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# POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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#### **PRECAUTIONS**

PRECAUTIONS PFP:00001

# Precautions for 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 front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SRS and SB 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/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.

## **POWER SUPPLY ROUTING**

PFP:24110

**Schematic** 

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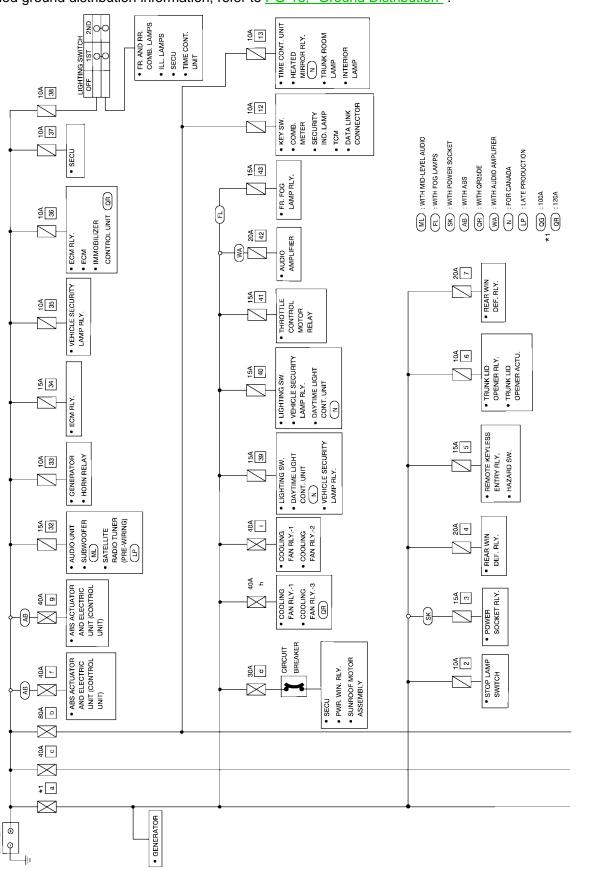
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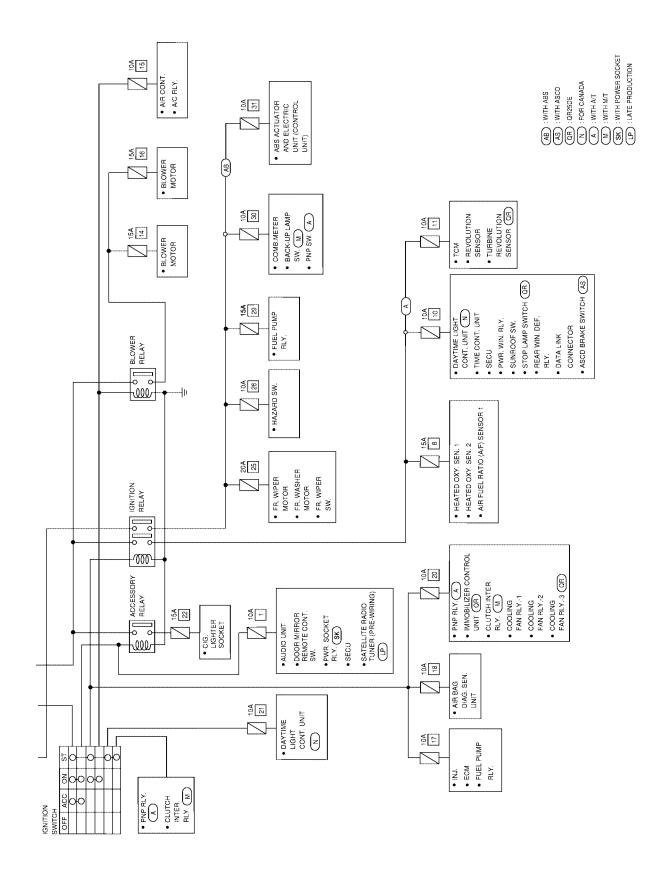
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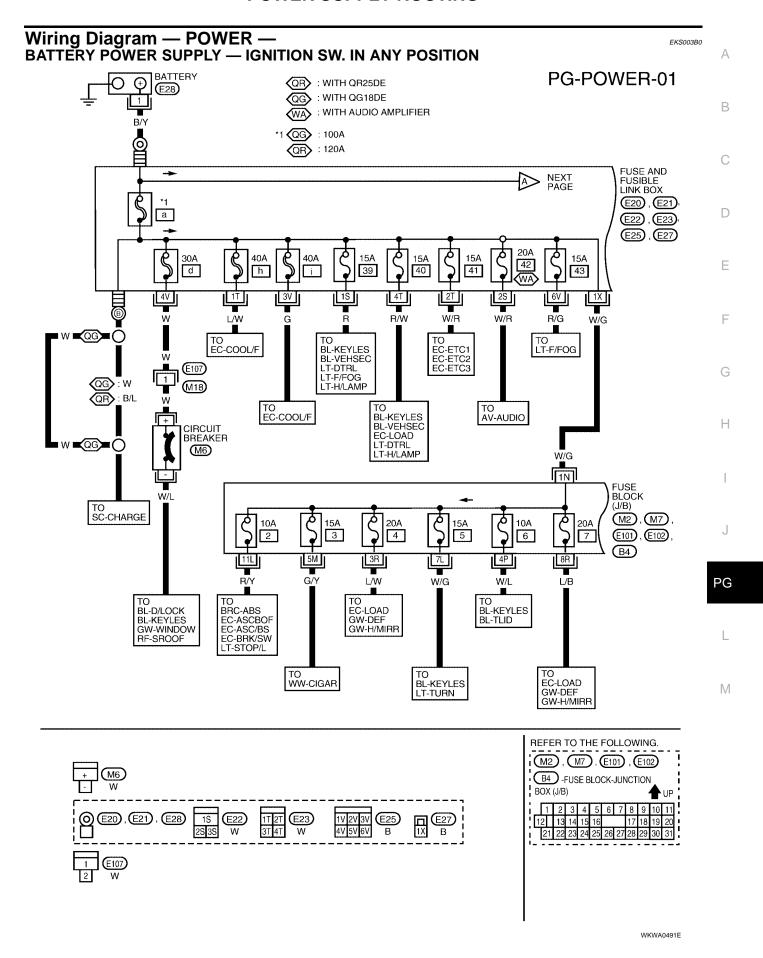
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For detailed ground distribution information, refer to PG-13, "Ground Distribution" .



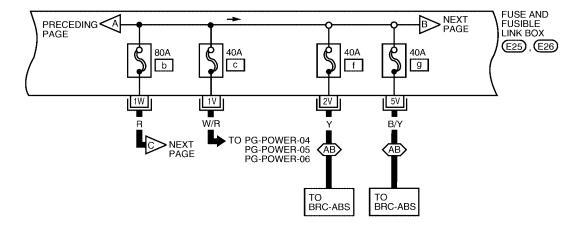


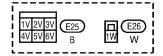
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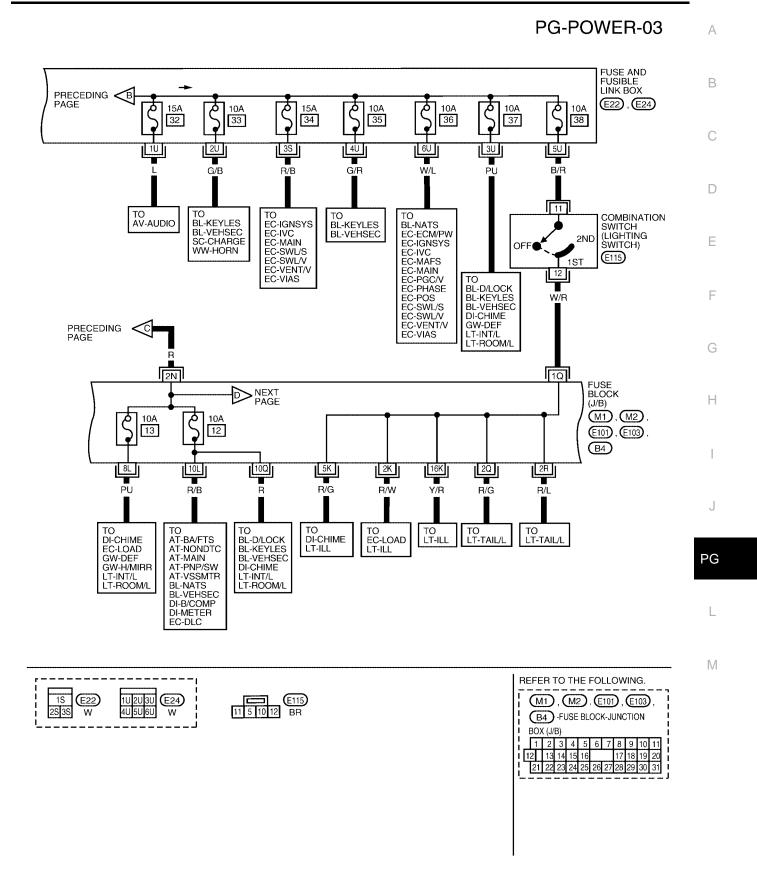
## PG-POWER-02







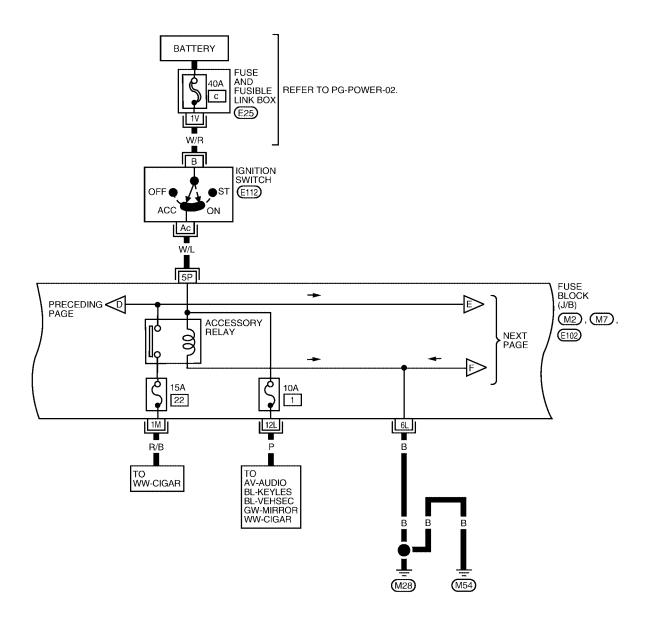
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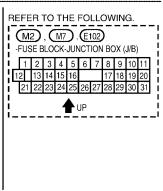
WKWA0492E

