34) BR/2 | : Overdrive hold control module (with A/T) | |
| B4 | (M31) W/3 | : Fuse block (J/B) | D5 (M89) Y/2 | : Driver seatbelt pre-tensioner | B3 | (M36) L/6 | : Pillar tweeter RH | |
| B2 | (M32) W/16 | : Data link connector | F3 (M90) Y/2 | : Passenger seatbelt pre-tensioner | A1 | (M38) BR/2 | : Cargo lamp switch | |
| (M36) W/3 | : Overdrive control switch | C1 (M85) B/12 | : Air control | B3 | (M39) Y/6 | : Pillar tweeter LH | | |
| C3 | (M37) W/2 | : Key switch | E2 (M95) B/6 | : Intake door motor | B3 | (M40) Y/6 | : Spiral cable | |
| B2 | (M38) W/24 | : Combination meter | B2 (M10) W/24 | : Smart entrance control unit (with power door locks) | B3 | (M41) GY/8 | : Spiral cable | |
| C2 | (M39) BR/24 | : Combination meter | | | B3 | (M42) L/2 | : Low tire pressure warning control unit | |
| B1 | (M44) SB/2 | : Diode-1 (for Canada) | | | | | | |
| C1 | (M45) B/3 | : Combination flasher unit | | | B3 | (M45) B/7 | : Low tire pressure warning check connector | |
| B1 | (M46) L/4 | : Fuel pump relay | | | B1 | (M47) W/16 | : Steering angle sensor | |
| B2 | (M47) B/2 | : Stop lamp switch | | | B3 | (M48) GY/6 | : CAN-LAN converter (with VDC) | |
| B2 | (M48) L/2 | : ASCD brake switch (A/T shift lock brake switch) | | | C1 | (M49) BR/6 | : VDC off switch (with VDC) | |
| B4 | (M49) B/1 | : Parking brake switch | | | | | | |
| C3 | (M50) W/6 | : Audio unit | | | | | | |
| C1 | (M51) W/10 | : Audio unit | | | | | | |
| D3 | (M52) B/3 | : Cigarette lighter socket | | | | | | |
| Diode-1 (M44) | | | | | | | | |
| Combination meter | —→ | Parking brake switch | | | | | | |
| Diode-3 (M3) | | | | | | | | |
| Solenoid valve unit | —→ | Overdrive control switch (or overdrive hold control unit) | | | | | | |
| Combination meter | —→ | | | | | | | |

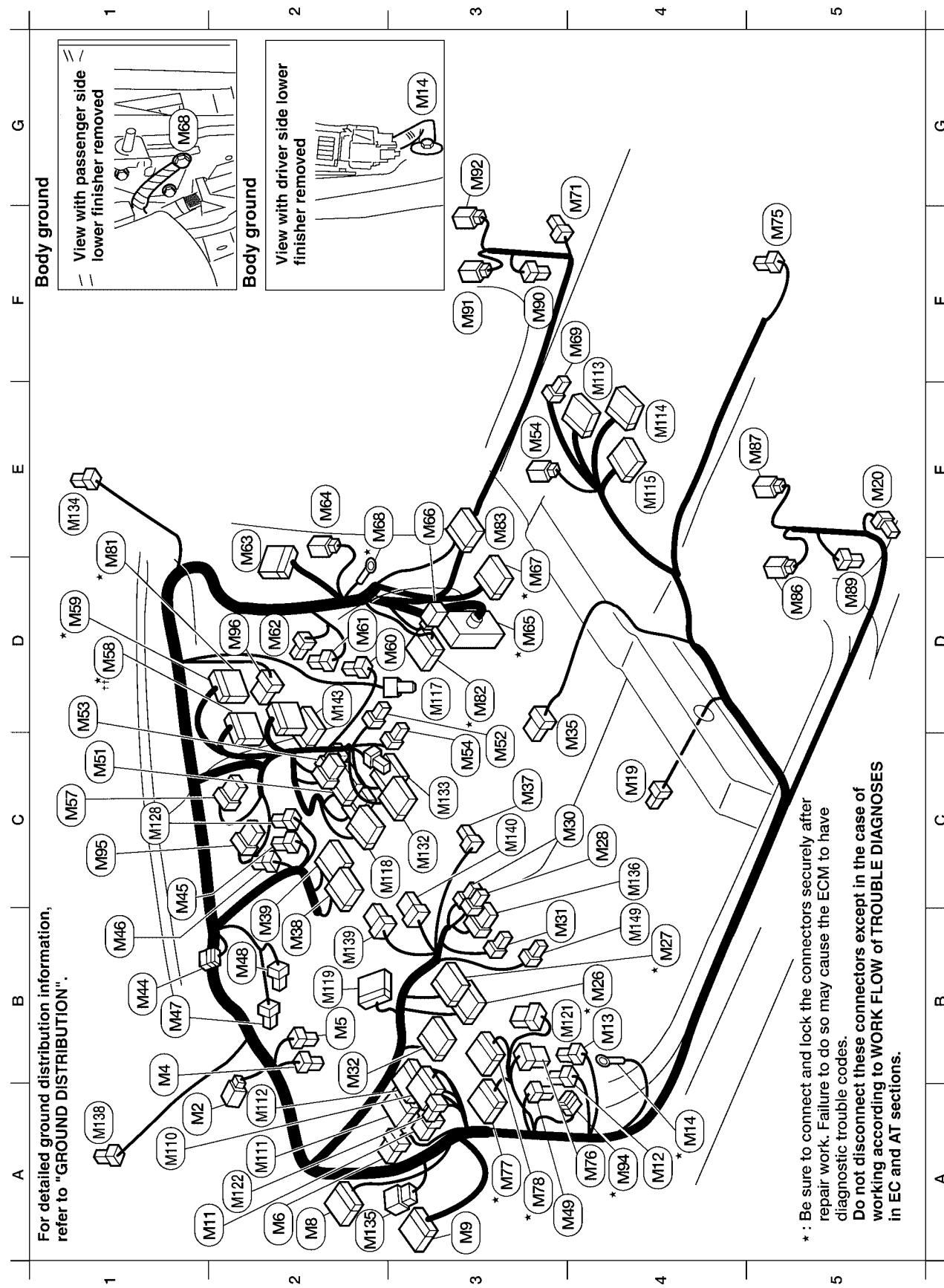
* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.



HARNESS LAYOUT

Main Harness (Crew Cab Models)

EKS003OD



WKIA0331E

PG

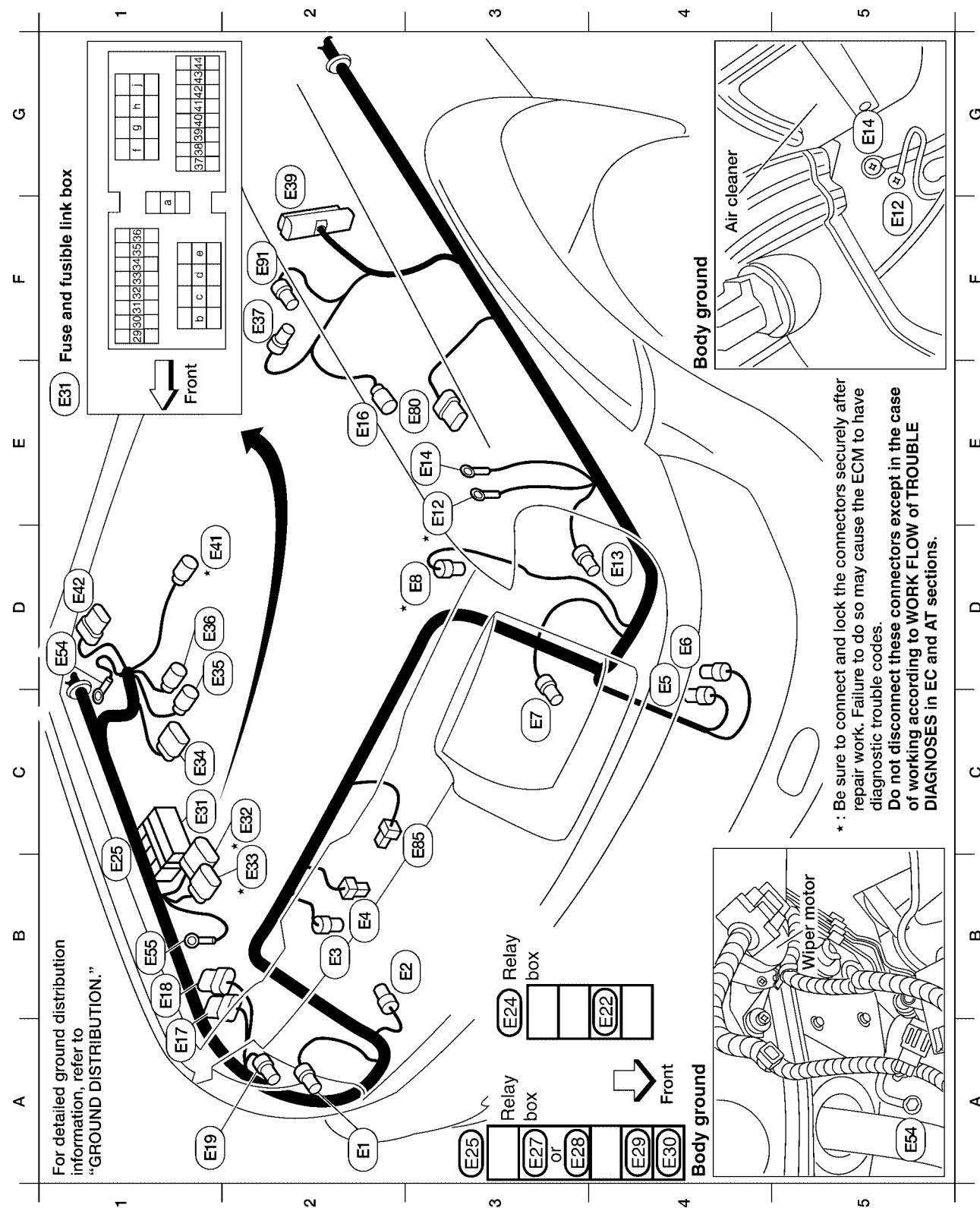
Harness Layout

| | | | | | | | | |
|----|--------------|--|----|---------------|------------------------------------|----|-------------|---|
| A1 | (M2) BR/8 | : To (R1) | C1 | (M51) W/10 | : Audio unit | A1 | (M10) W/24 | : Smart entrance control unit (with power door locks) |
| B1 | (M4) L/2 | : ASCD clutch switch (with M/T) | D3 | (M52) B/3 | : Cigarette lighter socket | A2 | (M11) GY/24 | : Smart entrance control unit (with power door locks) |
| B2 | (M5) L/2 | : Clutch interlock switch (with M/T) | C3 | (M53) W/8 | : Hazard switch | A2 | (M12) GY/16 | : Smart entrance control unit (with power door locks) |
| A2 | (M6) B/5 | : Vehicle security relay (with vehicle security system) | E4 | (M54) W/2 | : To (M7) | E4 | (M13) Y/12 | : Air bag diagnosis sensor unit |
| A2 | (M7) BR/12 | : To (E5) (with VDC) | C1 | (M55) W/6 | : Fan switch | E4 | (M14) Y/24 | : Air bag diagnosis sensor unit |
| A2 | (M8) W/12 | : To (D2) | D1 | * (M56) W/16 | : To (F28) (with VG33EE) | E4 | (M15) Y/12 | : Air bag diagnosis sensor unit |
| A3 | (M9) W/12 | : To (D1) | D1 | * (M58) W/12 | : To (F28) (with VG33EE) | E4 | (M16) Y/4 | : Passenger air bag module |
| A2 | (M11) W/8 | : Warning chime unit (without power door locks) | D1 | * (M59) W/16 | : To (F27) | D3 | (M17) Y/4 | : Passenger air bag module |
| A4 | (M12) W/2 | : Circuit breaker (with power door locks) | D2 | (M60) W/3 | : Intake sensor | C3 | (M18) W/16 | : Audio unit |
| B4 | (M13) L/4 | : Power window relay (with power windows) | D2 | (M61) BR/4 | : Fan resistor | B2 | (M19) BR/24 | : ASCD control unit |
| B4 | (M13) L/4 | : Body ground | D2 | (M62) W/2 | : Blower motor | B4 | (M20) L/4 | : Rear window defogger relay |
| A4 | * (M14) - | | E2 | (M63) W/12 | : To (D1) | B4 | (M21) L/4 | : Rear window defogger timer |
| C4 | * (M19) W/3 | : Seatbelt buckle switch LH | E2 | * (M64) W/2 | : To (D10) | A2 | (M22) W/4 | : Rear window defogger timer |
| E5 | (M20) B/3 | : Front door switch LH | E3 | (M65) SMJ | : To (E43) | C3 | (M23) B/5 | : ASCD relay |
| B3 | * (M25) W/16 | : Fuse block (J/B) | D3 | * (M66) W/4 | : To (E44) | E1 | (M24) BR/2 | : Pillar tweeter RH |
| B2 | * (M27) W/10 | : Fuse block (J/B) | D3 | * (M67) W/18 | : To (C1) | A3 | (M25) W/8 | : To (R10) |
| C4 | (M28) W/3 | : Illumination control switch | E3 | * (M68) - | : Body ground | B4 | (M26) L/6 | : Cargo lamp switch |
| C4 | (M29) W/4 | : Security indicator lamp (with vehicle security system) | F4 | (M69) B/6 | :Yaw rate/side G-sensor | | | |
| B4 | (M31) W/3 | : Fuse block (J/B) | G4 | (M70) BR/1 | :Front door switch RH | A1 | (M34) Y/4 | : To (E8) |
| B2 | (M32) W/16 | : Data link connector | G5 | (M75) W/4 | : Subwoofer | B3 | (M35) Y/6 | : Spiral cable |
| C4 | (M35) W/6 | : A/T device (with A/T) | A4 | * (M76) B/5 | : ATP relay (with A/T) | C3 | (M36) GY/8 | : Spiral cable |
| C3 | (M37) W/2 | : Key switch | A3 | * (M77) W/24 | : TCM (with A/T) | D1 | (M37) W/16 | : Low tire pressure warning control unit |
| B2 | (M38) W/24 | : Combination meter | A3 | * (M78) GY/24 | : TCM (with A/T) | B3 | (M38) L/2 | : Low tire pressure warning check connector |
| B2 | (M39) BR/24 | : Combination meter | D1 | * (M81) W/24 | : To (F36) | | | |
| B2 | (M43) SB/2 | : Diode-3 (with VDC) | D3 | * (M82) W/24 | : To (E74) | | | |
| B1 | (M44) SB/2 | : Diode-1 (for Canada) | E3 | (M83) W/4 | : To (C11) | B3 | (M35) B/7 | : Steering angle sensor |
| C1 | (M45) B/3 | : Combination flasher unit | D5 | (M86) W/3 | : To (D1) | B1 | (M37) W/16 | : CAN-LAN converter (with VDC) |
| B1 | (M46) L/4 | : Fuel pump relay | E5 | (M87) W/4 | : To (D2) | B3 | (M39) GY/6 | : VDC off switch (with VDC) |
| B2 | (M47) B/2 | : Stop lamp switch | D5 | (M89) Y/2 | : Driver seatbelt pre-tensioner | B3 | (M35) W/3 | : Seatbelt buckle switch RH |
| B2 | (M48) L/2 | : ASCD brake switch (A/T shift lock brake switch) | F3 | (M90) Y/2 | : Passenger seatbelt pre-tensioner | C1 | (M35) BR/6 | : Low tire pressure warning relay |
| C1 | (M49) B/1 | : Parking brake switch | F3 | (M91) W/3 | : To (D3) | | | |
| C3 | (M50) W/6 | : Audio unit | G3 | (M92) W/4 | : To (D2) | | | |
| | | | A4 | (M94) W/2 | : Diode-2 (with A/T) | | | |
| | | | C1 | (M95) B/12 | : Air control | | | |
| | | | E2 | (M96) B/6 | : Intake door motor | | | |
| | | | | | | | | * |
| | | | | | | | | : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes. |
| | | | | | | | | Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections. |

