SECTION INTERIOR LIGHTING SYSTEM C

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SERVICE DATA AND SPECIFICATIONS (SDS)

< PRECAUTION > PRECAUTION PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. 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

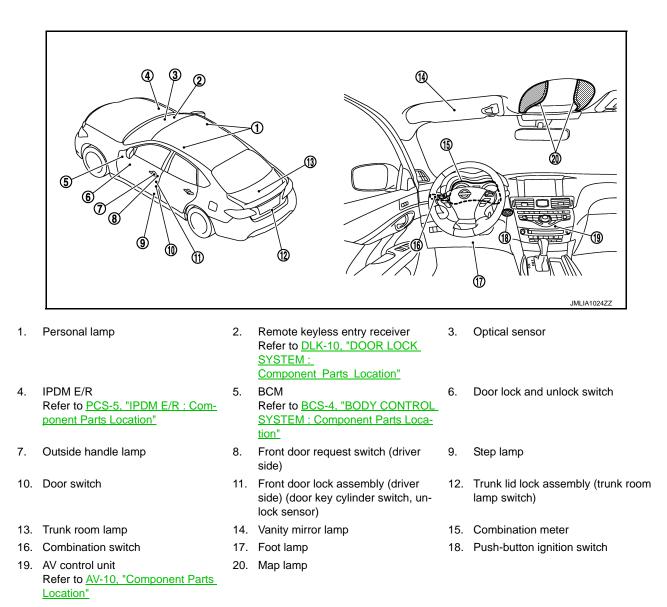
< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

COMPONENT PARTS

INTERIOR LIGHTING SYSTEM

INTERIOR LIGHTING SYSTEM : Component Parts Location



INTERIOR LIGHTING SYSTEM : Component Description

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Part	Description			
BCM	Controls the interior lighting system.			
IPDM E/R	Controls the integrated relay according to the request signal from BCM (via CAN com- munication).			
Remote keyless entry receiver	Receives the lock/unlock signal from Intelligent Key.			
Combination switch (Lighting & turn signal switch)	Refer to BCS-8, "COMBINATION SWITCH READING SYSTEM : System Description			
Door lock and unlock switchDoor request switchDoor key cylinder switch	Inputs the lock/unlock signal to BCM.			

Revision: 2013 September

COMPONENT PARTS

< SYSTEM DESCRIPTION >

Part	Description	٥
Door switch	Inputs the door switch signal to BCM.	A
Trunk room lamp switch	Inputs the trunk room lamp switch signal to BCM.	
Unlock sensor	Detects door lock condition of driver side door.	В
Optical sensor	Refer to EXL-9, "EXTERIOR LIGHTING SYSTEM : Component Description".	

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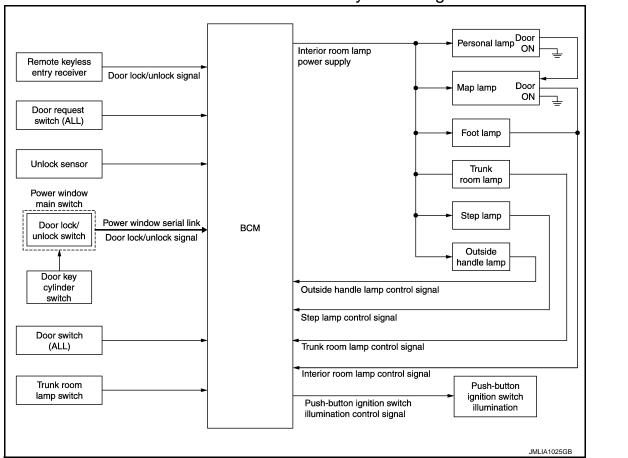
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SYSTEM INTERIOR ROOM LAMP CONTROL SYSTEM

INTERIOR ROOM LAMP CONTROL SYSTEM : System Diagram



INTERIOR ROOM LAMP CONTROL SYSTEM : System Description

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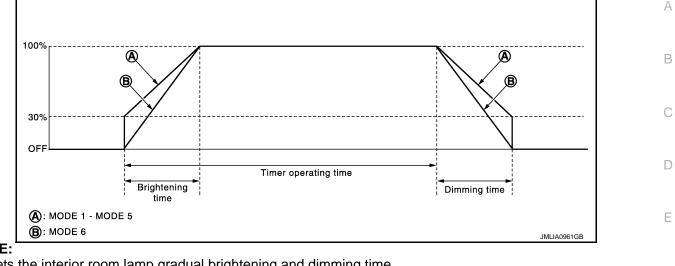
OUTLINE

- Interior room lamps* are controlled by interior room lamp timer control function of BCM.
 *: Map lamp, foot 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.
- Trunk room lamp is controlled by trunk room lamp control function of BCM.
- Outside handle lamp is controlled by outside handle lamp timer control function of BCM.
- Push-button ignition switch illumination is controlled by the push-button ignition switch illumination control function of BCM.
- Interior room lamps and outside handle lamp are illuminated by welcome light function of Intelligent Key system. Refer to <u>DLK-24, "WELCOME LIGHT FUNCTION : System Description"</u>.

INTERIOR ROOM LAMP TIMER CONTROL

< SYSTEM DESCRIPTION >

Interior Room Lamp Timer Basic Operation



NOTE:

A: Sets the interior room lamp gradual brightening and dimming time.

- B: Gradually dims from 100% to 0% and gradually brightens 0% to 100% in 1 second.
- 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.
- Ignition switch status
- Door switch signal
- Door lock/unlock signal (Remote keyless entry receiver, each door request switch, door key cylinder switch, Н door lock/unlock switch)

NOTE:

Each function of interior room lamp timer can be set by CONSULT. Refer to INL-14, "INT LAMP : CONSULT Function (BCM - INT LAMP)".

Interior Room Lamp ON Operation

- BCM always turns the interior room lamp ON when any door opens.
- When all doors are closed, and any all door unlock operation is performed or ignition switch is turned OFF, BCM brightens interior room lamp to 30% brightness and maintains 30% brightness until any door opens.
- BCM activates the interior room timer in any of the following conditions to turn the interior room lamp ON for a period of time. Κ
- Any door opens before all doors close.
- Ignition switch is turned ON \rightarrow OFF.
- Any door unlock signal is detected when all doors close with ignition switch OFF.

NOTE:

The timer is restarted 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 interior room lamp timer operating time is expired with all doors closed. 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 trunk room lamp switch ON.

STEP LAMP CONTROL

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

OUTSIDE HANDLE LAMP TIMER CONTROL

Outside Handle Lamp Timer Basic Operation

- BCM controls the ground to turn the outside handle lamp ON.
- The outside handle lamp turns ON and OFF by the outside handle lamp timer.
- BCM judges the vehicle condition with the following items. It activates the outside handle lamp timer.
- Ignition switch status
- Door switch signal
- Door lock/unlock signal (remote keyless entry receiver, each door request switch)

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< SYSTEM DESCRIPTION >

- Driver side door lock status

Outside Handle Lamp ON Operation

BCM activates the outside handle lamp timer in any of the following conditions to turn the outside handle lamp ON for a period of time.

- Any door opens.
- Any door opens before all doors close.
- Ignition switch is turned $ON \rightarrow OFF$.
- Door unlock signal by remote keyless entry receiver or each door request switch is detected.
- Driver side door is locked

NOTE:

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

Outside Handle Lamp OFF Operation

BCM stops the timer in any of the following conditions to turns the outside handle lamp OFF.

- The outside handle lamp timer operating time is expired.
- The interior room lamp OFF conditions.
- The interior room lamp timer operating time is expired.

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CONTROL

Push-button Ignition Switch Illumination Basic Operation

BCM controls the ON/OFF status of push-button ignition switch illumination according to vehicle status.

