

# SECTION **INL**

## INTERIOR LIGHTING SYSTEM

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
INL  
M  
N  
O  
P

### CONTENTS

<p><b>PRECAUTION</b> ..... 3</p> <p><b>PRECAUTIONS</b> ..... 3</p> <p style="padding-left: 20px;">Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....3</p> <p><b>SYSTEM DESCRIPTION</b> ..... 4</p> <p><b>COMPONENT PARTS</b> ..... 4</p> <p style="padding-left: 20px;">Component Parts Location .....4</p> <p style="padding-left: 20px;">Bulb Specifications .....5</p> <p><b>SYSTEM</b> ..... 6</p> <p><b>INTERIOR ROOM LAMP CONTROL SYSTEM</b> .....6</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP CONTROL SYSTEM : System Description .....6</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP CONTROL SYSTEM : Circuit Diagram .....9</p> <p><b>INTERIOR ROOM LAMP BATTERY SAVER SYSTEM</b> .....10</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description ..... 11</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : Circuit Diagram ..... 13</p> <p><b>ILLUMINATION CONTROL SYSTEM</b> .....14</p> <p style="padding-left: 20px;">ILLUMINATION CONTROL SYSTEM : System Description ..... 15</p> <p style="padding-left: 20px;">ILLUMINATION CONTROL SYSTEM : Circuit Diagram ..... 16</p> <p><b>AUTO LIGHT ADJUSTMENT SYSTEM</b> .....16</p> <p style="padding-left: 20px;">AUTO LIGHT ADJUSTMENT SYSTEM : System Description ..... 17</p> <p style="padding-left: 20px;">AUTO LIGHT ADJUSTMENT SYSTEM : Circuit Diagram ..... 18</p> <p><b>DIAGNOSIS SYSTEM (BCM)</b> .....19</p> <p><b>COMMON ITEM</b> .....19</p>	<p style="padding-left: 20px;">COMMON ITEM : CONSULT Function (BCM - COMMON ITEM) .....19</p> <p><b>INT LAMP</b> .....20</p> <p style="padding-left: 20px;">INT LAMP : CONSULT Function (BCM - INT LAMP) .....21</p> <p><b>BATTERY SAVER</b> .....22</p> <p style="padding-left: 20px;">BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER) .....22</p> <p><b>ECU DIAGNOSIS INFORMATION</b> .....24</p> <p><b>BCM</b> .....24</p> <p style="padding-left: 20px;">List of ECU Reference .....24</p> <p><b>WIRING DIAGRAM</b> .....25</p> <p><b>INTERIOR ROOM LAMP CONTROL SYSTEM</b> .....25</p> <p style="padding-left: 20px;">Wiring Diagram .....25</p> <p><b>ILLUMINATION</b> .....28</p> <p style="padding-left: 20px;">Wiring Diagram .....28</p> <p><b>BASIC INSPECTION</b> .....33</p> <p><b>DIAGNOSIS AND REPAIR WORKFLOW</b> .....33</p> <p style="padding-left: 20px;">Work Flow .....33</p> <p><b>DTC/CIRCUIT DIAGNOSIS</b> .....36</p> <p><b>INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT</b> .....36</p> <p style="padding-left: 20px;">Component Function Check .....36</p> <p style="padding-left: 20px;">Diagnosis Procedure .....36</p> <p><b>INTERIOR ROOM LAMP CONTROL CIRCUIT</b> .....38</p> <p style="padding-left: 20px;">Component Function Check .....38</p> <p style="padding-left: 20px;">Diagnosis Procedure .....38</p> <p><b>LUGGAGE ROOM LAMP CIRCUIT</b> .....40</p>
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Description .....	40	<b>FOOT LAMP .....</b>	<b>52</b>
Diagnosis Procedure .....	40	<b>DRIVER SIDE .....</b>	<b>52</b>
<b>STEP LAMP CIRCUIT .....</b>	<b>42</b>	DRIVER SIDE : Exploded View .....	52
Component Function Check .....	42	DRIVER SIDE : Replacement .....	52
Diagnosis Procedure .....	42	<b>PASSENGER SIDE .....</b>	<b>53</b>
<b>PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT .....</b>	<b>44</b>	PASSENGER SIDE : Exploded View .....	53
Component Function Check .....	44	PASSENGER SIDE : Replacement .....	53
Diagnosis Procedure .....	44	<b>STEP LAMP .....</b>	<b>55</b>
<b>SYMPTOM DIAGNOSIS .....</b>	<b>46</b>	Exploded View .....	55
<b>INTERIOR LIGHTING SYSTEM SYMPTOMS...</b>	<b>46</b>	Removal and Installation .....	55
Symptom Table .....	46	Replacement .....	55
<b>REMOVAL AND INSTALLATION .....</b>	<b>47</b>	<b>PERSONAL LAMP .....</b>	<b>57</b>
<b>MAP LAMP .....</b>	<b>47</b>	Exploded View .....	57
Exploded View .....	47	Removal and Installation .....	57
Removal and Installation .....	47	Replacement .....	58
Replacement .....	47	<b>LUGGAGE ROOM LAMP .....</b>	<b>59</b>
<b>VANITY MIRROR LAMP .....</b>	<b>49</b>	Exploded View .....	59
Exploded View .....	49	Removal and Installation .....	59
Replacement .....	49	Replacement .....	59
<b>GLOVE BOX LAMP .....</b>	<b>50</b>	<b>SERVICE DATA AND SPECIFICATIONS (SDS) .....</b>	<b>61</b>
Exploded View .....	50	<b>SERVICE DATA AND SPECIFICATIONS (SDS) .....</b>	<b>61</b>
Replacement .....	50	Bulb Specifications .....	61

# PRECAUTIONS

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## 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.

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# COMPONENT PARTS

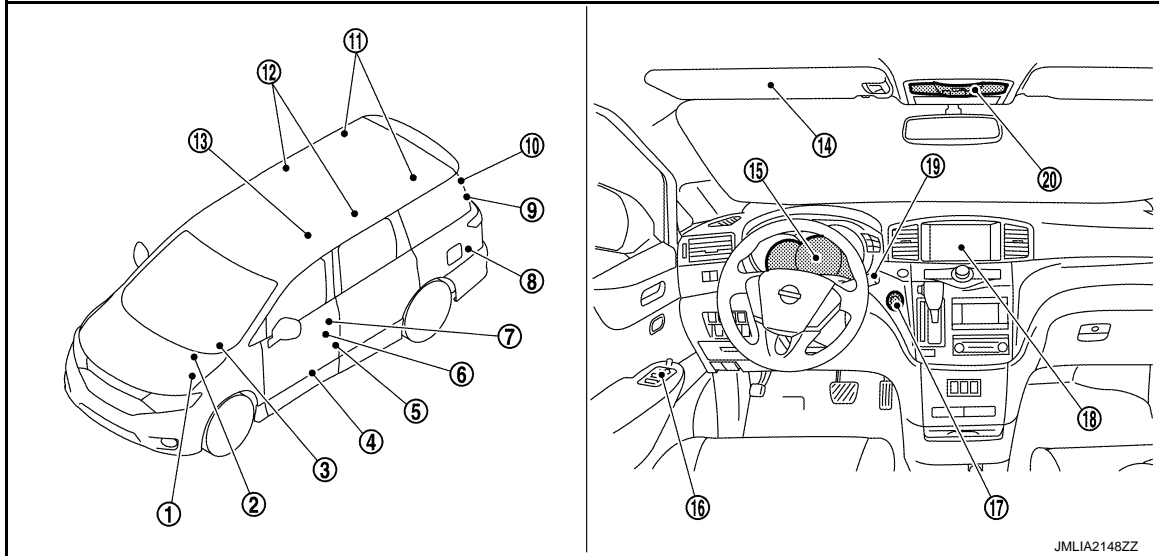
< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### COMPONENT PARTS

#### Component Parts Location

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No.	Part	Description
1.	IPDM E/R	Controls the integrated relay according to the request signal from BCM (via CAN communication). Refer to <a href="#">PCS-4, "IPDM E/R : Component Parts Location"</a> for detailed installation location.
2.	BCM	<ul style="list-style-type: none"> <li>Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamps ON/OFF.</li> <li>Operates the interior room lamp battery saver depending on the vehicle condition to cut the interior room lamp power supply.</li> <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).</li> </ul> Refer to <a href="#">BCS-4, "BODY CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.
3.	Optical sensor	Refer to <a href="#">EXL-7, "Component Parts Location"</a> .
4.	Step lamp	Refer to <a href="#">INL-5, "Bulb Specifications"</a> .
5.	Door switch	Refer to <a href="#">DLK-18, "DOOR LOCK SYSTEM : Component Parts Location"</a> .
6.	Front door lock assembly (driver side) (door key cylinder switch)	Refer to <a href="#">DLK-18, "DOOR LOCK SYSTEM : Component Parts Location"</a> .
7.	Door request switch	Refer to <a href="#">DLK-18, "DOOR LOCK SYSTEM : Component Parts Location"</a> .
8.	Luggage room lamp	Refer to <a href="#">INL-5, "Bulb Specifications"</a> .
9.	Automatic back door close switch	Refer to <a href="#">DLK-22, "AUTOMATIC BACK DOOR SYSTEM : Component Parts Location"</a> .
10.	Back door lock assembly (back door switch)	Refer to <a href="#">DLK-18, "DOOR LOCK SYSTEM : Component Parts Location"</a> .
11.	Third personal lamp	Refer to <a href="#">INL-5, "Bulb Specifications"</a> .
12.	Second personal lamp	Refer to <a href="#">INL-5, "Bulb Specifications"</a> .
13.	Remote keyless entry receiver	Refer to <a href="#">DLK-18, "DOOR LOCK SYSTEM : Component Parts Location"</a> .
14.	Vanity mirror lamp	Refer to <a href="#">INL-5, "Bulb Specifications"</a> .
15.	Combination meter	Refer to <a href="#">MWI-6, "METER SYSTEM : Component Parts Location"</a> .

# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

No.	Part	Description
16.	Door lock and unlock switch	Refer to <a href="#">DLK-18, "DOOR LOCK SYSTEM : Component Parts Location"</a> .
17.	Push-button ignition switch	Refer to <a href="#">DLK-22, "AUTOMATIC BACK DOOR SYSTEM : Component Parts Location"</a> .
18.	AV control unit	Receives the dimmer signal from BCM via CAN communication. Refer to <a href="#">AV-14, "Component Parts Location"</a> for detailed installation location.
19.	Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-8, "COMBINATION SWITCH READING SYSTEM : System Description"</a> .
20.	Map lamp	Refer to <a href="#">INL-5, "Bulb Specifications"</a> .

## Bulb Specifications

INFOID:000000007496031

Item	Type	Wattage (W)
Map lamp	Wedge	8
Total coordination of illumination	LED	—
Vanity mirror lamp	—	1.2
Push-button ignition switch illumination	LED	—
Glove box lamp	—	1.4
Foot lamp (driver side)	—	1.4
Foot lamp (passenger side)	—	1.4
Step lamp	Wedge	3.4
Personal lamp	—	8
Luggage room lamp	—	8

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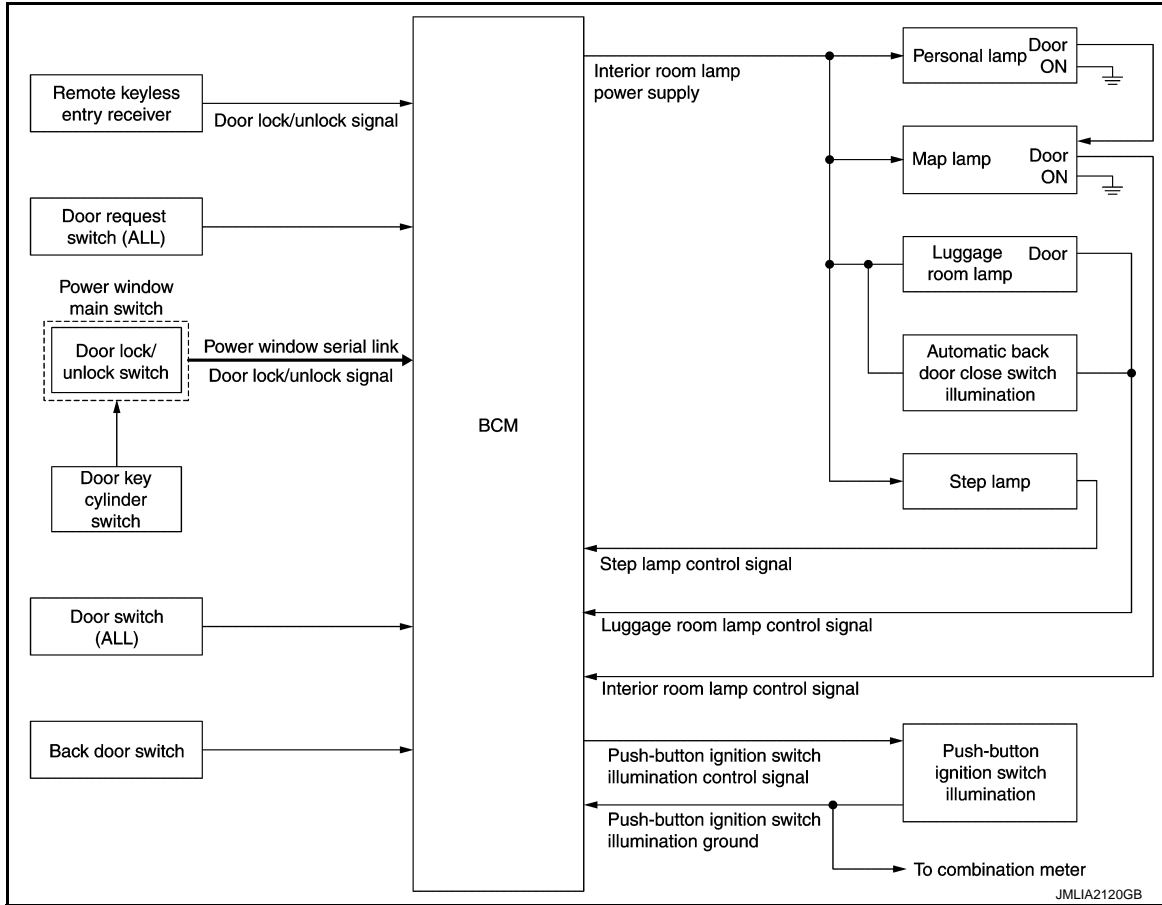
## SYSTEM

### INTERIOR ROOM LAMP CONTROL SYSTEM

### INTERIOR ROOM LAMP CONTROL SYSTEM : System Description

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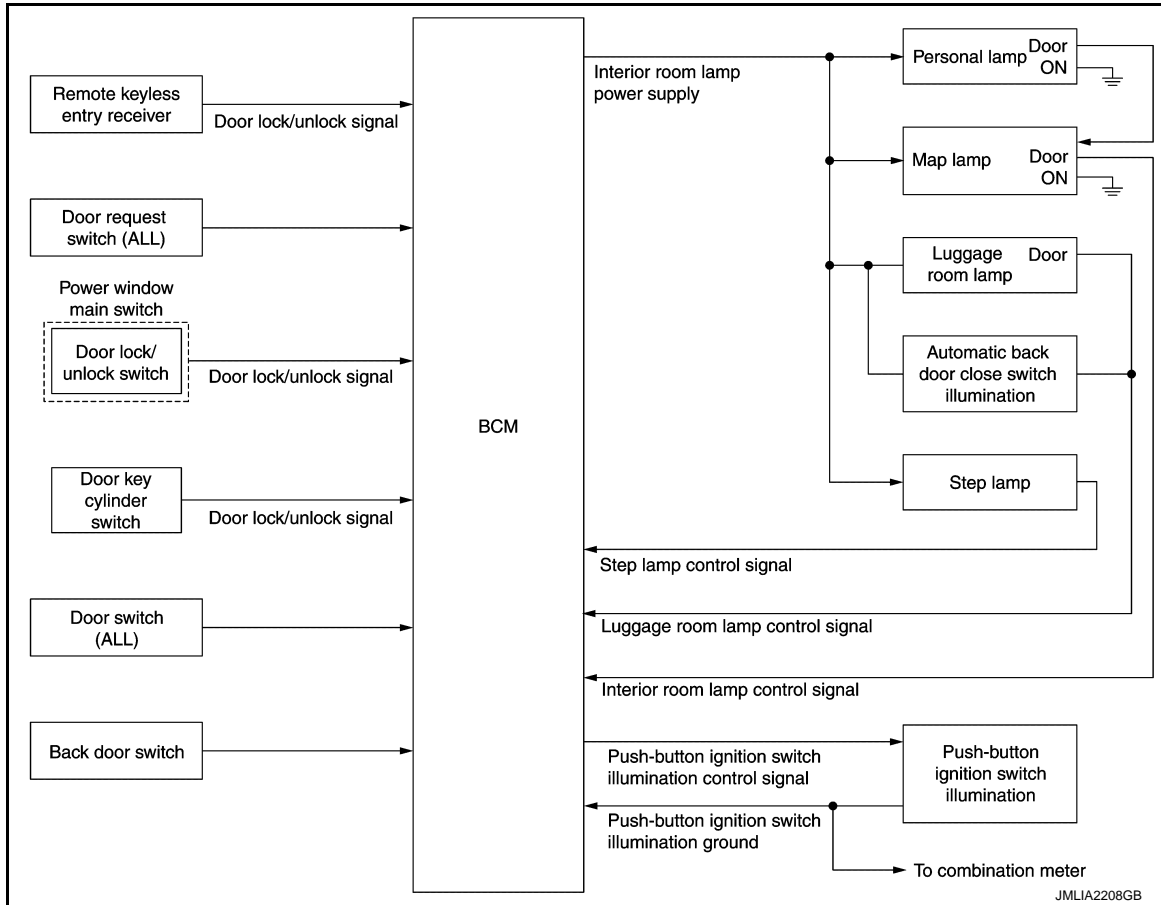
### SYSTEM DIAGRAM (WITH AUTOMATIC SLIDE DOOR)