HARNESS LAYOUT

Engine Room Harness (KA24DE Models) ENGINE COMPARTMENT

EKS00301



WKIA0333E

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HARNESS LAYOUT

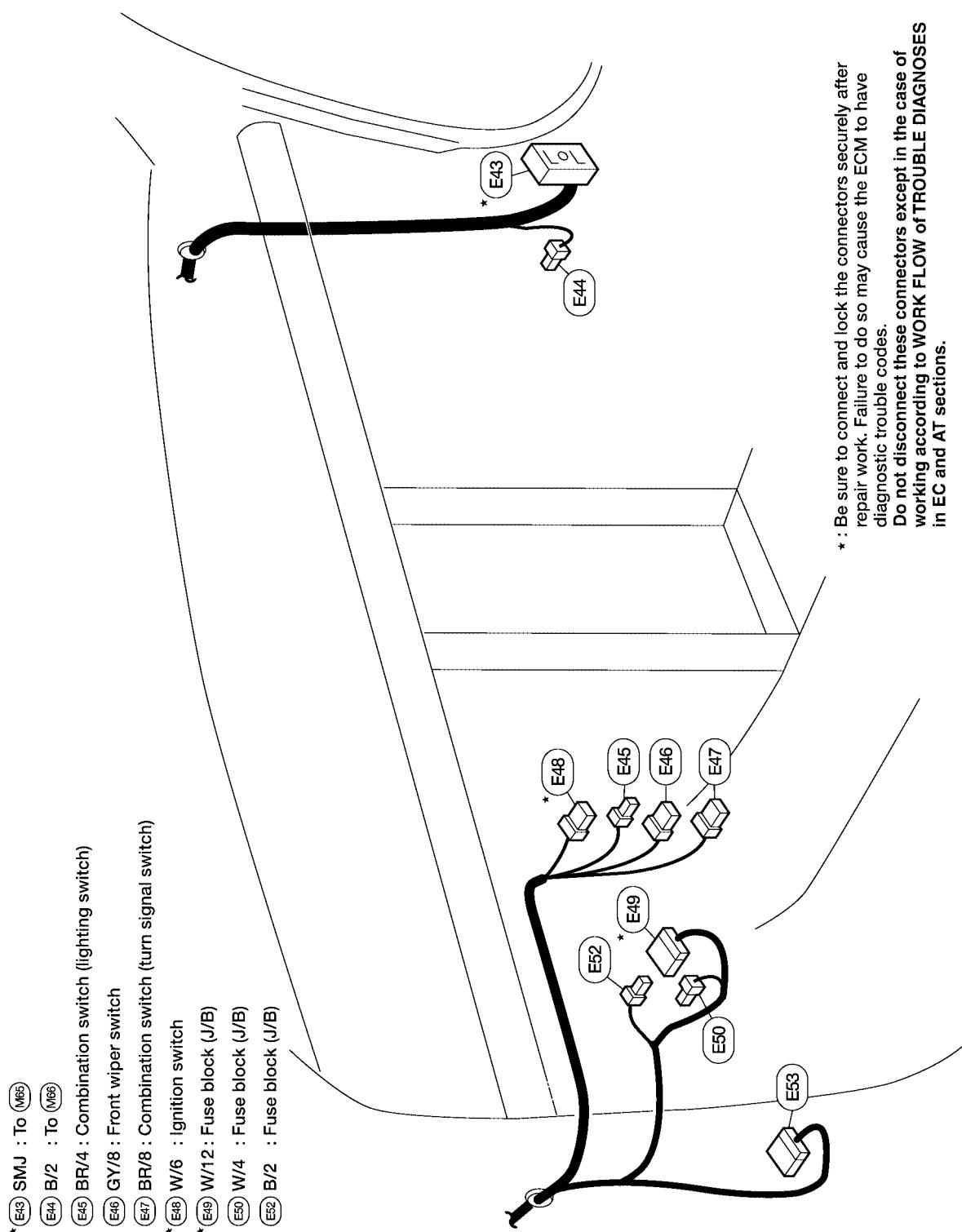
| | | | | | | | | |
|---------------------|--|---|-----------------|--|--|----------------|----------------------------------|--|
| A2 | <u>E1</u> B/3 | : Headlamp RH | A1 | <u>E19</u> GY/3 | : Front combination lamp RH | F2 | <u>E37</u> GY/2 | : Brake fluid level switch |
| B2 | <u>E2</u> GY/2 | : Front wheel sensor RH | B4 | <u>E22</u> BR/6 | : Vehicle security lamp relay (with remote keyless entry) | F2 | <u>E39</u> B/31 | : ABS actuator and electric unit (control unit) |
| B2 | <u>E3</u> B/2 | : Refrigerant pressure sensor | B1 | <u>E25</u> - | : Relay box | D1 * | <u>E41</u> GY/3 | : To <u>(F25)</u> |
| B2 | <u>E4</u> B/1 | : Horn | A3 | <u>E27</u> BR/6 | : Park/neutral position (PNP) relay (with A/T) | D1 | <u>E42</u> GY/6 | : Front wiper motor |
| C4 | <u>E5</u> BR/2 | : Washer fluid level switch | A3 | <u>E28</u> L/4 | : Clutch interlock relay (with M/T) | C1 | <u>E54</u> - | : Body ground |
| D4 | <u>E6</u> GY/2 | : Front washer motor | A3 | <u>E29</u> W/3 | : Horn relay | B1 | <u>E56</u> - | : Battery |
| C3 | <u>E7</u> B/3 | : Headlamp LH | A4 | <u>E30</u> L/4 | : Air conditioner relay (with A/C) | | <u>E74</u> W/24 | : To <u>(M82)</u> |
| D3 | <u>E8</u> B/2 | : Intake air temperature sensor | A4 | <u>E31</u> - | : Fuse and fusible link box | | <u>E80</u> GY/6 | : ASCD motor actuator (with ASCD) |
| D3 * <u>E9</u> GY/2 | : Hood switch (with remote keyless entry) | C1 | <u>E32</u> GY/9 | : To <u>(E02)</u> | C2 | <u>E85</u> Y/2 | : Crash zone sensor | |
| D3 * <u>E12</u> - | : Body ground | C2 * | <u>E33</u> GY/6 | : To <u>(E01)</u> | F2 | <u>E91</u> B/2 | : Pressure switch (2WD with ABS) | |
| D4 <u>E13</u> GY/3 | : Front combination lamp LH | B2 * | <u>E34</u> GY/8 | : Park/neutral position (PNP) switch (with A/T) | | | | |
| E3 | <u>E14</u> - | : Body ground (with ABS) | C1 | <u>E35</u> W/2 | : Park/neutral position (PNP) switch (with A/T) | | | |
| E2 | <u>E16</u> BR/2 | : Front wheel sensor LH | C1 | <u>E36</u> GY/3 | : Solenoid valve unit | | | |
| A1 | <u>E17</u> SB/8 | : Daytime light control unit (with DTRL) | | | | | | |
| B1 | <u>E18</u> GY/6 | : Daytime light control unit (with DTRL) | | | | | | |

* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.

Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES

HARNESS LAYOUT

PASSENGER COMPARTMENT



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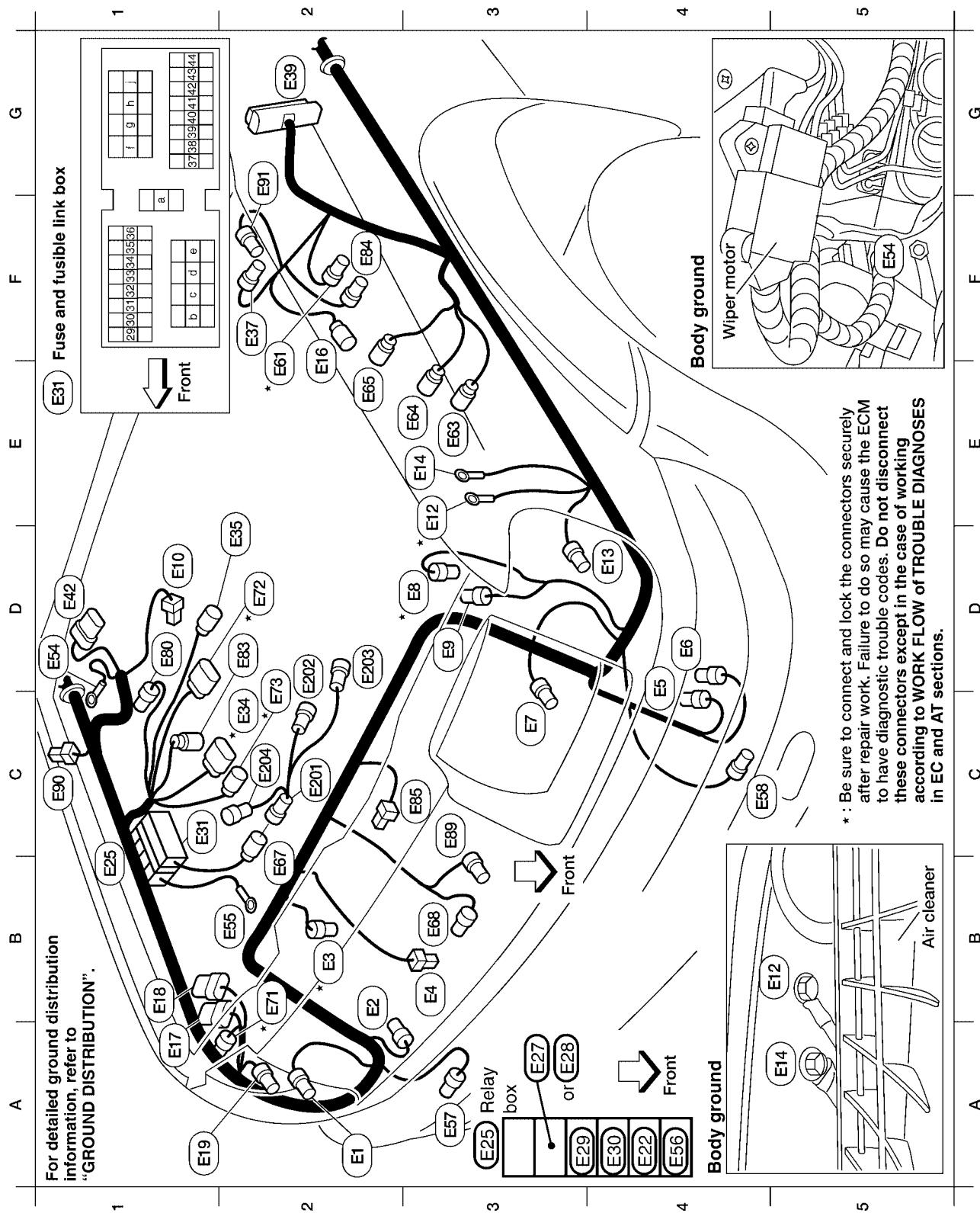
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WEL955A