Heart Beat Operation

BCM repeats brightening and dimming operation of push-button ignition switch illumination when any of the following conditions are satisfied.

- Welcome light function operates.
- When ignition switch is OFF and any of the following conditions are satisfied.
- Driver door changes from closed to open
- Intelligent Key ID comparison is OK and driver side door changes from open to closed
- ID comparison by Intelligent Key transponder is OK

- Driver door is unlocked

Illumination ON Operation

When ignition switch is change from OFF to ON, push-button ignition switch illumination turns ON.

Dimming Operation

When ignition switch is change from ON to OFF, driver side is open and driver side door unlocked, push-button ignition switch illumination dims to 50% brightness.

Illumination OFF Operation

Push-button ignition switch illumination turns OFF when ignition switch turns OFF, while push-button ignition switch illumination is in ON status.

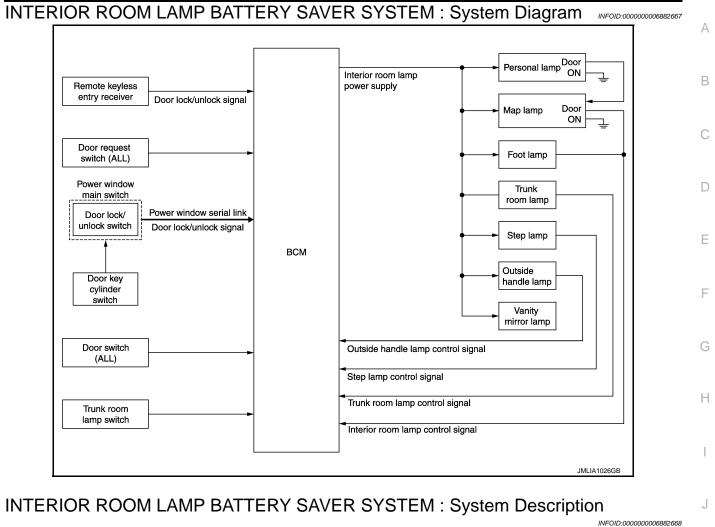
When push-button ignition switch illumination is at 50% brightness or, when in heartbeat status any of the following conditions are satisfied, push-button ignition switch illumination turns OFF.

- Driver side door from unlock to lock.
- 15 seconds after start of heartbeat operation.
- When welcome light function is not operating and any on the following conditions is satisfied.
- Driver side door is closed
- Intelligent Key ID comparison is NG

- Comparison of Intelligent Key ID by transponder is NG

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >



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
- Personal lamp
- Foot lampTrunk room lamp
- Step lamp
- Outside handle lamp
- Vanity mirror lamp

INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

- When the ignition switch is turned is other position 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.
- When welcome light function operates.

NOTE:

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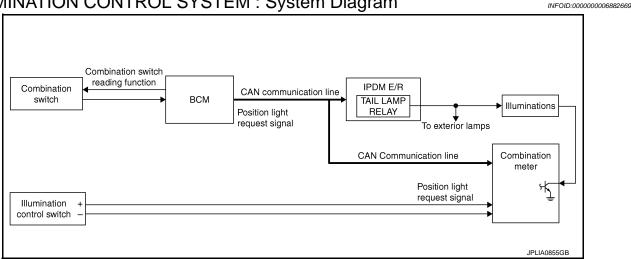
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< SYSTEM DESCRIPTION >

Each function of interior room lamp battery saver can be set by CONSULT. Refer to <u>INL-15, "BATTERY</u> <u>SAVER : CONSULT Function (BCM - BATTERY SAVER)"</u>. ILLUMINATION CONTROL SYSTEM

ILLUMINATION CONTROL SYSTEM : System Diagram



ILLUMINATION CONTROL SYSTEM : System Description

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OUTLINE

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

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 <u>MWI-13, "SPEEDOMETER : System Description"</u>.)

ILLUMINATION CONTROL

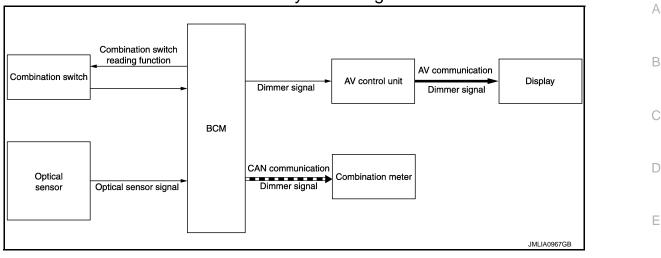
- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits position light request signal to IPDM E/R and combination meter according to tail lamp ON condition.

Tail lamp ON condition

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (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).
- AUTO LIGHT ADJUSTMENT SYSTEM

< SYSTEM DESCRIPTION >

AUTO LIGHT ADJUSTMENT SYSTEM : System Diagram



AUTO LIGHT ADJUSTMENT SYSTEM : System Description

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 dims/brightness 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. Dimmer signal is also transmitted to AV control unit.

NOTE:

As to dims/brightness timing, the sensitivity depends on settings. The settings can be changed with CON-SULT. Refer to <u>EXL-26, "HEADLAMP : CONSULT Function (BCM - HEAD LAMP)"</u>.

Auto Light Adjustment Timing Table

When the ignition switch is ON, the combination meter and display turns dims/brightness in the following condition.

Combination meter and display	Dims/brightness timing
Dims	Outside brightness is 1250 lx or less for 3 seconds or more.
Brightness	Outside brightness is 2500 lx or more for 5 seconds or more.

BCM turns combination meter and display dims when outside brightness obtained from the optical sensor signal is 1250 lx or less for 3 seconds or more. And BCM turns combination meter and display brightness when outside brightness from the optical sensor signal is 2500 lx or more for 5 seconds or more.

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< SYSTEM DESCRIPTION > 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	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.			

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.

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

*: This item 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.

< 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		
	SLEEP>LOCK	-	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" (Vehicle is stopping and selector lever is except P position.)	
	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" (Emer- gency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK	Power position status of the moment a particular DTC is detected	While turning power supply position from "OFF" to "LOCK"*	
Vehicle Condition	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" (Ignition switch OFF with steer- ing is locked.)*	
	OFF			Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
	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 The number is 0 when a malfunction is detected now. The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON. 		

NOTE:

*: For models without steering lock unit, power supply position changes from "OFF" to "LOCK" when steering lock conditions are satisfied.

INT LAMP

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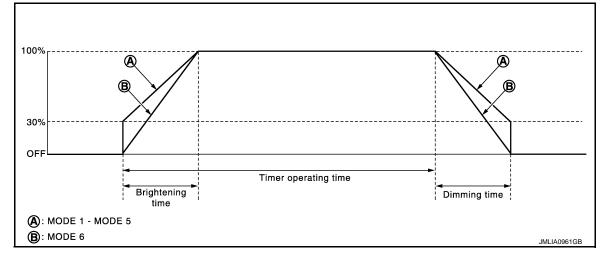
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< SYSTEM DESCRIPTION >

INT LAMP : CONSULT Function (BCM - INT LAMP)

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WORK SUPPORT



Service item	Setting item	Setting		
SET I/L D-UNLCK INTCON On* With the interior room lamp ti		nterior room lamp timer function		
SET I/E D-ONECK INTCOM	Off	Without the interior room lamp timer function		
	MODE 2	7.5 sec.		
ROOM LAMP TIMER SET	MODE 3*	15 sec.	Sets the interior room lamp ON time. (Timer operating time)	
	MODE 4	30 sec.		
	MODE 1	0.5 sec.		
	MODE 2	1 sec.		
ROOM LAMP ON TIME SET	MODE 3	2 sec.	Sets the interior room lamp gradual brightening time.	
	MODE 4	3 sec.		
	MODE 5	0 sec.		
	MODE 6*	Gradually brightens from 0% to 100% brightness in 1 second.		
	MODE 1	0.5 sec.		
	MODE 2	1 sec.		
ROOM LAMP OFF TIME SET	MODE 3	2 sec.	Sets the interior room lamp gradual dimming time.	
ROOM LAMP OF THME SET	MODE 4	3 sec.		
	MODE 5	0 sec.		
	MODE 6*	Gradually dims from 100% to 0% in 1 second.		
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 request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description	
REQ SW-RR [On/Off] REQ SW-RL	NOTE: The item is indicated, but not monitored.	
[On/Off] PUSH SW	Push switch status received from Intelligent Key unit via CAN communication	
[On/Off] 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 rear door switch RH	
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH	
DOOR SW- BK [On/Off]	NOTE: The item is indicated, but not monitored.	
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	
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch	
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch	
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp 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, foot lamp (when applicable lamps switch is in DOOR po- sition.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps OFF.
	On	Outputs the step lamp control signal to turn the step lamps ON.
STEP LAMP TEST	Off	Stops the step lamp control signal to turn the step lamps ON.