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### SYSTEM DIAGRAM (WITHOUT AUTOMATIC SLIDE DOOR)

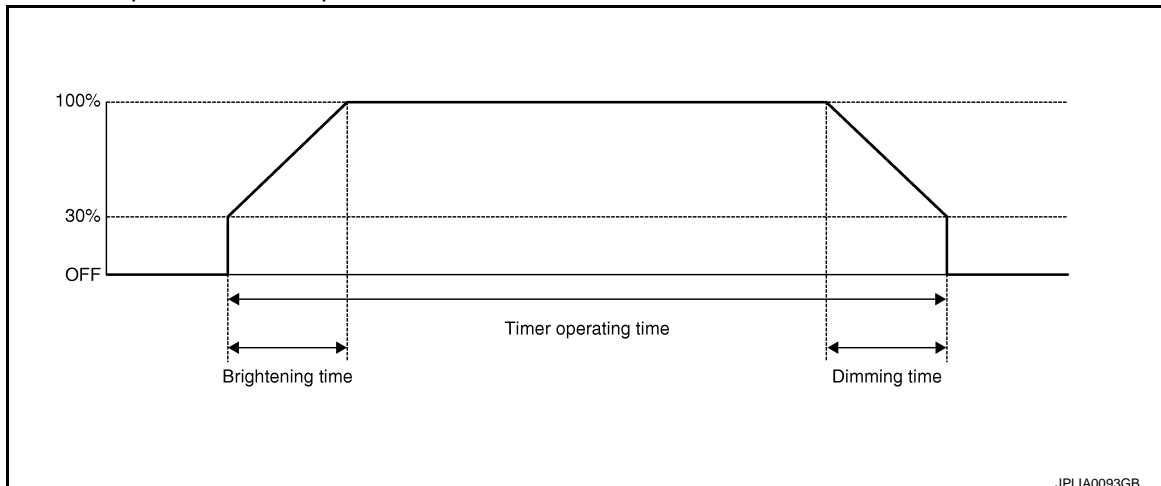


### OUTLINE

- Interior room lamps\* are controlled by interior room lamp timer control function of BCM.
- \*: Map lamp and personal lamp (when map lamp switch and personal lamp switch are in DOOR position).
- Step lamp is controlled by step lamp control function of BCM.
- Luggage room lamp and automatic back door close switch illumination are controlled by luggage room lamp control function of BCM.
- Push-button ignition switch illumination is controlled by the push-button ignition switch illumination control function of BCM and combination meter.

### INTERIOR ROOM LAMP TIMER CONTROL

#### Interior Room Lamp Timer Basic Operation



- The interior room lamp turns ON and OFF (gradual brightening and dimming) by the interior room lamp timer.
- BCM judges the vehicle condition with the following items. It activates the interior room timer.

# SYSTEM

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- Ignition switch status
- Door switch signal (except back door)
- Door lock/unlock signal (remote keyless entry receiver, each door request switch, door key cylinder switch, door lock/unlock switch)

### **NOTE:**

Each function of interior room lamp timer can be set by CONSULT. Refer to [INL-21, "INT LAMP : CONSULT Function \(BCM - INT LAMP\)"](#).

### Interior Room Lamp ON Operation

- BCM always turns the interior room lamp ON when any door opens excepting back door.
- BCM activates the interior room 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 excepting back door.
  - Ignition switch is turned ON → OFF.
  - Any door unlock signal is detected when all doors close excepting back door with ignition switch OFF.

### **NOTE:**

The timer restarts if new condition is input during the timer operating time.

### Interior Room Lamp OFF Operation

BCM stops the timer and turns interior room lamp OFF, when any of the following conditions is satisfied.

- The interior room lamp timer operating time is expired with all doors closed excepting back door.
- Ignition switch position is other than OFF with all doors close excepting back door.
- Any door lock signal is detected with all doors close excepting back door.

## LUGGAGE ROOM LAMP CONTROL

BCM controls the luggage room lamp and automatic back door close switch illumination (ground-side) to turn ON with back door switch ON.

- When luggage room lamp switch is in the DOOR position and back door is opened, luggage room lamp turns ON.
- When back door is opened, automatic back door close switch illumination turn ON.

## STEP LAMP CONTROL

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

## PUSH-BUTTON IGNITION SWITCH ILLUMINATION CONTROL

### Push-button Ignition Switch Illumination Basic Operation

BCM provides the power supply to turn the push-button ignition switch illumination ON.

### Push-button Ignition Switch Illumination ON Operation

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

- Ignition switch ON
- Any of the following conditions with ignition switch OFF/ACC
  - Engine start permission is entered
  - Driver side door is LOCK → UNLOCK
  - Driver side 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.
- Any of the following conditions with ignition switch OFF.
  - The push-button ignition switch illumination ON conditions do not change (15 seconds after the ignition switch OFF)
  - Driver side door is UNLOCK → LOCK

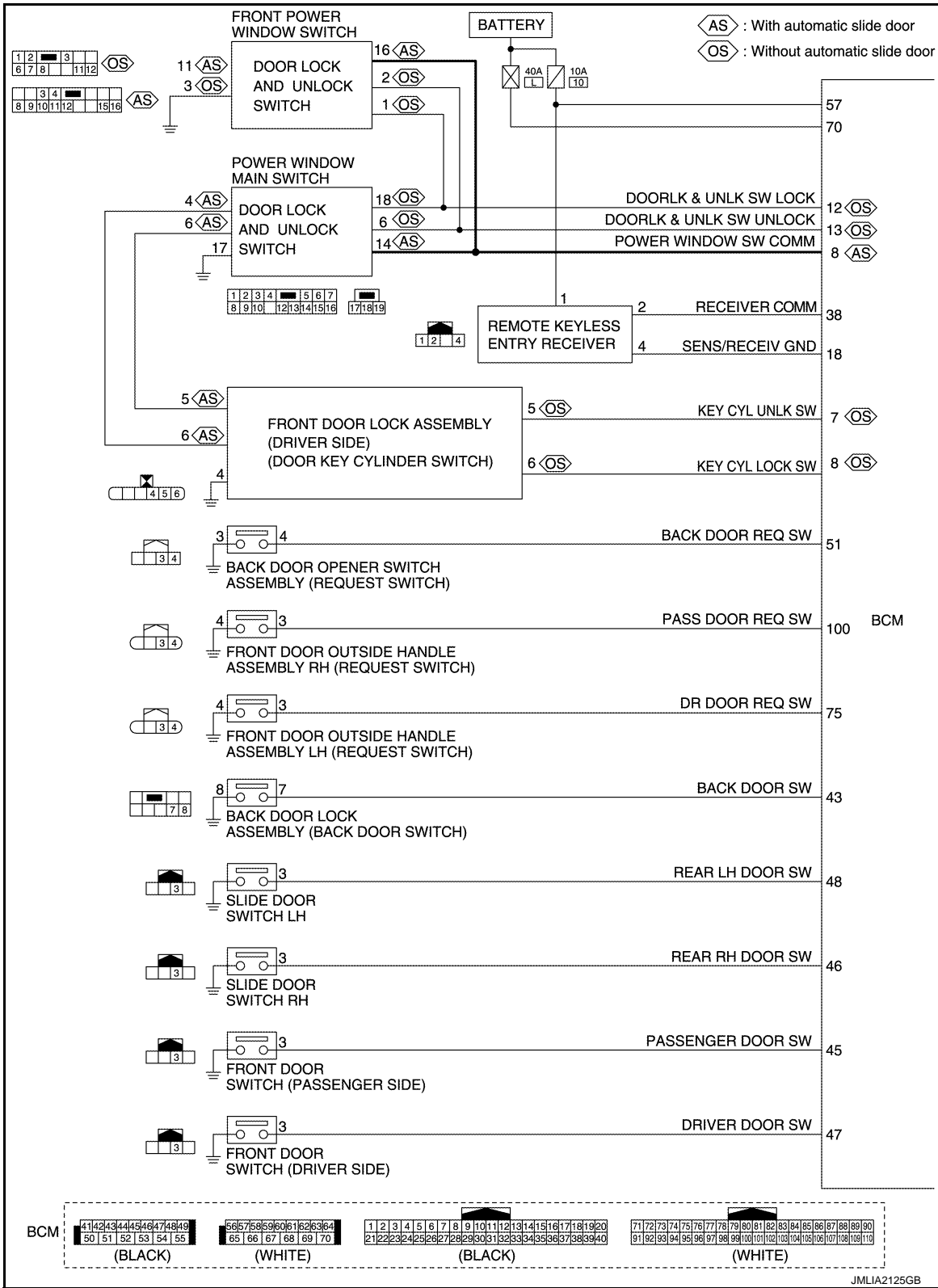


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## INTERIOR ROOM LAMP CONTROL SYSTEM : Circuit Diagram

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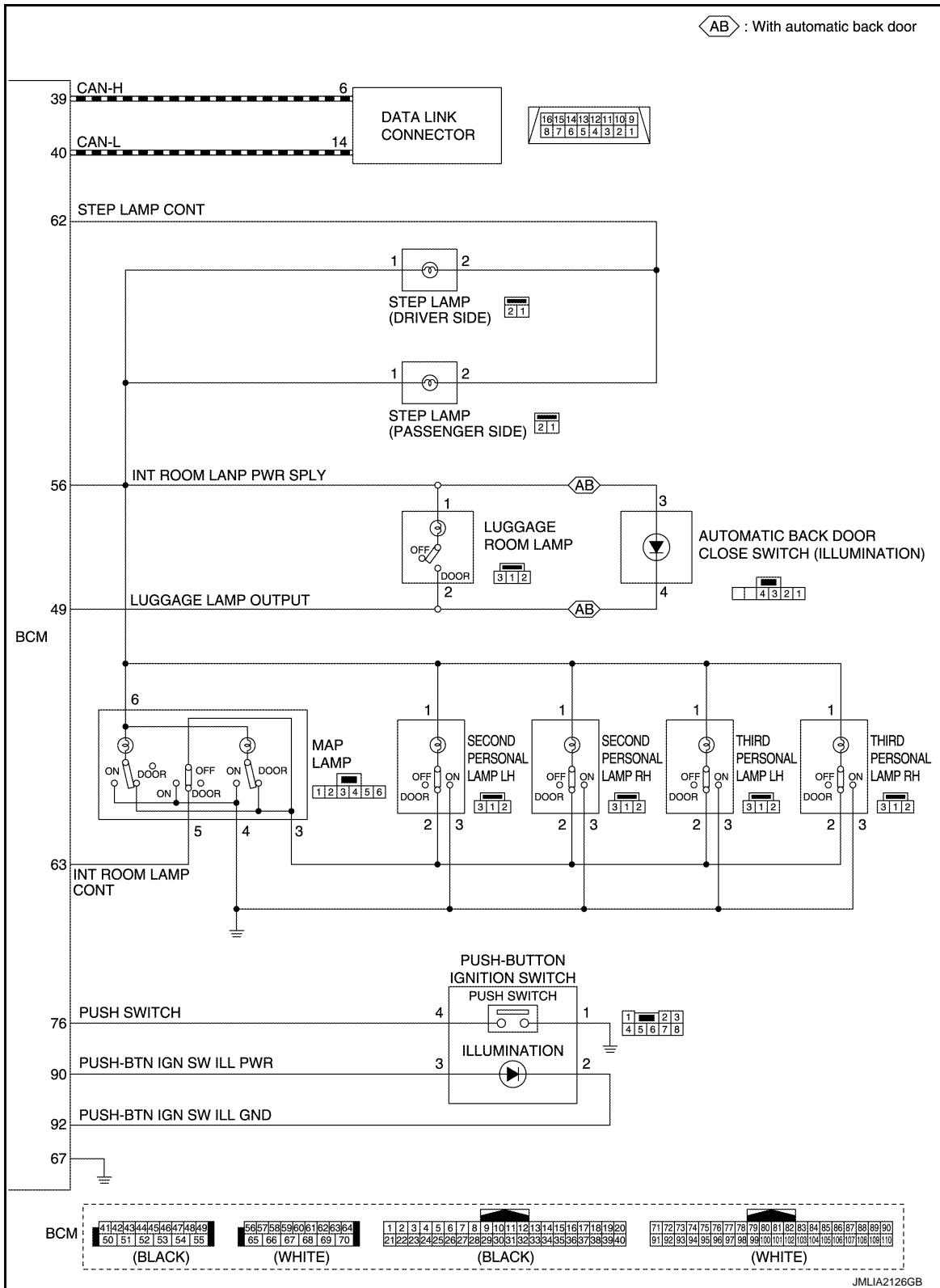


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## INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

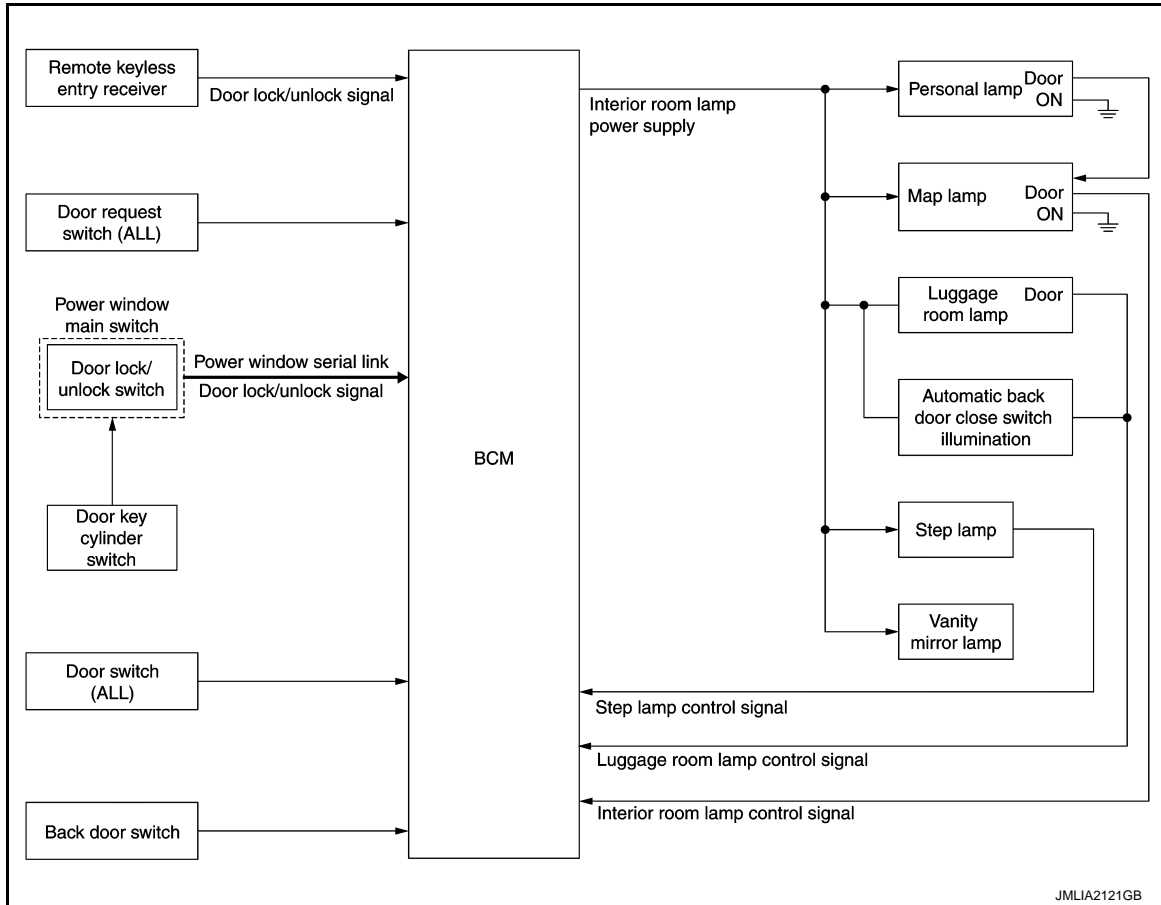
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## INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description

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### SYSTEM DIAGRAM (WITH AUTOMATIC SLIDE DOOR)



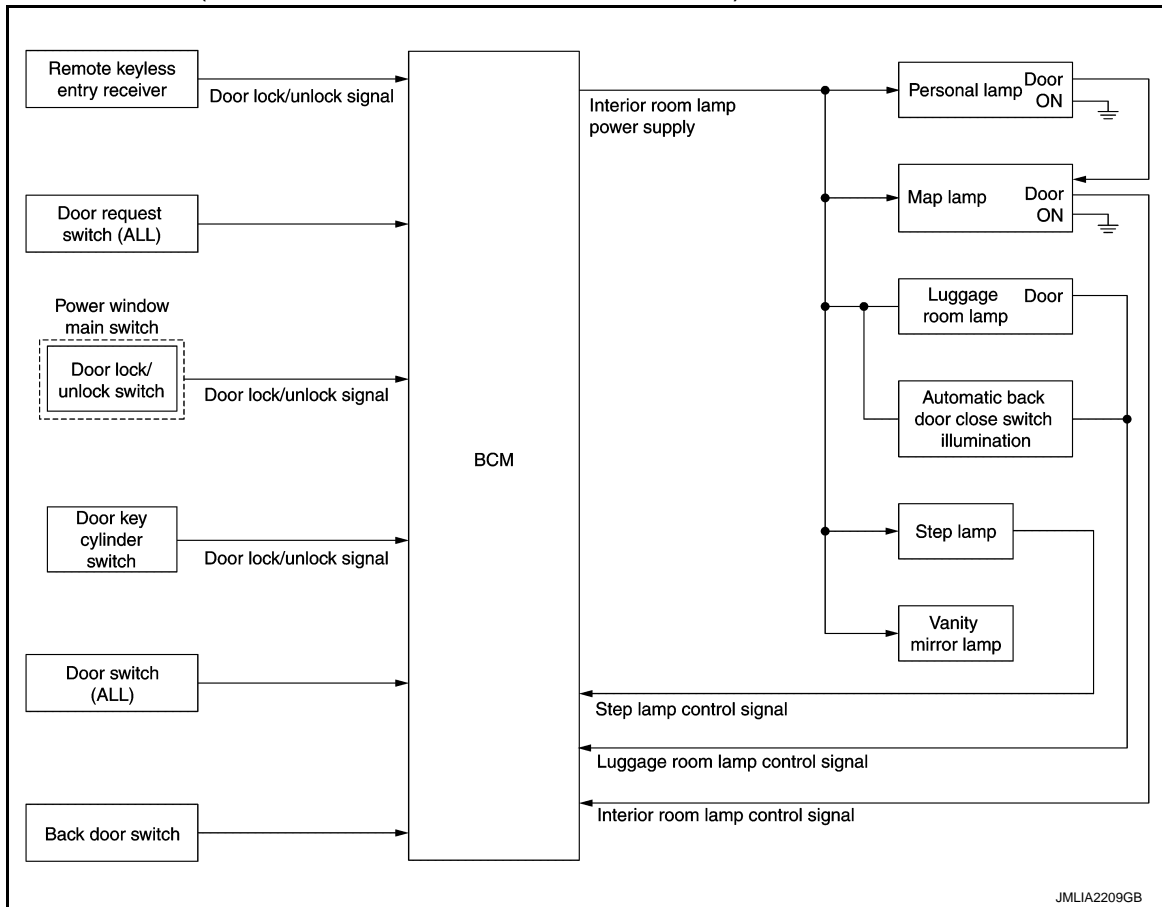
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## SYSTEM DIAGRAM (WITHOUT AUTOMATIC SLIDE DOOR)



### 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 neglects turning OFF the any lamps.

#### Applicable lamps

- Map lamp
- Personal lamp
- Luggage room lamp
- Automatic back door close switch illumination
- Step lamp
- Vanity mirror lamp

### INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

- When the ignition switch is turned to a position other than ON, 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 door request switch, door lock and unlock switch, door key cylinder switch)
- BCM provides the interior room lamp power supply continuously when the ignition switch position is ON.

