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# SECTION INL

## INTERIOR LIGHTING SYSTEM

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# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

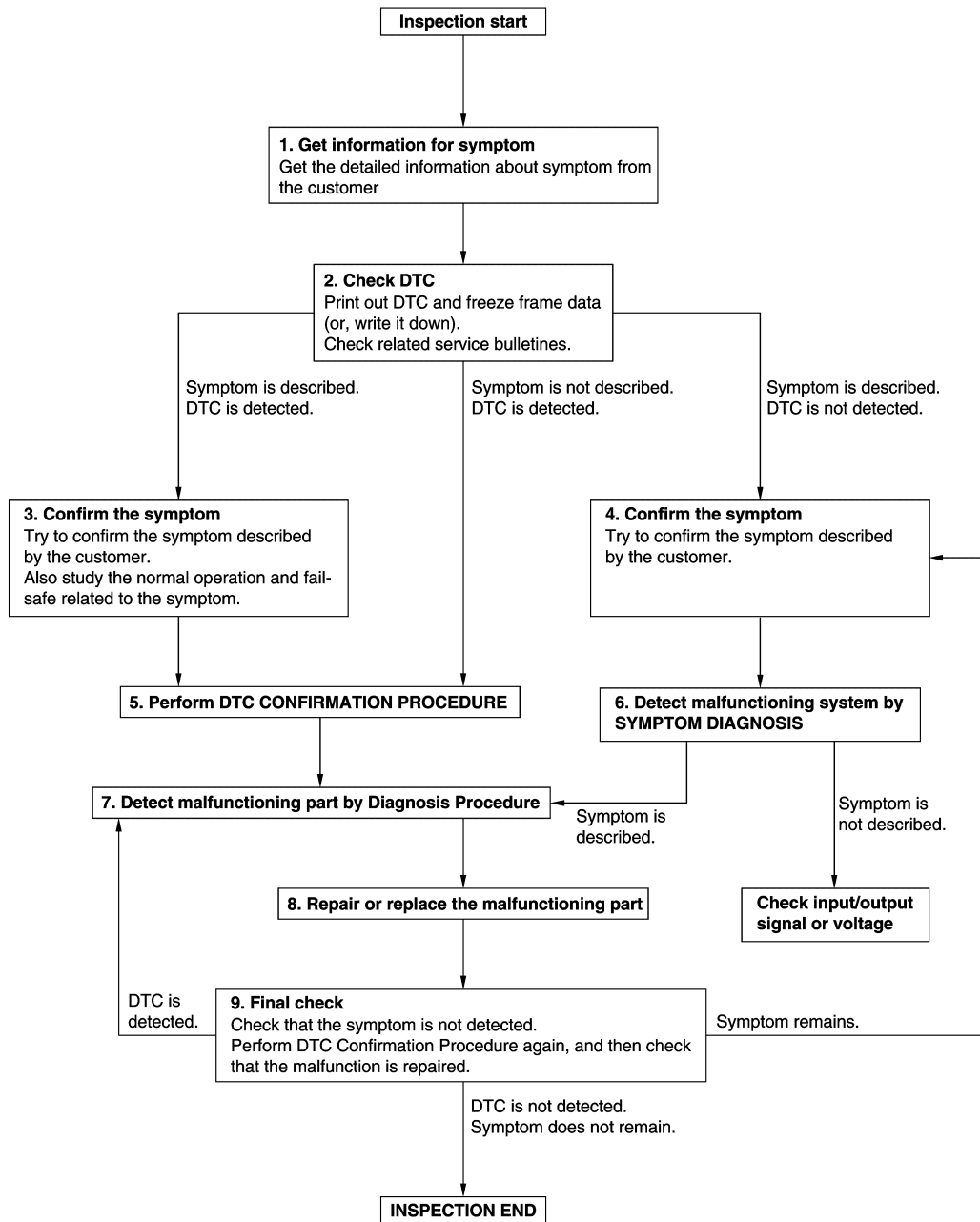
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007612904

OVERALL SEQUENCE



DETAILED FLOW

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# DIAGNOSIS AND REPAIR WORKFLOW

## < BASIC INSPECTION >

---

### 1. GET INFORMATION FOR SYMPTOM

---

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

### 2. CHECK DTC

---

1. Check DTC.
2. Perform the following procedure if DTC is detected.
  - Record DTC and freeze frame data (Print them out using CONSULT.)
  - Erase DTC.
  - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

#### Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 5.

### 3. CONFIRM THE SYMPTOM

---

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

### 4. CONFIRM THE SYMPTOM

---

Try to confirm the symptom described by the customer.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

### 5. PERFORM DTC CONFIRMATION PROCEDURE

---

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.

If two or more DTCs are detected, refer to [BCS-71. "DTC Inspection Priority Chart"](#) and determine trouble diagnosis order.

#### **NOTE:**

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

#### Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-43. "Intermittent Incident"](#).

### 6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

---

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

#### Is the symptom described?

YES >> GO TO 7.

NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

### 7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

---

# DIAGNOSIS AND REPAIR WORKFLOW

## < BASIC INSPECTION >

---

Inspect according to Diagnostic Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-43. "Intermittent Incident"](#).

## 8. REPAIR OR REPLACE THE MALFUNCTIONING PART

---

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

## 9. FINAL CHECK

---

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.

YES-2 >> Symptom remains: GO TO 4.

NO >> Before returning the vehicle to the customer, always erase DTC.

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# INTERIOR ROOM LAMP CONTROL SYSTEM

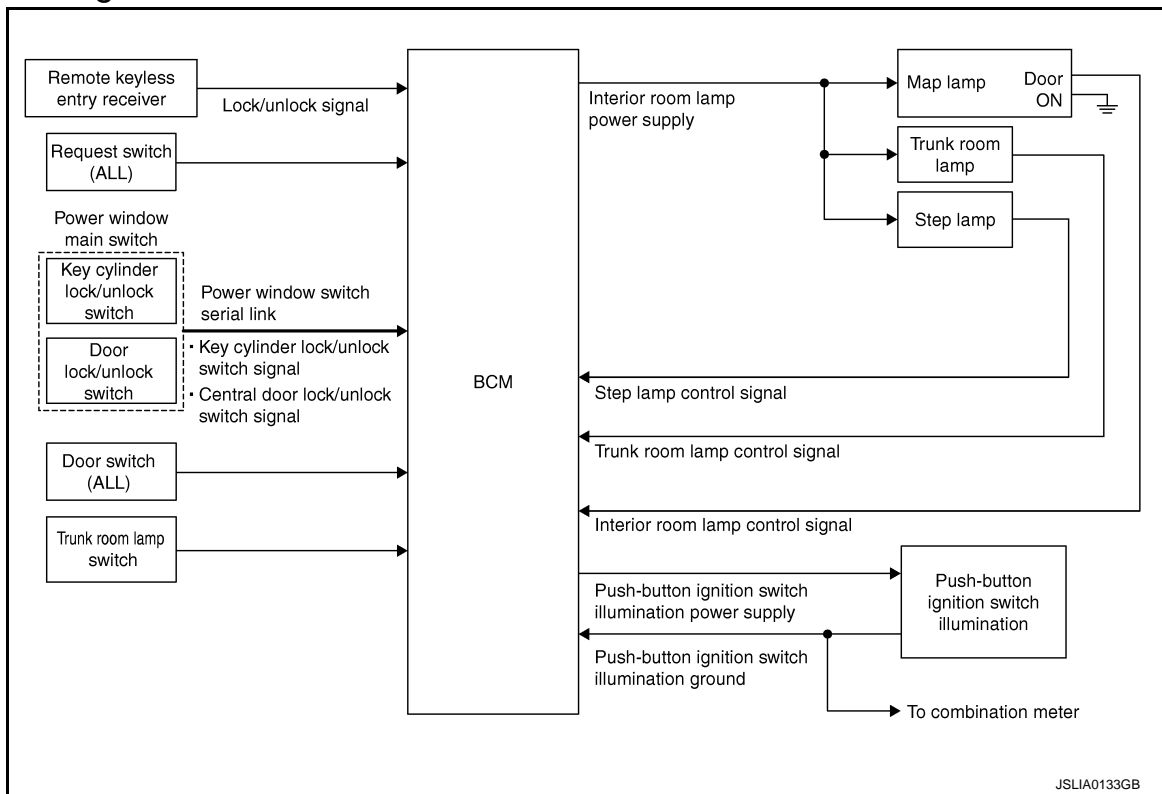
< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### INTERIOR ROOM LAMP CONTROL SYSTEM

#### System Diagram

INFOID:000000007473654



#### System Description

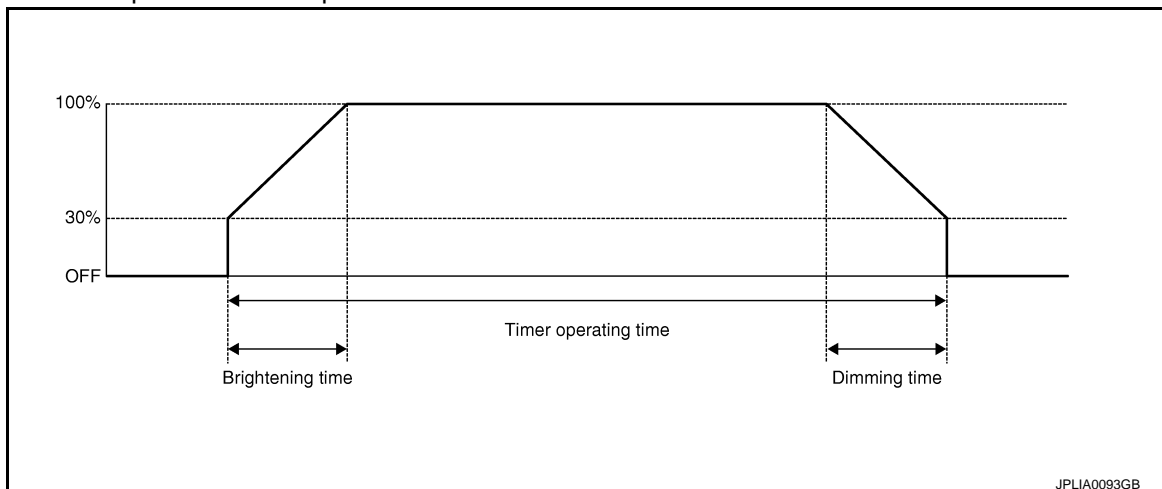
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#### OUTLINE

- Interior room lamps\* are controlled by interior room lamp timer control function of BCM.
  - \*: Map lamp (when map lamp switch is in DOOR position).
- Trunk room lamp is controlled by trunk room lamp control function of BCM.
- Step lamp is controlled by step lamp control function of BCM.
- Push-button ignition switch illumination is controlled by the push-button ignition switch illumination control function of BCM.

#### INTERIOR ROOM LAMP TIMER CONTROL

##### Interior Room Lamp Timer Basic Operation



# INTERIOR ROOM LAMP CONTROL SYSTEM

## < SYSTEM DESCRIPTION >

- The interior room lamp turns ON and OFF (gradual brightening and dimming) by the interior room timer.
- BCM judges the vehicle condition with the following items. It activates the interior room timer.
- Ignition switch status
- Door switch signal (ALL)
- Door lock/unlock signal (Remote keyless entry receiver, each request switch, key cylinder lock/unlock switch, central door lock/unlock switch)

### NOTE:

Each function of interior room lamp timer can be set by CONSULT. Refer to [INL-17, "INT LAMP : CONSULT Function \(BCM - INT LAMP\)"](#).

### Interior Room Lamp ON Operation

- BCM always turns the interior room lamp ON when any door opens.
- BCM activates the interior room lamp timer in any of the following conditions to turn the interior room lamp ON for a period of time.
- Any door opens before all doors close.
- Ignition switch is turned ON → OFF.
- Any door unlock signal is detected when all doors close with ignition switch OFF.

### NOTE:

Restart the timer if new condition is input during the timer operating time.

### Interior Room Lamp OFF Operation

BCM stops the timer in any of the following conditions to turns the interior room lamp OFF.

- The timer operating time is expired.
- Ignition switch position is other than OFF with all doors close.
- Any door lock operation is detected with all doors close.

## TRUNK ROOM LAMP CONTROL

BCM controls the trunk room lamp (ground-side) to turn ON with the trunk room lamp switch ON.

## STEP LAMP CONTROL

BCM controls the step lamp (ground-side) to turn ON with any door switch ON.

## PUSH-BUTTON IGNITION SWITCH ILLUMINATION CONTROL

### Push-button Ignition Switch Illumination Basic Operation

- BCM provides the power supply and the ground to turn the push-button ignition switch illumination ON.
- BCM cuts the ground supply while the each illumination (tail lamp) ON. BCM switches to the ground control with the meter illumination control function.

### Push-button Ignition Switch Illumination ON Operation

BCM turns the push-button ignition switch illumination ON in the following conditions.

- Ignition switch ON
- Each illumination (tail lamp) ON
- Any of the following conditions with ignition switch OFF
- Engine start permission is entered.
- Intelligent Key inserted into the key slot.
- Driver door is LOCK → UNLOCK.
- Driver door is open.

### Push-button Ignition Switch Illumination OFF Operation

BCM turns the push-button ignition switch illumination OFF in any of the following conditions.

- The push-button ignition switch illumination ON conditions do not satisfy.
- All of the following conditions with ignition switch OFF
- Each illumination (tail lamp) OFF
- The push-button ignition switch illumination ON conditions do not change (15 seconds after the ignition switch OFF) or the driver door is UNLOCK → LOCK.

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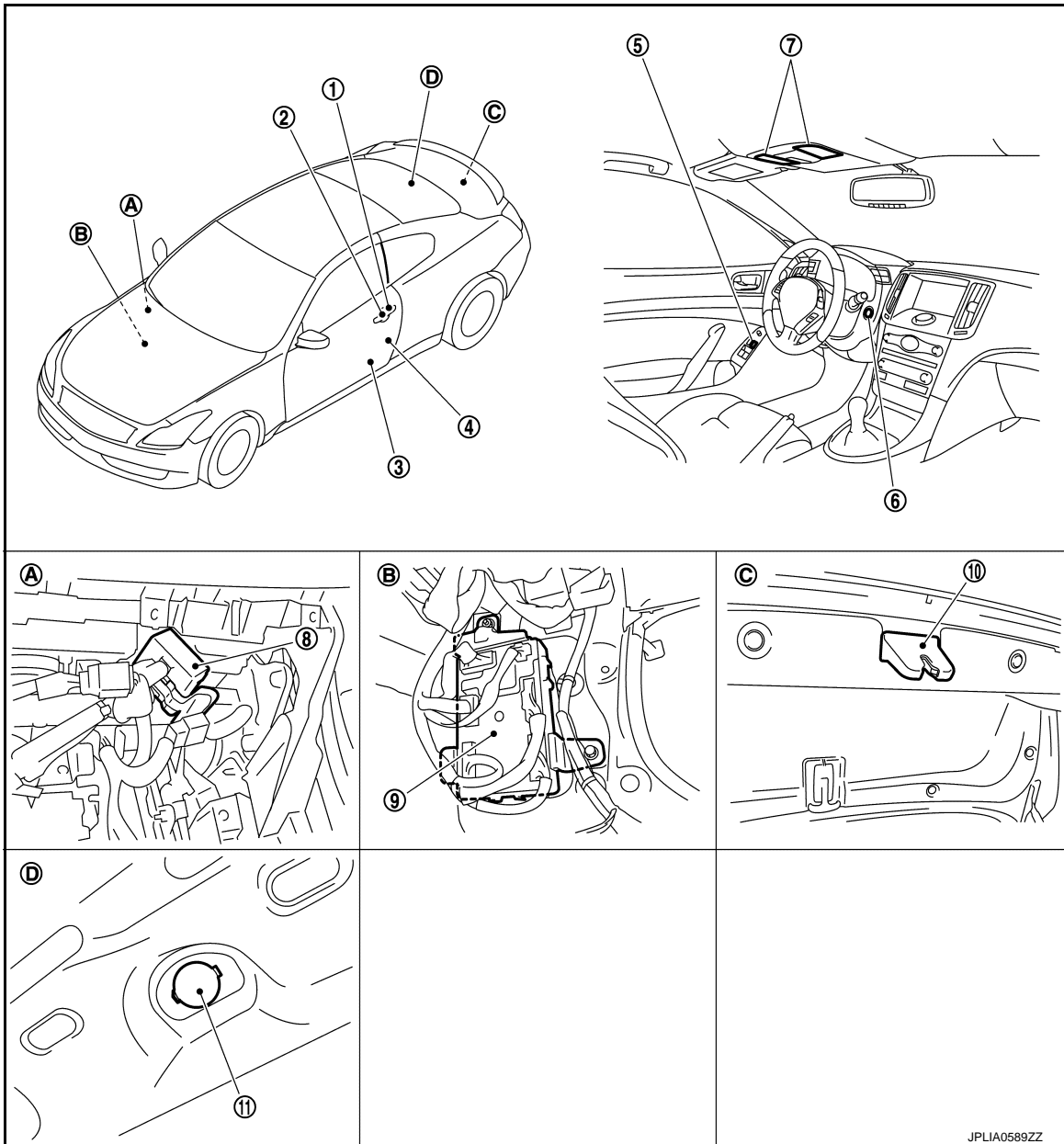
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# INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000007473656



- |                            |                                     |  |
|----------------------------|-------------------------------------|--|
| 1. Key cylinder switch     | 2. Request switch                   | 3. Step lamp   |
| 4. Door switch             | 5. Door lock and unlock switch      | 6. Push-button ignition switch<br>(Push-button ignition switch illumination) |
| 7. Map lamp                | 8. Remote keyless entry receiver    | 9. BCM   |
| 10. Trunk room lamp switch | 11. Trunk room lamp                 |  |
| A. Behind the glove box    | B. Dash side lower (passenger side) | C. Trunk lid lock assembly   |
| D. Trunk room upward       |                                     |  |

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# INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

## Component Description

INFOID:000000007473657

| Part  | Description   |
|---|---|
| BCM   | <ul style="list-style-type: none"><li>• Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamp ON/OFF.</li><li>• Turns the trunk room lamp ON /OFF according to the trunk room lamp switch status.</li><li>• Turns the step lamp ON /OFF according to any door switch status.</li></ul> |
| Remote keyless entry receiver   | Transmits the lock/unlock signal to BCM.  |
| <ul style="list-style-type: none"><li>• Door lock and unlock switch</li><li>• Key cylinder switch</li></ul>             | Transmits a switch signal by power window switch serial link.   |
| <ul style="list-style-type: none"><li>• Request switch</li><li>• Door switch</li><li>• Trunk room lamp switch</li></ul> | Inputs a switch signal to BCM.  |

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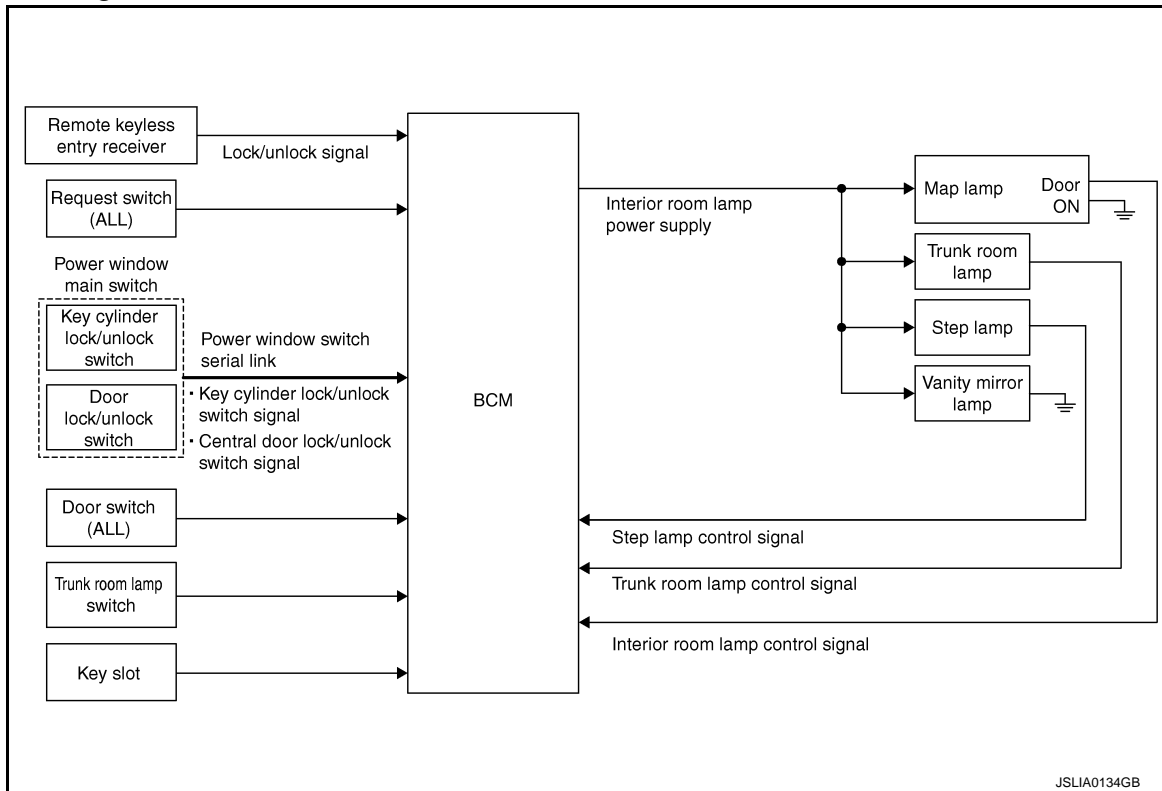
# INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

## INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

### System Diagram

INFOID:000000007473658



### System Description

INFOID:000000007473659

#### OUTLINE

- Interior room lamp battery saver is controlled by BCM.
- BCM turns applicable lamps OFF depending on the vehicle condition. This function prevents the battery from over-discharging if the driver neglect turning OFF the any lamps.

#### Applicable lamps

- Map lamp
- Step lamp
- Trunk room lamp
- Vanity mirror lamp

#### INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

- When the ignition switch is turned OFF, BCM operates the timer for a period of time to cut the interior room lamp power supply.
- BCM restart the timer when any of the following signals changes while operating the timer.
  - Ignition switch status
  - Door switch signal (ALL)
  - Door lock/unlock signal (Remote keyless entry receiver, each request switch, key cylinder lock/unlock switch, central door lock/unlock switch)
  - Trunk room lamp switch signal
  - Key switch signal (Key slot)
- BCM provides the interior room lamp power supply continuously when the ignition switch position is other than OFF.

#### NOTE:

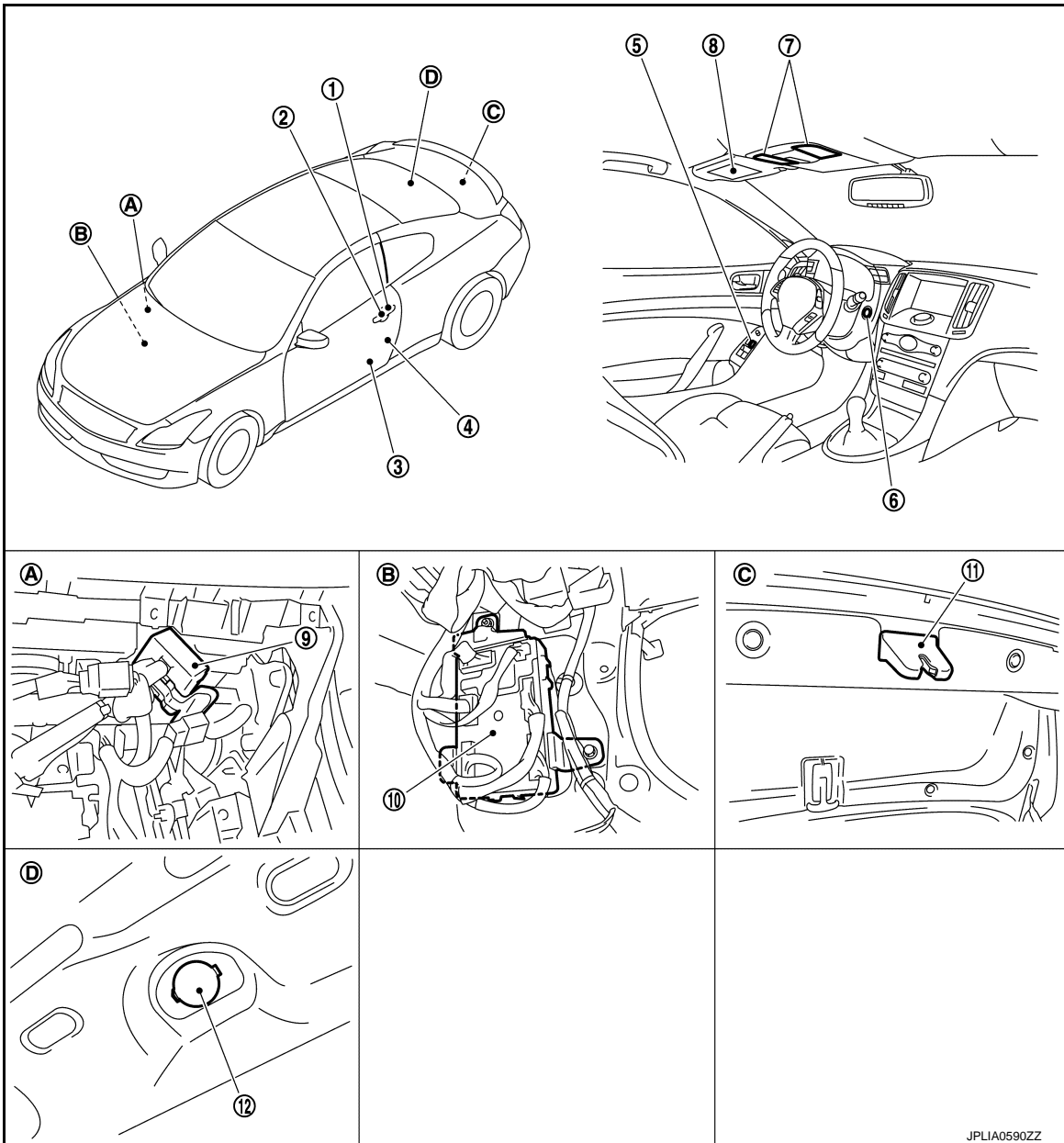
Each function of interior room lamp battery saver can be set by CONSULT. Refer to [INL-18, "BATTERY SAVER : CONSULT Function \(BCM - BATTERY SAVER\)"](#).

# INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000007473660



- |                         |                                     |                                  |
|-------------------------|-------------------------------------|----------------------------------|
| 1. Key cylinder switch  | 2. Request switch                   | 3. Step lamp                     |
| 4. Door switch          | 5. Door lock and unlock switch      | 6. Push-button ignition switch   |
| 7. Map lamp             | 8. Vanity mirror lamp               | 9. Remote keyless entry receiver |
| 10. BCM                 | 11. Trunk room lamp switch          | 12. Trunk room lamp              |
| A. Behind the glove box | B. Dash side lower (passenger side) | C. Trunk lid lock assembly       |
| D. Trunk room upward    |                                     |                                  |

## Component Description

INFOID:000000007473661

| Part                          | Description  |
|-------------------------------|--|
| BCM                           | Operates the interior room lamp battery saver depending on the vehicle condition to cut the interior room lamp power supply. |
| Remote keyless entry receiver | Transmits the lock/unlock signal to BCM.   |

# INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

## < SYSTEM DESCRIPTION >

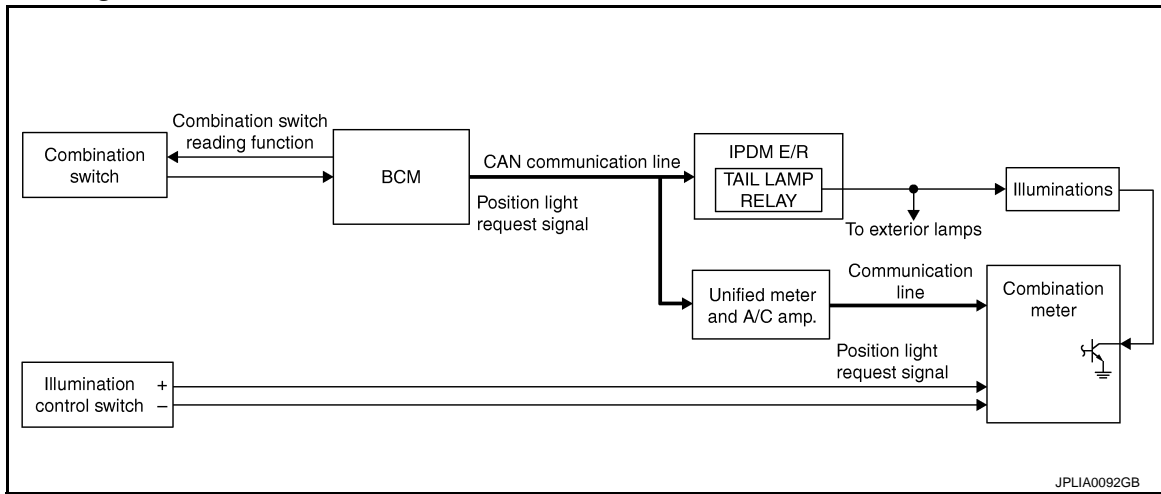
| Part  | Description   |
|---|---|
| <ul style="list-style-type: none"><li>• Door lock and unlock switch</li><li>• Key cylinder switch</li></ul>             | Transmits a switch signal by power window switch serial link. |
| <ul style="list-style-type: none"><li>• Request switch</li><li>• Door switch</li><li>• Trunk room lamp switch</li></ul> | Inputs a switch signal to BCM.                                |
| Key slot  | Inputs the key switch status to BCM.                          |

# ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

## ILLUMINATION CONTROL SYSTEM

### System Diagram



### System Description

INFOID:000000007473663

#### OUTLINE

Each illumination lamp is controlled by each function of BCM, IPDM E/R and combination meter.

Control by BCM

- Combination switch reading function
- Headlamp control function

Control by IPDM E/R

- Relay control function

Control by combination meter

- Meter illumination control function (Refer to [MWI-25, "METER ILLUMINATION CONTROL : System Diagram."](#))

#### ILLUMINATION CONTROL

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits position light request signal to IPDM E/R and combination meter (through the unified meter and A/C amp.) according to tail lamp ON condition.

Tail lamp ON condition

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- IPDM E/R turns the integrated tail lamp relay ON according to position light request signal. It provides the power supply to each illumination lamp.
- Combination meter enters in the nighttime mode according to position light request signal. Under the nighttime mode the combination meter controls the illuminance by controlling the each illumination lamp (ground side).

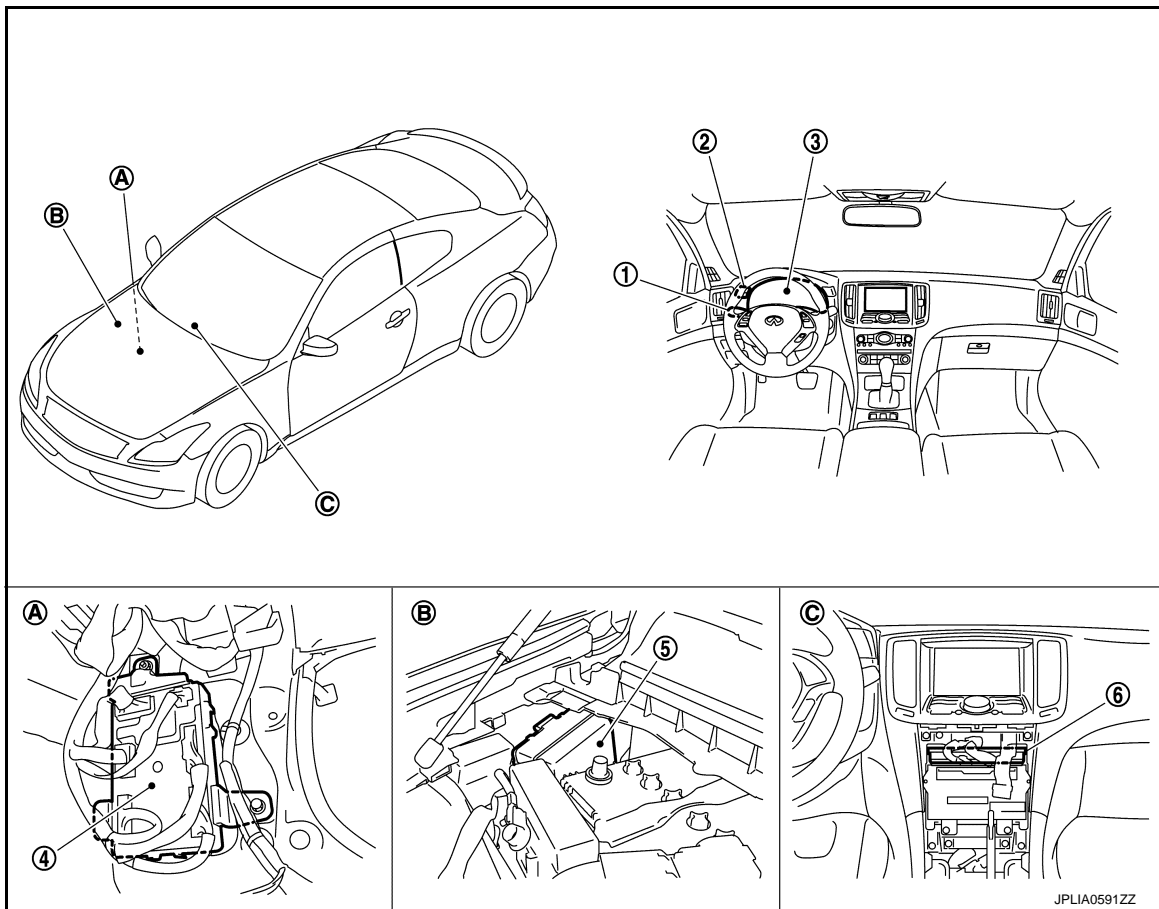
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# ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000007473664



- |                                    |                                |                               |
|------------------------------------|--------------------------------|-------------------------------|
| 1. Combination switch              | 2. Illumination control switch | 3. Combination meter          |
| 4. BCM                             | 5. IPDM E/R                    | 6. Unified meter and A/C amp. |
| A Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind the cluster lid C   |

## Component Description

INFOID:000000007473665

| Part  | Description  |
|---|--|
| BCM   | <ul style="list-style-type: none"> <li>• Detects each switch condition by the combination switch reading function.</li> <li>• Judges the illumination lamp ON/OFF status depending on the vehicle condition. And then it transmits position light request signal to IPDM E/R and combination meter [with CAN communication (through the unified meter and A/C amp.)].</li> </ul> |
| IPDM E/R  | Controls the integrated relay according to the request from BCM (with CAN communication).  |
| Combination meter                                     | <ul style="list-style-type: none"> <li>• Enters in nighttime mode according to the request from BCM (with CAN communication).</li> <li>• Controls the each illumination in the nighttime mode.</li> </ul> Refer to <a href="#">MWI-25, "METER ILLUMINATION CONTROL : System Diagram"</a> .   |
| Combination switch<br>(Lighting & turn signal switch) | Refer to <a href="#">BCS-7, "System Diagram"</a> .   |

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

#### COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000007612905

#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

| Diagnosis mode           | Function Description   |
|--------------------------|--|
| Work Support             | Changes the setting for each system function.                            |
| Self Diagnostic Result   | Displays the diagnosis results judged by BCM.                            |
| CAN Diag Support Monitor | Monitors the reception status of CAN communication viewed from BCM.      |
| Data Monitor             | The BCM input/output signals are displayed.                              |
| Active Test              | The signals used to activate each device are forcibly supplied from BCM. |
| Ecu Identification       | The BCM part number is displayed.  |
| Configuration            | This function is not used even though it is displayed.                   |

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

x: Applicable item

| System  | Sub system selection item | Diagnosis mode |              |             |
|---|---------------------------|----------------|--------------|-------------|
|   |                           | Work Support   | Data Monitor | Active Test |
| Door lock   | DOOR LOCK                 | x              | x            | x           |
| Rear window defogger                              | REAR DEFOGGER             |                | x            | x           |
| Warning chime                                     | BUZZER                    |                | x            | x           |
| Interior room lamp timer                          | INT LAMP                  | x              | x            | x           |
| Exterior lamp                                     | HEAD LAMP                 | x              | x            | x           |
| Wiper and washer                                  | WIPER                     | x              | x            | x           |
| Turn signal and hazard warning lamps              | FLASHER                   | x              | x            | x           |
| —   | AIR CONDITONER*           |                |              |             |
| • Intelligent Key system<br>• Engine start system | INTELLIGENT KEY           | x              | x            | x           |
| Combination switch                                | COMB SW                   |                | x            |             |
| Body control system                               | BCM                       | x              |              |             |
| IVIS - NATS                                       | IMMU                      |                | x            | x           |
| Interior room lamp battery saver                  | BATTERY SAVER             | x              | x            | x           |
| Trunk lid open                                    | TRUNK                     |                | x            | x           |
| Vehicle security system                           | THEFT ALM                 | x              | x            | x           |
| RAP system  | RETAINED PWR              |                | x            |             |
| Signal buffer system                              | SIGNAL BUFFER             |                | x            | x           |
| TPMS  | AIR PRESSURE MONITOR      | x              | x            | x           |

#### NOTE:

\*: This item is displayed, but is not used.

#### FREEZE FRAME DATA (FFD)

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

| CONSULT screen item | Indication/Unit  | Description  |  |
|---------------------|--|--|--|
| Vehicle Speed       | km/h   | Vehicle speed of the moment a particular DTC is detected   |  |
| Odo/Trip Meter      | km   | Total mileage (Odometer value) of the moment a particular DTC is detected  |  |
| Vehicle Condition   | SLEEP>LOCK   | Power supply position status of the moment a particular DTC is detected  | While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*)   |
|                     | SLEEP>OFF  |  | While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)    |
|                     | LOCK>ACC   |  | While turning power supply position from "LOCK"* to "ACC"  |
|                     | ACC>ON   |  | While turning power supply position from "ACC" to "IGN"  |
|                     | RUN>ACC  |  | While turning power supply position from "RUN" to "ACC" (Except emergency stop operation)                    |
|                     | CRANK>RUN  |  | While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)         |
|                     | RUN>URGENT   |  | While turning power supply position from "RUN" to "ACC" (Emergency stop operation)                           |
|                     | ACC>OFF  |  | While turning power supply position from "ACC" to "OFF"  |
|                     | OFF>LOCK   |  | While turning power supply position from "OFF" to "LOCK"*  |
|                     | OFF>ACC  |  | While turning power supply position from "OFF" to "ACC"  |
|                     | ON>CRANK   |  | While turning power supply position from "IGN" to "CRANKING"   |
|                     | OFF>SLEEP  |  | While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode    |
|                     | LOCK>SLEEP   |  | While turning BCM status from normal mode (Power supply position is "LOCK"*. ) to low power consumption mode |
|                     | LOCK   |  | Power supply position is "LOCK"*   |
|                     | OFF  |  | Power supply position is "OFF" (Ignition switch OFF)   |
|                     | ACC  |  | Power supply position is "ACC" (Ignition switch ACC)   |
|                     | ON   |  | Power supply position is "IGN" (Ignition switch ON with engine stopped)                                      |
|                     | ENGINE RUN   |  | Power supply position is "RUN" (Ignition switch ON with engine running)                                      |
| CRANKING            | Power supply position is "CRANKING" (At engine cranking) |  |  |
| IGN Counter         | 0 - 39   | The number of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> <li>• The number is 0 when a malfunction is detected now.</li> <li>• The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> <li>• The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul> |  |

**NOTE:**

\*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position (A/T models), and any of the following conditions are met.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

## INT LAMP



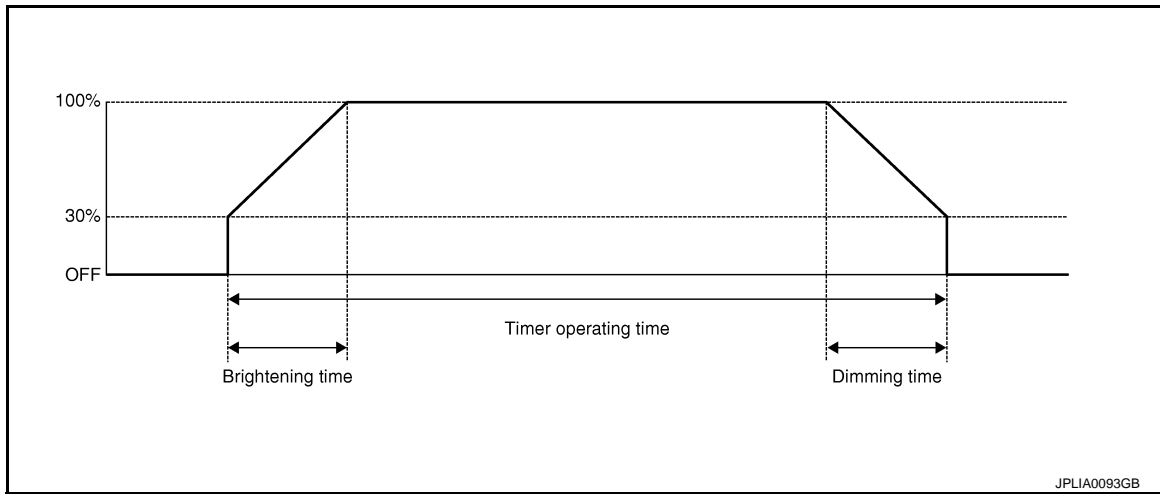
# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

## INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:000000007473667

### WORK SUPPORT



| Service item           | Setting item | Setting   |   |
|------------------------|--------------|---|---|
| SET I/L D-UNLCK INTCON | ON*          | With the interior room lamp timer function                                  |   |
|                        | OFF          | Without the interior room lamp timer function                               |   |
| ROOM LAMP TIMER SET    | MODE 2       | 7.5 sec.  | Sets the interior room lamp ON time. (Timer operating time) |
|                        | MODE 3*      | 15 sec.   |   |
|                        | MODE 4       | 30 sec.   |   |
| ROOM LAMP ON TIME SET  | MODE 1       | 0.5 sec.  | Sets the interior room lamp gradual brightening time.       |
|                        | MODE 2*      | 1 sec.  |   |
|                        | MODE 3       | 2 sec.  |   |
|                        | MODE 4       | 3 sec.  |   |
|                        | MODE 5       | 0 sec.  |   |
| ROOM LAMP OFF TIME SET | MODE 1       | 0.5 sec.  | Sets the interior room lamp gradual dimming time.           |
|                        | MODE 2       | 1 sec.  |   |
|                        | MODE 3       | 2 sec.  |   |
|                        | MODE 4*      | 3 sec.  |   |
| R LAMP TIMER LOGIC SET | MODE 1*      | Interior room lamp timer activates with synchronizing all doors.            |   |
|                        | MODE 2       | Interior room lamp timer activates with synchronizing the driver door only. |   |

\*: Factory setting

### DATA MONITOR

| Monitor item<br>[Unit]  | Description  |
|-------------------------|--|
| REQ SW-DR<br>[On/Off]   | The switch status input from request switch (driver side)          |
| REQ SW-AS<br>[On/Off]   | The switch status input from front request switch (passenger side) |
| PUSH SW<br>[On/Off]     | The switch status input from push-button ignition switch           |
| ACC RLY-F/B<br>[On/Off] | <b>NOTE:</b><br>The item is indicated, but not monitored.          |
| KEY SW-SLOT<br>[On/Off] | Key switch status input from key slot                              |

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

| Monitor item<br>[Unit]    | Description   |
|---------------------------|---|
| DOOR SW-DR<br>[On/Off]    | The switch status input from driver side door switch  |
| DOOR SW-AS<br>[On/Off]    | The switch status input from passenger side door switch   |
| DOOR SW-RR<br>[On/Off]    | <b>NOTE:</b><br>The item is indicated, but not monitored.   |
| DOOR SW- RL<br>[On/Off]   |   |
| DOOR SW-BK<br>[On/Off]    |   |
| CDL LOCK SW<br>[On/Off]   | Lock switch status received from the door lock and unlock switch by power window switch serial link   |
| CDL UNLOCK SW<br>[On/Off] | Unlock switch status received from the door lock and unlock switch by power window switch serial link |
| KEY CYL LK-SW<br>[On/Off] | Lock switch status received from key cylinder switch by power window switch serial link               |
| KEY CYL UN-SW<br>[On/Off] | Unlock switch status received from key cylinder switch by power window switch serial link             |
| TRNK/HAT MNTR<br>[On/Off] | The switch status input from trunk room lamp switch   |
| RKE-LOCK<br>[On/Off]      | Lock signal status received from remote keyless entry receiver  |
| RKE-UNLOCK<br>[On/Off]    | Unlock signal status received from remote keyless entry receiver                                      |

## ACTIVE TEST

| Test item         | Operation | Description  |
|-------------------|-----------|--|
| INT LAMP          | On        | Outputs the interior room lamp control signal to turn map lamp ON (Map lamp switch is in DOOR position). |
|                   | Off       | Stops the interior room lamp control signal to turn map lamp OFF.  |
| STEP LAMP TEST    | On        | Outputs the step lamp control signal to turn step lamp ON.   |
|                   | Off       | Stops the step lamp control signal to turn step lamp OFF.  |
| LUGGAGE LAMP TEST | On        | Outputs the trunk room lamp control signal to turn the trunk room lamp ON.                               |
|                   | Off       | Stops the trunk room lamp control signal to turn the trunk room lamp OFF.                                |

## BATTERY SAVER

### BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:000000007473668

## WORK SUPPORT

| Service item          | Setting item | Setting   |
|-----------------------|--------------|---|
| BATTERY SAVER SET     | On*          | With the exterior lamp battery saver function                   |
|                       | Off          | Without the exterior lamp battery saver function                |
| ROOM LAMP BAT SAV SET | On*          | With the interior room lamp battery saver function              |
|                       | Off          | Without the interior room lamp battery saver function           |
| ROOM LAMP TIMER SET   | MODE 1       | 30 min.   |
|                       | MODE 2       | 60 min.   |
|                       | MODE 3*      | 15 min.   |
|                       |              | Sets the interior room lamp battery saver timer operating time. |

\*: Factory setting

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

### DATA MONITOR

| Monitor item<br>[Unit]    | Description   |
|---------------------------|---|
| REQ SW-DR<br>[On/Off]     | The switch status input from request switch (driver side)   |
| REQ SW-AS<br>[On/Off]     | The switch status input from front request switch (passenger side)                                    |
| REQ SW-RR<br>[On/Off]     | <b>NOTE:</b><br>The item is indicated, but not monitored.   |
| REQ SW-RL<br>[On/Off]     |   |
| PUSH SW<br>[On/Off]       | The switch status input from push-button ignition switch  |
| ACC RLY-F/B<br>[On/Off]   | <b>NOTE:</b><br>The item is indicated, but not monitored.   |
| KEY SW-SLOT<br>[On/Off]   | Key switch status input from key slot   |
| UNLK SEN-DR<br>[On/Off]   | Driver door unlock status input from unlock sensor  |
| DOOR SW-DR<br>[On/Off]    | The switch status input driver side front door switch   |
| DOOR SW-AS<br>[On/Off]    | The switch status input from passenger side door switch   |
| DOOR SW-RR<br>[On/Off]    | <b>NOTE:</b><br>The item is indicated, but not monitored.   |
| DOOR SW- RL<br>[On/Off]   |   |
| DOOR SW-BK<br>[On/Off]    |   |
| CDL LOCK SW<br>[On/Off]   | Lock switch status received from the door lock and unlock switch by power window switch serial link   |
| CDL UNLOCK SW<br>[On/Off] | Unlock switch status received from the door lock and unlock switch by power window switch serial link |
| KEY CYL LK-SW<br>[On/Off] | Lock switch status received from key cylinder switch by power window switch serial link               |
| KEY CYL UN-SW<br>[On/Off] | Unlock switch status received from key cylinder switch by power window switch serial link             |
| TRNK/HAT MNTR<br>[On/Off] | The switch status input from trunk room lamp switch   |
| RKE-LOCK<br>[On/Off]      | Lock signal status received from remote keyless entry receiver  |
| RKE-UNLOCK<br>[On/Off]    | Unlock signal status received from remote keyless entry receiver                                      |

### ACTIVE TEST

| Test item     | Operation | Description   |
|---------------|-----------|---|
| BATTERY SAVER | Off       | Cuts the interior room lamp power supply to turn interior room lamp OFF.    |
|               | On        | Outputs the interior room lamp power supply to turn interior room lamp ON.* |

\*: Each lamp switch is in ON position.

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# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY AND GROUND CIRCUIT

#### BCM

#### BCM : Diagnosis Procedure

INFOID:000000007612911

#### 1. CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown.

| Signal name          | Fuse and fusible link No. |
|----------------------|---------------------------|
| Battery power supply | K                         |
|                      | 10                        |

#### Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

#### 2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connectors.
3. Check voltage between BCM harness connector and ground.

| Terminals |          | Voltage<br>(Approx.)          |
|-----------|----------|-------------------------------|
| (+)       | (-)      |                               |
| BCM       |          | Ground<br><br>Battery voltage |
| Connector | Terminal |                               |
| M118      | 1        |                               |
| M119      | 11       |                               |

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

#### 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

| BCM       |          | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal |        | Existed    |
| M119      | 13       |        | Existed    |

#### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

# INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

### Description

INFOID:000000007473670

Provides the interior room lamp power supply. Also cuts the power supply when the interior room lamp battery saver activating.

### Component Function Check

INFOID:000000007473671

#### 1. CHECK INTERIOR ROOM LAMP POWER SUPPLY FUNCTION

##### CONSULT ACTIVE TEST

- Turn the ignition switch ON.
- Turn each interior room lamp ON.
  - Map lamp
  - Step lamp
  - Vanity mirror lamp
  - Trunk room lamp
- Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- With operating the test items, check that each interior room lamp turns ON/OFF.

**Off** : Interior room lamp OFF

**On** : Interior room lamp ON

Does the interior room lamp turn ON/OFF?

YES >> Interior room lamp power supply circuit is normal.

NO >> Refer to [INL-21, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007473672

#### 1. CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

##### CONSULT ACTIVE TEST

- Turn the ignition switch ON.
- Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- With operating the test item, check voltage between BCM harness connector and the ground.

| Terminals |          | Test item     | Voltage (Approx.) |
|-----------|----------|---------------|-------------------|
| (+)       | (-)      |               |                   |
| BCM       |          | BATTERY SAVER | 0 V               |
| Connector | Terminal |               |                   |
| M119      | 4        | Off           | Battery voltage   |
|           |          | On            |                   |

Is the measurement value normal?

YES >> GO TO 2.

NO >> Replace BCM.

#### 2. CHECK INTERIOR ROOM LAMP POWER SUPPLY OPEN CIRCUIT

- Turn the ignition switch OFF.
- Disconnect the following connectors.
  - Map lamp
  - Vanity mirror lamp (LH)
  - Vanity mirror lamp (RH)
  - Trunk room lamp
  - Step lamp (driver side)
  - Step lamp (passenger side)
- Check continuity between BCM harness connector and each interior room lamp harness connector.

# INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

| BCM       |          | Each interior room lamp    |          |   | Continuity |
|-----------|----------|----------------------------|----------|---|------------|
| Connector | Terminal | Connector                  | Terminal |   |            |
| M119      | 4        | Map lamp                   | R15      | 1 | Existed    |
|           |          | Vanity mirror lamp (LH)    | R12      | 2 |            |
|           |          | Vanity mirror lamp (RH)    | R13      | 2 |            |
|           |          | Trunk room lamp            | B47      | 1 |            |
|           |          | Step lamp (driver side)    | D12      | 1 |            |
|           |          | Step lamp (passenger side) | D42      | 1 |            |

**Does continuity exist?**

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

### 3. CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT

Check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Continuity  |
|-----------|----------|--------|-------------|
| Connector | Terminal |        |             |
| M119      | 4        |        | Not existed |

**Does continuity exist?**

YES >> Repair the harnesses or connectors.