#### ACCESSORY POWER SUPPLY — IGNITION SW. IN "ACC" OR "ON"

#### PG-POWER-04

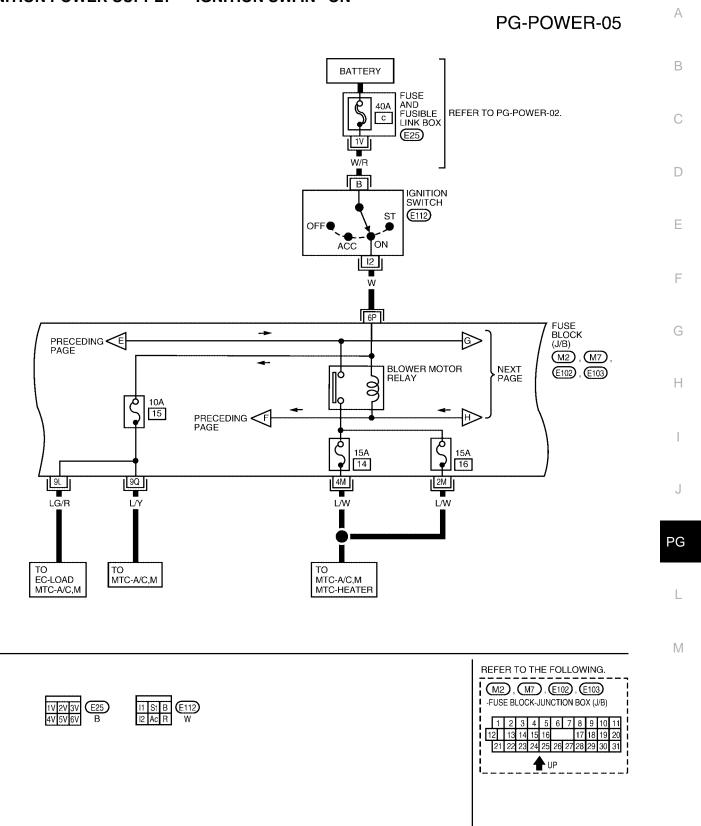






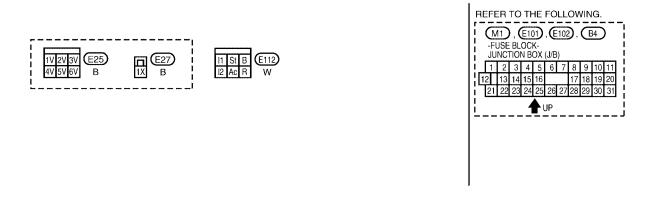
WKWA0250E

#### **IGNITION POWER SUPPLY — IGNITION SW. IN "ON"**



WKWA0493E

#### **IGNITION POWER SUPPLY — IGNITION SW. IN "ON" AND/OR "START"** QG>: WITH QG18DE PG-POWER-06 QR : WITH QR25DE QG : 100A QR): 120A BATTERY W/R FUSE AND FUSIBLE LINK BOX В **IGNITION** REFER TO 40A TO PG-POWER-08 SWITCH PG-POWER-01, PG-POWER-02. а С (E25) (E112) (E27) 1V OFF ● W/G W/R ACC ON W/G B/R 1N 2P **FUSE** BLOCK (J/B) TO PG-POWER-08 **(** M1), (E101) IGNITION E102, B4 RELAY PRECEDING PAGE NEXT PAGE 10A 10A 15A 10 11 8 7R 12K 13K 8K BR/R L/R G TO EC-A/F EC-A/FH EC-FUEL TO EC-LOAD TO TO AT-BA/FTS AT-NONDTC AT-SHIFT BL-KEYLES GW-DEF GW-H/MIRR AT-MAIN AT-TRSA/T BL-KEYLES BL-VEHSEC DI-CHIME EC-ASCBOF EC-ASC/BS EC-DLC GW-DEF GW-WINDOW LT-DTRL T-INT// EC-HO2S1 EC-HO2S1H EC-HO2S2 AT-VSSA/T EC-HO2S2H LT-INT/L LT-ROOM/L RF-SROOF



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#### PG-POWER-07

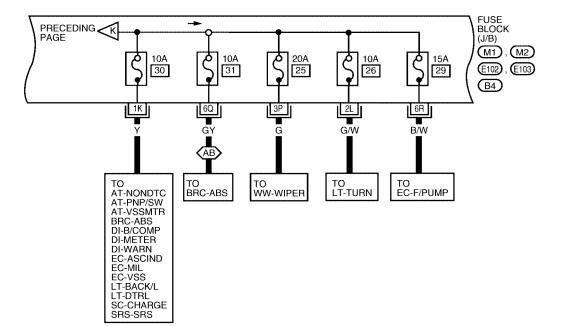
AB : With ABS

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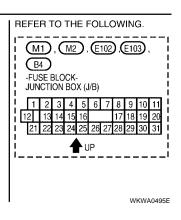
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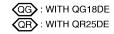
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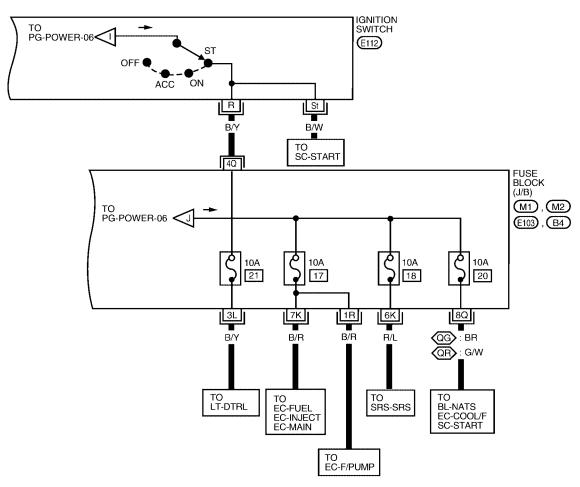
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#### PG-POWER-08







GROUND PFP:24080

# Ground Distribution MAIN HARNESS

View with instrument panel removed

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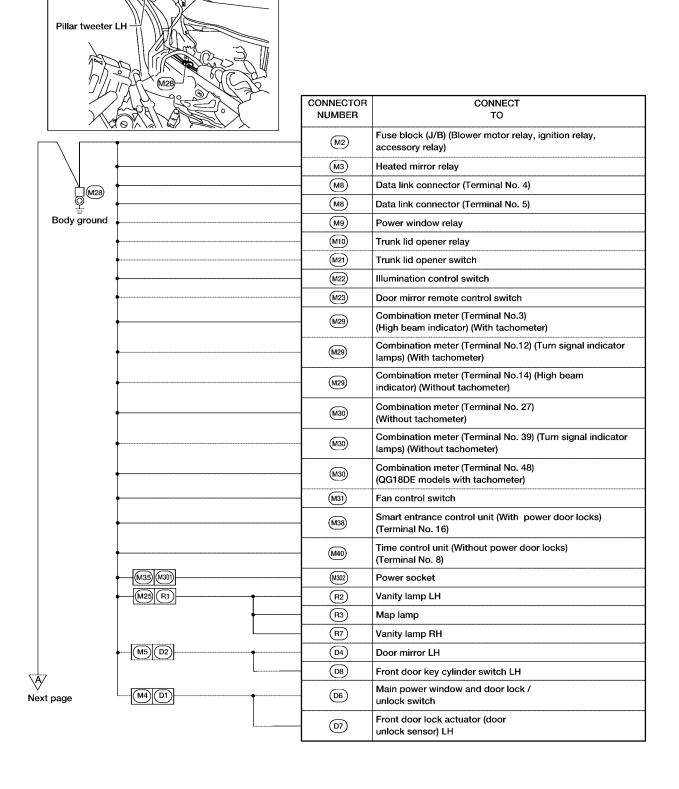
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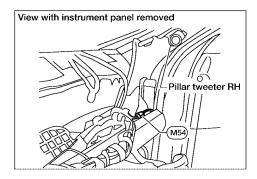
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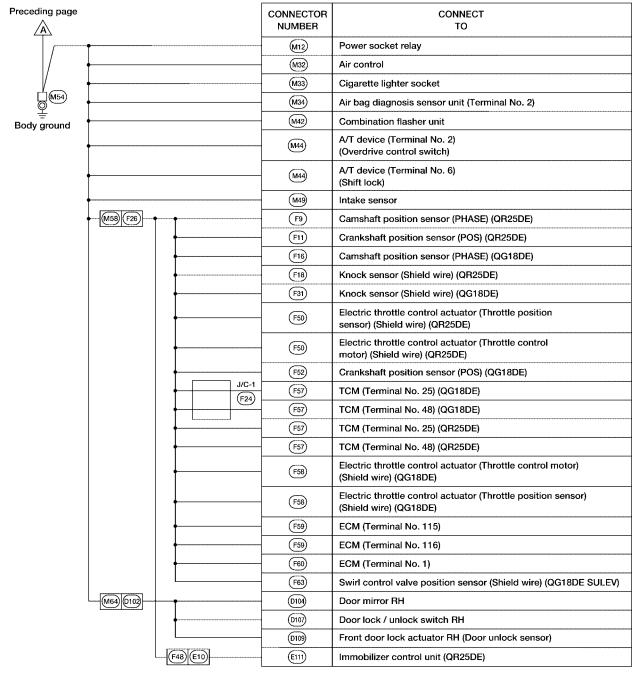
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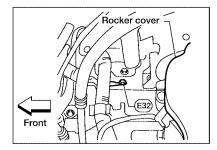


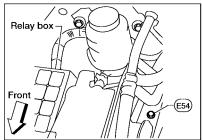




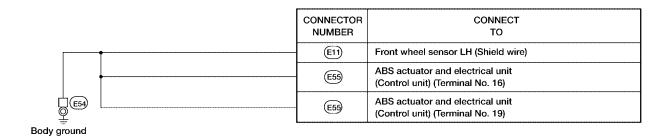
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#### **ENGINE ROOM HARNESS**





|                   | CONNECTOR<br>NUMBER | CONNECT<br>TO |
|-------------------|---------------------|---------------|
|                   | E33                 | Generator     |
|                   |                     |               |
| E32)  Body ground |                     |               |
| Body ground       |                     |               |



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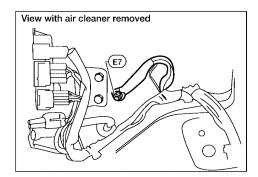
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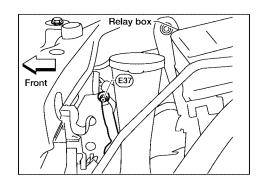
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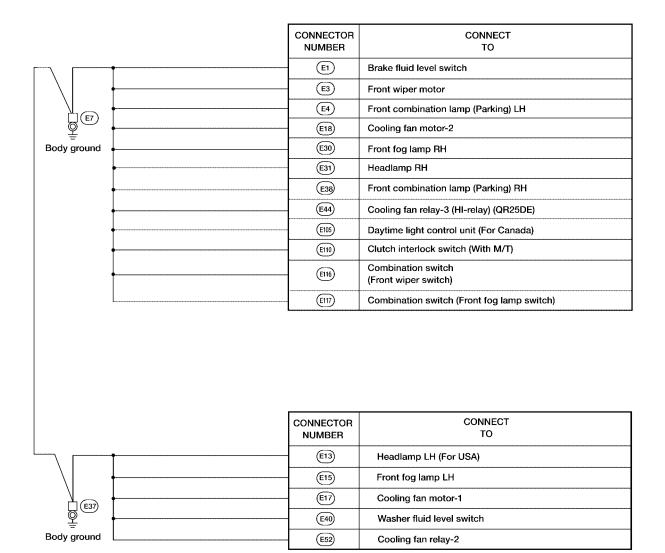
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#### **ENGINE CONTROL HARNESS QG18DE**

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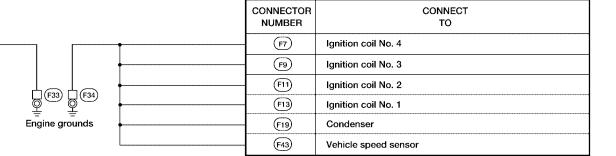
В