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

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WORK SUPPORT

< SYSTEM DESCRIPTION >

Service item	Setting item	Setting				
ROOM LAMP TIMER SET	MODE 1 [*]	30 min.				
	MODE 2	60 min.	Sets the interior room lamp battery saver timer operating time.			
	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

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from front request switch (passenger side)
REQ SW-RR [On/Off]	NOTE:
REQ SW-RL [On/Off]	The item is indicated, but not monitored.
PUSH SW [On/Off]	Push switch status received from Intelligent Key unit by CAN communication
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 rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW- BK [On/Off]	NOTE: The item is indicated, but not monitored.
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
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp 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

< SYSTEM DESCRIPTION >

Test item	Operation	Description	
BATTERY SAVER	Off	Cuts the interior room lamp power supply to turn interior room lamps OFF.	_
DATIENT SAVER	On	Outputs the interior room lamp power supply to turn interior room lamps ON.*	_
Fach lamp quitch is in ON no			- B

*: Each lamp switch is in ON position.

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ECU DIAGNOSIS INFORMATION BCM

List of ECU Reference

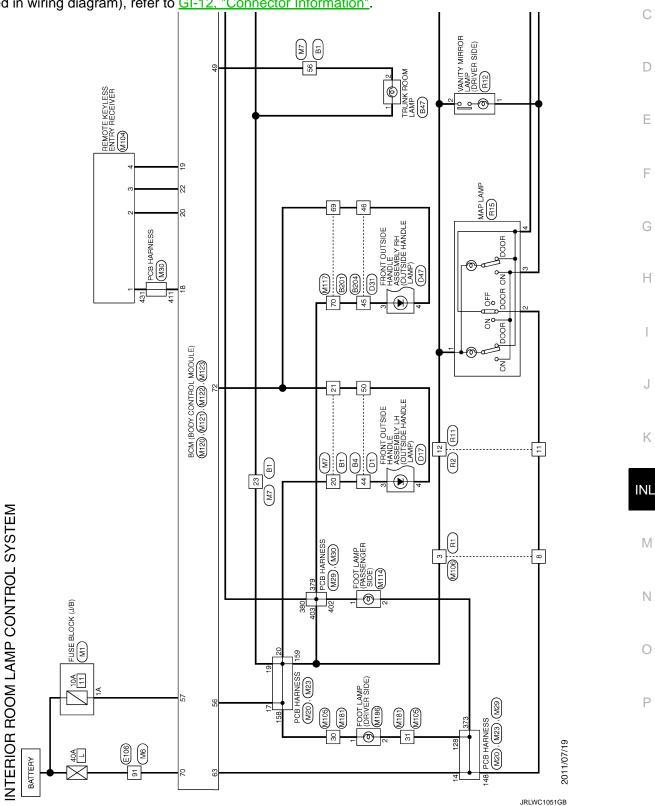
ECU	Reference	
	BCS-34, "Reference Value"	
BCM	BCS-54, "Fail-safe"	
	BCS-56, "DTC Inspection Priority Chart"	
	BCS-57, "DTC Index"	

< WIRING DIAGRAM >

WIRING DIAGRAM INTERIOR ROOM LAMP CONTROL SYSTEM

Wiring Diagram

For connector terminal arrangements, harness layouts, and alphabets in a \bigcirc (option abbreviation; if not described in wiring diagram), refer to <u>GI-12. "Connector Information"</u>.

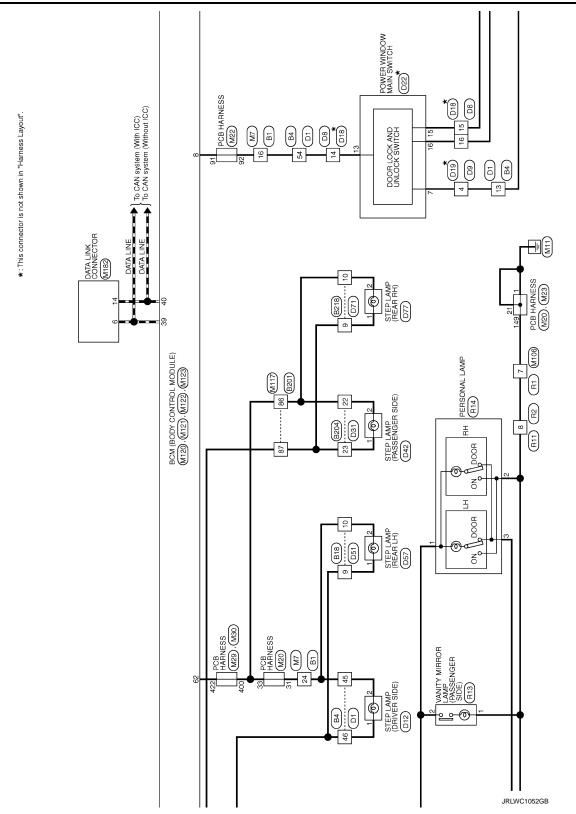


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INTERIOR ROOM LAMP CONTROL SYSTEM