NO >> Check that each interior room lamp has no internal short circuit.

# INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## INTERIOR ROOM LAMP CONTROL CIRCUIT

### Description

INFOID:000000007473673

Controls each interior room lamp (ground side) by PWM signal.

#### NOTE:

PWM signal control period is approximately 250 Hz (in the gradual brightening/dimming).

### Component Function Check

INFOID:000000007473674

#### CAUTION:

Before performing the diagnosis, check that the following is normal.

- Interior room lamp power supply
- Map lamp bulb

### 1.CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

#### CONSULT ACTIVE TEST

1. Switch the map lamp switch to DOOR.
2. Turn the ignition switch ON.
3. Select "INT LAMP" of BCM (INT LAMP) active test item.
4. With operating the test items, check that each interior room lamp turns ON/OFF (gradual brightening/dimming).

**On** : Interior room lamp gradual brightening

**Off** : Interior room lamp gradual dimming

Does the interior room lamp turns ON/OFF (gradual brightening/dimming)?

YES >> Interior room lamp control circuit is normal.

NO >> Refer to [INL-23. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007473675

### 1.CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

#### CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Remove all the bulbs of map lamp.
3. Select "INT LAMP" of BCM (INT LAMP) active test item.
4. With operating the test item, check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Test item | Continuity  |
|-----------|----------|--------|-----------|-------------|
| Connector | Terminal |        | INT LAMP  |             |
| M119      | 19       |        | On        | Existed     |
|           |          |        | Off       | Not existed |

Is the measurement value normal?

YES >> GO TO 2.

Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM.

### 2.CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and map lamp connector.
3. Check continuity between BCM harness connector and map lamp harness connector.

| BCM       |          | Map lamp  |          | Continuity |
|-----------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal |            |
| M119      | 19       | R15       | 2        | Existed    |

Does continuity exist?

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# INTERIOR ROOM LAMP CONTROL CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

---

- YES >> Replace the map lamp.  
NO >> Repair the harnesses or connectors.

### 3. CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

---

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and map lamp connector.
3. Check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Continuity  |
|-----------|----------|--------|-------------|
| Connector | Terminal |        |             |
| M119      | 19       |        | Not existed |

#### Does continuity exist?

- YES >> Repair the harnesses or connectors.  
NO >> Replace BCM.



# STEP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## STEP LAMP CIRCUIT

### Description

INFOID:000000007473676

Controls the step lamp (ground side) to turn the step lamp ON and OFF.

### Component Function Check

INFOID:000000007473677

#### CAUTION:

Before performing the diagnosis, check that the following is normal.

- Interior room lamp power supply
- Step lamp bulb

### 1.CHECK STEP LAMP OPERATION

#### CONSULT ACTIVE TEST

1. Turn the ignition switch ON.
2. Select "STEP LAMP TEST" of BCM (INT LAMP) active test item.
3. With operating the test items, check that step lamp turns ON/OFF.

On : Step lamp ON

Off : Step lamp OFF

#### Does the step lamp turn ON/OFF?

- YES >> Step lamp circuit is normal.  
NO >> Refer to [INL-25, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007473678

### 1.CHECK STEP LAMP OUTPUT

#### CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Remove the step lamp bulbs (driver side and passenger side).
3. Turn the ignition switch ON.
4. Select "STEP LAMP TEST" of BCM (INT LAMP) active test item.
5. With operating the test item, check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Test item      | Continuity  |
|-----------|----------|--------|----------------|-------------|
| Connector | Terminal |        | STEP LAMP TEST |             |
| M119      | 7        |        | On             | Existed     |
|           |          |        | Off            | Not existed |

#### Is the measurement value normal?

- YES >> GO TO 2.  
Fixed ON>>GO TO 3.  
Fixed OFF>>Replace BCM.

### 2.CHECK STEP LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector, and step lamp connector.
3. Check continuity between BCM harness connector and step lamp harness connector.

| BCM       |          | Step lamp      |          |   | Continuity |
|-----------|----------|----------------|----------|---|------------|
| Connector | Terminal | Connector      | Terminal |   |            |
| M119      | 7        | Driver side    | D12      | 2 | Existed    |
|           |          | Passenger side | D42      | 2 |            |

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## STEP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

---

Does continuity exist?

- YES >> Replace the step lamp.  
NO >> Repair the harnesses or connectors.

### 3. CHECK STEP LAMP SHORT CIRCUIT

---

1. Turn the ignition switch OFF.
2. Check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Continuity  |
|-----------|----------|--------|-------------|
| Connector | Terminal |        |             |
| M119      | 7        |        | Not existed |

Does continuity exist?

- YES >> Repair the harnesses or connectors.  
NO >> Replace BCM.

# TRUNK ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## TRUNK ROOM LAMP CIRCUIT

### Description

INFOID:000000007473679

Controls the trunk room lamp (ground side) to turn the trunk room lamp ON and OFF.

### Component Function Check

INFOID:000000007473680

#### CAUTION:

Before performing the diagnosis, check that the following is normal.

- Interior room lamp power supply
- Trunk room lamp bulb

### 1. CHECK TRUNK ROOM LAMP OPERATION

#### CONSULT ACTIVE TEST

1. Turn the ignition switch ON.
2. Select "LUGGAGE LAMP TEST" of BCM (INT LAMP) active test item.
3. With operating the test items, check that trunk room lamp turns ON/OFF.

**On** : Trunk room lamp ON  
**Off** : Trunk room lamp OFF

#### Does the trunk room lamp turn ON/OFF?

- YES >> Trunk room lamp circuit is normal.  
NO >> Refer to [INL-25, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007473681

### 1. CHECK TRUNK ROOM LAMP OUTPUT

#### CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Remove trunk room lamp bulb.
3. Turn the ignition switch ON.
4. Select "LUGGAGE LAMP TEST" of BCM (INT LAMP) active test item.
5. With operating the test item, check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Test item         | Continuity  |
|-----------|----------|--------|-------------------|-------------|
| Connector | Terminal |        | LUGGAGE LAMP TEST |             |
| M120      | 30       |        | On                | Existed     |
|           |          |        | Off               | Not existed |

#### Is the measurement value normal?

- YES >> GO TO 2.  
Fixed ON>>GO TO 3.  
Fixed OFF>>Replace BCM.

### 2. CHECK TRUNK ROOM LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and trunk room lamp connector.
3. Check continuity between BCM harness connector and trunk room lamp harness connector.

| BCM       |          | Trunk room lamp |          | Continuity |
|-----------|----------|-----------------|----------|------------|
| Connector | Terminal | Connector       | Terminal |            |
| M120      | 30       | B47             | 2        | Existed    |

#### Does continuity exist?

- YES >> Replace the trunk room lamp.

## TRUNK ROOM LAMP CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

---

NO >> Repair the harnesses or connectors.

### 3. CHECK TRUNK ROOM LAMP SHORT CIRCUIT

---

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and trunk room lamp connector.
3. Check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Continuity  |
|-----------|----------|--------|-------------|
| Connector | Terminal |        |             |
| M120      | 30       |        | Not existed |

#### Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

# PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

### Description

INFOID:000000007473682

Provides the power supply and the ground to control the push-button ignition switch illumination.

### Component Function Check

INFOID:000000007473683

### 1. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION OPERATION

#### CONSULT ACTIVE TEST

1. Turn the ignition switch ON.
2. Select "ENGINE SW ILLUMI" of BCM (INTELLIGENT KEY) active test item.
3. With operating the test items, check that the push-button ignition switch illumination turns ON/OFF

**On : Push-button ignition switch illumination ON**

**Off : Push-button ignition switch illumination OFF**

#### Does the push-button ignition switch illumination turn ON/OFF?

- YES >> Push-button ignition switch illumination circuit is normal.  
NO >> Refer to [INL-29, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007473684

### 1. CHECK ILLUMINATION CONTROL SWITCHING OPERATION

1. Turn the ignition switch ON.
2. With operating the lighting switch, check that the push-button ignition switch illumination turns ON/OFF

| Condition  | Push-button ignition switch illumination |
|--|--|
| <ul style="list-style-type: none"><li>• Ignition switch ON</li><li>• Lighting switch 1ST</li></ul>                             | ON                                       |
| <ul style="list-style-type: none"><li>• Ignition switch OFF</li><li>• Lighting switch OFF</li><li>• Driver door LOCK</li></ul> | OFF                                      |

#### Does the push-button ignition switch illumination turn ON/OFF?

- YES >> GO TO 2.  
NO >> GO TO 3.

### 2. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and the push-button ignition switch connector.
3. Check continuity between BCM harness connector and the push-button ignition switch harness connector.

| BCM       |          | Push-button ignition switch |          | Continuity |
|-----------|----------|-----------------------------|----------|------------|
| Connector | Terminal | Connector                   | Terminal |            |
| M119      | 14       | M50                         | 2        | Existed    |

#### Does the continuity exist?

- YES >> Replace BCM.  
NO >> Repair the harness or the connector.

### 3. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY OUTPUT

#### CONSULT ACTIVE TEST

1. Turn the ignition switch ON.
2. Select "ENGINE SW ILLUMI" of BCM (INTELLIGENT KEY) active test item.
3. With operating the test item, check voltage between BCM harness connector and the ground.

# PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

| Terminals |          | Test item           | Voltage<br>(Approx.) |
|-----------|----------|---------------------|----------------------|
| (+)       | (-)      |                     |                      |
| BCM       |          | ENGINE SW<br>ILLUMI | 5 V                  |
| Connector | Terminal |                     |                      |
| M123      | 133      | ON                  | 5 V                  |
|           |          | OFF                 | 0 V                  |

Is the measurement value normal?

- YES >> GO TO 4.  
 NO >> GO TO 5.

### 4. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and the push-button ignition switch connector.
3. Check continuity between BCM harness connector and the push-button ignition switch harness connector.

| BCM       |          | Push-button ignition switch |          | Continuity |
|-----------|----------|-----------------------------|----------|------------|
| Connector | Terminal | Connector                   | Terminal |            |
| M123      | 133      | M50                         | 3        | Existed    |

Does the continuity exist?

- YES >> Replace the push-button ignition switch.  
 NO >> Repair the harness or the connector.

### 5. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY SHORT CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and the push-button ignition switch connector.
3. Check continuity between BCM harness connector and the ground.

| BCM       |          | Ground | Continuity  |
|-----------|----------|--------|-------------|
| Connector | Terminal |        |             |
| M123      | 133      |        | Not existed |

Does the continuity exist?

- YES >> Repair the harness or the connector.  
 NO >> Replace BCM.


# INTERIOR ROOM LAMP CONTROL SYSTEM

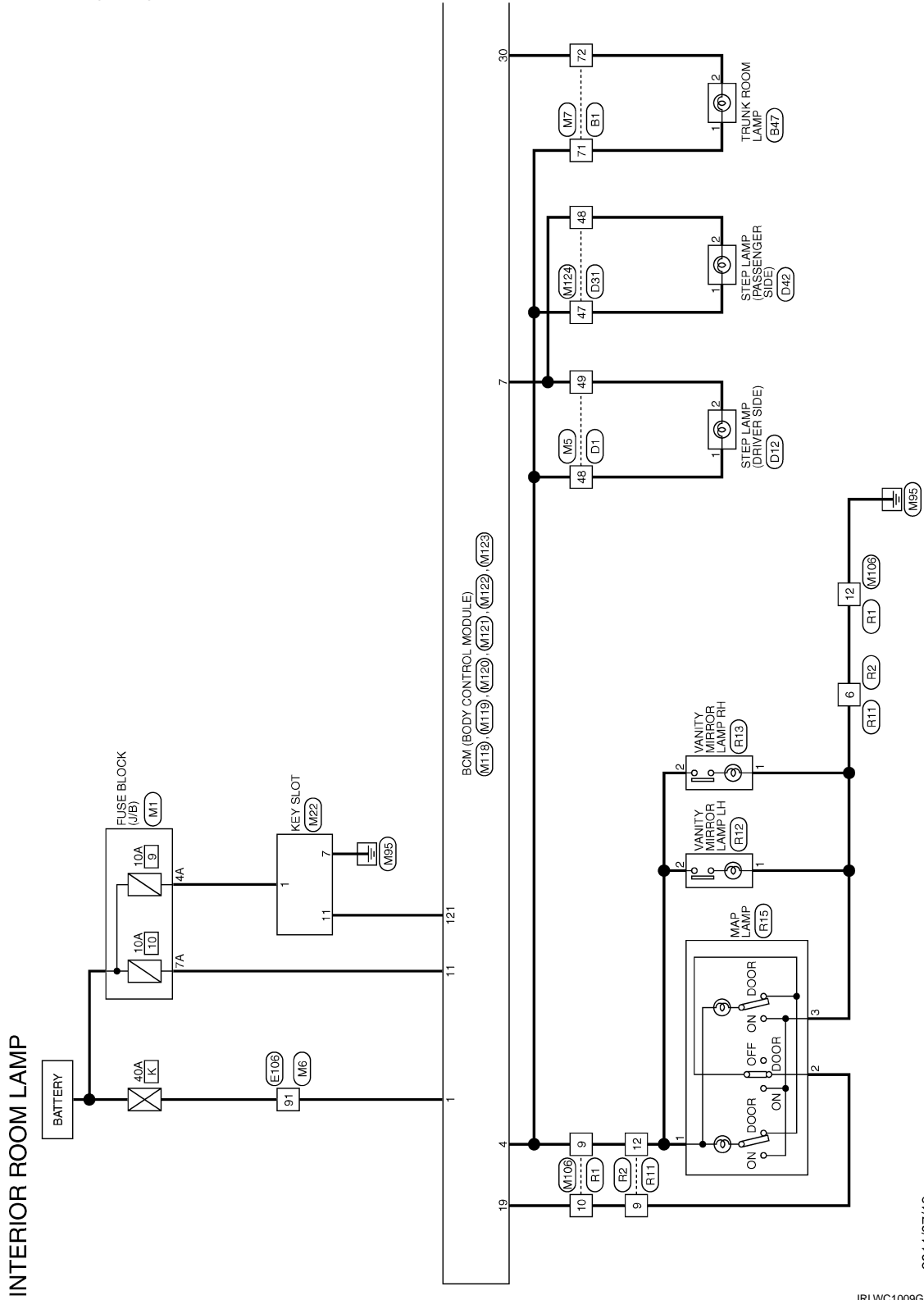
< DTC/CIRCUIT DIAGNOSIS >

## INTERIOR ROOM LAMP CONTROL SYSTEM

### Wiring Diagram - INTERIOR ROOM LAMP -

INFOID:000000007473685

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



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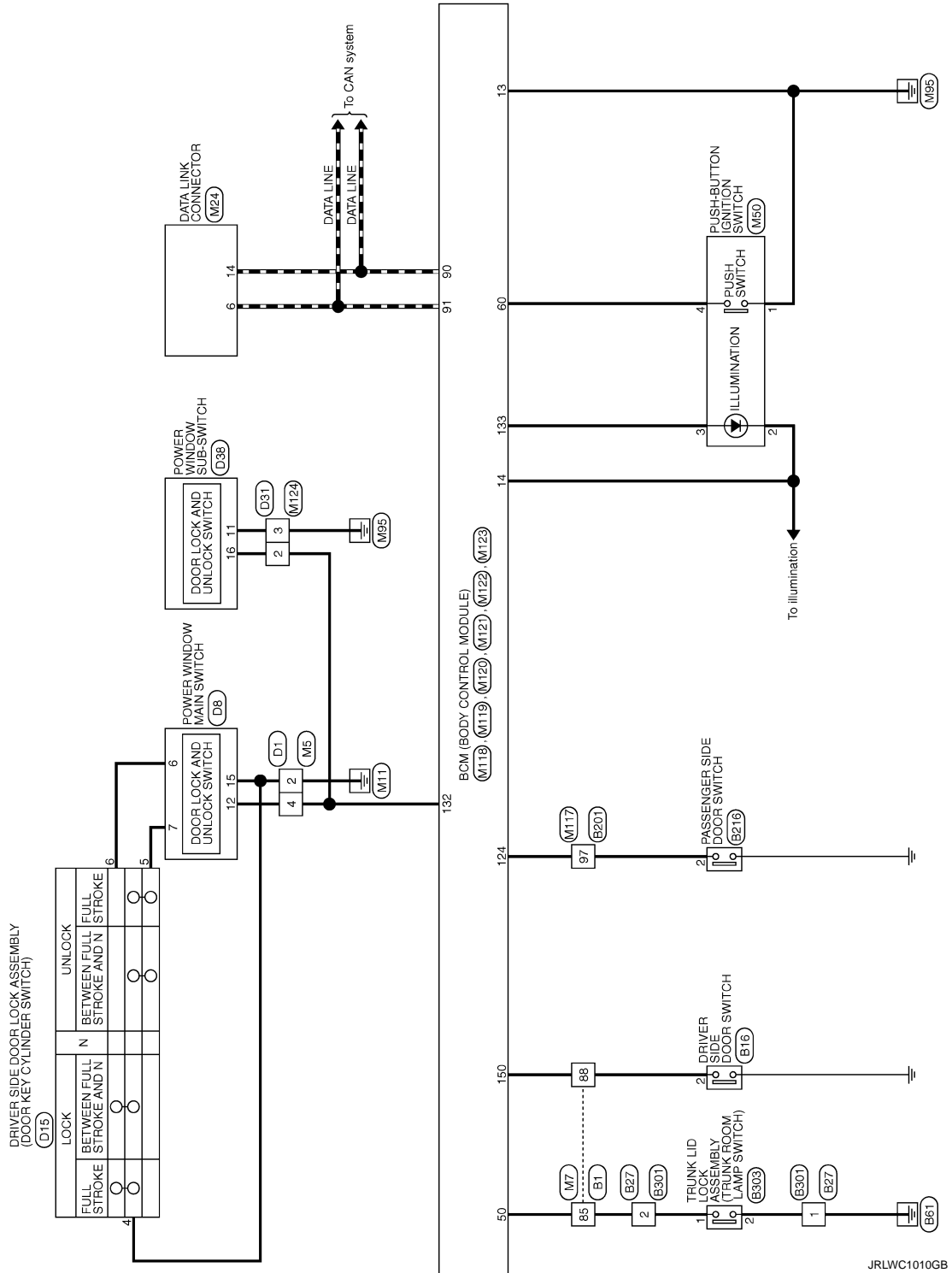
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2011/07/13

JRLWC1009GB

# INTERIOR ROOM LAMP CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >



JRLWC1010GB




# ILLUMINATION

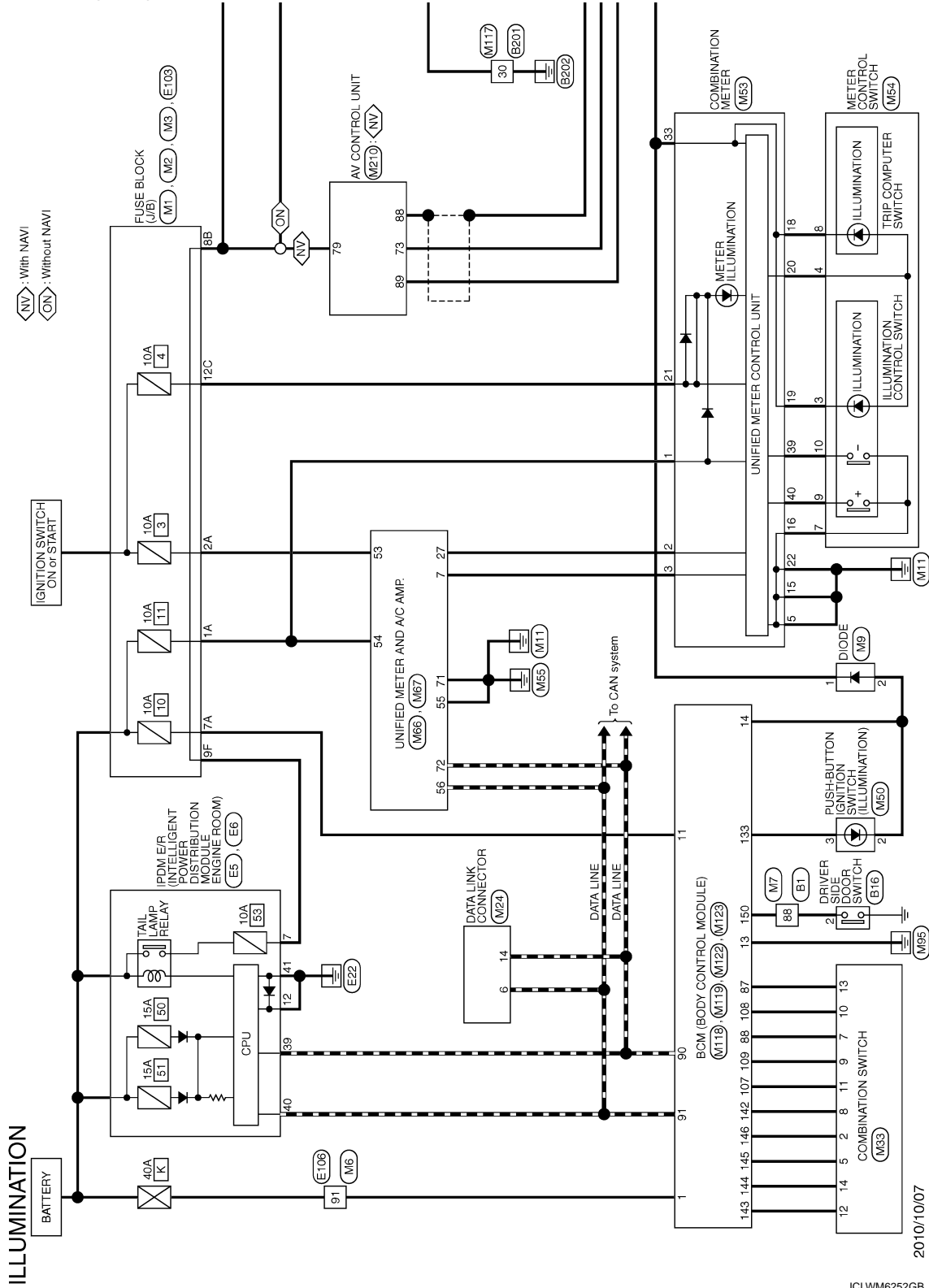
< DTC/CIRCUIT DIAGNOSIS >

## ILLUMINATION

### Wiring Diagram - ILLUMINATION -

INFOID:000000007473686

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



2010/10/07

JCLWM6252GB

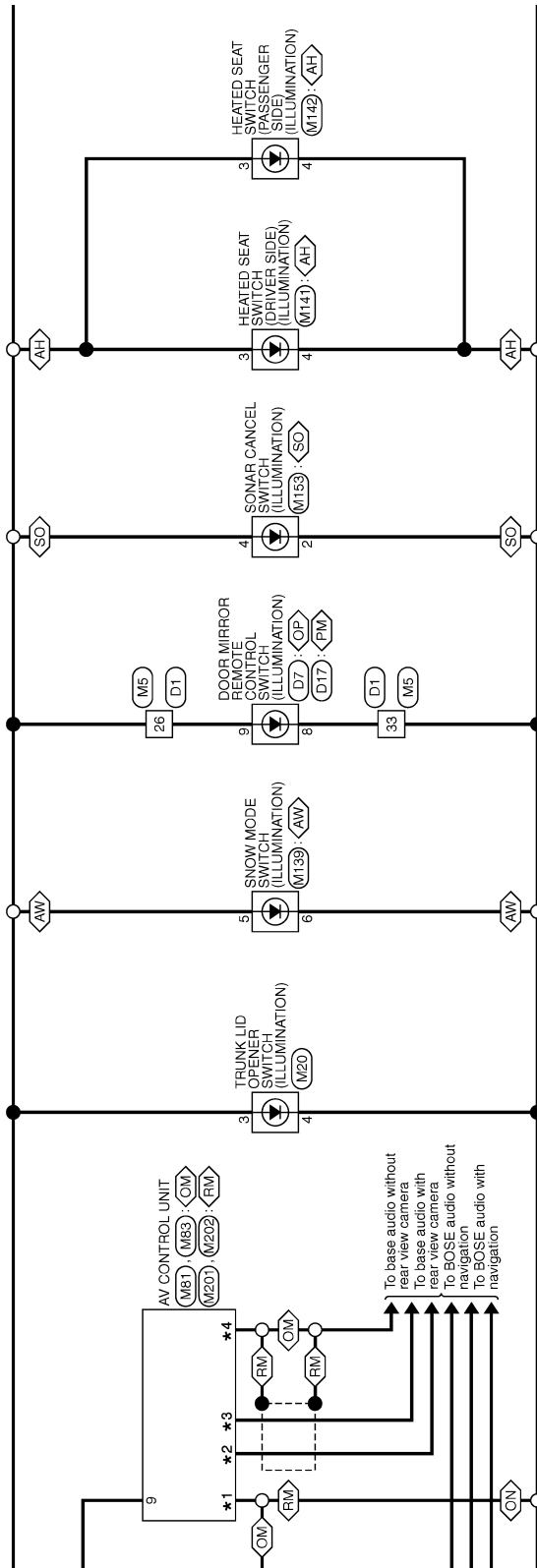
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# ILLUMINATION

## < DTC/CIRCUIT DIAGNOSIS >

- CN: Without NAVI
  - AH: With AVT and heated seat
  - AV: AWD models
  - FM: With automatic drive positioner
  - OP: Without automatic drive positioner
  - SC: With sonar system
  - RM: With rear view monitor
  - ON: Without rear view monitor
- \*1 8: ○OM
  - 18: <RM
  - 44: <OM
  - 39: <RM
  - 56: <OM
  - 51: <RM
  - 55: <OM
  - 52: <RM



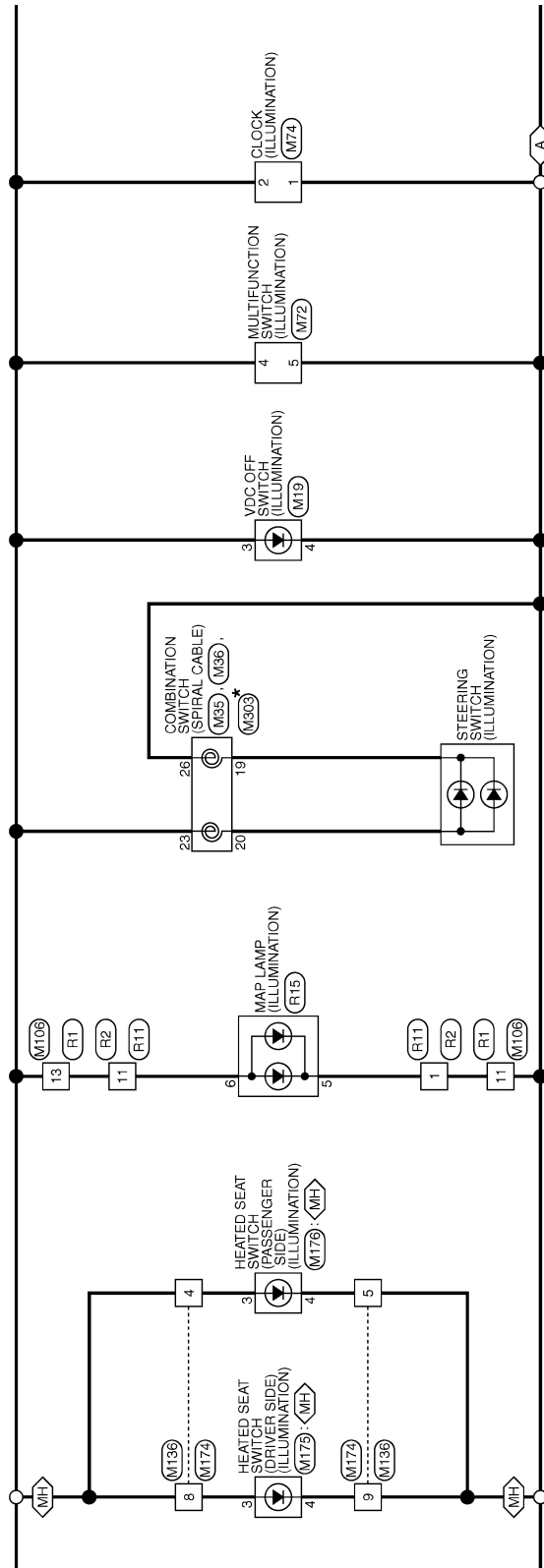
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# ILLUMINATION

## < DTC/CIRCUIT DIAGNOSIS >

A : With A/T  
MH : With M/T and heated seat

\*: This connector is not shown in "Harness Layout".