Engine grounds on back of intake manifold collector

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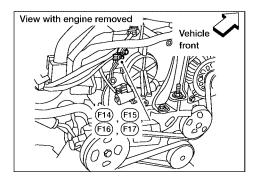
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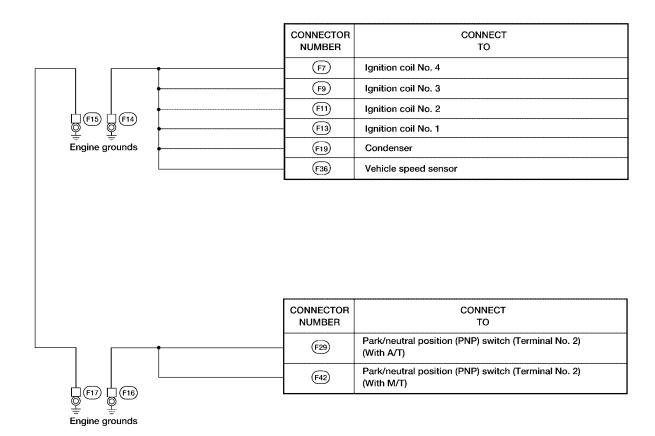
CONNECTOR CONNECT NUMBER (F49) Park/neutral position (PNP) switch

M

Engine grounds

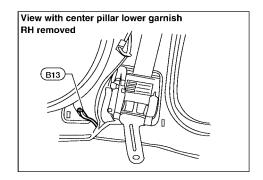
#### **QR25DE**

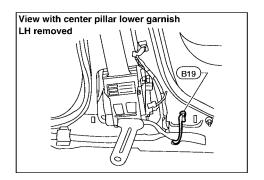


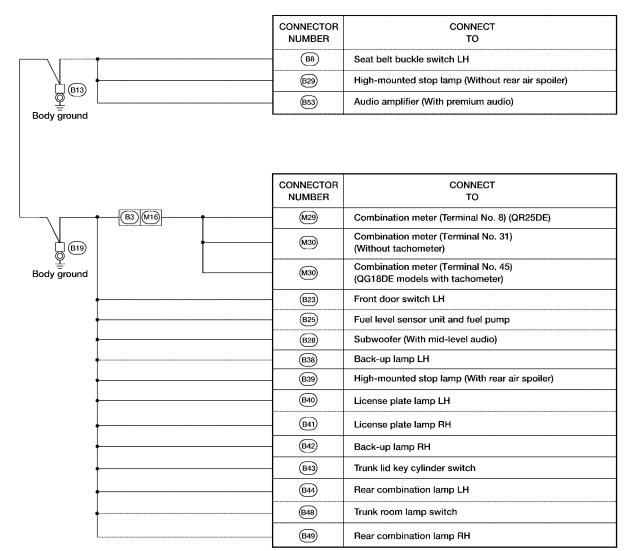


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#### **BODY HARNESS**







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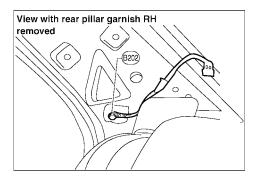
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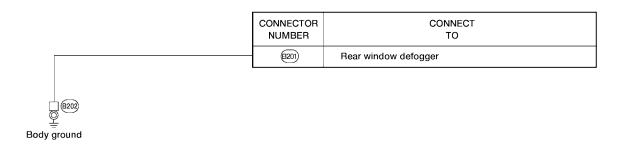
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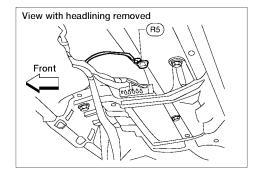
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#### **REAR WINDOW DEFOGGER GROUND HARNESS**





## ROOM HARNESS



CONNECTOR CONNECT
NUMBER TO

R4 Sunroof motor assembly

R5 E Body ground Α

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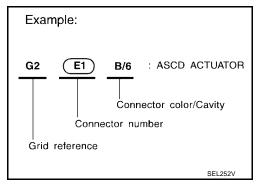
HARNESS PFP:24010

#### Harness Layout HOW TO READ HARNESS LAYOUT

EKS003B2

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

- Main Harness
- Engine Room Harness
- Engine Control Harness
- Body Harness



#### TO USE THE GRID REFERENCE

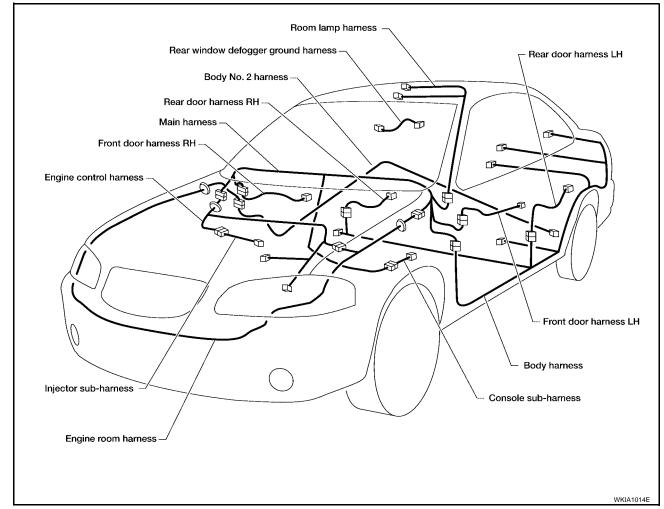
- 1. Find the desired connector number on the connector list.
- 2. Find the grid reference.
- 3. On the drawing, find the crossing of the grid reference letter column and number row.
- 4. Find the connector number in the crossing zone.
- 5. Follow the line (if used) to the connector.

#### **CONNECTOR SYMBOL**

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

| Connector type                      | Water pr   | oof type   | Standard type |           |  |  |  |  |  |
|-------------------------------------|------------|------------|---------------|-----------|--|--|--|--|--|
| Connector type                      | Male       | Female     | Male          | Female    |  |  |  |  |  |
| Cavity: Less than 4                 |            | <u> </u>   |               | $\otimes$ |  |  |  |  |  |
| <ul> <li>Relay connector</li> </ul> | (D)        | ملاح       |               |           |  |  |  |  |  |
| Cavity: From 5 to 8                 | <b>Ø</b>   |            | <b>***</b>    |           |  |  |  |  |  |
| Cavity: More than 9                 | $\Diamond$ | $\Diamond$ |               |           |  |  |  |  |  |
| Ground terminal etc.                | _          | _          | Ø             | 2         |  |  |  |  |  |

#### **OUTLINE**



#### NOTE:

For detailed ground distribution information, refer to  $\underline{\sf PG-13}$ ,  $\underline{\sf "Ground Distribution"}$ .

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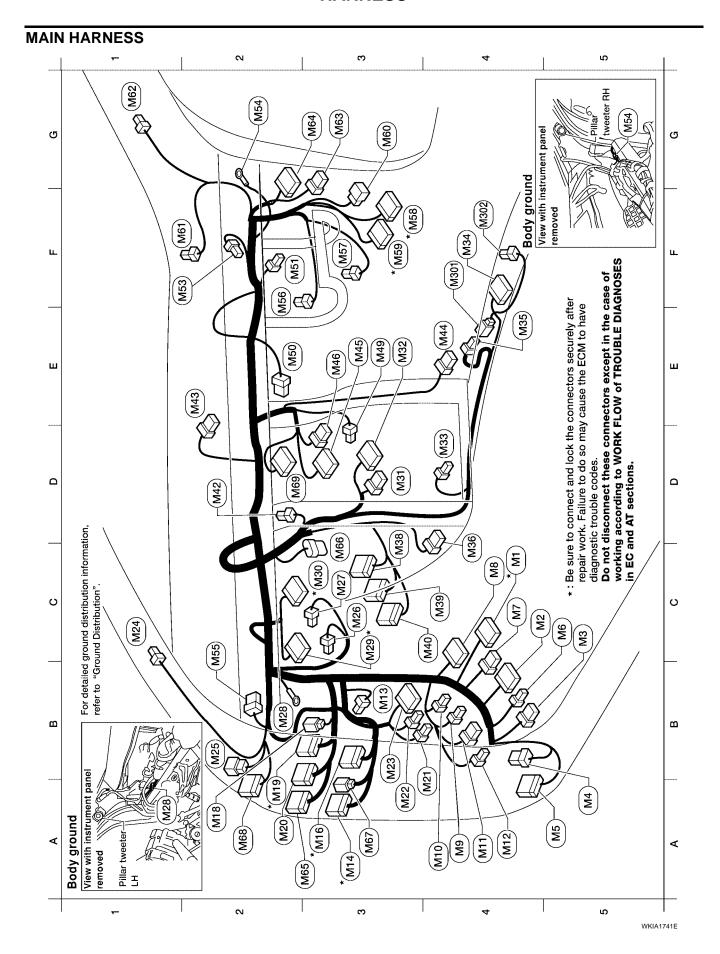
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|              | A2 (M65) W/12:To (B60)           | C3 (M6) B/6 : Accelerator pedal position sensor | A3 (M67) W/2 : To (851)                        | A2 (MeB) W/12: To (BSS) (Late production)  | D2 (M69) W/12 : Audio unit (Late production) | Console Sub-harness           | F4 (N30) W/2 : To (M35)        | F4 (Matc) B/3 : Power socket       | i<br>)  |   |   |                                  |  | (M53): Diode-2           | For USA                  |                          | Combination Parking brake |                                  |                                    |                                       | (M55): Diode-3 (QG18DE Canada models       | and all QR25DE)                                   | Lighting                          | switch                 |  | Headlamp                                   | (High beam)                       |                           | *: Be sure to connect and lock the connectors securely after | repair work. Failure to do so may cause the ECM to nave<br>diagnostic trouble codes. | Do not disconnect these connectors except in the case of |   |
|--------------|----------------------------------|---|--|--|--|-------------------------------|--------------------------------|------------------------------------|---|---|---|----------------------------------|--|--------------------------|--------------------------|--------------------------|---------------------------|----------------------------------|------------------------------------|---------------------------------------|--|---|-----------------------------------|------------------------|--|--|-----------------------------------|---------------------------|--|--|--|---|
|              | (M3) W/6 : Fan control switch    | (M32) W/12 : Air control                        | (M33) W/3 : Cigarette lighter socket           | (M34) Y/20 : Air bag diagnosis sensor unit | (M3) W/2 : To (M30)                          | (M36) Y/7 : Spiral cable      | unit                           | (With power door locks)            | (M3) B/24 : Smart entrance control unit (With power door locks) | (M49) W/10 : Time control unit (Without power door locks) | (M42) B/3 : Combination flasher unit      | (M43) W/8 : Hazard switch        | (M44) W/8 : A/T device                           | (M45) W/10: Audio unit   | (M46) W/6 : Audio unit   |                          |                           |                                  | Ŋ                                  |                                       | 23   | (M56) BR/4: Fan resistor                          |                                   | G                      | √(Ms) BR/16: To (F27) (With QG18DE)        | (M59) W/24 : To(F27) (With QR25DE)         | (MeG) W/6 :To (F28)               | _                         | BR/2: Pillar tweeter RH                                      | W/8 : To (0101)  | ) : To (0102)  |   |
|              | D3                               | E   | 04   | <b>7</b>                                   | <b>E</b> 4                                   | 2                             | ឌ                              |                                    | 2   | 2   | D2  | E2                               | <b>E</b>   | E3                       | 8                        | <u>ш</u>                 | E3                        | : E                              | F2                                 | 62                                    | 8  | F2  | E                                 | *                      |  | £.   |                                   |                           |  | _  | සි   |   |
| Main harness | C4 *(M1) W/16 : Fuse block (J/B) | C4 (M2) W/12 : Fuse block (J/B)                 | C5 (M3) L/4 : Heated mirror relay (For Canada) | A5 (M4) W/8 : To (D1)                      | A5 (M5) W/16 : To (D2)                       | C5 (M6) W/2 : Circuit breaker | C4 (M7) W/6 : Fuse block (J/B) | C4 (M8) W/16 : Data link connector | L/4   | A4 (Mi0) L/4 : Trunk lid opener relay                     | A4 (M1) BR/6 : Remote keyless entry relay | A4 (M2) L/4 : Power socket relay | B3 (M3) L/2 : ASCD clutch switch (M/T with ASCD) | A3 *(M14) BR/16: To (B1) | A3 *(M19) W/20 : To (B3) | A2 (M18) W/2 : To (E107) | A2 *M¹9 W/16 : To €1®     | A2 (M2) W/10 : To (E10) (QG18DE) | A2 (M20) W/16 : To (E109) (QR25DE) | A4 (M2) B/2 : Trunk lid opener switch | A3 (M22) W/3 : Illumination control switch | B3 (M23) W/10 : Door mirror remote control switch | C1 (M24) BR/2 : Pillar tweeter LH | A2 (M25) W/6 : To (R1) | C3 (M26) B/2 : Stop lamp switch (With M/T) | C3 (M26) W/4 : Stop lamp switch (With A/T) | C3 (M27) BR/2 : ASCD brake switch | B2 *(M28) - : Body ground | C3 (M29) W/24 : Combination meter (Without tachometer)       | 33 *(M29) BR/24 : Combination meter (With tachometer)                                | C3 *(M3) BR/20 : Combination meter (Without tachometer)  | C3 *(M3) W/24 : Combination meter (With tachometer) |