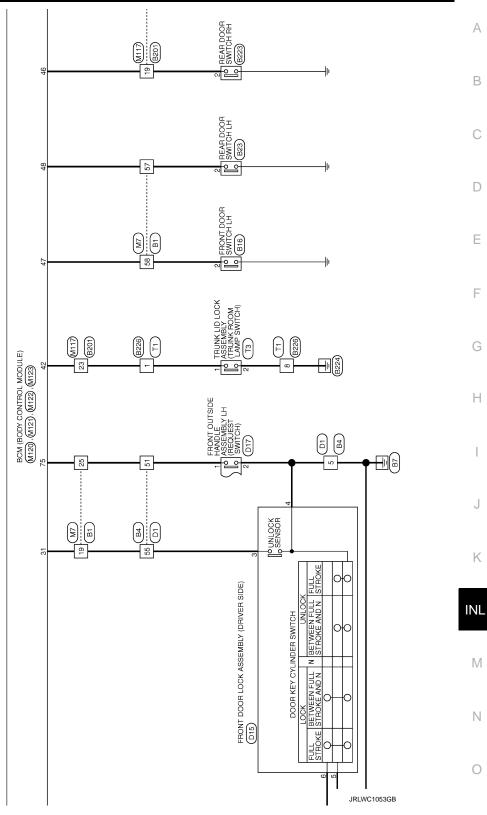
< WIRING DIAGRAM >



Revision: 2013 September

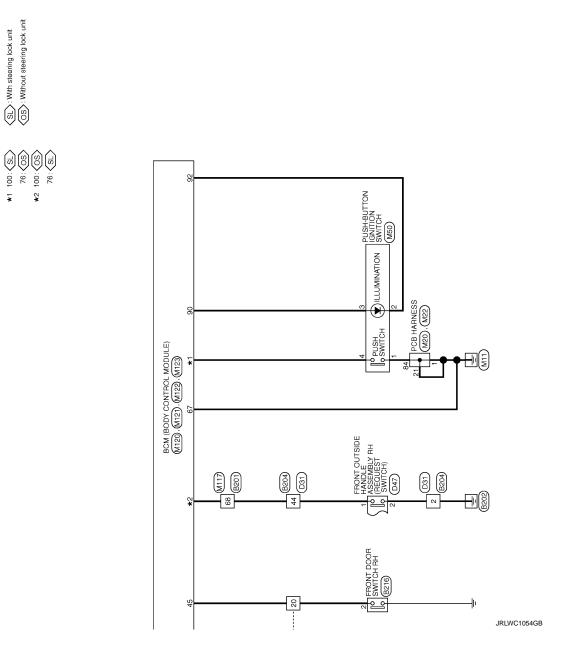
INTERIOR ROOM LAMP CONTROL SYSTEM

< WIRING DIAGRAM >



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< WIRING DIAGRAM >



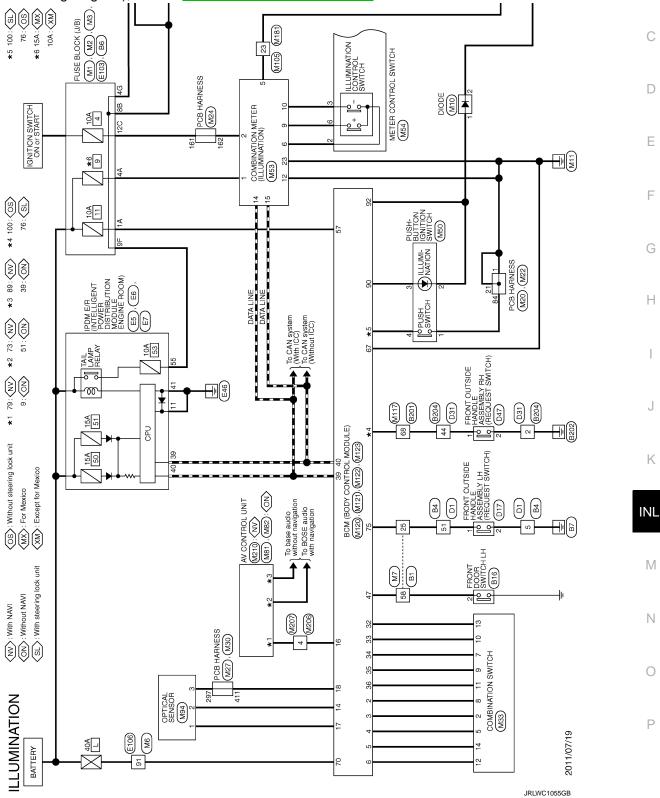
ILLUMINATION

< WIRING DIAGRAM >

ILLUMINATION

Wiring Diagram

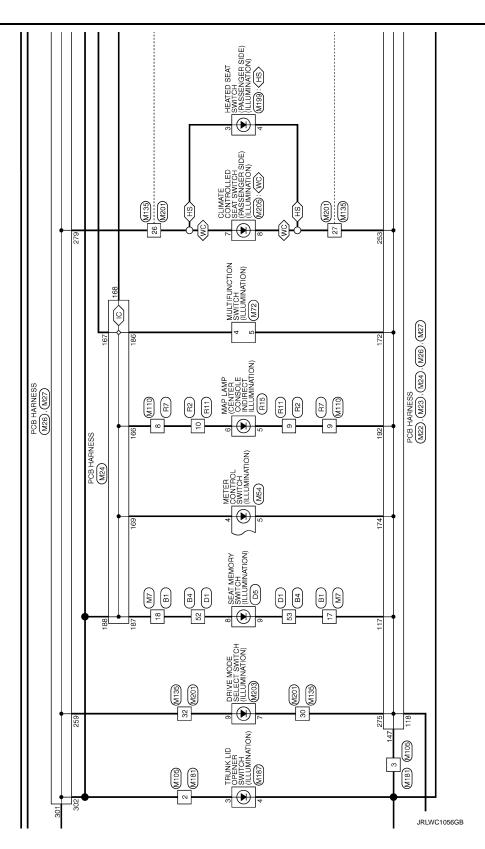
For connector terminal arrangements, harness layouts, and alphabets in a \bigcirc (option abbreviation; if not described in wiring diagram), refer to <u>GI-12, "Connector Information"</u>.



ILLUMINATION

< WIRING DIAGRAM >

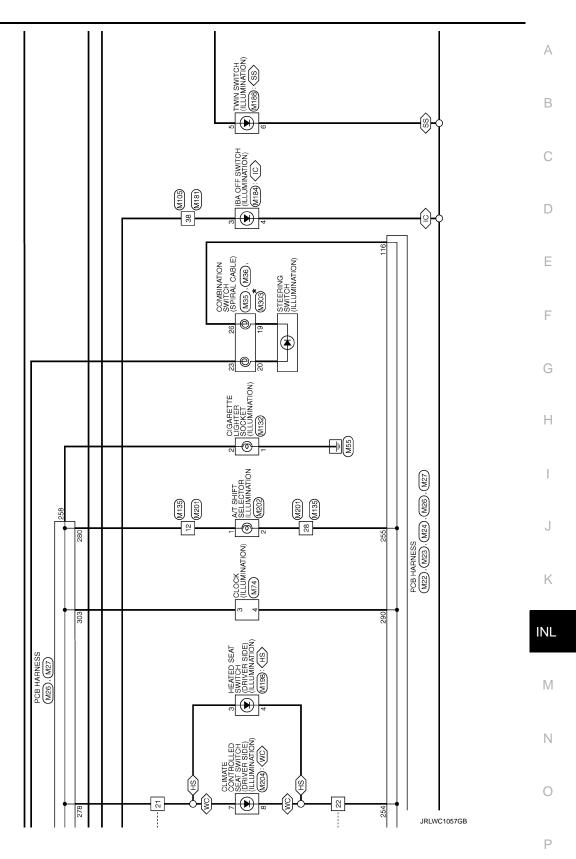
✓C>: With ICC
 ✓With climate controlled seat
 ✓HS>: With heated seat

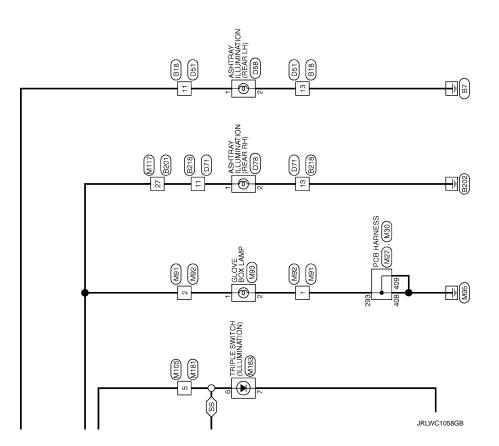


ILLUMINATION

< WIRING DIAGRAM >







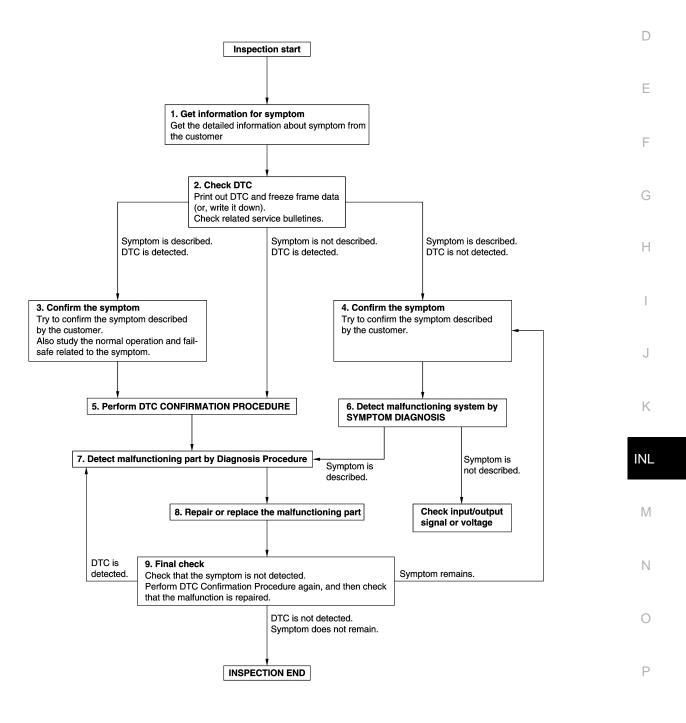
SS : With heated steering

< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



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DETAILED FLOW

Revision: 2013 September

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< 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 <u>BCS-56. "DTC Inspection Priority Chart"</u> 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 CONFIR-MATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to <u>GI-44, "Intermittent Incident"</u>.