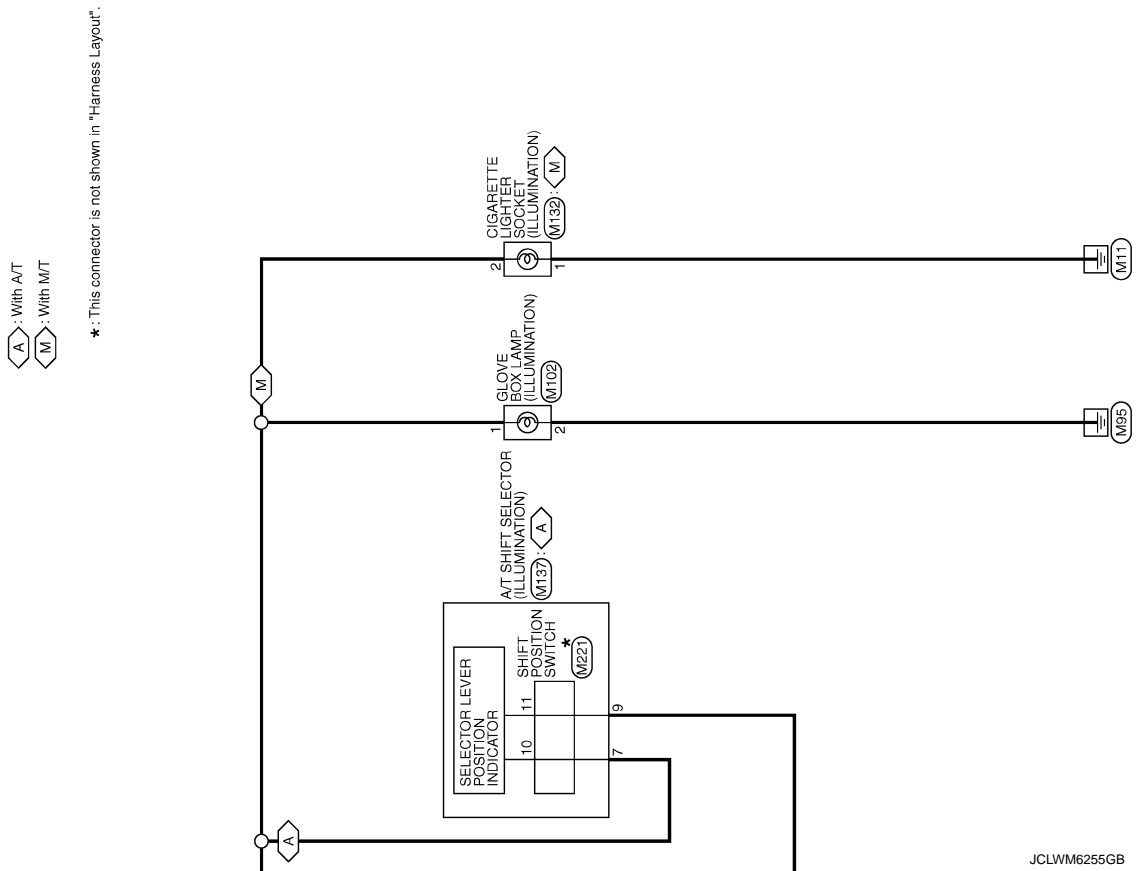


JCLWM6254GB

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# ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

## ECU DIAGNOSIS INFORMATION

### BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000007612906

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

| Monitor Item   | Condition   | Value/Status               |
|----------------|---|----------------------------|
| FR WIPER HI    | Other than front wiper switch HI                          | Off                        |
|                | Front wiper switch HI                                     | On                         |
| FR WIPER LOW   | Other than front wiper switch LO                          | Off                        |
|                | Front wiper switch LO                                     | On                         |
| FR WASHER SW   | Front washer switch OFF                                   | Off                        |
|                | Front washer switch ON                                    | On                         |
| FR WIPER INT   | Other than front wiper switch INT/AUTO                    | Off                        |
|                | Front wiper switch INT/AUTO                               | On                         |
| FR WIPER STOP  | Front wiper is not in STOP position                       | Off                        |
|                | Front wiper is in STOP position                           | On                         |
| INT VOLUME     | Wiper volume dial is in a dial position 1 - 7             | Wiper volume dial position |
| TURN SIGNAL R  | Other than turn signal switch RH                          | Off                        |
|                | Turn signal switch RH                                     | On                         |
| TURN SIGNAL L  | Other than turn signal switch LH                          | Off                        |
|                | Turn signal switch LH                                     | On                         |
| TAIL LAMP SW   | Other than lighting switch 1ST and 2ND                    | Off                        |
|                | Lighting switch 1ST or 2ND                                | On                         |
| HI BEAM SW     | Other than lighting switch HI                             | Off                        |
|                | Lighting switch HI  | On                         |
| HEAD LAMP SW 1 | Other than lighting switch 2ND                            | Off                        |
|                | Lighting switch 2ND                                       | On                         |
| HEAD LAMP SW 2 | Other than lighting switch 2ND                            | Off                        |
|                | Lighting switch 2ND                                       | On                         |
| PASSING SW     | Other than lighting switch PASS                           | Off                        |
|                | Lighting switch PASS                                      | On                         |
| AUTO LIGHT SW  | Other than lighting switch AUTO                           | Off                        |
|                | Lighting switch AUTO                                      | On                         |
| FR FOG SW      | Front fog lamp switch OFF                                 | Off                        |
|                | Front fog lamp switch ON                                  | On                         |
| RR FOG SW      | <b>NOTE:</b><br>The item is indicated, but not monitored. | Off                        |
| DOOR SW-DR     | Driver door closed  | Off                        |
|                | Driver door opened  | On                         |
| DOOR SW-AS     | Passenger door closed                                     | Off                        |
|                | Passenger door opened                                     | On                         |
| DOOR SW-RR     | <b>NOTE:</b><br>The item is indicated, but not monitored. | Off                        |

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

| Monitor Item   | Condition  | Value/Status |
|----------------|--|--------------|
| DOOR SW-RL     | <b>NOTE:</b><br>The item is indicated, but not monitored.                        | Off          |
| DOOR SW-BK     | <b>NOTE:</b><br>The item is indicated, but not monitored.                        | Off          |
| CDL LOCK SW    | Other than power door lock switch LOCK   | Off          |
|                | Power door lock switch LOCK  | On           |
| CDL UNLOCK SW  | Other than power door lock switch UNLOCK   | Off          |
|                | Power door lock switch UNLOCK  | On           |
| KEY CYL LK-SW  | Other than driver door key cylinder LOCK position                                | Off          |
|                | Driver door key cylinder LOCK position   | On           |
| KEY CYL UN-SW  | Other than driver door key cylinder UNLOCK position                              | Off          |
|                | Driver door key cylinder UNLOCK position   | On           |
| KEY CYL SW-TR  | <b>NOTE:</b><br>The item is indicated, but not monitored.                        | Off          |
| HAZARD SW      | Hazard switch is OFF   | Off          |
|                | Hazard switch is ON  | On           |
| REAR DEF SW    | <b>NOTE:</b><br>The item is indicated, but not monitored.                        | Off          |
| TR CANCEL SW   | Trunk lid opener cancel switch OFF   | Off          |
|                | Trunk lid opener cancel switch ON  | On           |
| TR/BD OPEN SW  | Trunk lid opener switch OFF  | Off          |
|                | While the trunk lid opener switch is turned ON                                   | On           |
| TRNK/HAT MNTR  | Trunk lid closed   | Off          |
|                | Trunk lid opened   | On           |
| REVERSE SW     | <b>NOTE:</b><br>The item is indicated, but not monitored.                        | Off          |
| RKE-LOCK       | LOCK button of the Intelligent Key is not pressed                                | Off          |
|                | LOCK button of the Intelligent Key is pressed                                    | On           |
| RKE-UNLOCK     | UNLOCK button of the Intelligent Key is not pressed                              | Off          |
|                | UNLOCK button of the Intelligent Key is pressed                                  | On           |
| RKE-TR/BD      | TRUNK OPEN button of the Intelligent Key is not pressed                          | Off          |
|                | TRUNK OPEN button of the Intelligent Key is pressed                              | On           |
| RKE-PANIC      | PANIC button of the Intelligent Key is not pressed                               | Off          |
|                | PANIC button of the Intelligent Key is pressed                                   | On           |
| RKE-P/W OPEN   | UNLOCK button of the Intelligent Key is not pressed                              | Off          |
|                | UNLOCK button of the Intelligent Key is pressed and held                         | On           |
| RKE-MODE CHG   | LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously | Off          |
|                | LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously     | On           |
| OPTICAL SENSOR | Bright outside of the vehicle  | Close to 5 V |
|                | Dark outside of the vehicle  | Close to 0 V |
| REQ SW -DR     | Driver door request switch is not pressed  | Off          |
|                | Driver door request switch is pressed  | On           |
| REQ SW -AS     | Passenger door request switch is not pressed                                     | Off          |
|                | Passenger door request switch is pressed   | On           |
| REQ SW -RR     | <b>NOTE:</b><br>The item is indicated, but not monitored.                        | Off          |

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

| Monitor Item  | Condition   | Value/Status |     |
|---------------|---|--------------|-----|
| REQ SW -RL    | <b>NOTE:</b><br>The item is indicated, but not monitored.   | Off          | A   |
| REQ SW -BD/TR | Trunk lid opener request switch is not pressed  | Off          | B   |
|               | Trunk lid opener request switch is pressed  | On           |     |
| PUSH SW       | Push-button ignition switch (push switch) is not pressed  | Off          | C   |
|               | Push-button ignition switch (push switch) is pressed  | On           |     |
| IGN RLY2 -F/B | <b>NOTE:</b><br>The item is indicated, but not monitored.   | Off          |     |
| ACC RLY -F/B  | <b>NOTE:</b><br>The item is indicated, but not monitored.   | Off          | D   |
| CLUCH SW      | The clutch pedal is not depressed   | Off          | E   |
|               | The clutch pedal is depressed   | On           |     |
| BRAKE SW 1    | The brake pedal is depressed when No. 7 fuse is blown   | Off          | F   |
|               | The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal  | On           |     |
| BRAKE SW 2    | The brake pedal is not depressed  | Off          | G   |
|               | The brake pedal is depressed  | On           |     |
| DETE/CANCL SW | <ul style="list-style-type: none"> <li>• Selector lever in P position (Except M/T models)</li> <li>• The clutch pedal is depressed (M/T models)</li> </ul>                          | Off          | H   |
|               | <ul style="list-style-type: none"> <li>• Selector lever in any position other than P (Except M/T models)</li> <li>• The clutch pedal is not depressed (M/T models)</li> </ul>       | On           |     |
| SFT PN/N SW   | Selector lever in any position other than P and N   | Off          | I   |
|               | Selector lever in P or N position   | On           |     |
| S/L -LOCK     | <b>NOTE:</b><br>The item is indicated, but not monitored.   | Off          | J   |
| S/L -UNLOCK   | <b>NOTE:</b><br>The item is indicated, but not monitored.   | Off          |     |
| S/L RELAY-F/B | <b>NOTE:</b><br>The item is indicated, but not monitored.   | Off          | K   |
| UNLK SEN -DR  | Driver door is unlocked   | Off          | INL |
|               | Driver door is locked   | On           |     |
| PUSH SW -IPDM | Push-button ignition switch (push-switch) is not pressed  | Off          |     |
|               | Push-button ignition switch (push-switch) is pressed  | On           |     |
| IGN RLY1 -F/B | Ignition switch in OFF or ACC position  | Off          | M   |
|               | Ignition switch in ON position  | On           |     |
| DETE SW -IPDM | Selector lever in any position other than P   | Off          | N   |
|               | Selector lever in P position  | On           |     |
| SFT PN -IPDM  | <ul style="list-style-type: none"> <li>• Selector lever in any position other than P and N (Except M/T models)</li> <li>• The clutch pedal is not depressed (M/T models)</li> </ul> | Off          | O   |
|               | <ul style="list-style-type: none"> <li>• Selector lever in P or N position</li> <li>• The clutch pedal is depressed</li> </ul>  | On           |     |
| SFT P -MET    | Selector lever in any position other than P   | Off          | P   |
|               | Selector lever in P position  | On           |     |
| SFT N -MET    | Selector lever in any position other than N   | Off          |     |
|               | Selector lever in N position  | On           |     |

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

| Monitor Item   | Condition  | Value/Status                               |
|----------------|--|--|
| ENGINE STATE   | Engine stopped   | Stop                                       |
|                | While the engine stalls  | Stall                                      |
|                | At engine cranking   | Crank                                      |
|                | Engine running   | Run  |
| S/L LOCK-IPDM  | <b>NOTE:</b><br>The item is indicated, but not monitored.  | Off  |
| S/L UNLK-IPDM  | <b>NOTE:</b><br>The item is indicated, but not monitored.  | Off  |
| S/L RELAY-REQ  | <b>NOTE:</b><br>The item is indicated, but not monitored.  | Off  |
| VEH SPEED 1    | While driving  | Equivalent to speedometer reading          |
| VEH SPEED 2    | While driving  | Equivalent to speedometer reading          |
| DOOR STAT-DR   | Driver door is locked  | LOCK                                       |
|                | Wait with selective UNLOCK operation (60 seconds)  | READY                                      |
|                | Driver door is unlocked  | UNLOCK                                     |
| DOOR STAT-AS   | Passenger door is locked   | LOCK                                       |
|                | Wait with selective UNLOCK operation (60 seconds)  | READY                                      |
|                | Passenger door is unlocked   | UNLOCK                                     |
| ID OK FLAG     | Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position except for M/T models) | Reset                                      |
|                | Ignition switch is ON  | Set  |
| PRMT ENG STRT  | The engine start is prohibited   | Reset                                      |
|                | The engine start is permitted  | Set  |
| PRMT RKE STRT  | <b>NOTE:</b><br>The item is indicated, but not monitored.  | Reset                                      |
| KEY SW -SLOT   | The Intelligent Key is not inserted into key slot  | Off  |
|                | The Intelligent Key is inserted into key slot  | On   |
| RKE OPE COUN1  | During the operation of the Intelligent Key  | Operation frequency of the Intelligent Key |
| RKE OPE COUN2  | <b>NOTE:</b><br>The item is indicated, but not monitored.  | —  |
| CONFIRM ID ALL | The key ID that the key slot receives is not recognized by any key ID registered to BCM.                                 | Yet  |
|                | The key ID that the key slot receives is recognized by any key ID registered to BCM.                                     | Done                                       |
| CONFIRM ID4    | The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.                          | Yet  |
|                | The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.                              | Done                                       |
| CONFIRM ID3    | The key ID that the key slot receives is not recognized by the third key ID registered to BCM.                           | Yet  |
|                | The key ID that the key slot receives is recognized by the third key ID registered to BCM.                               | Done                                       |
| CONFIRM ID2    | The key ID that the key slot receives is not recognized by the second key ID registered to BCM.                          | Yet  |
|                | The key ID that the key slot receives is recognized by the second key ID registered to BCM.                              | Done                                       |



## BCM (BODY CONTROL MODULE)

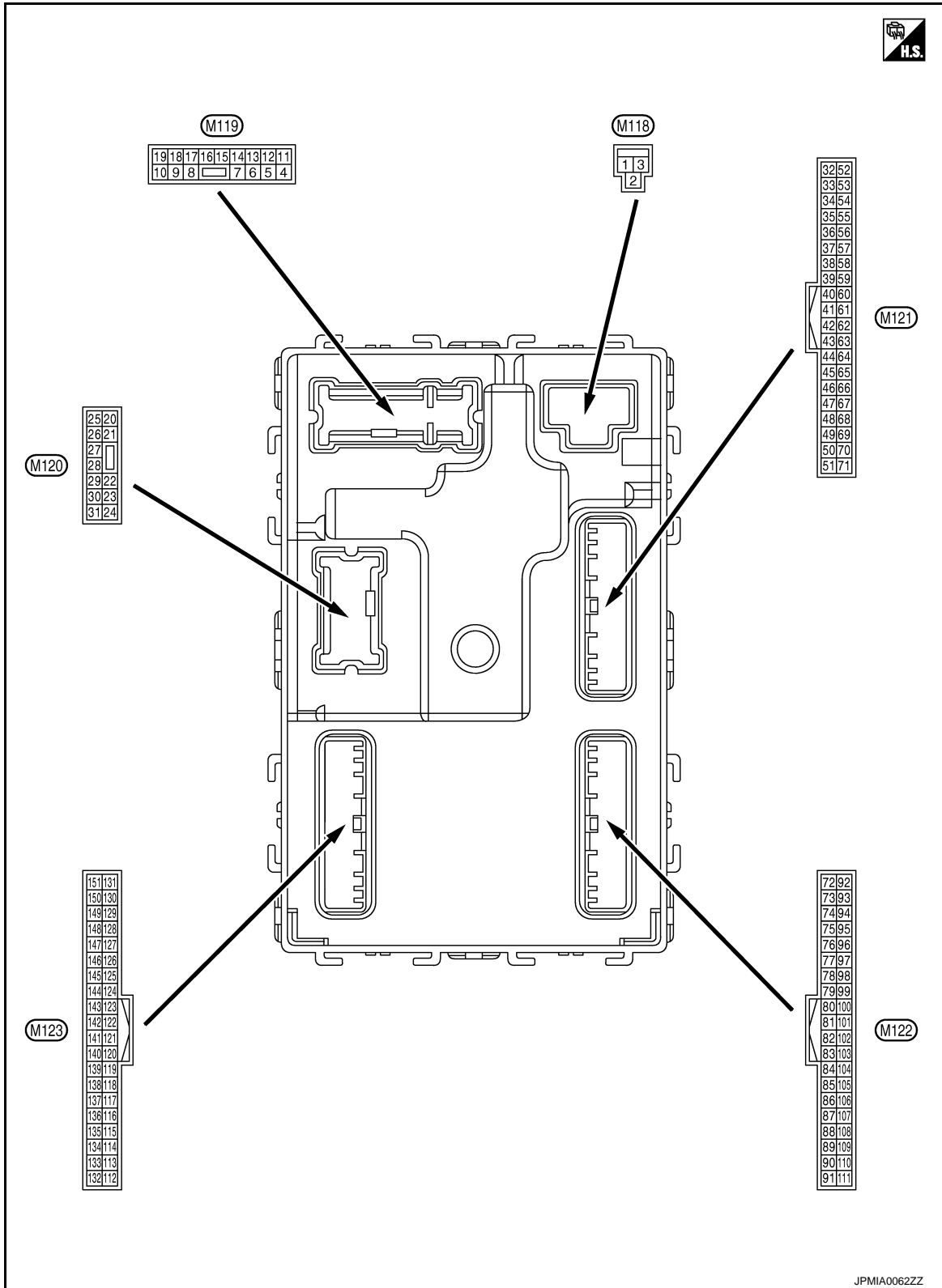
### < ECU DIAGNOSIS INFORMATION >

| Monitor Item | Condition  | Value/Status                  |     |
|--------------|--|-------------------------------|-----|
| CONFIRM ID1  | The key ID that the key slot receives is not recognized by the first key ID registered to BCM. | Yet                           | A   |
|              | The key ID that the key slot receives is recognized by the first key ID registered to BCM.     | Done                          | B   |
| TP 4         | The ID of fourth Intelligent Key is not registered to BCM                                      | Yet                           | C   |
|              | The ID of fourth Intelligent Key is registered to BCM  | Done                          |     |
| TP 3         | The ID of third Intelligent Key is not registered to BCM                                       | Yet                           | D   |
|              | The ID of third Intelligent Key is registered to BCM   | Done                          |     |
| TP 2         | The ID of second Intelligent Key is not registered to BCM                                      | Yet                           | E   |
|              | The ID of second Intelligent Key is registered to BCM  | Done                          |     |
| TP 1         | The ID of first Intelligent Key is not registered to BCM                                       | Yet                           | F   |
|              | The ID of first Intelligent Key is registered to BCM   | Done                          |     |
| AIR PRESS FL | Ignition switch ON (Only when the signal from the transmitter is received)                     | Air pressure of front LH tire | G   |
| AIR PRESS FR | Ignition switch ON (Only when the signal from the transmitter is received)                     | Air pressure of front RH tire | H   |
| AIR PRESS RR | Ignition switch ON (Only when the signal from the transmitter is received)                     | Air pressure of rear RH tire  | I   |
| AIR PRESS RL | Ignition switch ON (Only when the signal from the transmitter is received)                     | Air pressure of rear LH tire  | J   |
| ID REGST FL1 | ID of front LH tire transmitter is registered  | Done                          | K   |
|              | ID of front LH tire transmitter is not registered  | Yet                           |     |
| ID REGST FR1 | ID of front RH tire transmitter is registered  | Done                          | INL |
|              | ID of front RH tire transmitter is not registered  | Yet                           |     |
| ID REGST RR1 | ID of rear RH tire transmitter is registered   | Done                          | M   |
|              | ID of rear RH tire transmitter is not registered   | Yet                           |     |
| ID REGST RL1 | ID of rear LH tire transmitter is registered   | Done                          | N   |
|              | ID of rear LH tire transmitter is not registered   | Yet                           |     |
| WARNING LAMP | Tire pressure indicator OFF  | Off                           | O   |
|              | Tire pressure indicator ON   | On                            |     |
| BUZZER       | Tire pressure warning alarm is not sounding  | Off                           | P   |
|              | Tire pressure warning alarm is sounding  | On                            |     |

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

## TERMINAL LAYOUT



## PHYSICAL VALUES

# BCM (BODY CONTROL MODULE)

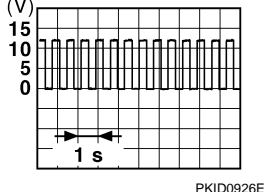
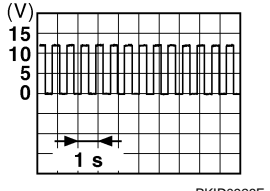
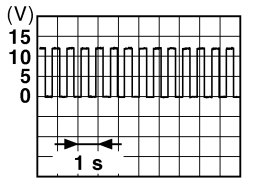
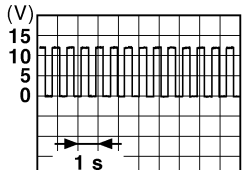
## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description   |                  | Condition   |  | Value<br>(Approx.) |
|------------------------------|--------|---|------------------|---|--|--------------------|
|                              |        | Signal name   | Input/<br>Output |   |  |                    |
| +                            | -      |   |                  |   |  |                    |
| 1<br>(W)                     | Ground | Battery power supply                                  | Input            | Ignition switch OFF   |  | Battery voltage    |
| 2<br>(Y)                     | Ground | P/W power supply<br>(BAT)                             | Output           | Ignition switch OFF   |  | 12 V               |
| 3<br>(BG)                    | Ground | P/W power supply<br>(RAP)                             | Output           | Ignition switch ON  |  | 12 V               |
| 4<br>(LG)                    | Ground | Interior room lamp<br>power supply                    | Output           | Interior room lamp battery saver is activated.<br>(Cuts the interior room lamp power supply)        |  | 0 V                |
|                              |        |   |                  | Interior room lamp battery saver is not activated.<br>(Outputs the interior room lamp power supply) |  | 12 V               |
| 5<br>(P)                     | Ground | Passenger door UN-<br>LOCK                            | Output           | Passenger<br>door   | UNLOCK (Actuator is activated)                     | 12 V               |
|                              |        |   |                  |   | Other than UNLOCK (Ac-<br>tuator is not activated) | 0 V                |
| 7<br>(SB)                    | Ground | Step lamp   | Output           | Step lamp   | ON   | 0 V                |
|                              |        |   |                  |   | OFF  | 12 V               |
| 8<br>(V)                     | Ground | All doors, fuel lid<br>LOCK                           | Output           | All doors, fuel<br>lid  | LOCK (Actuator is activated)                       | 12 V               |
|                              |        |   |                  |   | Other than LOCK<br>(Actuator is not activated)     | 0 V                |
| 9<br>(G)                     | Ground | Driver door, fuel lid<br>UNLOCK                       | Output           | Driver door,<br>fuel lid  | UNLOCK (Actuator is activated)                     | 12 V               |
|                              |        |   |                  |   | Other than UNLOCK<br>(Actuator is not activated)   | 0 V                |
| 11<br>(R)                    | Ground | Battery power supply                                  | Input            | Ignition switch OFF   |  | Battery voltage    |
| 13<br>(B)                    | Ground | Ground  | —                | Ignition switch ON  |  | 0 V                |
| 14<br>(W)                    | Ground | Push-button ignition<br>switch illumination<br>ground | Output           | Tail lamp   | OFF  | 0 V                |
|                              |        |   |                  |   | ON   |                    |
| 15<br>(BG)                   | Ground | ACC indicator lamp                                    | Output           | Ignition switch   | OFF (LOCK indicator is<br>not illuminated)         | Battery voltage    |
|                              |        |   |                  |   | ACC  | 0 V                |

