SECTION INTERIOR LIGHTING SYSTEM

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

А PRECAUTIONS Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT В **PRF-TENSIONER**" INFOID:000000012423198 The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual. D WARNING: To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer. Ε Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section. Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors. PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS WARNING: When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Igni-Н tion ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury. When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service. Precaution for Work INFOID-000000012423199 When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth. When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component Κ with a shop cloth or vinyl tape to protect it. Protect the removed parts with a shop cloth and prevent them from being dropped. Replace a deformed or damaged clip. INL • If a part is specified as a non-reusable part, always replace it with a new one. Be sure to tighten bolts and nuts securely to the specified torque. After installation is complete, be sure to check that each part works properly. Follow the steps below to clean components: M - Water soluble dirt: • Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area. • Then rub with a soft, dry cloth. Ν - Oily dirt: • Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area. • Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off. Ο • Then rub with a soft, dry cloth. - Do not use organic solvent such as thinner, benzene, alcohol or gasoline. - For genuine leather seats, use a genuine leather seat cleaner. Ρ

< PREPARATION >

PREPARATION PREPARATION

Special Service Tool

INFOID:000000012423200

The actual shape of the tools may differ from those illustrated here.

The doldar shape of the tools may aller norm those indoltated here	
Tool number (TechMate No.) Tool name	Description
(J-46534) Trim Tool Set	Removing trim components

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION **COMPONENT PARTS**

Component Parts Location

INFOID:000000012423201 В



- Rear luggage area (RH) Α.
- Front headliner area В.
- D. Left side of instrument panel (view
- with finish panel removed)
- E. Instrument panel (LH)
- C. Engine compartment (LH)

Ρ No. Part Description Back door lock assembly (back door Refer to DLK-22, "Back Door Lock Assembly". 1. switch) Personal lamps 2nd row Refer to INL-63, "Bulb Specifications". 2. 3. Front door switch (RH) Refer to DLK-25, "Front Door Request Switch (RH)". Refer to EXL-10, "Optical Sensor". 4. Optical sensor

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

No.	Part	Description				
5.	Front door switch (LH)	Refer to DLK-25, "Front Door Request Switch (LH)".				
6.	Luggage room lamp	Refer to INL-63. "Bulb Specifications".				
7.	Room lamp	Refer to INL-63, "Bulb Specifications".				
8.	Vanity mirror lamps	Refer to INL-63, "Bulb Specifications".				
9.	Map lamp assembly	Refer to INL-63, "Bulb Specifications".				
10.	IPDM E/R	Controls audio unit and AV control unit illumination supply voltage according to the re- quest signal from BCM (via CAN communication). Refer to <u>PCS-6</u> , " <u>Component Parts</u> <u>Location</u> " for detailed installation location.				
11.	ВСМ	 Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamps ON/OFF. Operates the interior room lamp battery saver depending on the vehicle condition to cut the interior room lamp power supply. Detects each switch condition by the combination switch reading function. 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). Controls the room lamp relay according to the request signal from BCM (via CAN communication). Refer to <u>BCS-7</u>, "BODY CONTROL SYSTEM : Component Parts Location" (with Intelligent Key system) or <u>BCS-80</u>, "BODY CONTROL SYSTEM : Component Parts Location" 				

INTERIOR ROOM LAMP CONTROL SYSTEM : System Description

SYSTEM DIAGRAM



OUTLINE

- Interior room lamps* are controlled by interior room lamp timer control function of BCM.
- *: Map lamp assembly and room lamp (when map lamp switch and room lamp switch are in DOOR position). K • Luggage room lamp is 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.

INTERIOR ROOM LAMP TIMER CONTROL

Interior Room Lamp Timer Basic Operation



NOTE:

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

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< SYSTEM DESCRIPTION >

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.
- The BCM activates the interior room timer with the following vehicle conditions:
- Ignition switch status
- Door switch signal
- Door lock/unlock signal (Remote keyless entry receiver, each door request switch, door lock/unlock switch, door key cylinder switch)

NOTE:

Each function of interior room lamp timer can be set by CONSULT. Refer to <u>BCS-18</u>, "INT LAMP : CONSULT <u>Function (BCM - INT LAMP)</u>" (with Intelligent Key system) or <u>BCS-90</u>, "INT LAMP : CONSULT Function (BCM - INT LAMP)" (without Intelligent Key system).

Interior Room Lamp ON Operation:

- BCM always turns the interior room lamp ON when any door opens.
- BCM activates the interior room lamp timer in any of the following conditions to turn the interior room lamp ON for a period of time:
- Status of all doors changes from open to close
- Ignition switch is turned $\text{ON} \rightarrow \text{OFF}$
- Door unlock signal is detected when all doors close

NOTE:

The timer restarts 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 turn the interior room lamp OFF:

- The timer operating time is expired
- Ignition switch is turned OFF \rightarrow ON
- Door lock signal is detected with all doors close except back door.

LUGGAGE ROOM LAMP CONTROL

BCM turns luggage room lamp ON when the following condition is detected:

· Back door switch is ON

BCM turns luggage room lamp OFF when the following condition is detected:

· Back door switch is OFF

PUSH BUTTON IGNITION SWITCH ILLUMINATION CONTROL

Push Button Ignition Switch Illumination Basic Operation:

BCM provides the power supply to turn the 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:
- Driver side door is LOCK \rightarrow 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 are not satisfied.
- Any of the following conditions with the 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 \rightarrow LOCK

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description

INFOID:000000012423203

SYSTEM DIAGRAM



OUTLINE

- · Interior room lamp battery saver is controlled by BCM.
- BCM turns applicable lamps OFF depending on the vehicle condition. This function prevents the 12V battery from over-discharging if the driver neglects turning OFF the lamps.