HARNESS LAYOUT

Engine Room Harness (VG33E and VG33ER Models) ENGINE COMPARTMENT

EKS003OE



WKIA0335E

HARNESS LAYOUT

| | | | | | | | | |
|-----------|------|--|-----------|------|--|------------|------|--|
| A2 E1 | B/3 | : Headlamp RH | A4 E28 | L/4 | : Clutch interlock relay (with M/T) | E2 E65 | GY/4 | : To (A5) |
| B2 E2 | GY/2 | : Front wheel sensor RH | A4 E29 | W/3 | : Horn relay | C2 E67 | GY/1 | : To (E201) |
| B2 * E3 | B/2 | : Refrigerant pressure sensor | A4 E30 | L/4 | : A/C relay | B3 E68 | GY/2 | : Ambient air temperature switch |
| B3 E4 | B/1 | : Horn | A4 E31 | - | : Fuse and fusible link box | B2 * E71 | GY/2 | : Dropping resistor |
| C4 E5 | BR/2 | : Washer fluid level switch | C1 E31 | - | : Park/neutral position (PNP) | D2 E72 | BR/8 | : Terminal cord assembly |
| D4 E6 | GY/2 | : Front washer motor | C2 * E34 | GY/8 | : Park/neutral position (PNP) switch (with A/T) | C2 * E73 | GY/3 | : Revolution sensor |
| C3 E7 | B/3 | : Headlamp LH | E2 E35 | GY/2 | : Park/neutral position (PNP) switch (with A/T) | D1 E80 | GY/6 | : ASCD motor actuator |
| D3 * E8 | B/2 | : Intake air temperature sensor | G2 E37 | GY/2 | : Brake fluid level switch | D2 E83 | BR/4 | : Turbine revolution sensor (with VG33ER and A/T) |
| D3 E9 | GY/2 | : Hood switch (with vehicle security system) | G2 E38 | B/31 | : ABS actuator and electric unit (control unit) | F3 E84 | B/2 | : Supercharger bypass valve control solenoid valve (VG33ER models) |
| D3 * E12 | - | : Body ground | D1 E42 | SB/6 | : Front wiper motor | C2 E85 | Y/2 | : Crash zone sensor |
| D4 E13 | GY/3 | : Front combination lamp LH | D1 * E54 | - | : Body ground | B3 E89 | B/2 | : Ambient air temperature sensor |
| E3 E14 | - | : Body ground (with ABS) | B2 E55 | - | : Battery | C1 E90 | W/2 | : Auxiliary power supply |
| E2 E16 | BR/2 | : Front wheel sensor LH | A3 E56 | L/4 | : Front fog lamp relay (relay box) | F2 E91 | B/3 | : Pressure sensor (with VDC) |
| A1 E17 | SB/8 | : Daytime light control unit (with DTRL) | A3 E57 | GY/2 | : Front fog lamp RH | F2 E91 | B/2 | : Pressure sensor (2WD with ABS) |
| B1 E18 | SB/6 | : Daytime light control unit (with DTRL) | C4 E58 | GY/2 | : Front fog lamp LH | C2 E201 | GY/1 | : To (E67) |
| A1 E19 | GY/3 | : Front combination lamp RH | E2 * E61 | L/2 | : EVAP canister purge volume control solenoid valve | D2 E202 | GY/1 | : Starter motor |
| A3 E22 | BR/6 | : Vehicle security lamp relay (with power door locks) | E3 E63 | GY/1 | : To (A3) | D2 E203 | - | : Starter motor |
| C1 E25 | - | : Relay box | E3 E64 | GY/1 | : To (A4) | C2 E204 | - | : Battery |
| A3 * E27 | BR/6 | : Park/neutral position (PNP) relay (with A/T) | Relay box | | | | | |

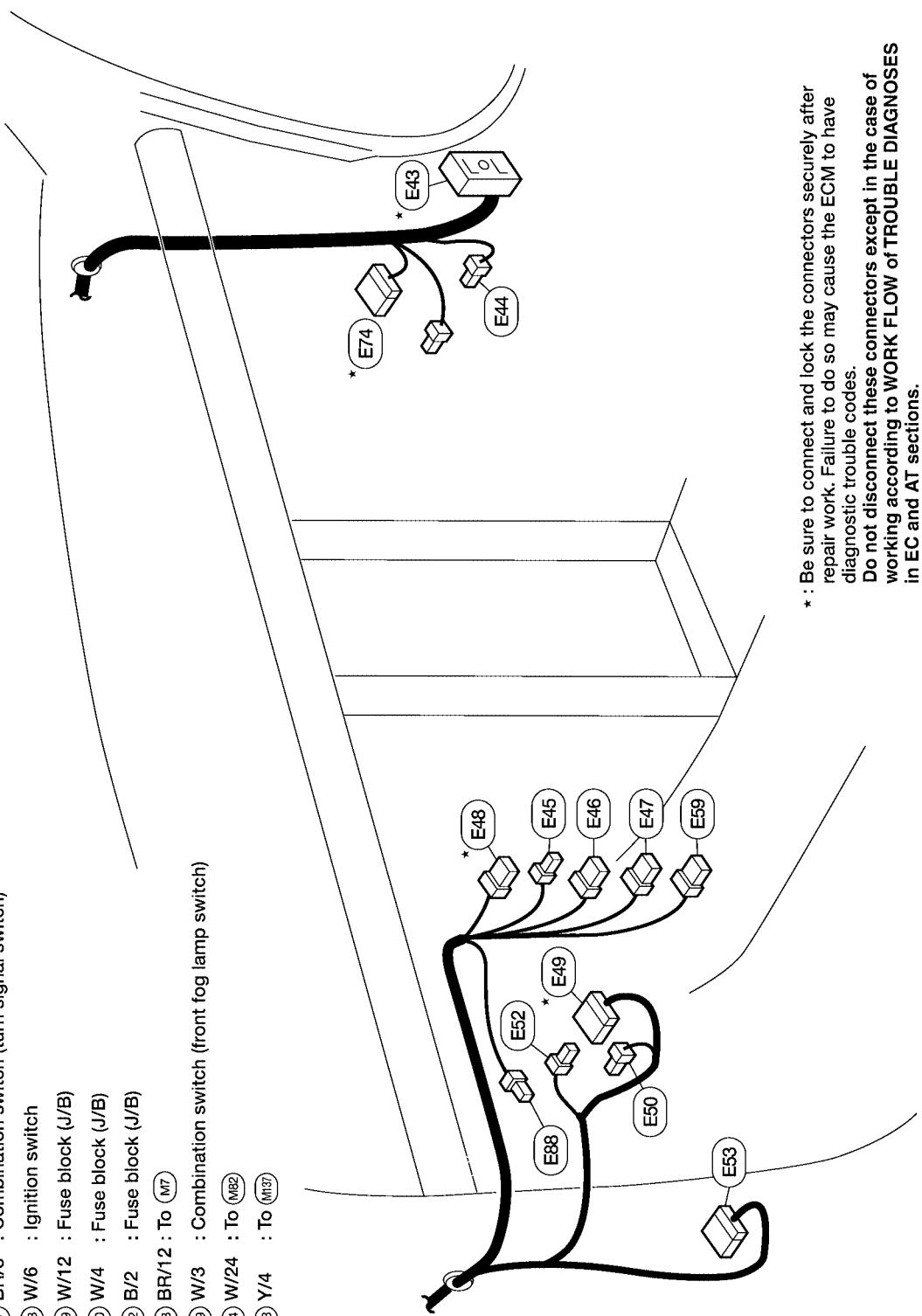
* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.

Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES

HARNESS LAYOUT

PASSENGER COMPARTMENT

- * E43 SMJ : To M85
- E44 W/4 : To M86
- E45 BR/4 : Combination switch (lighting switch)
- E46 GY/8 : Front wiper switch
- E47 BR/8 : Combination switch (turn signal switch)
- * E48 W/6 : Ignition switch
- * E49 W/12 : Fuse block (J/B)
- E50 W/4 : Fuse block (J/B)
- E52 BI/2 : Fuse block (J/B)
- E53 BR/12 : To M7
- E59 W/3 : Combination switch (front fog lamp switch)
- * E74 W/24 : To M82
- E88 Y/4 : To M83

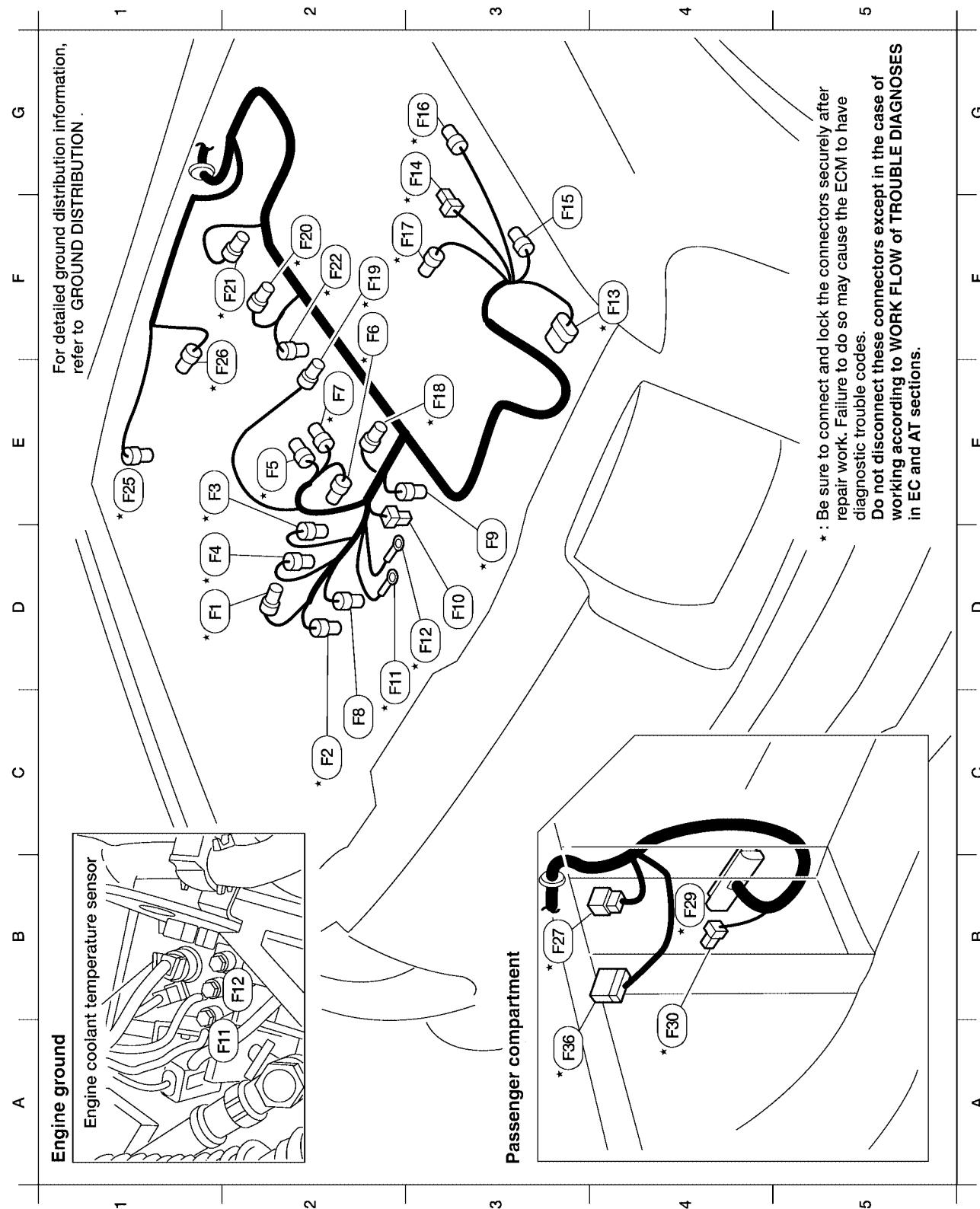


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HARNESS LAYOUT

Engine Control Harness (KA24DE Models)

EKS00302



WKIA0305E

HARNESS LAYOUT

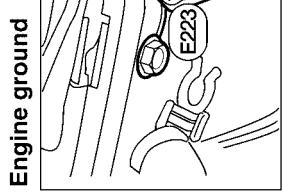
| | | | |
|-----------------|---|-------------------------|---|
| D2 * (F1) BR/4 | : Mass air flow sensor | F3 * (F17) GY/2 | : Distributor (ignition coil) |
| C2 * (F2) GY/2 | : To (F10) | E3 * (F18) B/2 | : Injector No. 1 |
| D2 * (F3) BR/3 | : Throttle position sensor | F2 * (F19) B/2 | : Injector No. 2 |
| D2 * (F4) GY/3 | : Throttle position switch (closed throttle position switch and wide open throttle position switch) | F2 * (F20) B/2 | : Injector No. 3 |
| E2 * (F5) GY/2 | : EGR temperature sensor | F2 * (F21) B/2 | : Injector No. 4 |
| F2 * (F6) BR/2 | : IACV-AAC valve | F2 * (F22) G/2 | : EGRC-solenoid valve |
| E2 * (F7) PU/2 | : IACV-FICD solenoid valve | E1 * (F25) GY/3 | : To (E41) |
| C2 (F8) B/1 | : Power steering pressure switch | E2 * (F26) L/2 | : EVAP canister purge volume control solenoid valve |
| D3 * (F9) GY/2 | : Engine coolant temperature sensor | B3 * (F27) W/16 | : To (M59) |
| D3 (F10) B/1 | : Thermal transmitter | B4 * (F29) GY/124 : ECM | |
| D2 * (F11) - | : Engine ground | A4 * (F30) L/4 | : ECM relay |
| D3 * (F12) - | : Engine ground | A3 * (F36) W/20 | : To (M81) |
| F4 * (F13) GY/6 | : Distributor (camshaft position sensor) | | |
| G3 * (F14) GY/2 | : Resistor | | |
| F3 (F15) B/1 | : A/C compressor | | |
| G3 * (F16) SB/3 | : Heated oxygen sensor 1 | | |

* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
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HARNESS LAYOUT

Engine No. 2 Harness (KA24DE Models)