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# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                   |                  | Condition             |  | Value<br>(Approx.)  |
|------------------------------|--------|-------------------------------|------------------|-----------------------|--|---|
| +                            | -      | Signal name                   | Input/<br>Output |                       |  |   |
| 17<br>(W)                    | Ground | Turn signal RH<br>(Front)     | Output           | Ignition switch<br>ON | Turn signal switch OFF   | 0 V   |
|                              |        |                               |                  |                       | Turn signal switch RH  | <br><small>PKID0926E</small>   |
| 18<br>(BG)                   | Ground | Turn signal LH (Front)        | Output           | Ignition switch<br>ON | Turn signal switch OFF   | 0 V   |
|                              |        |                               |                  |                       | Turn signal switch LH  | <br><small>PKID0926E</small>   |
| 19<br>(V)                    | Ground | Interior room lamp<br>control | Output           | Interior room<br>lamp | OFF  | 12 V  |
|                              |        |                               |                  |                       | ON   | 0 V   |
| 20<br>(V)                    | Ground | Turn signal RH (Rear)         | Output           | Ignition switch<br>ON | Turn signal switch OFF   | 0 V   |
|                              |        |                               |                  |                       | Turn signal switch RH  | <br><small>PKID0926E</small> |
| 23<br>(LG)                   | Ground | Trunk lid open                | Output           | Trunk lid             | OPEN<br>(Trunk lid opener actuator<br>is activated)                | 12 V  |
|                              |        |                               |                  |                       | Other than OPEN<br>(Trunk lid opener actuator<br>is not activated) | 0 V   |
| 25<br>(Y)                    | Ground | Turn signal LH (Rear)         | Output           | Ignition switch<br>ON | Turn signal switch OFF   | 0 V   |
|                              |        |                               |                  |                       | Turn signal switch LH  | <br><small>PKID0926E</small> |
| 30<br>(P)                    | Ground | Trunk room lamp               | Output           | Trunk room<br>lamp    | ON   | 0 V   |
|                              |        |                               |                  |                       | OFF  | 12 V  |

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                  |                  | Condition   | Value<br>(Approx.) |
|------------------------------|--------|------------------------------|------------------|---|--------------------|
| +                            | -      | Signal name                  | Input/<br>Output |   |                    |
| 34<br>(SB)                   | Ground | Trunk room antenna<br>(-)    | Output           | Ignition switch<br>OFF  | <p>JMKIA0062GB</p> |
|                              |        |                              |                  | When Intelligent Key is not<br>in the passenger compart-<br>ment                            | <p>JMKIA0063GB</p> |
| 35<br>(V)                    | Ground | Trunk room antenna<br>(+)    | Output           | Ignition switch<br>OFF  | <p>JMKIA0062GB</p> |
|                              |        |                              |                  | When Intelligent Key is not<br>in the passenger compart-<br>ment                            | <p>JMKIA0063GB</p> |
| 38<br>(B)                    | Ground | Rear bumper anten-<br>na (-) | Output           | When the trunk lid opener re-<br>quest switch is<br>operated with<br>ignition switch<br>OFF | <p>JMKIA0062GB</p> |
|                              |        |                              |                  | When Intelligent Key is not<br>in the antenna detection<br>area                             | <p>JMKIA0063GB</p> |

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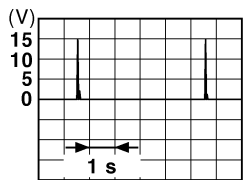
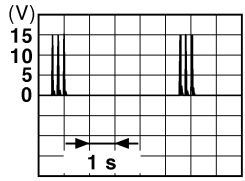
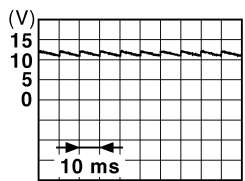
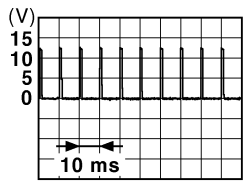
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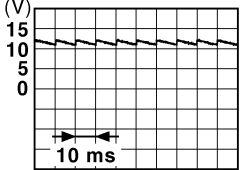
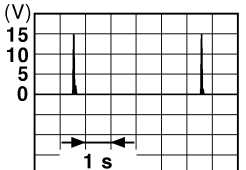
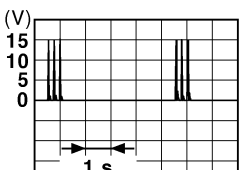
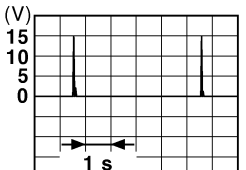
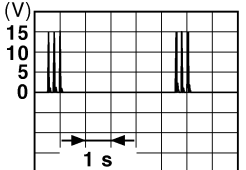
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                                  |                  | Condition   | Value<br>(Approx.)  |  |
|------------------------------|--------|--|------------------|---|---|--|
|                              |        | Signal name                                  | Input/<br>Output |   |   |  |
| +                            | -      |  |                  |   |   |  |
| 39<br>(W)                    | Ground | Rear bumper antenna (+)                      | Output           | When the trunk lid opener request switch is operated with ignition switch OFF | When Intelligent Key is in the antenna detection area   | <br><small>JMKIA0062GB</small>            |
|                              |        |  |                  | When Intelligent Key is not in the antenna detection area                     | <br><small>JMKIA0063GB</small> |  |
| 47<br>(Y)                    | Ground | Ignition relay (IPDM E/R) control            | Output           | Ignition switch   | OFF or ACC  | 12 V   |
|                              |        |  |                  |   | ON  | 0 V  |
| 50<br>(BG)                   | Ground | Trunk room lamp switch                       | Input            | Trunk room lamp switch  | OFF (Trunk lid is closed)   | <br><small>JPMIA0011GB</small><br>11.8 V |
|                              |        |  |                  |   | ON (Trunk lid is opened)  | 0 V  |
| 52<br>(R)                    | Ground | Starter relay control                        | Output           | Ignition switch ON (A/T models)   | When selector lever is in P or N position   | 12 V   |
|                              |        |  |                  |   | When selector lever is not in P or N position   | 0 V  |
|                              |        |  |                  | Ignition switch ON (M/T models)   | When the clutch pedal is depressed  | Battery voltage  |
|                              |        |  |                  |   | When the clutch pedal is not depressed  | 0 V  |
| 60<br>(BR)                   | Ground | Push-button ignition switch (Push switch)    | Input            | Push-button ignition switch (Push switch)                                     | Pressed   | 0 V  |
|                              |        |  |                  |   | Not pressed   | Battery voltage  |
| 61<br>(SB)                   | Ground | Trunk lid opener request switch              | Input            | Trunk lid opener request switch   | ON (Pressed)  | 0 V  |
|                              |        |  |                  |   | OFF (Not pressed)   | <br><small>JPMIA0016GB</small><br>1.0 V |
| 64<br>(G)                    | Ground | Intelligent Key warning buzzer (Engine room) | Output           | Intelligent Key warning buzzer (Engine room)                                  | Sounding  | 0 V  |
|                              |        |  |                  |   | Not sounding  | 12 V   |

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                            |                  | Condition                    | Value<br>(Approx.)   |  |
|------------------------------|--------|--|------------------|------------------------------|--|--|
|                              |        | Signal name                            | Input/<br>Output |                              |  |  |
| +                            | -      |  |                  |                              |  |  |
| 67<br>(GR)                   | Ground | Trunk lid opener<br>switch             | Input            | Trunk lid open-<br>er switch | Pressed  | 0 V  |
|                              |        |  |                  |                              | Not pressed  |  <p style="text-align: right; font-size: small;">JPMIA0011GB<br/>11.8 V</p> |
| 72<br>(R)                    | Ground | Room antenna 2 (-)<br>(Center console) | Output           | Ignition switch<br>OFF       | When Intelligent Key is in<br>the passenger compart-<br>ment     |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p>            |
|                              |        |  |                  |                              | When Intelligent Key is not<br>in the passenger compart-<br>ment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p>           |
| 73<br>(G)                    | Ground | Room antenna 2 (+)<br>(Center console) | Output           | Ignition switch<br>OFF       | When Intelligent Key is in<br>the passenger compart-<br>ment     |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p>          |
|                              |        |  |                  |                              | When Intelligent Key is not<br>in the passenger compart-<br>ment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p>          |

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# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                |                  | Condition   | Value<br>(Approx.)  |
|------------------------------|--------|----------------------------|------------------|---|---|
| +                            | -      | Signal name                | Input/<br>Output |   |   |
| 74<br>(SB)                   | Ground | Passenger door antenna (-) | Output           | When Intelligent Key is in the antenna detection area                       | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
|                              |        |                            |                  | When the passenger door request switch is operated with ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 75<br>(BR)                   | Ground | Passenger door antenna (+) | Output           | When Intelligent Key is in the antenna detection area                       | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
|                              |        |                            |                  | When the passenger door request switch is operated with ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 76<br>(V)                    | Ground | Driver door antenna (-)    | Output           | When Intelligent Key is in the antenna detection area                       | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
|                              |        |                            |                  | When the driver door request switch is operated with ignition switch OFF    | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |



# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                              |                  | Condition   | Value<br>(Approx.) |
|------------------------------|--------|--|------------------|---|--------------------|
| +                            | -      | Signal name                              | Input/<br>Output |   |                    |
| 77<br>(LG)                   | Ground | Driver door antenna<br>(+)               | Output           | When Intelligent Key is in<br>the antenna detection<br>area                                   | <p>JMKIA0062GB</p> |
|                              |        |  |                  | When the driv-<br>er door request<br>switch is oper-<br>ated with igni-<br>tion switch<br>OFF | <p>JMKIA0063GB</p> |
| 78<br>(Y)                    | Ground | Room antenna 1 (-)<br>(Instrument panel) | Output           | When Intelligent Key is in<br>the passenger compart-<br>ment                                  | <p>JMKIA0062GB</p> |
|                              |        |  |                  | Ignition switch<br>OFF  | <p>JMKIA0063GB</p> |
| 79<br>(BR)                   | Ground | Room antenna 1 (+)<br>(Instrument panel) | Output           | When Intelligent Key is in<br>the passenger compart-<br>ment                                  | <p>JMKIA0062GB</p> |
|                              |        |  |                  | Ignition switch<br>OFF  | <p>JMKIA0063GB</p> |

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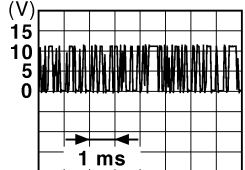
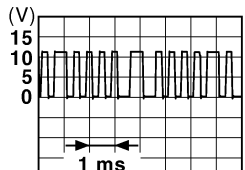

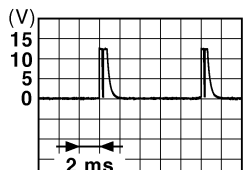
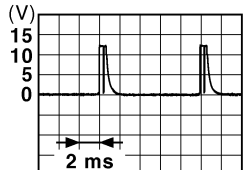
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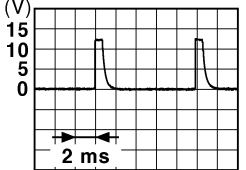

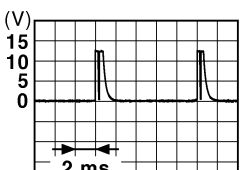

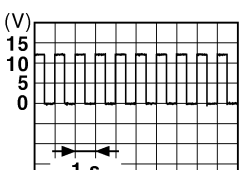
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                                 |                  | Condition   |  | Value<br>(Approx.)   |
|------------------------------|--------|---|------------------|---|--|--|
| +                            | -      | Signal name                                 | Input/<br>Output |   |  |  |
| 80<br>(GR)                   | Ground | NATS antenna amp.                           | Input/<br>Output | During waiting                                      | Ignition switch is pressed while inserting the Intelligent Key into the key slot.  | Just after pressing ignition switch. Pointer of tester should move.  |
| 81<br>(W)                    | Ground | NATS antenna amp.                           | Input/<br>Output | During waiting                                      | Ignition switch is pressed while inserting the Intelligent Key into the key slot.  | Just after pressing ignition switch. Pointer of tester should move.  |
| 82<br>(SB)                   | Ground | Ignition relay [Fuse block (J/B)] control   | Output           | Ignition switch                                     | OFF or ACC   | 0 V  |
|                              |        |   |                  |   | ON   | 12 V   |
| 83<br>(Y)                    | Ground | Remote keyless entry receiver communication | Input/<br>Output | During waiting                                      |  |  <p style="text-align: right; font-size: small;">JMKIA0064GB</p>  |
|                              |        |   |                  | When operating either button on the Intelligent Key |  |  <p style="text-align: right; font-size: small;">JMKIA0065GB</p>   |
| 87<br>(Y)                    | Ground | Combination switch INPUT 5                  | Input            | Combination switch                                  | All switches OFF (Wiper volume dial 4)   |  <p style="text-align: right; font-size: small;">JPMIA0041GB</p> <p style="text-align: center;">1.4 V</p> |
|                              |        |   |                  |   | Front fog lamp switch ON (Wiper volume dial 4)   |  <p style="text-align: right; font-size: small;">JPMIA0037GB</p> <p style="text-align: center;">1.3 V</p> |
|                              |        |   |                  |   | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper volume dial 1</li> <li>• Wiper volume dial 2</li> <li>• Wiper volume dial 6</li> <li>• Wiper volume dial 7</li> </ul> |  <p style="text-align: right; font-size: small;">JPMIA0040GB</p> <p style="text-align: center;">1.3 V</p> |

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                   |                  | Condition                  | Value<br>(Approx.)  |  |
|------------------------------|--------|-------------------------------|------------------|----------------------------|---|--|
| +                            | -      | Signal name                   | Input/<br>Output |                            |   |  |
| 88<br>(BG)                   | Ground | Combination switch<br>INPUT 3 | Input            | Combination<br>switch      | All switches OFF<br>(Wiper volume dial 4)   |  <p style="text-align: right;">JPMAI0041GB</p> <p style="text-align: center;">1.4 V</p>   |
|                              |        |                               |                  |                            | Lighting switch HI<br>(Wiper volume dial 4)   |  <p style="text-align: right;">JPMAI0036GB</p> <p style="text-align: center;">1.3 V</p>   |
|                              |        |                               |                  |                            | Lighting switch 2ND<br>(Wiper volume dial 4)  |  <p style="text-align: right;">JPMAI0037GB</p> <p style="text-align: center;">1.3 V</p>  |
|                              |        |                               |                  |                            | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper volume dial 1</li> <li>• Wiper volume dial 2</li> <li>• Wiper volume dial 3</li> </ul> |  <p style="text-align: right;">JPMAI0040GB</p> <p style="text-align: center;">1.3 V</p> |
| 90<br>(P)                    | Ground | CAN-L                         | Input/<br>Output | —                          | —   |  |
| 91<br>(L)                    | Ground | CAN-H                         | Input/<br>Output | —                          | —   |  |
| 92<br>(LG)                   | Ground | Key slot illumination         | Output           | Key slot illumi-<br>nation | OFF   | 12 V   |
|                              |        |                               |                  |                            | Blinking  |  <p style="text-align: right;">JPMAI0015GB</p> <p style="text-align: center;">6.5 V</p> |
| 93<br>(GR)                   | Ground | ON indicator lamp             | Output           | Ignition switch            | OFF (LOCK indicator is<br>not illuminated)  | Battery voltage  |
|                              |        |                               |                  |                            | ON  | 0 V  |

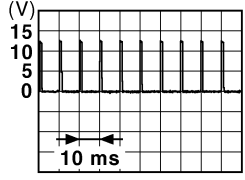
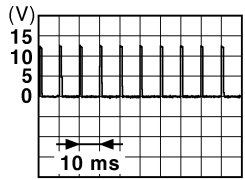
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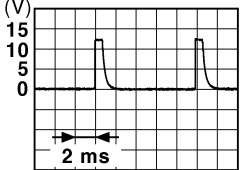

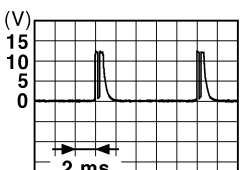

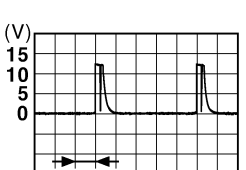
# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description  |                  | Condition                     |                                    | Value<br>(Approx.)   |
|------------------------------|--------|--|------------------|-------------------------------|------------------------------------|--|
| +                            | -      | Signal name  | Input/<br>Output |                               |                                    |  |
| 95<br>(BG)                   | Ground | ACC relay control                                  | Output           | Ignition switch               | OFF                                | 0 V  |
|                              |        |  |                  |                               | ACC or ON                          | 12 V   |
| 96<br>(GR)                   | Ground | A/T shift selector (Detention switch) power supply | Output           | —                             |                                    | 12 V   |
| 99<br>(R)*1<br>(BR)*2        | Ground | Selector lever P position switch (A/T models)      | Input            | Selector lever                | P position                         | 0 V  |
|                              |        |  |                  |                               | Any position other than P          | 12 V   |
|                              |        | ASCD clutch switch (M/T models)                    |                  | ASCD clutch switch            | OFF (Clutch pedal is depressed)    | 0 V  |
|                              |        |  |                  |                               | ON (Clutch pedal is not depressed) | 12 V   |
| 100<br>(Y)                   | Ground | Passenger door request switch                      | Input            | Passenger door request switch | ON (Pressed)                       | 0 V  |
|                              |        |  |                  |                               | OFF (Not pressed)                  |  <p style="text-align: right; margin-right: 20px;">JPMIA0016GB</p> <p style="text-align: center;">1.0 V</p>   |
| 101<br>(P)                   | Ground | Driver door request switch                         | Input            | Driver door request switch    | ON (Pressed)                       | 0 V  |
|                              |        |  |                  |                               | OFF (Not pressed)                  |  <p style="text-align: right; margin-right: 20px;">JPMIA0016GB</p> <p style="text-align: center;">1.0 V</p> |
| 102<br>(BG)                  | Ground | Blower fan motor relay control                     | Output           | Ignition switch               | OFF or ACC                         | 0 V  |
|                              |        |  |                  |                               | ON                                 | 12 V   |
| 103<br>(P)                   | Ground | Remote keyless entry receiver power supply         | Output           | Ignition switch OFF           |                                    | 12 V   |

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

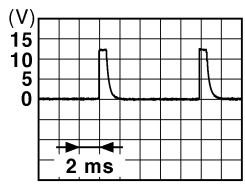
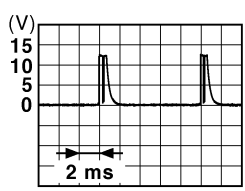
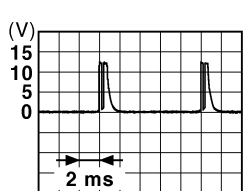
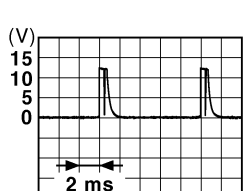
| Terminal No.<br>(Wire color) |        | Description                   |                  | Condition   | Value<br>(Approx.)     |  |
|------------------------------|--------|-------------------------------|------------------|---|------------------------|--|
|                              |        | Signal name                   | Input/<br>Output |   |                        |  |
| +                            | -      |                               |                  |   |                        |  |
| 107<br>(LG)                  | Ground | Combination switch<br>INPUT 1 | Input            | Combination<br>switch<br>(Wiper volume<br>dial 4) | All switches OFF       |  <p style="text-align: right; margin-right: 50px;">JPMAI0041GB</p> <p style="text-align: center;">1.4 V</p>   |
|                              |        |                               |                  |   | Turn signal switch LH  |  <p style="text-align: right; margin-right: 50px;">JPMAI0037GB</p> <p style="text-align: center;">1.3 V</p>   |
|                              |        |                               |                  |   | Turn signal switch RH  |  <p style="text-align: right; margin-right: 50px;">JPMAI0036GB</p> <p style="text-align: center;">1.3 V</p>  |
|                              |        |                               |                  |   | Front wiper switch LO  |  <p style="text-align: right; margin-right: 50px;">JPMAI0038GB</p> <p style="text-align: center;">1.3 V</p> |
|                              |        |                               |                  |   | Front washer switch ON |  <p style="text-align: right; margin-right: 50px;">JPMAI0039GB</p> <p style="text-align: center;">1.3 V</p> |

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# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                   |                  | Condition   | Value<br>(Approx.)   |
|------------------------------|--------|-------------------------------|------------------|---|--|
|                              |        | Signal name                   | Input/<br>Output |   |  |
| +                            | -      |                               |                  |   |  |
| 108<br>(R)                   | Ground | Combination switch<br>INPUT 4 | Input            | Combination<br>switch                             | All switches OFF<br>(Wiper volume dial 4) <div style="text-align: right;">  <p style="text-align: right; margin-top: 5px;">1.4 V</p> </div> |
|                              |        |                               |                  | Lighting switch AUTO<br>(Wiper volume dial 4)     | <div style="text-align: right;">  <p style="text-align: right; margin-top: 5px;">1.3 V</p> </div>   |
|                              |        |                               |                  | Lighting switch 1ST<br>(Wiper volume dial 4)      | <div style="text-align: right;">  <p style="text-align: right; margin-top: 5px;">1.3 V</p> </div>  |
|                              |        |                               |                  | Any of the conditions below with all switches OFF | <div style="text-align: right;">  <p style="text-align: right; margin-top: 5px;">1.3 V</p> </div>   |

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

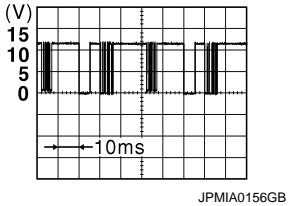
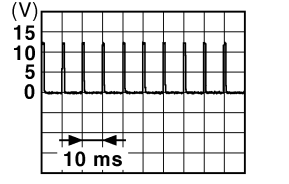
| Terminal No.<br>(Wire color) |        | Description                   |                  | Condition   | Value<br>(Approx.)                                     |  |
|------------------------------|--------|-------------------------------|------------------|---|--|--|
| +                            | -      | Signal name                   | Input/<br>Output |   |  |  |
| 109<br>(W)                   | Ground | Combination switch<br>INPUT 2 | Input            | Combination<br>switch<br>(Wiper volume<br>dial 4) | All switches OFF                                       | <p style="text-align: right;">JPMA0041GB<br/>1.4 V</p> |
|                              |        |                               |                  |   | Lighting switch PASS                                   | <p style="text-align: right;">JPMA0037GB<br/>1.3 V</p> |
|                              |        |                               |                  |   | Lighting switch 2ND                                    | <p style="text-align: right;">JPMA0036GB<br/>1.3 V</p> |
|                              |        |                               |                  |   | Front wiper switch INT/<br>AUTO                        | <p style="text-align: right;">JPMA0038GB<br/>1.3 V</p> |
|                              |        |                               |                  |   | Front wiper switch HI                                  | <p style="text-align: right;">JPMA0040GB<br/>1.3 V</p> |
|                              |        |                               |                  |   | ON   | 0 V  |
| 110<br>(G)                   | Ground | Hazard switch                 | Input            | Hazard switch                                     |  |  |
|                              |        |                               |                  | OFF   | <p style="text-align: right;">JPMA0012GB<br/>1.1 V</p> |  |

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# BCM (BODY CONTROL MODULE)

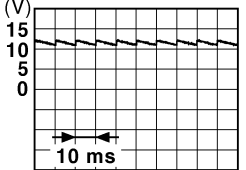
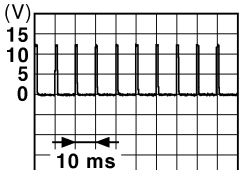
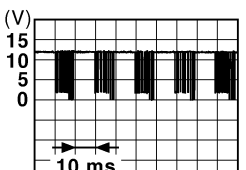
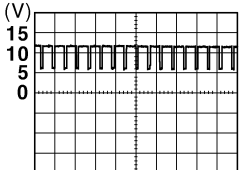
## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                                    |                  | Condition  | Value<br>(Approx.)   |  |
|------------------------------|--------|--|------------------|--|--|--|
| +                            | -      | Signal name                                    | Input/<br>Output |  |  |  |
| 112<br>(R)                   | Ground | Rain sensor serial link                        | Input/<br>Output | Ignition switch ON   |  <p style="text-align: right; font-size: small;">JPMAI0156GB</p> <p style="text-align: center;">8.7 V</p> |  |
| 113<br>(BG)                  | Ground | Optical sensor                                 | Input            | Ignition switch ON   | When bright outside of the vehicle   | Close to 5 V   |
|                              |        |  |                  | Ignition switch ON   | When dark outside of the vehicle   | Close to 0 V   |
| 114<br>(R)                   | Ground | Clutch interlock switch                        | Input            | Clutch interlock switch  | OFF (Clutch pedal is not depressed)  | 0 V  |
|                              |        |  |                  |  | ON (Clutch pedal is depressed)   | Battery voltage  |
| 116<br>(SB)                  | Ground | Stop lamp switch 1                             | Input            | —  | Battery voltage  |  |
| 118<br>(BR)                  | Ground | Stop lamp switch 2<br>(Without ICC)            | Input            | Stop lamp switch   | OFF (Brake pedal is not depressed)   | 0 V  |
|                              |        |  |                  |  | ON (Brake pedal is depressed)  | Battery voltage  |
|                              |        | Stop lamp switch 2<br>(With ICC)               |                  | Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF | 0 V  |  |
|                              |        |  |                  | Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON        | Battery voltage  |  |
| 119<br>(SB)                  | Ground | Driver side door lock assembly (Unlock sensor) | Input            | Driver door  | LOCK status<br>(Unlock sensor switch OFF)  |  <p style="text-align: right; font-size: small;">JPMAI0012GB</p> <p style="text-align: center;">1.1 V</p> |
|                              |        |  |                  |  | UNLOCK status<br>(Unlock switch sensor ON)   | 0 V  |
| 121<br>(SB)                  | Ground | Key slot switch                                | Input            | When the Intelligent Key is inserted into key slot                               | 12 V   |  |
|                              |        |  |                  | When the Intelligent Key is not inserted into key slot                           | 0 V  |  |
| 123<br>(V)                   | Ground | IGN feedback                                   | Input            | Ignition switch  | OFF or ACC   | 0 V  |
|                              |        |  |                  |  | ON   | Battery voltage  |



# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

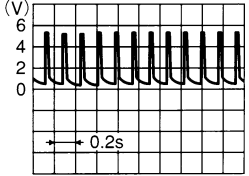
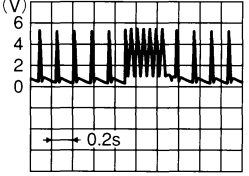
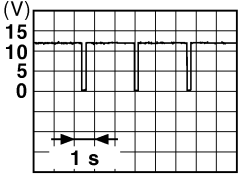
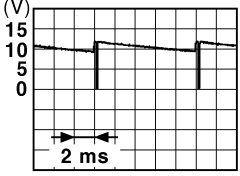
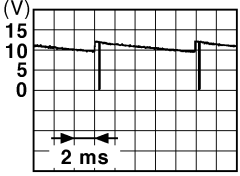
| Terminal No.<br>(Wire color) |        | Description                                 |                  | Condition  | Value<br>(Approx.)         |   |
|------------------------------|--------|---|------------------|--|----------------------------|---|
|                              |        | Signal name                                 | Input/<br>Output |  |                            |   |
| +                            | -      |   |                  |  |                            |   |
| 124<br>(R)                   | Ground | Passenger door<br>switch                    | Input            | Passenger<br>door switch                           | OFF (Door close)           | <br><small>JPMIA0011GB</small><br>11.8 V   |
|                              |        |   |                  |  | ON (Door open)             | 0 V   |
| 129<br>(BG)                  | Ground | Trunk lid opener cancel<br>switch           | Input            | Trunk lid opener<br>cancel<br>switch               | CANCEL                     | <br><small>JPMIA0012GB</small><br>1.1 V  |
|                              |        |   |                  |  | ON                         | 0 V   |
| 132<br>(V)                   | Ground | Power window switch<br>communication        | Input/<br>Output | Ignition switch ON                                 | Ignition switch ON         | <br><small>JPMIA0013GB</small><br>10.2 V  |
|                              |        |   |                  |  | Ignition switch OFF or ACC | 12 V  |
| 133<br>(L)                   | Ground | Push-button ignition<br>switch illumination | Output           | Push-button ig-<br>nition switch il-<br>lumination | ON (Tail lamps OFF)        | 9.5 V   |
|                              |        |   |                  |  | ON (Tail lamps ON)         | <p style="text-align: center;"><b>NOTE:</b><br/>The pulse width of this wave is<br/>varied by the illumination bright-<br/>ening/dimming level.</p> <br><small>JPMIA0159GB</small> |
|                              |        |   |                  |  | OFF                        | 0 V   |
| 134<br>(LG)                  | Ground | LOCK indicator lamp                         | Output           | LOCK indicator<br>lamp                             | OFF                        | Battery voltage   |
|                              |        |   |                  |  | ON                         | 0 V   |
| 137<br>(BG)                  | Ground | Receiver and sensor<br>ground               | Input            | Ignition switch ON                                 | Ignition switch ON         | 0 V   |
| 138<br>(V)                   | Ground | Receiver and sensor<br>power supply         | Output           | Ignition switch                                    | OFF                        | 0 V   |
|                              |        |   |                  |  | ACC or ON                  | 5.0 V   |

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# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                          |                  | Condition  | Value<br>(Approx.)   |
|------------------------------|--------|--------------------------------------|------------------|--|--|
| +                            | -      | Signal name                          | Input/<br>Output |  |  |
| 139<br>(L)                   | Ground | Tire pressure receiver communication | Input/<br>Output | Ignition switch ON   | Standby state<br><br>OCC3881D |
|                              |        |                                      |                  | When receiving the signal from the transmitter<br><br>OCC3880D  |  |
| 140*1<br>(B)                 | Ground | Selector lever P/N position          | Input            | Selector lever   | P or N position<br>12 V  |
|                              |        |                                      |                  | Except P and N positions<br>0 V  |  |
| 141<br>(W)                   | Ground | Security indicator lamp              | Output           | Security indicator lamp  | ON<br>0 V  |
|                              |        |                                      |                  | Blinking<br><br>JPMIA0014GB<br>11.3 V  |  |
|                              |        |                                      |                  | OFF<br>12 V  |  |
| 142<br>(BR)                  | Ground | Combination switch OUTPUT 5          | Output           | Combination switch (Wiper volume dial 4)   | All switches OFF<br>0 V  |
|                              |        |                                      |                  | Turn signal switch RH<br><br>JPMIA0031GB<br>10.7 V  |  |
|                              |        |                                      |                  |  | Lighting switch 1ST  |
|                              |        |                                      |                  |  | Lighting switch HI   |
| 143<br>(P)                   | Ground | Combination switch OUTPUT 1          | Output           | Combination switch   | All switches OFF (Wiper volume dial 4)<br>0 V  |
|                              |        |                                      |                  | Any of the conditions below with all switches OFF<br>• Wiper volume dial 1<br>• Wiper volume dial 2<br>• Wiper volume dial 3<br>• Wiper volume dial 6<br>• Wiper volume dial 7<br><br>JPMIA0032GB<br>10.7 V |  |
|                              |        |                                      |                  |  | Front wiper switch HI (Wiper volume dial 4)  |

# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Terminal No.<br>(Wire color) |        | Description                             |                  | Condition   | Value<br>(Approx.)                                |     |   |
|------------------------------|--------|---|------------------|---|---|-----|---|
| +                            | -      | Signal name                             | Input/<br>Output |   |   |     |   |
| 144<br>(G)                   | Ground | Combination switch<br>OUTPUT 2          | Output           | Combination<br>switch                             | All switches OFF<br>(Wiper volume dial 4)         | 0 V |   |
|                              |        |   |                  |   | Front washer switch ON<br>(Wiper volume dial 4)   |     |   |
|                              |        |   |                  |   | Any of the conditions below with all switches OFF |     | <ul style="list-style-type: none"> <li>• Wiper volume dial 1</li> <li>• Wiper volume dial 5</li> <li>• Wiper volume dial 6</li> </ul> |
|                              |        |   |                  |   |   |     |   |
| 145<br>(L)                   | Ground | Combination switch<br>OUTPUT 3          | Output           | Combination<br>switch<br>(Wiper volume<br>dial 4) | All switches OFF                                  | 0 V |   |
|                              |        |   |                  |   | Front wiper switch INT/<br>AUTO                   |     |   |
|                              |        |   |                  |   | Front wiper switch LO                             |     |   |
|                              |        |   |                  |   | Lighting switch AUTO                              |     | 10.7 V  |
| 146<br>(SB)                  | Ground | Combination switch<br>OUTPUT 4          | Output           | Combination<br>switch<br>(Wiper volume<br>dial 4) | All switches OFF                                  | 0 V |   |
|                              |        |   |                  |   | Front fog lamp switch ON                          |     |   |
|                              |        |   |                  |   | Lighting switch 2ND                               |     |   |
|                              |        |   |                  |   | Lighting switch PASS                              |     |   |
|                              |        |   |                  |   | Turn signal switch LH                             |     | 10.7 V  |
| 150<br>(GR)                  | Ground | Driver door switch                      | Input            | Driver door<br>switch                             | OFF (Door close)                                  |     |   |
|                              |        |   |                  |   | 11.8 V  |     |   |
|                              |        |   |                  |   | ON (Door open)                                    | 0 V |   |
| 151<br>(G)                   | Ground | Rear window defog-<br>ger relay control | Output           | Rear window<br>defogger                           | Active  | 0 V |   |
|                              |        |   |                  | Not activated                                     | Battery voltage                                   |     |   |

- \*1: A/T models
- \*2: M/T models

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
INL

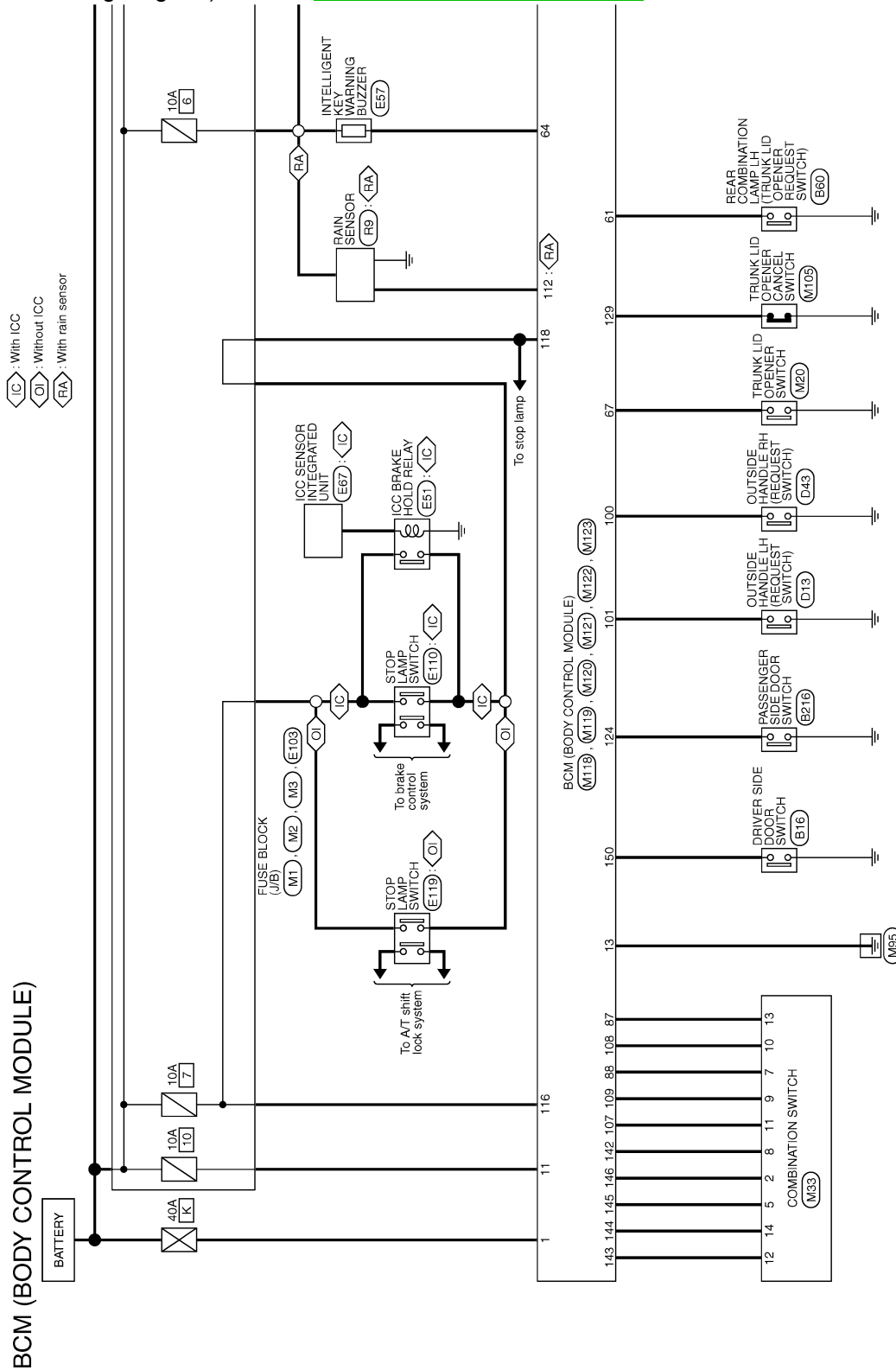
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - BCM -

INFOID:000000007612907

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



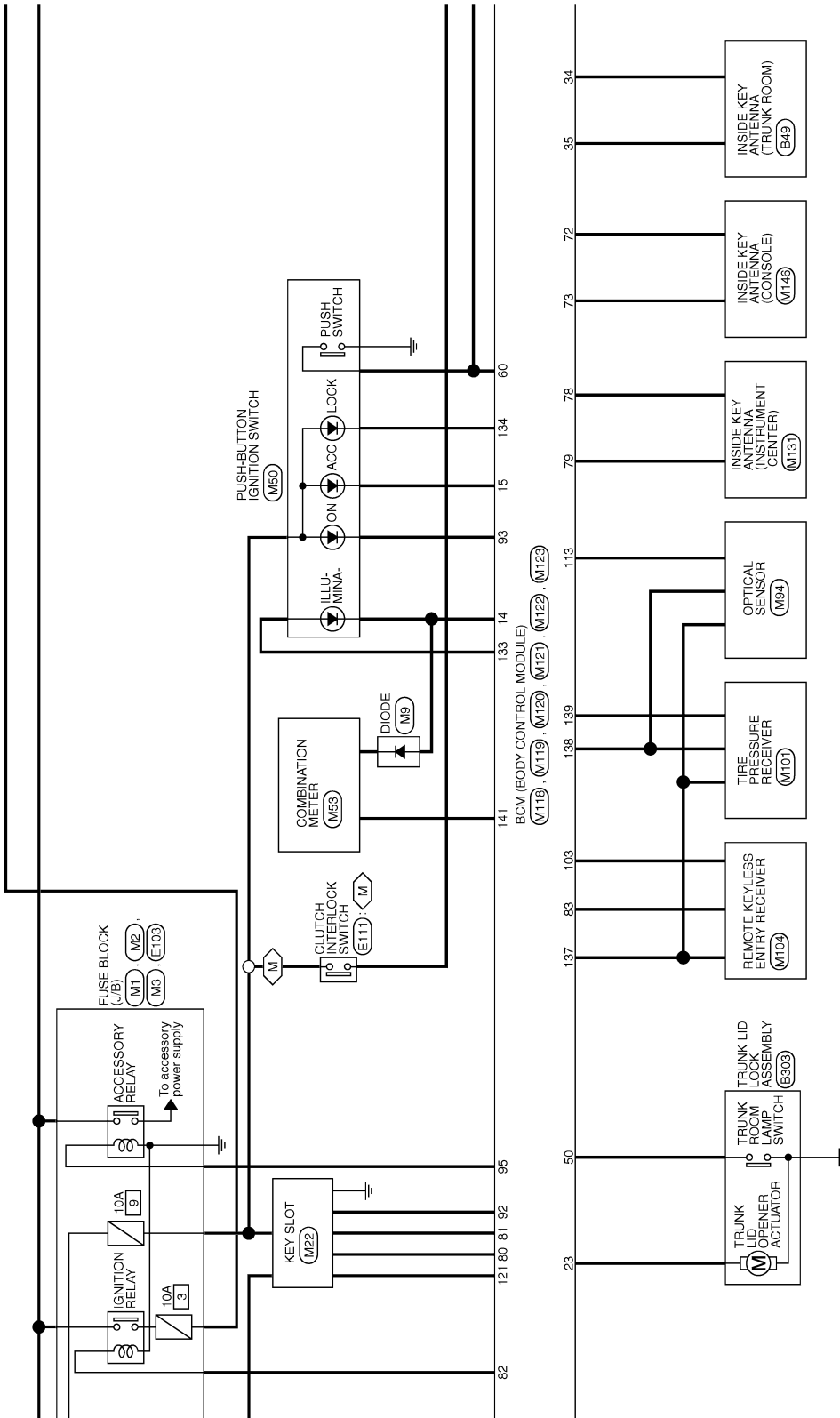
2011/07/13

JRMWC4423GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

M: With M/T

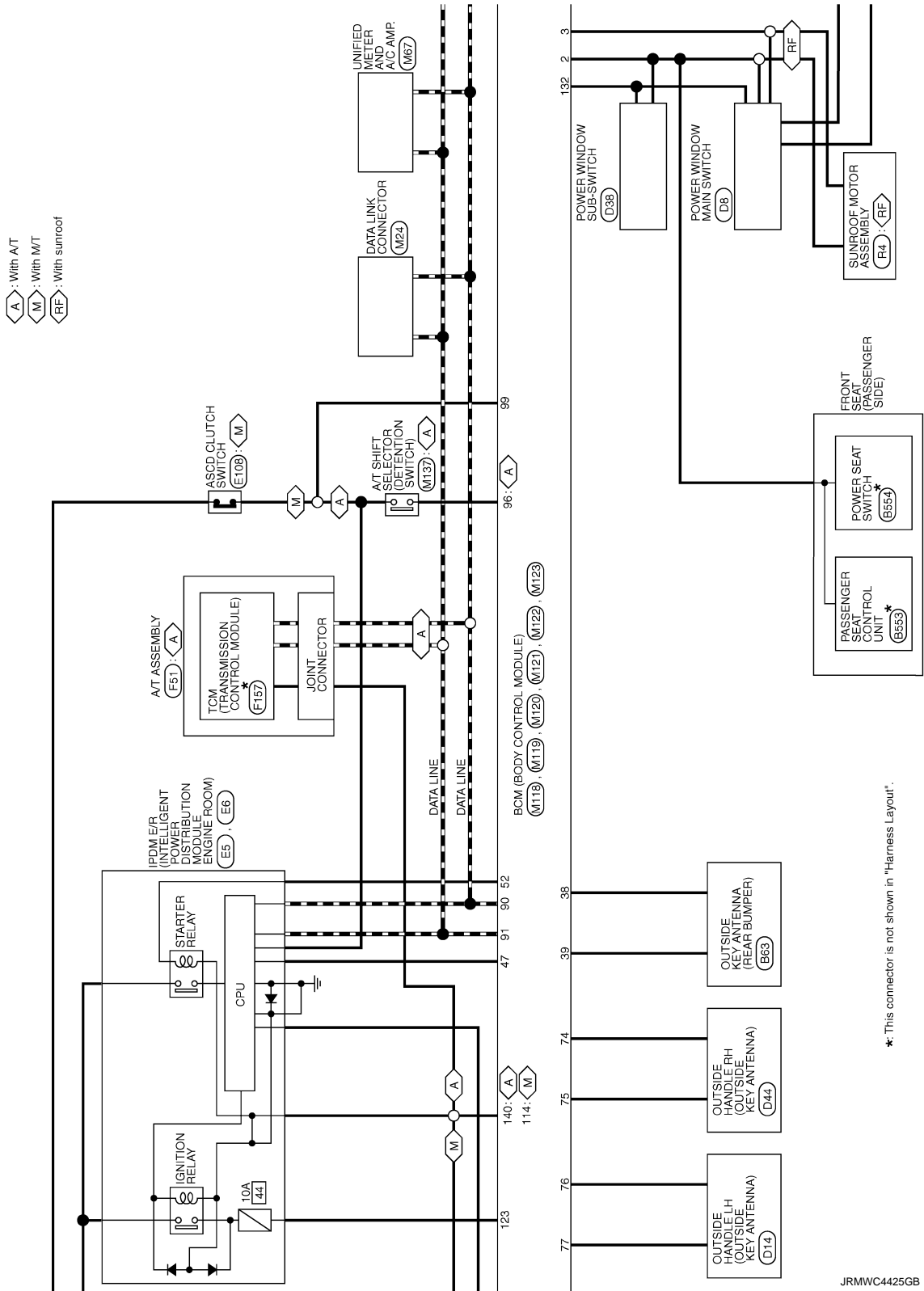


JRMWC4424GB

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



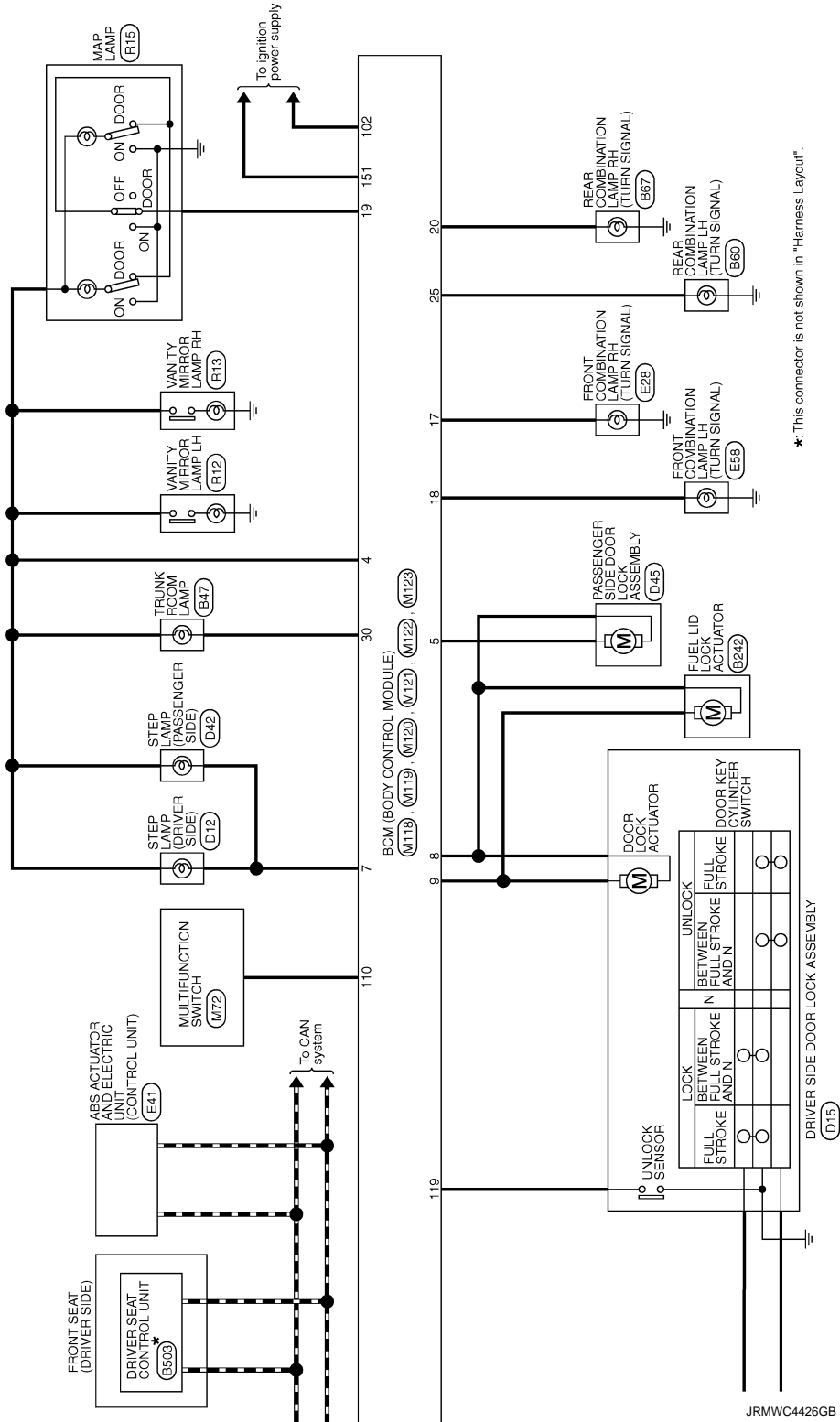
A : With A/T  
 M : With M/T  
 RE : With sunroof

\*: This connector is not shown in "Harness Layout".

