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# PG

SECTION

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## POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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# PRECAUTIONS

< PRECAUTION >

## PRECAUTION

### PRECAUTIONS

#### Precaution 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 includes seat belt switch inputs and 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 SR and SB sections 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 SR 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.

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

# PREPARATION

< PREPARATION >


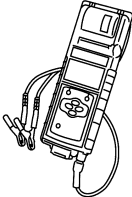
## PREPARATION

### PREPARATION

#### Special Service Tool

INFOID:000000007775574

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

| Tool number<br>(Kent-Moore No.)<br>Tool name   | Description  |
|--|--|
| <p>—<br/>(—) Model GR-8 1200 NI<br/>Multitasking battery and electrical diagnostic station</p>  <p style="text-align: right; font-size: small;">AWIIA1239ZZ</p> | <p>Tests batteries, starting and charging systems and charges batteries.<br/>For operating instructions, refer to diagnostic station instruction manual.</p> |
| <p>—<br/>(—) Model EXP-800 NI<br/>Battery and electrical diagnostic analyzer</p>  <p style="text-align: right; font-size: small;">JSMIA0806ZZ</p>               | <p>Tests batteries and charging systems.<br/>For operating instructions, refer to diagnostic analyzer instruction manual.</p>                                |

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# BATTERY

< BASIC INSPECTION >

## BASIC INSPECTION

### BATTERY

#### How to Handle Battery

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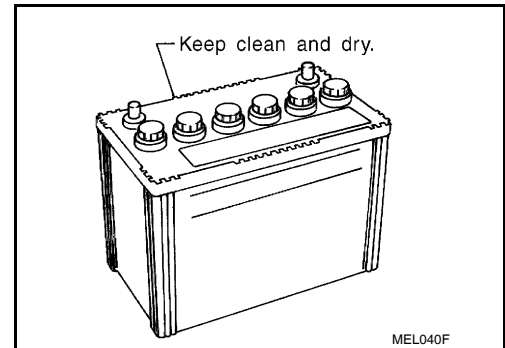
#### CAUTION:

- If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.
- After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.
- Never add distilled water through the hole used to check specific gravity.

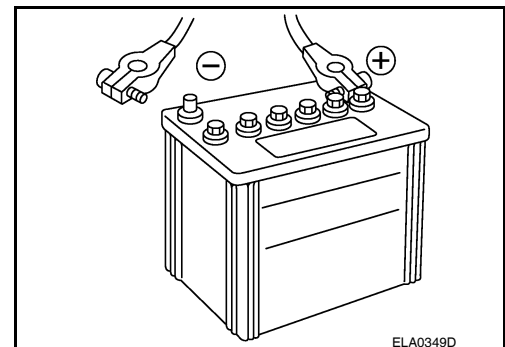
#### METHODS OF PREVENTING OVER-DISCHARGE

The following precautions must be taken to prevent over-discharging a battery.

- The battery surface (particularly its top) should always be kept clean and dry.
- The terminal connections should be clean and tight.
- At every routine maintenance, check the electrolyte level.  
This also applies to batteries designated as "low maintenance" and "maintenance-free".



- When the vehicle is not going to be used over a long period of time, disconnect the battery cable from the negative terminal. (If the vehicle has an extended storage switch, turn it off.)



#### Work Flow

INFOID:000000007790687

#### BATTERY DIAGNOSIS WITH EXP-800 NI OR GR8-1200 NI

To diagnose and confirm the condition of the battery, use the following special service tools:

- EXP-800 NI Battery and electrical diagnostic analyzer
- GR8-1200 NI Multitasking battery and electrical diagnostic station

#### NOTE:

Refer to the applicable Instruction Manual for proper battery diagnosis procedures.

#### BATTERY DIAGNOSIS WITHOUT EXP-800 NI OR GR8-1200 NI

##### Checking Electrolyte Level

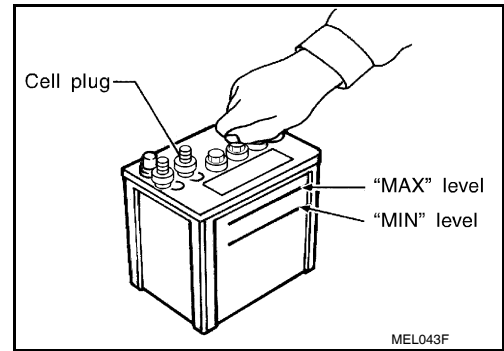
#### WARNING:

Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention. Failure to do this may cause personal injury or damage to clothing or the painted surfaces.

# BATTERY

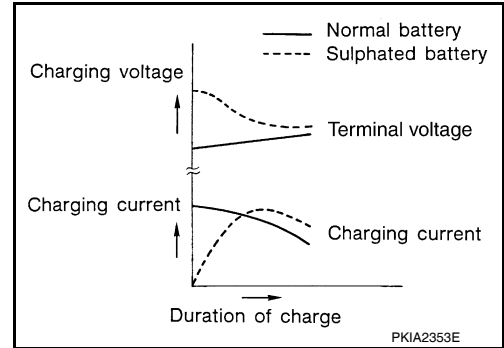
## < BASIC INSPECTION >

- Remove the cell plug using a suitable tool.
- Add distilled water up to the MAX level.



## SULFATION

- **A battery will be completely discharged if it is left unattended for a long time and the specific gravity will become less than 1.100. This may result in sulfation on the cell plates.**
- **To determine if a battery has been “sulfated”, note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulfated batteries.**
- **A sulfated battery may sometimes be brought back into service by means of a long, slow charge, 12 hours or more, followed by a battery capacity test.**



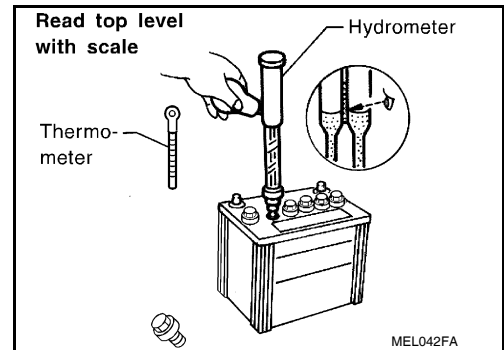
## Specific Gravity Check

### NOTE:

Check the charge condition of the battery.

Periodically check the specific gravity of the electrolyte. Keep a close check on charge condition to prevent over-discharge.

1. Read hydrometer and thermometer indications at eye level.
2. Use the chart below to correct your hydrometer reading according to electrolyte temperature.



## Hydrometer Temperature Correction

| Battery electrolyte temperature [°C (°F)] | Add to specific gravity reading |
|---|---------------------------------|
| 71 (160)                                  | 0.032                           |
| 66 (150)                                  | 0.028                           |
| 60 (140)                                  | 0.024                           |
| 54 (130)                                  | 0.020                           |
| 49 (120)                                  | 0.016                           |
| 43 (110)                                  | 0.012                           |
| 38 (100)                                  | 0.008                           |
| 32 (90)                                   | 0.004                           |
| 27 (80)                                   | 0                               |
| 21 (70)                                   | -0.004                          |
| 16 (60)                                   | -0.008                          |
| 10 (50)                                   | -0.012                          |

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# BATTERY

## < BASIC INSPECTION >

| Battery electrolyte temperature [°C (°F)] | Add to specific gravity reading |
|---|---------------------------------|
| 4 (40)                                    | -0.016                          |
| -1 (30)                                   | -0.020                          |
| -7 (20)                                   | -0.024                          |
| -12 (10)                                  | -0.028                          |
| -18 (0)                                   | -0.032                          |

| Corrected specific gravity | Approximate charge condition |
|----------------------------|------------------------------|
| 1.260 - 1.280              | Fully charged                |
| 1.230 - 1.250              | 3/4 charged                  |
| 1.200 - 1.220              | 1/2 charged                  |
| 1.170 - 1.190              | 1/4 charged                  |
| 1.140 - 1.160              | Almost discharged            |
| 1.110 - 1.130              | Completely discharged        |

### Charging The Battery

#### **CAUTION:**

- Never “quick charge” a fully discharged battery.
- Keep the battery away from open flame while it is being charged.
- When connecting the charger, connect the leads first, then turn on the charger. Never turn on the charger first, as this may cause a spark.
- If battery electrolyte temperature rises above 55 °C (131 °F), stop charging. Always charge battery at a temperature below 55 °C (131 °F).

#### Charging Rates (Standard Charge)

| Approximate charge condition | Charge current (A) | Charge time (h) |
|------------------------------|--------------------|-----------------|
| Fully charged                | 7                  | 2               |
| 3/4 charged                  |                    | 2.5             |
| 1/2 charged                  |                    | 5               |
| 1/4 charged                  |                    | 7.5             |
| Almost discharged            |                    | 9               |
| Completely discharged        |                    | 10              |

#### Charging Rates (Quick Charge)

| Approximate charge condition | Charge current (A) | Charge time (h) |
|------------------------------|--------------------|-----------------|
| Fully charged                | —                  | —               |
| 3/4 charged                  | 16                 | 0.5             |
| 1/2 charged                  | 33                 |                 |
| 1/4 charged                  |                    |                 |
| Almost discharged            | —                  | —               |
| Completely discharged        |                    |                 |

#### **NOTE:**

The ammeter reading on your battery charger will automatically decrease as the battery charges. This indicates that the voltage of the battery is increasing normally as the state of charge improves. The charging amps indicated above refer to initial charge rate.

- If, after charging, the specific gravity of any two cells varies more than 0.050, the battery should be replaced.

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

## INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

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#### Required Procedure After Battery Disconnection

| System                              | Item                     | Reference   |
|-------------------------------------|--------------------------|---|
| Engine Control System               | Idle Air Volume Learning | <a href="#">PG-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"</a> |
| Audio, Visual and Navigation System | Audio (Radio Preset)     | Refer to Owner's Manual.  |
|                                     | Navigation System        | Refer to Owner's Manual.  |

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# POWER SUPPLY ROUTING CIRCUIT

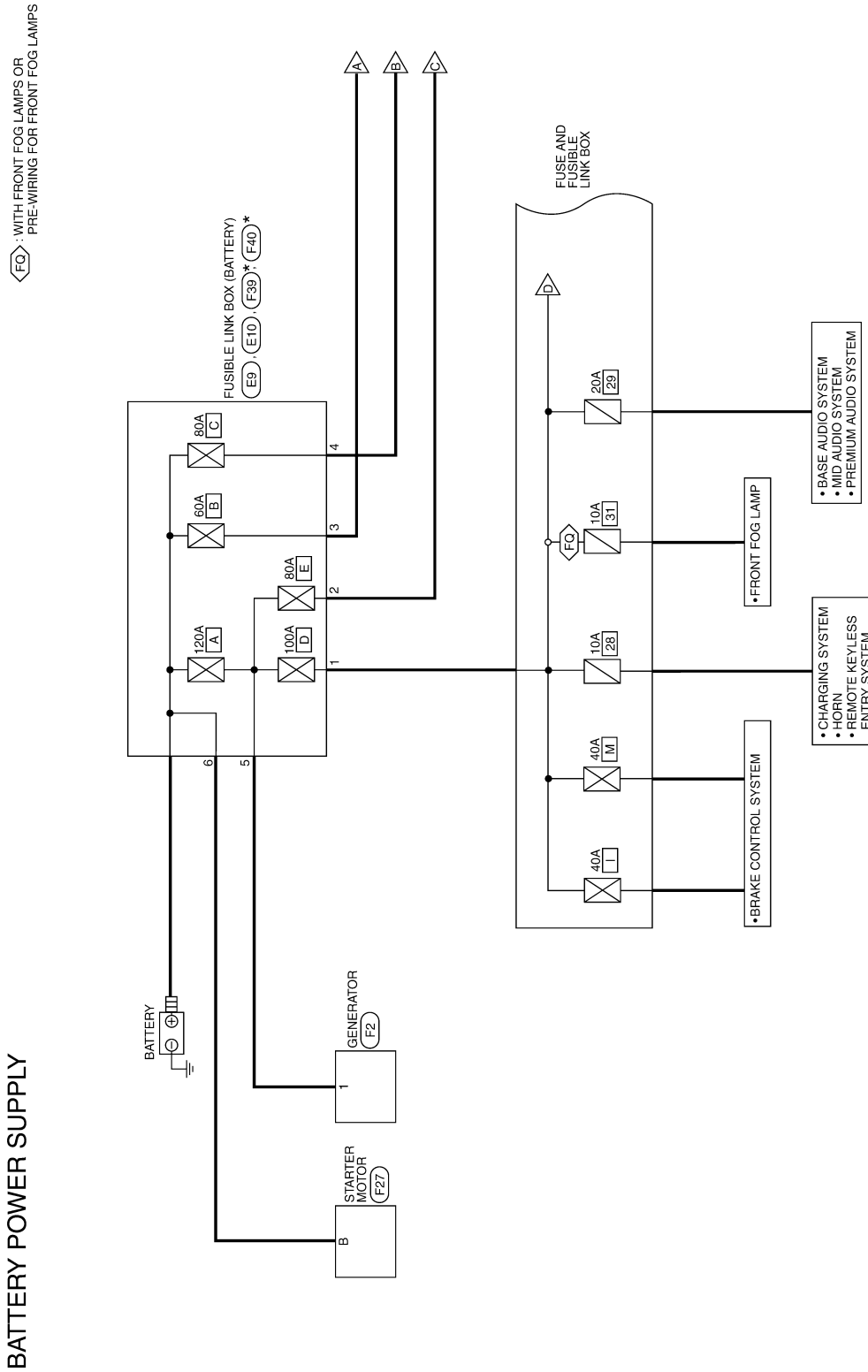
< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY ROUTING CIRCUIT

#### Wiring Diagram —Battery Power Supply —

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\* : THIS CONNECTOR IS AN INTEGRAL PART OF THE FUSIBLE LINK BOX (BATTERY)

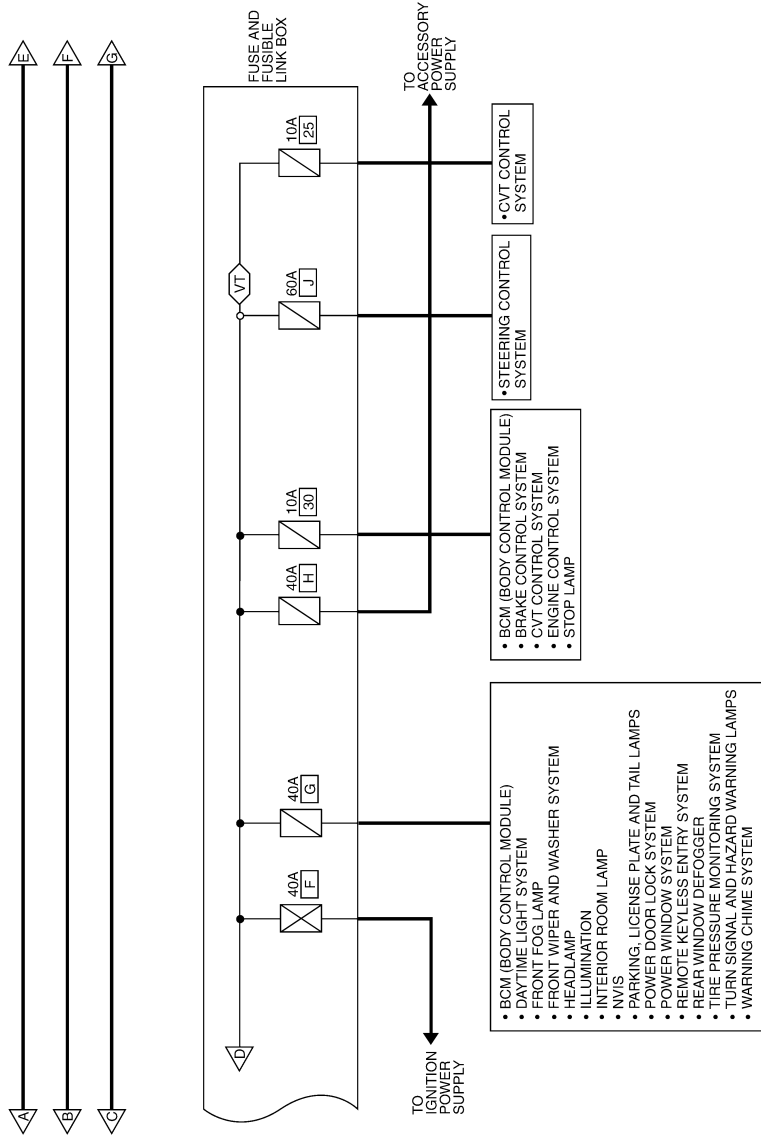
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# POWER SUPPLY ROUTING CIRCUIT

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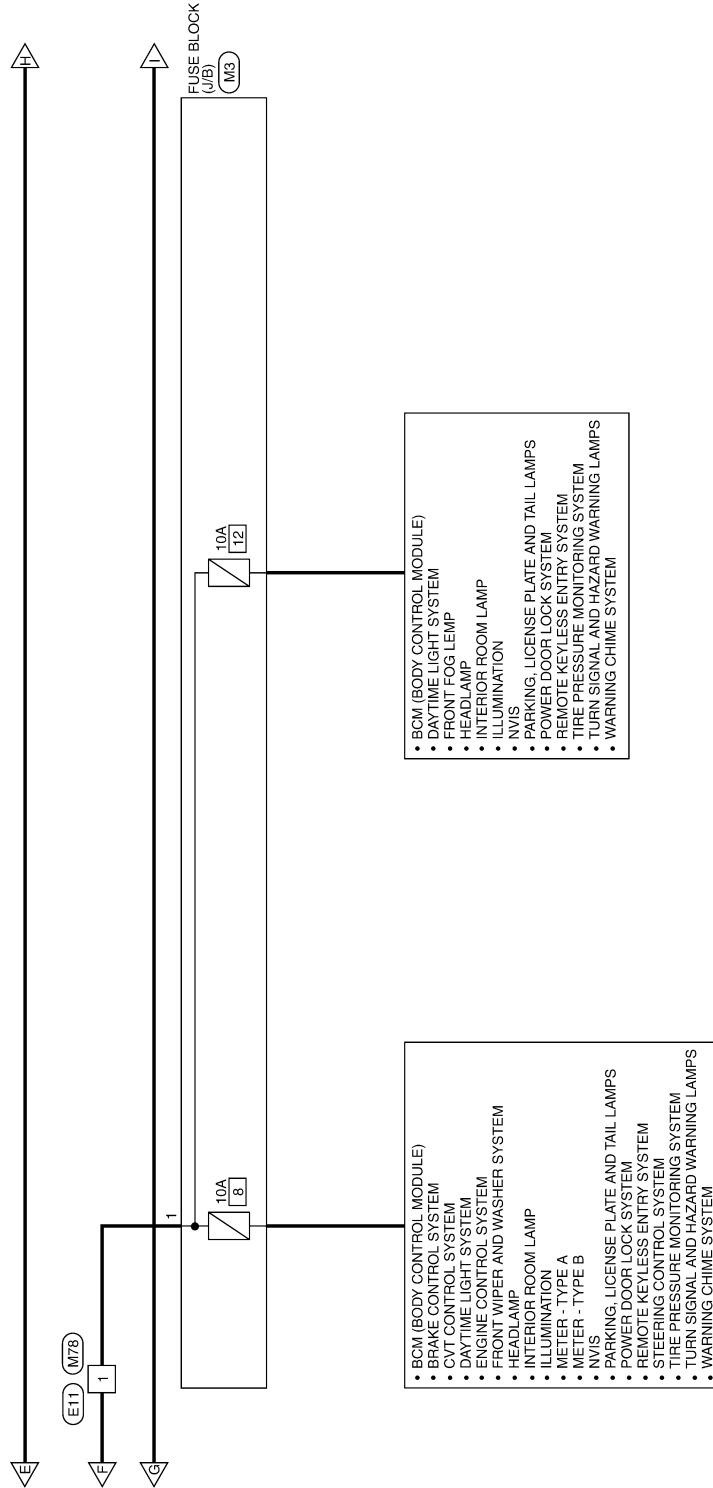
VT WITH CVT



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# POWER SUPPLY ROUTING CIRCUIT