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 CON-SULT.
- 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?	А
YES >> GO TO 8.	
NO >> Check according to <u>GI-44, "Intermittent Incident"</u> .	
8. REPAIR OR REPLACE THE MALFUNCTIONING PART	В
 Repair or replace the malfunctioning part. Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replace- 	
ment.	С
3. Check DTC. If DTC is detected, erase it.	
	D
>> 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.	Е
When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the	
symptom is not detected.	F
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.	G
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INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

Description

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

Component Function Check

INFOID:000000006882681

INFOID:000000006882680

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
- Foot lamp
- Trunk room lamp
- Step lamp
- Outside handle 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-30, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000006882682

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

CONSULT ACTIVE TEST

- 1. Turn ignition switch OFF.
- 2. Disconnect the following connectors.
- Personal lamp
- Map lamp
- Foot lamp (both sides)
- Trunk room lamp
- Step lamp (ALL)
- Outside handle 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	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M122	56	Ground	BATTERY SAVER	Off	0 V	
111122	50	Ground		On	12 V	

Is the inspection result normal?

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

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

$\overline{2}$.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.

BC	M	Each interior	room lamp		Continuity	
Connector	Terminal	Connector		Terminal		
		Personal lamp	R14			
	Map lamp	R15				
		Foot lamp (driver side)	M186			
		Foot lamp (passenger side)	M114			
		Trunk room lamp	B47			
		Step lamp (driver side)	D12	1	Existed	
M122	56	Step lamp (passenger side)	D42	Exis		
W122 50		Step lamp (Rear LH)	D57		Existed	
		Step lamp (Rear RH)	D77			
		Outside handle lamp (driver side)	D17	2		
		Outside handle lamp (passenger side)	D47	- 3		
		Vanity mirror lamp (driver side)	R12			
	Vanity mirror lamp (passenger side)	R13	2			
inspection r	esult normal?			· ·		
		short circuit of each interior roor	n lamp.			
•	ir or replace h					
ECK INTER	RIOR ROOM L	AMP POWER SUPPLY SHOR	T CIRCUIT			
Irn ignition	switch OFF.					

3. Check continuity between BCM harness connector and ground.

0.							
-	BC	CM		Continuity	-		
-	Connector	Terminal	Ground	Continuity	N		
	M122	56		Not existed			

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82. "Removal and Installation"</u>.

NO >> Repair or replace harnesses.

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INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description

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

CAUTION:

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

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

1.CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

CONSULT ACTIVE TEST

- 1. Switch the map 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 <u>INL-32</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

CONSULT ACTIVE TEST

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

BCM		Tost it		titom	Continuity	
Connector	Terminal	Ground	Test item		Continuity	
M122	62	Ground	INT LAMP	On	Existed	
11122	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, personal lamp connector and foot lamp connector.

3. Check continuity between BCM harness connector and foot lamp harness connector.

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INFOID:000000006882684

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

В	BCM		Foot lamp			А
Connector	Terminal	Coni	nector	Terminal	al Continuity	
M122	63	Driver side	M186	2	Existed	
IVI I ZZ	03	Passenger side	M114	– 2 Existed		В

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

BC	BCM		lamp	Continuity		
Connector	Terminal	Connector	Terminal	Continuity		
M122	63	R15	2	Existed	D	

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

Connector Terminal Connector Terminal	Personal lamp		Map lamp		- Continuity	E
P14 3 P15 A Evicto	Connector	Terminal	Connector	Terminal	Continuity	
	R14	3	R15	4	Existed	_

Is the inspection result normal?

YES >> Replace map lamp, personal lamp or foot lamp.

NO >> Repair or replace harnesses.

$\mathbf{3}$. CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect BCM connector, map lamp connector, personal lamp connector and foot lamp connector.
- 3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M122	63		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Removal and Installation"</u>.

NO >> Repair or replace harnesses.

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< DTC/CIRCUIT DIAGNOSIS >

TRUNK ROOM LAMP CIRCUIT

Description

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

Diagnosis Procedure

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 OUTPUT

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

BCM			Condition		Continuity
Connector	Terminal	Ground	Con		Continuity
M101	M424 40		Trupk lid	Open	Existed
M121	49		Trunk lid	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 TRUNK ROOM LAMP OPEN CIRCUIT

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and trunk room lamp harness connector.

B	BCM		Trunk room lamp		
Connector	(+)	Connector	(-)	Continuity	
Connector	Terminal	Connector	Terminal	Ť	
M121	49	B47	2	Existed	

Is the inspection result normal?

- YES >> Replace trunk room lamp.
- NO >> Repair or replace harnesses.

3.CHECK TRUNK ROOM LAMP SHORT CIRCUIT

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M121	M121 49		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Removal and Installation"</u>.

NO >> Repair or replace harnesses.

INFOID:000000006882686

STEP LAMP CIRCUIT

< DTC/CIRCUIT D					
STEP LAMP (CIRCUIT				
Description					INFOID:000000006882688
Controls the step la	mp (ground side)	to turn the step la	amp ON and OFF.		
Component Fui	nction Check				INFOID:000000006882689
CAUTION: Before performing • Interior room lan • Step lamp bulb 1.CHECK STEP L	np power supply		bllowing is norma	al.	
CONSULT ACTIV 1. Turn ignition sw 2. Select "STEP L	/E TEST	CM (INT LAMP) a			
On :S	tep lamp ON				
	tep lamp OFF				
	turn ON/OFF? mp circuit is norm INL-35, "Diagno				
Diagnosis Proc					INFOID:000000006882690
1. CHECK STEP L	AMP OUTPUT				
 Turn ignition sw Remove the ste Turn ignition sw 	vitch OFF. ep lamp bulbs (AL vitch ON.				
	AMP TEST" of BO		active test item. veen BCM harness	s connector and g	round.
B	СМ		Teet	item	Continuity
Connector	Terminal	Ground		I	
M122	62		STEP LAMP TEST	On Off	Existed 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		
Connector	Terminal	Coni	Connector		- Continuity
M122 62		Driver side	D12	- 2	Existed
	62 Rear LH Rear RH	Passenger side	D42		
		Rear LH	D57		
		Rear RH	D77		

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< DTC/CIRCUIT DIAGNOSIS >

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.
- 2. Disconnect BCM connector.

3. Check continuity between BCM harness connector and ground.

-	BC	CM		Continuity
	Connector Terminal		Ground	Continuity
_	M122	62		Not existed

Is the inspection result normal?

YES >> Repair or replace harnesses.

NO >> Replace BCM. Refer to <u>BCS-82, "Removal and Installation"</u>.