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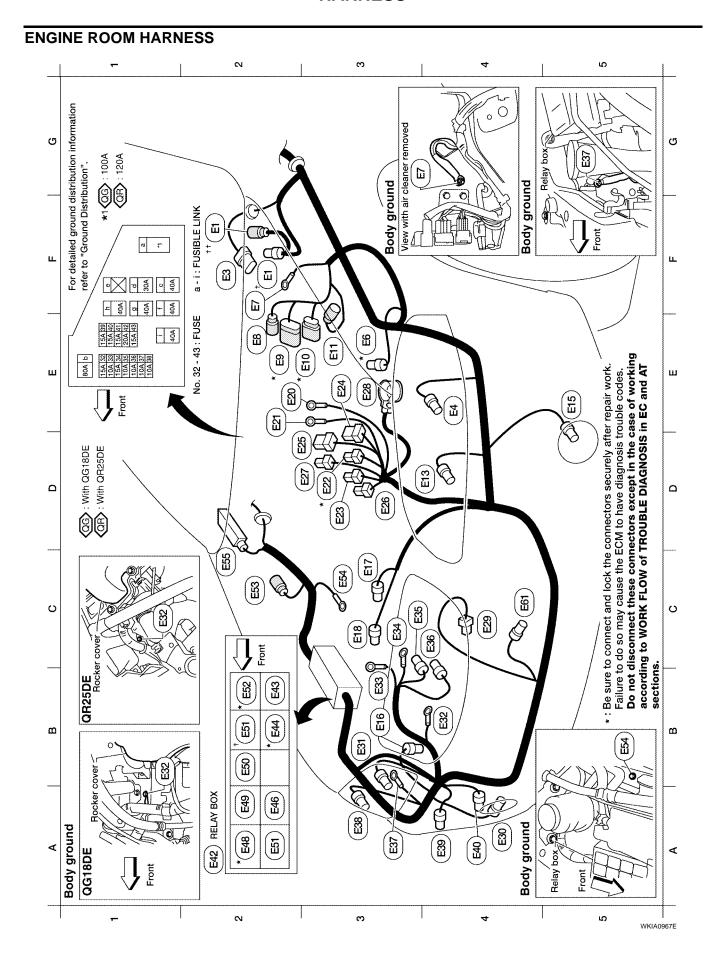
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(E1) GY/2 : Brake fluid level switch (with QG18DE) : Brake fluid level switch (with QR25DE) G2 \*\* (E1) GY/2

: Front wiper motor E3 GY/6 F2

: Front combination lamp LH (E4) B/3 **E**4

: Dropping resistor E6 GY/2

: Body ground 33

: To (F47) : To (F46) \* (E9) GY/9 (EB) GY/1 E **E**2

: To (F48) \* E10 G/8 **E**4

: Front wheel sensor LH E11 BR/2

83 4 D5 B3

: Headlamp LH E13 G/3

: Front fog lamp LH E15 B/2 : Refrigerant pressure sensor E16 B/3

: Cooling fan motor 1 E17) GY/4 ဗ

: Cooling fan motor 2 (with QG18DE) E18) GY/2

 $\aleph$ 

: Cooling fan motor 2 (with QR25DE) GY/4 E18 ဗ

: Fuse and fusible link box E20 8

: Fuse and fusible link box EZJ

: Fuse and fusible link box (E22) W/3

23

: Fuse and fusible link box E23 W/4 23

: Fuse and fusible link box (E24) W/6 8

: Fuse and fusible link box B/6 (E25 D3

: Fuse and fusible link box (E26) W/1 ജ

: Fuse and fusible link box B/1 (E2)

23

: Battery (positive) E28 8

: Horn B/1 (E23)

: Front fog lamp RH B/2 (3)

: Headlamp RH : Body ground (E31) G/3 E32

: Generator 84 83

: Generator

 $\aleph$ 

: Generator E35) GY/2 2

: A/C compressor E36) B/1

: Body ground E37

> A3 A3 ¥ 44 A2

: Front combination lamp RH E38 B/3

: Front washer motor E39 GY/2

: Washer fluid level switch BR/2 **E**40

: Relay box E42

: Vehicle security lamp relay E43 BR/6 **B**2

: Cooling fan relay-3 (with QR25DE) (E44) BR/6 **B**2

: Front fog lamp relay

E46 L/4

A2

: Cooling fan relay-1 (E48) BR/6 A2

: Horn relay (E49) W/3 A2

: A/C relay (E50) L/4 A2

: Clutch interlock relay (M/T) ESI L/4

: Park/neutral position (PNP) relay (A/T) (E51) L/4 **B**2 Ą2

: Cooling fan relay-2 \* (E52) BR/6 **B**2

: Body ground . (F) ဗ

: Front wheel sensor RH

GY/2

(E63)

 $^{8}$ 

: ABS actuator and electric unit (control unit) ESS B/31  $^{5}$ 

: Ambient air temperature sensor (E61)  \*: 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.

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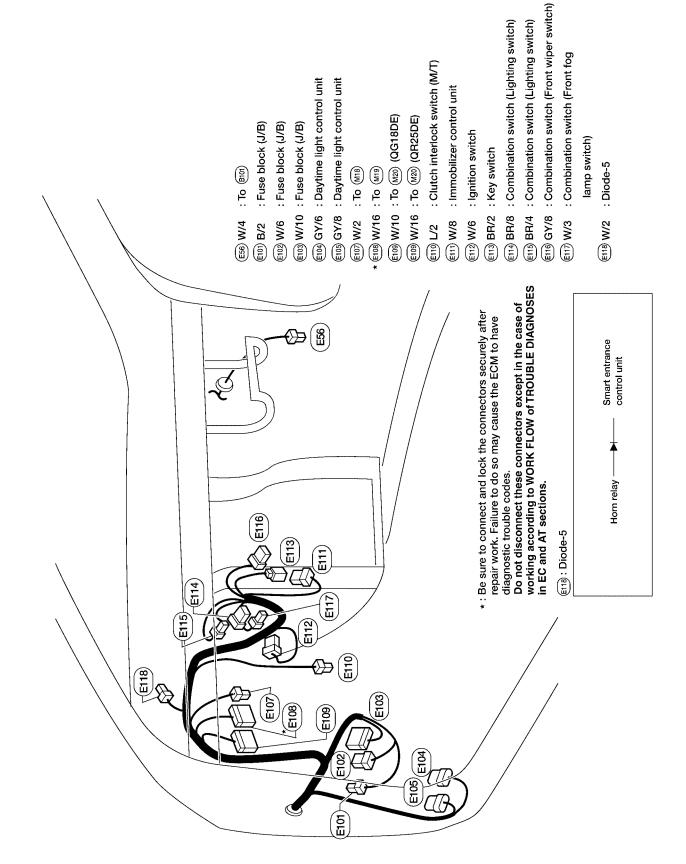
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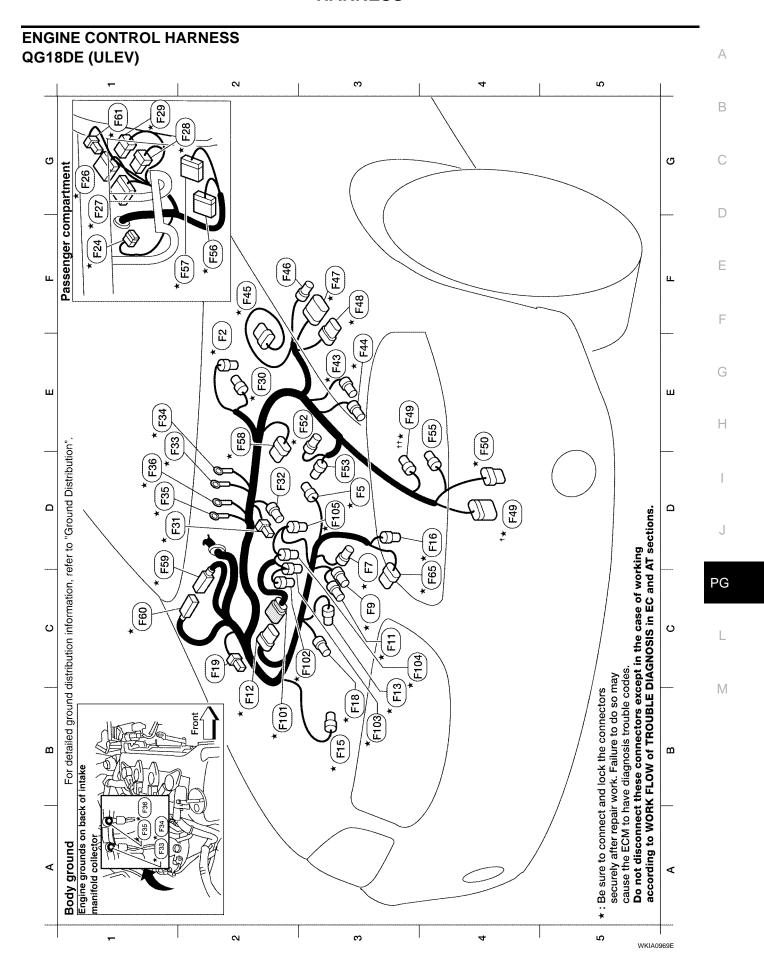
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WKIA0968E



WKIA0242E



**PG-29** 

# **Engine control harness**

| : Heated oxygen sensor 2 | : EVAP canister purge volume control solenoid valve |
|--------------------------|---|
|                          | ) L/2   |
| * (F2) G/4               | *<br>E  |
| ο.                       | m   |

(F45) GY/5 : Mass air flow sensor

(B)

<u>6</u>9

GY/8

# F.

(8)

<u>မ</u> .. <u>မ</u>

GY/1 GY/9

F46 (F47)