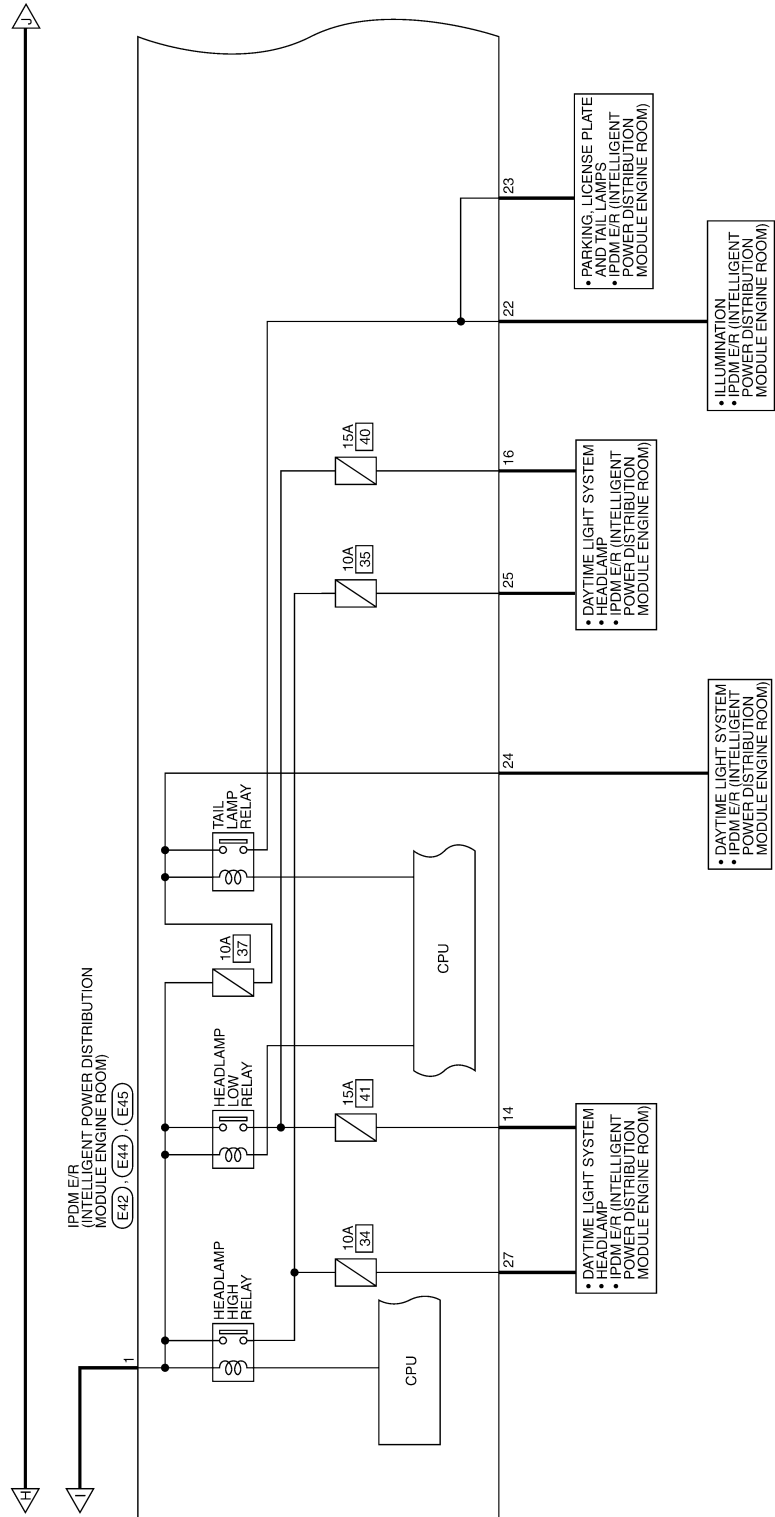
< DTC/CIRCUIT DIAGNOSIS >



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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

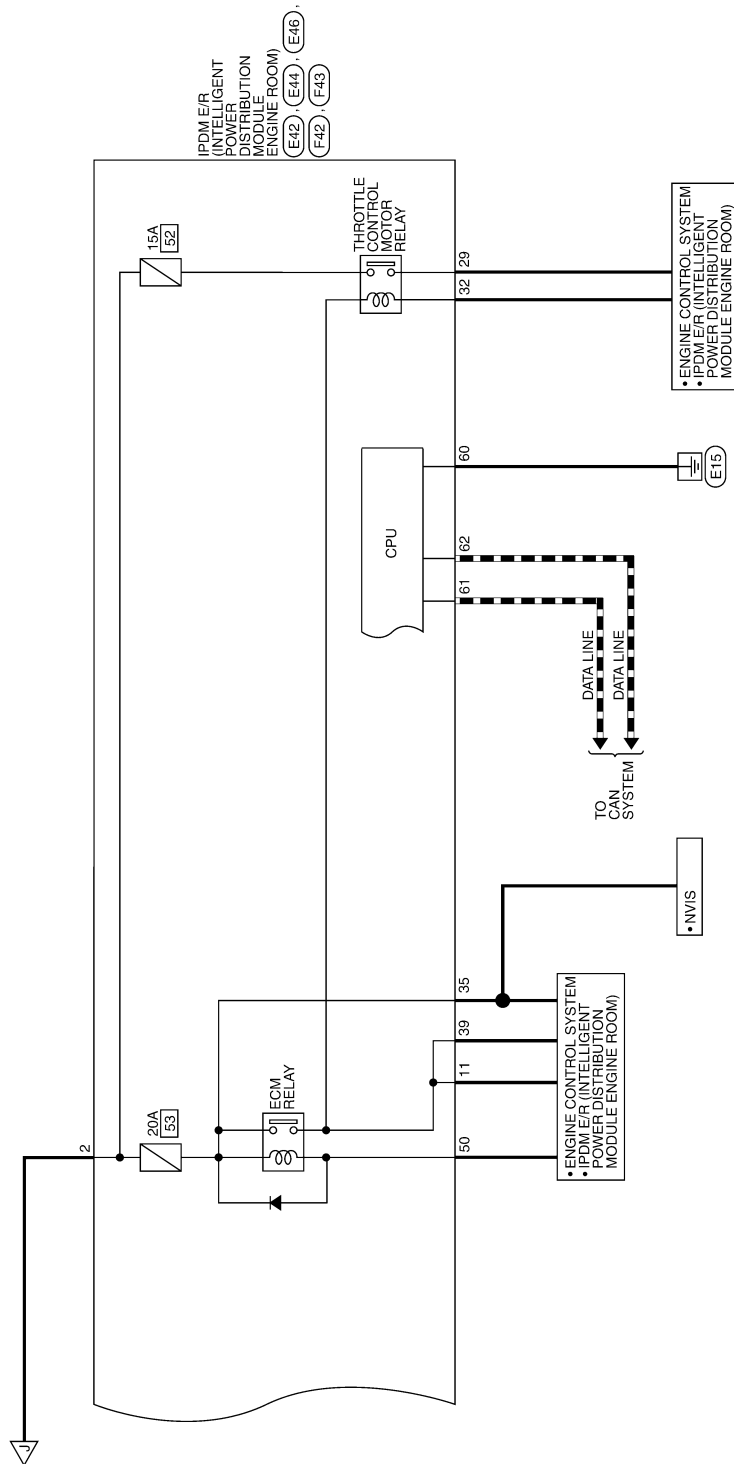


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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## BATTERY POWER SUPPLY CONNECTORS

|                 |                  |
|-----------------|------------------|
| Connector No.   | M3               |
| Connector Name  | FUSE BLOCK (J/B) |
| Connector Color | WHITE            |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | W             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | M78          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | BLACK        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | W             | -           |

|                 |                            |
|-----------------|----------------------------|
| Connector No.   | E9                         |
| Connector Name  | FUSIBLE LINK BOX (BATTERY) |
| Connector Color | BROWN                      |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | W             | -           |
| 2            | R             | -           |

|                 |                            |
|-----------------|----------------------------|
| Connector No.   | E10                        |
| Connector Name  | FUSIBLE LINK BOX (BATTERY) |
| Connector Color | GRAY                       |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3            | Y             | -           |
| 4            | G             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | E11          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | BLACK        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | G             | -           |

|                 |  |
|-----------------|--|
| Connector No.   | E42  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | BLACK  |

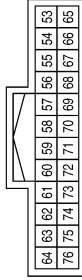


| Terminal No. | Color of Wire | Signal Name    |
|--------------|---------------|----------------|
| 1            | R             | F/L USM (+B1)  |
| 2            | Y             | F/L MAIN (+B2) |

# POWER SUPPLY ROUTING CIRCUIT

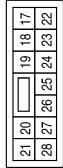
< DTC/CIRCUIT DIAGNOSIS >

|                 |  |
|-----------------|--|
| Connector No.   | E46  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE  |



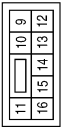
| Terminal No. | Color of Wire | Signal Name  |
|--------------|---------------|--------------|
| 46           | Y             | ETC CONT     |
| 60           | B             | GND (SIGNAL) |
| 61           | P             | CAN-L        |
| 62           | L             | CAN-H        |

|                 |  |
|-----------------|--|
| Connector No.   | E45  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | BROWN  |



| Terminal No. | Color of Wire | Signal Name    |
|--------------|---------------|----------------|
| 22           | P             | TAIL/ILLUMI    |
| 23           | R             | CLEARANCE      |
| 24           | W             | DTRL           |
| 25           | G             | HEADLAMP HI LH |
| 27           | Y             | HEADLAMP HI RH |

|                 |  |
|-----------------|--|
| Connector No.   | E44  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | BROWN  |



| Terminal No. | Color of Wire | Signal Name    |
|--------------|---------------|----------------|
| 11           | G             | ECM VB         |
| 14           | L             | HEADLAMP LO LH |
| 16           | P             | HEADLAMP LO RH |

|                 |  |
|-----------------|--|
| Connector No.   | F42  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE  |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 29           | L/W           | ETC         |
| 32           | G/W           | MOTRLY      |
| 35           | BR            | ECM BAT     |
| 39           | L             | ENG SOL     |

|                 |               |
|-----------------|---------------|
| Connector No.   | F27           |
| Connector Name  | STARTER MOTOR |
| Connector Color | -             |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| B            | B/R           | -           |

|                 |           |
|-----------------|-----------|
| Connector No.   | F2        |
| Connector Name  | GENERATOR |
| Connector Color | -         |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | B/R           | -           |

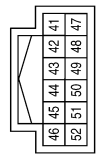
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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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| Connector No.   | F43  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE  |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 50           | P             | SSOFF       |

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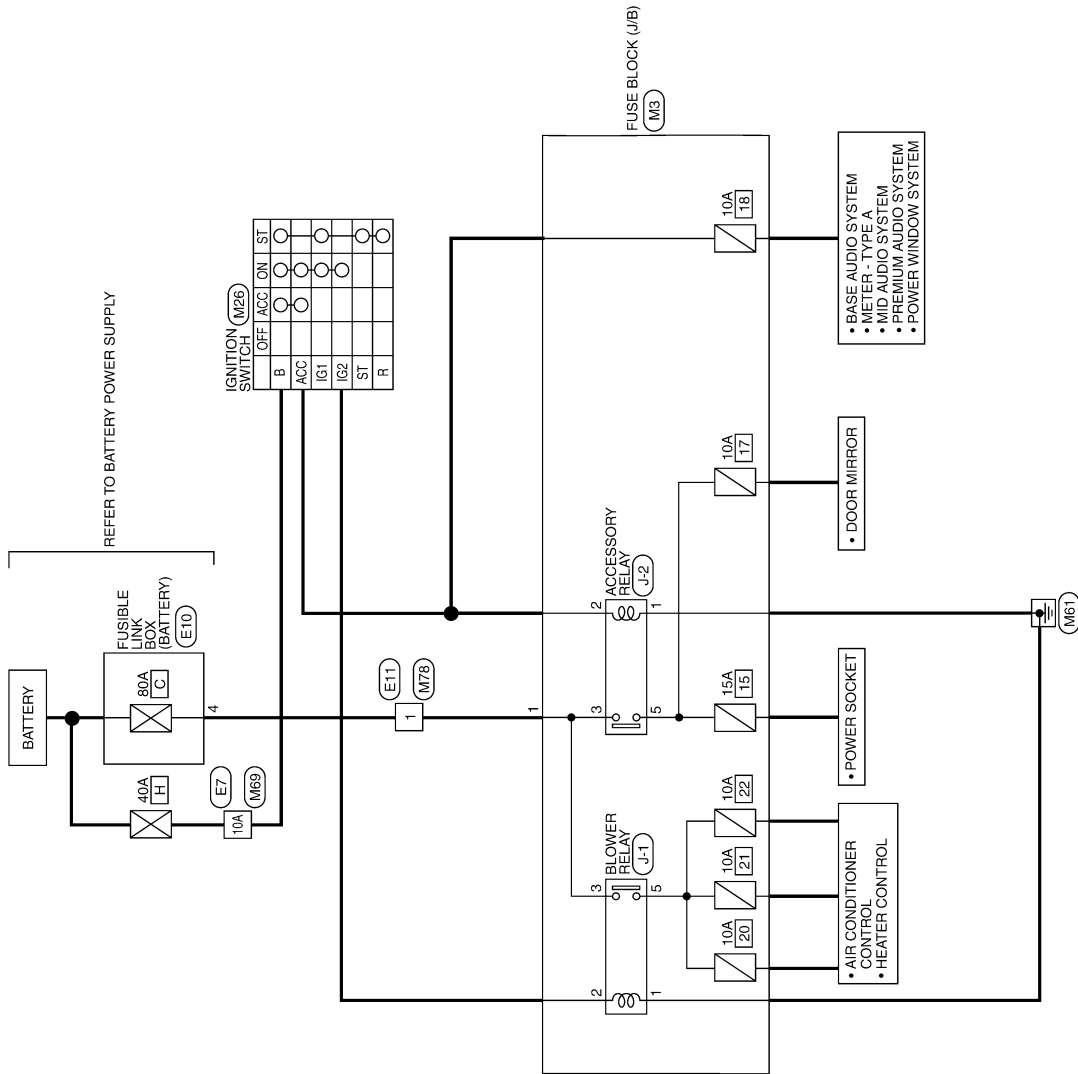
# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## Wiring Diagram —Accessory Power Supply—

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### ACCESSORY POWER SUPPLY



ABMWA1370GB



# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## ACCESSORY POWER SUPPLY

|                 |                  |
|-----------------|------------------|
| Connector No.   | M3               |
| Connector Name  | FUSE BLOCK (J/B) |
| Connector Color | WHITE            |



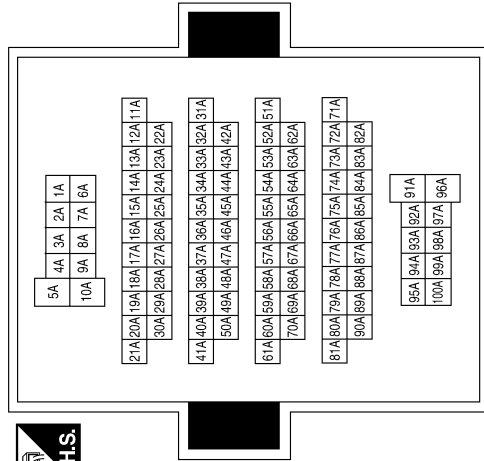
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | W             | -           |

|                 |                 |
|-----------------|-----------------|
| Connector No.   | M26             |
| Connector Name  | IGNITION SWITCH |
| Connector Color | WHITE           |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| B            | P             | -           |
| ACC          | SB            | -           |
| IG2          | Y             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | M69          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



|              |     |               |   |             |   |
|--------------|-----|---------------|---|-------------|---|
| Terminal No. | 10A | Color of Wire | P | Signal Name | - |
|--------------|-----|---------------|---|-------------|---|

|                 |              |
|-----------------|--------------|
| Connector No.   | M78          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | BLACK        |



|              |   |               |   |             |   |
|--------------|---|---------------|---|-------------|---|
| Terminal No. | 1 | Color of Wire | W | Signal Name | - |
|--------------|---|---------------|---|-------------|---|

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# POWER SUPPLY ROUTING CIRCUIT

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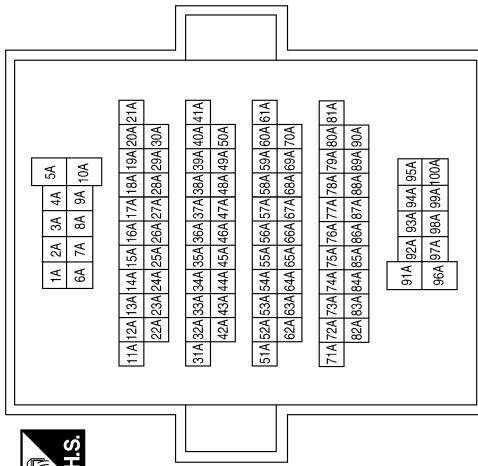
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|-----------------|----------------------------|
| Connector No.   | E10                        |
| Connector Name  | FUSIBLE LINK BOX (BATTERY) |
| Connector Color | GRAY                       |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4            | G             | -           |

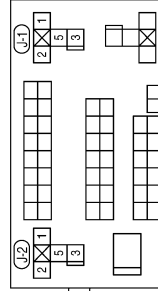
|              |     |               |   |             |   |
|--------------|-----|---------------|---|-------------|---|
| Terminal No. | 10A | Color of Wire | L | Signal Name | - |
|--------------|-----|---------------|---|-------------|---|

|                 |              |
|-----------------|--------------|
| Connector No.   | E7           |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | B/W           | -           |
| 2            | Y             | -           |
| 3            | W             | -           |
| 5            | -             | -           |

|                 |                                 |
|-----------------|---------------------------------|
| Connector No.   | J-1                             |
| Connector Name  | FUSE BLOCK (J/B) (BLOWER RELAY) |
| Connector Color | -                               |



|                 |              |
|-----------------|--------------|
| Connector No.   | E11          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | BLACK        |



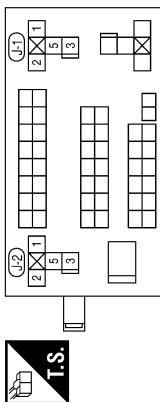
|              |   |               |   |             |   |
|--------------|---|---------------|---|-------------|---|
| Terminal No. | 1 | Color of Wire | G | Signal Name | - |
|--------------|---|---------------|---|-------------|---|

ABMIA3354GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

|                 |                                       |
|-----------------|---------------------------------------|
| Connector No.   | J-2                                   |
| Connector Name  | FUSE BLOCK (J/B)<br>(ACCESSORY RELAY) |
| Connector Color | BLACK                                 |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | B/W           | -           |
| 2            | SB            | -           |
| 3            | W             | -           |
| 5            | -             | -           |

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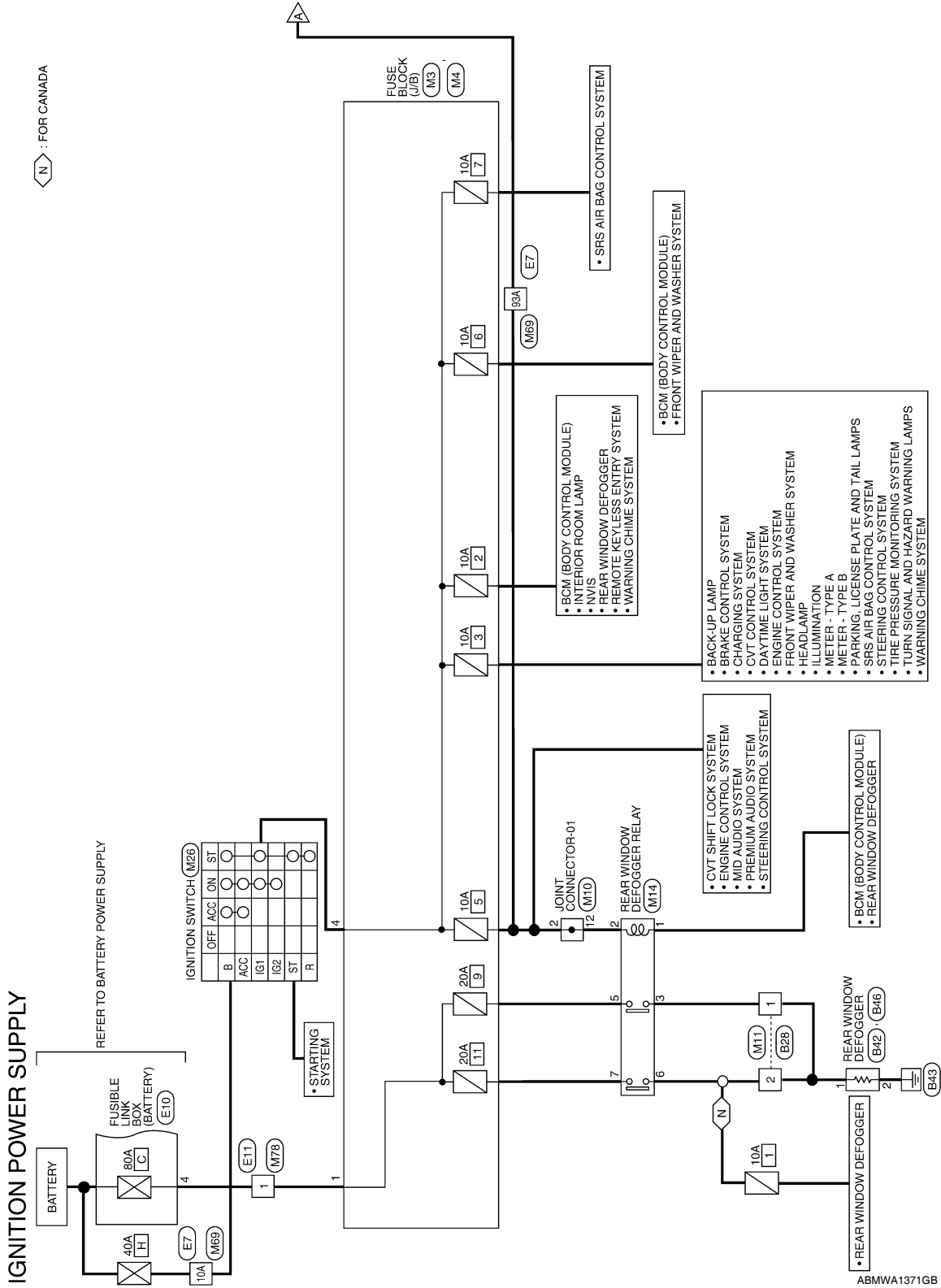
ABMIA3355GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