OUTSIDE HANDLE LAMP CIRCUIT

< C)T	C/	С	IR	CL	רונ	Γ	D	IA	٩G	N	OS	SIS	; >	•			
-			-														-	-

OUTSIDE HANDLE LAMP CIRCUIT А Description INFOID:00000006882691 Controls the outside handle lamp (ground side) to turn the outside handle lamp ON and OFF. В Diagnosis Procedure INFOID:000000006882692 CAUTION: Before performing the diagnosis, check that the following is normal. Interior room lamp power supply 1.CHECK OUTSIDE HANDLE LAMP OUTPUT D 1. Turn ignition switch OFF. Disconnect outside handle lamp connector. 2. 3. Check continuity between BCM harness connector and ground. Е BCM Condition Continuity Connector Terminal F Ground Existed Open M123 72 Any door Closed Not existed Is the inspection result normal? >> GO TO 2. YES Fixed ON>>GO TO 3. Н Fixed OFF>>Replace BCM. Refer to BCS-82, "Removal and Installation". 2.CHECK OUTSIDE HANDLE LAMP OPEN CIRCUIT Check continuity between BCM harness connector and outside handle lamp harness connector. BCM Outside Handle lamp Continuity Connector Terminal Connector Terminal Driver side D17 M123 72 4 Existed Passenger side D47 Κ Is the inspection result normal? YES >> Replace outside handle lamp. NO >> Repair or replace harnesses. INL ${\it 3.}$ check outside handle lamp short circuit Check continuity between BCM harness connector and ground. Μ BCM Continuity Connector Terminal Ground Ν M123 72 Not existed Is the inspection result normal? YES >> Replace BCM. Refer to BCS-82, "Removal and Installation". NO >> Repair or replace harnesses. Ρ

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

Description

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

Component Function Check

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-38, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000006882695

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

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

(Push-button	+) ignition switch	(-)	Condition	Voltage (Approx.)	
Connector	Terminal				
MEO	2	Cround	Push-button ignition switch	ON	12 V
M50	3	Ground	illumination	OFF	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.

B	CM	Push-button	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M123	90	M50	3	Existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harnesses.

${ m 3.}$ CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY SHORT CIRCUIT

Check continuity between BCM harness connector and ground.

BC	CM		Continuity		
Connector	Terminal	Ground	Continuity		
M123	90		Not existed		

INFOID:000000006882693

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation". NO >> Repair or replace harnesses. 4. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION GROUND CIRCUIT 1. Turn the ignition switch OFF. 2. Check continuity between push-button ignition switch harness connector and BCM harness connector. BCM Push-button ignition switch Continuity Connector Terminal Connector Terminal 2 M50 M123 92 Existed

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

Push-butto	n ignition switch		Continuity	E	
Connector	Terminal	Ground	Continuity		
M50	2		Not existed	-	
le the increation requit we		1		F	

Is the inspection result normal?

YES >> Replace push-button ignition switch.

NO >> Repair or replace harnesses.

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SYMPTOM DIAGNOSIS INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

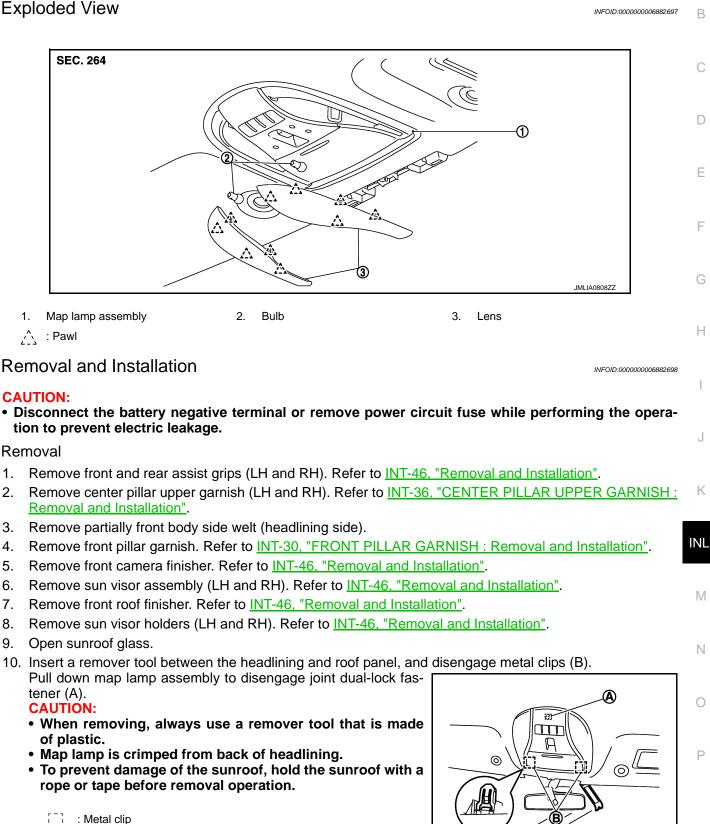
INFOID:000000006882696

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. • Map lamp • Personal lamp • Vanity mirror lamp • Foot lamp • Step lamp • Outside handle lamp • Trunk room lamp	 Harness between BCM and each interior room lamp BCM 	Interior room lamp power supply cir- cuit Refer to <u>INL-30</u> .
 Interior room lamp does not turn ON even though the door is open. (It turns ON when turning the interior room lamp ON.) Interior room lamp does not turn OFF even though the door is closed. 	 Harness between BCM and each door switch Harness between BCM and each interior room lamp BCM 	Door switch circuit Refer to <u>DLK-60</u> . Interior room lamp control circuit Refer to <u>INL-32</u> .
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	_	Check the interior room lamp setting. Refer to <u>INL-14</u> .
 Outside handle lamp does not turn ON even though the door is open. Outside handle lamp does not turn OFF even though the door is closed. 	 Harness between BCM and each door switch Harness between BCM and out- side handle lamp BCM 	Door switch circuit Refer to <u>DLK-60</u> . Outside handle lamp circuit Refer to <u>INL-37</u> .
 Trunk room lamp does not turn ON even though the trunk lid is open. (It turns ON when turning the trunk room lamp 	 Harness between BCM and trunk room lamp switch Harness between BCM and trunk 	Trunk room lamp switch circuit Refer to <u>DLK-74</u> .
ON.)Trunk room lamp or does not turn OFF even though the trunk lid is closed.	room lamp • BCM	Trunk room lamp circuit Refer to <u>INL-34</u> .
• Step lamps (ALL) do not turn ON.	Harness between BCM and each step lamp	Door switch circuit Refer to <u>DLK-60</u> .
 Step lamps (ALL) do not turn OFF. 	• BCM	Step lamp circuit Refer to <u>INL-35</u> .
Push-button ignition switch illumination does not illuminate.	 Harness between BCM and push- button ignition switch BCM 	Push-button ignition switch illumina- tion circuit Refer to <u>INL-38</u> .
Interior room lamp battery saver does not activate.	ВСМ	Replace BCM. Refer to <u>BCS-82</u> .

< REMOVAL AND INSTALLATION > **REMOVAL AND INSTALLATION** MAP LAMP



11. Remove map lamp assembly.

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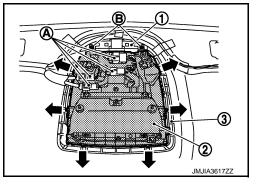
NOTE:

Operate from the opening part of sunroof to ease the work.

- a. Remove harness connector (A).
- b. Remove screws (B), and then remove map lamp bracket (1).
- c. Remove map lamp back plate (3) from headlining while pressing engagement of each pawls in the direction as shown in the figure.

CAUTION:

When removing, support map lamp assembly (2) by hand so that it does not drop during the operation.



Installation Install in the reverse order of removal.