: Ignition coil No. 3 : Ignition coil No. 4 (F) GY/3 (FB) GY/3 23  $\aleph$  $\aleph$ 

: Ignition coil No. 2 (F11) GY/3

: Park/neutral position (PNP) switch (M/T) : Park/neutral position (PNP) switch (A/T)

: Crankshaft position sensor (POS)

: Terminal cord assembly (A/T)

B/8 **B**/3

7

B/10

+ \* (F49 (85)

7

B/2

E3 # \* (F49)

: Ignition coil No. 1 : **To** (F101) (F12) GY/6 (Fi3) GY/3

> **B**2 B3 B3

: Engine coolant temperature sensor \* (F15) GY/2

: Camshaft position sensor (PHASE) \* (F16) B/3 40

: Intake valve timing control solenoid valve ' F18) G/2 B3

: Condenser (F19) GY/2

8

: TCM (Transmission control module) (A/T) GY/24: TCM (Transmission control module) (A/T)

(F56) W/24

(FE)

: Back-up lamp switch (M/T)

B/2

(18)

**E**4  $\overline{\Sigma}$ 

: Starter motor

FE3 GY/1

D3

(F52)

E3

: Electric throttle control actuator

: ECM : ECM

SMJ

(F)

F60 SMJ

 $\overline{c}$ 짇

9/5

\* \*\*

E2

: Throttle control motor relay

: Air fuel ratio (A/F) sensor 1

B/6 (Fet) L/4

\*

: Joint connector-1 (F24) BR/20

: To (M58) (F26) W/16

5

: **To** (M59) : To (M60) (F27) BR/16 F28 W/6

> $g_2$ 5

**ECM Relay** (F28) BR/6 : Power steering pressure sensor B/3 (E) **E**2

: Knock sensor B/2 (E) 5

: Oil pressure switch GY/1 (22)

2

**Engine ground** (%) (F)

**Engine ground** 

**Engine ground** F35

: Vehicle speed sensor **Engine ground GY//**2 F43 (E)

: Revolution sensor (A/T) BR/3 \* 4

Engine control sub-harness

\* (F102) GY/2 : Injector No. 1 (F10) GY/6 : To (F12)  $^{5}$ **B**2

নিজ GY/2 : Injector No. 2 B3

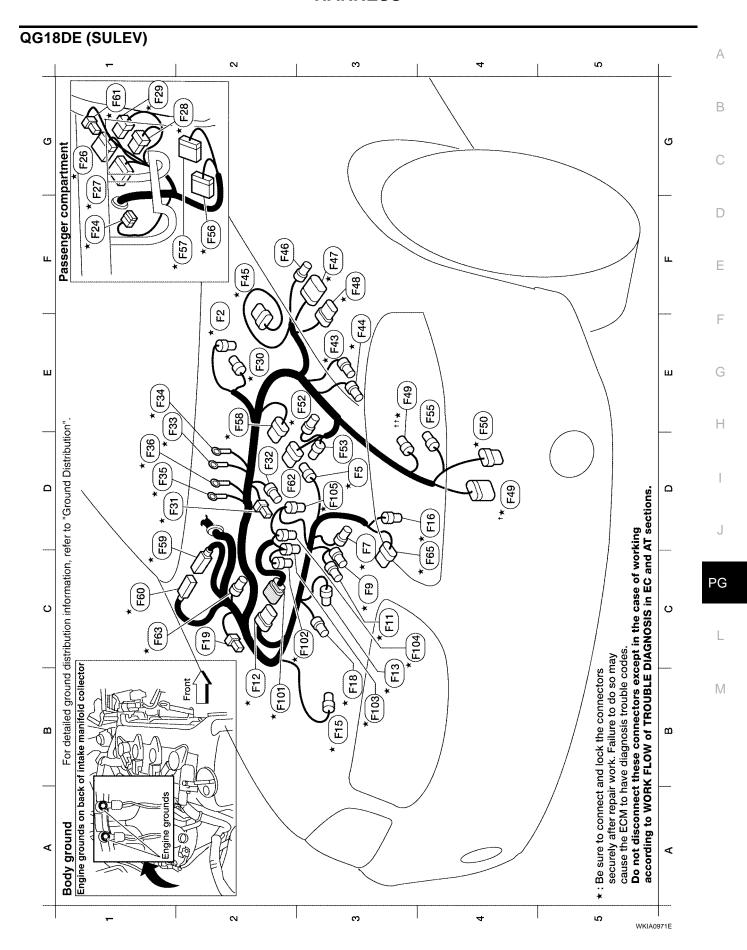
\* (Fig.) GY/2 : Injector No. 3 2

: Injector No. \* (F106) GY/2

> 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.

WKIA0970E



**PG-31** 

|    | )           |   | )   |
|----|-------------|---|---|
| D3 |             | : EVAP canister purge volume control solenoid valve | F2 (F46) GY/1 : To (E8)   |
| D3 |             | : Ignition coil No. 4                               | F3 * (F47) GY/9 : To (E9)   |
| ຮ  | * (FB) GY/3 | : Ignition coil No. 3                               | F3 * F48 GY/8 : To E10  |
| ຮ  |             | : Ignition coil No. 2                               | E3 <sup>tt *</sup> (F49) B/2 : Park/neutral position (PNP) switch (M/T) |
| B2 |             | : To (F101)   | D4 1* (F49) B/10 : Park/neutral position (PNP) switch (A/T)             |
| B3 |             | : Ignition coil No. 1                               | D4 * (F30) B/8 : Terminal cord assembly (A/T)                           |
| B3 |             | : Engine coolant temperature sensor                 | E3 * (F2) B/3 : Crankshaft position sensor (POS)                        |
| D4 |             | : Camshaft position sensor (PHASE)                  | D3 (F3) GY/1 : Starter motor  |
| B3 |             | : Intake valve timing control solenoid valve        | E4 (F5) B/2 : Back-up lamp switch (M/T)                                 |
| 22 |             | : Condenser   | F2 * (F56) W/24 : TCM (Transmission control module) (A/T)               |
| Ξ  |             | ) : Joint connector-1                               | F2 * (F57) GY/24 : TCM (Transmission control module) (A/T)              |
| 5  |             | : To (M58)  | E2 * (F38) G/6 : Electric throttle control actuator                     |
| Ξ  |             | 3 : To (M59)  | D1 * (F59) SMJ : ECM  |
| G2 | * (F28) W/6 | : To (Med)  | C1 * (F6) SMJ : ECM   |
| £  | *           | : ECM Relay   | G1 * (Fi) L/4 : Throttle control motor relay                            |
| E2 | *<br>&      | : Power steering pressure sensor                    | D2 * (F62) GY/6 : Swirl control valve                                   |
| 5  | *<br>E      | : Knock sensor                                      | C2 * (FB) BR/3 : Swirl control valve position sensor                    |
| DS | (F32)       | : Oil pressure switch                               | D4 * (F65) B/6 : Air fuel ratio (A/F) sensor 1                          |
| Ш  | *<br>F33    | : Engine ground                                     |   |
| Ξ  | *           | : Engine ground                                     | Engine control sub-harness  |
| 5  | *<br>(85)   | : Engine ground                                     | B2 * (F10) GY/6 : To (F12)  |
| Δ  | * F36       | : Engine ground                                     | C2 * ♠® GY/2 : Injector No. 1   |
| E3 | *(F43) GY/2 | : Vehicle speed sensor                              | B3 * ஈனு GY/2 : Injector No. 2  |
| E3 | *(F44) BR/3 | : Revolution sensor (A/T)                           | C4 * Frod GY/2 : Injector No. 3   |
|    |             |   | D3 * Fi⊛ GY/2 : Injector No. 4  |
|    |             |   |   |

\* (F45) GY/5 : Mass air flow sensor

**F**2

: Heated oxygen sensor 2

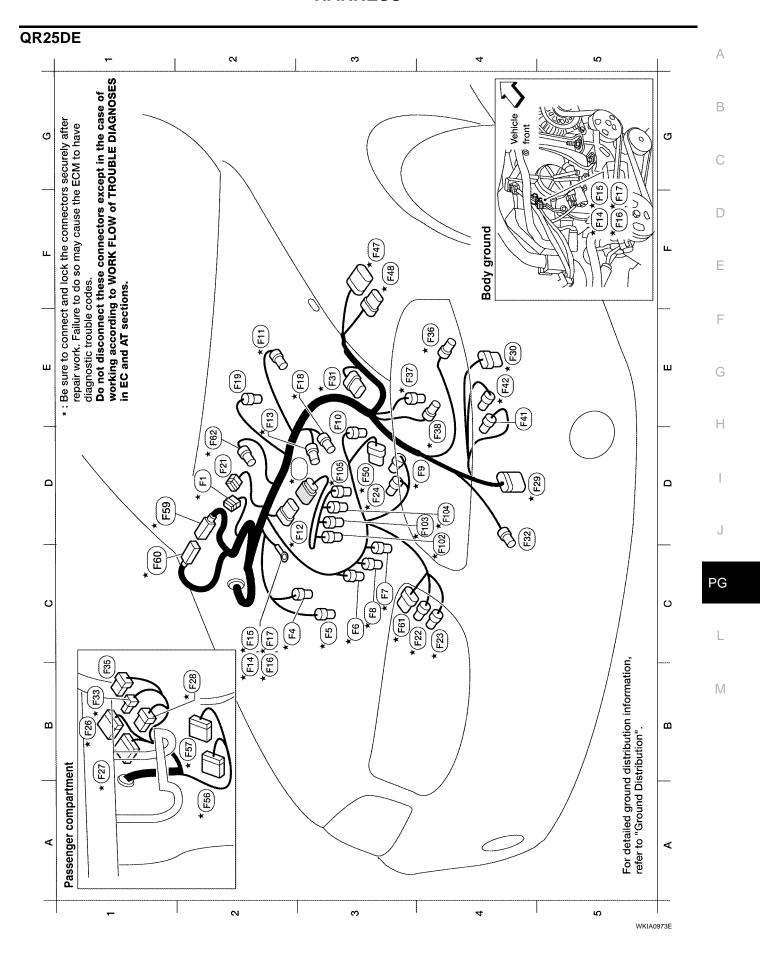
\* (F2) G/4

**E**2

\*: 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.