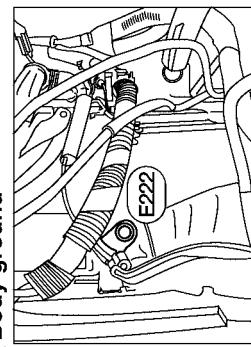
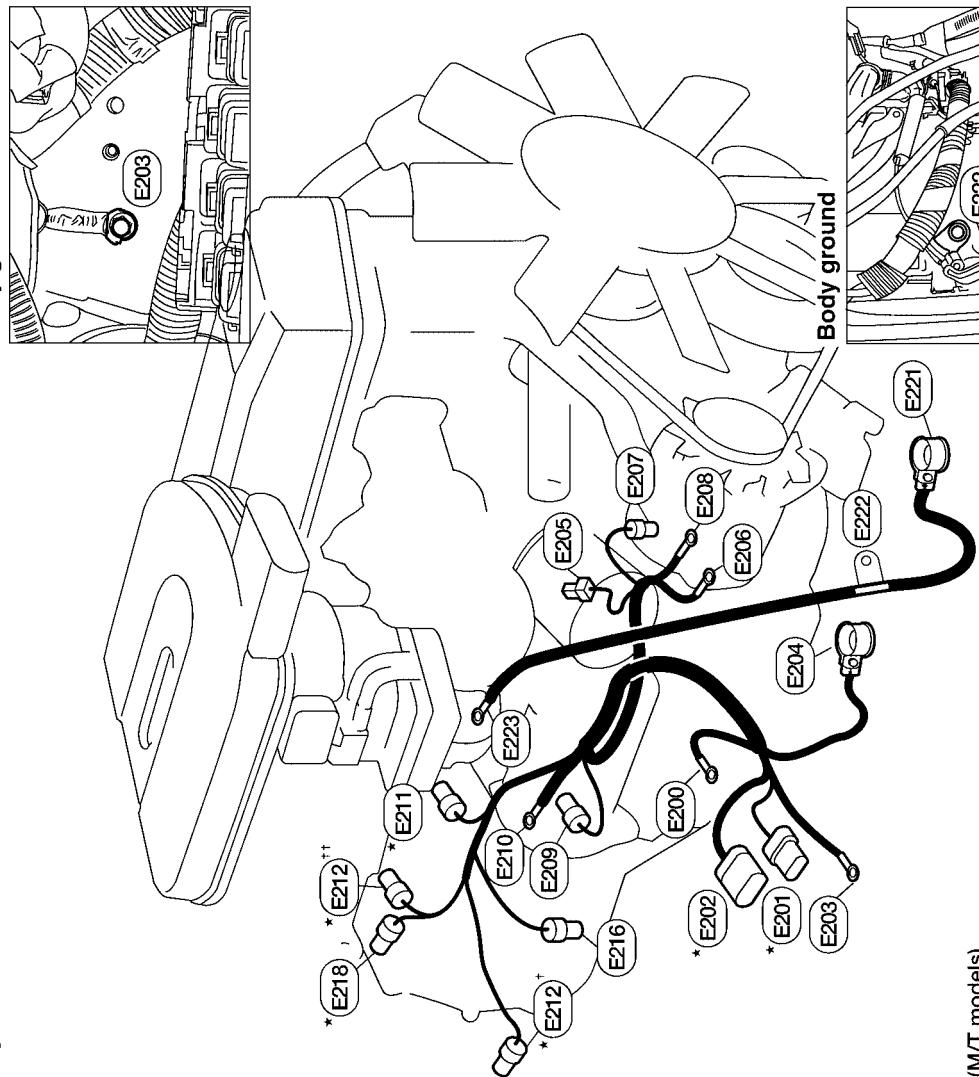
EKS003OF



Engine ground

For detailed ground distribution information, refer to "GROUND DISTRIBUTION".

Body ground



Body ground

- : Relay box
- SB/6 : To (E39)
- GY/9 : To (E32)
- - : Body ground
- - : Battery positive terminal
- - : Oil pressure switch
- GY/2 : Generator
- - : Generator
- GY/1 : Starter motor
- - : Starter motor
- GY/2 : Crankshaft position sensor (OBD)
- GY/2 : Vehicle speed sensor (A/T models)
- GY/2 : Vehicle speed sensor (M/T models)
- GY/2 : Back-up lamp switch (M/T models)
- B/2 : Park/neutral position (PNP) switch (M/T models)
- E221 - : Battery negative terminal
- E222 - : Body ground
- E223 - : Engine ground

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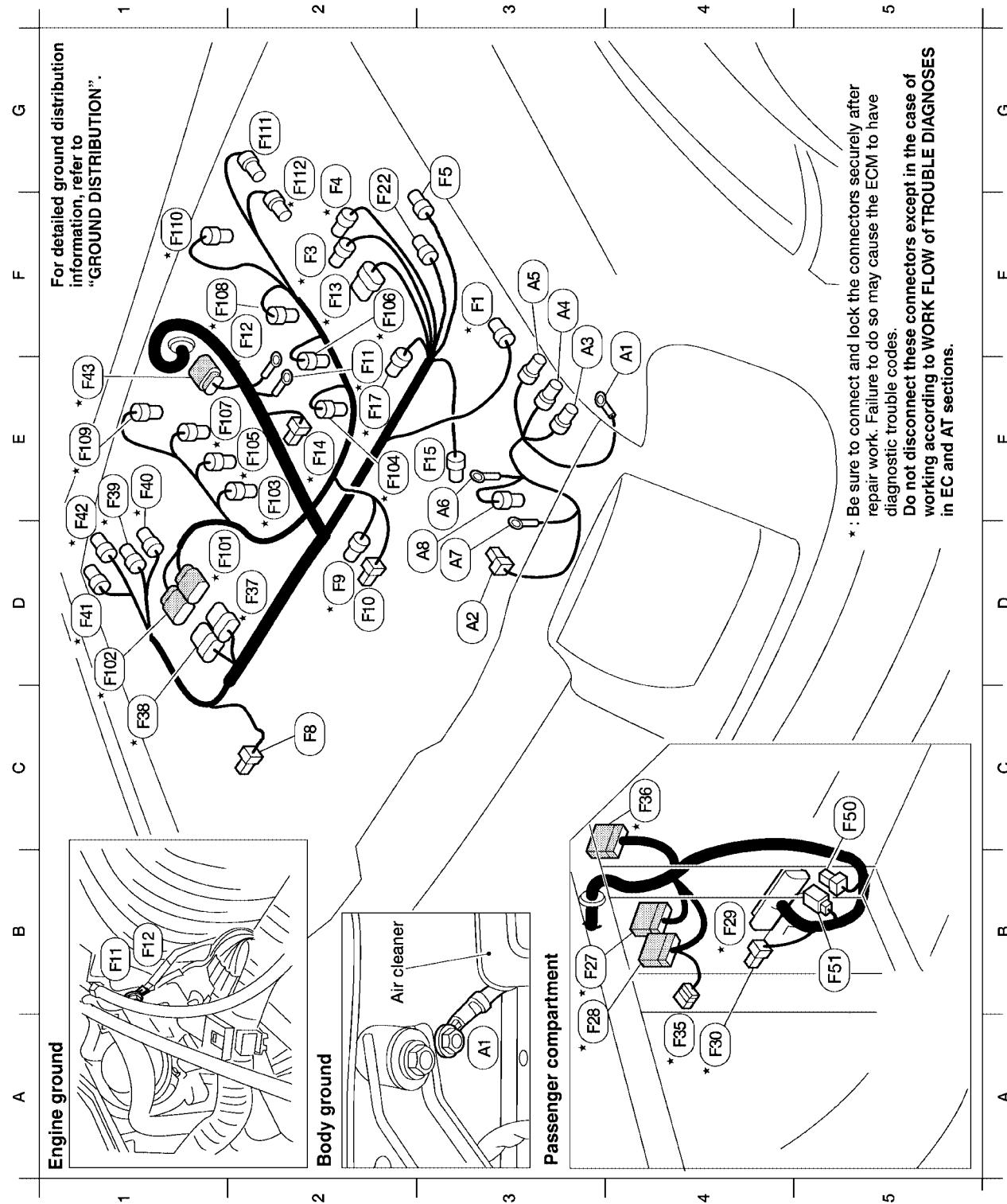
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WKIA0338E

HARNESS LAYOUT

Engine Control Harness (VG33E Models)

EKS003OG



WKIA0307E

HARNESS LAYOUT

ENGINE CONTROL HARNESS

ENGINE CONTROL HARNESS (CONTINUED)

| | | |
|---|--------|---|
| F3 * F1 | BR/4 | : Mass air flow sensor |
| F2 * F3 | BR/3 | : Throttle position sensor |
| F2 F4 | GY/3 | : Throttle position switch (closed throttle position switch and wide open throttle position switch) |
| G3 F5 | GY/2 | : EGR temperature sensor |
| C2 F8 | B/2 | : Power steering oil pressure switch |
| D2 * F9 | GY/2 | : Engine coolant temperature sensor |
| D2 F10 | B/1 | : Thermal transmitter |
| E2 * F11 | - | : Engine ground |
| F2 * F12 | - | : Engine ground |
| F2 * F13 | GY/6 | : Distributor (camshaft position sensor) |
| E2 * F14 | GY/2 | : Resistor |
| E3 F15 | B/1 | : A/C compressor |
| E2 * F17 | GY/2 | : Distributor (ignition coil) |
| G2 F22 | B/2 | : EGRC solenoid valve |
| B3 * F27 | W/16 | : To M59 |
| A3 * F28 | W/16 | : To M58 |
| B4 * F29 | GY/124 | : ECM |
| A4 * F30 | L/4 | : ECM relay |
| A4 * F35 | B/2 | : Diode-5 |
| C4 * F36 | W/24 | : To M81 |
| D2 * F37 | B/8 | : To F10 |
| C1 * F38 | GY/8 | : To F102 |
| E1 * F39 | GY/4 | : Heated oxygen sensor 2 (bank 2) |
| E1 * F40 | GY/3 | : Heated oxygen sensor 1 (bank 2) |
| D1 * F41 | GY/3 | : Heated oxygen sensor 1 (bank 1) |
| D1 * F42 | GY/4 | : Heated oxygen sensor 2 (bank 1) |
| E1 * F43 | GY/8 | : To F20 |
| Diode F35 | | |
| | | |
| IACV-FICD solenoid valve | | → ECM |

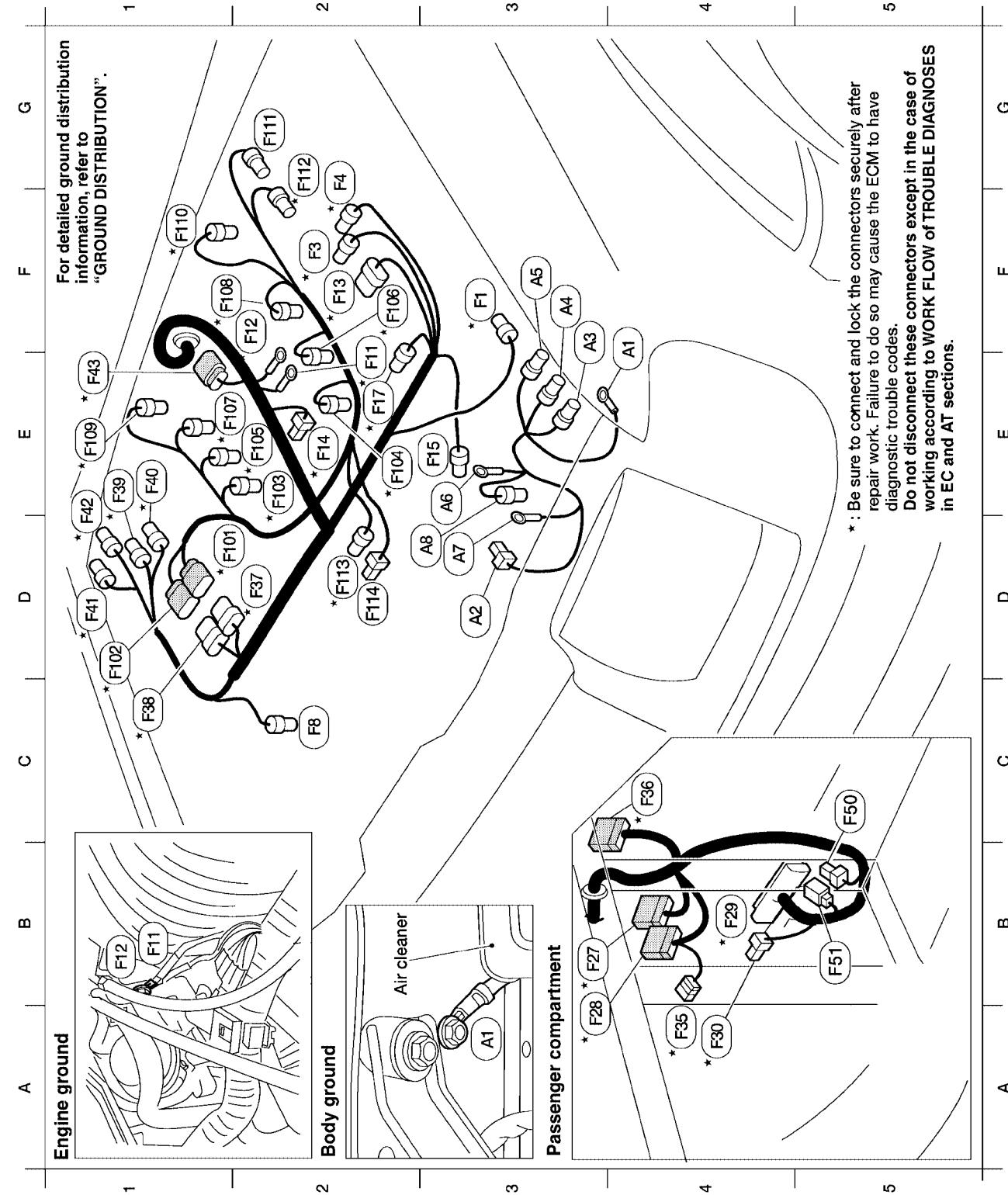
* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
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WKIA0308E