#### NOTE:

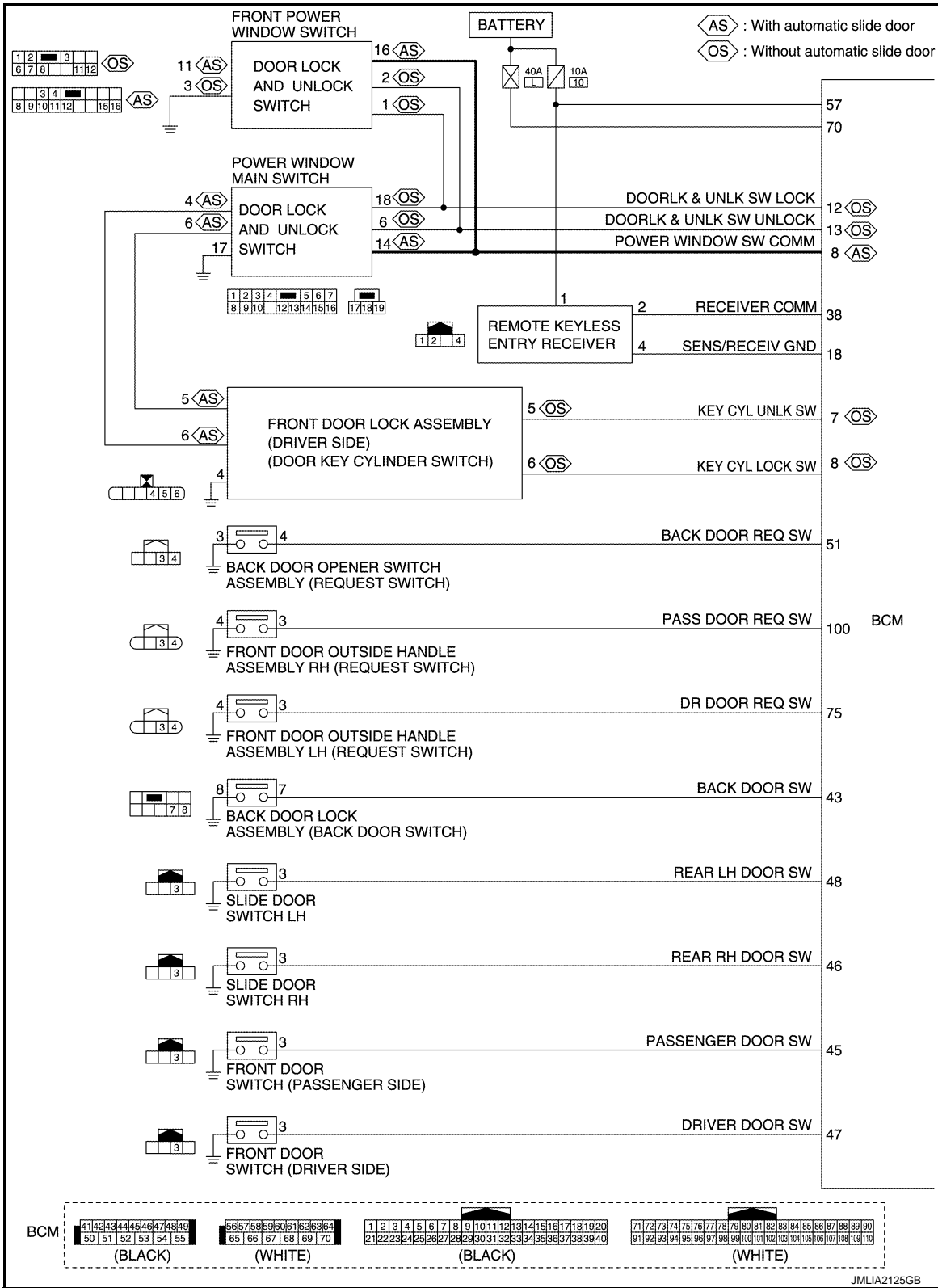
Each function of interior room lamp battery saver can be set by CONSULT. Refer to [INL-22. "BATTERY SAVER : CONSULT Function \(BCM - BATTERY SAVER\)"](#).

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## INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : Circuit Diagram

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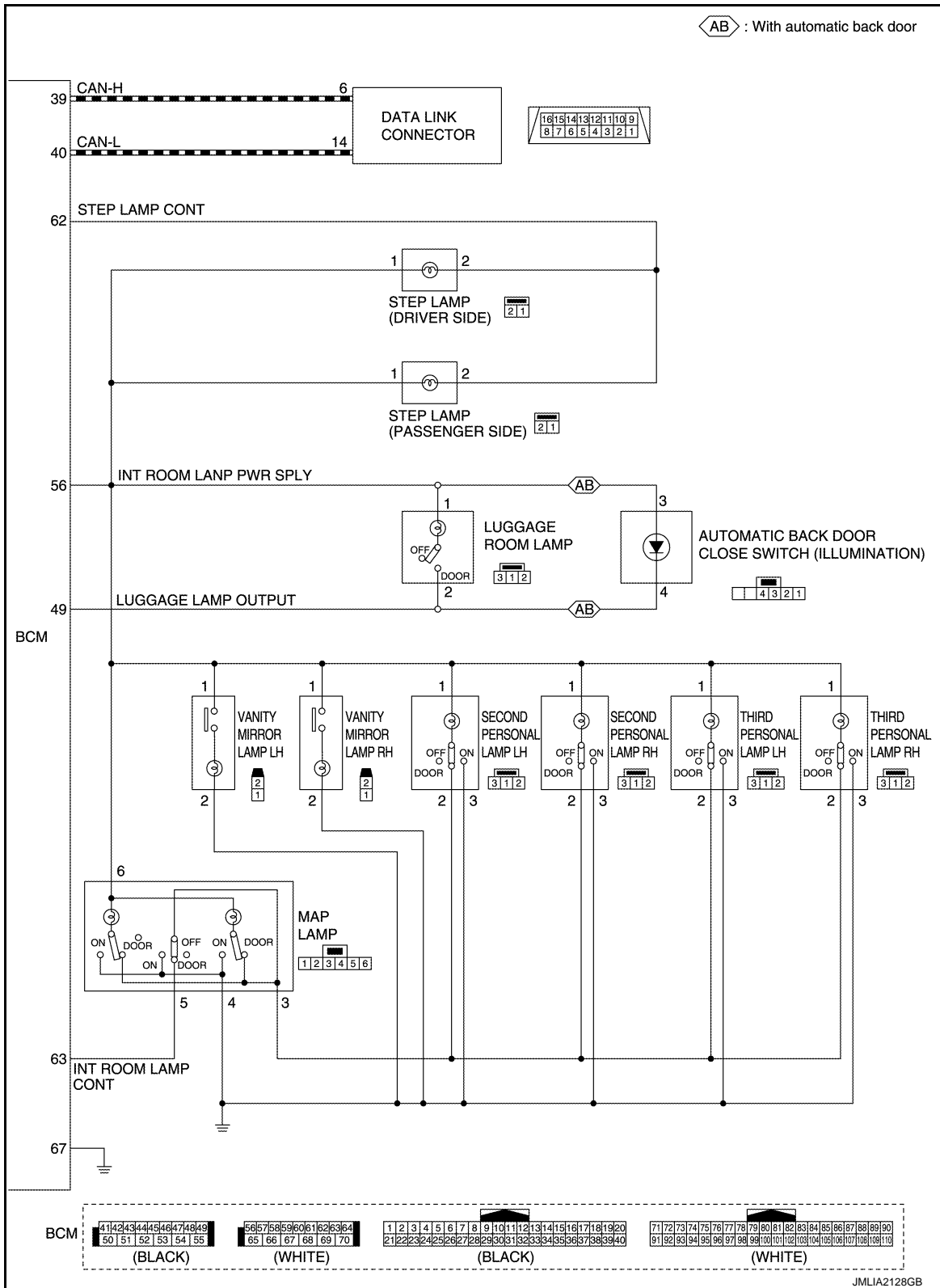


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## ILLUMINATION CONTROL SYSTEM

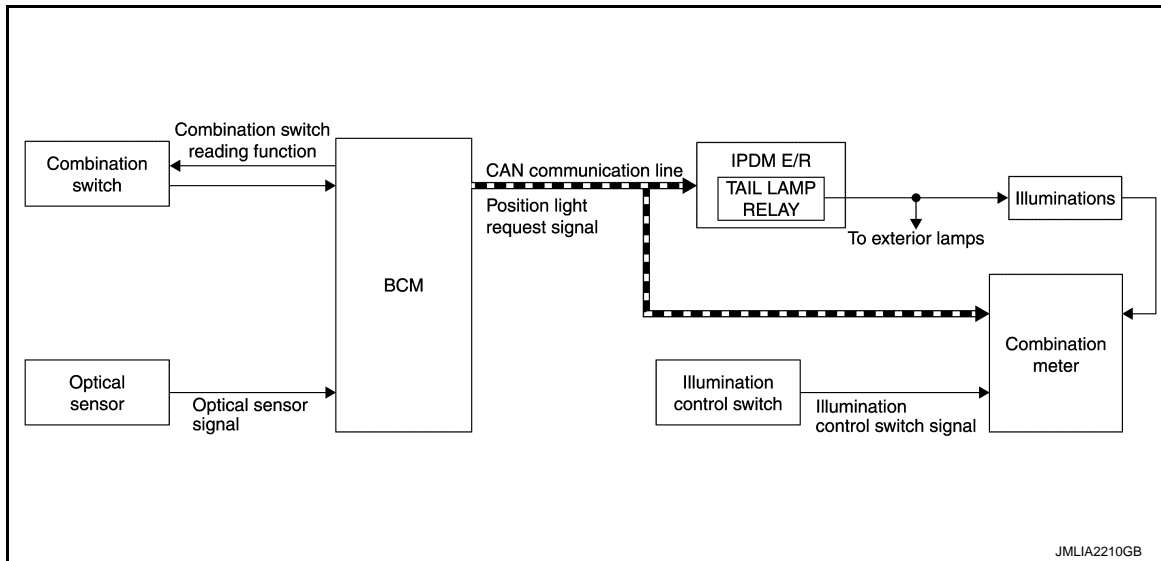
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## ILLUMINATION CONTROL SYSTEM : System Description

INFOID:000000007496036

### SYSTEM DIAGRAM



### 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-17. "METER ILLUMINATION CONTROL : System Description".](#))

### 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 according to tail lamp ON condition.

Tail lamp ON condition

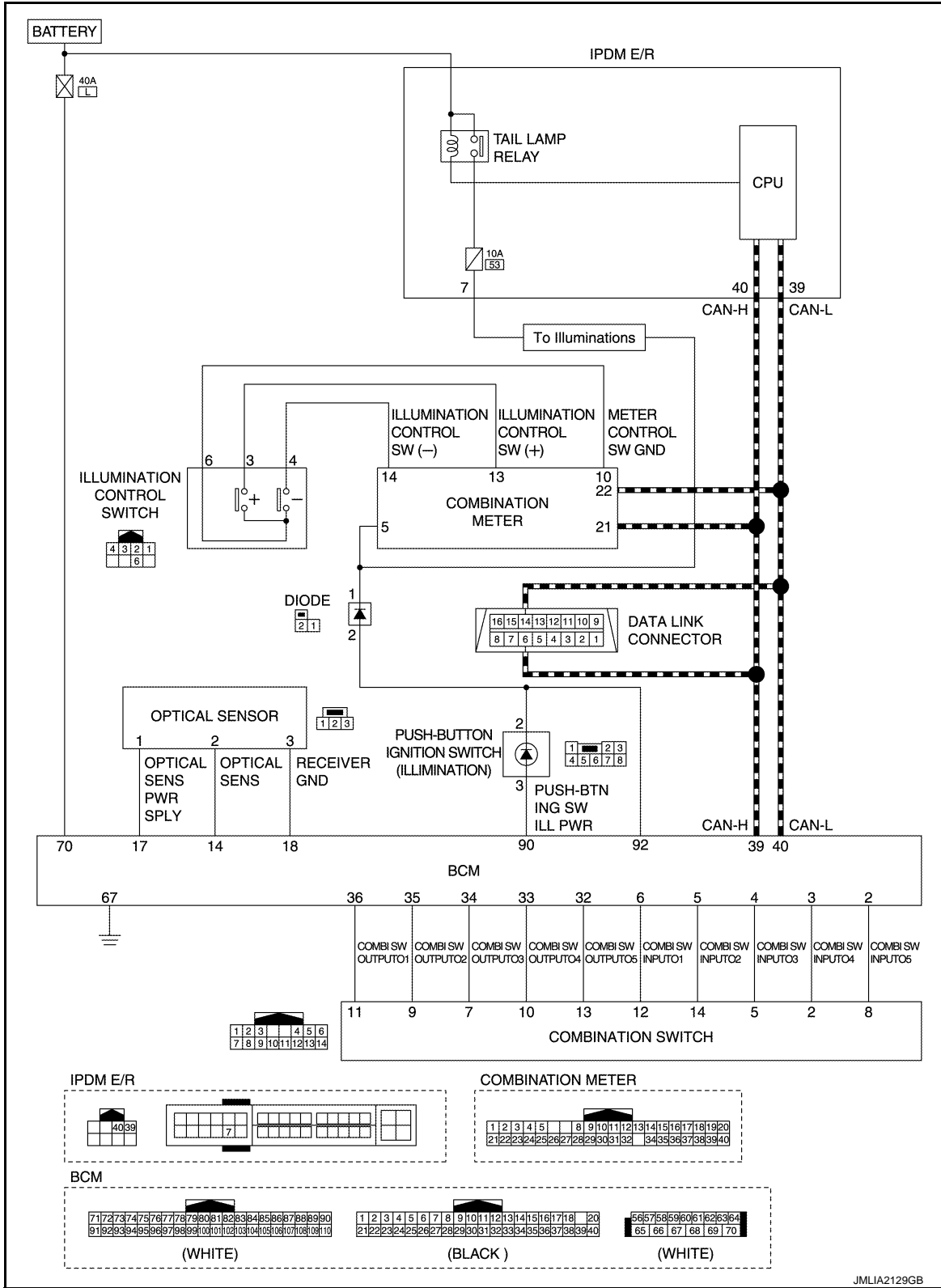
- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment
- Lighting switch AUTO, with the front fog lamp switch ON and the ignition switch ON
- IPDM E/R turns the integrated tail lamp relay ON according to position light request signal. It provides the 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 each illumination lamp (ground side).