Applicable lamps:

- Map lamp assembly
- Room lamp
- Luggage room lamp
- Personal lamps 2nd row

INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

- When the ignition switch is turned to other position than ON, BCM operates the timer for a period of time to cut the interior room lamp power supply.
- BCM restarts 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 <u>BCS-18</u>, "INT LAMP : <u>CONSULT Function (BCM - INT LAMP)</u>" (with Intelligent Key system) or <u>BCS-90</u>, "INT LAMP : <u>CONSULT Function (BCM - INT LAMP)</u>" (without Intelligent Key system).

ILLUMINATION CONTROL SYSTEM

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< SYSTEM DESCRIPTION >

ILLUMINATION CONTROL SYSTEM : System Description

INFOID:000000012423204

SYSTEM DIAGRAM



OUTLINE

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

Controlled by BCM:

- Combination switch reading function
- Headlamp control function

Controlled by IPDM E/R:

Smart FÉT control function

Controlled by combination meter:

Meter illumination control function

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 each illumination lamp 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.

AUTO LIGHT ADJUSTMENT SYSTEM

< SYSTEM DESCRIPTION >

AUTO LIGHT ADJUSTMENT SYSTEM : System Description

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SYSTEM DIAGRAM



OUTLINE

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

Controlled 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.
- 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. 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 CON-SULT. Refer to <u>BCS-19</u>, "<u>HEAD LAMP</u> : <u>CONSULT Function (BCM - HEADLAMP)</u>" (with Intelligent Key system) or <u>BCS-91</u>, "<u>HEAD LAMP</u> : <u>CONSULT Function (BCM - HEADLAMP)</u>" (without Intelligent Key system).

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DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000012610855

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
Ecu Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION BCM can perform the following functions.

				Direct D)iagnosti	c Mode		
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			х				
Signal buffer system	SIGNAL BUFFER			х				
Air conditioner	AIR CONDITIONER				×			

INT LAMP

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:000000012610856

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DATA MONITOR

Monitor Item [Unit]	Description	В
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.	
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.	
PUSH -SW [On/Off]	Indicates condition of push-button ignition switch.	0
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.	D
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.	
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.	
DOOR SW-BK [On/Off]	Indicates condition of back door switch.	
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.	
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.	F
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.	
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.	
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.	G
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.	
ACTIVE TEST		H

ACTIVE TEST

Test Item	Description	
INT LAMP	This test is able to check interior room lamp operation [On/Off].	

WORK SUPPORT

Support Item	Setting	Description	J	
	On	Interior room lamp timer function ON.	•	
SET I/E D-UNECK INTCOM	Off*	Interior room lamp timer function OFF.	K	
	On	Fog lamp override function ON.	n ON.	
	Off*	Fog lamp override function OFF.		

*: Initial setting **BATTERY SAVER**

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

Μ INFOID:000000012610857

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DATA MONITOR

Monitor Item [Unit]	Description	
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.	
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.	0
PUSH SW [On/Off]	Indicates condition push-button ignition switch.	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	P
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.	
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.	
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.	
DOOR SW-BK [On/Off]	Indicates condition of back door switch.	
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.	

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check battery saver operation [On/Off].

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000012610858

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APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description	
Ecu Identification	The BCM part number is displayed.	
Self Diagnostic Result	The BCM self diagnostic results are displayed.	L
Data Monitor	The BCM input/output data is displayed in real time.	
Active Test	The BCM activates outputs to test components.	E
Work support	The settings for BCM functions can be changed.	
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.	F
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.	

SYSTEM APPLICATION

BCM can perform the following functions.

		Direct Diagnostic Mode							Ц
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr	I
Door lock	DOOR LOCK			×	×	×			
Rear window defogger	REAR DEFOGGER			×	×	×			K
Warning chime	BUZZER			×	×				
Interior room lamp timer	INT LAMP			×	×	×			INI
Remote keyless entry system	MULTI REMOTE ENT					×			
Exterior lamp	HEADLAMP			×	×				-
Wiper and washer	WIPER			×	×	×			M
Turn signal and hazard warning lamps	FLASHER			×	×				-
Combination switch	COMB SW			×					NI
BCM	BCM	×	×			×	×	×	IN
Immobilizer	IMMU		×		×				-
Interior room lamp battery saver	BATTERY SAVER			×	×				0
Back door open	TRUNK			×					-
Vehicle security system	THEFT ALM			×	×	×			_
RAP system	RETAINED PWR			×					Р
TPMS	AIR PRESSURE MONITOR		×	×	×	×			

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:000000012610859

DATA MONITOR

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DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test Item	Description			
INT LAMP	This test is able to check interior room lamp operation [On/Off].			

WORK SUPPORT

Support Item	Setting	Description	
	On*	Interior room lamp timer function ON.	
Set the D-UNLER INTCOM	Off	Interior room lamp timer function OFF.	

*: Initial setting

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:000000012610860

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check battery saver operation [On/Off].

ECU DIAGNOSIS INFORMATION BCM

List of ECU Reference

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ECU	Reference			
	BCS-29, "Reference Value"			
DOM (with Intelligent Key eveters)	BCS-47, "Fail Safe"			
	BCS-47, "DTC Inspection Priority Chart"			
_	BCS-48, "DTC Index"			
	BCS-97, "Reference Value"			
DOM (without Intelligent Key system)	BCS-108. "Fail Safe"			
BCM (without intelligent Key system)	BCS-109, "DTC Inspection Priority Chart"			
	BCS-109, "DTC Index"			

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< WIRING DIAGRAM >

WIRING DIAGRAM

INTERIOR ROOM LAMP CONTROL SYSTEM

Wiring Diagram

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< WIRING DIAGRAM >



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< WIRING DIAGRAM >



Signal Name	I START WO ECSL SW	I SHORTING PIN	I DR KNOB SW	I IGN SW (WITHOUT INTELLIGENT KEY SYSTEM)	I SES DR HANDLE BUTTON SW (WITH INTELLIGENT KEY SYSTEM)
Color of Wire	٢	>	щ	Х	Y
Terminal No.	89	95	104	105	105

	Signal Name	1	1	1	
4	Color of Wire	٢	≻	≻	
岛 H.S.	Terminal No.	۲	2	ю	

Signal Name

Terminal No.