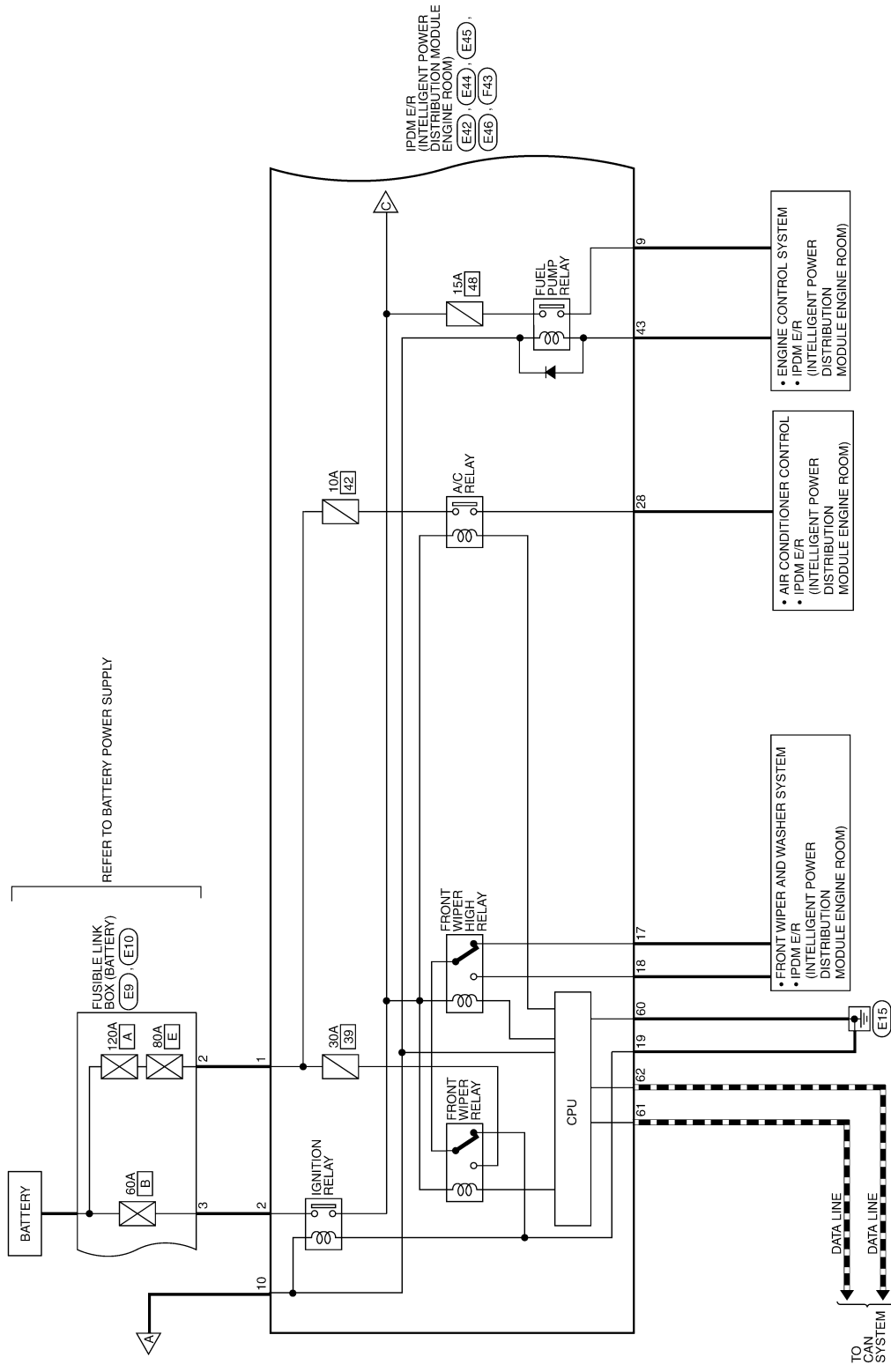
## Wiring Diagram — Ignition Power Supply —

INFOID:000000007790691



# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



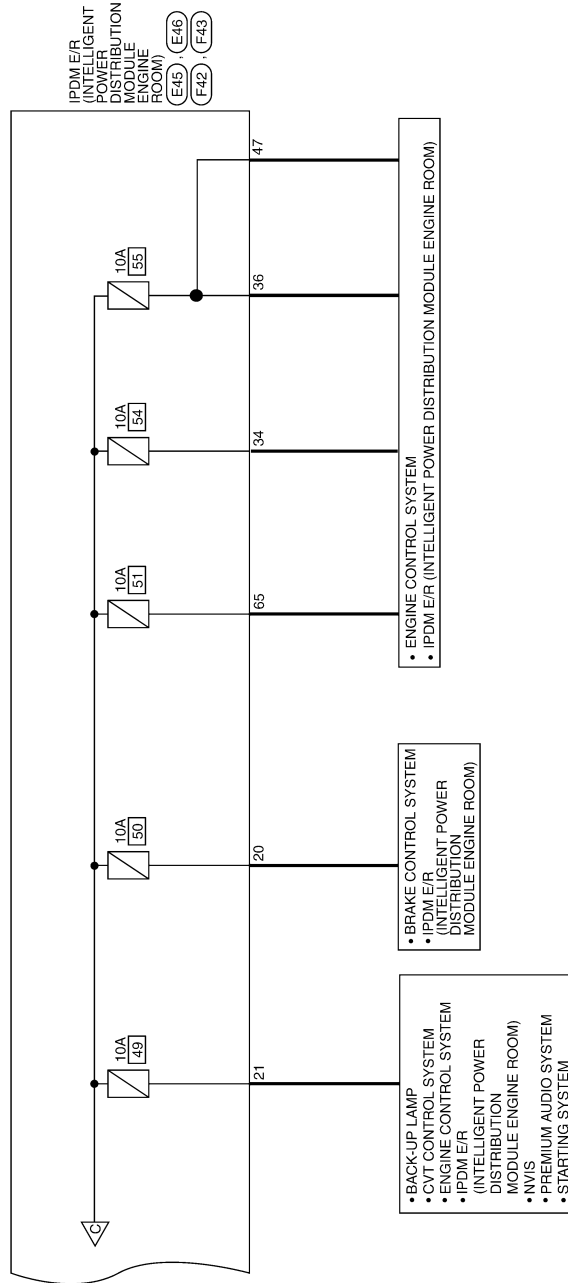
ABMWA1372GB

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# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



ABMWA1373GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## IGNITION POWER SUPPLY CONNECTORS

|                 |                  |
|-----------------|------------------|
| Connector No.   | M3               |
| Connector Name  | FUSE BLOCK (J/B) |
| Connector Color | WHITE            |



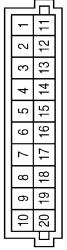
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | W             | -           |

|                 |                  |
|-----------------|------------------|
| Connector No.   | M4               |
| Connector Name  | FUSE BLOCK (J/B) |
| Connector Color | WHITE            |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4            | GR            | -           |

|                 |                     |
|-----------------|---------------------|
| Connector No.   | M10                 |
| Connector Name  | JOINT CONNECTOR-M01 |
| Connector Color | GRAY                |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2            | O             | -           |
| 12           | O             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | M11          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | R             | -           |
| 2            | R             | -           |

|                 |                            |
|-----------------|----------------------------|
| Connector No.   | M14                        |
| Connector Name  | REAR WINDOW DEFOGGER RELAY |
| Connector Color | BROWN                      |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | GR            | -           |
| 2            | O             | -           |
| 3            | R             | -           |
| 5            | Y             | -           |
| 6            | R             | -           |
| 7            | Y             | -           |

|                 |                 |
|-----------------|-----------------|
| Connector No.   | M26             |
| Connector Name  | IGNITION SWITCH |
| Connector Color | WHITE           |

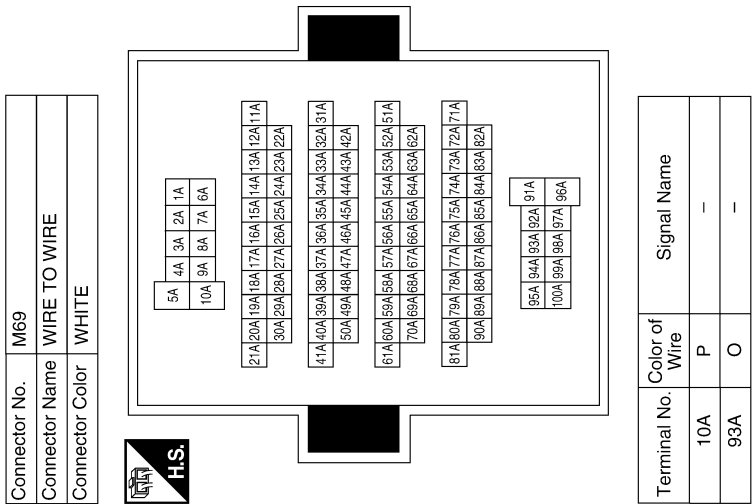
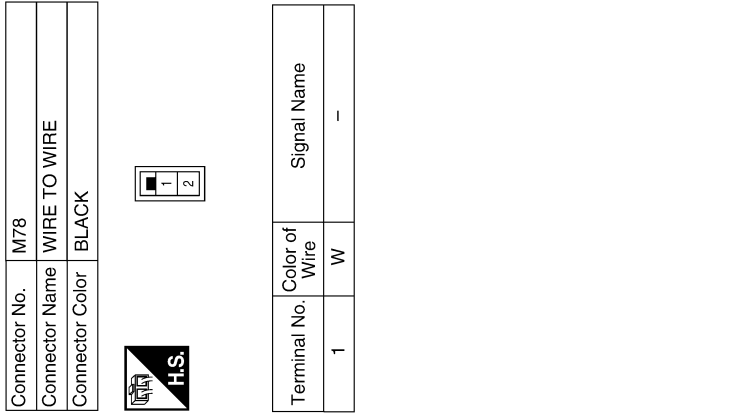
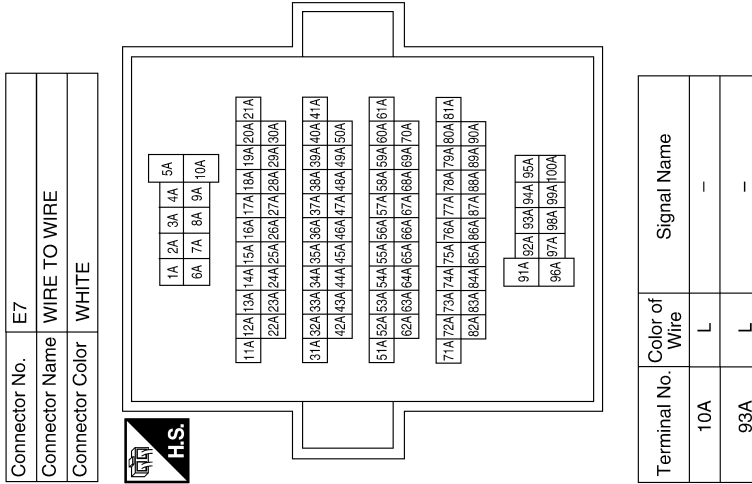


| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| B            | P             | -           |
| ACC          | SB            | -           |
| IG1          | GR            | -           |
| IG2          | Y             | -           |
| ST           | W             | -           |

ABMIA3356GB

# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >



ABMIA3357GB



# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

|                 |              |
|-----------------|--------------|
| Connector No.   | E11          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | BLACK        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | G             | -           |

|                 |                            |
|-----------------|----------------------------|
| Connector No.   | E10                        |
| Connector Name  | FUSIBLE LINK BOX (BATTERY) |
| Connector Color | GRAY                       |



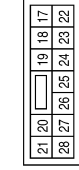
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3            | Y             | -           |
| 4            | G             | -           |

|                 |                            |
|-----------------|----------------------------|
| Connector No.   | E9                         |
| Connector Name  | FUSIBLE LINK BOX (BATTERY) |
| Connector Color | BROWN                      |



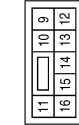
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2            | R             | -           |

|                 |  |
|-----------------|--|
| Connector No.   | E45  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | BROWN  |



| Terminal No. | Color of Wire | Signal Name             |
|--------------|---------------|-------------------------|
| 17           | LG            | FR WIPER LO             |
| 18           | GR            | FR WIPER HI             |
| 19           | B             | GND (POWER)             |
| 20           | BR            | ABS ECU                 |
| 21           | G             | CLUTCH /L SW (WITH M/T) |
| 21           | R             | AT ECU (WITH CVT)       |
| 28           | V             | AC-COMP                 |

|                 |  |
|-----------------|--|
| Connector No.   | E44  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | BROWN  |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 9            | BR            | FUEL PUMP   |
| 10           | L             | IGNSW       |

|                 |  |
|-----------------|--|
| Connector No.   | E42  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | BLACK  |



| Terminal No. | Color of Wire | Signal Name    |
|--------------|---------------|----------------|
| 1            | R             | F/L USM (+B1)  |
| 2            | Y             | F/L MAIN (+B2) |

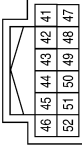
ABMIA3358GB

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# POWER SUPPLY ROUTING CIRCUIT

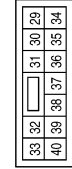
< DTC/CIRCUIT DIAGNOSIS >

|                 |  |
|-----------------|--|
| Connector No.   | F43  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE  |



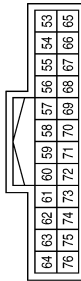
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 43           | GR            | FPR         |
| 47           | R/W           | ECM IGN SW  |

|                 |  |
|-----------------|--|
| Connector No.   | F42  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE  |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 34           | Y             | IGN COIL    |
| 36           | SB            | INJECTOR    |

|                 |  |
|-----------------|--|
| Connector No.   | E46  |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE  |



| Terminal No. | Color of Wire | Signal Name  |
|--------------|---------------|--------------|
| 60           | B             | GND (SIGNAL) |
| 61           | P             | CAN-L        |
| 62           | L             | CAN-H        |
| 65           | BR            | RELAY IG     |

|                 |                      |
|-----------------|----------------------|
| Connector No.   | B46                  |
| Connector Name  | REAR WINDOW DEFOGGER |
| Connector Color | BLACK                |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2            | B             | -           |

|                 |                      |
|-----------------|----------------------|
| Connector No.   | B42                  |
| Connector Name  | REAR WINDOW DEFOGGER |
| Connector Color | BLACK                |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | B             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | B28          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | B             | -           |
| 2            | B             | -           |

ABMIA3359GB

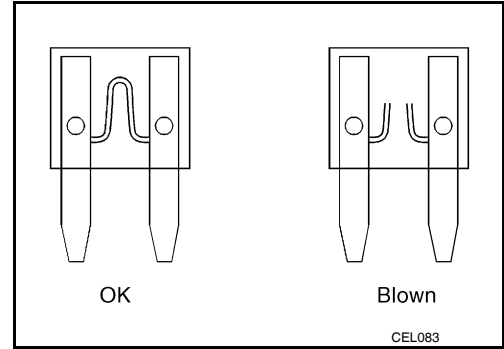
# POWER SUPPLY ROUTING CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## Fuse

INFOID:000000007790692

- If fuse is blown, be sure to eliminate cause of malfunction 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

INFOID:000000007790693

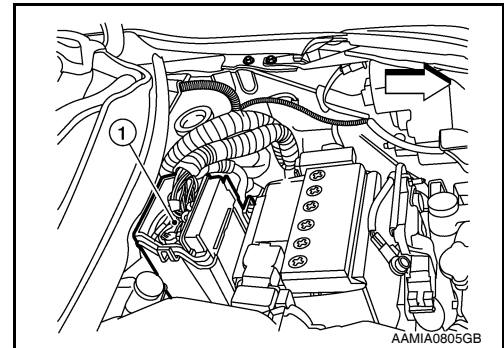
A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

1 : Fusible link

←: Vehicle front

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



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# GROUND

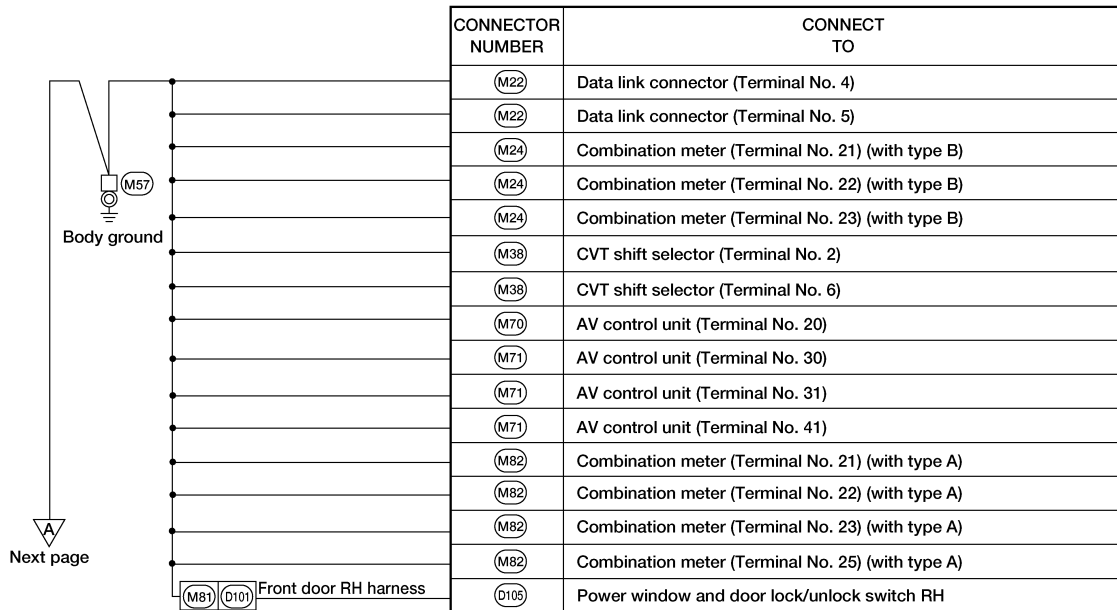
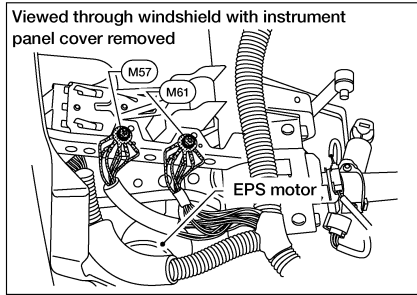
< DTC/CIRCUIT DIAGNOSIS >

## GROUND

### Ground Distribution

INFOID:000000007790694

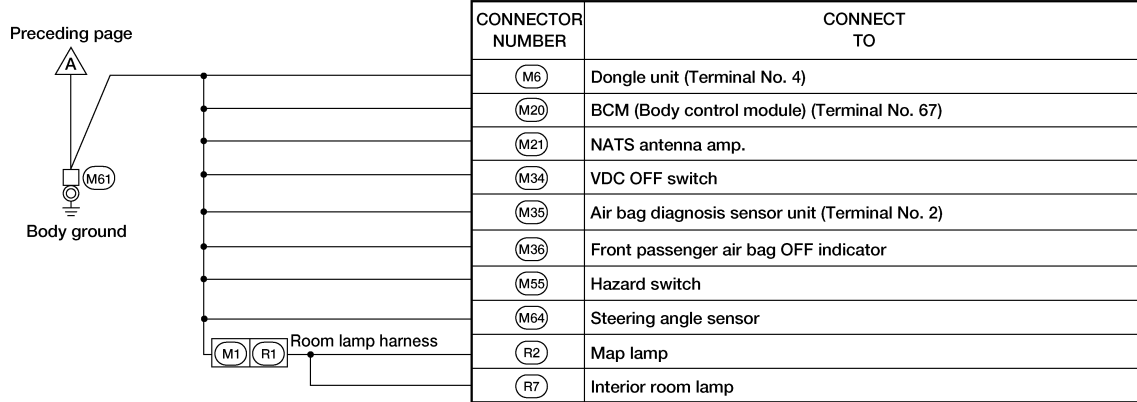
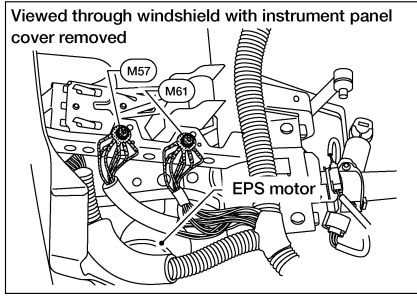
### MAIN HARNESS