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## ILLUMINATION CONTROL SYSTEM : Circuit Diagram

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## AUTO LIGHT ADJUSTMENT SYSTEM



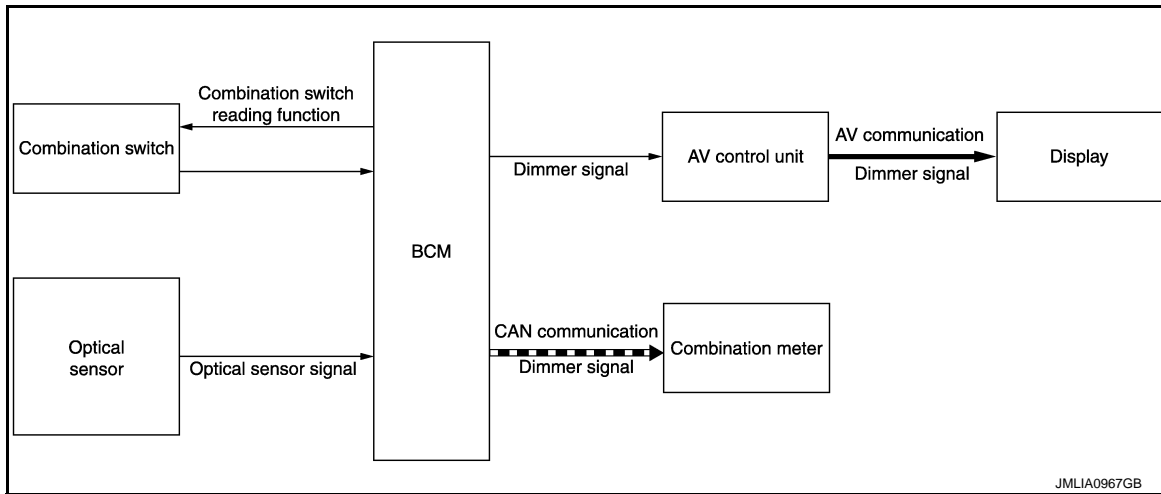
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## AUTO LIGHT ADJUSTMENT SYSTEM : System Description

INFOID:000000007496038

### SYSTEM DIAGRAM



### OUTLINE

Auto light adjustment system is controlled by each function of BCM, combination meter and AV control unit

Control by BCM

- Auto light system
- Auto light adjustment system

### AUTO LIGHT ADJUSTMENT SYSTEM

Description

- BCM supplies voltage to the optical sensor when the ignition switch is turned ON or ACC.
- Optical sensor converts outside brightness (lux) to voltage and transmits the optical sensor signal to BCM.
- BCM judges dimming/brightening of combination meter and display according to brightness outside the vehicle, when ignition switch is ON.
- BCM transmits dimmer signal to combination meter via CAN communication, according to auto light adjustment conditions (Except for CANADA). Dimmer signal is also transmitted to AV control unit.

#### NOTE:

As to dimming/brightening timing, the sensitivity depends on settings. The settings can be changed with CONSULT. Refer to [EXL-31, "HEADLAMP : CONSULT Function \(BCM - HEADLAMP\)"](#).

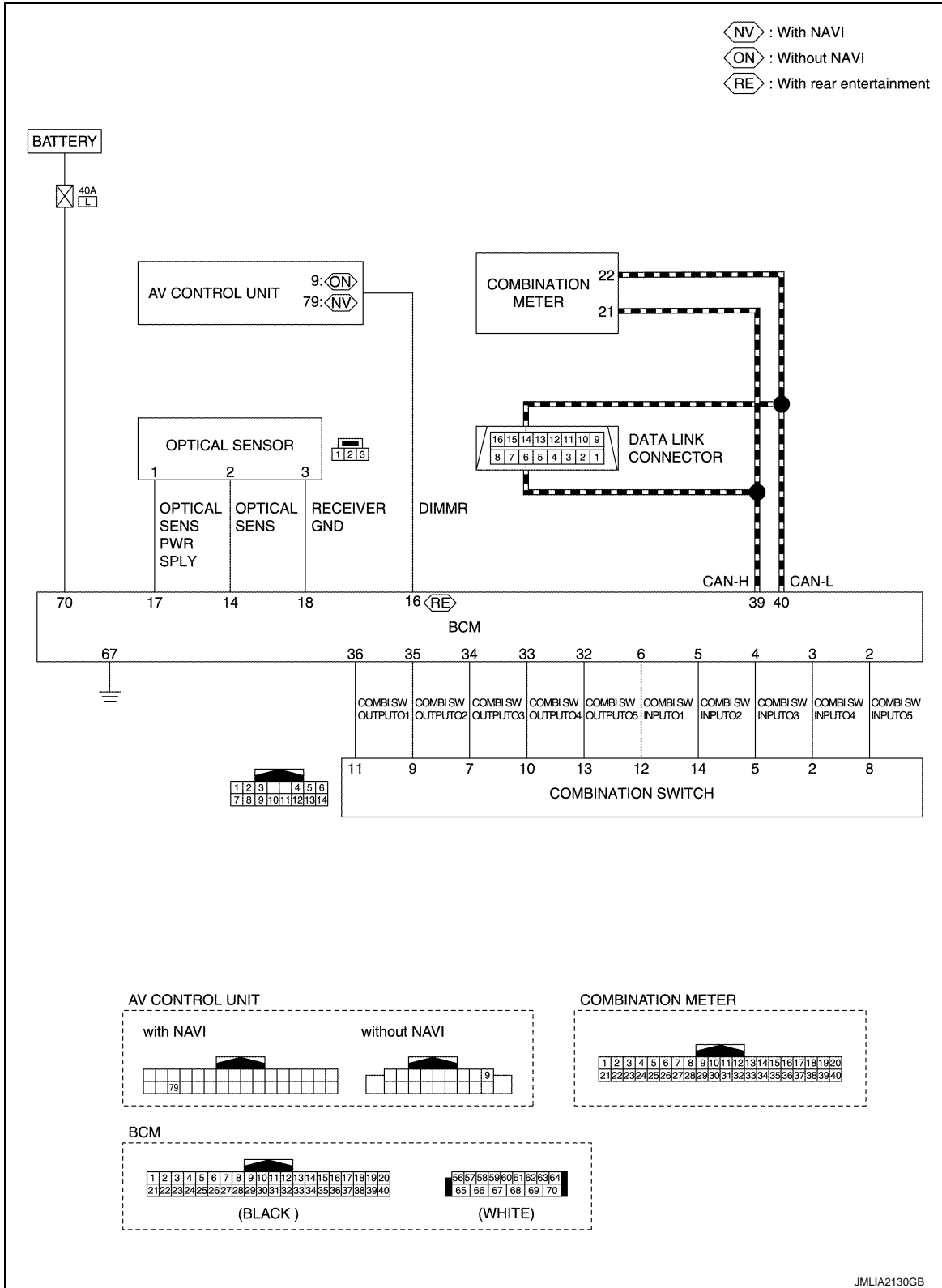
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## AUTO LIGHT ADJUSTMENT SYSTEM : Circuit Diagram

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JMLIA2130GB

# DIAGNOSIS SYSTEM (BCM)

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## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

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### 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	<ul style="list-style-type: none"> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>

### 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 control system	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 conditioning control system	AIR CONDITONER		x	x*
<ul style="list-style-type: none"> <li>Intelligent Key system</li> <li>Engine start system</li> </ul>	INTELLIGENT KEY	x	x	x
Combination switch	COMB SW		x	
Body control system	BCM	x		
NVIS	IMMU	x	x	x
Interior room lamp battery saver	BATTERY SAVER	x	x	x
Back door open	TRUNK		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:

\*: For models with automatic air conditioning control system, this diagnosis mode 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 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 OFF (LOCK)]
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (OFF)]
	LOCK>ACC		While turning power supply position from OFF (LOCK) to ACC
	ACC>ON		While turning power supply position from ACC to ON
	RUN>ACC		While turning power supply position from RUN to ACC (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from CRANK to RUN
	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)
	OFF>LOCK		While turning power supply position from OFF (OFF) to OFF (LOCK)
	OFF>ACC		While turning power supply position from OFF (OFF) to ACC
	ON>CRANK		While turning power supply position from ON to CRANK
	OFF>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (OFF)] to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (LOCK)] to low power consumption mode
	LOCK		Power supply position is OFF (LOCK)
	OFF		Power supply position is OFF (OFF)
	ACC		Power supply position is ACC
	ON		Power supply position is ON
ENGINE RUN	Power supply position is RUN		
CRANKING	Power supply position is CRANK		
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:

\*: Refer to the following for details of the power supply position.

- OFF (OFF, LOCK): Ignition switch OFF
- ACC: Ignition switch ACC
- IGN: Ignition switch ON with engine stopped
- RUN: Ignition switch ON with engine running
- CRANK: At engine cranking

Power supply position shifts to "OFF (LOCK)" from "OFF (OFF)", when ignition switch is in the OFF position, shift position is in the P position, 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 "OFF (LOCK)".

## INT LAMP

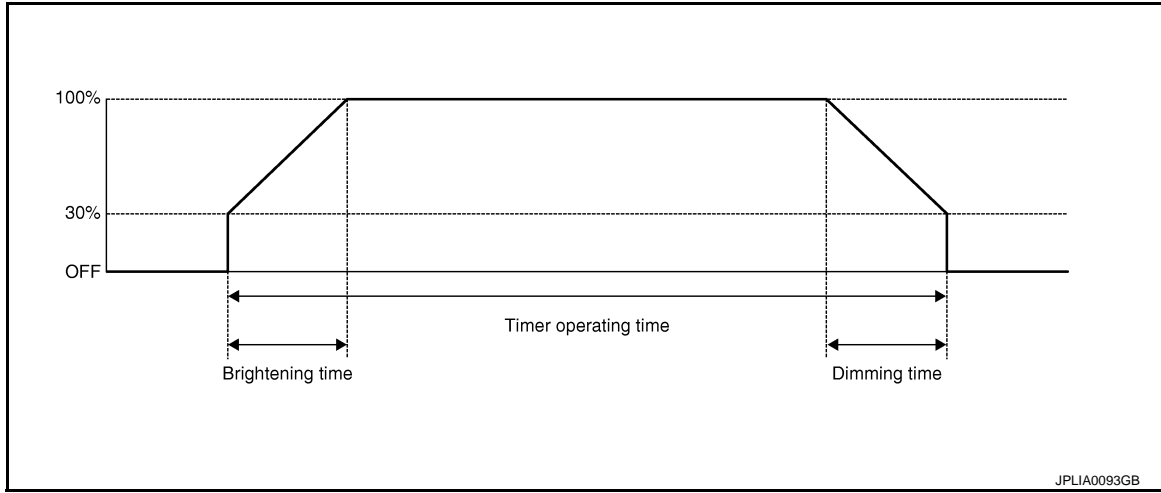
# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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

INFOID:000000007496041

### WORK SUPPORT



Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 2	7.5 sec.
	MODE 3*	15 sec.
	MODE 4	30 sec.
Sets the interior room lamp ON time. (Timer operating time)		
SET I/L D-UNLCK INTCON	On*	With the interior room lamp timer function
	Off	Without the interior room lamp timer function
ROOM LAMP ON TIME SET	MODE 1	0.5 sec.
	MODE 2*	1 sec.
	MODE 3	2 sec.
	MODE 4	3 sec.
	MODE 5	0 sec.
Sets the interior room lamp gradual brightening time.		
ROOM LAMP OFF TIME SET	MODE 1	0.5 sec.
	MODE 2*	1 sec.
	MODE 3	2 sec.
	MODE 4	3 sec.
	MODE 5	0 sec.
Sets the interior room lamp gradual dimming time.		
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 [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from door request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from door request switch (passenger side)
REQ SW-RR [On/Off]	<b>NOTE:</b> The item is indicated, but not monitored.
REQ SW-RL [On/Off]	

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
PUSH SW [On/Off]	The switch status input from push-button ignition switch
UNLK SEN -DR [On/Off]	Driver door unlock status input from unlock sensor
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from sliding door switch RH
DOOR SW- RL [On/Off]	The switch status input from sliding door switch LH
DOOR SW- BK [On/Off]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
TRNK/HAT MNTR [On/Off]	<b>NOTE:</b> The item is indicated, but not monitored
KEY CYL LK-SW [On/Off]	Lock switch status received from door key cylinder switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from door key cylinder switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [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 the interior room lamps ON. [Map lamp, personal lamp (when applicable lamps switch is in DOOR position.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps.
STEP LAMP TEST	On	Outputs the step lamp control signal to turn the step lamps ON.
	Off	Stops the step lamp control signal to turn the step lamps ON.

## BATTERY SAVER

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

INFOID:000000007496042

## WORK SUPPORT

Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1	30 min.
	MODE 2	60 min.
	MODE 3*	15 min.
BATTERY SAVER SET	On*	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function

\*:Factory setting

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

### DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from door request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from door request switch (passenger side)
REQ SW-RR [On/Off]	<b>NOTE:</b> The item is indicated, but not monitored.
REQ SW-RL [On/Off]	
PUSH SW [On/Off]	The switch status input from push-button ignition switch
UNLK SEN -DR [On/Off]	Driver door unlock status input from unlock sensor
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from sliding door switch RH
DOOR SW- RL [On/Off]	The switch status input from sliding door switch LH
DOOR SW- BK [On/Off]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
TRNK/HAT MNTR [On/Off]	<b>NOTE:</b> The item is indicated, but not monitored
KEY CYL LK-SW [On/Off]	Lock switch status received from door key cylinder switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from door key cylinder switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [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 lamps OFF.
	On	Outputs the interior room lamp power supply to turn interior room lamps ON.*

\*: Each lamp switch is in ON position.

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# BCM

< ECU DIAGNOSIS INFORMATION >

## ECU DIAGNOSIS INFORMATION

### BCM

#### List of ECU Reference

INFOID:000000007496043

ECU	Reference
BCM	<a href="#">BCS-36. "Reference Value"</a>
	<a href="#">BCS-58. "Fail-safe"</a>
	<a href="#">BCS-58. "DTC Inspection Priority Chart"</a>
	<a href="#">BCS-59. "DTC Index"</a>



# INTERIOR ROOM LAMP CONTROL SYSTEM


< WIRING DIAGRAM >

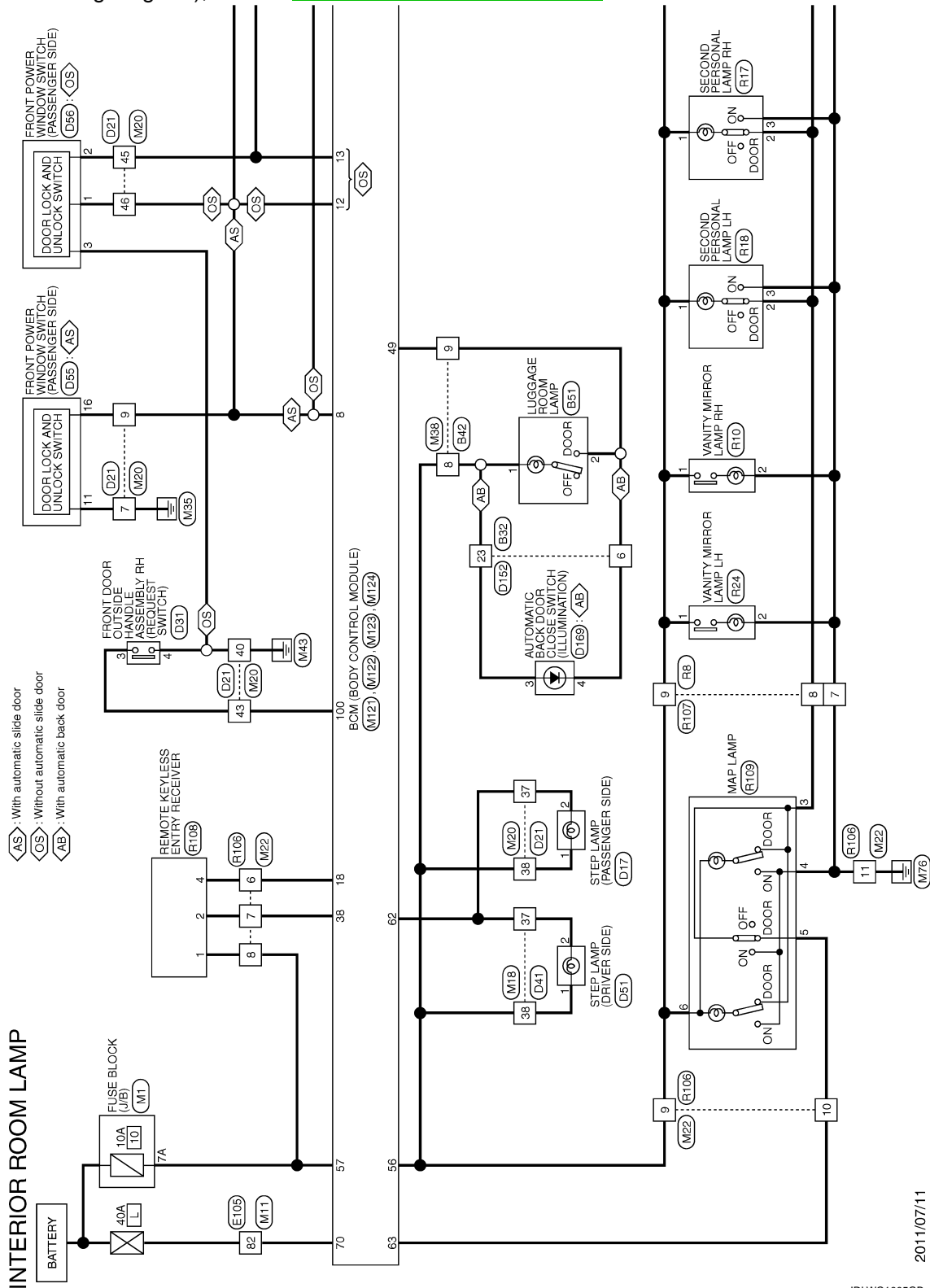
## WIRING DIAGRAM

### INTERIOR ROOM LAMP CONTROL SYSTEM

#### Wiring Diagram

INFOID:000000007496044

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



2011/07/11

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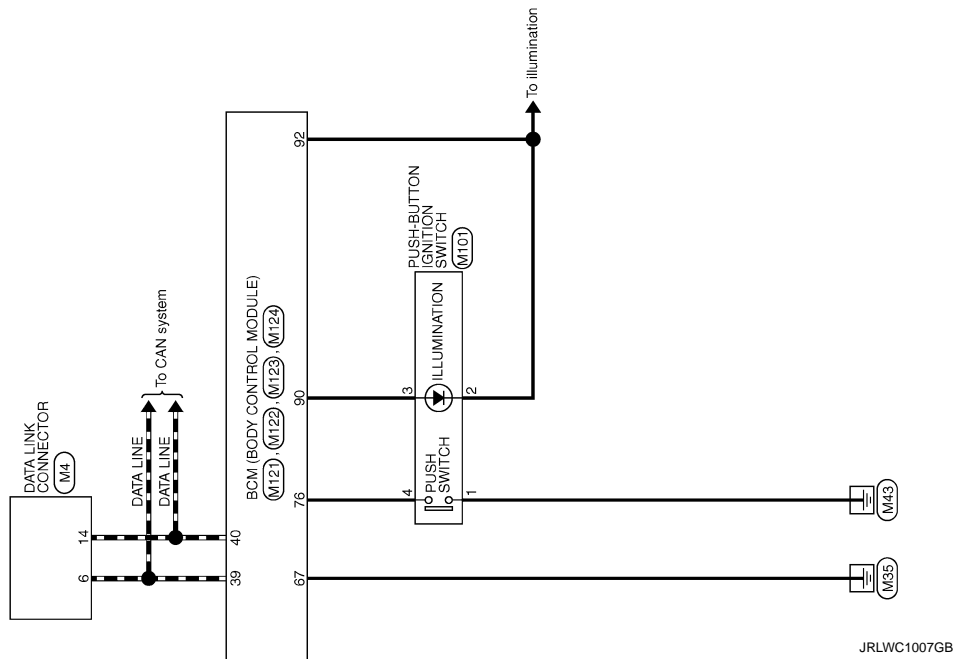
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# INTERIOR ROOM LAMP CONTROL SYSTEM