Connector Color WHITE

M14

Connector No.

INTERIOR ROOM LAMP CONNECTORS

Connector Name ROOM LAMP RELAY

M12

Connector No.

Connector Color BLUE

23

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H.S.

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	M19	BCM (BODY CONTROL MODULE)
	Connector No.	Connector Name



21

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Connector Color BLACK

Signal Name	I KEY SW	I STARTER SW (WITHOUT INTELLIGEN) KEY SYSTEM)	I SES FR HANDLE BUTTON SW (WITH INTELLIGENT KEY SYSTEM)	O START SW BACKLIGHT LED
Color of Wire	_	LA/R	×	Μ
Terminal No.	81	82	82	88



Signal Name	O ROOMLAMP BATSAVER RL	I DOORLOCK SW	I DOORUNLOCK SW	
Color of Wire	٩	ВG	SB	
Terminal No.	4	10	40	

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Revision: September 2015

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AALIA2186GB

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AALIA4246GB

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Signal Name 1 1 2 3 4 Color of Wire SB Terminal No. ო H.S. Signal Name I 2 3 4

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Color of Wire œ Terminal No. ო



H.S.

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< WIRING DIAGRAM >



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Signal Name Signal Name Connector Name FRONT DOOR LOCK ASSEMBLY LH T. I. I T I 9 ŝ 4 e Connector Color GRAY Color of Wire Connector No. D23 2 Color of Wire ВG ≥ _ œ ш Terminal No. Terminal No. 23 ო ო 4 H.S. E Connector Name FRONT OUTSIDE HANDLE ASSEMBLY LH Signal Name Signal Name I. I. T Т I 1234 BLACK <u>11</u> Color of Wire Color of Wire œ ш മ ≥ ш Connector Color Connector No. Terminal No. Ferminal No. 16 ŝ 4 ო 4 H.S. E MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH DOOR UNLOCK DOOR LOCK Signal Name 7 6 5 4 3 2 1 8 9 10 11 12 13 14 15 16 GND Connector Color WHITE Color of Wire 90 0 BG _ ш Connector Name Connector No. Terminal No. 15 ო H.S.

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Connector Name WIRE TO WIRE

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Connector No.

Connector Color WHITE

E

Connector Name PERSONAL LAMPS 2ND ROW WHITE R16 Connector Color Connector No. H.S. E

Signal Name	Ι	I	1
Color of Wire	Ь	SB	В
erminal No.	2	e	4

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< WIRING DIAGRAM >

< WIRING DIAGRAM >



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	tich			gnal Name	I	I
13	JTOMATIC OSE SWI IAY		2 4 3	Si.		
No. D5	Name AU CL Color GF		9	o. Color o Wire	æ	×
Connector	Connector Connector		H.S.	Terminal N	ю	4
	DOOR			ре		
	DOR LOCK JLY (WITH VTIC BACK I		<u>(m) @</u>	Signal Nar	I	I
D512	BACK DC ASSEMB AUTOMA SYSTEM	 WHITE 	4 5 6 7	olor of Wire	N	æ
ector No.	ector Name	ector Color		nal No. Co	7	8
Conne	Conne	Conne	FE FE	Termi		
	OCK VITHOUT SACK M)			ial Name	I	I
8	SK DOOR L SEMBLY (W OMATIC B SR SYSTEI		3	Sign		
o. D50	ame AUT AUT AUT DOC	olor WHI		Color of Wire	8	GR
onnector N	onnector N	onnector C	E.S.	erminal No.	e	4
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ILLUMINATION

Wiring Diagram



INFOID:000000012423214

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< WIRING DIAGRAM >

 (HF): WITH FRONT HEATED SEAT

 (DP): WITH ECO MODE SWITCH

 (DS): WITH SPORT MODE SWITCH

 (M4): WITH ALL WHEEL DRIVE



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SODY CONTROL	1 0 100 100 100 100 100 100 100 100 100	Signal Name O CSW 2	0 CSW 3	O CSW 4 O START SW	ACKLIGHT LED (WITH INTELLIGENT KEY SYSTEM)	I SHORTING PIN				td SWITCH			Signal Name	1		
M19 M19 MODU	94 93 92 9 511411311211	olor of Wire BB	5 89 e	ß	W B/	>			M26	e HAZAF	r WHITE	4	olor of Wire	GR	æ	
Connector No. Connector Nam Connector Colo	吨和 H.S. [100] 99] 99] 99] 96] 95 [120] 119] 118] 117] 116] 115	Terminal No. C	85 86	87	88	95			Connector No.	Connector Nam	Connector Colo	同 H.S.	Terminal No. C	-	4	
Connector No. M18 Connector Name BCM (BODY CONTROL MODULE) Connector Color GRAY	20 19 18 17 16 15 14 10 9 8 7 6 5 4 3 2 1 40 38 37 38 35 34 33 31 30 29 28 27 25 24 23 2 1	Terminal No. Color of Signal Name	12 W SENSORIALI 19 LG I AUTOLIGHT	30 V O GND AUTOLIGHT	33 LG ICSW5	36 G ICSW3	37 GR I CSW 4 38 V I CSW 1	39 W ICSW2	Connector No. M24	Connector Name AUTOMATIC BACK DOOR	Connector Color GREEN	H.S.	Terminal No. Color of Signal Name	3 R	4 B -	
7 SH-BUTTON IGNITION ITCH	8 7 6 5 1	f Signal Name	1						0	M (BODY CONTROL	DULE) OWN	174473172171170169168	f Signal Name	I PWR ECU	I GND1	I GND2
o. M1: SW MH		Color of Wire B	<u>≥</u>						o. M2(ame BCI	olor BR(1671661 1761751	Color of Wire	≥	В	۵
Connector N Connector N Connector C	国 H.S.	Terminal No.	- ∞						Connector N	Connector N	Connector C	品 H.S.	Terminal No.	161	170	171