WKIA0972E



**PG-33** 

| * (F31) B/6 : Mass air flow sensor (F32) GY/1 : Starter motor                  | * Fig. L/4 : Throttle control motor relay | * (35) BR/6 : ECM relay | * (F36) GY/2 : Vehicle speed sensor | * (33) B/3 : Turbine revolution sensor (with A/T) | * (F38) B/3 : Revolution sensor (with A/T) | (F41) B/2 : Back-up lamp switch (with M/T)          | * (42) B/2 : Park/neutral position (PNP) switch (with M/T) | * (£47) GY/9 : To (E9) | * (F48) GY/8 : To (E10)       | * (ED) G/6 : Electric throttle control actuator | * (F56) W/24 : TCM (transmission control module) (with A/T) | * (67) GY/24 : TCM (transmission control module) (with A/T) | * (FS) SMJ : ECM | * (F60) SMJ : ECM | * (F61) B/6 : Air fuel ratio (A/F) sensor 1 (LEV Federal) | * (fc2) B/3 : Power steering pressure sensor |   | Engine Control Sub-harness | * FIOT B/6 : To F12                 | * निष्णे GY/2 : Injector No. 1 | * ભાજી GY/2 : Injector No. 2 | * Fig. GY/2 : Injector No. 3 | * (FI05) GY/2 : Injector No. 4                  |                                     |
|--|---|-------------------------|-------------------------------------|---|--|---|--|------------------------|-------------------------------|---|---|---|------------------|-------------------|---|--|---|----------------------------|-------------------------------------|--------------------------------|------------------------------|------------------------------|---|-------------------------------------|
| E3 4   | <b>6</b>                                  | <u>m</u>                | E4                                  | E4  | D4   | E4  | <b>E</b> 4   | F3                     | F3                            | 23  | <b>A</b> 2  | B2  | D2               | 8                 | ខ   | 02   |   |                            | D3                                  | 4                              | <b>D</b> 4                   | D4                           | D3  |                                     |
| BR/20 : Joint connector -1<br>G/2 : Intake valve timing control solenoid valve | : Ignition coil                           | : Ignition coil No. 2   | : Ignition coil No. 4               | : Ignition coil No. 3                             | : Camshaft position sensor (PHASE)         | : EVAP canister purge volume control solenoid valve | : Crankshaft position sensor                               | : To (F101)            | : VIAS control solenoid valve | : Engine ground                                 | : Engine ground   | : Engine ground   | : Engine ground  | : Knock sensor    | : Oil presure switch                                      | : Condenser                                  | : Heated oxygen sensor 1 (except LEV Federal) | : Heated oxygen sensor 2   | : Engine coolant temperature sensor | : To (M38)                     | : To (M59)                   | : To (Mg)                    | : Park/neutral position (PNP) switch (with A/T) | : Terminal cord assembly (with A/T) |
| BR/20<br>G/2   | GY/3                                      | GY/3                    | GY/3                                | GY/3  | B/3  | 72  | B/3  | GY/6                   | BR/2                          | ı   |   |   | ı                | B/2               | GY/1  | GY/2   | G/4   | G/4                        | GY/2                                | W/16                           | W/24                         | 9//                          | B/10  | B/8                                 |
| D2 * F4 F4   | S3 * EB                                   | C3 * E6                 | © * ₽                               | 33 <b>★</b> FB                                    | D4 * F9                                    | E3 * F10  | E2 * (F11)   | D3 * F12               | E2 * (F13)                    | B2 * (F14                                       | C2 * (F15)  | B2 * F16  | C2 * F17         | E3 * F18          | E2 * (F19)  | (F21)  | C3 * (F22)                                    | C4 * (F23)                 | D3 ★ (F24)                          | B1 * (F26)                     | B1 * (F27)                   | B2 ★ F28                     | D4 * (F29)                                      | E4 * F30                            |
| 2 2  | $\Im$                                     | පි                      | පි                                  | ၓ   | 7  | <b>E</b>  | E2   | 23                     | <b>E</b> 2                    | B2  | 2   | <b>B</b> 2  | S                | E3                | E2  | D2   | පි  | 2                          | <u> </u>                            | <u>8</u>                       | <del>1</del>                 | <b>B</b> 2                   | 7   | E4                                  |

\*: 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.

WKIA0974E

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**PG-35** 

#### BS W/16 : Satellite radio tuner (Pre-wiring) (Late production) : High-mounted stop lamp (With rear air spoiler) 83 W/12 : Audio amplifier (With premium audio system) 84) W/12 : Audio amplifier (With premium audio system) Trunk room lamp switch : Trunk lid key cylinder switch (Unlock switch) : EVAP control system pressure sensor : EVAP canister vent control valve Rear window defogger ground sub-harness (With vehicle security system) : Rear combination lamp LH : Rear combination lamp RH : Trunk lid opener actuator BES W/12 : To (MB) (Late production) \* : Trunk room lamp switch : License plate lamp LH : License plate lamp RH GY/2 : Rear wheel sensor RH : Rear window defogger : Rear window defogger Bit BR/2 : Rear wheel sensor LH : Rear door switch RH : Back-up lamp RH : Back-up lamp LH : Body ground : Diode-4 Trunk room : Diode-4 : To (M65) : To (M67) Body No. 2 harness : **To** (E56) (a) o1 : amb втот) W/4 GY/3 BR/2 B50 W/12 B62 W/4 <u>B</u> Ess W/2 B49 W/4 (B45) W/4 W/2 B51) W/2 E33 W/2 B/2 B41) W/2 B42) W/2 PM3) W/2 **4/** B48) W/2 B32) W/1 B/1 ı **副**國 (%) (8) (¥ (ESG) (A) (B) (RS) (B) **F**2 20 5 7 ဗ္ဗ ဗ္ဗ **B**2 **B**2 **A**2 **B**2 82 F3 $\mathbf{F}_{2}$ 83 53 £ 33 **E**2 E 63 E3 Ę 4 **F**4 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 : High-mounted stop lamp (Without rear air spoiler) Subwoofer (With mid level audio system) : Subwoofer (With premium audio system) : Fuel level sensor unit and fuel pump : RH side air bag (Satellite) sensor Front RH seat belt pre-tensioner : LH side air bag (Satellite) sensor : Front LH seat belt pre-tensioner : Front RH side air bag module : Front LH side air bag module : Air bag diagnosis sensor unit : Air bag diagnosis sensor unit : Rear window defogger relay Seat belt buckle switch LH Front door switch RH Parking brake switch Front door switch LH : Rear door switch LH : Rear speaker RH Rear speaker LH : Trunk room lamp : Fuse block (J/B) : Fuel pump relay **Body ground** Body ground in EC and AT sections. (M16) $\left(\frac{\mathbb{Z}}{4}\right)$ (3304) (Sg) <u>은</u> <u>م</u> မ ည **BR/16** W/20 BR/6 **GY//5** Y/12 Y/12 8/M BR/2 BR/2 W/3 **8**/3 × W/3 W/8 8//8 W/2 ۲/2 **Y/2 Y/2** Υ/2 **4/**/ W/2 7 B/1 ۲/2 ۲//2 **Body harness**

WKIA1744E

(a)

(B29) 8

(B)

(BZ3)

(F)

E4 \* (B25)

8**E**2 83 **E**2

ខ ¥ **B**3 **B**4 **B**3 **B**2

**E**2

(H) 

E3 

A2 \* (B1) B2 \* (B3) E E

**B**2

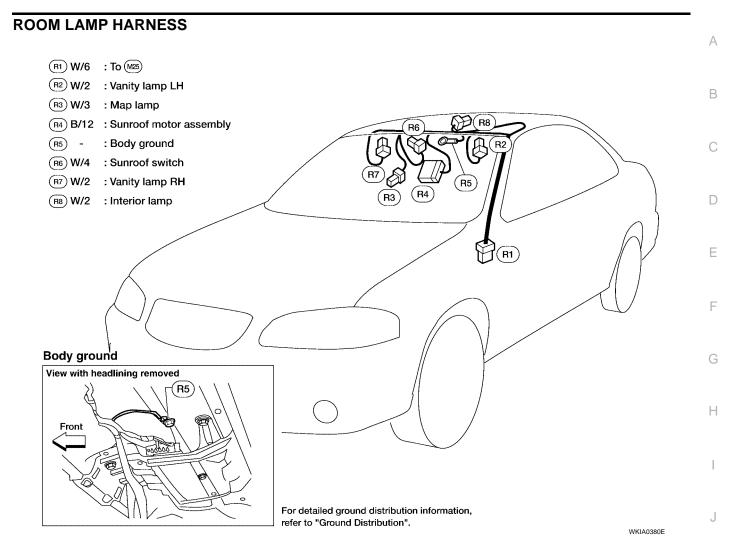
(8 8

A3 84 80

8

2

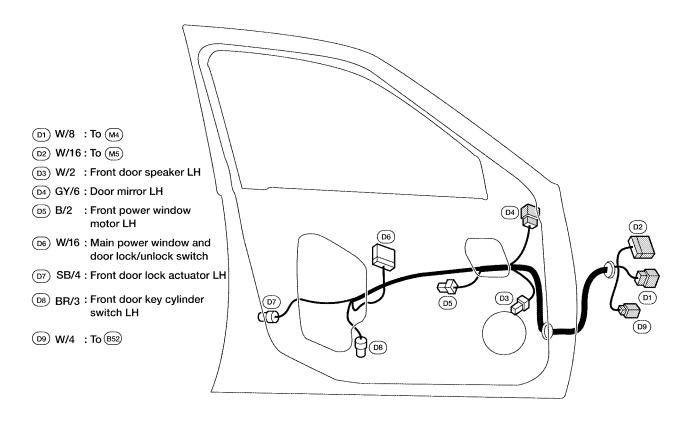
4



PG

i

# FRONT DOOR HARNESS LH SIDE



#### **RH SIDE**

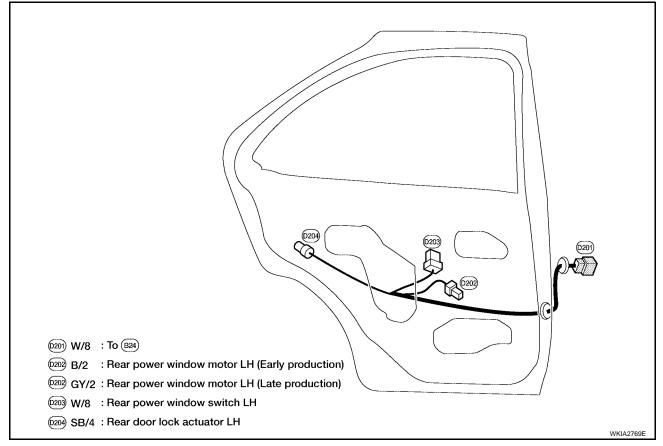
(iii) W/8 : To (wis)
(iiii) W/16: To (wis)
(iiii) W/2 : Front door speaker RH
(iiii) GY/6: Door mirror RH
(iiii) B/2 : Front power window motor RH
(iiii) W/8 : Front power window switch RH
(iiii) GY/8: Door lock/unlock switch RH
(iiii) SB/4: Front door lock acutator RH

WKIA0978E

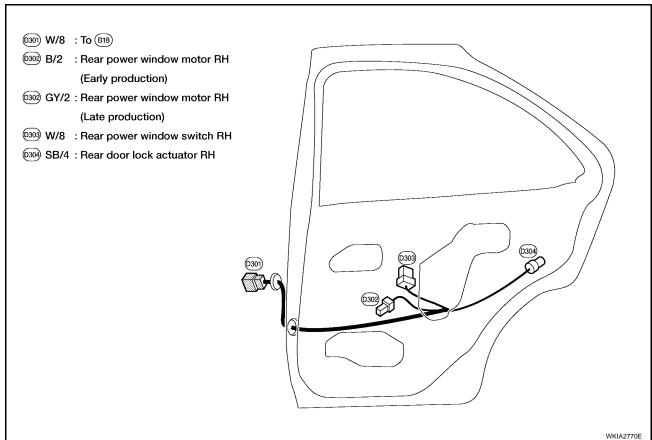
WKIA0977E

#### **REAR DOOR HARNESS**

#### **LH SIDE**



#### **RH SIDE**



VKIA27

**PG-39** 

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### **Wiring Diagram Codes (Cell Codes)**