Replacement

INFOID:000000006882699

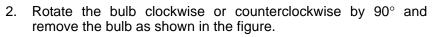
CAUTION:

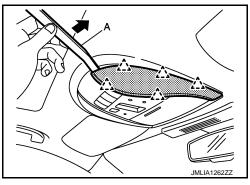
- Disconnect the battery negative terminal or remove power circuit fuse while performing the operation to prevent electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.
- Never touch the glass surface of the bulb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

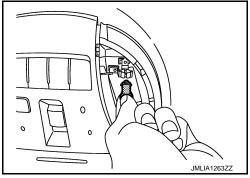
MAP LAMP BULB

1. Insert a remover tool (A) into the gap between the lens to disengage fixing pawls as shown by the arrow in the figure, and then remove the lens.

∠___ : Pawl







VANITY MIRROR LAMP

< REMOVAL AND INSTALLATION >

VANITY MIRROR LAMP

Exploded View

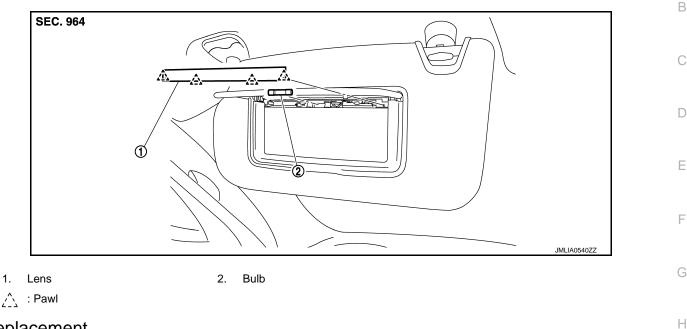
INFOID:000000006882700

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Replacement

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 k replacing the bulb.

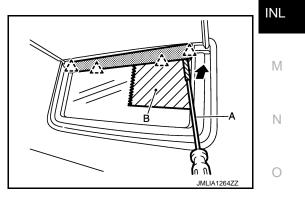
VANITY MIRROR LAMP BULB

1. Insert a remover tool (A) into the gap between the lens to disengage fixing pawls as shown by the arrow in the figure, and then remove the lens.

六 : Pawl

CAUTION:

- Use a remover tool wrapped in tape.
- Apply protective tape (B) around the vanity mirror to protect the surface from damage.



2. Remove the bulb.

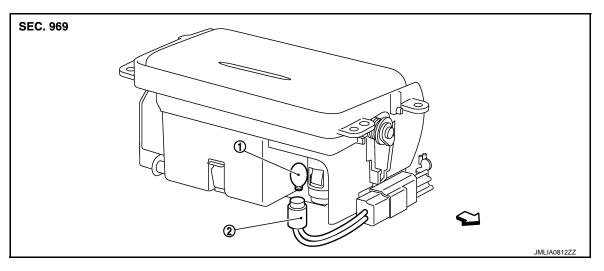
CIGARETTE LIGHTER ILLUMINATION

< REMOVAL AND INSTALLATION >

CIGARETTE LIGHTER ILLUMINATION

Exploded View

INFOID:000000006882702



1. Bulb

2. Bulb socket

 \triangleleft : Vehicle front

Removal and Installation

- Remove console finisher assembly. Refer to <u>IP-24, "Removal and Installation"</u>.
- · Remove ashtray assembly. Refer to IP-23, "Exploded View".

Replacement

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.

CIGRETTE LIGHTER ILLUMINATION BULB

- 1. Remove console finisher assembly, and then remove ashtray assembly. Refer to <u>IP-24, "Removal and</u> <u>Installation"</u>.
- 2. Rotate bulb socket counterclockwise to unlock it.
- 3. Remove the bulb.

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REAR DOOR ASHTRAY ILLUMINATION

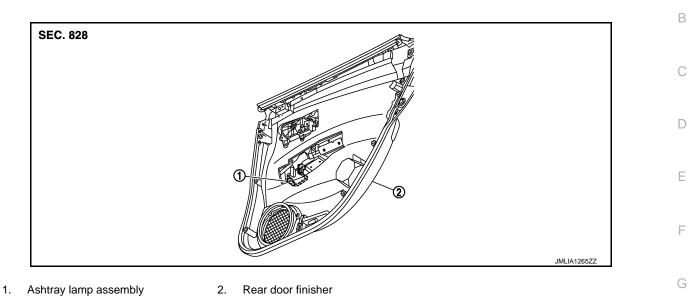
< REMOVAL AND INSTALLATION >

REAR DOOR ASHTRAY ILLUMINATION

Exploded View

INFOID:000000006882705

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Removal and Installation

Refer to INT-27, "Exploded View" for the rear door finisher installation or removal.

Replacement

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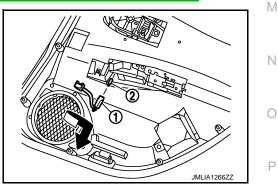
INFOID:00000006882706

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.

ASHTRAY ILLUMINATION BULB

- 1. Remove rear door finisher. Refer to INT-27, "REAR DOOR FINISHER : Removal and Installation".
- 2. Rotate bulb socket (1) counterclockwise to unlock it.
- 3. Remove the bulb (2) from bulb socket.



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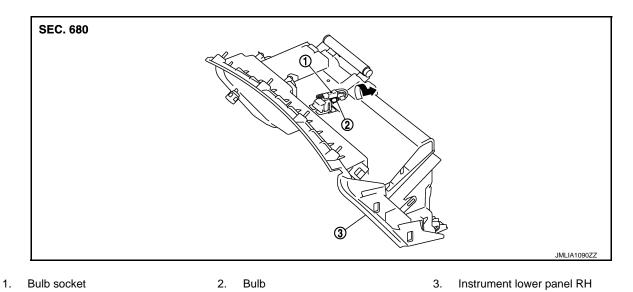
Revision: 2013 September

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GLOVE BOX LAMP

Exploded View

INFOID:000000006882708



Removal and Installation

Refer to <u>IP-12, "Exploded View"</u> for the instrument lower panel RH installation or removal.

Replacement

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INFOID-00000006882709

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

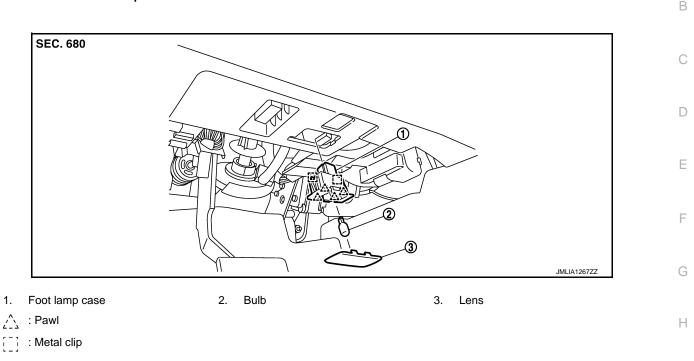
- 1. Remove instrument lower cover. Refer to IP-13, "Removal and Installation".
- 2. Remove glove box assembly, and then remove instrument lower panel RH. Refer to <u>IP-13, "Removal and Installation"</u>.
- 3. Rotate the bulb socket counterclockwise to unlock it.
- 4. Remove the bulb.

FOOT LAMP DRIVER SIDE

DRIVER SIDE : Exploded View

INFOID:000000006882711

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DRIVER SIDE : Removal and Installation

INFOID:000000006882712

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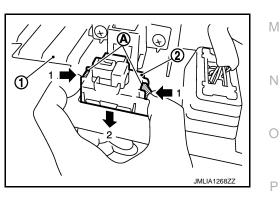
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CAUTION:

- 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.

REMOVAL

- 1. Remove instrument lower panel (1). Refer to IP-24, "Removal and Installation"
- 2. Disconnect foot lamp harness connector.
- 3. Remove foot lamp case (2) downward while pressing metal clips (A), in the directions indicated by arrows as shown in the figure.



INSTALLATION

Install in the reverse order of removal.