HARNESS LAYOUT

Engine Control Harness (VG33ER Models)

EKS003OH



WKIA0309E

HARNESS LAYOUT

ENGINE CONTROL HARNESS

ENGINE SUB HARNESS

| | | | |
|-------------------|---|-------------------|-------------------------------------|
| F3 * (F1) BR/4 | : Mass air flow sensor | D2 * (F10) G/10 | : To (F37) |
| F2 * (F3) BR/3 | : Throttle position sensor | D1 * (F102) GY/10 | : To (F38) |
| F2 (F4) GY/3 | : Throttle position switch (closed throttle position switch and wide open throttle position switch) | E2 * (F103) B/2 | : Injector No. 1 |
| C2 (F8) B/2 | : Power steering oil pressure switch | E2 * (F104) B/2 | : Injector No. 2 |
| E2 * (F11) - | : Engine ground | E2 * (F105) B/2 | : Injector No. 3 |
| F2 * (F12) - | : Engine ground | F2 * (F106) B/2 | : Injector No. 4 |
| F2 * (F13) GY/6 | : Distributor (camshaft position sensor) | E2 * (F107) B/2 | : Injector No. 5 |
| E2 * (F14) GY/2 | : Resistor | F1 * (F108) B/2 | : Injector No. 6 |
| E3 (F15) B/1 | : A/C compressor | E1 * (F109) GY/2 | : Knock sensor |
| E2 * (F17) GY/2 | : Distributor (ignition coil) | F1 * (F110) GY/2 | : Crankshaft position sensor (OBD) |
| B3 * (F27) W/16 | : To (M59) | G2 * (F111) GY/2 | : IACV-FICD solenoid valve |
| A3 * (F28) W/16 | : To (M58) | G2 * (F112) BR/2 | : IACV-AAC valve |
| B4 * (F29) GY/124 | : ECM | D2 * (F113) GY/2 | : Engine coolant temperature sensor |
| A4 * (F30) L/4 | : ECM relay | D2 * (F114) B/1 | : Thermal transmitter |
| A4 * (F35) SB/2 | : Diode | | |
| C4 * (F36) W/24 | : To (M81) | F4 (A1) - | : Body ground |
| D2 * (F37) G/10 | : To (F61) | D3 (A2) GY/1 | : Oil pressure switch |
| C1 * (F38) GY/10 | : To (F102) | F3 (A3) GY/1 | : To (E63) |
| E1 * (F39) GY/4 | : Heated oxygen sensor 2 (bank 2) | F3 (A4) GY/1 | : To (E64) |
| E1 * (F40) GY/3 | : Heated oxygen sensor 1 (bank 2) | F3 (A5) GY/3 | : To (E65) |
| D1 * (F41) GY/3 | : Heated oxygen sensor 1 (bank 1) | E3 (A6) - | : Generator |
| D1 * (F42) GY/4 | : Heated oxygen sensor 2 (bank 1) | D3 (A7) - | : Generator |
| E1 * (F43) B/8 | : To (F201) | D3 (A8) GY/2 | : Generator |
| C5 (F50) W/1 | : To (F51) | | |
| B5 (F51) W/1 | : To (F50) | | |

Diode (F35)

IACV-FICD
solenoid valve



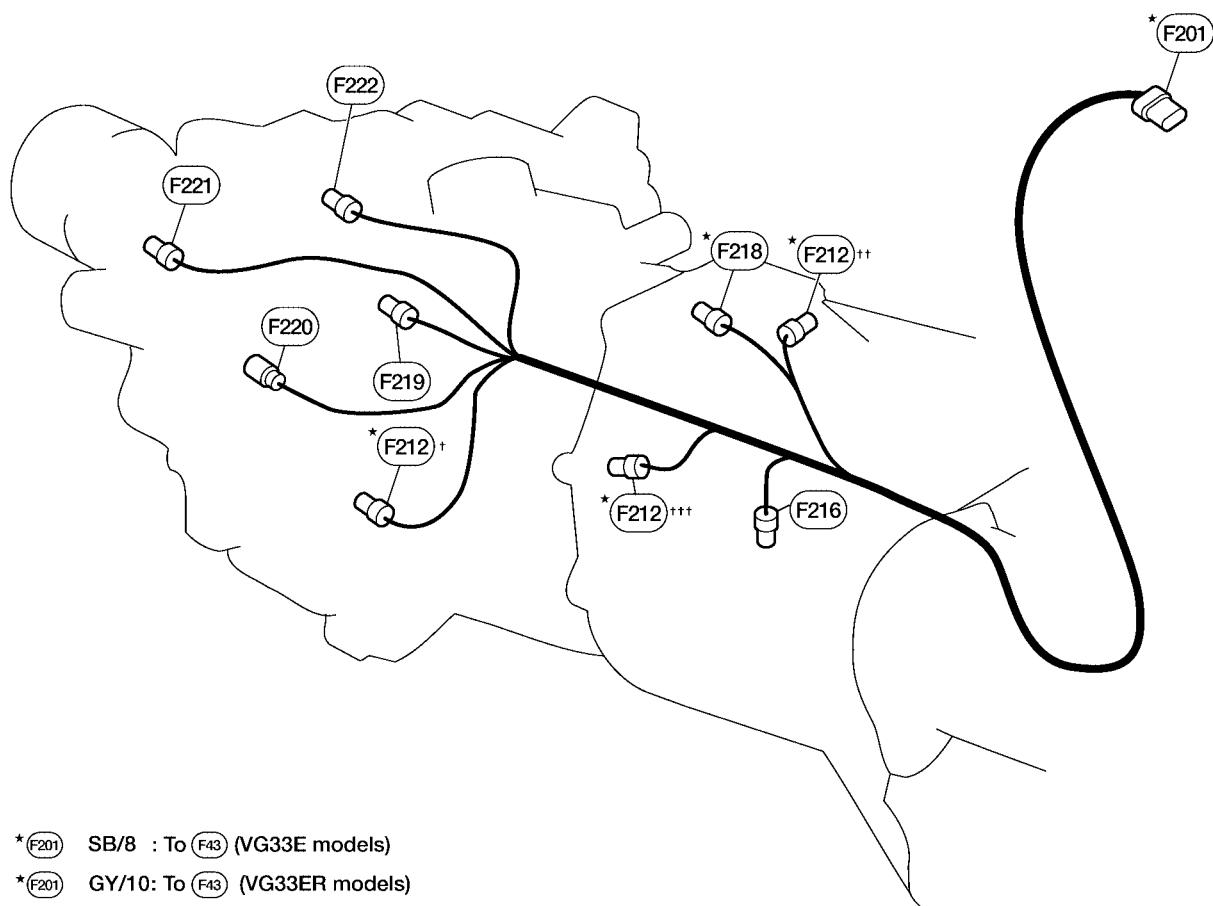
ECM

* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.
Do not disconnect these connectors except in the case of working according to WORK FLOW or TROUBLE DIAGNOSES in EC and AT sections.

HARNESS LAYOUT

Engine No. 2 Harness (VG33E and VG33ER Models)

EKS00303



- * F201 SB/8 : To F43 (VG33E models)
- * F201 GY/10: To F43 (VG33ER models)
- * F212+ GY/2 : Vehicle speed sensor (with 4WD)
- * F212++ GY/2 : Vehicle speed sensor (with 2WD M/T)
- * F212+++GY/2 : Vehicle speed sensor (with 2WD A/T)
- F216 GY/2 : Back-up lamp switch (with M/T)
- * F218 B/2 : Park/neutral position (PNP) switch (with M/T)
- F219 GY/1 : 4WD switch (with M/T)
- F220 GY/1 : 4WD switch (with M/T)
- F221 GY/2 : 4WD switch (with A/T)
- F222 B/2 : Transfer neutral position switch (with A/T)

* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.

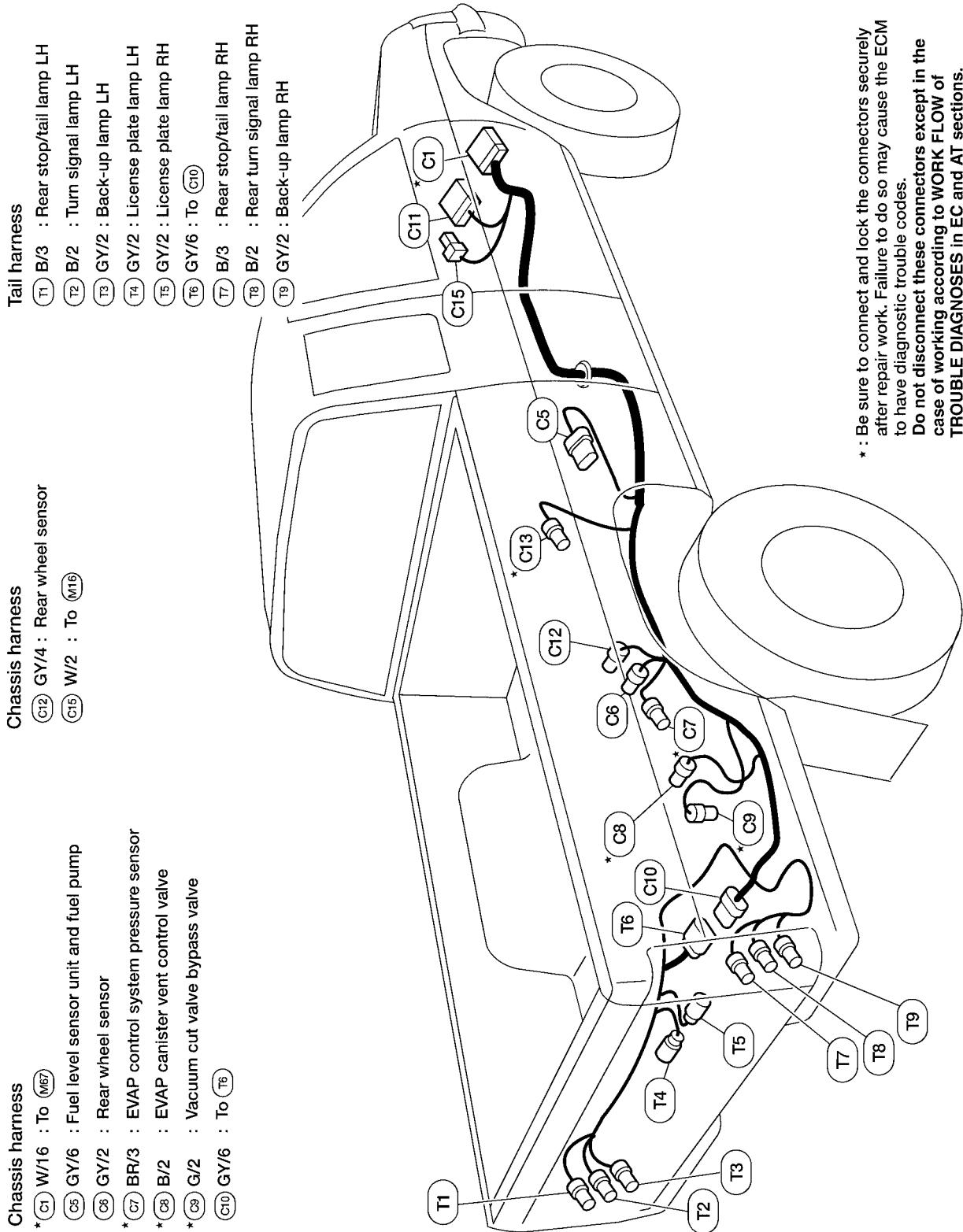
Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

WEL964A

HARNESS LAYOUT

Chassis and Tail Harness (KA24DE Models)