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< WIRING DIAGRAM >		-
		A
VIRE 81 71 61 161 151 141 131 121 111 162 155 154 153 1321 312 138 155 154 153 1321 312 138 155 154 153 152 151 138 151 151 151 138 155 154 153 152 151 138 151 151 138 152 154 153 152 151 138 151 151 138 1	CK (J/B) □ 37 22 17 17[10] 97 98 Signal Name	B
0. M31 lame WIRE TO V lame WIRE TO V 211 201 131 181 17 211 201 131 181 17 211 201 131 281 27 101 291 281 281 27 101 291 291 291 291 291 291 291 291 291 29	Io. M44 Io. M44 Iame FUSE BLO color WHITE Image: Selection of test in the selectin of test in the selectin of test in the selection of t	D
Terminal No	Connector N Connector N Connector C H H H H H H H I I I P	E
		F
SWITCH		G
Signe	Signa	Н
Alternative Service Se	P P F L Color of Wire of	I
Connector N Connector N Connector C Terminal No 9 10	Terminal No 1 1 15 15	J
		K
	ECTOR-M02	INL
	3 3 7 0 5 4 17 16 15 14	M
P BR < ≺ < ≷ G G BG BG BG BG SB Color of WH COLOR SB COL	No. M4 Value JOII 2019 BLL	N
Connector A Connector A Connector C Connector A Connector A Connector A C Connector A C Connector A C Connector A C Connector A C Connector A C Connector A C C Connector A C C Connector A C C C C C C C C C C C C C C C C C C C	Connector N Connector C Connector G	0
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Connector Color A.S. A.S	WHITE	المالية المالي المالية المالية المالية المالية المالية المالية المالية المالية المالية المالية الماليمالية المالية المالية المالية المالي المالي المالية الماليمالي الماليمالي المالي الماليالي الماليمالي المالي المالي المالمالمالمالمالمالمالمالمالمالمالمالما	Connector Co Terminal No.	Slor WHIT B 7 6 Color of Wire GR GR GR	Signal Name		inector Col			
History Colo 41 V. 43 V 45 P 52 LA	3 BBR A 1	ignal Name CAN-H CAN-L CONT OUT IGN GND 2	Terminal No.	Color of Wire GR GR GR GR	Signal Name	E V			8	
erminal No. Colo 41 L 42 P 43 N 45 LA 52 E	BBR A LILL	ignal Name CAN-H CAN-L CAN-L CONT OUT ICN GND 2 GND 2	Terminal No. 1 2 2 Connector Nk	Color of Wire GR GR GR GR	Signal Name		ņ	<u>4</u> 3 87	<u>66 1 1</u>	
41 L 42 42 43 43 45 45 46 LAI 52 B		CAN-H CAN-L CONT OUT IGN GND 2	Connector Nk	GR GR		Ter	minal No.	Color of Wire	Signal Name	
42 43 43 445 45 140 455 152 E		CAN-L CONT OUT LLVUSBAT IGN GND 2	Connector Nc	8 8 8 8	1 1		-	J	1	
43 ¥3 ¥45 LÅ1 46 LÅ1 52 E	BBR AI	CONT OUT LLVUSBAT IGN GND 2	Connector Nc	GR GR	1		4	B	1	
45 LA 46 LA/ 52 B		LVUSBAT IGN 2 GND 2	8 Connector Nc	GR]
52 B		GND 2	Connector Nc Connector Nc		I					
25 B	_	GND 2	Connector Nc Connector Nc							
			Connector Nc Connector Nc							
nnector Color	WHITE		Connector CC	olor WHIT	ш	Con	nector Col	or WHITE		\square
H.S.	1 2 3 4 5 10 11 12 13 14		日 日 日	8 7 6	5 4 3 2 1		ં	8765	5 4 3 2 1	
erminal No. Colc	or of Si	ignal Name	Terminal No.	Color of Wire	Signal Name	Terr	minal No.	Color of Wire	Signal Name	
8	~	ILL-	-	æ	1		-	σ	1	
> 0	/ ILL+	+, LIGHT SW	N	ш	I		2	ъ	1	
20 B		GND	r	æ	I		e	ъ	1	
	-		4	æ	1		4	ъ	1	
			2	æ	I		5	J	1	
			9	æ	1		7	σ	1	
			2	LA/R	I		80	σ	1	
			8	æ	1]
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Connector No. M108 Connector Name AV CONTROL UNIT (WITH Connector Color WHITE Connector Color WHITE	Terminal No.Color of WireSignal Name9VILL(+), LIGHT SW20BGND	Connector No. M170 Connector Name JOINT CONNECTOR-M29 Connector Color WHITE	Terminal No. Color of Signal Name	2 B B 1	n m	4 B -	
Connector No. M101 Connector Name (WITHOUT BOSE AUDIO Connector Color WHITE Connector Color WHITE	Terminal No.Color of WireSignal Name9VILL(+), LIGHT SW20BGND	Connector No. M168 Connector Name WIRE TO WIRE Connector Color WHITE Connector Color WHITE	Terminal No. Color of Signal Name	1 B - 19 LA/R - 1	-		
Connector No. M90 Connector Name COMBINATION SWITCH (SPIRAL CABLE) Connector Color WHITE	Terminal No. Color of Wire Signal Name 23 R - 24 Y -	Connector No. M156 Connector Name WIRE TO WIRE Connector Color WHITE Connector Color WHITE Ite 11:10 8 7 6 5 4 3 2 1 Ite 12:21:20:19:18:17:16:16:14:13	Terminal No. Color of Signal Name	20 R	-		