< WIRING DIAGRAM >



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
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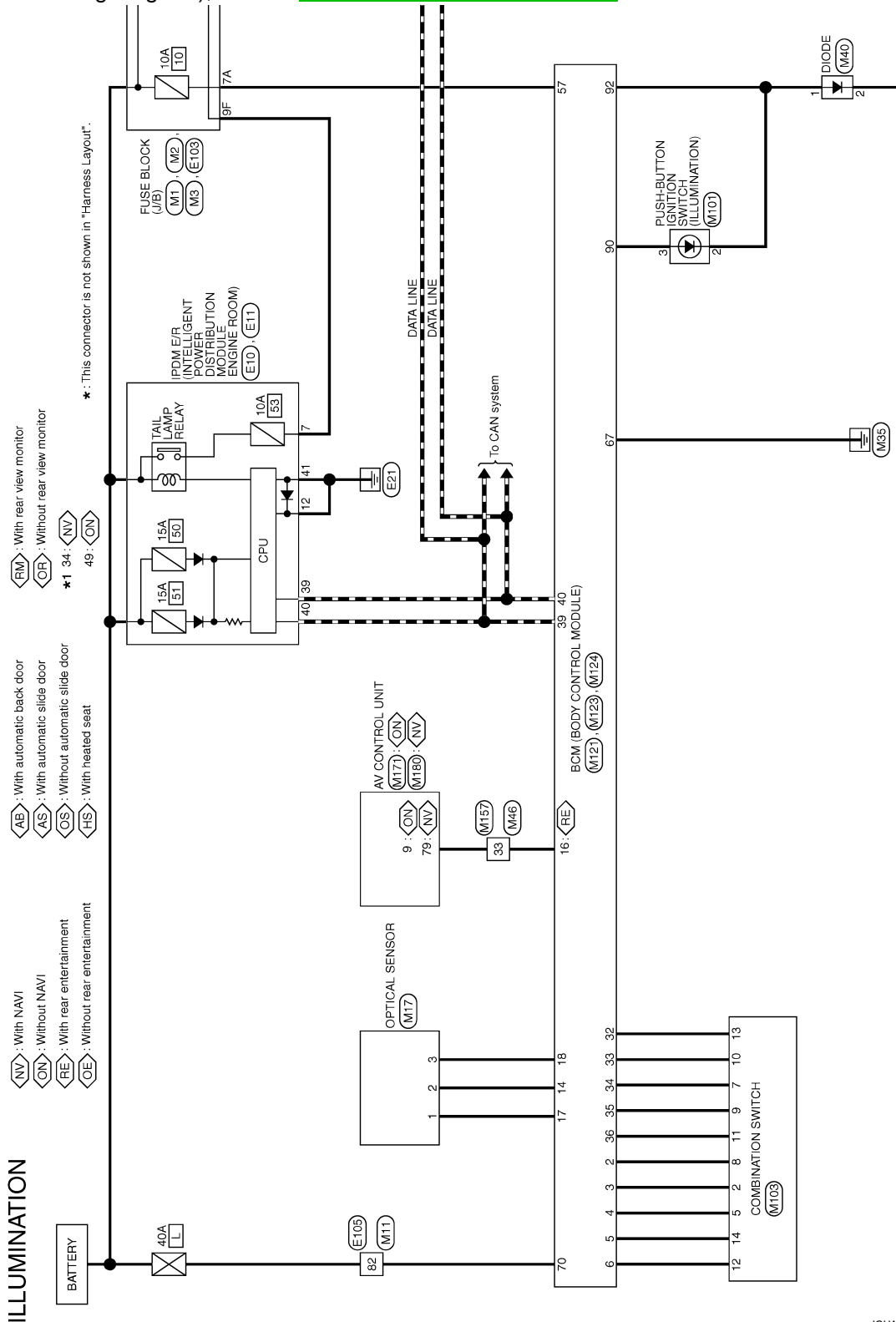
< WIRING DIAGRAM >

## ILLUMINATION

### Wiring Diagram

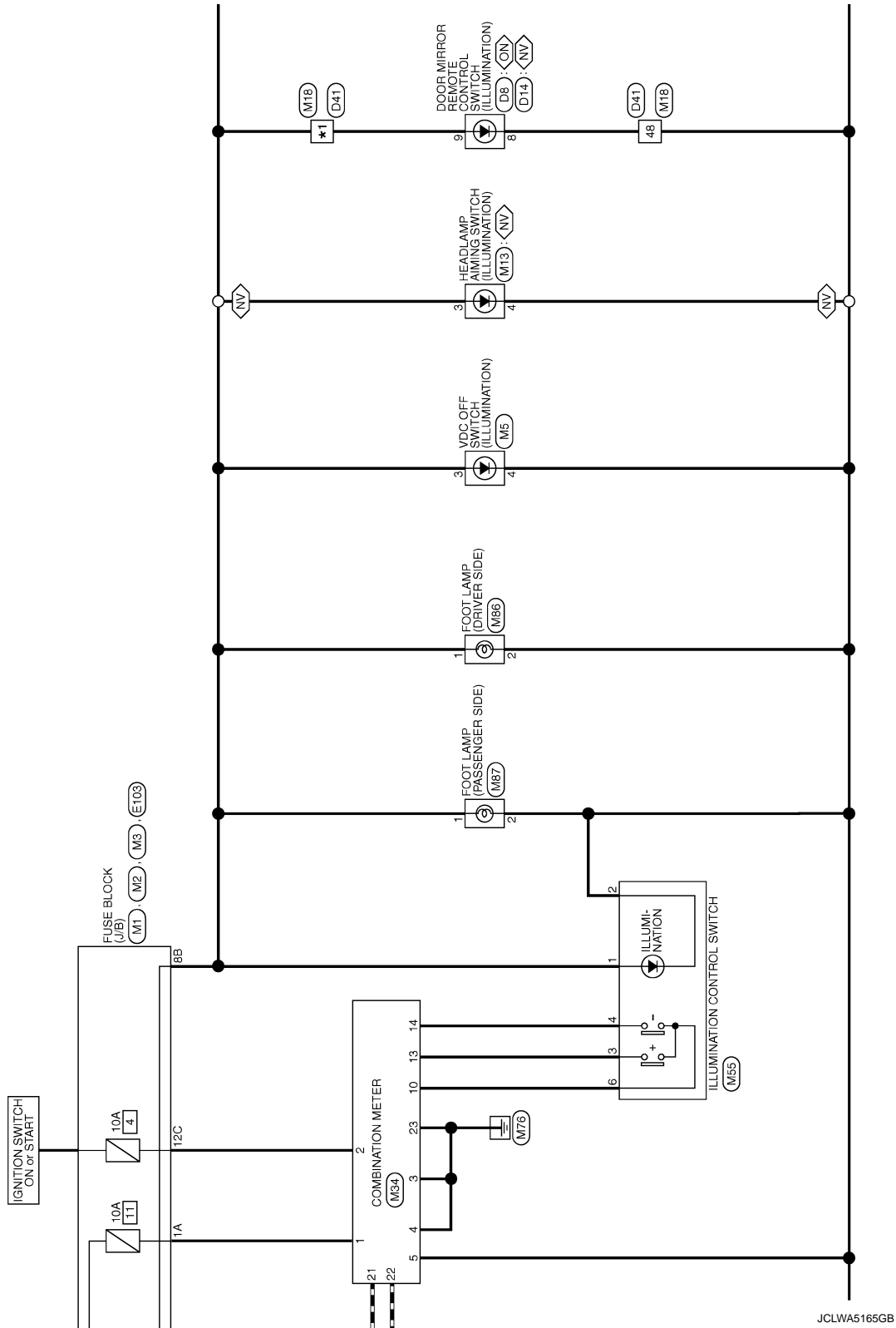
INFOID:000000007496045

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



# ILLUMINATION

< WIRING DIAGRAM >



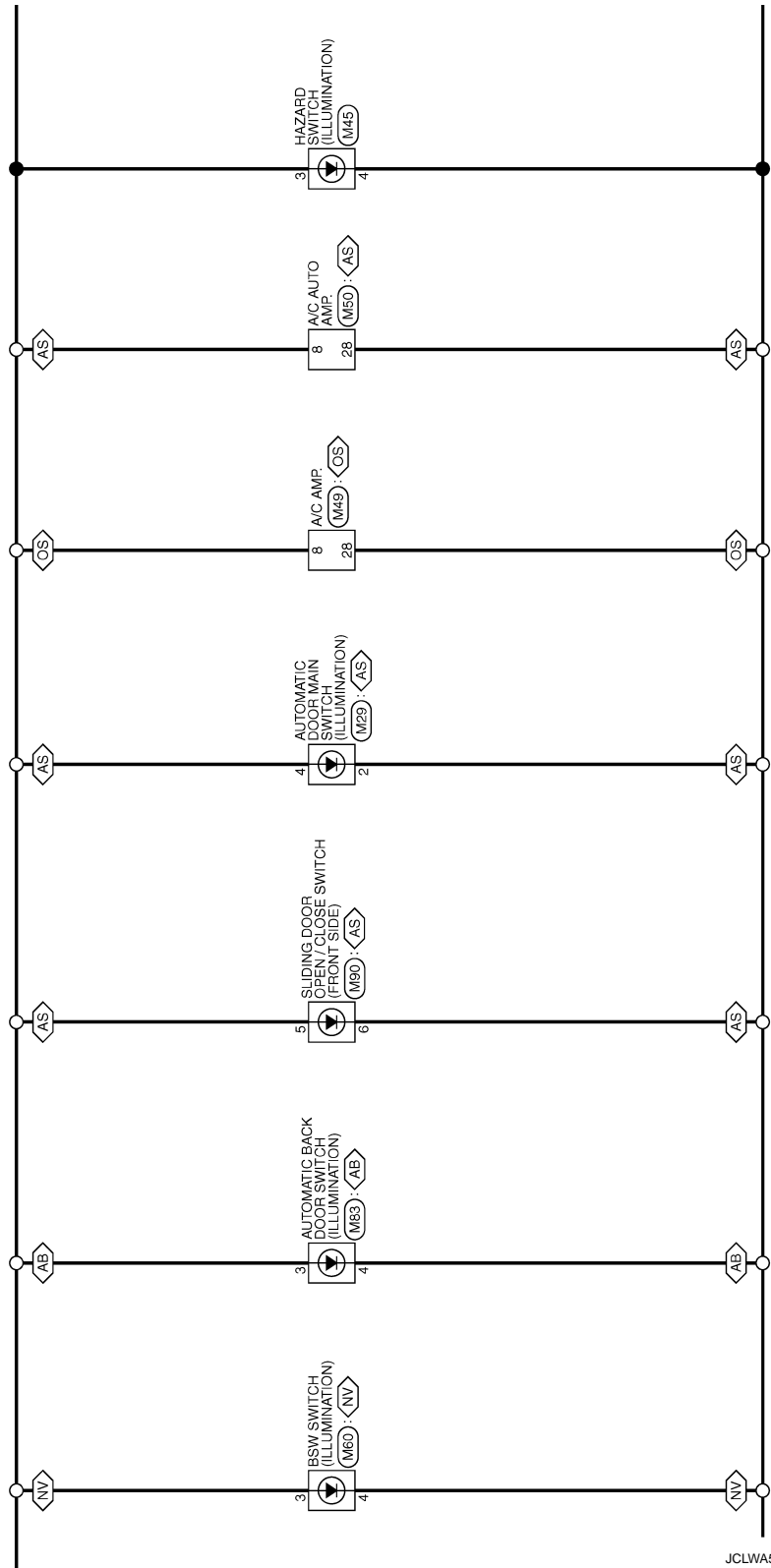
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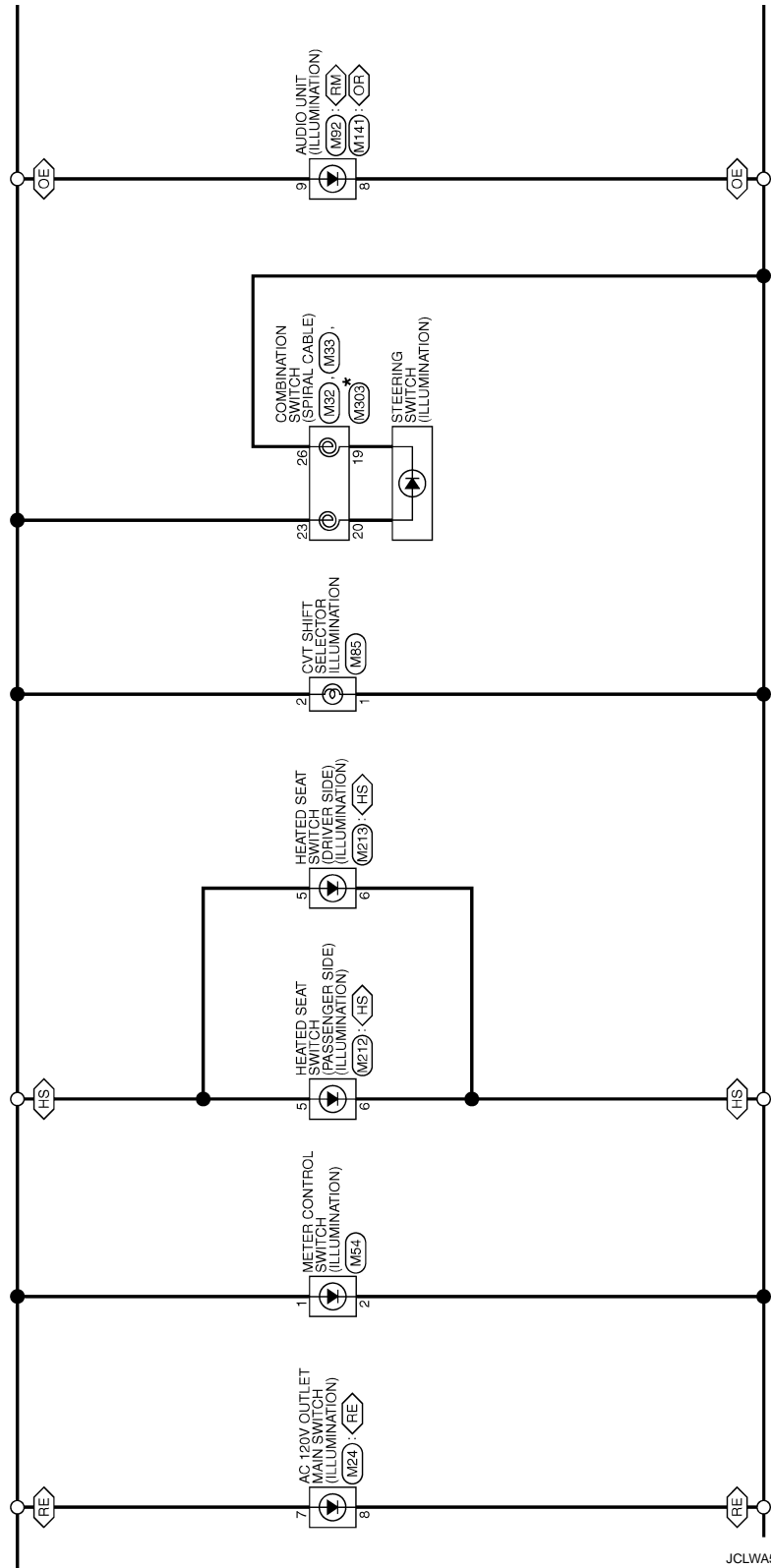
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# ILLUMINATION