JRMWC4425GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



## Fail-safe

### FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

INFOID:000000007612908

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# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Display contents of CONSULT | Fail-safe   | Cancellation  |
|-----------------------------|---|---|
| B2190: NATS ANTENNA AMP     | Inhibit engine cranking   | Erase DTC   |
| B2191: DIFFERENCE OF KEY    | Inhibit engine cranking   | Erase DTC   |
| B2192: ID DISCORD BCM-ECM   | Inhibit engine cranking   | Erase DTC   |
| B2193: CHAIN OF BCM-ECM     | Inhibit engine cranking   | Erase DTC   |
| B2195: ANTI-SCANNING        | Inhibit engine cranking   | Ignition switch ON → OFF  |
| B2560: STARTER CONT RELAY   | Inhibit engine cranking   | 500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> <li>• Starter control relay signal</li> <li>• Starter relay status signal</li> </ul>   |
| B2608: STARTER RELAY        | Inhibit engine cranking   | 500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> <li>• Starter motor relay control signal</li> <li>• Starter relay status signal (CAN)</li> </ul>   |
| B260A: IGNITION RELAY       | Inhibit engine cranking   | 500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> <li>• IGN relay (IPDM E/R) control signal: OFF (12 V)</li> <li>• Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>• Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>   |
| B260F: ENG STATE SIG LOST   | Maintains the power supply position attained at the time of DTC detection | When any of the following conditions are fulfilled <ul style="list-style-type: none"> <li>• Power position changes to ACC</li> <li>• Receives engine status signal (CAN)</li> </ul>   |
| B2617: BCM                  | Inhibit engine cranking   | 1 second after the starter motor relay control inside BCM becomes normal  |
| B2618: BCM                  | Inhibit engine cranking   | 1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal  |
| B261E: VEHICLE TYPE         | Inhibit engine cranking   | BCM initialization  |
| B26E8: CLUTCH SW            | Inhibit engine cranking   | When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Status 1 <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): ON</li> <li>- Clutch interlock switch signal: OFF (0 V)</li> </ul> </li> <li>• Status 2 <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): OFF</li> <li>- Clutch interlock switch signal: ON (Battery voltage)</li> </ul> </li> </ul> |

## DTC Inspection Priority Chart

INFOID:000000007612909

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

| Priority | DTC   |
|----------|---|
| 1        | B2562: LOW VOLTAGE  |
| 2        | <ul style="list-style-type: none"> <li>• U1000: CAN COMM</li> <li>• U1010: CONTROL UNIT(CAN)</li> </ul>   |
| 3        | <ul style="list-style-type: none"> <li>• B2190: NATS ANTENNA AMP</li> <li>• B2191: DIFFERENCE OF KEY</li> <li>• B2192: ID DISCORD BCM-ECM</li> <li>• B2193: CHAIN OF BCM-ECM</li> <li>• B2195: ANTI-SCANNING</li> </ul> |



# BCM (BODY CONTROL MODULE)

## < ECU DIAGNOSIS INFORMATION >

| Priority | DTC   |   |   |
|----------|---|---|---|
| 4        | <ul style="list-style-type: none"> <li>• B2553: IGNITION RELAY</li> <li>• B2555: STOP LAMP</li> <li>• B2556: PUSH-BTN IGN SW</li> <li>• B2557: VEHICLE SPEED</li> <li>• B2560: STARTER CONT RELAY</li> <li>• B2601: SHIFT POSITION</li> <li>• B2602: SHIFT POSITION</li> <li>• B2603: SHIFT POSI STATUS</li> <li>• B2604: PNP/CLUTCH SW</li> <li>• B2605: PNP/CLUTCH SW</li> <li>• B2608: STARTER RELAY</li> <li>• B260A: IGNITION RELAY</li> <li>• B260F: ENG STATE SIG LOST</li> <li>• B2614: BCM</li> <li>• B2615: BCM</li> <li>• B2616: BCM</li> <li>• B2617: BCM</li> <li>• B2618: BCM</li> <li>• B261A: PUSH-BTN IGN SW</li> <li>• B261E: VEHICLE TYPE</li> <li>• B26E8: CLUTCH SW</li> <li>• B26EA: KEY REGISTRATION</li> <li>• C1729: VHCL SPEED SIG ERR</li> <li>• U0415: VEHICLE SPEED</li> </ul> | A<br>B<br>C<br>D<br>E<br>F<br>G   |   |
|          | <ul style="list-style-type: none"> <li>• C1704: LOW PRESSURE FL</li> <li>• C1705: LOW PRESSURE FR</li> <li>• C1706: LOW PRESSURE RR</li> <li>• C1707: LOW PRESSURE RL</li> <li>• C1708: [NO DATA] FL</li> <li>• C1709: [NO DATA] FR</li> <li>• C1710: [NO DATA] RR</li> <li>• C1711: [NO DATA] RL</li> <li>• C1716: [PRESSDATA ERR] FL</li> <li>• C1717: [PRESSDATA ERR] FR</li> <li>• C1718: [PRESSDATA ERR] RR</li> <li>• C1719: [PRESSDATA ERR] RL</li> <li>• C1734: CONTROL UNIT</li> </ul>   | H<br>I<br>J<br>K  |   |
|          | 6   | <ul style="list-style-type: none"> <li>• B2621: INSIDE ANTENNA</li> <li>• B2622: INSIDE ANTENNA</li> <li>• B2623: INSIDE ANTENNA</li> </ul> | L |

### DTC Index

INFOID:000000007612910

#### NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to [BCS-16. "COMMON ITEM : CONSULT Function \(BCM - COMMON ITEM\)"](#).

| CONSULT display  | Fail-safe | Freeze Frame Data<br>•Vehicle Speed<br>•Odo/Trip Meter<br>•Vehicle condition | Intelligent Key<br>warning lamp ON | Tire pressure<br>monitor warning<br>lamp ON | Refer-<br>ence page    |
|--|-----------|--|------------------------------------|---|------------------------|
| No DTC is detected.<br>further testing<br>may be required. | —         | —  | —                                  | —   | —                      |
| U1000: CAN COMM  | —         | —  | —                                  | —   | <a href="#">BCS-35</a> |
| U1010: CONTROL UNIT(CAN)                                   | —         | —  | —                                  | —   | <a href="#">BCS-36</a> |
| U0415: VEHICLE SPEED                                       | —         | —  | —                                  | —   | <a href="#">BCS-37</a> |
| B2190: NATS ANTENNA AMP                                    | ×         | —  | —                                  | —   | <a href="#">SEC-51</a> |

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

| CONSULT display           | Fail-safe | Freeze Frame Data<br>•Vehicle Speed<br>•Odo/Trip Meter<br>•Vehicle condition | Intelligent Key<br>warning lamp ON | Tire pressure<br>monitor warning<br>lamp ON | Refer-<br>ence page    |
|---------------------------|-----------|--|------------------------------------|---|------------------------|
| B2191: DIFFERENCE OF KEY  | ×         | —  | —                                  | —   | <a href="#">SEC-54</a> |
| B2192: ID DISCORD BCM-ECM | ×         | —  | —                                  | —   | <a href="#">SEC-55</a> |
| B2193: CHAIN OF BCM-ECM   | ×         | —  | —                                  | —   | <a href="#">SEC-57</a> |
| B2195: ANTI-SCANNING      | ×         | —  | —                                  | —   | <a href="#">SEC-58</a> |
| B2553: IGNITION RELAY     | —         | ×  | —                                  | —   | <a href="#">PCS-48</a> |
| B2555: STOP LAMP          | —         | ×  | —                                  | —   | <a href="#">SEC-59</a> |
| B2556: PUSH-BTN IGN SW    | —         | ×  | ×                                  | —   | <a href="#">SEC-61</a> |
| B2557: VEHICLE SPEED      | ×         | ×  | ×                                  | —   | <a href="#">SEC-63</a> |
| B2560: STARTER CONT RELAY | ×         | ×  | ×                                  | —   | <a href="#">SEC-64</a> |
| B2562: LOW VOLTAGE        | —         | ×  | —                                  | —   | <a href="#">BCS-38</a> |
| B2601: SHIFT POSITION     | ×         | ×  | ×                                  | —   | <a href="#">SEC-65</a> |
| B2602: SHIFT POSITION     | ×         | ×  | ×                                  | —   | <a href="#">SEC-68</a> |
| B2603: SHIFT POSI STATUS  | ×         | ×  | ×                                  | —   | <a href="#">SEC-70</a> |
| B2604: PNP/CLUTCH SW      | ×         | ×  | ×                                  | —   | <a href="#">SEC-73</a> |
| B2605: PNP/CLUTCH SW      | ×         | ×  | ×                                  | —   | <a href="#">SEC-75</a> |
| B2608: STARTER RELAY      | ×         | ×  | ×                                  | —   | <a href="#">SEC-77</a> |
| B260A: IGNITION RELAY     | ×         | ×  | ×                                  | —   | <a href="#">PCS-50</a> |
| B260F: ENG STATE SIG LOST | ×         | ×  | ×                                  | —   | <a href="#">SEC-79</a> |
| B2614: BCM                | —         | ×  | ×                                  | —   | <a href="#">PCS-52</a> |
| B2615: BCM                | —         | ×  | ×                                  | —   | <a href="#">PCS-54</a> |
| B2616: BCM                | —         | ×  | ×                                  | —   | <a href="#">PCS-56</a> |
| B2617: BCM                | ×         | ×  | ×                                  | —   | <a href="#">SEC-83</a> |
| B2618: BCM                | ×         | ×  | ×                                  | —   | <a href="#">PCS-58</a> |
| B261A: PUSH-BTN IGN SW    | —         | ×  | ×                                  | —   | <a href="#">PCS-59</a> |
| B261E: VEHICLE TYPE       | ×         | ×  | × (Turn ON for 15 seconds)         | —   | <a href="#">SEC-85</a> |
| B2621: INSIDE ANTENNA     | —         | ×  | —                                  | —   | <a href="#">DLK-55</a> |
| B2622: INSIDE ANTENNA     | —         | ×  | —                                  | —   | <a href="#">DLK-57</a> |
| B2623: INSIDE ANTENNA     | —         | ×  | —                                  | —   | <a href="#">DLK-59</a> |
| B26E8: CLUTCH SW          | ×         | ×  | ×                                  | —   | <a href="#">SEC-80</a> |
| B26EA: KEY REGISTRATION   | —         | ×  | × (Turn ON for 15 seconds)         | —   | <a href="#">SEC-82</a> |
| C1704: LOW PRESSURE FL    | —         | —  | —                                  | ×   | <a href="#">WT-19</a>  |
| C1705: LOW PRESSURE FR    | —         | —  | —                                  | ×   |                        |
| C1706: LOW PRESSURE RR    | —         | —  | —                                  | ×   |                        |
| C1707: LOW PRESSURE RL    | —         | —  | —                                  | ×   |                        |
| C1708: [NO DATA] FL       | —         | —  | —                                  | ×   | <a href="#">WT-21</a>  |
| C1709: [NO DATA] FR       | —         | —  | —                                  | ×   |                        |
| C1710: [NO DATA] RR       | —         | —  | —                                  | ×   |                        |
| C1711: [NO DATA] RL       | —         | —  | —                                  | ×   |                        |

## BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

| CONSULT display           | Fail-safe | Freeze Frame Data<br>•Vehicle Speed<br>•Odo/Trip Meter<br>•Vehicle condition | Intelligent Key<br>warning lamp ON | Tire pressure<br>monitor warning<br>lamp ON | Refer-<br>ence page   | A |
|---------------------------|-----------|--|------------------------------------|---|-----------------------|---|
| C1716: [PRESSDATA ERR] FL | —         | —  | —                                  | ×   | <a href="#">WT-24</a> | B |
| C1717: [PRESSDATA ERR] FR | —         | —  | —                                  | ×   |                       |   |
| C1718: [PRESSDATA ERR] RR | —         | —  | —                                  | ×   |                       | C |
| C1719: [PRESSDATA ERR] RL | —         | —  | —                                  | ×   | <a href="#">WT-25</a> |   |
| C1729: VHCL SPEED SIG ERR | —         | —  | —                                  | ×   |                       | D |
| C1734: CONTROL UNIT       | —         | —  | —                                  | ×   | <a href="#">WT-26</a> |   |

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# COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

## COMBINATION METER

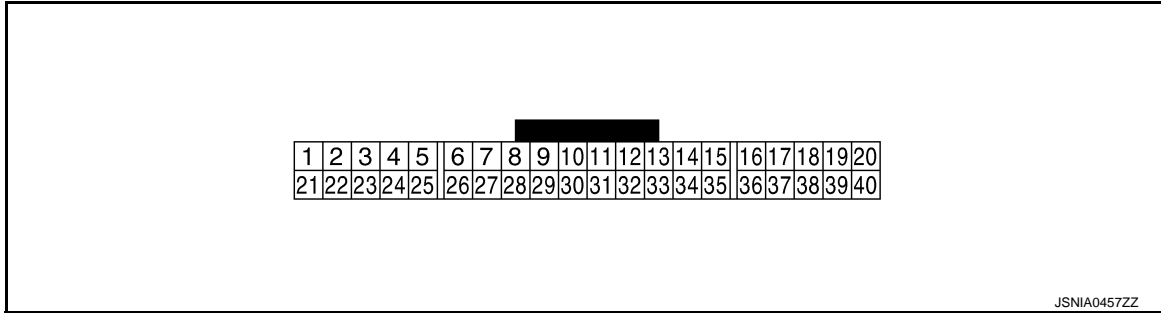
### Reference Value

INFOID:000000007798587

### VALUES ON THE DIAGNOSIS TOOL

Refer to [MWI-75. "Reference Value"](#).

### TERMINAL LAYOUT

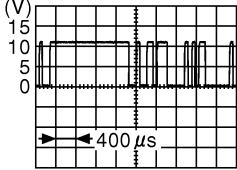
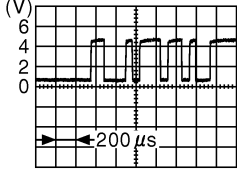
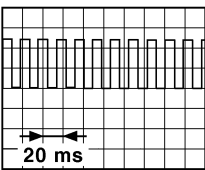
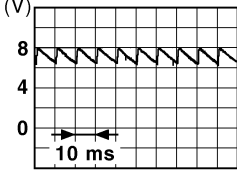
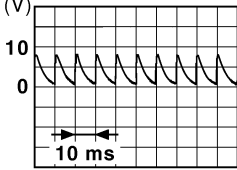


### PHYSICAL VALUES

| Terminal No.<br>(Wire color) |        | Description                           |                  | Condition                 |                           | Value<br>(Approx.) |
|------------------------------|--------|---------------------------------------|------------------|---------------------------|---------------------------|--------------------|
| +                            | -      | Signal name                           | Input/<br>Output |                           |                           |                    |
| 1<br>(V)                     | Ground | Battery power supply                  | Input            | Ignition<br>switch<br>OFF | —                         | Battery voltage    |
| 2<br>(LG)                    | Ground | Communication signal<br>(METER→ AMP.) | Output           | Ignition<br>switch<br>ON  | —                         | <br>JSNIA0027GB    |
| 3<br>(GR)                    | Ground | Communication signal<br>(AMP.→ METER) | Input            | Ignition<br>switch<br>ON  | —                         | <br>JSNIA0027GB    |
| 5<br>(B)                     | Ground | Ground                                | —                | Ignition<br>switch<br>ON  | —                         | 0 V                |
| 6<br>(W)                     | Ground | Alternator signal                     | Input            | Ignition<br>switch<br>ON  | Charge warning lamp ON    | 0 V                |
|                              |        |                                       |                  |                           | Charge warning lamp OFF   | 12 V               |
| 7<br>(LG)                    | Ground | Air bag signal                        | Input            | Ignition<br>switch<br>ON  | Air bag warning lamp ON   | 4 V                |
|                              |        |                                       |                  |                           | Air bag warning lamp OFF  | 0 V                |
| 10<br>(W)                    | Ground | Security signal                       | Input            | Ignition<br>switch<br>OFF | Security warning lamp ON  | 0 V                |
|                              |        |                                       |                  |                           | Security warning lamp OFF | 12 V               |
| 15<br>(B)                    | Ground | Ground                                | —                | Ignition<br>switch<br>ON  | —                         | 0 V                |

# COMBINATION METER

## < ECU DIAGNOSIS INFORMATION >

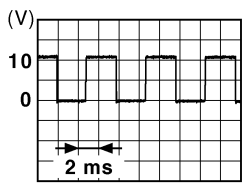


| Terminal No.<br>(Wire color) |        | Description                         |                  | Condition          |  | Value<br>(Approx.)  |
|------------------------------|--------|-------------------------------------|------------------|--------------------|--|---|
| +                            | -      | Signal name                         | Input/<br>Output |                    |  |   |
| 16<br>(BR)                   | Ground | Meter control switch ground         | —                | Ignition switch ON | —  | 0 V   |
| 21<br>(G)                    | Ground | Ignition signal                     | Input            | Ignition switch ON | —  | 12 V  |
| 22<br>(B)                    | Ground | Ground                              | —                | Ignition switch ON | —  | 0 V   |
| 24<br>(BR)                   | Ground | Communication signal<br>(LCD→ AMP.) | Output           | Ignition switch ON | —  | <br><small>JSNIA0028GB</small>   |
| 25<br>(Y)                    | Ground | Communication signal<br>(AMP.→ LCD) | Input            | Ignition switch ON | —  | <br><small>JSNIA0027GB</small>  |
| 26<br>(R)                    | Ground | Vehicle speed signal<br>(8-pulse)   | Input            | Ignition switch ON | Speedometer operated<br>[When vehicle speed is approx. 40 km/h (25 MPH)] | <p><b>NOTE:</b><br/>The maximum voltage varies depending on the specification (destination unit).</p> <br><small>JSNIA0012GB</small> |
| 27<br>(P)                    | Ground | Parking brake switch signal         | Input            | Ignition switch ON | Parking brake applied  | 0 V   |
|                              |        |                                     |                  |                    | Parking brake released   | <br><small>JSNIA0007GB</small>   |
| 28<br>(SB)                   | Ground | Brake fluid level switch signal     | Input            | Ignition switch ON | Brake fluid level is normal.   | <br><small>JSNIA0008GB</small>   |
|                              |        |                                     |                  |                    | The brake fluid level is lower than the low level                        | 0 V   |

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# COMBINATION METER

## < ECU DIAGNOSIS INFORMATION >


| Terminal No.<br>(Wire color) |            | Description                                     |                  | Condition          |  | Value<br>(Approx.)   |
|------------------------------|------------|---|------------------|--------------------|--|--|
| +                            | -          | Signal name                                     | Input/<br>Output |                    |  |  |
| 29<br>(P)                    | Ground     | Seat belt buckle switch signal (driver side)    | Input            | Ignition switch ON | When driver seat belt is fastened  | 12 V   |
|                              |            |   |                  |                    | When driver seat belt is unfastened  | 0 V  |
| 30<br>(G)                    | Ground     | Seat belt buckle switch signal (passenger side) | Input            | Ignition switch ON | <ul style="list-style-type: none"> <li>When getting in the passenger seat</li> <li>When passenger seat belt is fastened</li> </ul>   | 12 V   |
|                              |            |   |                  |                    | <ul style="list-style-type: none"> <li>When getting in the passenger seat</li> <li>When passenger seat belt is unfastened</li> </ul> | 0 V  |
| 31<br>(L)                    | Ground     | Washer level switch signal                      | Input            | Ignition switch ON | Washer level switch ON   | 0 V  |
|                              |            |   |                  |                    | Washer level switch OFF  | 5 V  |
| 33<br>(R)                    | Ground     | Illumination control signal                     | Output           | Ignition switch ON | Lighting switch ON, then operate the illumination control switch.  | <p><b>NOTE:</b><br/>When brightness level is midway</p>  <p style="text-align: right;">JSNIA0010GB</p> |
| 36<br>(LG)                   | 16<br>(BR) | Select switch signal                            | Input            | Ignition switch ON | When ● is pressed  | 0 V  |
|                              |            |   |                  |                    | Other than the above   | 5 V  |
| 37<br>(Y)                    | 16<br>(BR) | Enter switch signal                             | Input            | Ignition switch ON | When □ is pressed  | 0 V  |
|                              |            |   |                  |                    | Other than the above   | 5 V  |
| 38<br>(G)                    | 16<br>(BR) | Trip A/B reset switch signal                    | Input            | Ignition switch ON | When trip A/B reset switch is pressed  | 0 V  |
|                              |            |   |                  |                    | Other than the above   | 5 V  |
| 39<br>(P)                    | 16<br>(BR) | Illumination control switch signal (-)          | Input            | Ignition switch ON | When  switch is pressed                           | 0 V  |
|                              |            |   |                  |                    | Other than the above   | 5 V  |
| 40<br>(BG)                   | 16<br>(BR) | Illumination control switch signal (+)          | Input            | Ignition switch ON | When  switch is pressed                           | 0 V  |
|                              |            |   |                  |                    | Other than the above   | 5 V  |

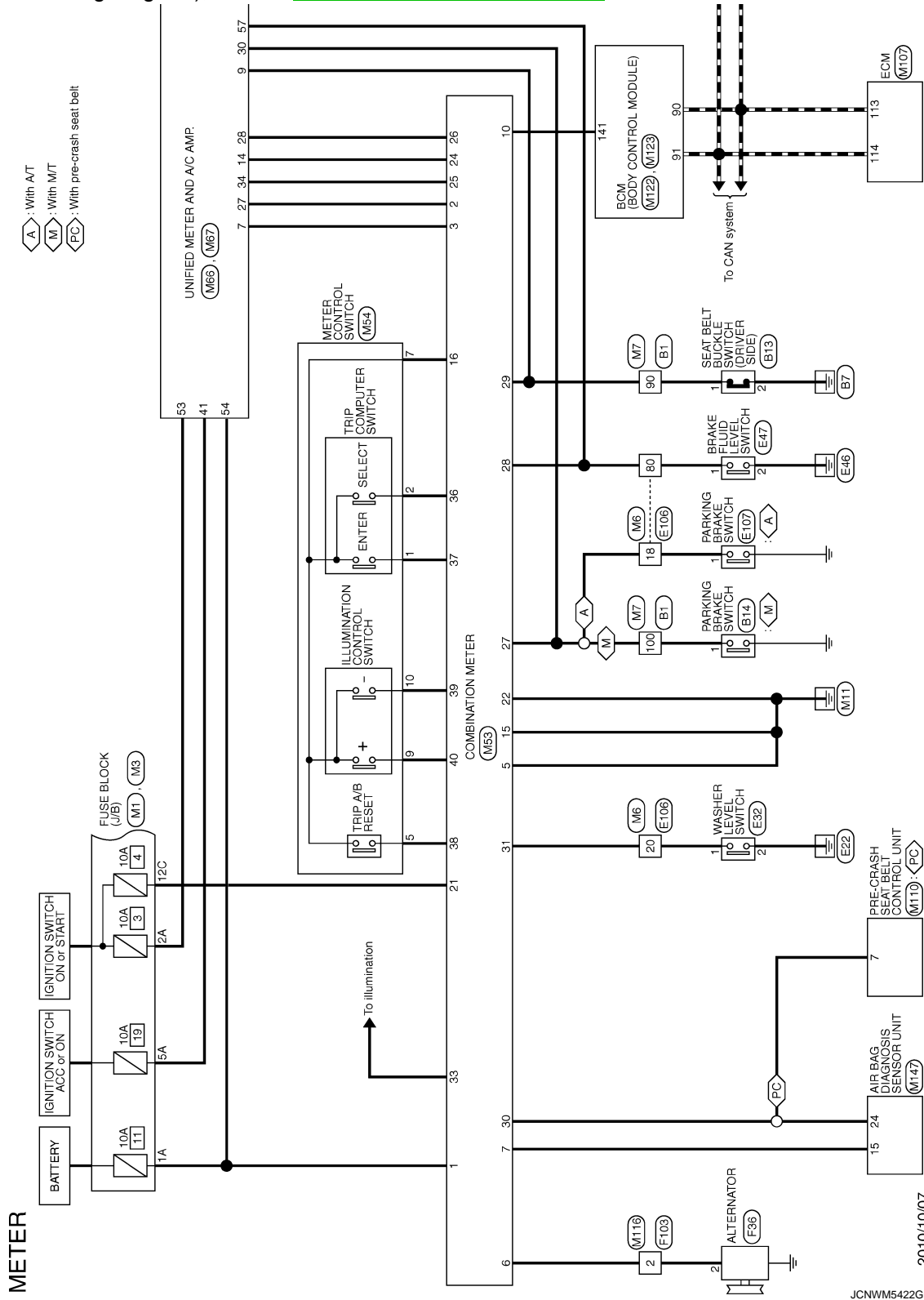
# COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - METER -

INFOID:000000007798588

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



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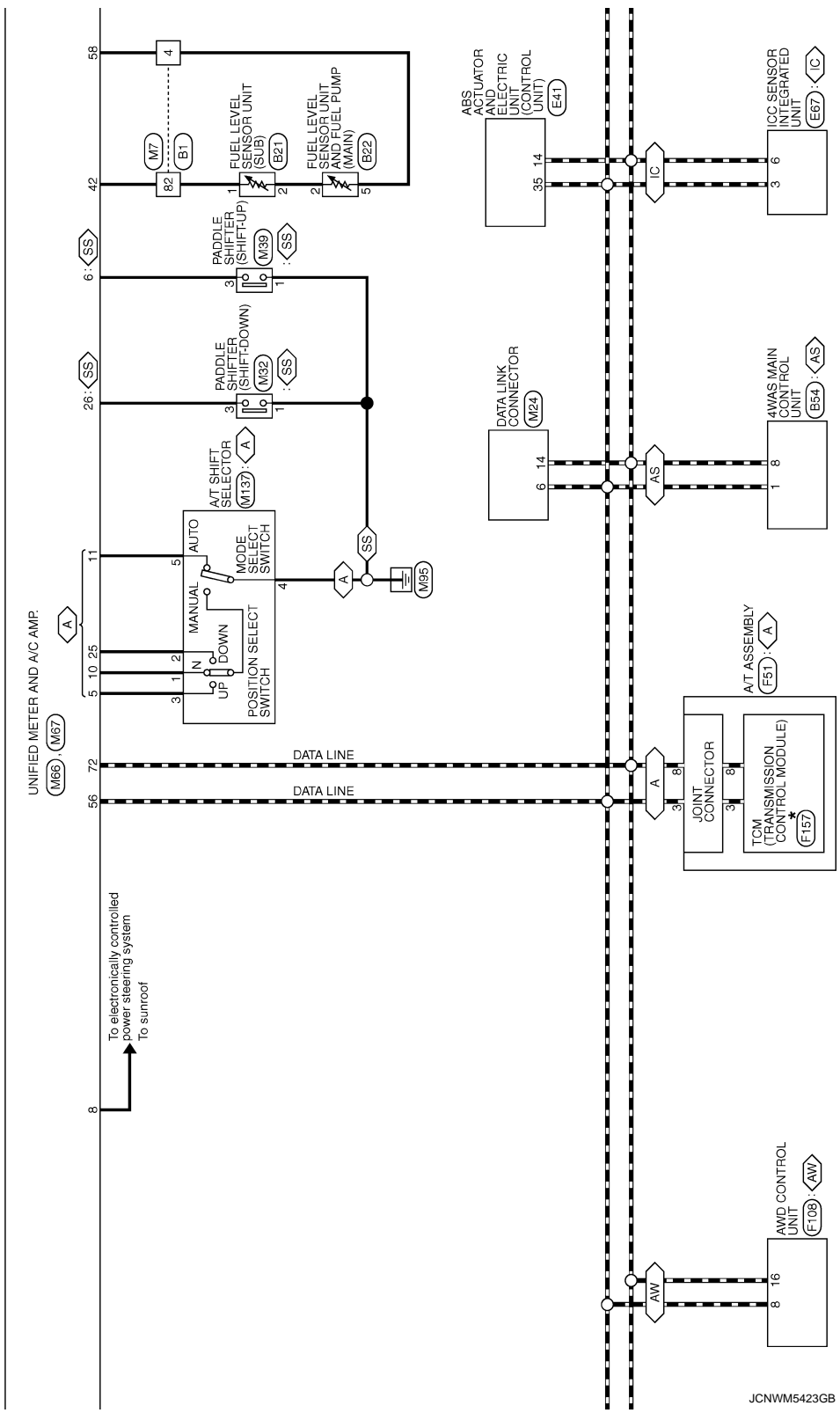
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# COMBINATION METER

< ECU DIAGNOSIS INFORMATION >

- : With 4MAS
- : AWD models
- : With ICC
- : With A/T
- : With paddle shifter

\* : This connector is not shown in "Harness Layout".