ABMIA3281GB

# GROUND

## < DTC/CIRCUIT DIAGNOSIS >



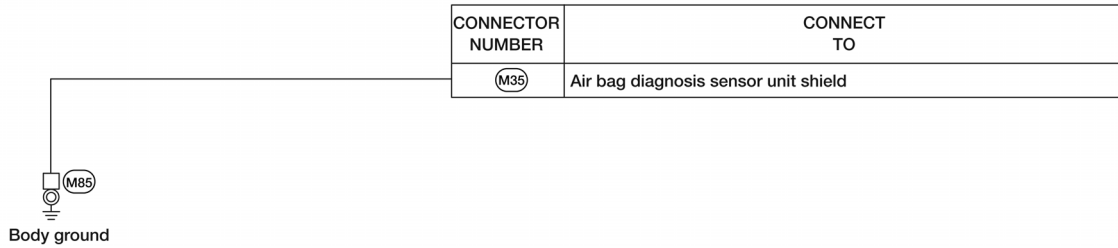
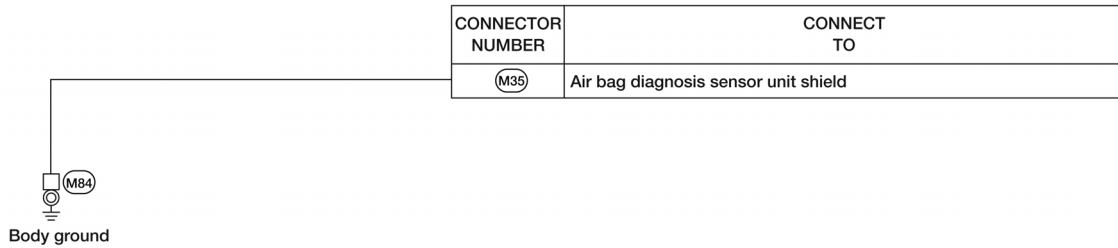
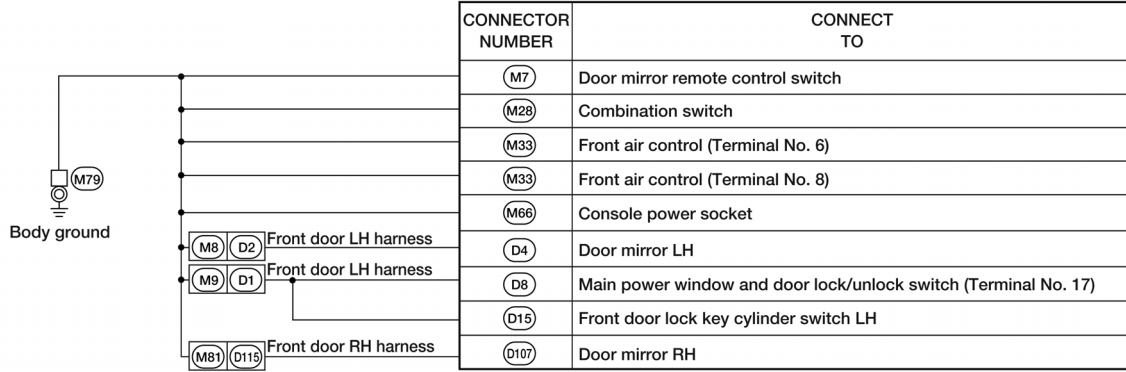
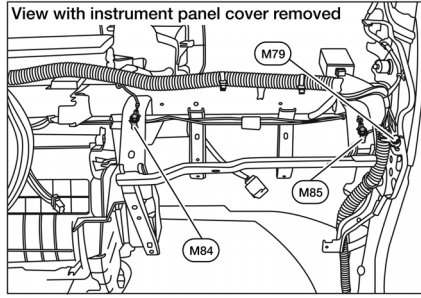
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# GROUND

## < DTC/CIRCUIT DIAGNOSIS >

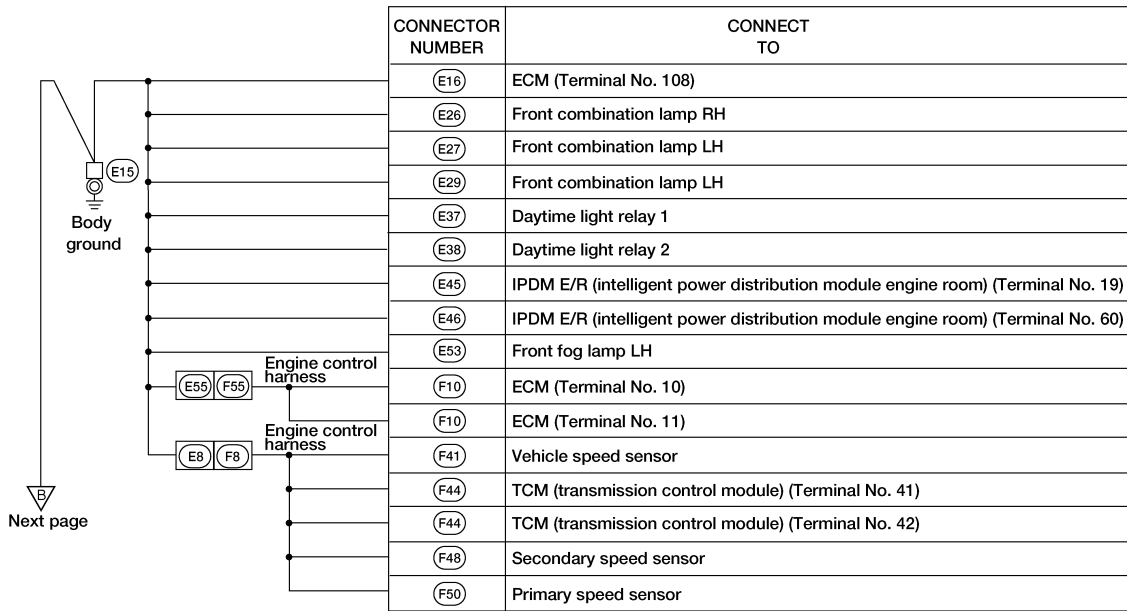
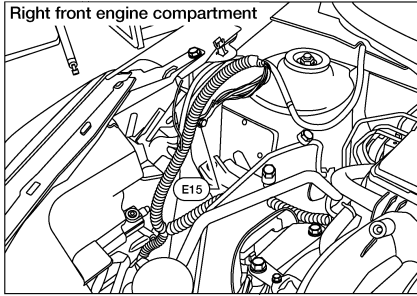


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# GROUND

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE ROOM HARNESS



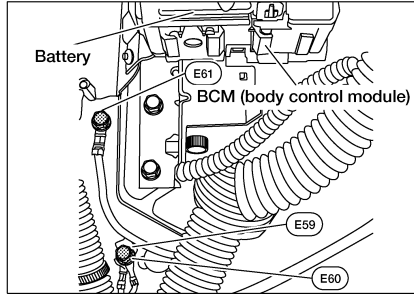
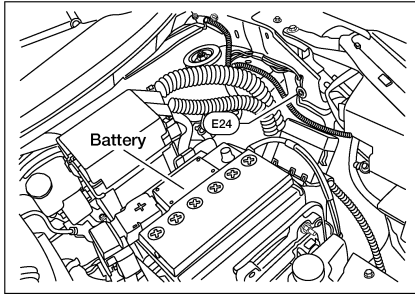
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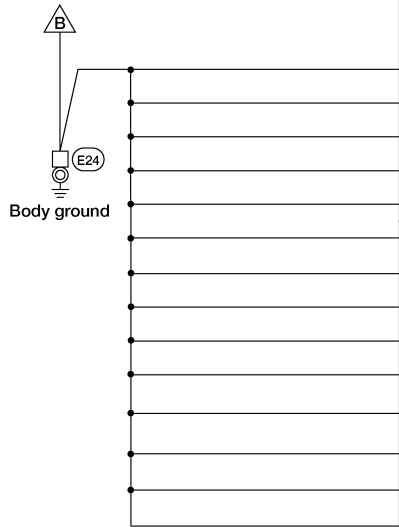
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# GROUND

## < DTC/CIRCUIT DIAGNOSIS >

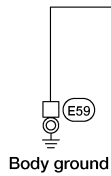


Preceding page



| CONNECTOR NUMBER | CONNECT TO  |
|------------------|---|
| E1               | Front wiper motor   |
| E3               | Cooling fan motor (Terminal No. 3) (single connector cooling fan without A/C) |
| E3               | Cooling fan motor (Terminal No. 4) (single connector cooling fan without A/C) |
| E5               | Cooling fan motor (dual connector cooling fan)                                |
| E20              | Horn  |
| E25              | Front combination lamp LH   |
| E28              | Front combination lamp RH   |
| E30              | Front combination lamp RH   |
| E31              | Cooling fan motor (single connector cooling fan with A/C)                     |
| E40              | Brake fluid level switch  |
| E50              | Washer level switch   |
| E54              | Front fog lamp RH   |
| E56              | Pre-wiring for front fog lamps  |
| E62              | Cooling fan relay   |

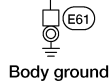
| CONNECTOR NUMBER | CONNECT TO  |
|------------------|---|
| E33              | ABS actuator and electric unit (control unit) (Terminal No. 13) |



| CONNECTOR NUMBER | CONNECT TO  |
|------------------|---|
| E33              | ABS actuator and electric unit (control unit) (Terminal No. 38) |



| CONNECTOR NUMBER | CONNECT TO                         |
|------------------|------------------------------------|
| E23              | EPS control unit (Terminal No. 18) |

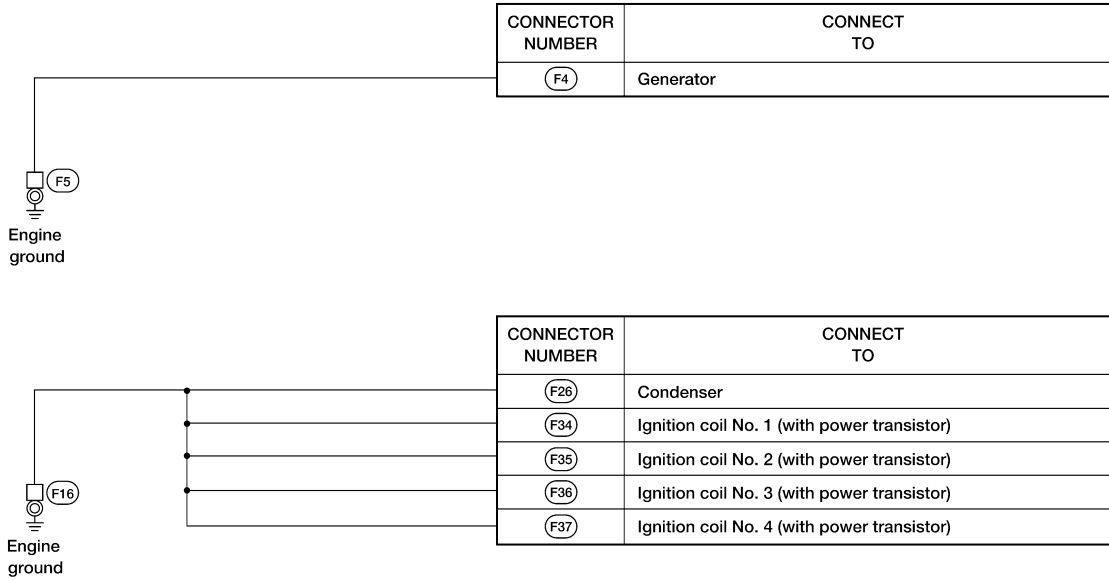
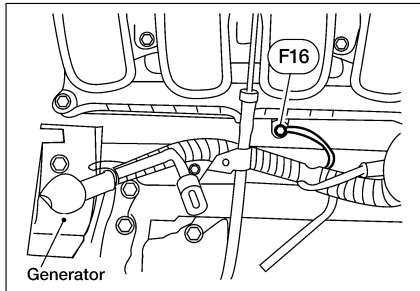
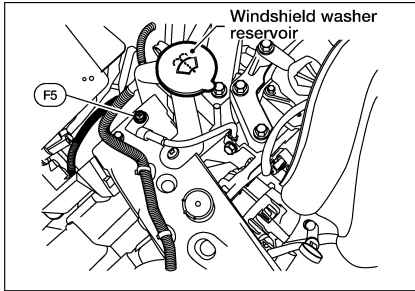


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# GROUND

## < DTC/CIRCUIT DIAGNOSIS > ENGINE CONTROL HARNESS



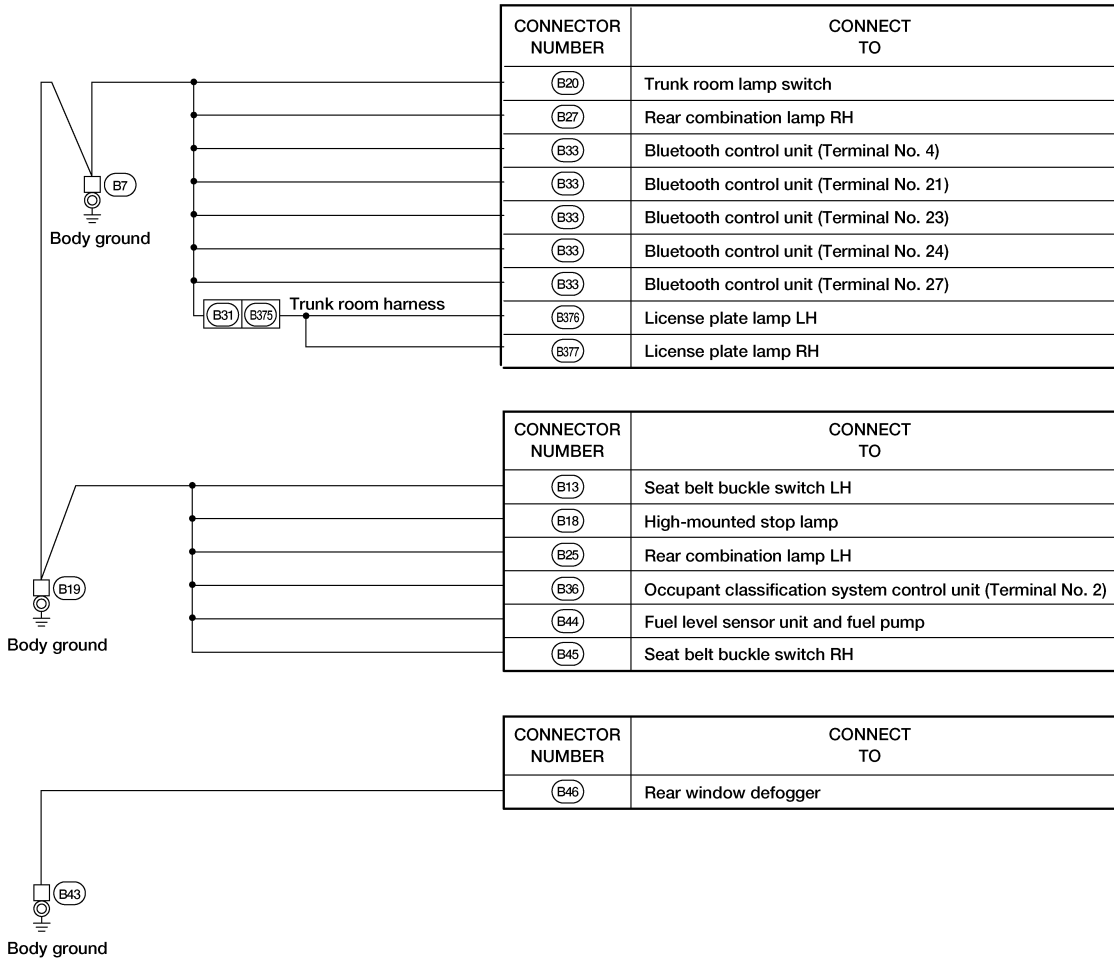
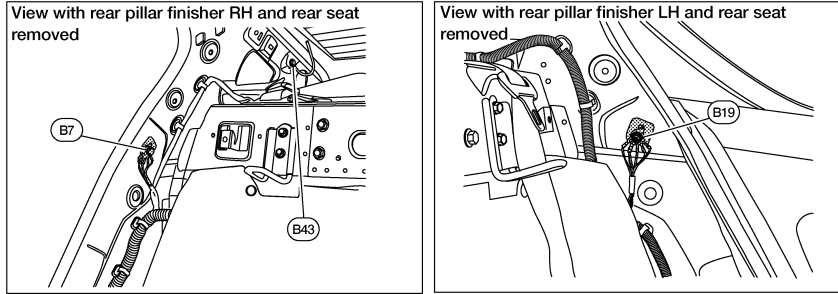
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# GROUND

## < DTC/CIRCUIT DIAGNOSIS >

### BODY HARNESS



ABMIA3289GB

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## HARNESS

### Harness Layout

INFOID:000000007790695

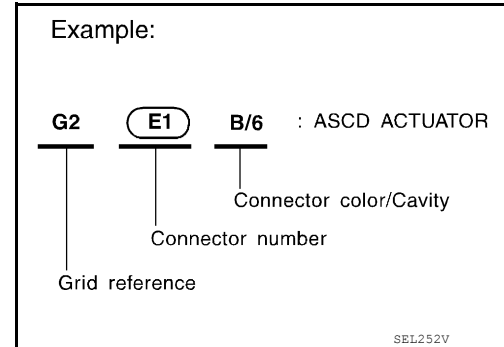
#### HOW TO READ HARNESS LAYOUT

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

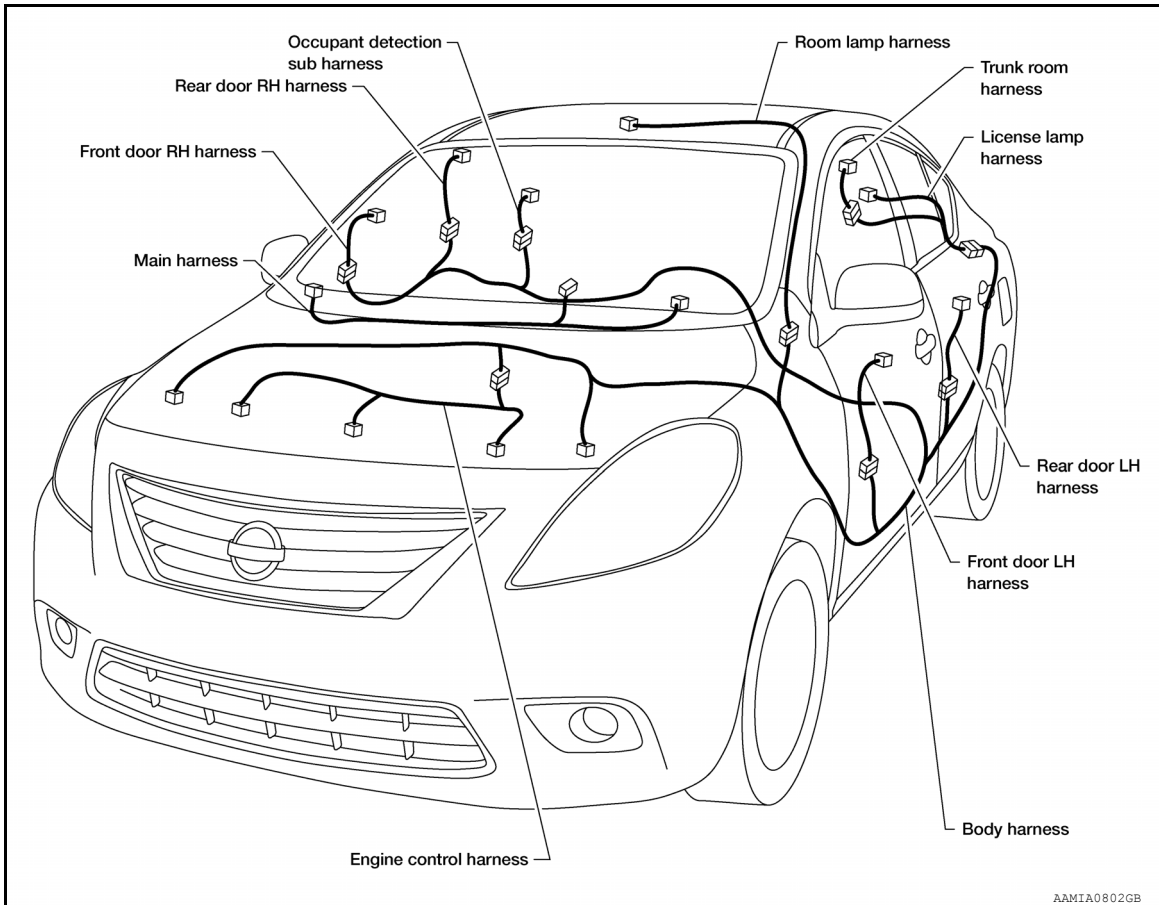
- Main Harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Engine Control Harness
- Body Harness and Trunk Room Harness
- Room Lamp Harness

#### 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.



#### OUTLINE



#### MAIN HARNESS

|    |     |                    |  |     |      |                                       |
|----|-----|--------------------|--|-----|------|---------------------------------------|
| M1 | W/8 | : To R1            |  | M42 | BR/4 | : Thermo control amp.                 |
| M3 | W/1 | : Fuse block (J/B) |  | M43 | W/20 | : Audio unit (with base audio system) |
| M4 | W/1 | : Fuse block (J/B) |  | M44 | W/16 | : Audio unit (with MID audio system)  |