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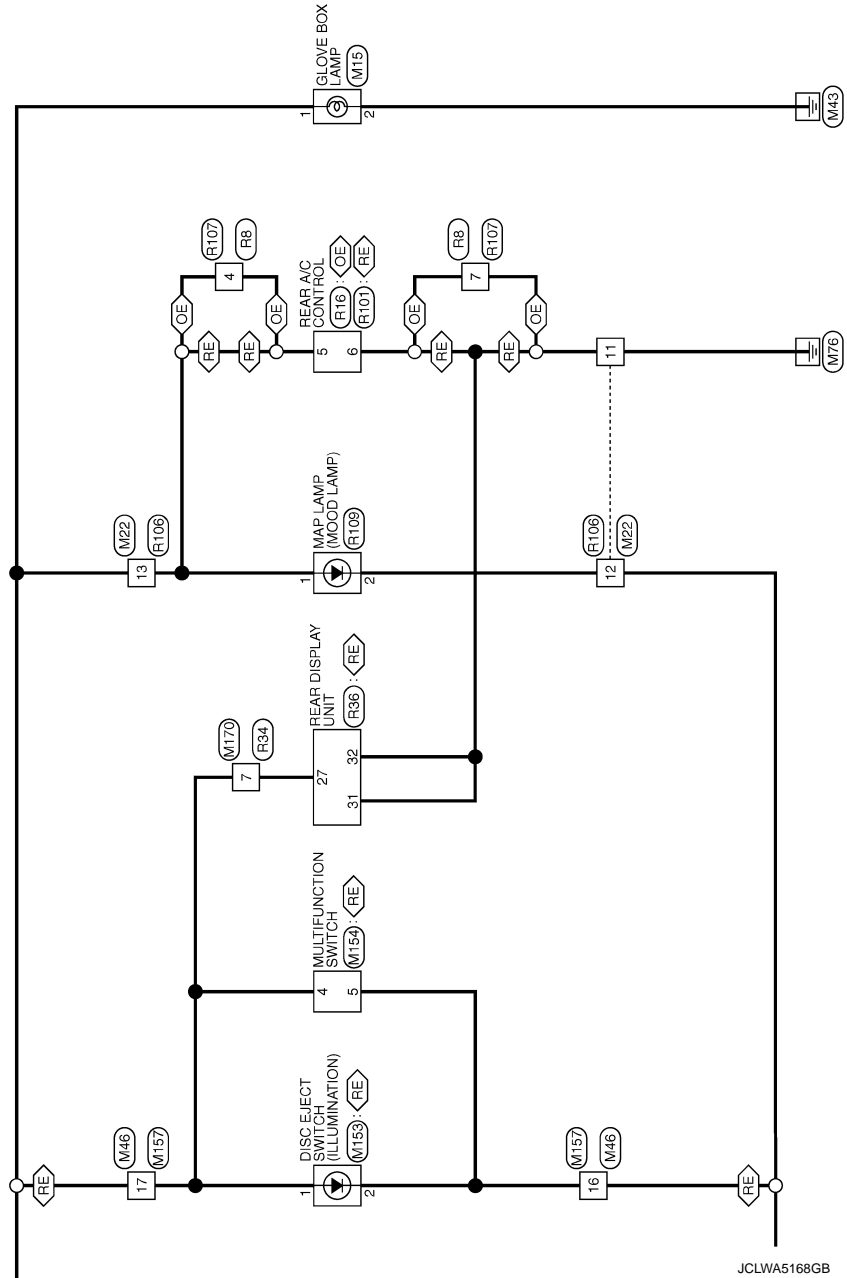
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# ILLUMINATION

< WIRING DIAGRAM >





# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

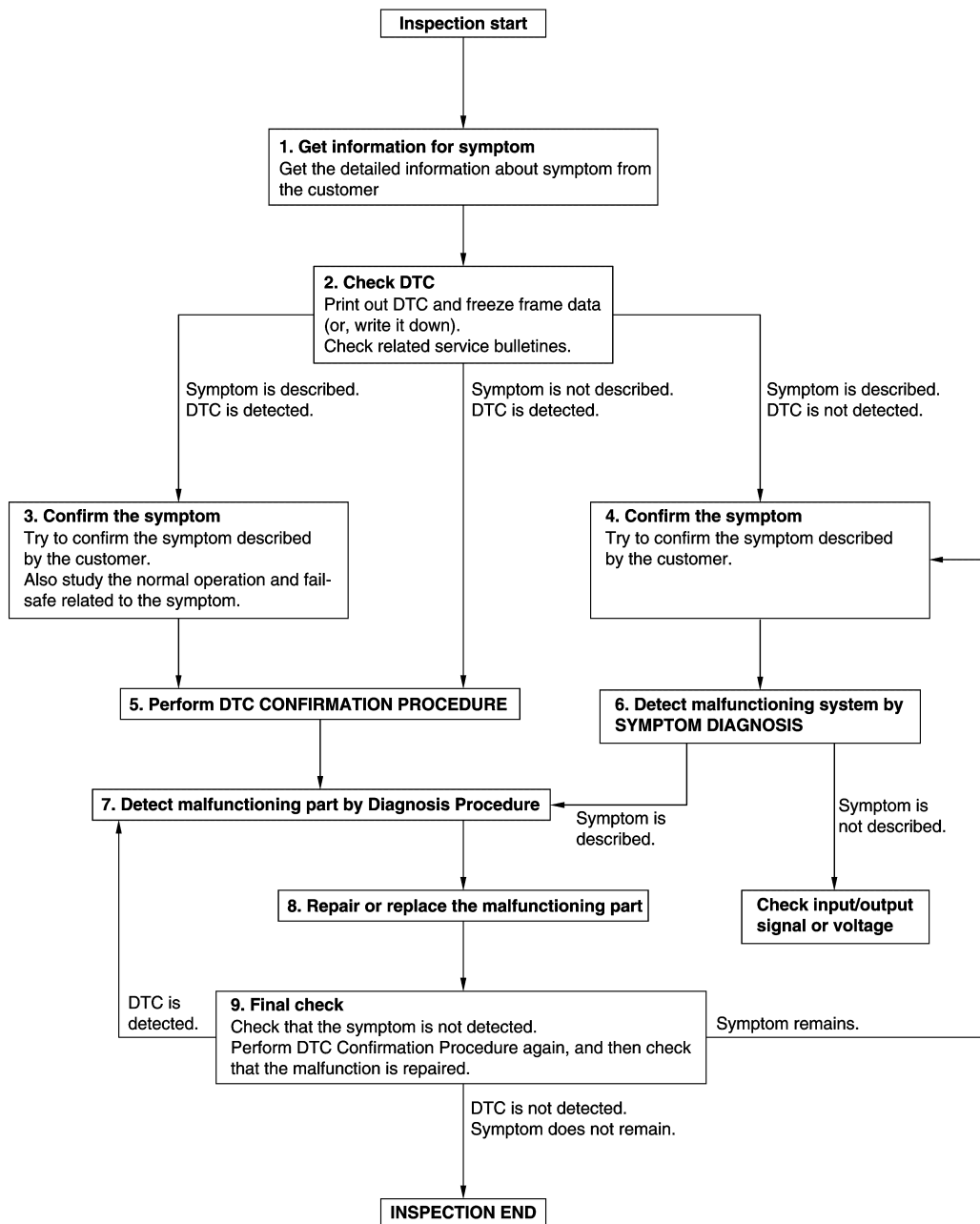
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007496046

OVERALL SEQUENCE



DETAILED FLOW

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# DIAGNOSIS AND REPAIR WORKFLOW

## < BASIC INSPECTION >

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### 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 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-42. "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 DIAGNOSIS PROCEDURE

---

# DIAGNOSIS AND REPAIR WORKFLOW

## < BASIC INSPECTION >

---

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-42. "Intermittent Incident"](#).

## 8. REPAIR OR REPLACE THE MALFUNCTIONING PART

---

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis 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 POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

#### Component Function Check

INFOID:000000007496047

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

##### ⓅCONSULT ACTIVE TEST

1. Turn ignition switch ON.
2. Turn each interior room lamp ON.
  - Personal lamp
  - Map lamp
  - Luggage room lamp
  - Automatic back door close switch illumination
  - Step lamp
  - Vanity mirror lamp
3. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
4. 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-36, "Diagnosis Procedure"](#).

#### Diagnosis Procedure

INFOID:000000007496048

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

##### ⓅCONSULT ACTIVE TEST

1. Turn ignition switch OFF.
2. Disconnect the following connectors.
  - Personal lamp(ALL)
  - Map lamp
  - Luggage room lamp
  - Automatic back door close switch
  - Step lamp (both sides)
  - Vanity mirror lamp (both sides)
3. Turn ignition switch ON.
4. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
5. With operating the test item, check voltage between BCM harness connector and ground.

BCM		(-)	Test item	Voltage (Approx.)	
(+) Connector					
Connector	Terminal				
M123	56	Ground	BATTERY SAVER	Off	0 V
				On	12 V

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

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

1. Turn ignition switch OFF.
2. Disconnect the BCM connector.
3. 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	
M123	56	Map lamp	R109	6	Existed
		Second personal lamp LH	R18	1	
		Second personal lamp RH	R17	1	
		Third personal lamp LH	R28	1	
		Third personal lamp RH	R27	1	
		Luggage room lamp	B51	1	
		Automatic back door close switch	D169	3	
		Step lamp (driver side)	D51	1	
		Step lamp (passenger side)	D17	1	
		Vanity mirror lamp LH	R24	1	
		Vanity mirror lamp RH	R10	1	

Is the inspection result normal?

- YES >> Check for internal short circuit of each interior room lamp.  
 NO >> Repair or replace harnesses.

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

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

BCM		Ground	Continuity
Connector	Terminal		
M123	56		Not existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).  
 NO >> Repair or replace harnesses.

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# INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## INTERIOR ROOM LAMP CONTROL CIRCUIT

### Component Function Check

INFOID:000000007496049

#### CAUTION:

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

- Interior room lamp power supply
- Map lamp bulb
- Personal lamp bulb

### 1. CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

#### CONSULT ACTIVE TEST

1. Switch the map lamp switch and personal lamp switch to DOOR.
2. Turn 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-38, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007496050

### 1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

#### CONSULT ACTIVE TEST

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

BCM		Ground	Test item		Continuity
Connector	Terminal		INT LAMP	On	Existed
M123	63			Off	Not existed

Is the inspection result normal?

YES >> GO TO 2.

Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

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

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

BCM		Map lamp		Continuity
Connector	Terminal	Connector	Terminal	
M123	63	R109	5	Existed

4. Check continuity between personal lamp harness connector and map lamp harness connector.

# INTERIOR ROOM LAMP CONTROL CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

Map lamp		Personal lamp		Continuity
Connector	Terminal	Connector	Terminal	
R109	3	Second LH	R18	2  Existed
		Second RH	R17	
		Third LH	R28	
		Third RH	R27	

Is the inspection result normal?

YES >> Replace map lamp or personal lamp.

NO >> Repair or replace harnesses.

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

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

BCM		Ground	Continuity
Connector	Terminal		
M123	63		Not existed

4. Check continuity between map lamp harness connector and ground.

Map lamp		Ground	Continuity
Connector	Terminal		
R109	3		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harnesses.

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# LUGGAGE ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## LUGGAGE ROOM LAMP CIRCUIT

### Description

INFOID:000000007496051

Controls the luggage room lamp and automatic back door close switch illumination (ground side) to turn the luggage room lamp and automatic back door close switch illumination ON and OFF.

### Diagnosis Procedure

INFOID:000000007496052

#### CAUTION:

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

- Interior room lamp power supply
- Luggage room lamp bulb

#### 1. CHECK LUGGAGE ROOM LAMP OUTPUT

1. Turn ignition switch OFF.
2. Remove the luggage room bulb.
3. Disconnect automatic back door close switch connector.
4. Check continuity between BCM harness connector and ground.

BCM		Ground	Condition		Continuity
Connector	Terminal		Back door	Open	Existed
M122	49			Closed	Not existed

Is the inspection result normal?

YES >> GO TO 2.

Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

#### 2. CHECK LUGGAGE ROOM LAMP OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and luggage room lamp harness connector.

BCM		Luggage room lamp		Continuity
Connector	Terminal	Connector	Terminal	
M122	49	B51	2	Existed

3. Check continuity between BCM harness connector and automatic back door close switch harness connector.

BCM		Automatic back door close switch		Continuity
Connector	Terminal	Connector	Terminal	
M122	49	D169	4	Existed

Is the inspection result normal?

YES >> Replace luggage room lamp or automatic back door close switch.

NO >> Repair or replace harnesses.

#### 3. CHECK LUGGAGE ROOM LAMP SHORT CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		Not existed
M122	49		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).



# LUGGAGE ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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NO >> Repair or replace harnesses.

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# STEP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## STEP LAMP CIRCUIT

### Component Function Check

INFOID:000000007496053

#### 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 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-42, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007496054

### 1. CHECK STEP LAMP OUTPUT

#### CONSULT ACTIVE TEST

1. Turn ignition switch OFF.
2. Remove the step lamp bulbs (ALL).
3. Turn 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 ground.

BCM		Ground	Test item		Continuity
Connector	Terminal		STEP LAMP TEST	On	
M123	62		On	Existed	
			Off	Not existed	

#### Is the inspection result normal?

YES >> GO TO 2.

Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

### 2. CHECK STEP LAMP OPEN CIRCUIT

1. Turn 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	
M123	62	Driver side	D51	2	Existed
		Passenger side	D17		

#### Is the inspection result normal?

YES >> Replace step lamp.

NO >> Repair or replace harnesses.

### 3. CHECK STEP LAMP SHORT CIRCUIT

1. Turn ignition switch OFF.

## STEP LAMP CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

2. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	62		Not existed

Is the inspection result normal?

YES >> Repair or replace harnesses.

NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

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# PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

### Component Function Check

INFOID:000000007496055

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

##### CONSULT ACTIVE TEST

1. Turn 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-44, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007496056

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

1. Turn ignition switch OFF.
2. Lighting switch OFF.
3. Disconnect push-button ignition switch connector.
4. Check voltage between push-button ignition switch harness connector and ground.

(+)		(-)	Condition	Voltage (Approx.)	
Connector	Terminal				
M101	3	Ground	Push-button ignition switch illumination	ON Condition	12 V
			OFF Condition	0 V	

##### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

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

1. Turn the ignition switch OFF.
2. Disconnect BCM 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	
M124	90	M101	3	Existed

##### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harnesses.

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

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M124	90		Not existed

##### Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

# PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harnesses.

### 4. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION GROUND CIRCUIT-1

1. Connect push-button ignition switch connector.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M124	92	Ground	Push-button ignition switch illumination	ON Condition	0 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

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

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

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M101	2	M124	92	Existed

4. Check continuity between push-button ignition switch harness connector and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M101	2		Not existed

Is the inspection result normal?

YES >> Replace push-button ignition switch.

NO >> Repair or replace harnesses.

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# INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

## SYMPTOM DIAGNOSIS

### INTERIOR LIGHTING SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000007496057

**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. <ul style="list-style-type: none"> <li>• Map lamp</li> <li>• Personal lamp</li> <li>• Vanity mirror lamp</li> <li>• Step lamp</li> <li>• Luggage room lamp</li> <li>• Automatic back door close switch illumination</li> </ul>	<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 Refer to <a href="#">INL-36, "Component Function Check"</a> .
<ul style="list-style-type: none"> <li>• Interior room lamp does not turn ON even though the door is open. (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 Refer to <a href="#">DLK-209, "Component Function Check"</a> .  Interior room lamp control circuit Refer to <a href="#">INL-38, "Component Function Check"</a> .
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	—	Check the interior room lamp setting. Refer to <a href="#">INL-21</a> .
Luggage room lamp or automatic back door close switch illumination does not turn ON even though the back door is open.	<ul style="list-style-type: none"> <li>• Harness between BCM and back door switch</li> <li>• Harness between BCM and luggage room lamp</li> <li>• Harness between BCM and automatic back door close switch</li> <li>• BCM</li> </ul>	Back door switch circuit Refer to <a href="#">DLK-211, "Component Function Check"</a> .  Luggage room lamp circuit Refer to <a href="#">INL-40, "Diagnosis Procedure"</a> .
Step lamps (ALL) do not turn ON.	<ul style="list-style-type: none"> <li>• Harness between BCM and each step lamp</li> <li>• BCM</li> </ul>	Door switch circuit Refer to <a href="#">DLK-209, "Component Function Check"</a> .  Step lamp circuit Refer to <a href="#">INL-42</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 Refer to <a href="#">INL-44, "Component Function Check"</a> .
Interior room lamp battery saver does not activate.	BCM	Replace BCM. Refer to <a href="#">BCS-82, "Removal and Installation"</a> .