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EAT	ame		E E	
6 TCH RH TCH RH WN 415 6	Signal Na		Signal Ne	
tor No. M19 FRC Color BRC	al No. Color of G G B	tor No. M25 tor Name AWI tor Color WHI	B B B A	
Connec Connec Connec	Termina 2	Connec Connec H.S.	Termina 2 4	
НО	e l			
N N	Signal Nar	TO WIRE 12 13 14 5 6 12 13 14 15 16 16 15 16 15	Signal Nar	
No. M188 Name CVT S Color BROW	b. Color of Mire B B	No. M251 Name WIRE Color WHITE	O O O <td></td>	
Connector Connector Connector	Terminal N 17 18	Connector Connector Connector	Terminal N 5 9 10 11 15	
<u> </u>				
	Signal Name	H H E B SEAT	Signal Name	
M178 MAIN SWI MAIN SWI 1 1 1	Nire B B B	M197 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	B B	
nector No. nector Nam nector Colc	minal No. 0	nector No.	2 1 No.	

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	E BLOCK (J/B)	TE	M1 M2 (M8 M2 M8 M8 M2 M8 M2 M8 M2 M8 M2 M8 M2 M8 M2	Signal Name	1			0	M E/R (INTELLIGENT VER DISTRIBUTION DULE ENGINE ROOM)	1Y	38 35 34 32 21 20 19 38 37 36 56 34 32 23 31	Signal Name	CAN-L	CAN-H	2ND SIGNAL GROUND
E28	ne FUS	or WHI	4M 10M	Color of Wire	>			E12		or GR/	29 28 27 41 40 39	Color of Wire	٩	L	в
Connector No.	Connector Nar	Connector Col	国 H.S.	Terminal No.	6M			Connector No.	Connector Nar	Connector Col	130 H.S.	Terminal No.	22	24	31
4	- DESCENT CONTROL			Signal Name	I	1		6	M E/R (INTELLIGENT VER DISTRIBUTION DULE ENGINE ROOM)	17	6 15 1 3 6 15 14 12 11 10	Signal Name	O LIGHT POSITION		SIGNAL GROUND
M25	e HILL	r GRA		olor of Wire	٩	ш		E115		r GRA	9 8 7 18 17 16	olor of Wire	>	. I	2

Connector No.

Connector Color GRAY

Connector Name



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Color of Wire

Terminal No.

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Signal Name	I	I	I	I
Color of Wire	L	Р	Г	Р
Terminal No.	5	9	ი	10

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Connector Color WHITE Connector No.



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< WIRING DIAGRAM >



Vame Terminal No. Color of Signal Name 13 LAVR – 14 LAVB – 14 LAVB –





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< BASIC INSPECTION >

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000012423215

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OVERALL SEQUENCE



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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. **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-45. "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

Inspect according to Diagnostic Procedure of the system. Is malfunctioning part detected?

DIAGNOSIS AND REPAIR WORKFLOW

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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 is activating.

Component Function Check

1.CHECK INTERIOR ROOM LAMP POWER SUPPLY FUNCTION

CONSULT ACTIVE TEST

- 1. Turn ignition switch ON.
- 2. Turn each interior room lamp ON:
- Map lamp assembly
- Room lamp
- Personal lamps 2nd row
- Luggage room lamp
- 3. Select "BATTERY SAVER" in "Active Test" of "BCM".
- 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 each interior room lamp turn ON/OFF?

- YES >> Interior room lamp power supply circuit is normal.
- NO >> Refer to INL-46, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

CONSULT ACTIVE TEST

- 1. Turn ignition switch ON.
- Select "BATTERY SAVER" in "Active Test" of "BCM".
- 3. With operating the test item, check continuity between BCM harness connector and ground.

B	СМ				
(+)	()	Test	item	Continuity
Connector	Terminal	Ť			
M18	4	Ground		Off	No
WITO	4	Ground	BATTERT SAVER	On	Yes

Is the inspection result normal?

YES >> GO TO 2.

2. CHECK INTERIOR ROOM LAMP RELAY SIGNAL OPEN CIRCUIT

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

B	СМ	Room lamp relay		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M18	4	M12	2	Yes

Is the inspection result normal?