# HARNESS

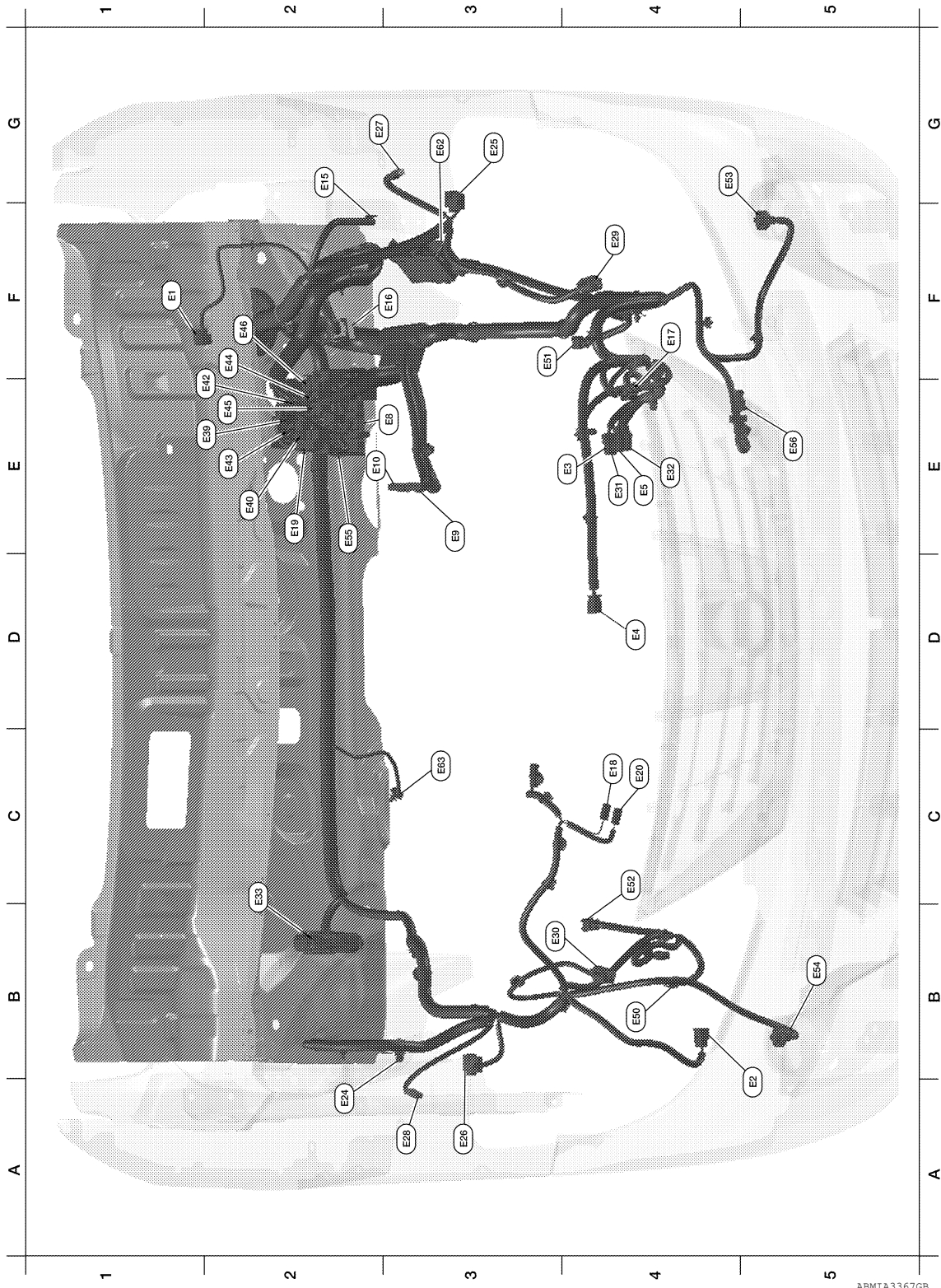
## < DTC/CIRCUIT DIAGNOSIS >

|     |       |   |      |      |                                      |
|-----|-------|---|------|------|--------------------------------------|
| M5  | L/20  | : Joint connector-M03                   | M45  | W/20 | : Audio unit (with MID audio system) |
| M6  | W/4   | : Dongle unit                           | M49  | W/16 | : iPod ® connector                   |
| M7  | W/16  | : Door mirror remote control switch     | M50  | W/20 | : iPod ® adapter                     |
| M8  | W/12  | : To D2                                 | M51  | O/20 | : Joint connector-M02                |
| M9  | W/12  | : To D1                                 | M53  | B/8  | : EPS control unit                   |
| M10 | GR/20 | : Joint connector-M01                   | M54  | GR/8 | : EPS control unit                   |
| M11 | W/2   | : To B28                                | M55  | W/4  | : Hazard switch                      |
| M12 | W/16  | : To B29                                | M57  | —    | : Body ground                        |
| M13 | W/24  | : To B30                                | M61  | —    | : Body ground                        |
| M14 | BR/6  | : Rear window defogger relay            | M62  | W/2  | : Front blower motor                 |
| M15 | W/16  | : To B23                                | M63  | W/4  | : Torque sensor                      |
| M16 | W/24  | : To B24                                | M64  | W/8  | : Steering angle sensor              |
| M17 | B/1   | : Parking brake switch                  | M66  | B/2  | : Console power socket               |
| M18 | W/40  | : BCM (body control module)             | M68  | GR/9 | : AV control unit                    |
| M19 | W/15  | : BCM (body control module)             | M69  | SMJ  | : To E7                              |
| M20 | B/15  | : BCM (body control module)             | M70  | W/20 | : AV control unit                    |
| M21 | W/4   | : NATS antenna amp.                     | M71  | W/24 | : AV control unit                    |
| M22 | W/16  | : Data link connector                   | M72  | B/5  | : USB interface and AUX jack         |
| M23 | W/4   | : Remote keyless entry receiver         | M74  | W/4  | : To D102                            |
| M24 | W/40  | : Combination meter (with type B)       | M75  | Y/4  | : To D101                            |
| M26 | W/6   | : Ignition switch                       | M76  | B/4  | : USB interface and AUX jack         |
| M27 | BR/2  | : Key switch                            | M77  | Y/4  | : Front passenger air bag module     |
| M28 | W/16  | : Combination switch                    | M78  | B/2  | : To E11                             |
| M30 | GR/8  | : Combination switch                    | M79  | —    | : Body ground                        |
| M31 | Y/6   | : Combination switch                    | M80  | Y/4  | : To D3                              |
| M33 | B/15  | : Front air control                     | M81  | W/12 | : To D115                            |
| M34 | GR/6  | : VDC OFF switch                        | M82  | W/40 | : Combination meter (with type A)    |
| M35 | Y/28  | : Air bag diagnosis sensor unit         | M83  | B/3  | : G sensor                           |
| M36 | BR/2  | : Front passenger air bag OFF indicator | M84  | —    | : Body ground                        |
| M38 | W/8   | : CVT shift selector                    | M85  | —    | : Body ground                        |
| M40 | W/8   | : Audio unit (with MID audio system)    | M105 | BR/4 | : Front blower motor resistor        |

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE ROOM HARNESS



ABMIA3367GB

|    |    |      |  |    |     |      |  |
|----|----|------|--|----|-----|------|--|
| F1 | E1 | GR/5 | : Front wiper motor  | B4 | E30 | GR/3 | : Front combination lamp RH                                    |
| A5 | E2 | GR/2 | : Front washer motor   | E4 | E31 | GR/4 | : Cooling fan motor (single connector cooling fan without A/C) |
| E4 | E3 | GR/4 | : Cooling fan motor (single connector cooling fan without A/C) | E4 | E32 | B/2  | : Cooling fan motor (dual connector cooling fan)               |

# HARNESSES

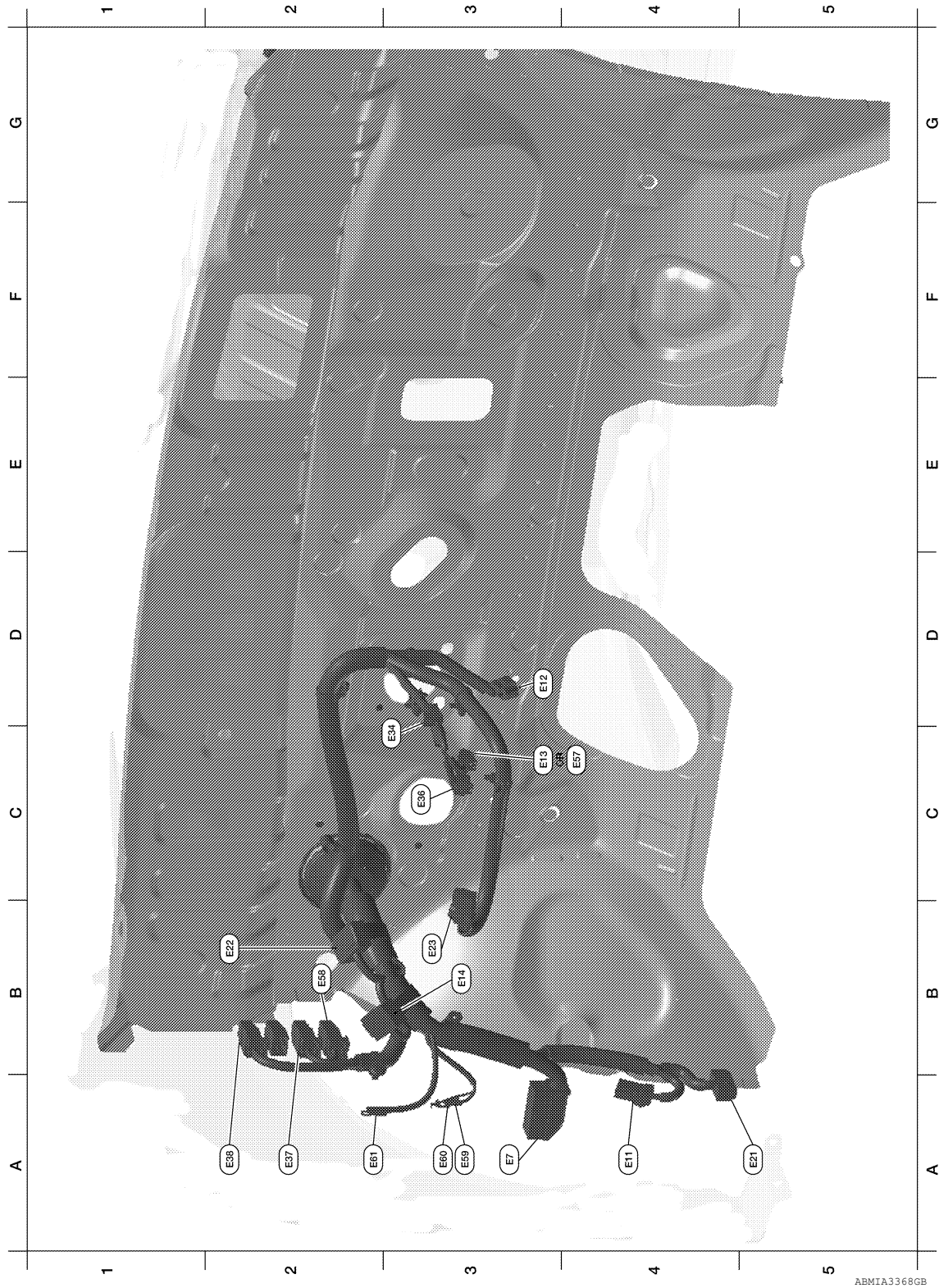
## < DTC/CIRCUIT DIAGNOSIS >

|    |     |      |  |    |     |       |  |
|----|-----|------|--|----|-----|-------|--|
| D4 | E4  | Y/2  | : Crash zone sensor                              | B2 | E33 | B/38  | : ABS actuator and electric unit (control unit)                |
| E4 | E5  | B/2  | : Cooling fan motor (dual connector cooling fan) | E1 | E39 | W/3   | : Horn relay   |
| E2 | E8  | W/24 | : To F8  | E2 | E40 | B/2   | : Brake fluid level switch                                     |
| D3 | E9  | BR/2 | : Fusible link box (battery)                     | E1 | E42 | B/2   | : IPDM E/R (intelligent power distribution module engine room) |
| E2 | E10 | GR/2 | : Fusible link box (battery)                     | E2 | E43 | B/6   | : IPDM E/R (intelligent power distribution module engine room) |
| E4 | E11 | B/2  | : To M78   | F2 | E44 | BR/8  | : IPDM E/R (intelligent power distribution module engine room) |
| G2 | E15 | —    | : Body ground                                    | E2 | E45 | BR/12 | : IPDM E/R (intelligent power distribution module engine room) |
| F2 | E16 | B/32 | : ECM  | F2 | E46 | W/24  | : IPDM E/R (intelligent power distribution module engine room) |
| F4 | E17 | B/3  | : Refrigerant pressure sensor                    | B4 | E50 | BR/2  | : Washer fluid level switch                                    |
| C4 | E18 | B/1  | : Horn   | F3 | E51 | B/2   | : Front wheel sensor LH  |
| E2 | E19 | W/6  | : To F33   | C4 | E52 | B/2   | : Front wheel sensor RH  |
| C4 | E20 | B/1  | : Horn   | G4 | E53 | B/2   | : Front fog lamp LH  |
| A2 | E24 | —    | : Body ground                                    | B5 | E54 | B/2   | : Front fog lamp RH  |
| G3 | E25 | B/3  | : Front combination lamp LH                      | E2 | E55 | GR/12 | : To F55   |
| A2 | E26 | GR/3 | : Front combination lamp RH                      | E5 | E56 | GR/2  | : Pre-wiring for front fog lamps                               |
| G2 | E27 | B/2  | : Front combination lamp LH                      | G3 | E62 | L/4   | : Cooling fan relay  |
| A3 | E28 | B/2  | : Front combination lamp RH                      | C3 | E63 | GR/4  | : Heated oxygen sensor 2                                       |
| F4 | E29 | GR/3 | : Front combination lamp LH                      |    |     |       |  |

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



ABMIA3368GB

|    |     |      |   |    |     |      |                               |
|----|-----|------|---|----|-----|------|-------------------------------|
| A3 | E7  | SMJ  | : To M69                                  | C3 | E36 | BR/2 | : ASCD brake switch           |
| A4 | E11 | W/16 | : To M78                                  | A2 | E37 | B/5  | : Daytime light relay 1       |
| D3 | E12 | B/6  | : Accelerator pedal position (APP) sensor | A2 | E38 | L/4  | : Daytime light relay 2       |
| C3 | E13 | W/4  | : Stop lamp switch (with CVT)             | C4 | E57 | B/2  | : Stop lamp switch (with M/T) |
| B3 | E14 | L/12 | : Joint connector-E03                     | B2 | E58 | L/4  | : Front fog lamp relay        |

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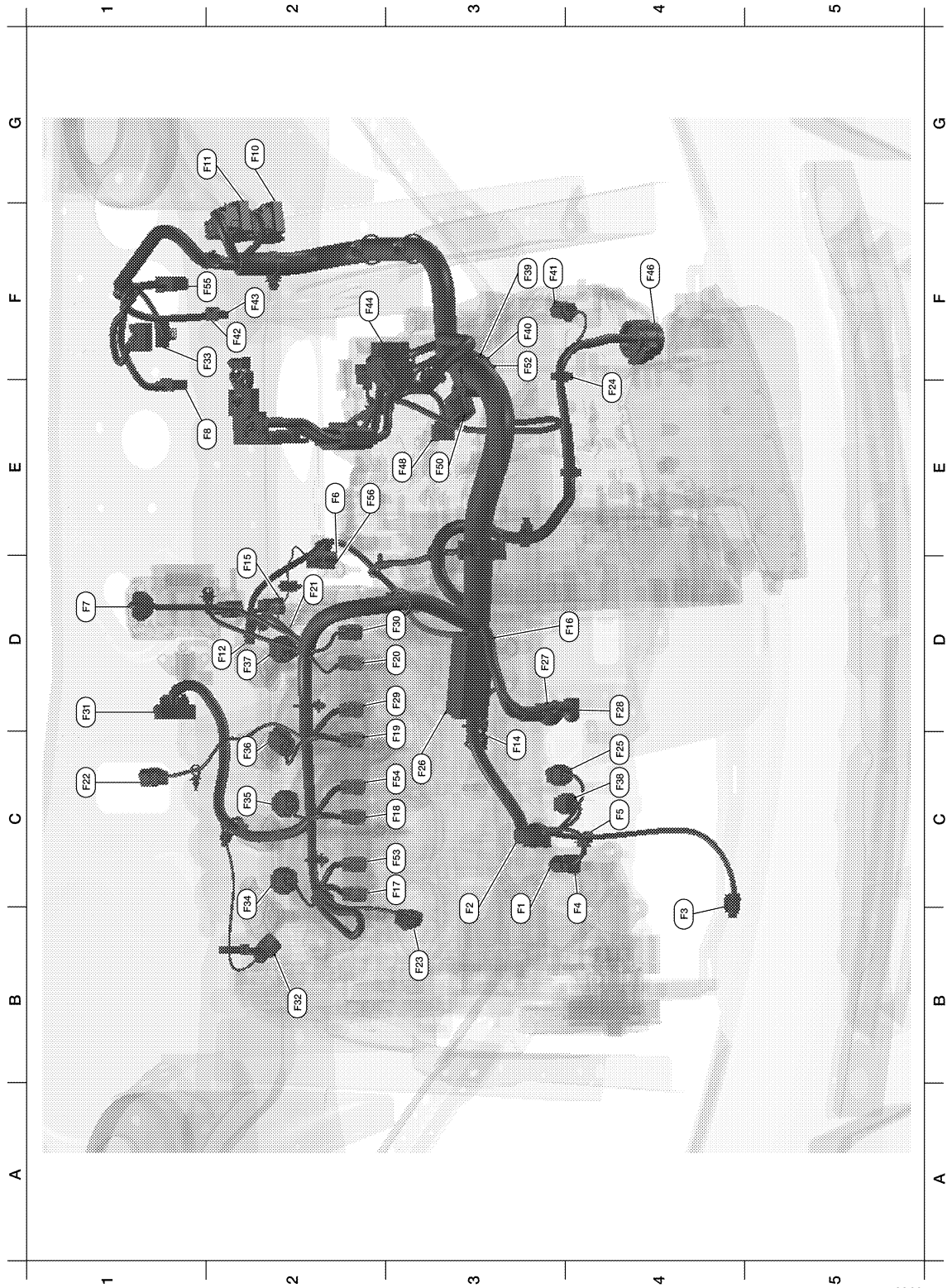
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# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

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|----|-----|-------|---------------------------|----|-----|---|---------------|
| A5 | E21 | GR/16 | : To B12                  | A3 | E59 | — | : Body ground |
| B2 | E22 | W/20  | : Joint connector-E02     | A3 | E60 | — | : Body ground |
| B3 | E23 | B/2   | : EPS control unit        | A2 | E61 | — | : Body ground |
| C3 | E34 | BR/2  | : Clutch interlock switch |    |     |   |               |

## ENGINE CONTROL HARNESS



ABMIA3366GB



# HARNESS

## < DTC/CIRCUIT DIAGNOSIS >

|    |     |       |   |    |     |       |  |   |
|----|-----|-------|---|----|-----|-------|--|---|
| C3 | F1  | B/3   | : Generator   | D4 | F28 | /1    | : Starter motor  | A |
| C3 | F2  | /1    | : Generator   | D3 | F29 | B/2   | : Fuel injector No. 3 (rear)                                   |   |
| B4 | F3  | B/1   | : A/C Compressor                                    | D3 | F30 | B/2   | : Fuel injector No. 4 (rear)                                   | B |
| C4 | F4  | /1    | : Generator   | D1 | F31 | GR/2  | : Intake valve timing control solenoid valve                   |   |
| C4 | F5  | —     | : Engine ground                                     | B2 | F32 | G/2   | : Exhaust valve timing control solenoid valve                  | C |
| E2 | F6  | GR/2  | : Engine coolant temperature sensor                 | F1 | F33 | W/6   | : To E19   |   |
| D1 | F7  | B/6   | : Electric throttle control actuator                | B2 | F34 | GR/3  | : Ignition coil No. 1 (with power transistor)                  | D |
| E1 | F8  | W/24  | : To E8   | C2 | F35 | GR/3  | : Ignition coil No. 2 (with power transistor)                  |   |
| G2 | F10 | GR/32 | : ECM   | C2 | F36 | GR/3  | : Ignition coil No. 3 (with power transistor)                  | E |
| G1 | F11 | BR/48 | : ECM   | D2 | F37 | GR/3  | : Ignition coil No. 4 (with power transistor)                  |   |
| D2 | F12 | GR/4  | : Air fuel ratio (A/F) sensor 1                     | C4 | F38 | B/3   | : Engine oil pressure sensor                                   | F |
| C3 | F14 | GR/2  | : Knock sensor                                      | F3 | F39 | —     | : Fusible link box (battery)                                   |   |
| D2 | F15 | B/3   | : Crankshaft position sensor (POS)                  | F3 | F40 | —     | : Fusible link box (battery)                                   | G |
| D3 | F16 | —     | : Engine ground                                     | F3 | F41 | B/3   | : Output speed sensor  |   |
| C3 | F17 | B/2   | : Fuel injector No. 1 (front)                       | F2 | F42 | W/12  | : IPDM E/R (intelligent power distribution module engine room) | H |
| C3 | F18 | B/2   | : Fuel injector No. 2 (front)                       | F2 | F43 | W/12  | : IPDM E/R (intelligent power distribution module engine room) |   |
| D3 | F19 | B/2   | : Fuel injector No. 3 (front)                       | F2 | F44 | B/48  | : TCM (transmission control module)                            | I |
| D3 | F20 | B/2   | : Fuel injector No. 4 (front)                       | F4 | F46 | GR/22 | : CVT unit   |   |
| D2 | F21 | B/3   | : Intake camshaft position sensor                   | E3 | F48 | B/3   | : Secondary speed sensor                                       | J |
| C1 | F22 | L/2   | : EVAP canister purge volume control solenoid valve | E3 | F50 | B/3   | : Primary speed sensor   |   |
| B3 | F23 | GR/2  | : Intake valve timing control solenoid valve        | F3 | F52 | B/10  | : Transmission range switch                                    | K |
| F4 | F24 | G/3   | : Park/neutral position (PNP) switch                | C3 | F53 | B/2   | : Fuel injector No. 1 (rear)                                   |   |
| C4 | F25 | GR/2  | : Engine oil temperature sensor                     | C3 | F54 | B/2   | : Fuel injector No. 2 (rear)                                   | L |
| C3 | F26 | W/2   | : Condenser   | F1 | F55 | GR/12 | : To E55   |   |
| D3 | F27 | /1    | : Starter motor                                     | E2 | F56 | B/3   | : Exhaust camshaft control position sensor                     |   |