EKS003B3

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                                    |  |
| ABS    | BRC     | Anti-lock Brake System                            |  |
| A/C,M  | MTC     | Air Conditioner                                   |  |
| A/F    | EC      | Air Fuel Ratio (A/F) Sensor 1                     |  |
| A/FH   | EC      | Air Fuel Ratio (A/F) Sensor 1 Heater              |  |
| APPS1  | EC      | Accelerator Pedal Position Sensor                 |  |
| APPS2  | EC      | Accelerator Pedal Position Sensor                 |  |
| APPS3  | EC      | Accelerator Pedal Position Sensor                 |  |
| ASC/BS | EC      | ASCD Brake Switch                                 |  |
| ASCBOF | EC      | ASCD Brake Switch                                 |  |
| ASCIND | EC      | ASCD Indicator                                    |  |
| ASC/SW | EC      | ASCD Steering Switch                              |  |
| AUDIO  | AV      | Audio   |  |
| B/COMP | DI      | Board computer                                    |  |
| BACK/L | LT      | Back-up Lamp                                      |  |
| BA/FTS | AT      | A/T Fluid Temperature Sensor and TCM Power Supply |  |
| BRK/SW | EC      | Brake Switch                                      |  |
| CAN    | AT      | CAN Communication Line                            |  |
| CAN    | EC      | CAN Communication Line                            |  |
| CAN    | LAN     | CAN Communication Line                            |  |
| CHARGE | SC      | Charging System                                   |  |
| CHIME  | DI      | Warning Chime                                     |  |
| CIGAR  | WW      | Cigarette Lighter                                 |  |
| COOL/F | EC      | Cooling Fan Control                               |  |
| DEF    | GW      | Rear Window Defogger                              |  |
| DLC    | EC      | Data Link Connector                               |  |
| D/LOCK | BL      | Power Door Lock                                   |  |
| DTRL   | LT      | Headlamp - With Daytime Light System (For Canada) |  |
| ECM/PW | EC      | ECM Power Supply For Back-Up                      |  |
| ECTS   | EC      | Engine Coolant Temperature Sensor                 |  |
| ENGSS  | AT      | Engine Speed Signal                               |  |
| ETC1   | EC      | Electric Throttle Control Function                |  |
| ETC2   | EC      | Throttle Control Motor Relay                      |  |
| ETC3   | EC      | Throttle Control Motor                            |  |
| F/FOG  | LT      | Front Fog Lamp                                    |  |
| F/PUMP | EC      | Fuel Pump Control                                 |  |
| FTS    | AT      | A/T Fluid Temperature Sensor                      |  |
| FTTS   | EC      | Fuel Tank Temperature Sensor                      |  |

| Code   | Section Wiring Diagram Name |  | Λ           |
|--------|-----------------------------|--|-------------|
| FUEL   | EC                          | Fuel Injection System Function                           |             |
| HEATER | MTC                         | Heater System  |             |
| H/LAMP | LT                          | Headlamp   | В           |
| H/MIRR | GW                          | Heated Mirror  |             |
| HO2S1  | EC                          | Heated Oxygen Sensor 1                                   |             |
| HO2S1H | EC                          | Heated Oxygen Sensor 1 Heater                            | C           |
| HO2S2  | EC                          | Heated Oxygen Sensor 2                                   |             |
| HO2S2H | EC                          | Heated Oxygen Sensor 2 Heater                            |             |
| HORN   | WW                          | Horn   |             |
| IATS   | EC                          | Intake Air Temperature Sensor                            |             |
| IGNSYS | EC                          | Ignition Signal  | E           |
| ILL    | LT                          | Illumination   |             |
| INJECT | EC                          | Injector   |             |
| INT/L  | LT                          | Interior, Step, Spot, Vanity Mirror and Trunk Room Lamps | F           |
| IVC    | EC                          | Intake Valve Timing Control Solenoid Valve               |             |
| KEYLES | BL                          | Remote Keyless Entry System                              | (           |
| KS     | EC                          | Knock Sensor   |             |
| LOAD   | EC                          | Load Signal  | <del></del> |
| _PSV   | 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    | EC                          | Malfunction Indicator Lamp                               |             |
| MIRROR | GW                          | Power Door Mirror  |             |
| NATS   | BL                          | NVIS (Nissan Vehicle Immobilizer System — NATS)          | P(          |
| NONDTC | AT                          | Non-detectable Items                                     |             |
| OVRCSV | AT                          | Overrun Clutch Solenoid Valve                            |             |
| PGC/V  | EC                          | EVAP Canister Purge Volume Control Solenoid Valve        |             |
| PHASE  | EC                          | Camshaft Position Sensor (PHASE)                         |             |
| PNP/SW | AT                          | Park/Neutral Position Switch                             |             |
| PNP/SW | EC                          | Park/Neutral Position Switch                             |             |
| POS    | EC                          | Crankshaft Position Sensor (POS)                         |             |
| POWER  | PG                          | Power Supply Routing                                     |             |
| PRE/SE | EC                          | EVAP Control System Pressure Sensor                      |             |
| PS/SEN | EC                          | Power Steering Pressure Sensor                           |             |
| ROOM/L | LT                          | Room Lamp  |             |
| RP/SEN | EC                          | Refrigerant Pressure Sensor                              |             |
| SEN/PW | EC                          | Sensor Power Supply                                      |             |
| SHIFT  | AT                          | A/T Shift Lock System                                    |             |
| SROOF  | RF                          | Sunroof  |             |
| SRS    | SRS                         | Supplemental Restraint System                            |             |
| SSV/A  | AT                          | Shift Solenoid Valve A                                   |             |
| SSV/A  | AT                          | Shift Solenoid Valve B                                   |             |
| JU V/D | Al                          | Shint Soleliold valve D                                  |             |

PG-41

| Code   | Section | Wiring Diagram Name                                  |  |
|--------|---------|--|--|
| START  | SC      | Starting System                                      |  |
| STOP/L | LT      | Stop Lamp  |  |
| SWL/S  | EC      | Swirl Control Valve Position Sensor [QG18DE (SULEV)] |  |
| SWL/V  | EC      | Swirl Control Valve [QG18DE (SULEV)]                 |  |
| TAIL/L | LT      | Parking, License and Tail Lamps                      |  |
| TCCSIG | AT      | A/T TCC Signal (Lock Up)                             |  |
| TCV    | AT      | Torque Converter Clutch Solenoid Valve               |  |
| TLID   | BL      | Trunk Lid Opener                                     |  |
| TPS    | AT      | Throttle Position Sensor                             |  |
| TPS1   | EC      | Throttle Position Sensor                             |  |
| TPS2   | EC      | Throttle Position Sensor                             |  |
| TPS3   | EC      | Throttle Position Sensor                             |  |
| TRSA/T | AT      | Turbine Revolution Sensor (QR25DE Model)             |  |
| TURN   | LT      | Turn Signal and Hazard Warning Lamps                 |  |
| VIAS   | EC      | Variable Air Induction Control System (QR25DE Model) |  |
| 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)         |  |
| VSSMTR | AT      | Vehicle Speed Sensor MTR                             |  |
| WARN   | DI      | Warning Lamps  |  |
| WINDOW | GW      | Power Window   |  |
| WIPER  | WW      | Front Wiper and Washer                               |  |

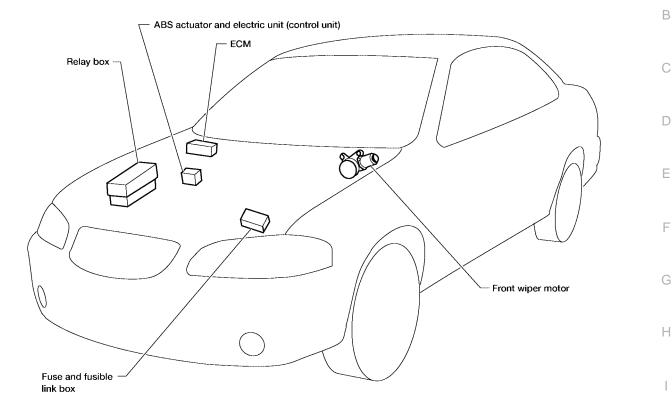
# ELECTRICAL UNITS LOCATION

PFP:25230

EKS003B4

Α

**Electrical Units Location ENGINE COMPARTMENT** 



Fuse and fusible View With Relay Box Cover Removed Cooling link box relay-3 (with QR25DE) Radiator overflow (E44) reservoir **FRONT** 0) (0 Front Vehicle fog lamp security relay lamp relay (E46) Cooling (E43) ( 00000 c Clutch relay-2 interlock relay (M/T) (E52) Cooling (E51) PNP fan A/C Horn relay relay-1 relay (A/T) relay (E48) (E49) (E50) (E51)

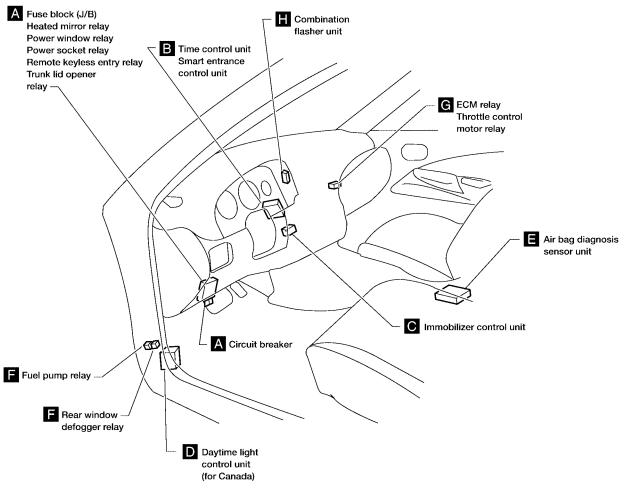
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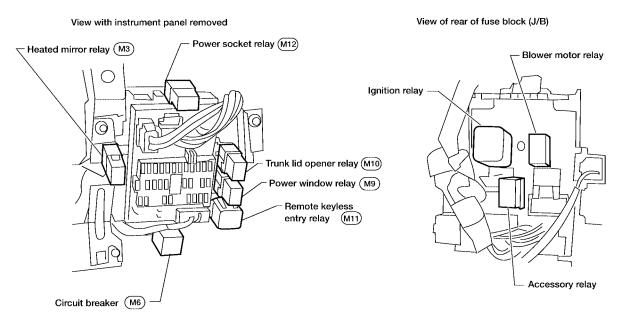
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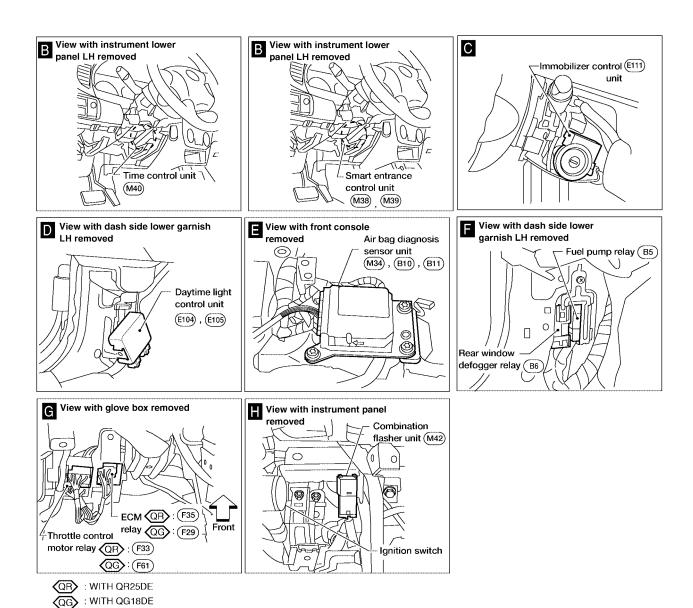
#### **PASSENGER COMPARTMENT**



A Instrument panel LH side



WKIA0249E



WKIA0981E

Α

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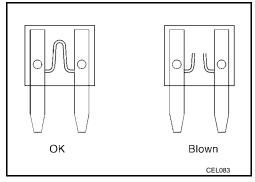
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PG

Fuse EKS003B5

 If fuse is blown, be sure to eliminate cause of incident 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.