EKS00304



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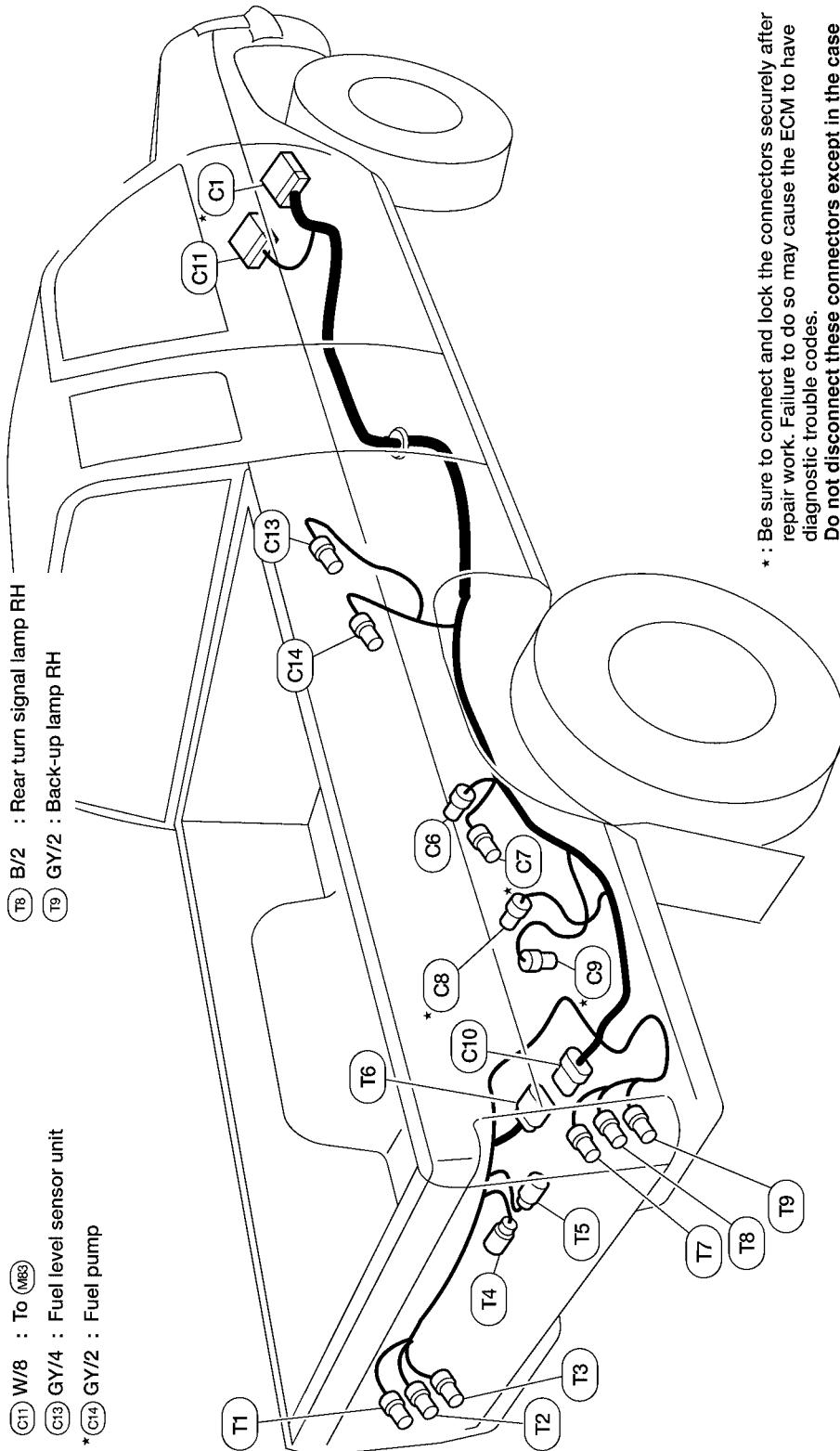
WKIA0339E

HARNESS LAYOUT

Chassis and Tail Harness (VG33E and VG33ER Models)

EKS0030I

- Chassis harness**
- * C1 W/16 : To (M87)
 - C8 GY/2 : Rear wheel sensor (2WD)
 - C8 GY/4 : Rear wheel sensor (4WD)
 - C7 BR/3 : EVAP control system pressure sensor
 - * C8 GY/2 : EVAP canister vent control valve
 - * C8 G/2 : Vacuum cut valve bypass valve
 - C10 GY/6 : To (T6)
 - C11 W/8 : To (M88)
 - C13 GY/4 : Fuel level sensor unit
 - * C14 GY/2 : Fuel pump
- Tail harness**
- (T1) B/3 : Rear stop/tail lamp LH
 - (T2) B/2 : Turn signal lamp LH
 - (T3) GY/2 : Back-up lamp LH
 - (T4) GY/2 : License plate lamp LH
 - (T5) GY/2 : License plate lamp RH
 - (T6) GY/6 : To (C10)
 - (T7) B/3 : Rear stop/tail lamp RH
 - (T8) B/2 : Rear turn signal lamp RH
 - (T9) GY/2 : Back-up lamp RH



* : Be sure to connect and lock the connectors securely after repair work. Failure to do so may cause the ECM to have diagnostic trouble codes.

Do not disconnect these connectors except in the case of working according to WORK FLOW of TROUBLE DIAGNOSES in EC and AT sections.

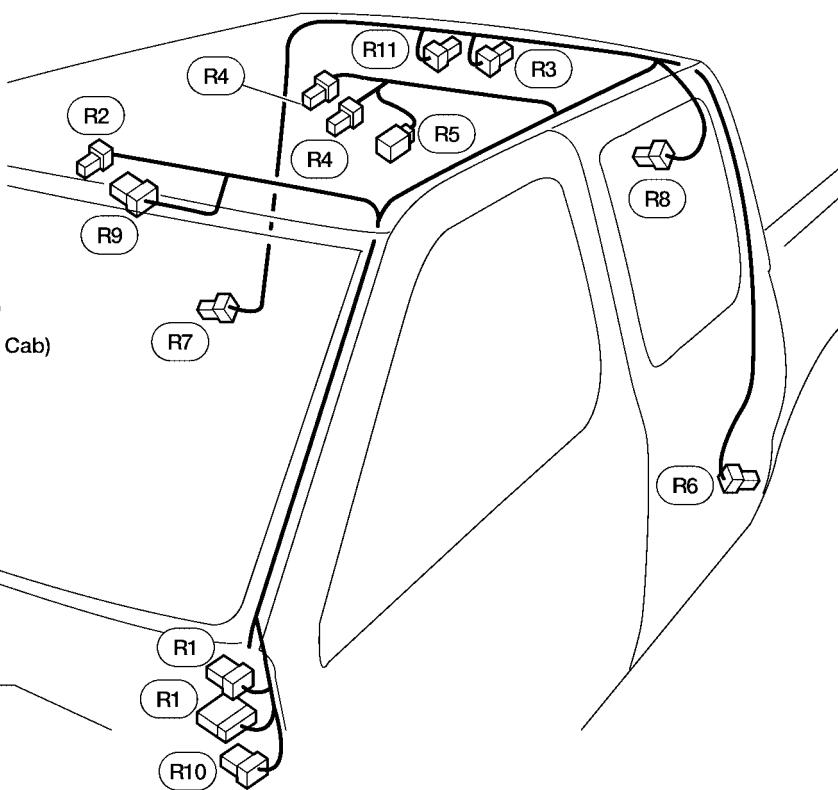
WKIA0340E

HARNESS LAYOUT

Room Lamp Harness

EKS00306

- (R1) W/12 : To (M2) (King Cab)
- (R1) BR/8 : To (M2) (Crew Cab)
- (R2) W/2 : Map lamp (with map lamp)
- (R3) B/2 : High mounted stop lamp
- (R4) W/1 : Room lamp (Crew Cab)
- (R4) W/3 : Room lamp (King Cab)
- (R5) BR/1 : Room lamp (Crew Cab)
- (R6) BR/1 : Rear door switch LH (Crew Cab)
- (R7) BR/1 : Rear door switch RH (Crew Cab)
- (R8) B/1 : Rear window defogger (+) (Crew Cab)
- (R9) W/8 : Compass and thermometer
- (R10) W/8 : To (M135) (Crew Cab)
- (R11) BR/2 : Cargo lamp (King Cab)



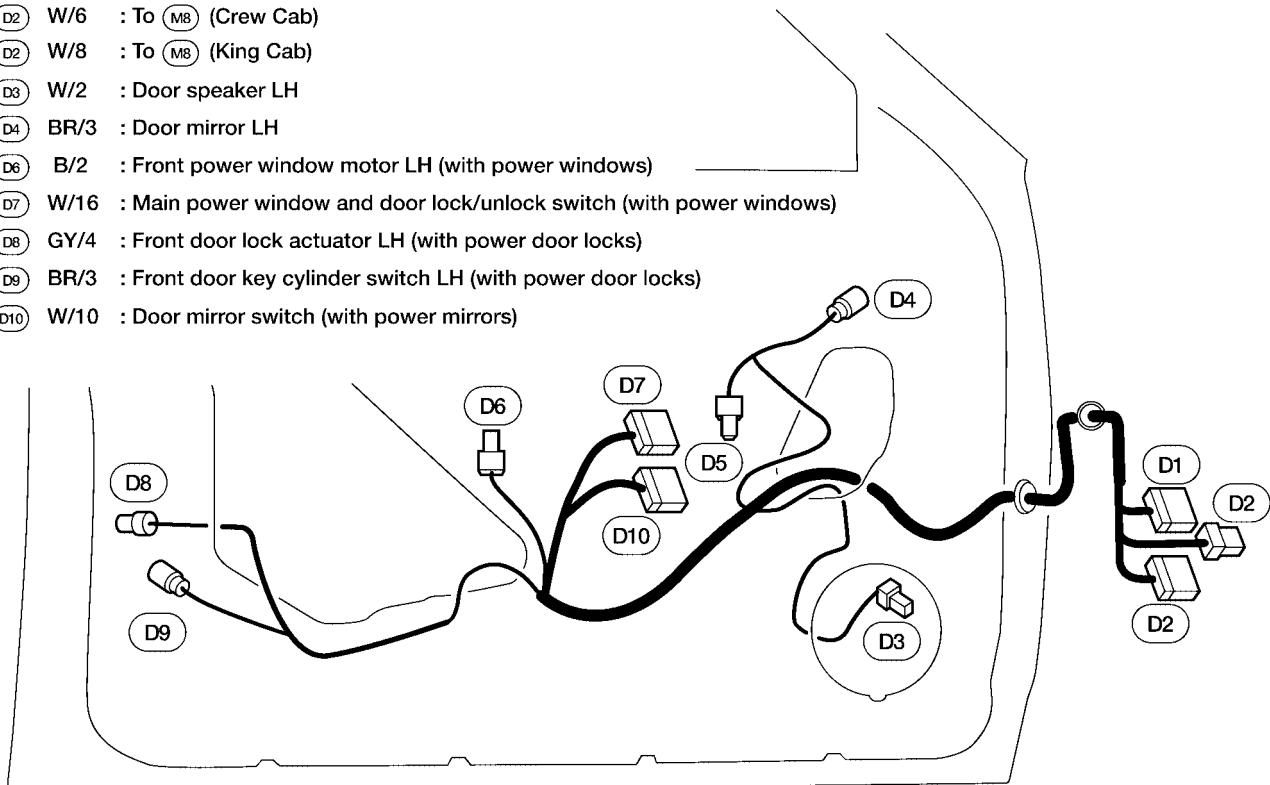
WKIA0341E

Front Door Harness LH SIDE

EKS00307

PG

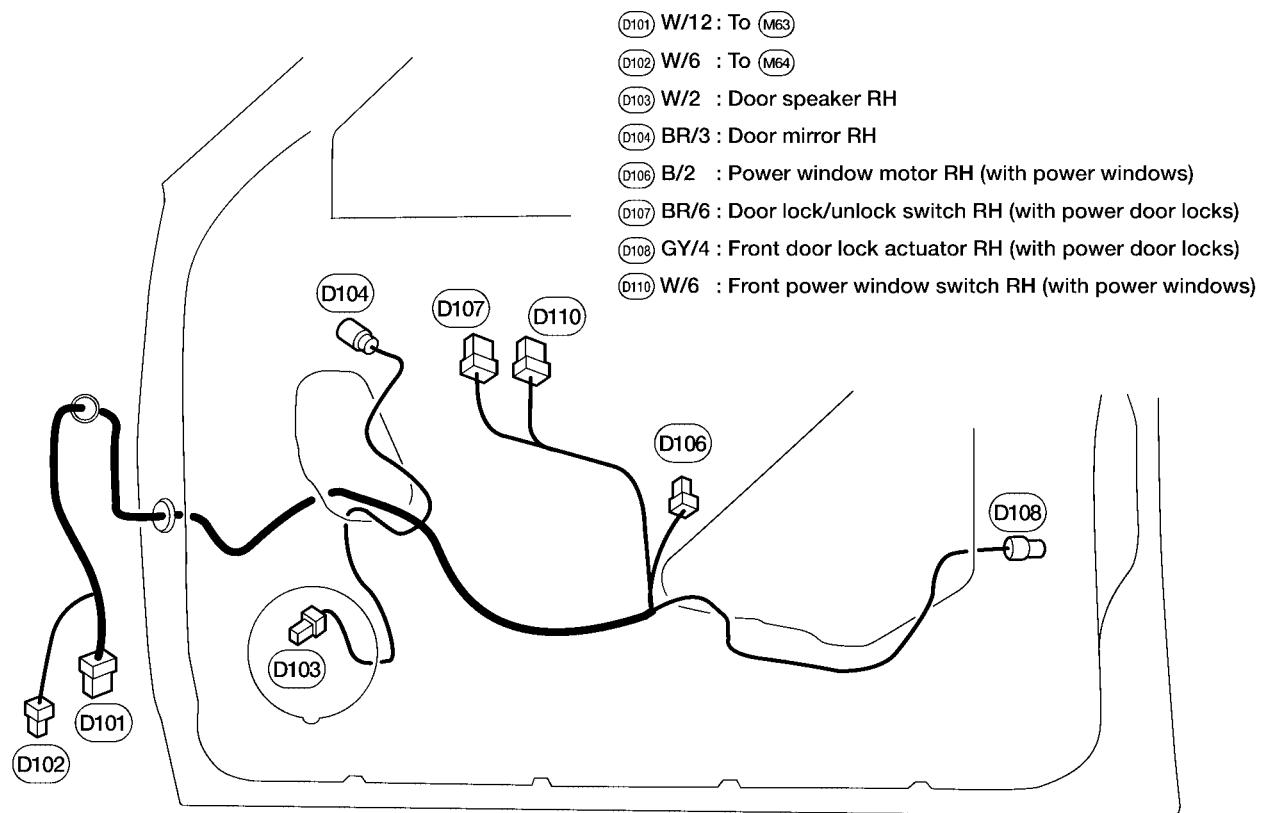
- (D1) W/12 : To (M9)
- (D2) W/6 : To (M8) (Crew Cab)
- (D2) W/8 : To (M8) (King Cab)
- (D3) W/2 : Door speaker LH
- (D4) BR/3 : Door mirror LH
- (D6) B/2 : Front power window motor LH (with power windows)
- (D7) W/16 : Main power window and door lock/unlock switch (with power windows)
- (D8) GY/4 : Front door lock actuator LH (with power door locks)
- (D9) BR/3 : Front door key cylinder switch LH (with power door locks)
- (D10) W/10 : Door mirror switch (with power mirrors)