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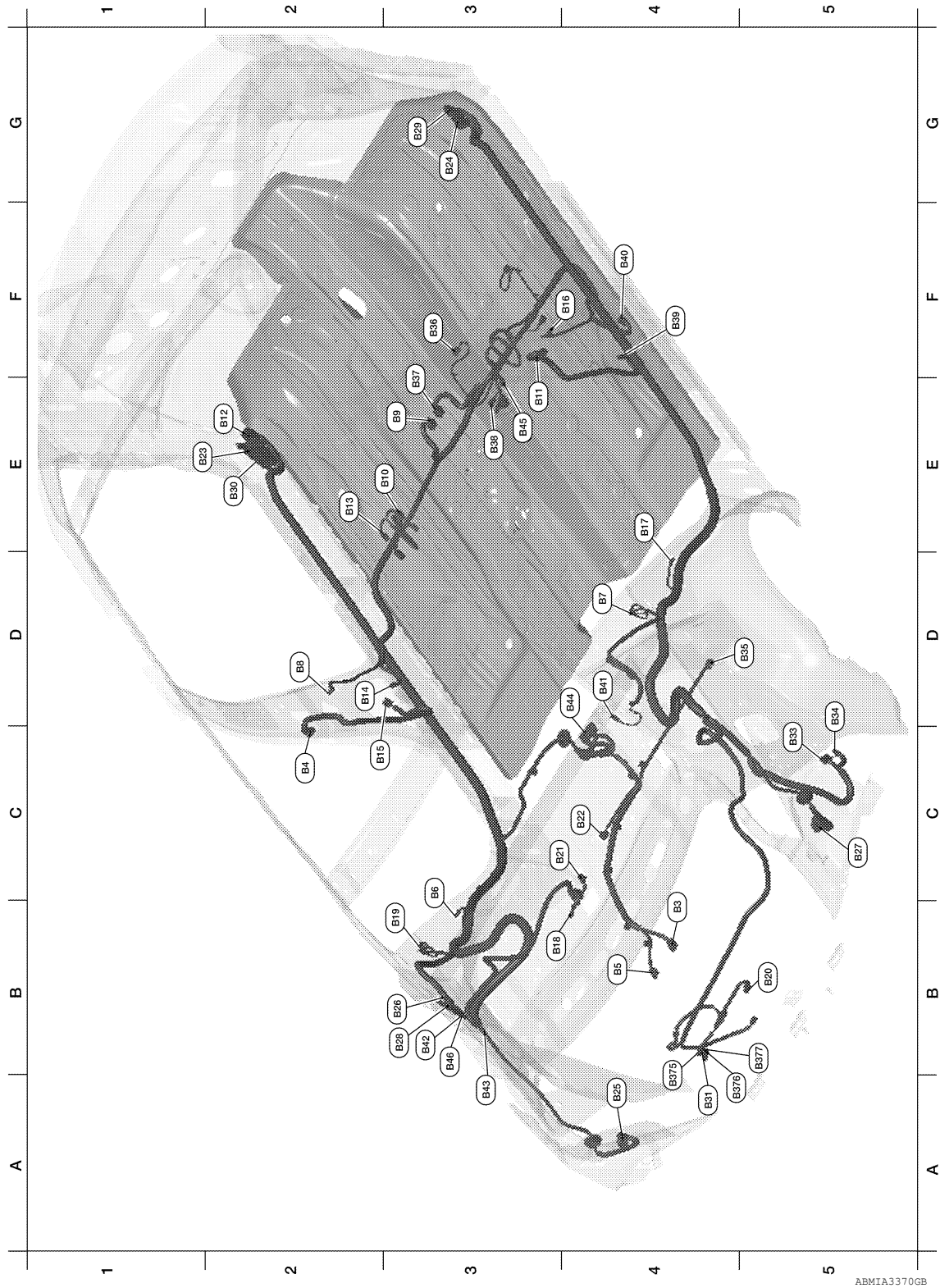
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# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## BODY HARNESS



ABMIA3370GB

|    |    |      |                                       |    |     |      |                            |
|----|----|------|---------------------------------------|----|-----|------|----------------------------|
| B4 | B2 | GR/3 | : EVAP control system pressure sensor | C5 | B27 | B/6  | : Rear combination lamp RH |
| C2 | B4 | W/4  | : To D201                             | B3 | B28 | W/2  | : To M11                   |
| B4 | B5 | B/2  | : EVAP canister vent control valve    | G3 | B29 | W/16 | : To M12                   |
| C3 | B6 | W/4  | : Rear door switch LH                 | E2 | B30 | W/24 | : To M13                   |
| D4 | B7 | —    | : Body ground                         | A4 | B31 | W/4  | : To B375                  |

# HARNESSES

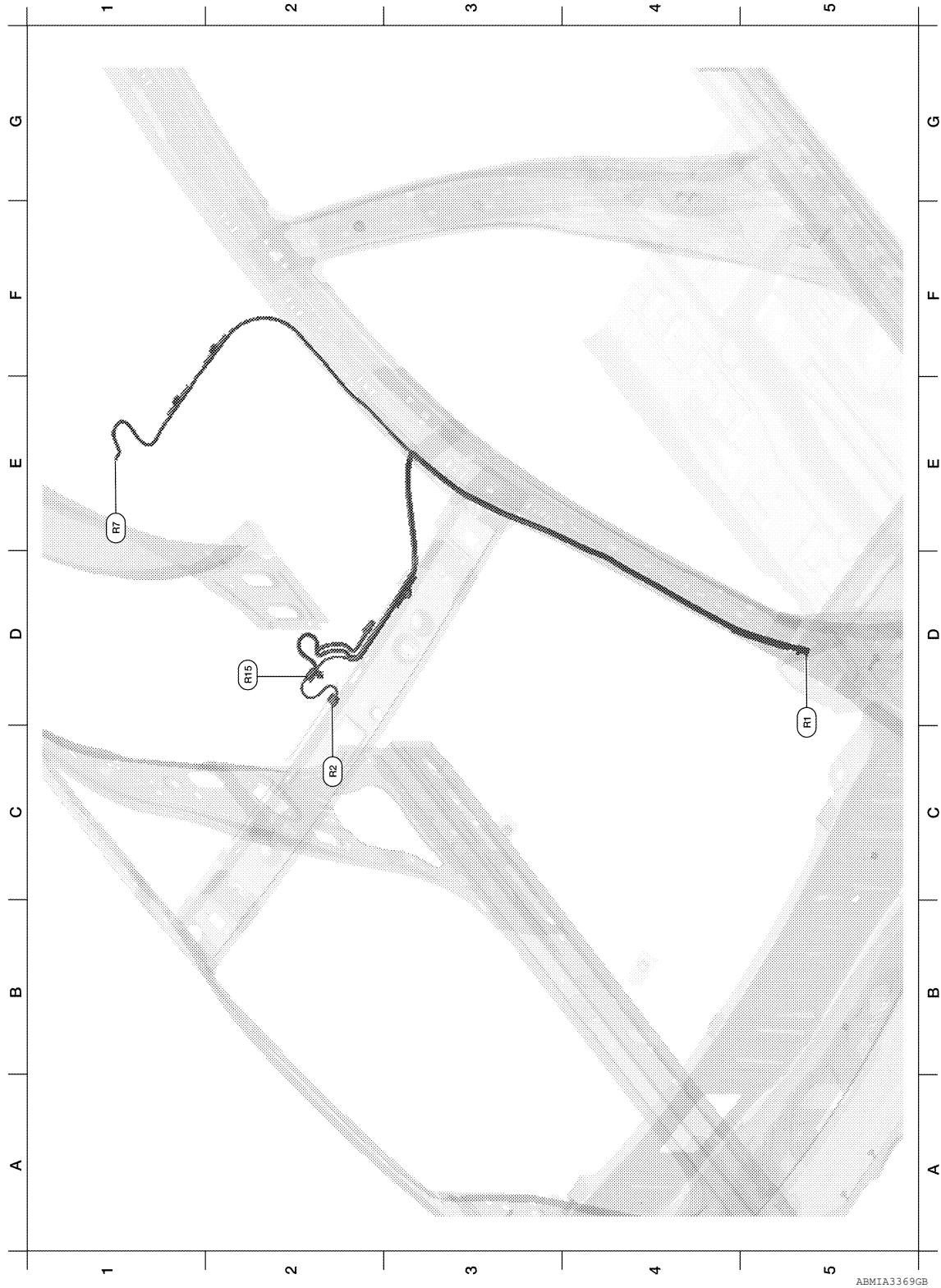
## < DTC/CIRCUIT DIAGNOSIS >

|    |     |       |                                    |                    |      |      |   |   |   |
|----|-----|-------|------------------------------------|--------------------|------|------|---|---|---|
| D2 | B8  | W/4   | : Front door switch LH             | C5                 | B33  | W/32 | : Bluetooth control unit                      | A |   |
| E3 | B9  | Y/22  | : Air bag diagnosis sensor unit    | D5                 | B34  | W/8  | : Bluetooth control unit                      | B |   |
| B4 | B10 | Y/2   | : Front LH side air bag module     | D5                 | B35  | B/2  | : Rear wheel sensor RH                        | C |   |
| E3 | B11 | W/8   | : To D301                          | F3                 | B36  | W/4  | : Occupant classification system control unit | D |   |
| E2 | B12 | GR/16 | : To E21                           | E3                 | B37  | Y/22 | : Air bag diagnosis sensor unit               | E |   |
| E2 | B13 | W/2   | : Seat belt buckle switch LH       | E3                 | B38  | Y/2  | : Front RH side air bag module                | F |   |
| D2 | B14 | Y/2   | : Front LH seat belt pre-tensioner | F3                 | B39  | Y/2  | : Front RH seat belt pre-tensioner            | G |   |
| C2 | B15 | Y/2   | : Side air bag satellite sensor LH | F3                 | B40  | Y/2  | : Side air bag satellite sensor RH            | H |   |
| F3 | B16 | W/4   | : Front door switch RH             | D4                 | B41  | Y/2  | : RH side curtain air bag module              | I |   |
| E4 | B17 | W/4   | : Rear door switch RH              | B3                 | B42  | B/2  | : Rear window defogger                        | J |   |
| B3 | B18 | W/4   | : High-mounted stop lamp           | A3                 | B43  | —    | : Body ground                                 | K |   |
| B3 | B19 | —     | : Body ground                      | D4                 | B44  | GR/5 | : Fuel level sensor unit and fuel pump        | L |   |
| B5 | B20 | W/3   | : Trunk lid switch                 | E3                 | B45  | W/2  | : Seat belt buckle switch RH                  | M |   |
| B5 | B21 | W/2   | : Trunk room lamp                  | B3                 | B46  | B/1  | : Rear window defogger                        | N |   |
| C4 | B22 | GR/2  | : Rear wheel sensor LH             | Trunk room harness |      |      |   |   | O |
| E1 | B23 | W/16  | : To M15                           | B4                 | B375 | W/4  | : To B31                                      | P |   |
| G3 | B24 | W/24  | : To M16                           | A4                 | B376 | W/2  | : License plate lamp LH                       |   |   |
| A4 | B25 | B/6   | : Rear combination lamp LH         | B5                 | B377 | W/2  | : License plate lamp RH                       |   |   |
| B3 | B26 | Y/2   | : LH side curtain air bag module   |                    |      |      |   |   |   |

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## ROOM LAMP HARNESS



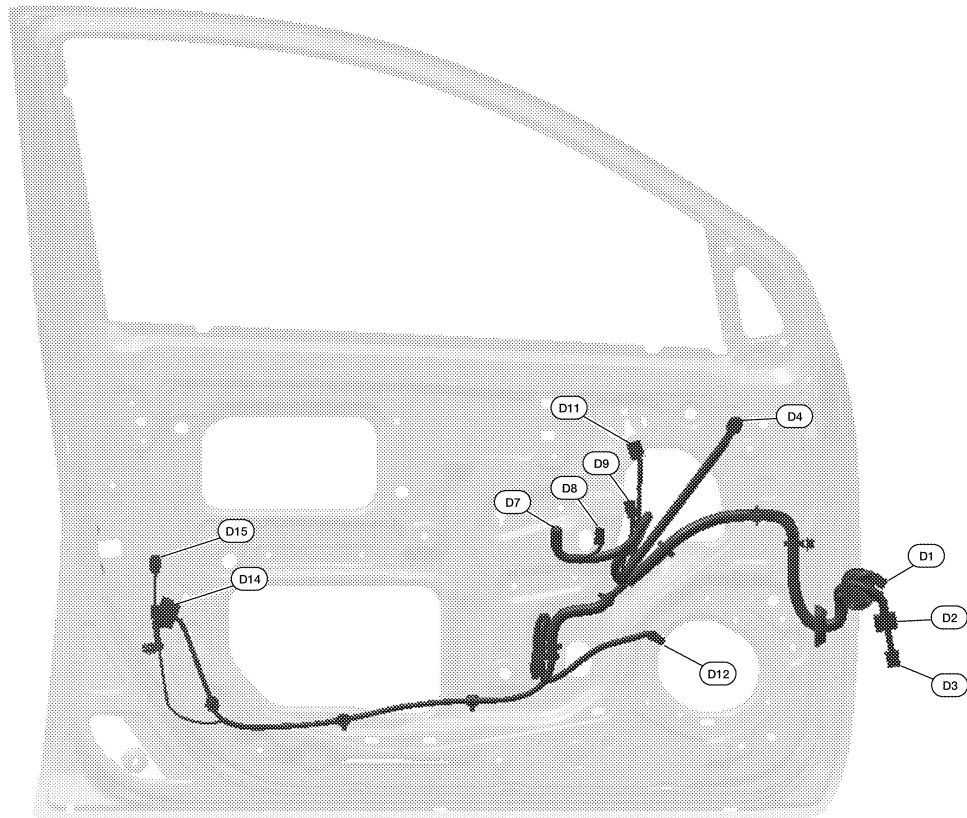
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|    |     |     |                      |  |  |  |  |
|----|-----|-----|----------------------|--|--|--|--|
| D5 | R1  | W/8 | : To M1              |  |  |  |  |
| C2 | R2  | W/3 | : Map lamp           |  |  |  |  |
| E1 | R7  | W/3 | : Interior room lamp |  |  |  |  |
| D2 | R15 | W/4 | : Microphone         |  |  |  |  |

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## FRONT DOOR LH HARNESS



ABMIA3373GB

|    |      |   |     |      |  |
|----|------|---|-----|------|--|
| D1 | W/12 | : To M9   | D9  | B/2  | : Front power window motor LH            |
| D2 | W/12 | : To M8   | D11 | Y/2  | : Front door satellite sensor LH         |
| D3 | Y/4  | : To M80  | D12 | W/2  | : Front door speaker LH                  |
| D4 | W/8  | : Door mirror LH                                | D14 | GR/6 | : Front door lock actuator LH            |
| D7 | W/16 | : Main power window and door lock/unlock switch | D15 | BR/3 | : Front door lock key cylinder switch LH |
| D8 | W/3  | : Main power window and door lock/unlock switch |     |      |  |

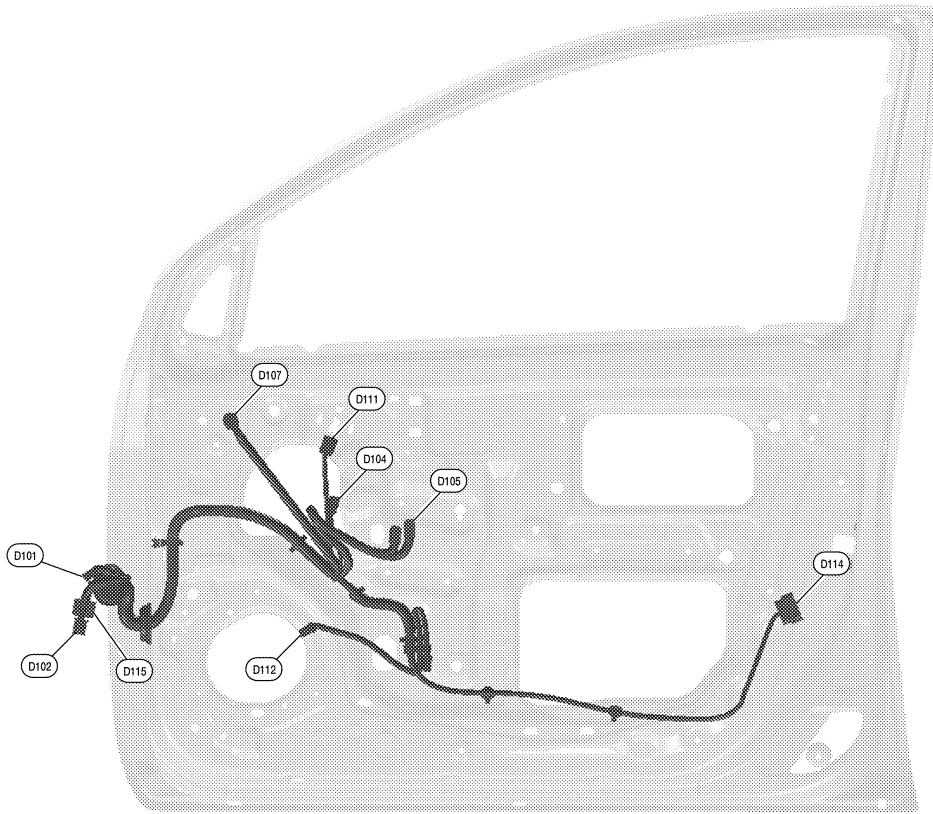
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# HARNESS

## < DTC/CIRCUIT DIAGNOSIS > FRONT DOOR RH HARNESS



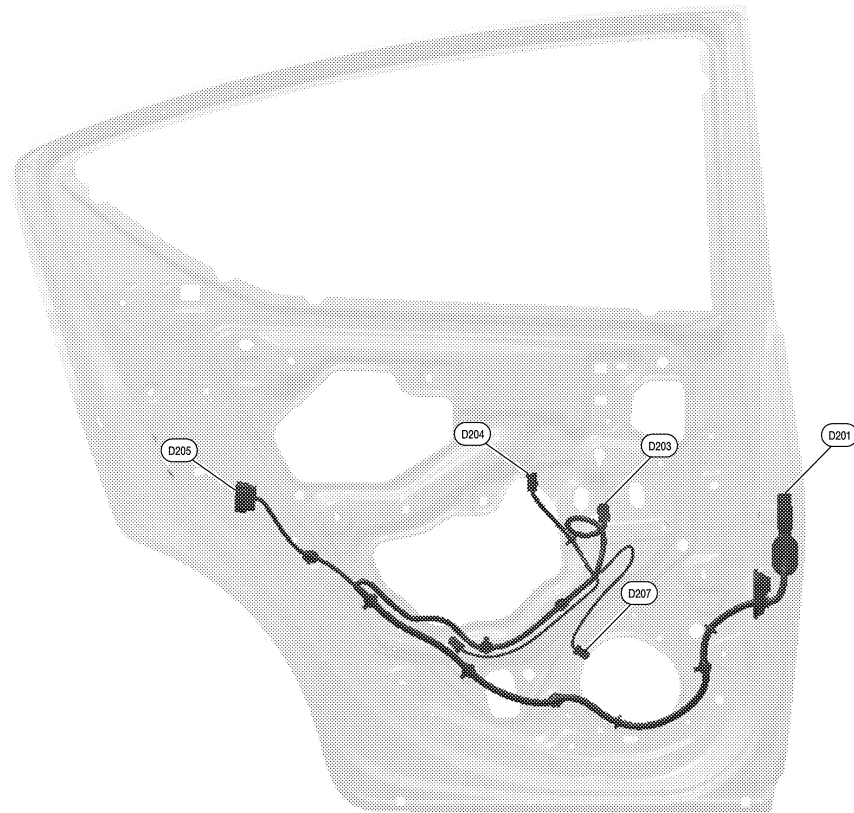
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|      |      |   |      |      |                                  |
|------|------|---|------|------|----------------------------------|
| D101 | Y/4  | : To M75                                      | D111 | Y/2  | : Front door satellite sensor RH |
| D102 | W/4  | : To M74                                      | D112 | W/2  | : Front door speaker RH          |
| D104 | B/2  | : Front power window motor RH                 | D114 | GR/6 | : Front door lock actuator RH    |
| D105 | W/12 | : Power window and door lock/unlock switch RH | D115 | W/12 | : To M81                         |
| D106 | W/8  | : Door mirror RH                              |      |      |                                  |

# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## REAR DOOR LH HARNESS



ABMIA3371GB

|      |     |                               |      |      |                              |
|------|-----|-------------------------------|------|------|------------------------------|
| D201 | W/8 | : To B4                       | D205 | GR/6 | : Rear door lock actuator LH |
| D203 | W/8 | : Rear power window switch LH | D207 | W/2  | : Rear door speaker LH       |
| D204 | B/2 | : Rear power window motor LH  |      |      |                              |

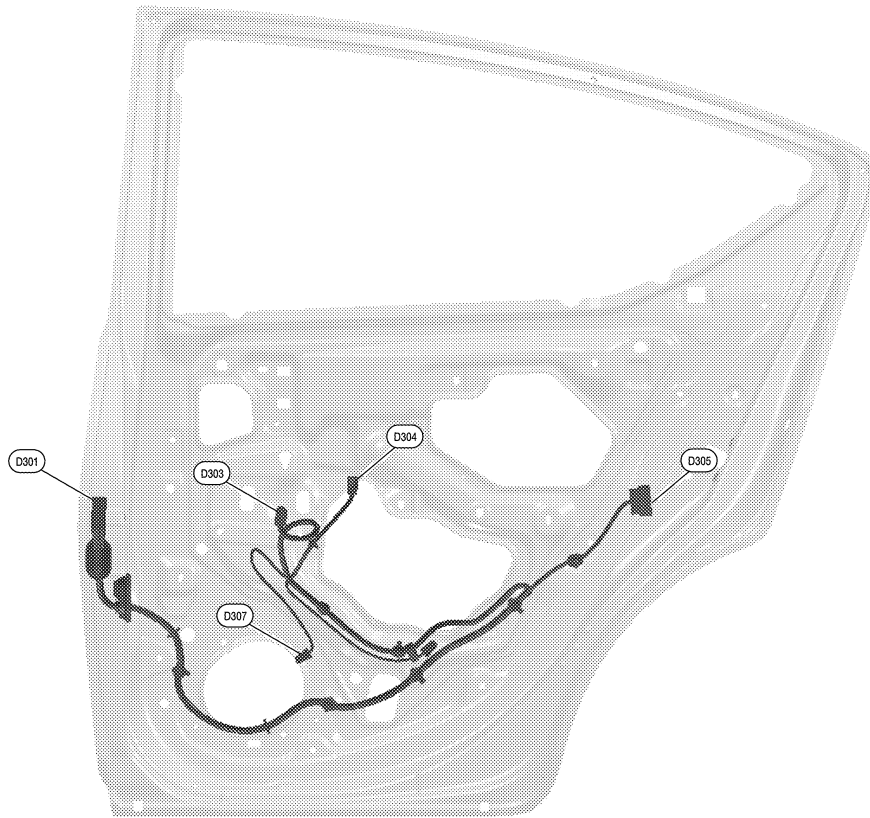
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# HARNESS

< DTC/CIRCUIT DIAGNOSIS >

## REAR DOOR RH HARNESS



ABMIA3372GB

|      |     |                               |      |      |                              |
|------|-----|-------------------------------|------|------|------------------------------|
| D301 | W/8 | : To B11                      | D305 | GR/6 | : Rear door lock actuator RH |
| D303 | W/8 | : Rear power window switch RH | D307 | W/2  | : Rear door speaker RH       |
| D304 | B/2 | : Rear power window motor RH  |      |      |                              |



# ELECTRICAL UNITS LOCATION

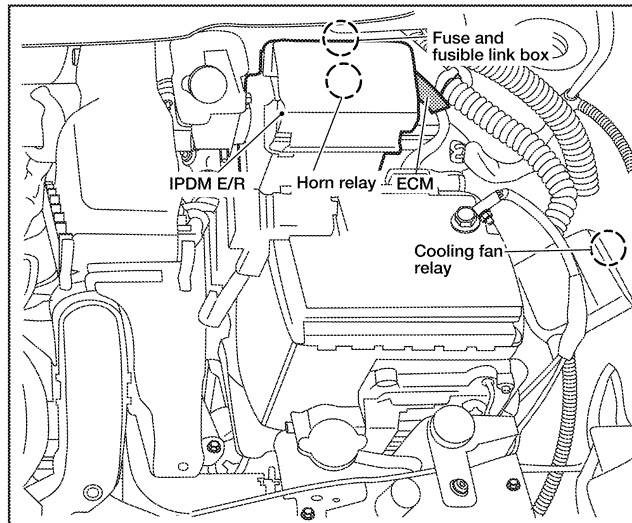
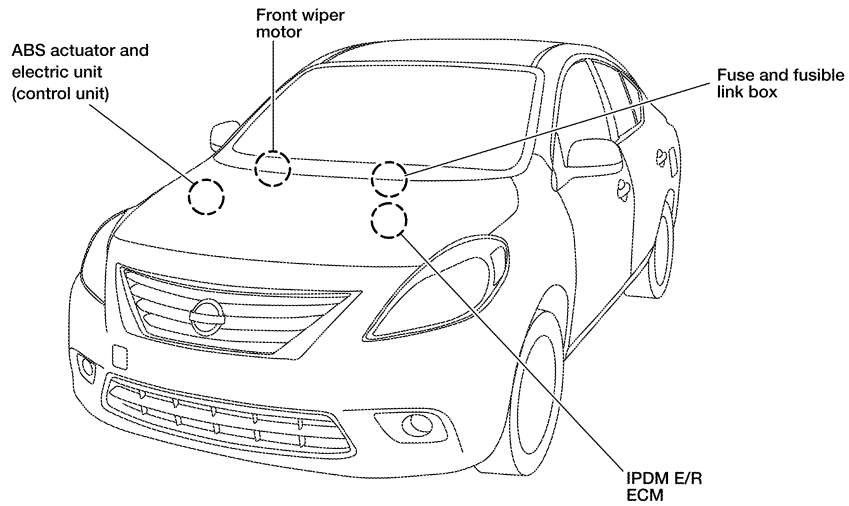
< DTC/CIRCUIT DIAGNOSIS >

## ELECTRICAL UNITS LOCATION

### Electrical Units Location

INFOID:000000007790696

### ENGINE COMPARTMENT

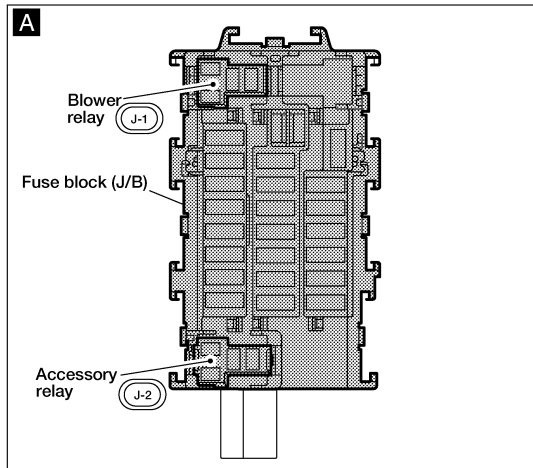
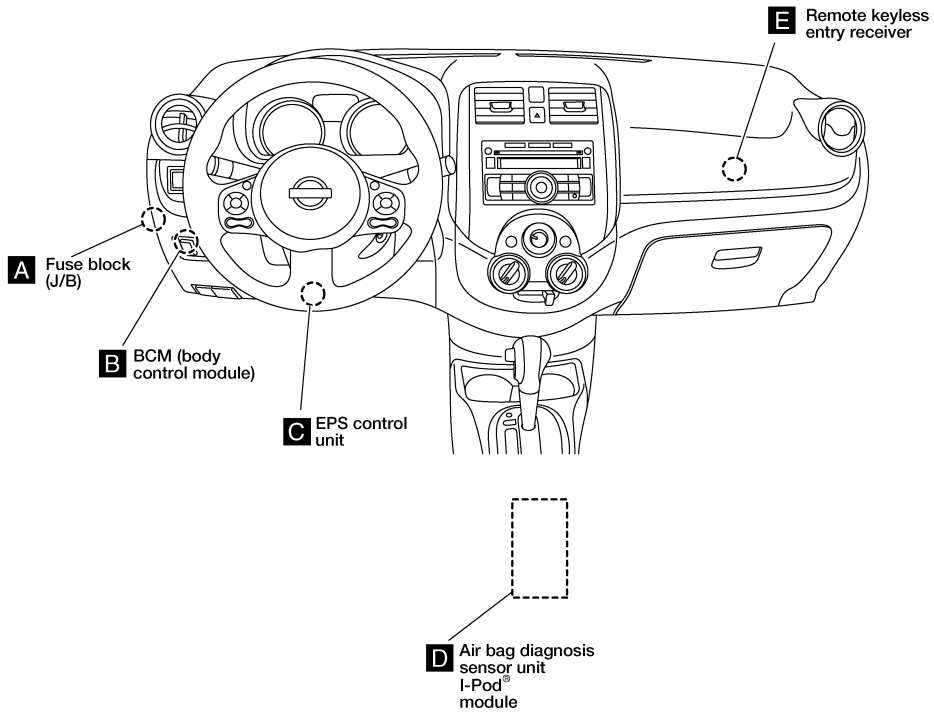


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# ELECTRICAL UNITS LOCATION

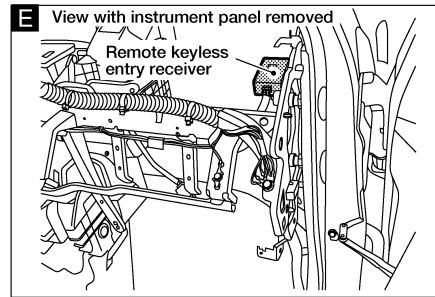
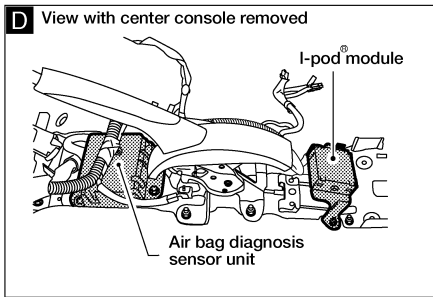
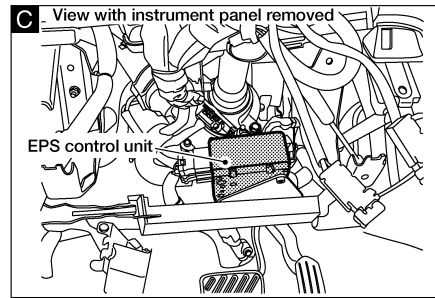
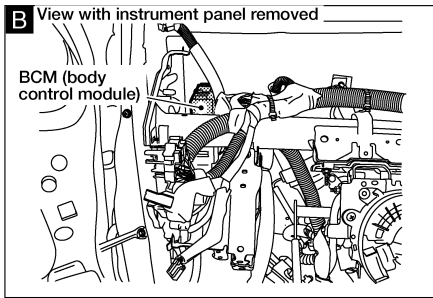
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# ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >



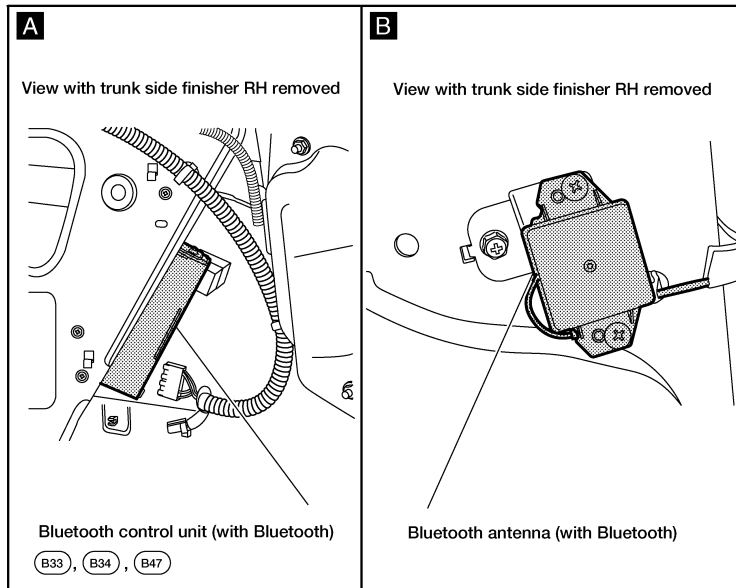
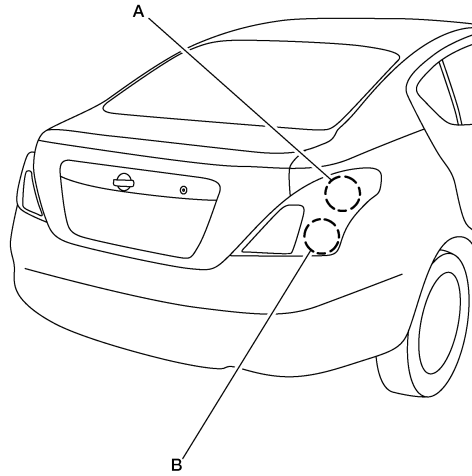
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# ELECTRICAL UNITS LOCATION

< DTC/CIRCUIT DIAGNOSIS >

LUGGAGE COMPARTMENT



AAMIA0799GB

# HARNESS CONNECTOR

< DTC/CIRCUIT DIAGNOSIS >

## HARNESS CONNECTOR

### Description

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

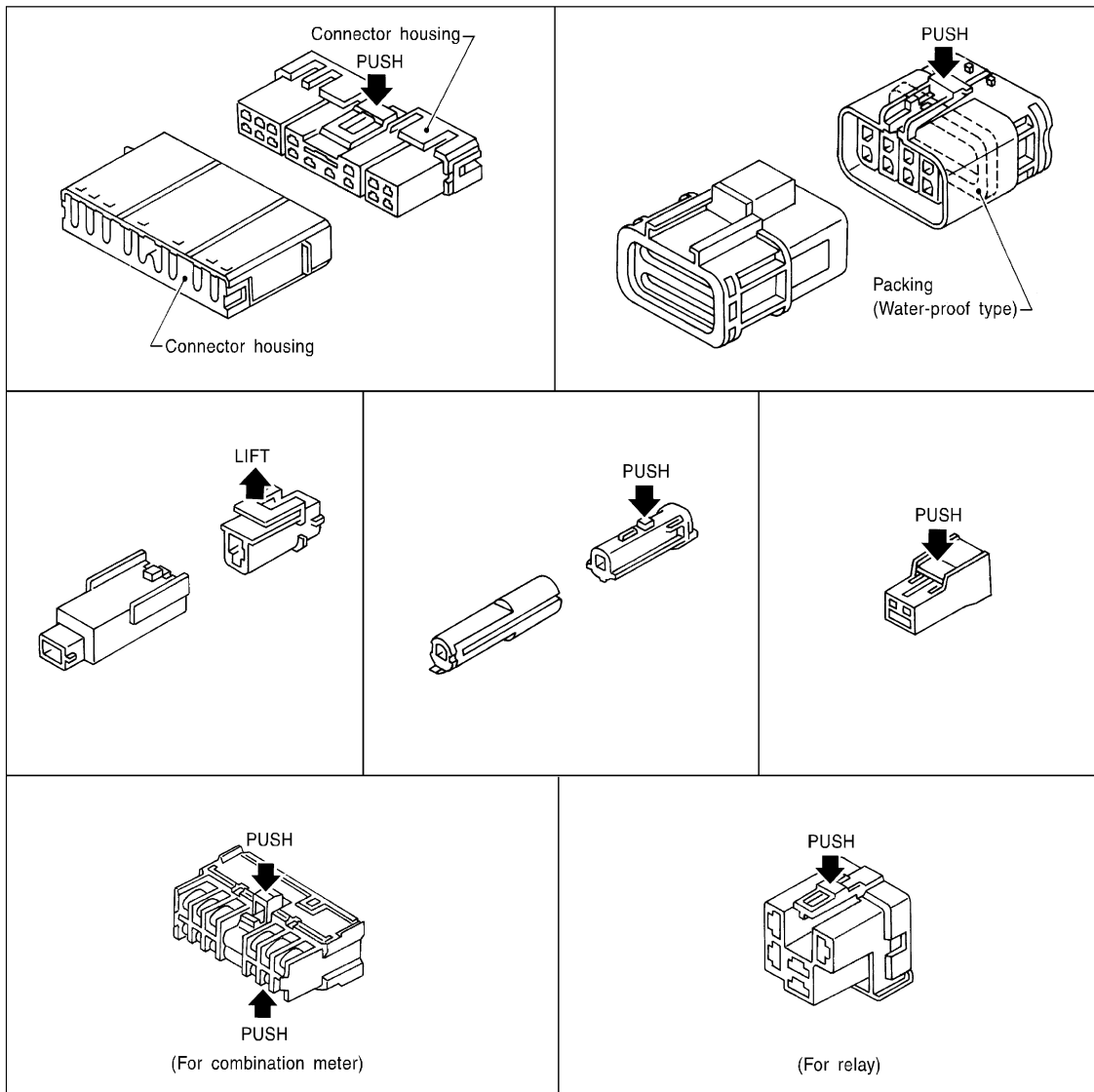
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the figure below.

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 (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.

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# HARNESS CONNECTOR

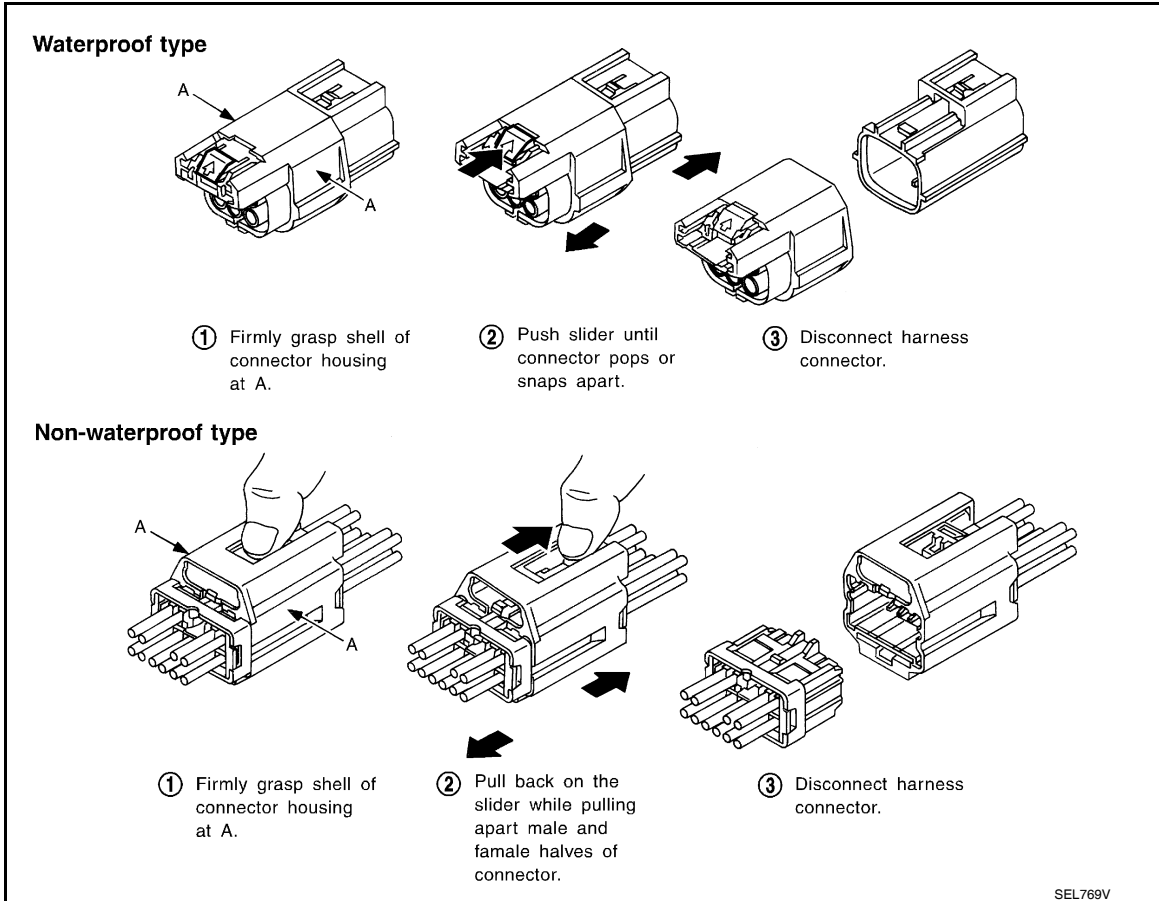
## < DTC/CIRCUIT DIAGNOSIS >

- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the figure 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 (LEVER LOCKING TYPE)