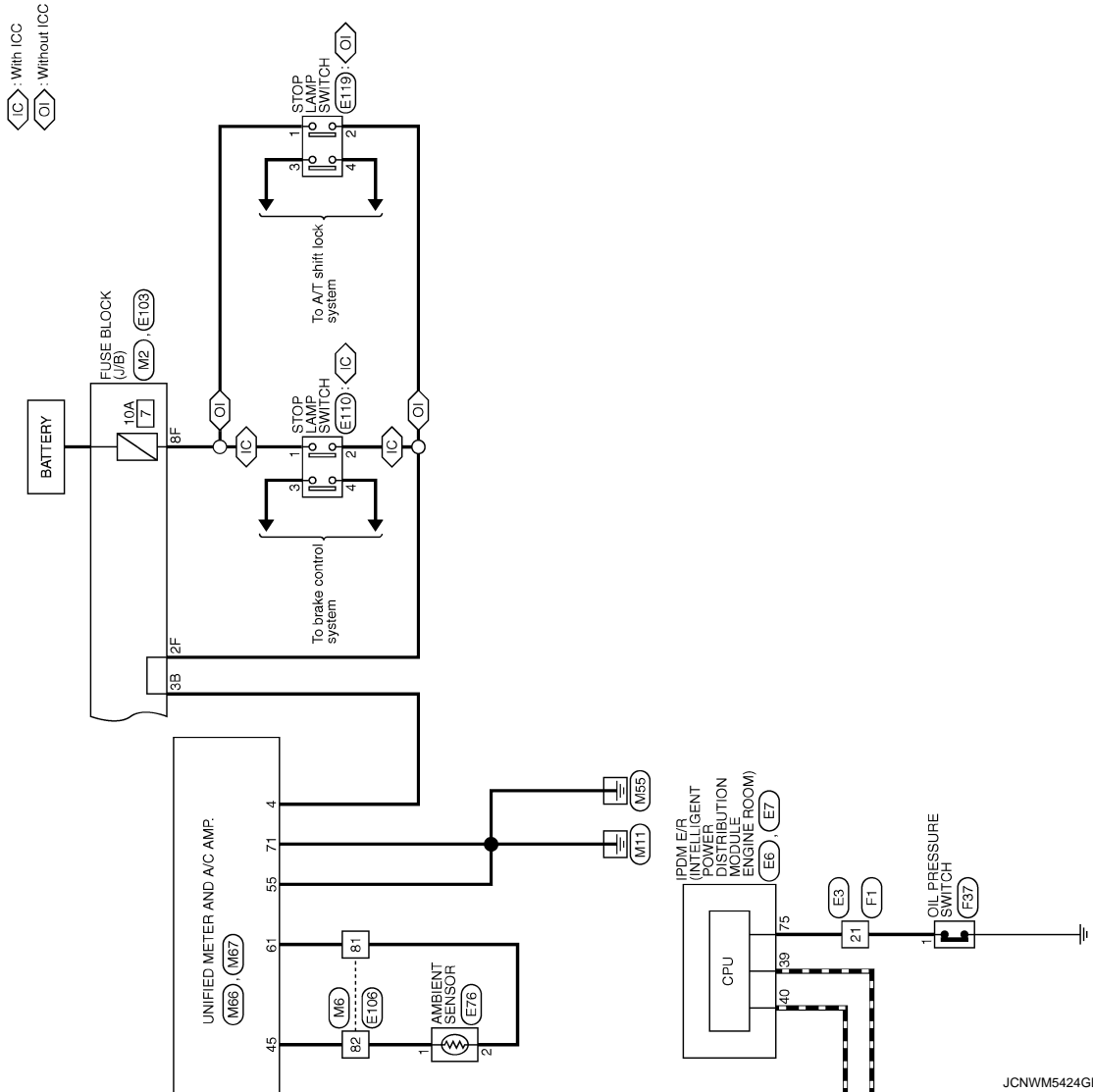


JCNWM5423GB



# COMBINATION METER

< ECU DIAGNOSIS INFORMATION >



## Fail-safe

### FAIL SAFE

Combination meter performs fail-safe operation when unified meter and A/C amp. communication is malfunction.

Solution for communication error between the unified meter and A/C amp. and combination meter.

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JCNWM5424GB

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# COMBINATION METER

## < ECU DIAGNOSIS INFORMATION >

| Function                      |                                | Specifications  |
|-------------------------------|--------------------------------|---|
| Speedometer                   |                                | Reset to zero by suspending communication.  |
| Tachometer                    |                                |   |
| Fuel gauge                    |                                |   |
| Water temperature gauge       |                                |   |
| Illumination control          |                                | When suspending communication, change to nighttime mode.  |
| Information display           | Door open warning              | The display turns off by suspending communication.  |
|                               | Parking brake release warning  |   |
|                               | Low tire pressure warning      |   |
|                               | Fuel filler cap warning        | <ul style="list-style-type: none"> <li>When reception time of an abnormal signal is 2 seconds or less, the last received datum is used for calculation to indicate the result.</li> <li>When reception time of an abnormal signal is more than two seconds, the last result calculated during normal condition is indicated.</li> </ul> |
|                               | Instantaneous fuel warning     |   |
|                               | Average fuel consumption       |   |
|                               | Average vehicle speed          |   |
| Travel distance               |                                |   |
| Buzzer                        |                                | The buzzer turns off by suspending communication.   |
| Warning lamp/indicator lamp   | ABS warning lamp               | The lamp turns on by suspending communication.  |
|                               | VDC warning lamp               |   |
|                               | Brake warning lamp             |   |
|                               | CRUISE warning lamp            |   |
|                               | Malfunction indicator lamp     |   |
|                               | High beam indicator            | The lamp turns off by suspending communication.   |
|                               | Turn signal indicator lamp     |   |
|                               | Oil pressure warning lamp      |   |
|                               | A/T CHECK warning lamp         |   |
|                               | VDC OFF indicator lamp         |   |
|                               | Low tire pressure warning lamp |   |
|                               | Key warning lamp               |   |
|                               | AFS OFF indicator lamp         |   |
|                               | 4WAS warning lamp              |   |
|                               | Master warning lamp            |   |
| AWD warning lamp              |                                |   |
| Tail lamp indicator lamp      |                                |   |
| Front fog lamp indicator lamp |                                |   |

## DTC Index

INFOID:000000007798590

Refer to [MWI-85, "DTC Index"](#).

# INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

## SYMPTOM DIAGNOSIS

### INTERIOR LIGHTING SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000007473696

**CAUTION:**

Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

| Symptom   | Possible cause   | Inspection item  |
|---|--|--|
| All the following lamps do not turn ON.<br>• Map lamp<br>• Trunk room lamp<br>• Step lamp<br>• Vanity mirror lamp   | <ul style="list-style-type: none"> <li>• Harness between BCM and each interior room lamp</li> <li>• BCM</li> </ul>   | Interior room lamp power supply circuit<br>Refer to <a href="#">INL-21</a> .             |
| <ul style="list-style-type: none"> <li>• Interior room lamp does not turn ON even though the door is open.<br/>(It turns ON when turning the interior room lamp ON.)</li> <li>• Interior room lamp does not turn OFF even though the door is closed.</li> </ul> | <ul style="list-style-type: none"> <li>• Harness between BCM and each door switch</li> <li>• Harness between BCM and each interior room lamp</li> <li>• BCM</li> </ul> | Door switch circuit<br>Refer to <a href="#">DLK-62</a> .                                 |
|   |  | Interior room lamp control circuit<br>Refer to <a href="#">INL-23</a> .                  |
| Interior room lamp timer does not activate.<br>(It turns ON/ OFF when the door opens/closes.)   | —  | Check the interior room lamp setting.<br>Refer to <a href="#">INL-17</a> .               |
| Step lamps (driver side and passenger side) do not turn ON.<br>(Map lamp is turned ON.)   | <ul style="list-style-type: none"> <li>• Harness between BCM and each step lamp</li> <li>• BCM</li> </ul>  | Step lamp circuit<br>Refer to <a href="#">INL-25</a> .                                   |
| Step lamps (driver side and passenger side) do not turn OFF.<br>(Map lamp is turned OFF.)   |  |  |
| <ul style="list-style-type: none"> <li>• Trunk room lamp does not turn ON.<br/>(Bulb is normal.)</li> <li>• Trunk room lamp does not turn OFF.</li> </ul>   | <ul style="list-style-type: none"> <li>• Harness between BCM and trunk room lamp switch</li> <li>• Harness between BCM and trunk room lamp</li> <li>• BCM</li> </ul>   | Trunk room lamp switch circuit<br>Refer to <a href="#">DLK-71</a> .                      |
|   |  | Trunk room lamp circuit<br>Refer to <a href="#">INL-27</a> .                             |
| Push-button ignition switch illumination does not illuminate.   | <ul style="list-style-type: none"> <li>• Harness between BCM and push-button ignition switch</li> <li>• BCM</li> </ul>   | Push-button ignition switch illumination circuit<br>Refer to <a href="#">INL-29</a> .    |
| Interior room lamp battery saver does not activate.   | —  | Check the interior room lamp battery saver setting.<br>Refer to <a href="#">INL-18</a> . |

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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 "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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.

#### Precaution for Battery Service

INFOID:000000007796094

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

# MAP LAMP

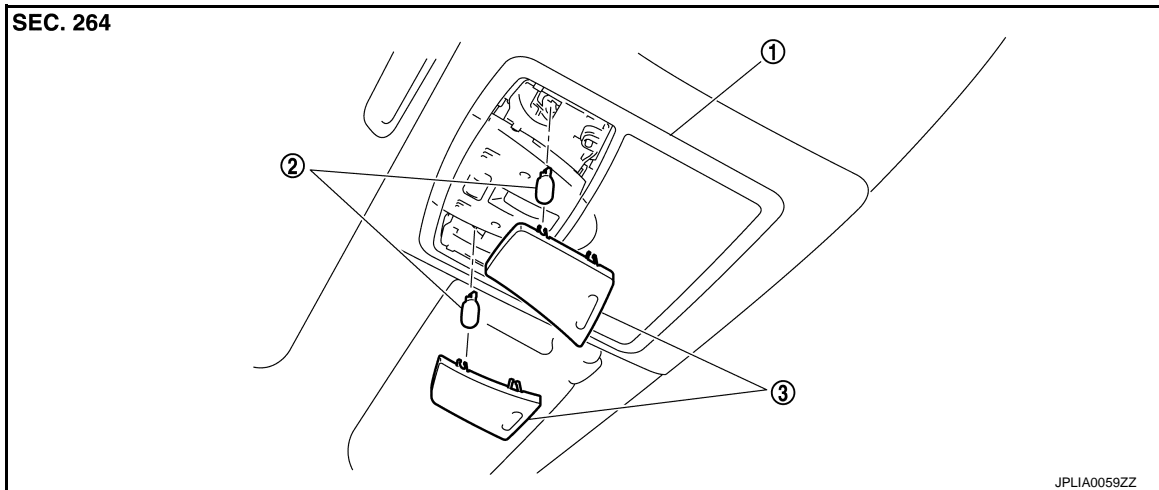
< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### MAP LAMP

Exploded View

INFOID:0000000007473699



1. Map lamp assembly

2. Bulb

3. Lens

### Removal and Installation

INFOID:0000000007473700

Refer to [INL-77. "Exploded View"](#) for the map lamp assembly installation/removal.

### Replacement

INFOID:0000000007473701

#### **CAUTION:**

- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

### MAP LAMP BULB

1. Insert any appropriate tool into the gap between the lens. Remove the lens.
2. Remove the bulb.

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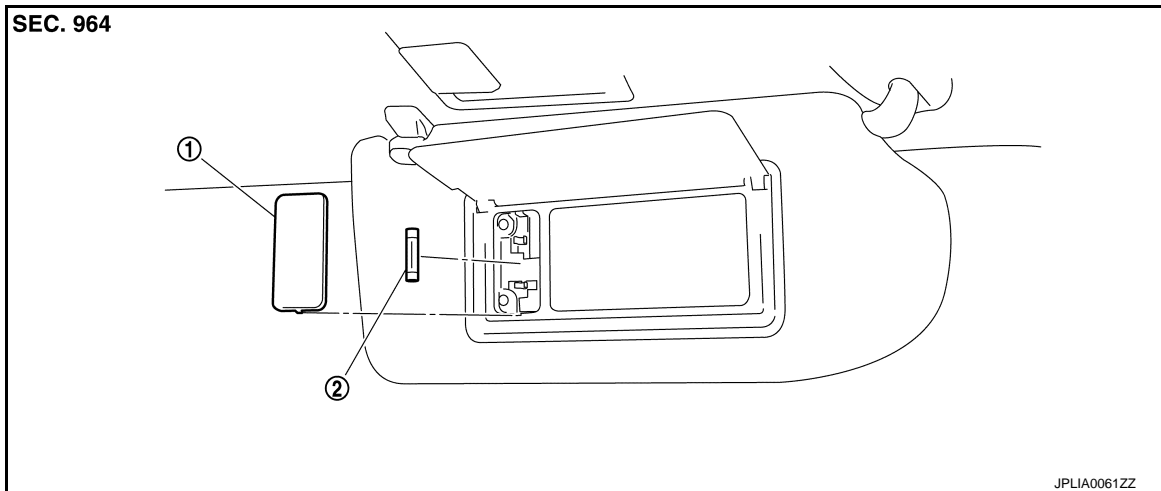
# VANITY MIRROR LAMP

< REMOVAL AND INSTALLATION >

## VANITY MIRROR LAMP

Exploded View

INFOID:000000007473702



1. Lens

2. Bulb

## Replacement

INFOID:000000007473703

### **CAUTION:**

- Disconnect the battery negative terminal or remove the fuse.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

### VANITY MIRROR LAMP BULB

1. Insert any appropriate tool into the gap between the lens. Remove the lens.
2. Remove the bulb.

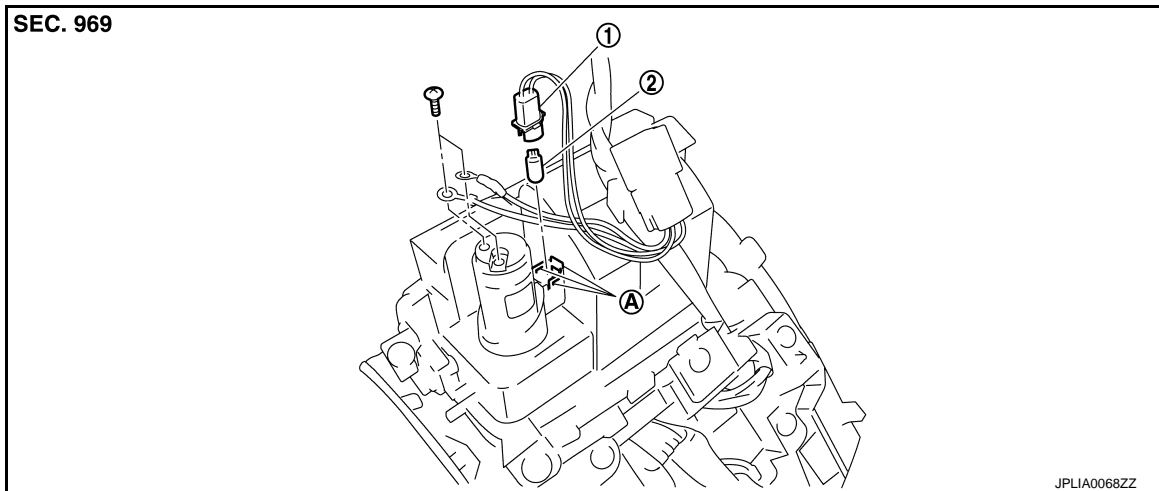
# CIGARETTE LIGHTER ILLUMINATION

< REMOVAL AND INSTALLATION >

## CIGARETTE LIGHTER ILLUMINATION

Exploded View

INFOID:000000007473704



1. Bulb socket
  2. Bulb  
(Share with the ashtray illumination)
- A Hook

## Replacement

INFOID:000000007473705

### CAUTION:

- Disconnect the battery negative terminal or remove the fuse.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

## CIGARETTE LIGHTER ILLUMINATION BULB

1. Remove the console finisher.  
Refer to [IP-35, "A/T MODELS : Exploded View"](#) (A/T models).  
Refer to [IP-40, "M/T MODELS : Exploded View"](#) (M/T models).
2. Insert any appropriate tool into the gap of the bulb socket. Widen the hook and remove the bulb socket.
3. Remove the bulb.

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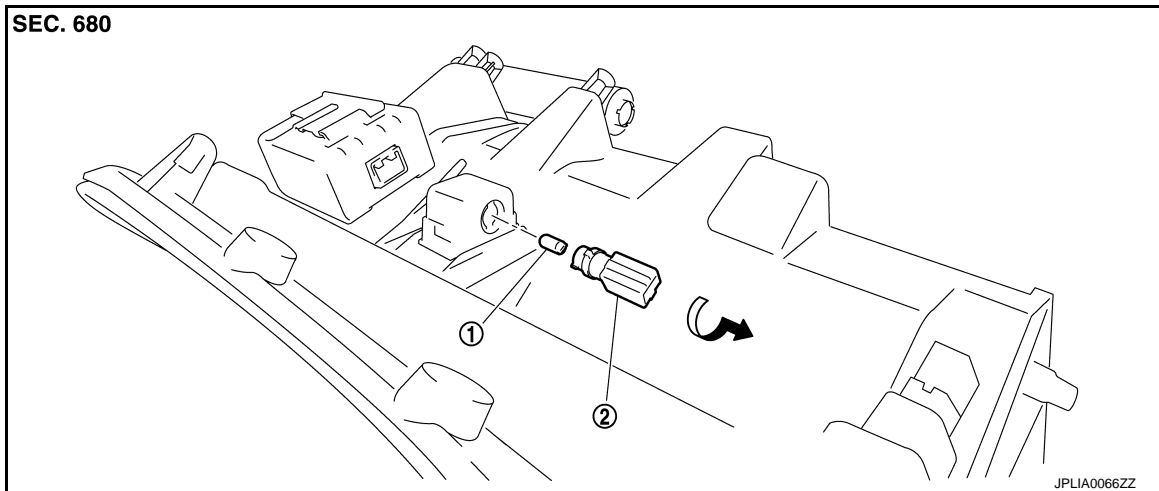
# GLOVE BOX LAMP

< REMOVAL AND INSTALLATION >

## GLOVE BOX LAMP

Exploded View

INFOID:000000007473706



1. Bulb

2. Bulb socket

## Replacement

INFOID:000000007473707

### CAUTION:

- Disconnect the battery negative terminal or remove the fuse.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

## GLOVE BOX LAMP BULB

1. Remove the instrument assist lower panel.  
Refer to [JP-35, "A/T MODELS : Exploded View"](#) (A/T models).  
Refer to [JP-40, "M/T MODELS : Exploded View"](#) (M/T models).
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb.



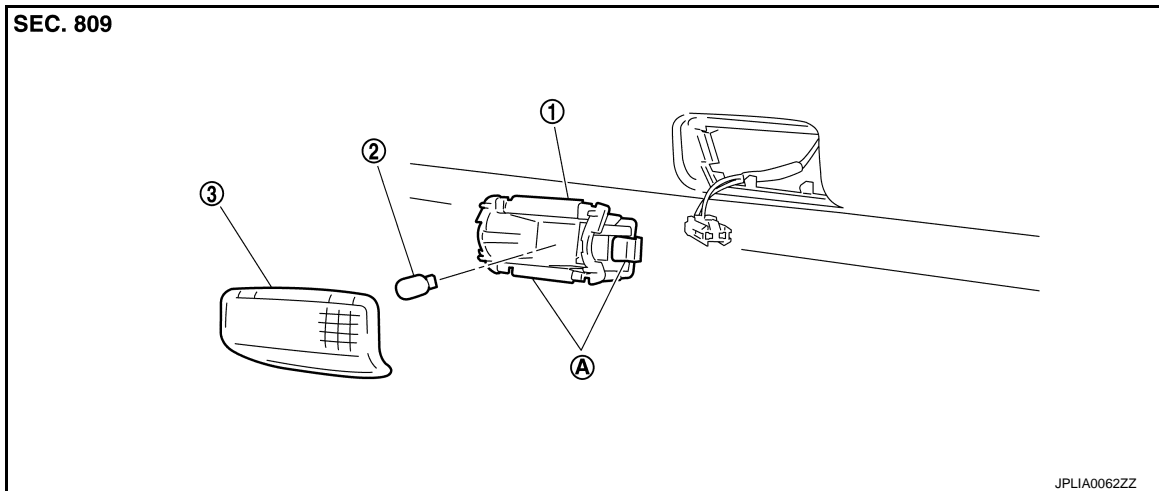
# STEP LAMP

< REMOVAL AND INSTALLATION >

## STEP LAMP

### Exploded View

INFOID:000000007473708



1. Step lamp case  
2. Bulb  
3. Lens  
A Metal clip

### Removal and Installation

INFOID:000000007473709

#### **CAUTION:**

**Disconnect the battery negative terminal or remove the fuse.**

#### REMOVAL

1. Insert any appropriate tool into the gap between the step lamp and the door trim. Remove the step lamp.
2. Disconnect the connector.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

INFOID:000000007473710

#### **CAUTION:**

- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

#### STEP LAMP BULB

1. Remove the step lamp. Refer to [INL-81, "Exploded View"](#).
2. Remove the lens.
3. Remove the bulb.

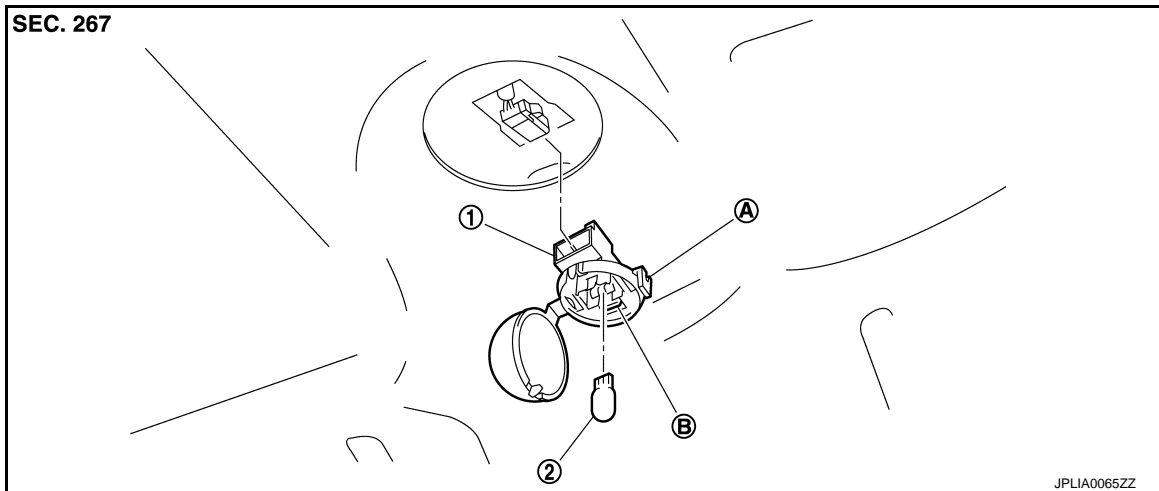
# TRUNK ROOM LAMP

< REMOVAL AND INSTALLATION >

## TRUNK ROOM LAMP

Exploded View

INFOID:000000007473711



- |                          |                                 |
|--------------------------|---------------------------------|
| 1. Trunk room lamp       | 2. Bulb                         |
| A Pawl (for lens fixing) | B. Pawl (for case installation) |

## Removal and Installation

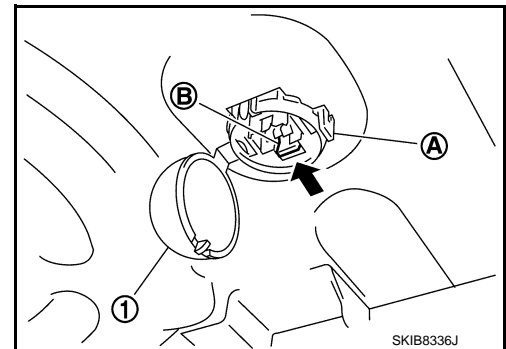
INFOID:000000007473712

### CAUTION:

**Disconnect the battery negative terminal or remove the fuse.**

### REMOVAL

1. Widen the pawl (A). Open the lens (1).
2. Remove the bulb.
3. Pressing the pawl (B) to the arrow direction (←). Pull out the trunk room lamp.
4. Disconnect the connector.
5. Remove the trunk room lamp.



### INSTALLATION

Install in the reverse order of removal.

## Replacement

INFOID:000000007473713

### CAUTION:

- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

## TRUNK ROOM LAMP BULB

1. Widen the lens pawl. Open the lens.
2. Remove the bulb.

# SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Bulb Specifications

INFOID:000000007473714

| Item  | Type  | Wattage (W) |
|---|-------|-------------|
| Push-button ignition switch illumination  | LED   | —           |
| Map lamp  | Wedge | 8           |
| Center console indirect illumination<br>(Integrated into the map lamp assembly) | LED   | —           |
| Vanity mirror lamp  | —     | 2           |
| Glove box lamp  | —     | 1.4         |
| Cigarette lighter illumination<br>(Shared with ash tray illumination)           | —     | 1.4         |
| Step lamp   | Wedge | 8           |
| Trunk room lamp   | Wedge | 3.4         |

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