# MAP LAMP

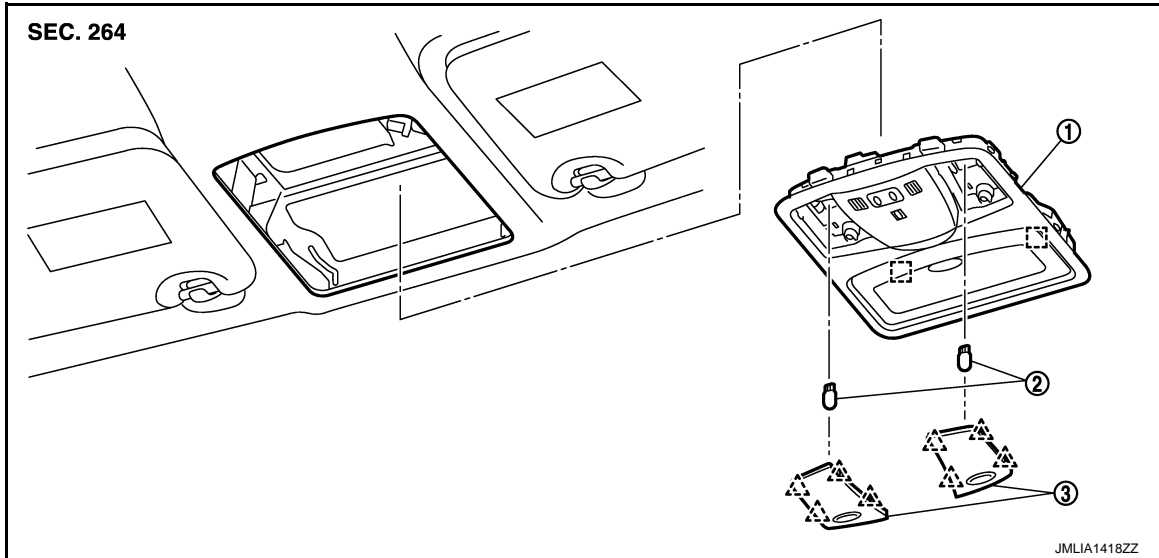
< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### MAP LAMP

Exploded View

INFOID:000000007496058



1. Map lamp assembly

2. Bulb

3. Lens

△ : Pawl

□ : Metal clip

### Removal and Installation

INFOID:000000007496059

#### CAUTION:

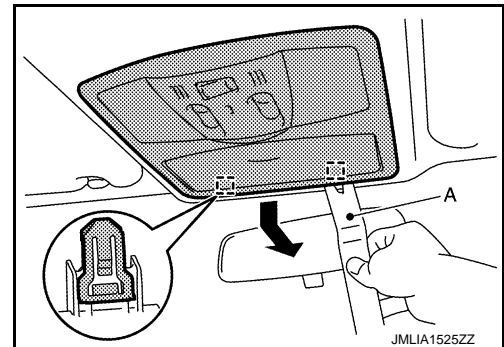
Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.

#### REMOVAL

1. Disengage map lamp assembly fixing metal clips with a remover tool (A).

□ : Metal clip

2. Disconnect harness connector, and then remove map lamp assembly.



#### INSTALLATION

Install in the reverse order of removal.

#### Replacement

INFOID:000000007496060

#### CAUTION:

- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.


# MAP LAMP

## < REMOVAL AND INSTALLATION >

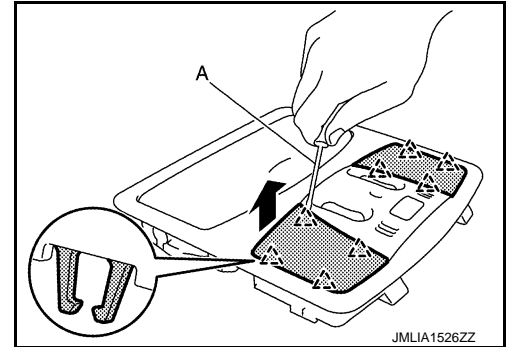
- **Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.**
- **Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.**

### MAP LAMP BULB

1. Disengage lens fixing pawls with a remover tool (A).

 : Pawl

2. Remove bulb.





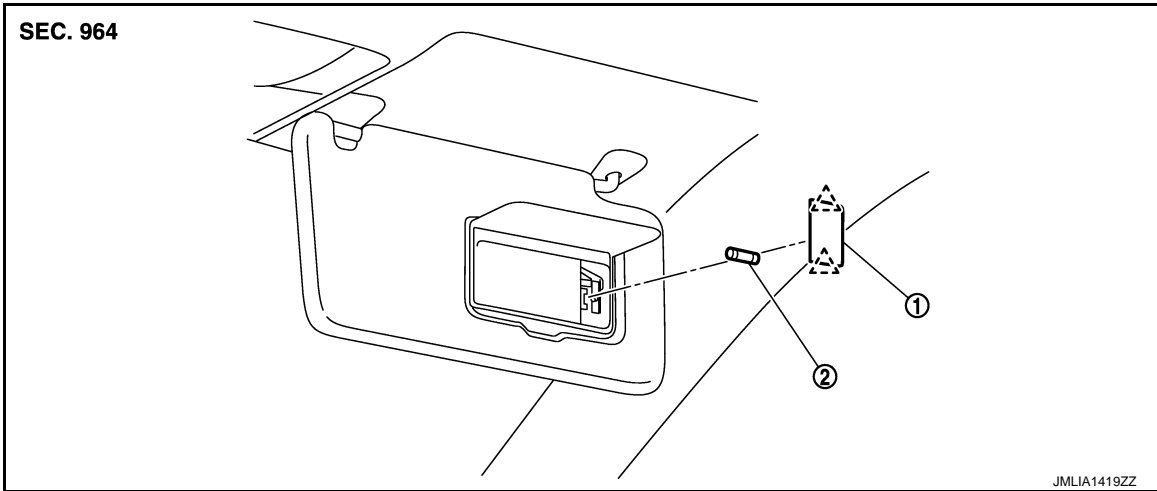
# VANITY MIRROR LAMP

< REMOVAL AND INSTALLATION >


## VANITY MIRROR LAMP

### Exploded View

INFOID:000000007496061



1. Lens
2. Bulb

 : Pawl

### Replacement


INFOID:000000007496062

#### CAUTION:

- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.
- Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

### VANITY MIRROR LAMP

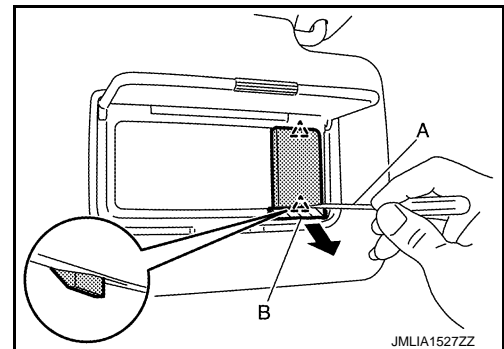
1. Disengage lens fixing pawls with a remover tool (A).

 : Pawl

#### CAUTION:

Apply protective tape (B) on the part to protect it from damage.

2. Remove bulb.



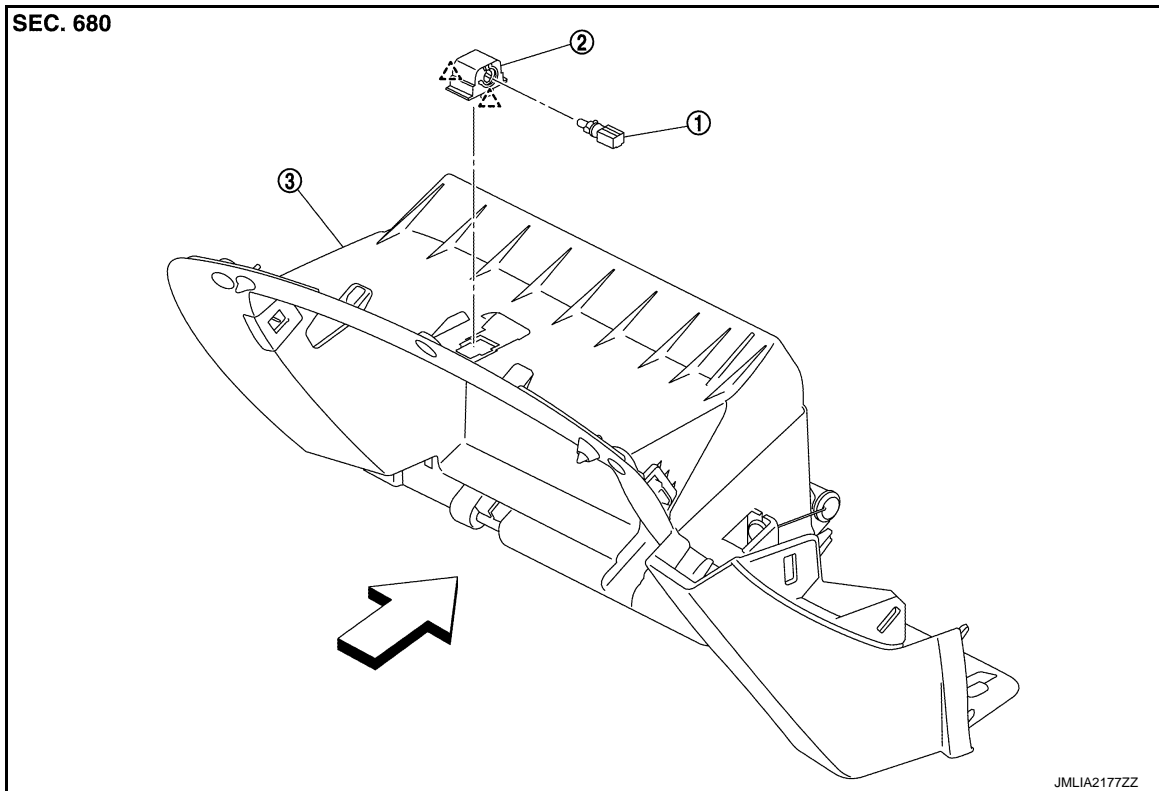
# GLOVE BOX LAMP

< REMOVAL AND INSTALLATION >

## GLOVE BOX LAMP

Exploded View


INFOID:000000007496063




1. Bulb & socket assembly

2. Lamp housing

3. Instrument lower panel RH

 : Pawl

 : Vehicle front

## Replacement

INFOID:000000007496064

### CAUTION:

- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.
- Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

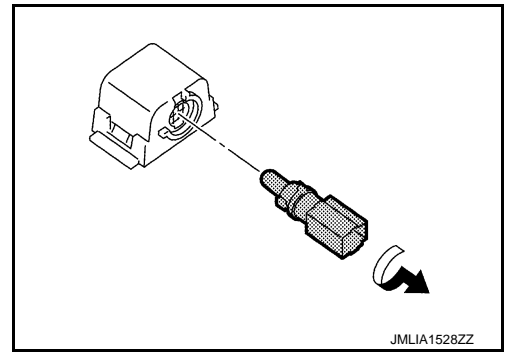
## GLOVE BOX LAMP BULB

1. Remove Instrument lower panel RH. Refer to [IP-13, "Removal and Installation"](#).

# GLOVE BOX LAMP

## < REMOVAL AND INSTALLATION >

2. Rotate the bulb & socket assembly counterclockwise and unlock it and then remove bulb & socket assembly.



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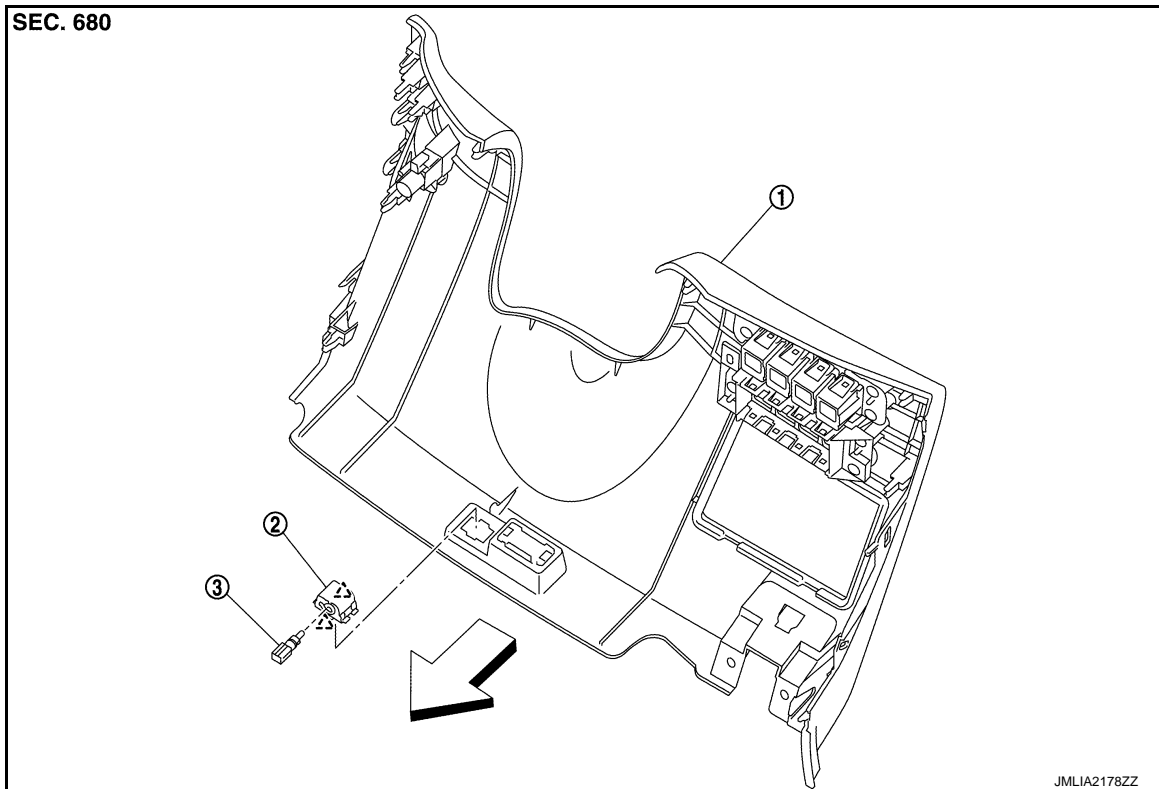
# FOOT LAMP

< REMOVAL AND INSTALLATION >


## FOOT LAMP DRIVER SIDE

DRIVER SIDE : Exploded View

INFOID:000000007496065



1. Instrument lower panel LH      2. Lamp housing      3. Bulb & socket assembly

 : Pawl

 : Vehicle front

## DRIVER SIDE : Replacement

INFOID:000000007496066

### CAUTION:

- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.
- Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

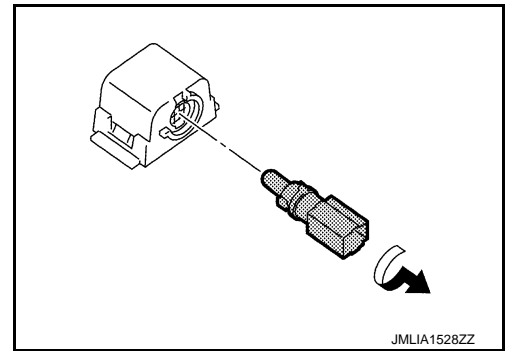
### FOOT LAMP BULB (DRIVER SIDE)

1. Remove instrument lower panel LH. Refer to [IP-13. "Removal and Installation"](#).

# FOOT LAMP

## < REMOVAL AND INSTALLATION >

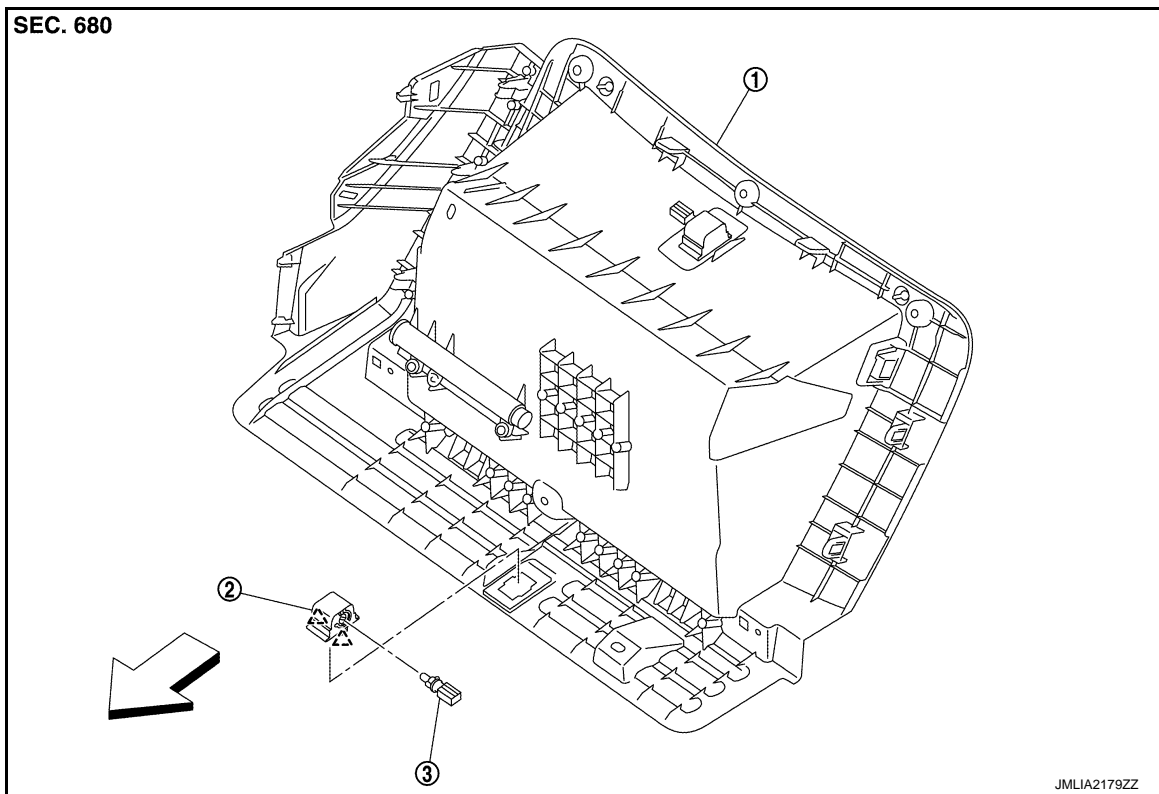
2. Rotate the bulb & socket assembly counterclockwise and unlock it and then remove bulb & socket assembly.