DRIVER SIDE : Replacement

CAUTION:

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

INL-47

FOOT LAMP

< REMOVAL AND INSTALLATION >

- 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

- 1. Remove the foot lamp assembly. Refer to INL-47, "DRIVER SIDE : Removal and Installation".
- 2. Remove the lens (1).
- a. Insert a remover tool (A) into the gap between the lens and foot lamp case (2).
- b. Disengage the lens fixing pawls, and then remove the lens.
 CAUTION:
 Use a remover tool wrapped in tape.

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Remove the bulb.

PASSENGER SIDE

SEC. 680

△ : Pawl

3.

PASSENGER SIDE : Exploded View

3.

Lens

Foot lamp case

<u>介</u>:Pawl

: Metal clip

PASSENGER SIDE : Removal and Installation

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INFOID:000000006882714

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.

REMOVAL

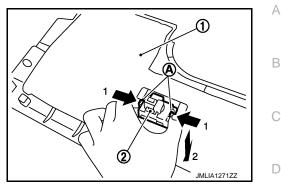
1. Remove instrument lower cover (1). Refer to <u>IP-24, "Removal and Installation"</u>

2.

Bulb

INL-48

- 2. Disconnect foot lamp harness connector.
- Remove foot lamp case (2) downward while pressing metal clips (A), in the directions indicated by arrows as shown in the figure.



INSTALLATION Install in the reverse order of removal.

PASSENGER SIDE : Replacement

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.

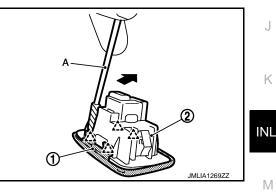
FOOT LAMP BULB

- 1. Remove the foot lamp assembly. Refer to INL-48, "PASSENGER SIDE : Removal and Installation".
- 2. Remove the lens (1).
- a. Insert a remover tool (A) into the gap between the lens and foot lamp case (2).
- b. Disengage the lens fixing pawls, and then remove the lens. CAUTION:

Use a remover tool wrapped in tape.

A : Pawl

3. Remove the bulb.



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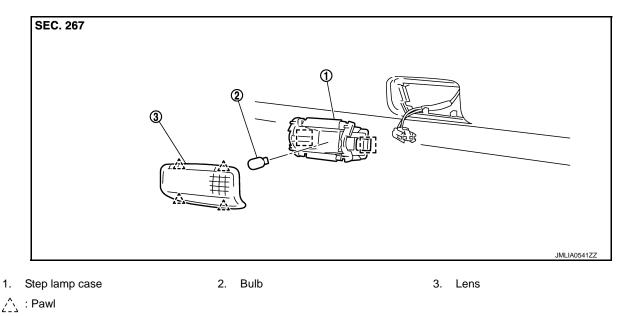
INFOID:000000006882716

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STEP LAMP

Exploded View

INFOID:000000006882717



: Metal clip

Removal and Installation

INFOID:000000006882718

INFOID:000000006882719

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.

REMOVAL

- 1. Insert any appropriate tool into the gap between the step lamp case and door finisher to remove step lamp case.
- 2. Disconnect step lamp harness connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

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

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

INL-50

PERSONAL LAMP

Exploded View

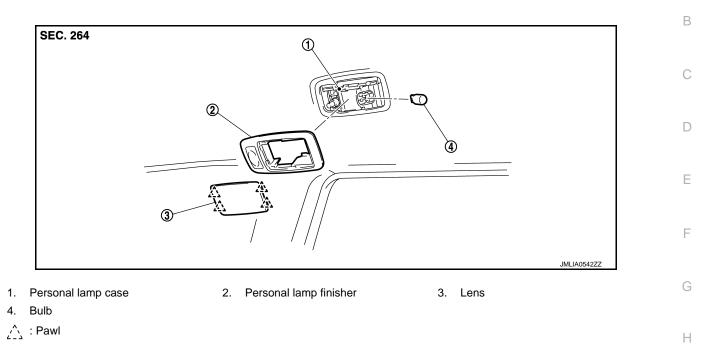
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Removal and Installation

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.
- Replace the personal lamp case as a set (right and left). After removing the headlining assembly, remove the personal lamp case. Refer to INT-45, "Exploded View".

REMOVAL

- 1. Remove headlining assembly. Refer to INT-46, "Removal and Installation".
- 2. Insert any appropriate tool into the gap between the lens to remove the lens.
- 3. Press the pawls (A) on both sides in the direction shown by the arrow in the figure using appropriate tool, and then pull out the personal lamp finisher.



4. Remove personal lamp case from headlining assembly. INSTALLATION

PERSONAL LAMP

< REMOVAL AND INSTALLATION >

Press the personal lamp finisher to the headlining. Pull the personal lamp case pawls in the direction shown by the arrow in the figure using appropriate tool.

Replacement

INFOID:000000006882722

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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 BLUB

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

OUTSIDE HANDLE LAMP

Exploded View

INFOID:000000006882723

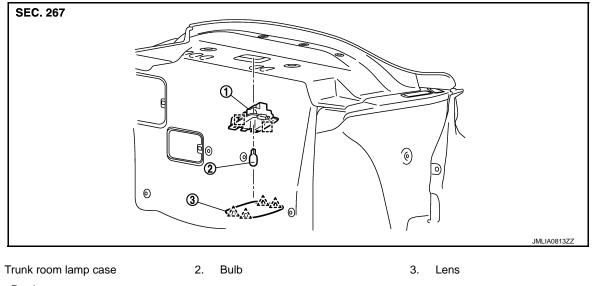
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Always replace outside handle lamp together with outside handle as a set, when replacing since outside han- dle lamp is integrated with outside handle. Refer to <u>DLK-165, "OUTSIDE HANDLE : Removal and Installation"</u> .	В
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TRUNK ROOM LAMP

Exploded View

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🔨 : Pawl

1.

: Metal clip

Removal and Installation

INFOID:000000006882725

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.

REMOVAL

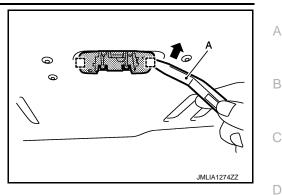
1. Insert a remover tool (A) into the gap between the lens to disengage fixing pawls as shown by the arrow in the figure, and then remove the lens.

2 : Pawl

TRUNK ROOM LAMP

< REMOVAL AND INSTALLATION >

- 2. Insert a remover tool (A) into the gap between the trunk room lamp case to disengage fixing metal clips as shown by the arrow in the figure, and then remove the trunk room lamp case.
 - : Metal clip



3. Disconnect trunk room lamp harness connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

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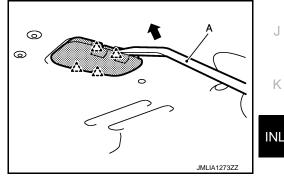
CAUTION:

- 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.

TRUNK ROOM LAMP BULB

1. Insert a remover tool (A) into the gap between the lens to disengage fixing pawls as shown by the arrow in the figure, and then remove the lens.

2 : Pawl



2. Remove the bulb.

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SERVICE DATA AND SPECIFICATIONS (SDS)

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SERVICE DATA AND SPECIFICATIONS (SDS) SERVICE DATA AND SPECIFICATIONS (SDS)

bulb specifications

Item	Туре	Wattage (W)	
Push-button ignition switch illumination	LED	—	
Map lamp	_	8	
Console lamp (integrated into the map lamp assembly)	LED	_	
Vanity mirror lamp		2	
Cigarette lighter illumination (common use with ashtray illumination)	Wedge	1.1	
Rear door ashtray illumination	Wedge	2	
Glove box lamp	Wedge	2	
Foot lamp	Wedge	3.4	
Step lamp	Wedge	5	
Personal lamp	Wedge	8	
Outside handle lamp	LED	—	
Trunk room lamp	Wedge	5	