INFOID:000000012423218

INFOID:000000012423217

INFOID:000000012423216

NO >> Replace BCM. Refer to <u>BCS-76</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>BCS-137</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	oom lamp relay harness connec	tor.		
	Room lamp relay			Voltage
(Connector	Terminal		(Approx.)
	M12	1	E	attery voltage
		3		, ,
<u>e inspection result</u> S >> GO TO 4.) >> Repair or re	<u>normal?</u> eplace harnesses. ROOM LAMP RELAY POWER		UT	
Reconnect room la Check voltage at ro	mp relay. com lamp relay harness connec	etor.		
	Room lamp relay			Voltage
(Connector	Terminal		(Approx.)
	M12	5	E	attery voltage
Map lamp assembl	y R6			
Room lamp R15 Personal lamps 2nd Vanity mirror lamp Vanity mirror lamp Luggage room lam Check continuity be	d row R16 LH R14 RH R10 p B118 etween room lamp relay connec	ctor M12 and inte	erior room lamp co	onnector in ques
Room lamp R15 Personal lamps 2n Vanity mirror lamp Vanity mirror lamp Luggage room lam Check continuity be Room lamp relay	d row R16 LH R14 RH R10 p B118 etween room lamp relay connec Each inte	ctor M12 and inte	erior room lamp co	onnector in ques
Room lamp R15 Personal lamps 2n Vanity mirror lamp Vanity mirror lamp Luggage room lam Check continuity be Room lamp relay	d row R16 LH R14 RH R10 p B118 etween room lamp relay connect Each inter Connector	ctor M12 and inte erior room lamp	erior room lamp co Terminal	onnector in ques
Room lamp R15 Personal lamps 2n Vanity mirror lamp Vanity mirror lamp Luggage room lam Check continuity be Room lamp relay	d row R16 LH R14 RH R10 p B118 etween room lamp relay connect Each inte Connector Map lamp assembly	ctor M12 and intererior room lamp	erior room lamp co Terminal	onnector in ques Continuity
Room lamp R15 Personal lamps 2n Vanity mirror lamp Vanity mirror lamp Luggage room lam Check continuity be Room lamp relay	d row R16 LH R14 RH R10 p B118 etween room lamp relay connect Each inte Connector Map lamp assembly Room lamp	ctor M12 and inte erior room lamp R6 R15	erior room lamp co Terminal 1 2	onnector in ques
Room lamp R15Personal lamps 2nd Vanity mirror lamp Vanity mirror lamp Luggage room lam Check continuity beRoom lamp relayInnectorTerminalM125	d row R16 LH R14 RH R10 p B118 etween room lamp relay connect Each inte Connector Map lamp assembly Room lamp Personal lamps 2nd row	ctor M12 and intererior room lamp R6 R15 R16	Terminal	Onnector in ques
Room lamp R15 Personal lamps 2nd Vanity mirror lamp Vanity mirror lamp Luggage room lamp Check continuity be Room lamp relay nnnector Terminal M12 5	d row R16 LH R14 RH R10 p B118 etween room lamp relay connect Each inte Connector Map lamp assembly Room lamp Personal lamps 2nd row Vanity mirror lamp LH	ctor M12 and interest of the second s	Terminal	Continuity
Room lamp R15 Personal lamps 2n Vanity mirror lamp Vanity mirror lamp Luggage room lam Check continuity be Room lamp relay Innector Terminal	d row R16 LH R14 RH R10 p B118 etween room lamp relay connector Each inte Connector Map lamp assembly Room lamp Personal lamps 2nd row Vanity mirror lamp LH Vanity mirror lamp RH	ctor M12 and intererior room lamp R6 R15 R16 R14 R10 P118	Terminal	onnector in ques Continuity
Room lamp R15 Personal lamps 2n /anity mirror lamp /anity bar /anity mirror lamp /anity bar /anity bar /anity fill /anity fil	d row R16 LH R14 RH R10 p B118 etween room lamp relay connect Each inte Connector Map lamp assembly Room lamp Personal lamps 2nd row Vanity mirror lamp LH Vanity mirror lamp RH Luggage room lamp	ctor M12 and interest erior room lamp R6 R15 R16 R16 R14 R10 B118	Terminal 1 2 2 1 1 1 1 1 1	Continuity

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Connector

M12

Ground

Terminal

5

No

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Check that each interior lamp has no internal short circuit.
- NO >> Repair or replace harnesses.

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT	DIAGNOSIS >					
INTERIOR R	ROOM LAMP	CONTROL (CIRCUIT			^
Description					INFOID:000000012423219	A
Controls each inte	erior room lamp (gr	ound side) by PWI	VI signal.			В
PWM signal control	ol period is approx	imately 250 Hz (in	the gradual brigh	tening/dimming).		
Component Fu	unction Check				INFOID:000000012423220	С
CAUTION: Before performin • Interior room la • Map lamp bulb • Room lamp bul	ng the diagnosis, amp power supply Ib	check that the fo /	llowing is norma	al:		D
1.CHECK INTER	RIOR ROOM LAMP	CONTROL FUNC	CTION			E
CONSULT ACT 1. Switch the ma 2. Turn ignition s 3. Select "INT I	IVE TEST ap lamp switch and switch ON. AMP" in "Active Te	room lamp switch	to DOOR.			F
 Gelect INT L/ With operating ming). 	g the test items, ch	eck that each inter	rior room lamp tui	ms ON/OFF (gradua	al brightening/dim-	G
On :	Interior room lam	p gradual brighte	ening			
Off :	Interior room lam	p gradual dimmir	าg			Η
Does the interior r	oom lamp turns Ol	<u>N/OFF (gradual bri</u>	ghtening/dimming	<u>g)?</u>		
NO >> Refer	to <u>INL-49, "Diagno</u>	osis Procedure".				
Diagnosis Pro	cedure				INFOID:000000012423221	
1.CHECK INTER	RIOR ROOM LAMP	CONTROL OUT	PUT			J
CONSULT ACT 1. Turn ignition s 2. Remove all th 3. Turn ignition s 4. Select "INT L/ 5. With operation	TVE TEST switch OFF. le bulbs of map lan switch ON. AMP" in "Active Te lig the test item, ch	np and room lamp. st" of "BCM". eck continuity betw	veen BCM harnes	ss connector and gr	ound.	K
ВС	CM		Te	st item	Continuity	M
Connector	Terminal	Ground		On		
M20	162		INT LAMP	Off	No	Ν
Is the inspection revealed on the section of the se	esult normal? O 2. TO 3. blace BCM. Refer 137, "Removal and RIOR ROOM LAMF	to <u>BCS-76, "Rem</u> I Installation" (with ? CONTROL OPEN	oval and Installa out Intelligent Key N CIRCUIT	tion" (with Intelliger / system).	nt Key system) or	0 P
1. Turn ignition s	witch OFF.	o lamp assembly a	nd room lamp co	nnector		

Disconnect BCM connector, map lamp assembly and room lamp connector.
 Check continuity between BCM harness connector and map lamp assembly harness connector.