WKIA0342E

HARNESS LAYOUT

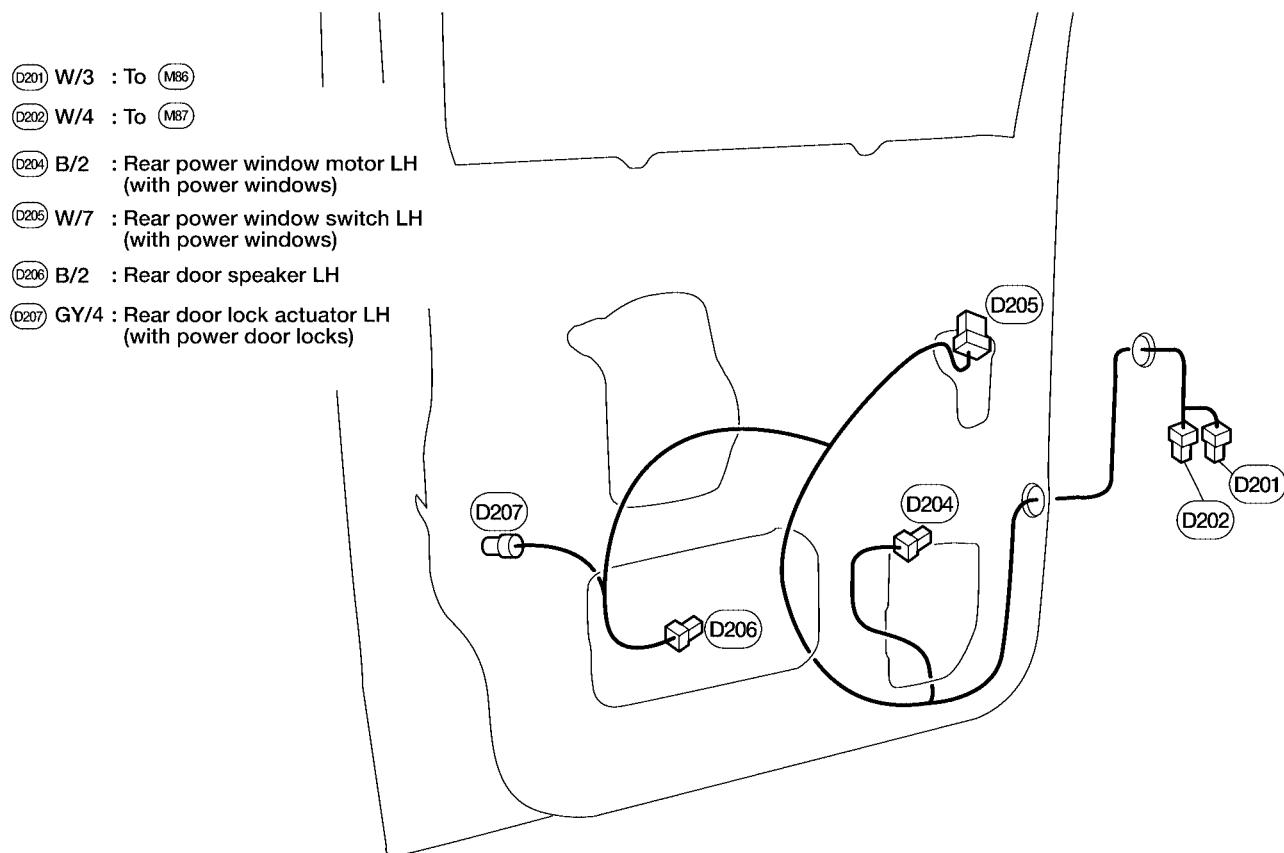
RH SIDE



WKIA0343E

Rear Door Harness LH SIDE

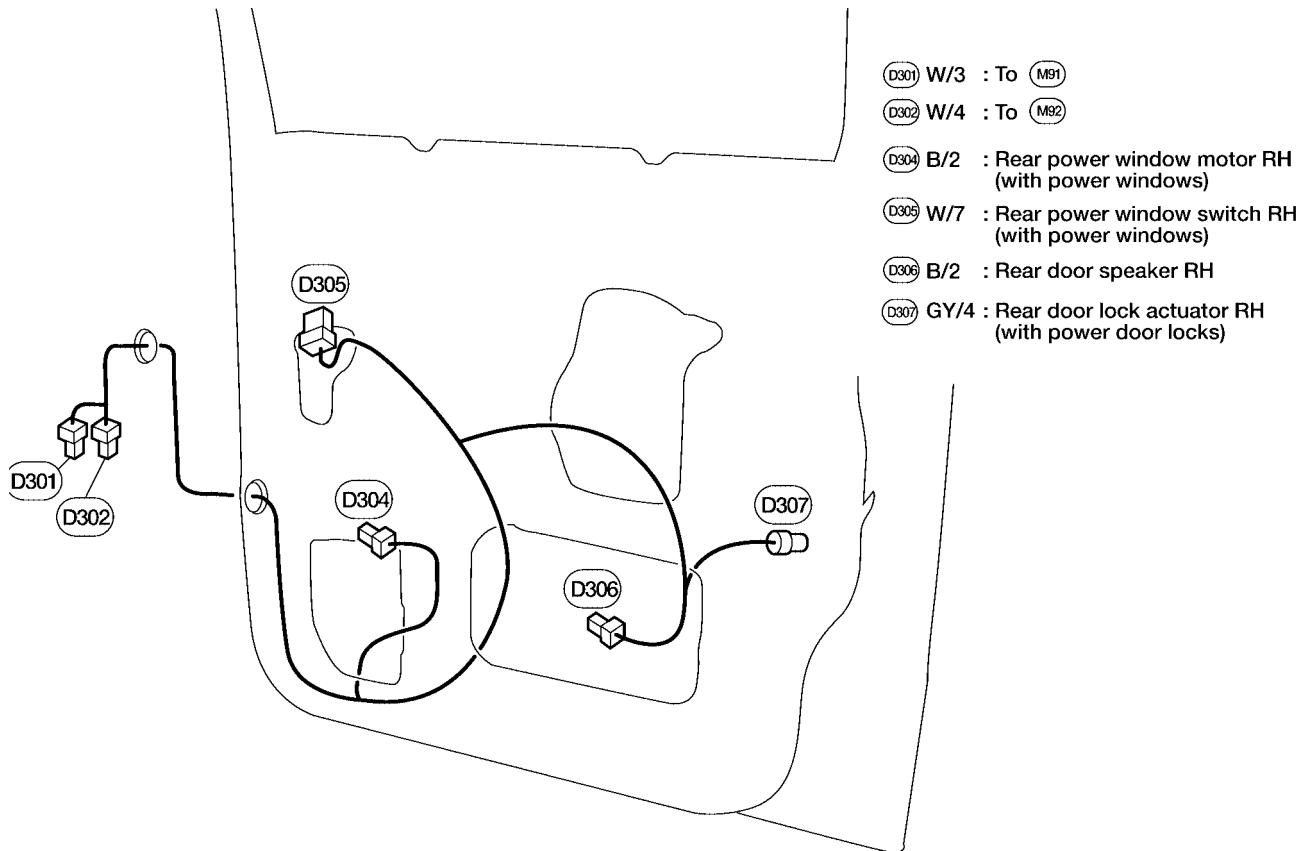
EKS00308



WEL970A

HARNESS LAYOUT

RH SIDE



WEL971A

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HARNESS LAYOUT

Wiring Diagram Codes (Cell Codes)

EKS003OA

Use the chart below to find out what each wiring diagram code stands for.

Refer to the wiring diagram code in the alphabetical index to find the location (page number) of each wiring diagram.

| Code | Section | Wiring Diagram Name |
|--------|---------|---|
| 1STSIG | AT | A/T 1st Signal |
| 2NDSIG | AT | A/T 2nd Signal |
| 3RDSIG | AT | A/T 3rd Signal |
| 4THSIG | AT | A/T 4th Signal |
| AAC/V | EC | IACV-AAC Valve |
| ABS | BRC | Anti-Lock Brake System |
| A/C,M | MTC | Manual Air Conditioner |
| ASCD | ASC | Automatic Speed Control Device |
| A/T | AT | A/T |
| AT/C | EC | A/T Control |
| ATDIAG | EC | A/T Diagnosis Communication Line |
| AUDIO | AV | Audio |
| BACK/L | LT | Back-up Lamp |
| BA/FTS | AT | A/T Fluid Temperature Sensor and TCM Power Supply |
| BYPS/V | EC | Vacuum Cut Valve Bypass Valve |
| CAN | EC | CAN Communication Line |
| CHARGE | SC | Charging System |
| CHIME | DI | Warning Chime |
| CIGAR | WW | Cigarette Lighter |
| CKPS | EC | Crank Shaft Position Sensor (OBD) |
| CMPS | EC | Camshaft Position Sensor (OBD) |
| COMPAS | DI | Compass and Thermometer |
| DEF | GW | Rear Window Defogger |
| D/LOCK | BL | Power Door Lock |
| DTRL | LT | Headlamp - With Daytime Light System |
| ECTS | EC | Engine Coolant Temperature Sensor |
| EGRC/V | EC | EGRC - Solenoid Valve |
| EGRC1 | EC | EGR Function |
| EGR/TS | EC | EGR Temperature Sensor |
| ENGSS | AT | Engine Speed Signal |
| F/FOG | LT | Front Fog Lamp |
| FICD | EC | IACV-FICD Solenoid Valve |
| FLS1 | EC | Fuel Level Sensor Function (SLOSH) |
| FLS2 | EC | Fuel Level Sensor Circuit |
| FLS3 | EC | Fuel Level Sensor Circuit (Ground Signal) |
| F/PUMP | EC | Fuel Pump |
| FTS | AT | A/T Fluid Temperature Sensor |
| FTTS | EC | Fuel Tank Temperature Sensor |
| FUEL | EC | Fuel Injection System Function |
| FUELB1 | EC | Fuel Injection System Function (Bank 1) |
| FUELB2 | EC | Fuel Injection System Function (Bank 2) |
| H/LAMP | LT | Headlamp |
| HO2S1 | EC | Heated Oxygen Sensor 1 |
| HO2S1H | EC | Heated Oxygen Sensor 1 Heater |
| HO2S2 | EC | Heated Oxygen Sensor 2 |
| HO2S2H | EC | Heated Oxygen Sensor 2 Heater |
| HORN | WW | Horn |

HARNESS LAYOUT

| | | |
|--------|-----|---|
| IATS | EC | Intake Air Temperature Sensor |
| IGN/SG | EC | Ignition Signal |
| ILL | LT | Illumination |
| INJECT | EC | Injector |
| KEYLES | BL | Remote Keyless Entry System |
| KS | EC | Knock Sensor |
| LPSV | AT | Line Pressure Solenoid Valve |
| MAFS | EC | Mass Air Flow Sensor |
| MAIN | AT | Main Power Supply and Ground Circuit |
| MAIN | EC | Main Power Supply and Ground Circuit |
| METER | DI | Speedometer, Tachometer, Temp., and Fuel Gauges |
| MIL/DL | EC | MIL and Data Link Connectors |
| MIRROR | GW | Door Mirror |
| NONDTC | AT | Non-detectable Items |
| O2H1B1 | EC | Heated Oxygen Sensor 1 Heater Bank 1 |
| O2H1B2 | EC | Heated Oxygen Sensor 1 Heater Bank 2 |
| O2H2B1 | EC | Rear Heated Oxygen Sensor 2 Heater Bank 1 |
| O2H2B2 | EC | Rear Heated Oxygen Sensor 2 Heater Bank 2 |
| O2S1B1 | EC | Heated Oxygen Sensor 1 Bank 1 |
| O2S1B2 | EC | Heated Oxygen Sensor 1 Bank 2 |
| O2S2B1 | EC | Heated Oxygen Sensor 2 Bank 1 |
| O2S2B2 | EC | Heated Oxygen Sensor 2 Bank 2 |
| OVRCVS | AT | Over Run Clutch Solenoid Valve |
| PGC/V | EC | EVAP Canister Purge Volume Control Solenoid Valve |
| PNP/SW | AT | Park/Neutral Position Switch |
| PNP/SW | EC | Park/Neutral Position Switch |
| POWER | PG | Power Supply Routing |
| PRE/SE | EC | EVAP Control System Pressure Sensor |
| PST/SW | EC | Power Steering Oil Pressure Switch |
| ROOM/L | LT | Interior Room Lamp |
| S/CHGR | EC | Supercharger Bypass Valve Control |
| SHIFT | AT | A/T Shift Lock System |
| SRS | SRS | Supplemental Restraint System |
| S/SIG | EC | Start Signal |
| SSV/A | AT | Shift Solenoid Valve A |
| SSV/B | AT | Shift Solenoid Valve B |
| START | SC | Starting System |
| STOP/L | LT | Stop Lamp |
| TAIL/L | LT | Parking, License and Tail Lamps |
| TCCSIG | AT | A/T TCC Signal (Lock Up) |
| TCV | AT | Torque Converter Clutch Solenoid Valve |
| TPS | AT | Throttle Position Sensor |
| TPS | EC | Throttle Position Sensor |
| TP/SW | EC | Throttle Position Switch |
| TRSA/T | AT | Turbine Revolution Sensor |
| TURN | LT | Turn Signal and Hazard Warning Lamps |
| T/WARN | WT | Low Tire Pressure Warning System |
| VDC | BRC | Vehicle Dynamics Control System |
| VEHSEC | BL | Vehicle Security System |
| VENT/V | EC | EVAP Canister Vent Control Valve |
| VSS | EC | Vehicle Speed Sensor |
| VSSA/T | AT | Vehicle Speed Sensor A/T (Revolution Sensor) |

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HARNESS LAYOUT

| | | |
|--------|----|----------------------------|
| VSSMTR | AT | Vehicle Speed Sensor Meter |
| WARN | DI | Warning Lamps |
| WINDOW | GW | Power Window |
| WIPER | WW | Front Wiper and Washer |

SUPER MULTIPLE JUNCTION (SMJ)

PFP:84341

EKS003NS

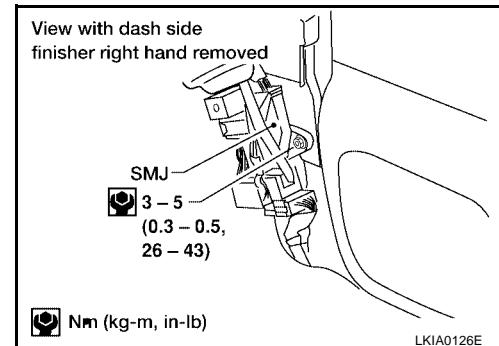
SUPER MULTIPLE JUNCTION (SMJ)

Installation

Securely fit and lock SMJ connectors. Tighten harness bracket bolt to the specified torque.