## PASSENGER SIDE

### PASSENGER SIDE : Exploded View

INFOID:000000007496067



1. Instrument lower panel RH      2. Lamp housing      3. Bulb & socket assembly

△ : Pawl

↶ : Vehicle front

### PASSENGER SIDE : Replacement

INFOID:000000007496068

#### **CAUTION:**

- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.
- Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

### FOOT LAMP BULB (PASSENGER SIDE)

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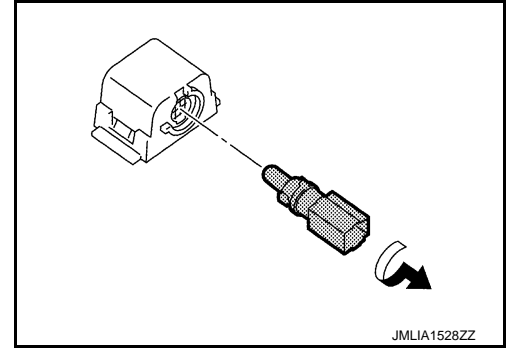
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## FOOT LAMP

### < REMOVAL AND INSTALLATION >

---

1. Remove instrument lower panel RH. Refer to [IP-13. "Removal and Installation"](#).
2. Rotate the bulb & socket assembly counterclockwise and unlock it and then remove bulb & socket assembly.



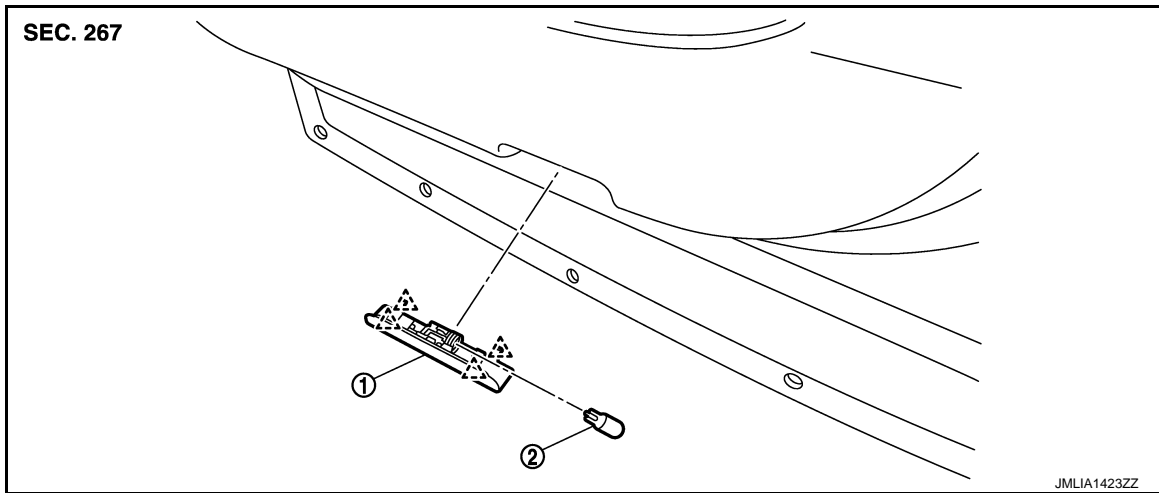
# STEP LAMP

< REMOVAL AND INSTALLATION >


## STEP LAMP

### Exploded View

INFOID:000000007496069



1. Step lamp assembly
2. Bulb

 : Pawl

### Removal and Installation

INFOID:000000007496070

#### CAUTION:


Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.

#### REMOVAL

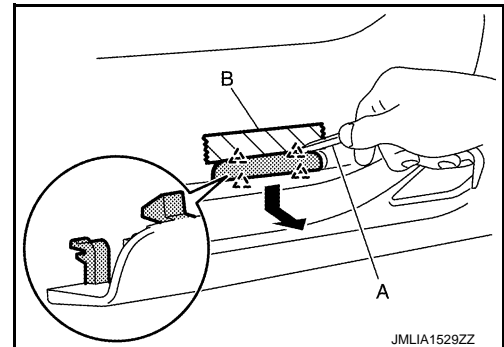
1. Disengage step lamp assembly fixing pawls with a remover tool (A).

#### CAUTION:

Apply protective tape (B) on the part to protect it from damage.

 : Pawl

2. Disconnect harness connector, and then remove step lamp assembly.



#### INSTALLATION

Install in the reverse order of removal.

### Replacement

INFOID:000000007496071

#### CAUTION:

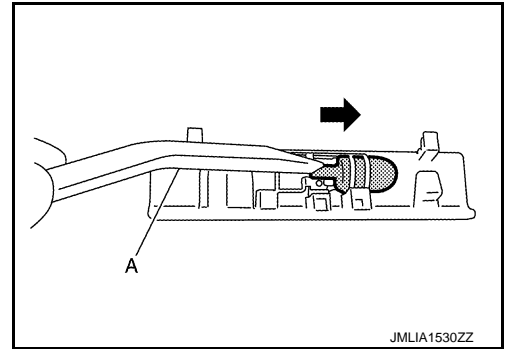
- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.
- Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

### STEP LAMP BULB

## STEP LAMP

### < REMOVAL AND INSTALLATION >

Push bulb with a remover tool (A), and then remove bulb.





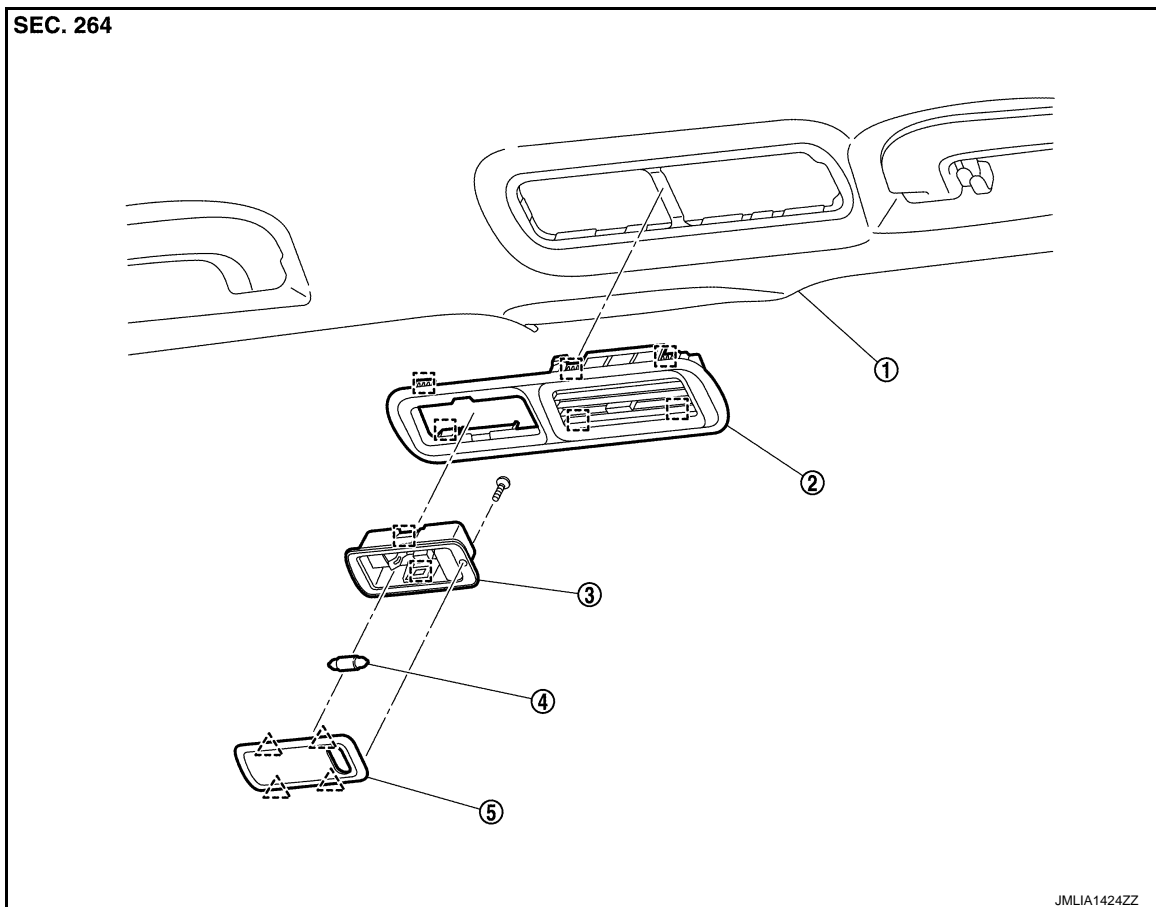
# PERSONAL LAMP

< REMOVAL AND INSTALLATION >



## PERSONAL LAMP

Exploded View

INFOID:000000007496072



- 1. Headlining
- 2. Rear cooler grille
- 3. Personal lamp case
- 4. Bulb
- 5. Lens

-  : Pawl
-  : Metal clip

### Removal and Installation


INFOID:000000007496073

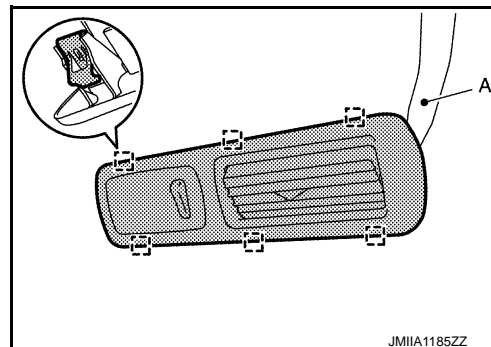
#### CAUTION:

Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.

#### REMOVAL

1. Remove rear cooler grille.
  - a. Disengage rear cooler grille fixing metal clips with a remover tool (A).
  - b. Disconnect harness connector, and then remove rear cooler grille.

 : Metal clip




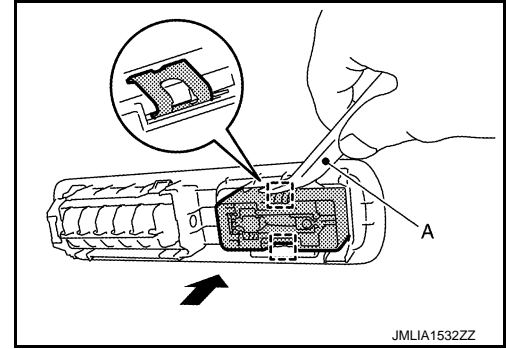
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# PERSONAL LAMP

## < REMOVAL AND INSTALLATION >

2. Remove personal lamp case.  
Disengage personal lamp case fixing metal clips with a remover tool (A), and then remove personal lamp case.

 : Metal clip



## INSTALLATION

Install in the reverse order of removal.

## Replacement

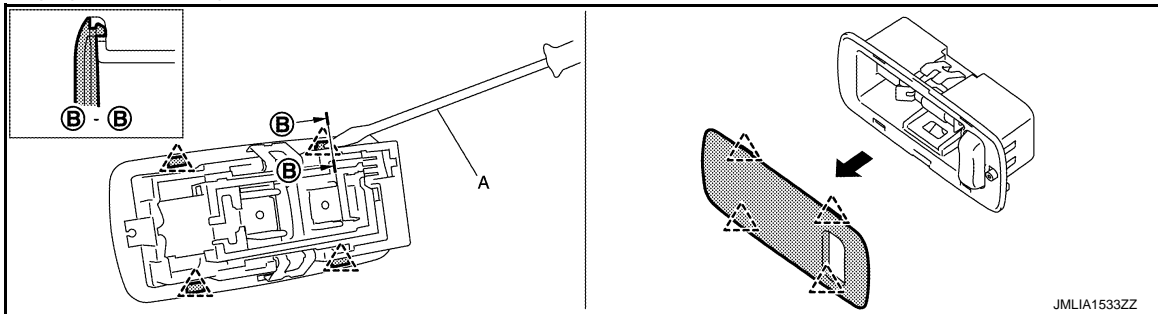
INFOID:000000007496074


### CAUTION:

- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.
- Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

## PERSONAL LAMP BULB

1. Remove personal lamp case. Refer to [INL-57, "Removal and Installation"](#).
2. Remove lens fixing screw.
3. Disengage lens fixing pawls with a remover tool (A), and then remove lens.



 : Pawl

4. Remove bulb.

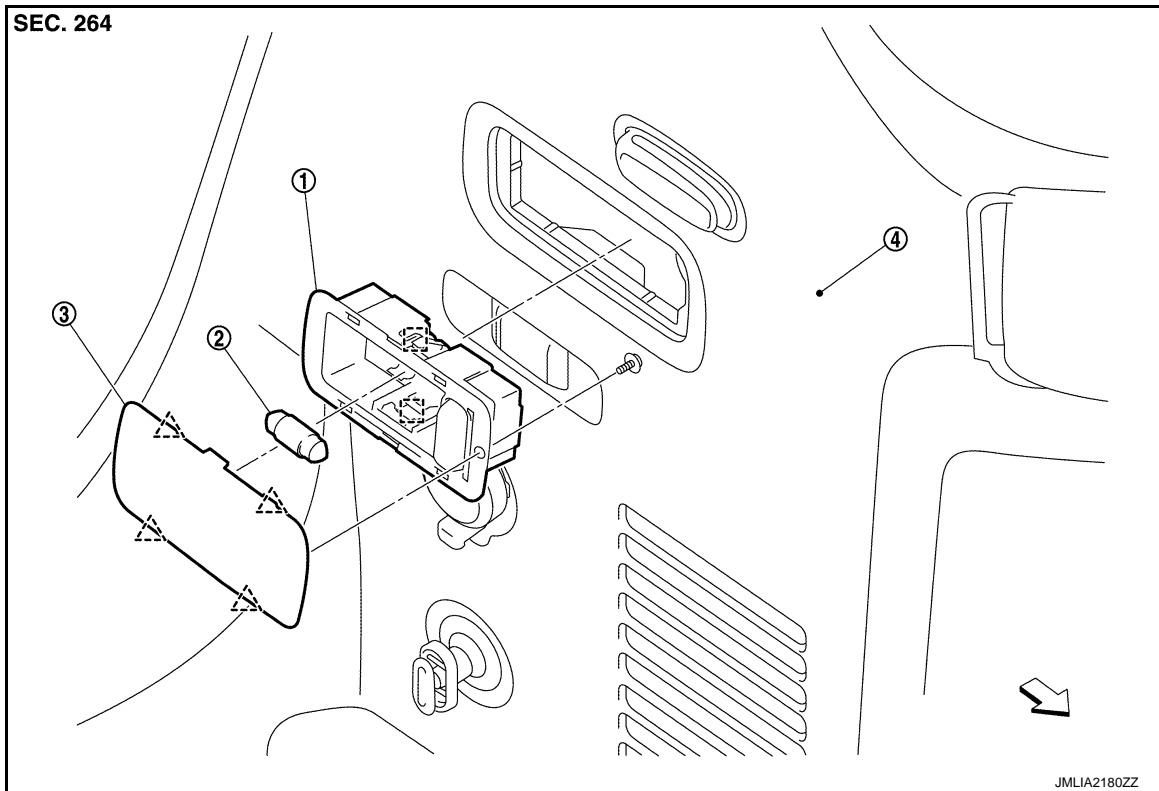
# LUGGAGE ROOM LAMP

< REMOVAL AND INSTALLATION >

## LUGGAGE ROOM LAMP

Exploded View

INFOID:000000007496075



1. Luggage room lamp case      2. Bulb      3. Lens

4. Luggage side lower finisher LH

△ : Pawl

□ : Metal clip

↶ : Vehicle front

### Removal and Installation

INFOID:000000007496076

#### CAUTION:

**Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.**

#### REMOVAL

Disengage luggage room lamp case fixing metal clips with a remover tool (A), and then remove luggage room lamp case.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

INFOID:000000007496077

#### CAUTION:

- **Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to electric leakage.**
- **Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.**
- **Never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF to prevent a burns.**

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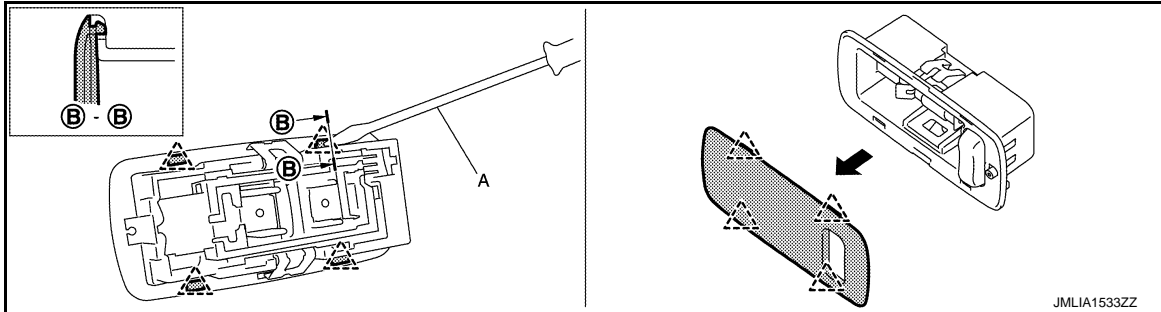
# LUGGAGE ROOM LAMP

## < REMOVAL AND INSTALLATION >

- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (causing dirty or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

### LUGGAGE ROOM LAMP BULB

1. Remove luggage room lamp case. Refer to [INL-59, "Removal and Installation"](#).
2. Remove lens fixing screw.
3. Disengage lens fixing pawls with a remover tool (A), and then remove lens.



△ : Pawl

4. Remove bulb.

# SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Bulb Specifications

INFOID:000000007496078

Item	Type	Wattage (W)
Map lamp	Wedge	8
Total coordination of illumination	LED	—
Vanity mirror lamp	—	1.2
Push-button ignition switch illumination	LED	—
Glove box lamp	—	1.4
Foot lamp (driver side)	—	1.4
Foot lamp (passenger side)	—	1.4
Step lamp	Wedge	3.4
Personal lamp	—	8
Luggage room lamp	—	8

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