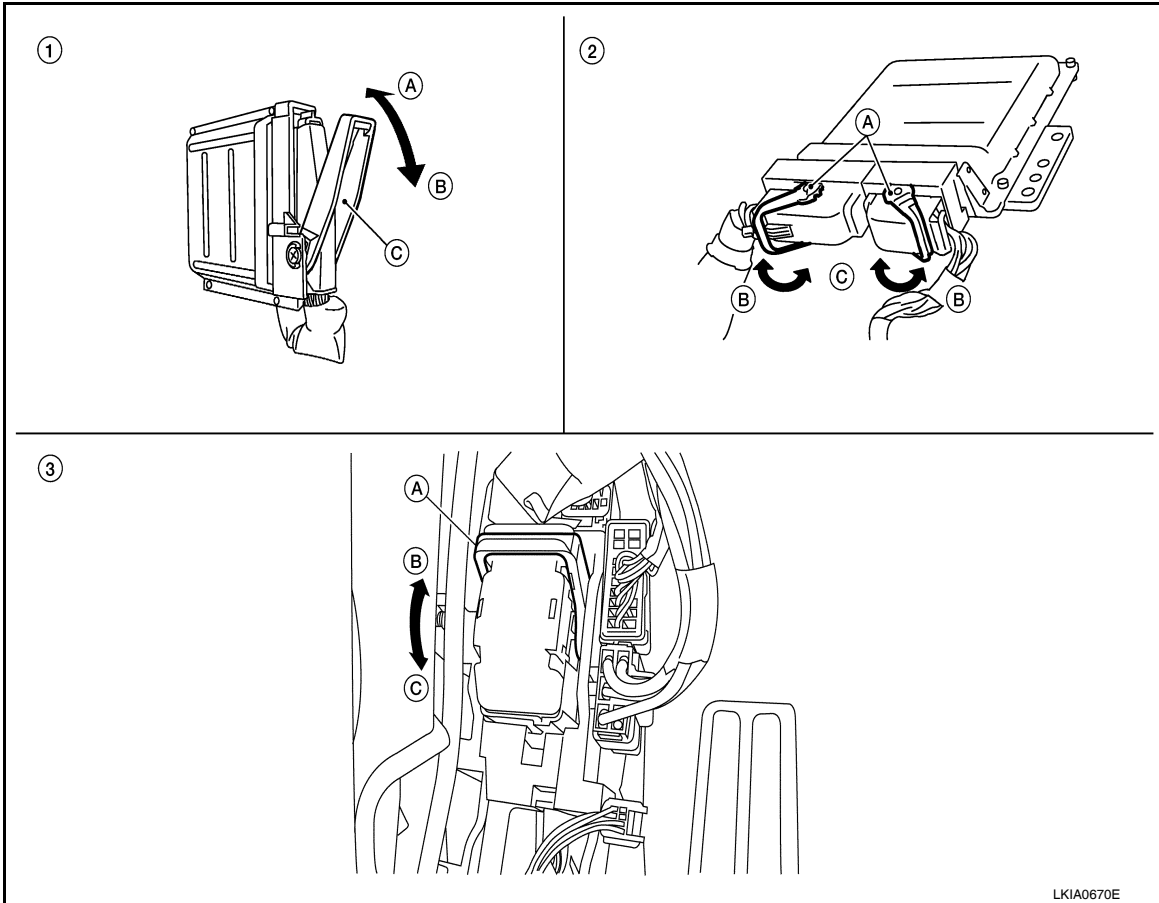
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked in place by moving the lever as far as it will go to ensure full connection.

### CAUTION:

# HARNESS CONNECTOR

## < DTC/CIRCUIT DIAGNOSIS >

- Always confirm the lever is fully released (loosened) before attempting to disconnect or connect these connectors to avoid damage to the connector housing or terminals.



1. Control unit with single lever

- A. Fasten
- B. Loosen
- C. Lever

2. Control unit with dual lever

- A. Fasten
- B. Loosen
- C. Lever

3. SMJ connector

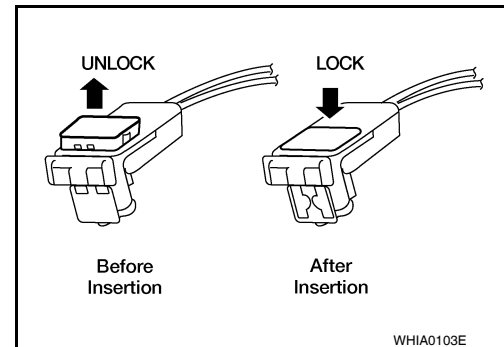
- A. Fasten
- B. Loosen
- C. Lever

## 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 components.
- Always push down to lock black locking tab after installing connector to SRS components. 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.



WHIA0103E

# STANDARDIZED RELAY

< DTC/CIRCUIT DIAGNOSIS >

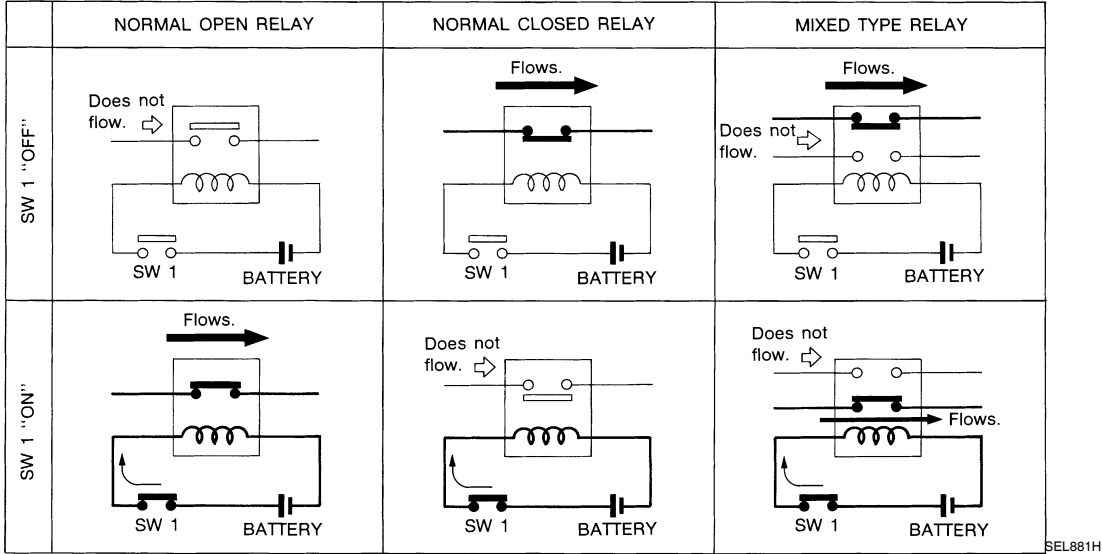
## STANDARDIZED RELAY

### Description

INFOID:000000007790698

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

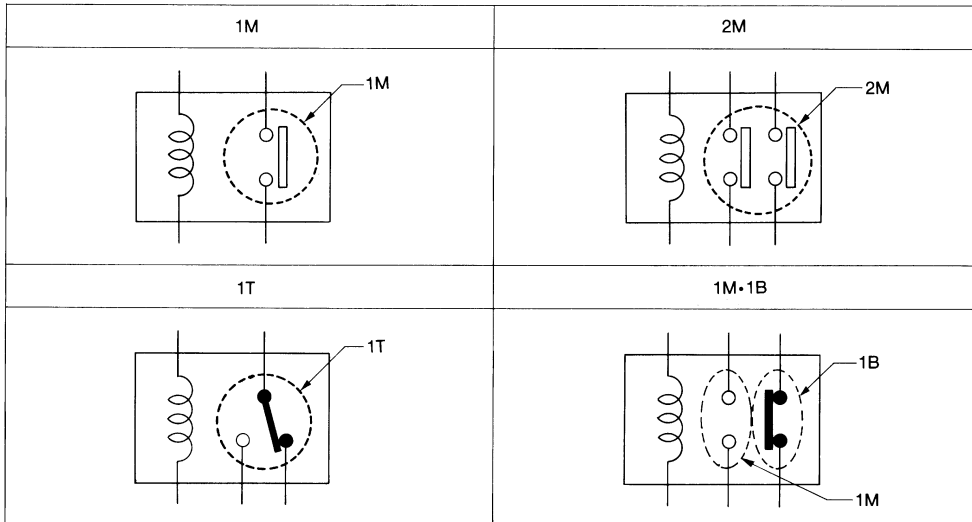
Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

### TYPE OF STANDARDIZED RELAYS

- 1M ..... 1 Make
- 2M ..... 2 Make
- 1T ..... 1 Transfer
- 1M·1B ..... 1 Make 1 Break

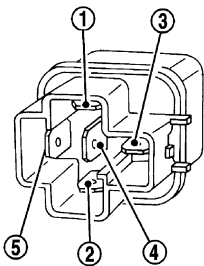
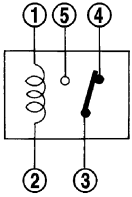
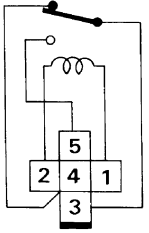
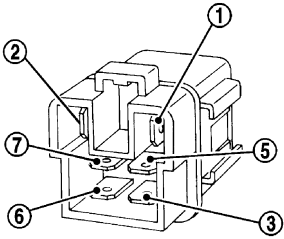
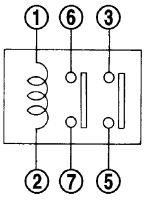
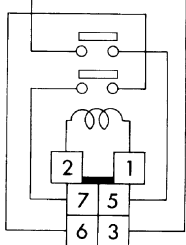
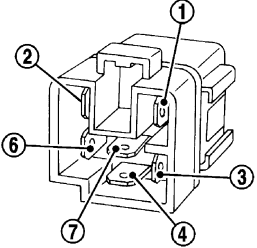
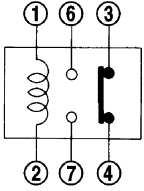
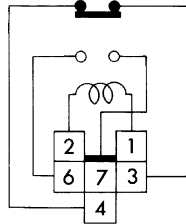
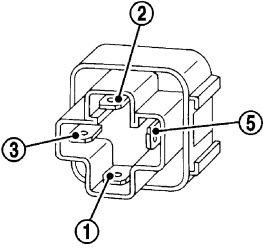
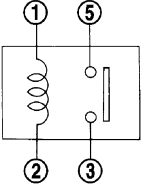
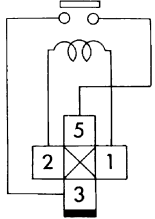
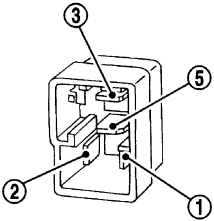
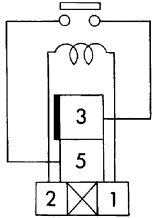


SEL882H



# STANDARDIZED RELAY

## < DTC/CIRCUIT DIAGNOSIS >

| Type  | Outer view  | Circuit   | Connector symbol and connection   | Case color |
|-------|---|---|---|------------|
| 1T    |    |    |    | BLACK      |
| 2M    |    |    |     | BROWN      |
| 1M•1B |   |   |    | GRAY       |
| 1M    |  |  |  | BLUE       |
|       |  |   |   |            |

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

SEL188W

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
PG  
N  
O  
P

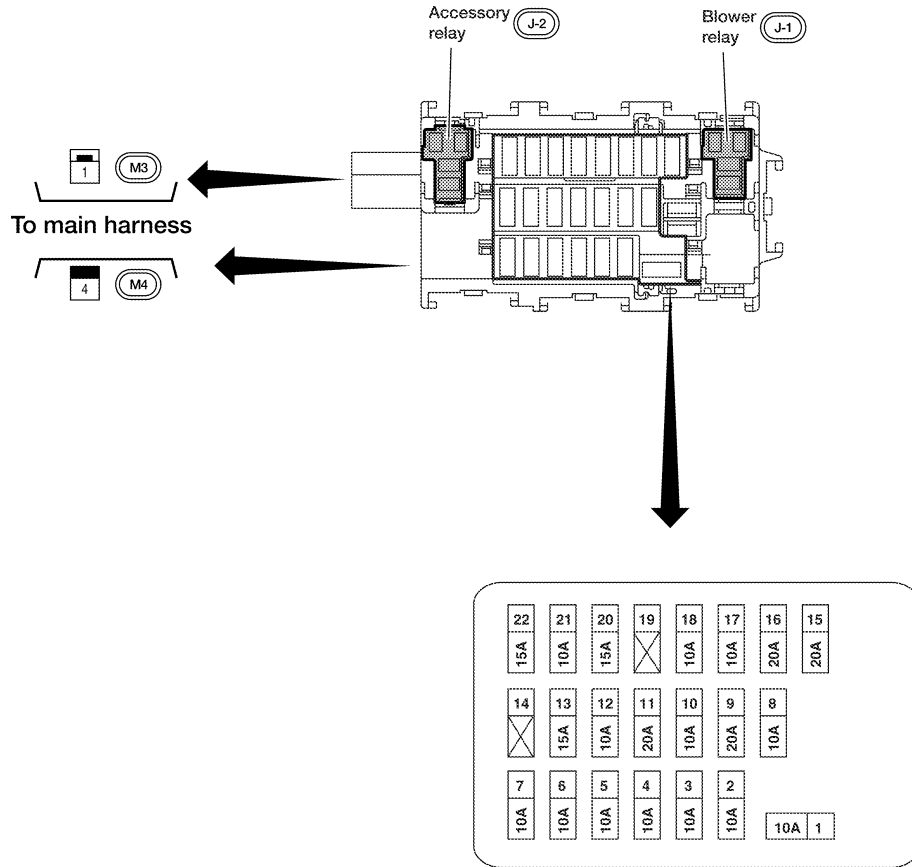
# FUSE BLOCK - JUNCTION BOX (J/B)

< DTC/CIRCUIT DIAGNOSIS >

## FUSE BLOCK - JUNCTION BOX (J/B)

### Terminal Arrangement

INFOID:000000007790699



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# FUSE, FUSIBLE LINK AND RELAY BOX

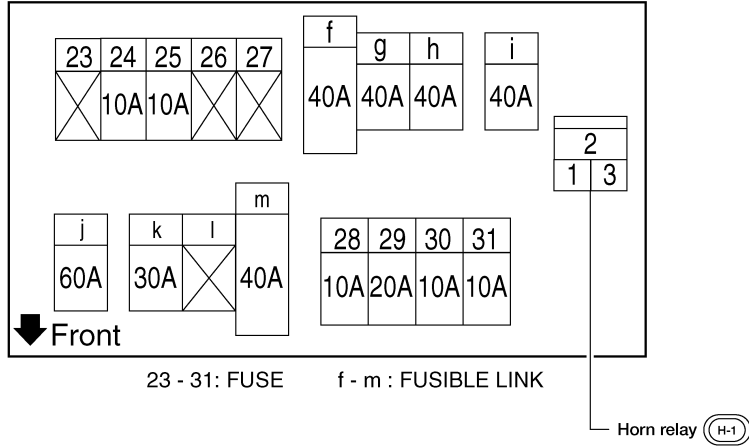
< DTC/CIRCUIT DIAGNOSIS >

## FUSE, FUSIBLE LINK AND RELAY BOX

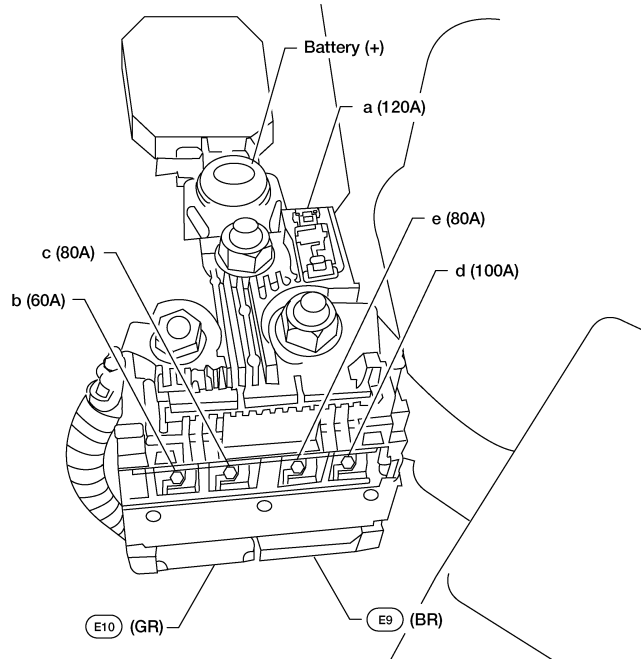
### Terminal Arrangement

INFOID:000000007790700

### FUSE AND FUSIBLE LINK BOX



### FUSIBLE LINK BOX (BATTERY)



AAMIA0800GB

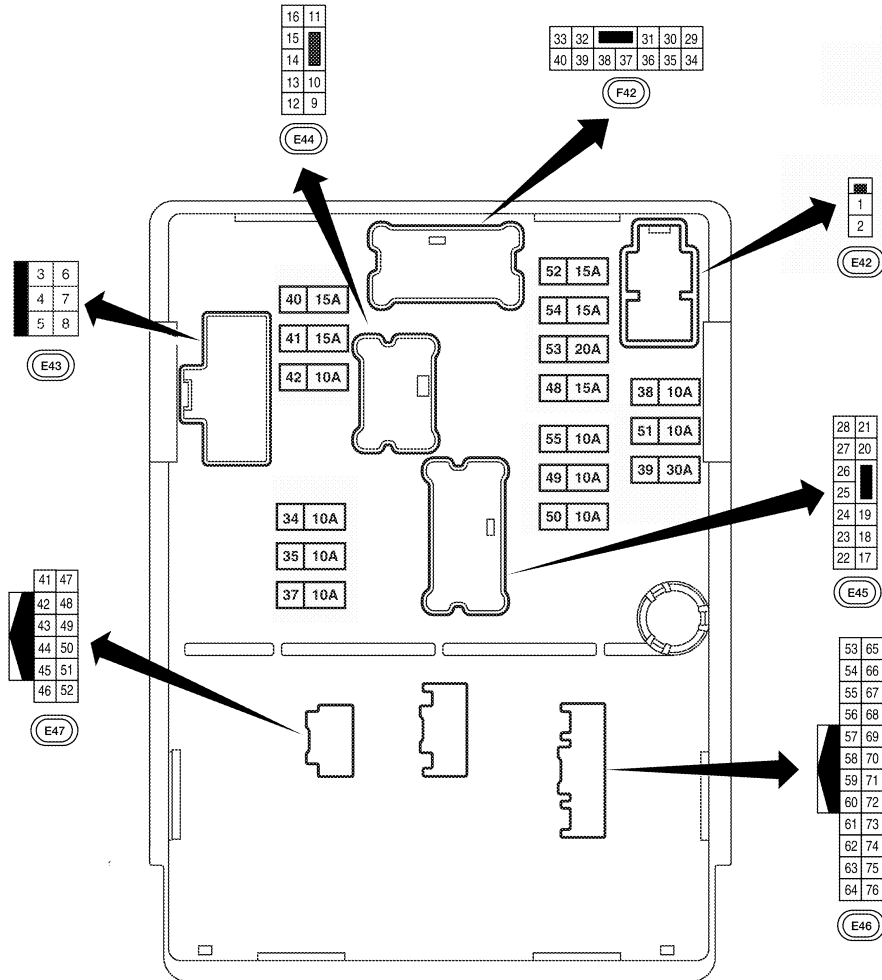
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< DTC/CIRCUIT DIAGNOSIS >

## IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

### IPDM E/R Terminal Arrangement

INFOID:000000007790701



AAMIA0803GB

# BATTERY

< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

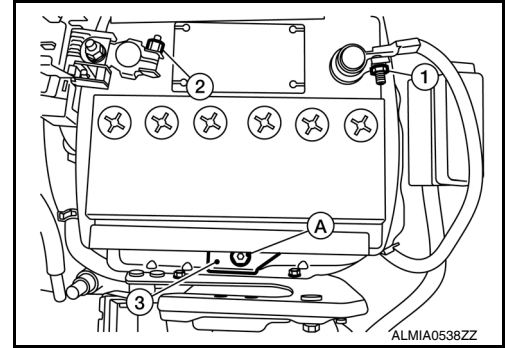
### BATTERY

#### Removal and Installation

INFOID:000000007206560

#### REMOVAL

1. Disconnect the battery negative terminal (1).  
**CAUTION:**  
**When disconnecting, disconnect the battery negative terminal first.**
2. Remove cover of the battery positive terminal.
3. Disconnect the battery positive terminal (2).
4. Remove the battery wedge bolt (A) and remove the battery wedge bracket (3).
5. Remove the battery cover.
6. Remove the battery.



#### INSTALLATION

Installation is in the reverse order of removal.

#### **CAUTION:**

- When connecting, connect the battery positive terminal first.
- Check battery terminals for poor connection caused by corrosion.

**Battery wedge bracket bolt : 17.0 N·m (1.7 kg-m, 13 ft-lb)**

**Battery terminal nuts : 5.4 N·m (0.55 kg-m, 48 in-lb)**

Reset electronic systems as necessary. Refer to [PG-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
PG  
N  
O  
P

## SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Battery

INFOID:000000007206565

|  |         |
|--|---------|
| Type*  | T4      |
| 20 hour rate capacity V-Ah                                 | 12 – 47 |
| Cold cranking current A<br>[Reference value at-18°C (0°F)] | 470     |

\*:Always check with the Parts Department for the latest parts information.