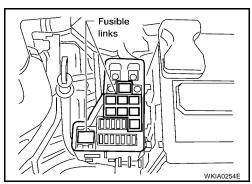


Fusible Link

A melted fusible link can be detected either by visual inspection or by feeling with finger tip. 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 incident.
- Never wrap outside of fusible link with vinyl tape. Important: Never let fusible link touch any other wiring harness, vinyl or rubber parts.



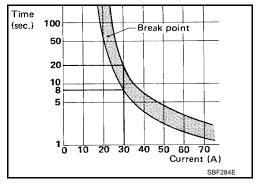
EKS003B7

#### **Circuit Breaker**

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

A circuit breaker is used for the following systems:

- Power door locks
- Power sunroof
- Power windows
- Remote keyless entry system



#### HARNESS CONNECTOR

#### HARNESS CONNECTOR

PFP:24010

EKS003B8

В

C

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Е

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M

### **Description**

#### HARNESS CONNECTOR (TAB-LOCKING TYPE)

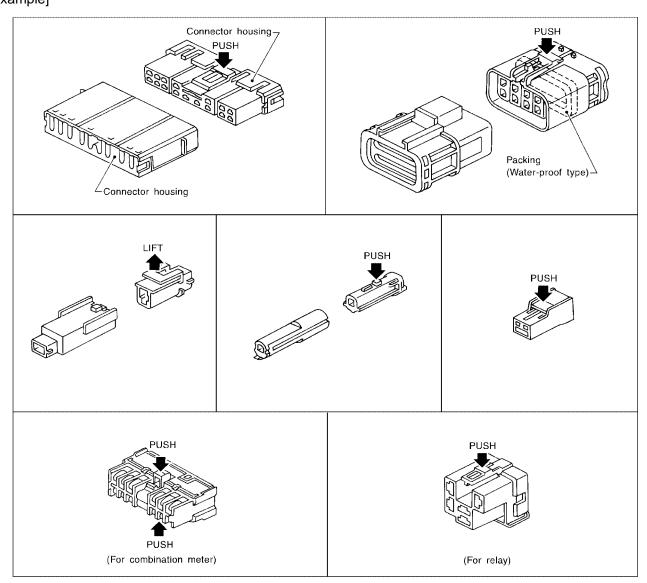
The tab-locking type connectors help prevent accidental looseness or disconnection.

• 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]



SEL769DA

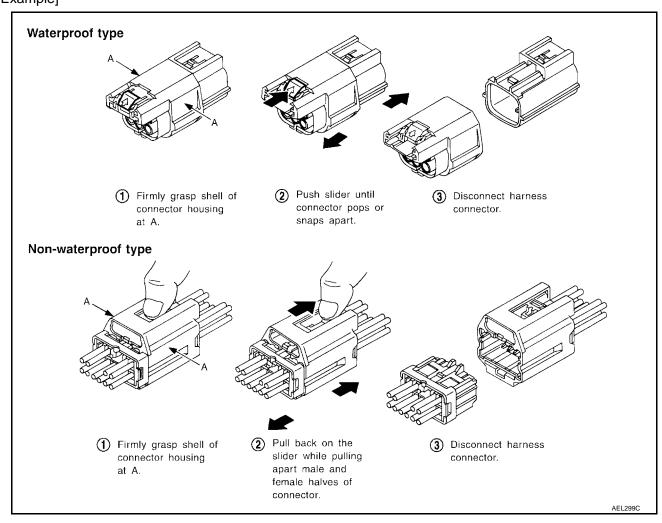
#### HARNESS CONNECTOR

#### 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]



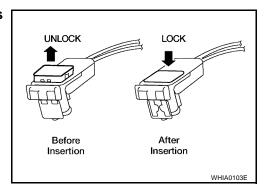
#### HARNESS CONNECTOR

#### 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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#### **JOINT CONNECTOR**

### 

(Brown)

WKIA0982E

#### **ELECTRICAL UNITS**

### **ELECTRICAL UNITS** PFP:23710 Α **Terminal Arrangement** EKS003BA В ECM (F59) ECM (F60) В В C D Е TCM (TRANSMISSION CONTROL MODULE) (F57) (F56) W GΥ Н ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (E55) В 27 28 29 30 31 20 21 22 23 24 25 26 16 17 18 19 TIME CONTROL UNIT : OD PG 5 6 7 8 9 10 (M40) W M SMART ENTRANCE CONTROL UNIT: (DL) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 (M38) (M39) OD: WITHOUT POWER DOOR LOCKS

WKIA0983E

(DL): WITH POWER DOOR LOCKS

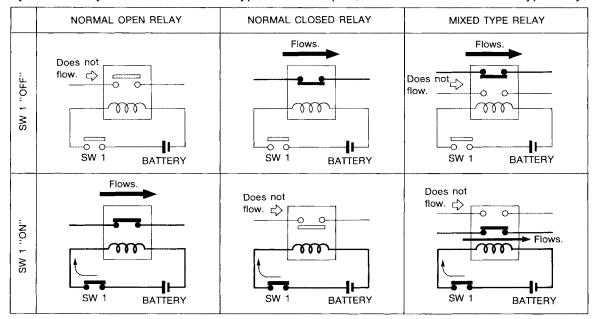
STANDARDIZED RELAY

PFP:25230

# **Description**NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

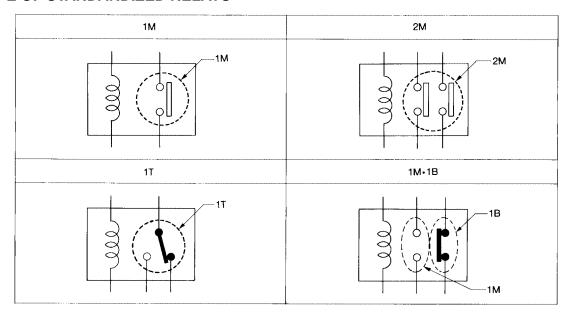
EKS003BB

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



SEL881H

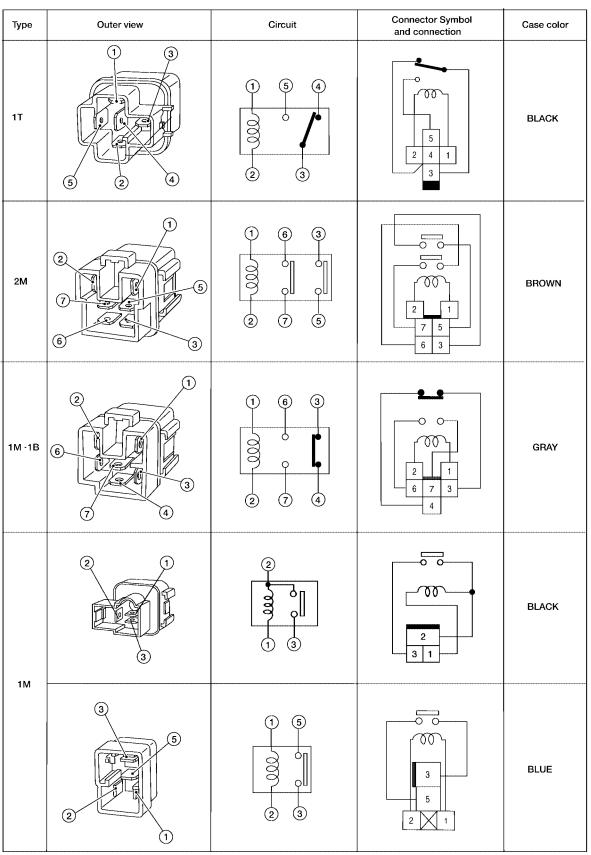
#### TYPE OF STANDARDIZED RELAYS



SEL882H

| 1M | 1 Make     | 2M    | 2 Make         |
|----|------------|-------|----------------|
| 1T | 1 Transfer | 1M-1B | 1 Make 1 Break |

#### STANDARDIZED RELAY



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

WKIA0253E

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1

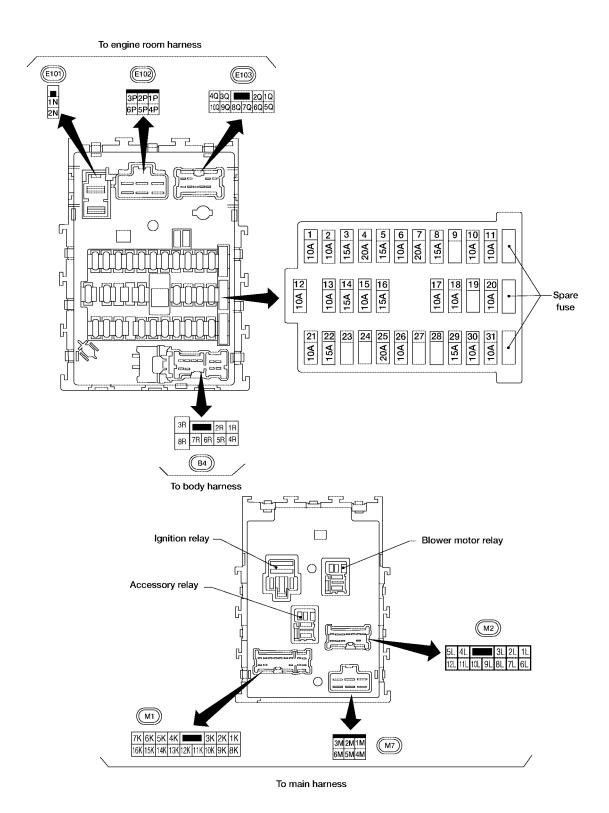
PG

### FUSE BLOCK — JUNCTION BOX (J/B)

PFP:24350

**Terminal Arrangement** 

EKS003BC



WKIA0984E

#### **FUSE AND FUSIBLE LINK BOX**

# FUSE AND FUSIBLE LINK BOX Terminal Arrangement

PFP:24381

EKS003BD

В

Α

QG : With QG18DE QR : With QR25DE

Е

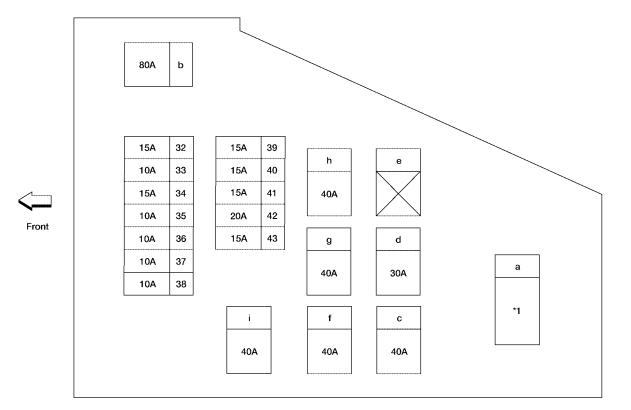
Н

PG

M

D

С



No. 32 - 43 : FUSE

 $a \hbox{-} i : \mathsf{FUSIBLE} \ \mathsf{LINK}$ 

\*1 QG : 100A QR : 120A

WKIA0985E

#### **FUSE AND FUSIBLE LINK BOX**