: 3 - 5 N·m (0.3 - 0.5 kg·m,
26 - 43 in-lb)



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SUPER MULTIPLE JUNCTION (SMJ)

Terminal Arrangement

EKS003NT

MAIN HARNESS



(M65)

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| 24B | 23B | 22B | 21B | 20B | 19B | 18B | 17B | 16B | 15B | 14B | 13B | 12B | 11B | 10B | 9B | 8B | 7B | 6B | 5B | 4B | 3B | 2B | 1B |
| 24A | 23A | 22A | 21A | 20A | 19A | 18A | 17A | 16A | 15A | 14A | 13A | 12A | 11A | 10A | 9A | 8A | 7A | 6A | 5A | 4A | 3A | 2A | 1A |



T.S.

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| 24A | 23A | 22A | 21A | 20A | 19A | 18A | 17A | 16A | 15A | 14A | 13A | 12A | 11A | 10A | 9A | 8A | 7A | 6A | 5A | 4A | 3A | 2A | 1A |
| 24B | 23B | 22B | 21B | 20B | 19B | 18B | 17B | 16B | 15B | 14B | 13B | 12B | 11B | 10B | 9B | 8B | 7B | 6B | 5B | 4B | 3B | 2B | 1B |

(E43)



ENGINE ROOM HARNESS

AEL646B

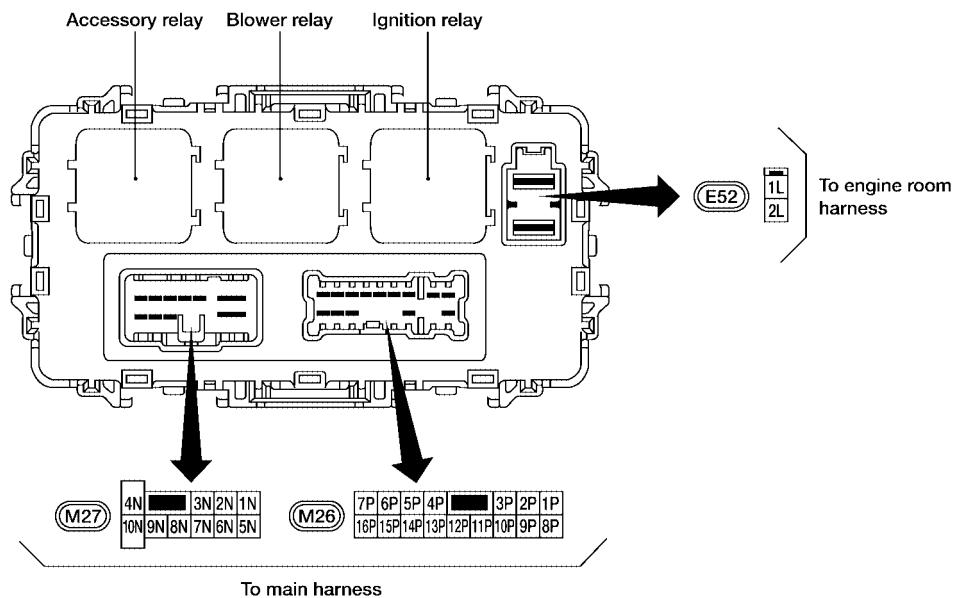
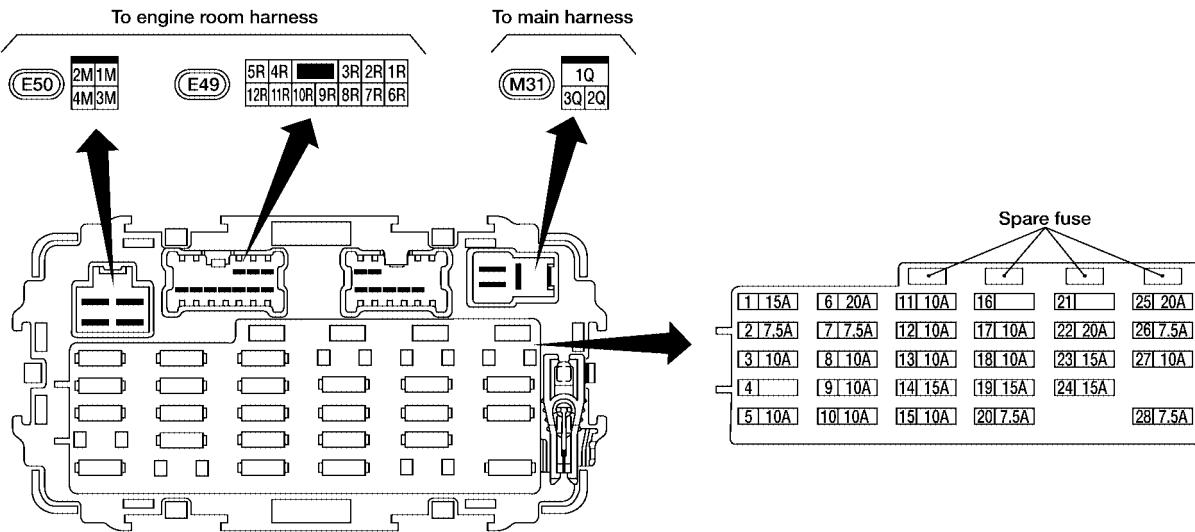
FUSE BLOCK — JUNCTION BOX (J/B)

FUSE BLOCK — JUNCTION BOX (J/B)

PFP:24350

Terminal Arrangement

EKS003NU



WEL913A

FUSE AND FUSIBLE LINK BOX

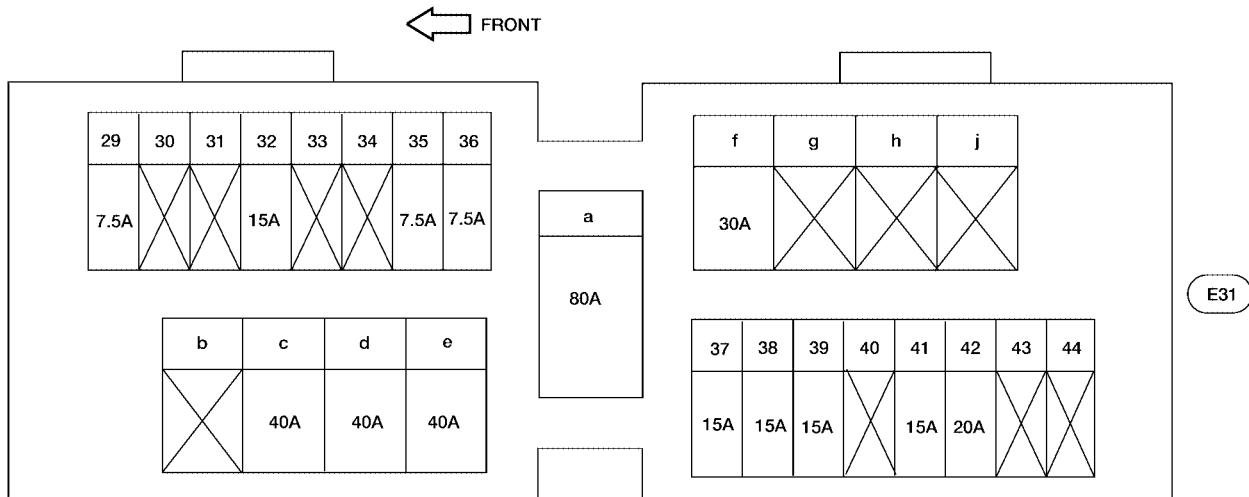
FUSE AND FUSIBLE LINK BOX

PFP:24381

Terminal Arrangement

EKS002TH

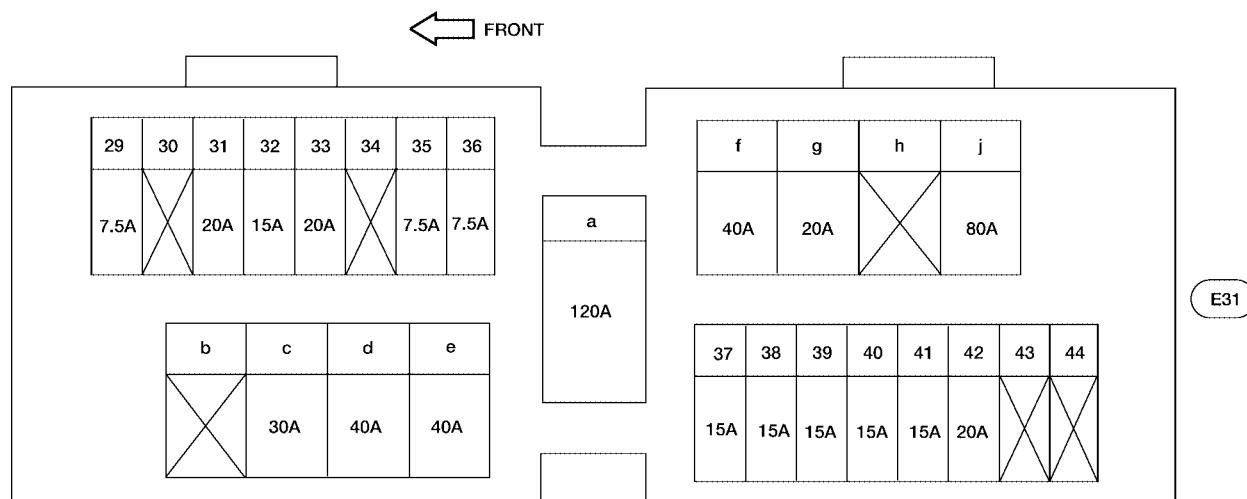
For KA24DE ENGINE



No 29 - 44: FUSE

a - j: FUSIBLE LINK

For VG33E and VG33ER ENGINES



No 29 - 44: FUSE

a - j: FUSIBLE LINK

WKIA1464E

ELECTRICAL UNITS

ELECTRICAL UNITS

Terminal Arrangement

PFP:23710

EKS002TD

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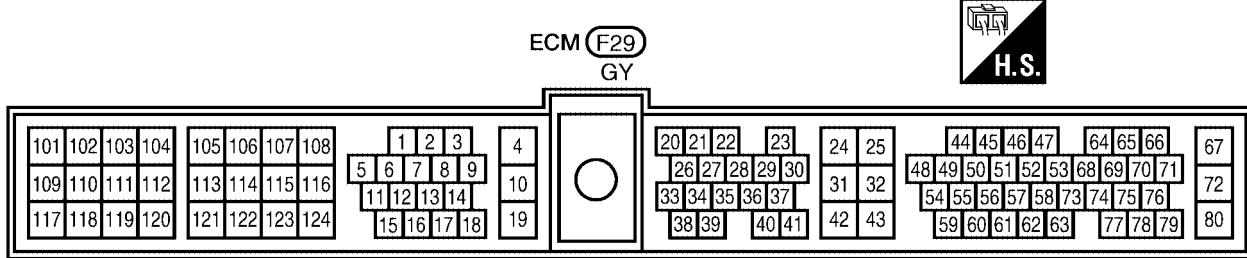
I

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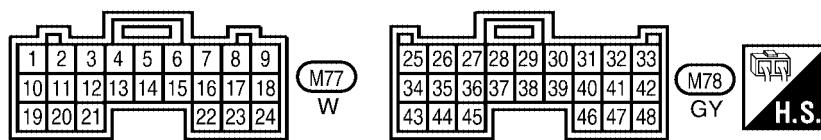
PG

L

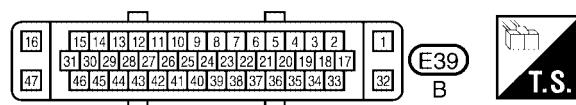
M



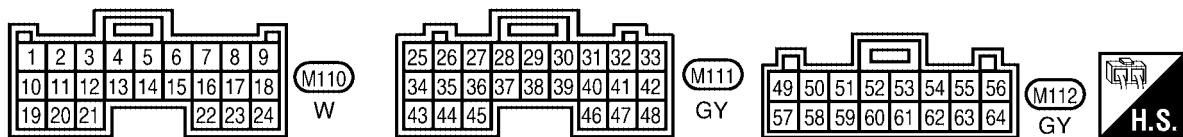
TCM (TRANSMISSION CONTROL MODULE)



ABS ACTUATOR AND ELECTRIC UNIT
(CONTROL UNIT)



SMART ENTRANCE CONTROL UNIT



WKIA0319E

ELECTRICAL UNITS