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

B	СМ	Map lamp	assembly	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M20	162	R6	3	Yes

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

B	СМ	Roon	n lamp	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M20	162	R15	1	Yes

Is the inspection result normal?

YES >> Replace map lamp assembly or room 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 assembly connector and room lamp connector.

3. Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M20	162		No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u> (with Intelligent Key system) or <u>BCS-137, "Removal and Installation"</u> (without Intelligent Key system).

NO >> Repair or replace harnesses.

< DTC/CIRCUIT DIAGNOSIS >
LUGGAGE ROOM LAMP CIRCUIT

- • •					
Jescription					INFOID:000000012423222
Controls the lugga	ge room lamp (gro cedure	ound side) to turn t	he luggage room	lamp ON and (DFF.
CAUTION: Before performin Interior room la Luggage room	ng the diagnosis, mp power suppl lamp bulb	check that the fo y	llowing is norma	al:	
 Turn ignition s Remove the lu Check continu 	witch OFF. uggage room lamp ity between BCM	bulb. barness connector	r and ground.		
B	CM	-	Co	ndition	Continuity
B23	151	Ground	Back door	Open	Yes
				Closed	No
BCS-	137, "Removal and	to <u>BCS-76, "Rem</u> <u>Installation"</u> (with	oval and Installa out Intelligent Key	<u>tion"</u> (with Inte / system).	lligent Key system) or
BCS CHECK LUGG Disconnect BC Check continu	AGE ROOM LAM	to <u>BCS-76, "Rem</u> <u>Installation"</u> (with OPEN CIRCUIT harness connector	oval and Installa out Intelligent Key r and luggage roo	<u>tion"</u> (with Inte / system). m lamp harnes	lligent Key system) or s connector.
BCS- CHECK LUGG. Disconnect B(Check continu	AGE ROOM LAM	to <u>BCS-76, "Rem</u> <u>Installation"</u> (with POPEN CIRCUIT harness connector	noval and Installa out Intelligent Key r and luggage roo Luggage room lar	tion" (with Inte y system). m lamp harnes	lligent Key system) or s connector.
BCS- 2.CHECK LUGG 1. Disconnect B(2. Check continu Connector B23	AGE ROOM LAM	to <u>BCS-76, "Rem</u> <u>Installation"</u> (with POPEN CIRCUIT harness connector	r and luggage roo	tion" (with Inte y system). m lamp harnes mp Terminal 2	Iligent Key system) or s connector. Continuity Yes
2.CHECK LUGG 1. Disconnect B(2. Check continu Connector B23 s the inspection re YES >> Repla NO >> Repai 3.CHECK LUGG, 1. Disconnect B(Disconnect B(Disconnec	AGE ROOM LAM	to <u>BCS-76, "Rem</u> <u>Installation"</u> (with POPEN CIRCUIT harness connector harness connector Com B amp. sses. P SHORT CIRCUI	r and luggage roo Luggage room lan hector	tion" (with Inte y system). m lamp harnes mp Terminal 2	Iligent Key system) or s connector. Continuity Yes
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YES >> Replace BCM. Refer to BCS-76. "Removal and Installation" (with Intelligent Key system) or BCS-137. "Removal and Installation" (without Intelligent Key system).

>> Repair or replace harnesses. NO

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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" in "Active Test" of "BCM".
- 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 >> Ignition switch illumination circuit is normal.
- NO >> Refer to INL-52, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000012423226

$1. {\sf check push button ignition switch illumination power supply output}$

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

(+) Ignition switch		()	Condition		Voltage (Approx.)	
Connector	Terminal					
M17	Q	Ground	Push button ignition switch il-	ON	Battery voltage	
IVI I 7	0	Ground	lumination	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 ignition switch harness connector.

BCM		Ignition switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M19	88	M17	8	Yes	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harnesses.

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

Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M19	88		No



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PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-76, "Removal and Installation"</u> (with Intelligent Key system) or <u>BCS-</u> <u>137, "Removal and Installation"</u> (without Intelligent Key system).

NO >> Repair or replace harnesses.

4. CHECK PUSH BUTTON IGNITION SWITCH ILLUMINATION GROUND CIRCUIT

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

Ignition switch			Continuity		
	Connector	Terminal	Ground	Continuity	
	M17	7		Yes	D
Is the in	spection result nor	mal?			
YES	>> Replace ignition	on switch. Refer to PCS-92	2. "Removal and Installation".		E

YES >> Replace ignition switch. Refer to <u>P(</u> NO >> Repair or replace harnesses.

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SYMPTOM DIAGNOSIS INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

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CAUTION:

Perform the "Self Diagnostic Result" 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 assembly Room lamp Luggage room lamp 	 Harness between BCM and each interior room lamp BCM 	Interior room lamp power supply cir- cuit Refer to <u>INL-46</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 	 Harness between BCM and each door switch Harness between BCM and each interior room lamp BCM 	Door switch circuit Refer to <u>DLK-160,</u> <u>"Component Function Check"</u> (with Intelligent Key system) or <u>DLK-335,</u> <u>"Component Function Check"</u> (with- out Intelligent Key system).
though the door is closed.		Interior room lamp control circuit Refer to INL-49.
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)		Check the interior room lamp setting. Refer to INL-9. "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description".
 Luggage room lamp does not turn ON even though the back door is open. Luggage room lamp does not turn OFF even though the back door is closed. 	 Harness between BCM and back door switch Harness between BCM and lug- gage room lamp BCM 	Back door switch circuit Refer to <u>DLK-160</u> , <u>"Component Function Check"</u> (with Intelligent Key system) or <u>DLK-335</u> , <u>"Component Function Check"</u> (with- out Intelligent Key system).
		Luggage room lamp circuit Refer to INL-51.
Ignition switch illumination does not illuminate.	 Harness between BCM and Igni- tion switch BCM 	Ignition switch illumination circuit Refer to INL-52.
Interior room lamp battery saver does not activate.	ВСМ	Replace BCM. Refer to <u>BCS-76, "Removal and In-</u> <u>stallation"</u> (with Intelligent Key sys- tem) or <u>BCS-137, "Removal and</u> <u>Installation"</u> (without Intelligent Key system).

< REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION

MAP LAMP ASSEMBLY

Exploded View

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- 4. Moonroof switch finisher
- ← Front

- Map lamp assembly bracke (without moonroof)
- 5. Map lamp assembly
- Clip

- Map lamp assembly bracket (with moonroof)
- 6. Map lamp
- (Pawl

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Removal and Installation

REMOVAL

- 1. Lower front edge of map lamp assembly (1) down from the headlining by releasing the metals clips, then slide forward to clear pawls at rear.
 - : Metal clip
 - (_): Pawl



2. Disconnect the harness connectors from map lamp assembly and remove.

INSTALLATION

Installation is in the reverse order of removal. **CAUTION:**

Visually check the metal clips and pawls for deformation and damage during installation. Replace if necessary.

Bulb Replacement

NOTE:

The map lamp bulbs are replaced as part of the map lamp.

REMOVAL

- 1. Remove the map lamp assembly. Refer to INL-55. "Removal and Installation".
- 2. Remove screws (A) from map lamp (2).
- 3. Release pawls and remove map lamp from the map lamp assembly (1).

(): Pawl



INSTALLATION Installation is in the reverse order of removal.

VANITY MIRROR LAMP

< REMOVAL AND INSTALLATION >

VANITY MIRROR LAMP

Exploded View

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Removal and Installation

CAUTION:

Do not attempt to separate the vanity lamp from the sun visor or damage to the components may occur.

The vanity lamp is replaced as part of the sun visor. Refer to INT-30, "Removal and Installation".

Bulb or Lens Replacement

WARNING:

Do not touch the glass surface of a bulb while it is lit or right after being turned OFF to prevent burns. CAUTION:

- Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from bulb surface.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture, smoke, etc. may
 affect the performance of lamp.
- Do not attempt to separate the vanity lamp from the sun visor or damage to the components may occur.
- 1. Insert a suitable tool into the gap between the lens and vanity mirror lamp, then release the lens pawls M and remove.
- 2. Grasp the vanity mirror lamp bulb and pull straight out of the vanity mirror lamp to remove.
- 3. Install vanity mirror lamp bulb to vanity mirror lamp.
- 4. Install the vanity mirror lamp lens.

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GLOVE BOX LAMP

Removal and Installation

INFOID:000000012876339

WARNING:

Do not touch bulb while it is lit or right after being turned OFF. Burning may result. CAUTION:

Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.

REMOVAL

- 1. Remove the glove box assembly (2). Refer to <u>IP-24, "Removal</u> <u>and Installation"</u>.
- 2. Rotate the glove box lamp socket (1) counterclockwise and remove.
- 3. Remove the glove box lamp socket housing (3) (if necessary).



INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:000000012876340

The glove box lamp bulb is serviced as part of the glove box lamp socket. Refer to <u>INL-58</u>, "Removal and <u>Installation</u>".

ROOM LAMP

Removal and Installation

WARNING:

Do not touch the glass surface of a bulb while it is lit or right after being turned OFF to prevent burns. CAUTION:

- Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from bulb surface.
- Do not leave bulb out of reflector for a long time because moisture, smoke, etc. may affect the performance of lamp.

REMOVAL

- 1. Lower lens (1) and room lamp as an assembly by releasing room lamp metal clips (A) using a suitable tool.
- 2. Disconnect the harness connector from the room lamp and remove.



INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

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WARNING:

Do not touch the glass surface of a bulb while it is lit or right after being turned OFF to prevent burns. CAUTION:

- Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from bulb surface.
- Do not leave bulb out of reflector for a long time because moisture, smoke, etc. may affect the per- $_{\rm K}$ formance of lamp.
- 1. Remove lens (1) by inserting suitable tool and releasing LH side (switch side) first.
- 2. Remove room lamp bulb (2).
- 3. Install room lamp bulb (2).
- 4. Install room lamp lens (1).

NOTE:

Insert the lens hook end (RH side) first to install lens.





PERSONAL LAMP

Removal and Installation

INFOID:000000012423236

The personal lamp is serviced as part of headlining. Refer to INT-30, "Removal and Installation".

Bulb or Lens Replacement

INFOID:000000012423237

WARNING:

Do not touch the glass surface of a bulb while it is lit or right after being turned OFF to prevent burns. CAUTION:

- Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from bulb surface.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of lamp.
- Do not attempt to separate the personal lamp from the headlining or damage may occur.
- 1. Insert a suitable tool into the gap between the lens and personal lamp, then gently release the lens pawls and remove.
- 2. Grasp the bulb and pull straight out from its socket to remove.
- 3. Install personal lamp bulb to personal lamp.
- 4. Install the personal lamp lens.

LUGGAGE ROOM LAMP

Removal and Installation

REMOVAL

- Insert a suitable tool (A) into the gap between the luggage lower finisher (RH) (2) and the top of luggage room lamp (1) to release the pawl.
 - (_): Pawl



2. Disconnect the harness connector from the luggage room lamp and remove.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

WARNING:

Do not touch the glass surface of a bulb while it is lit or right after being turned OFF to prevent burns. CAUTION:

- Do not touch the glass of bulb directly by hand. Keep grease and other oily substances away from bulb surface.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of lamp.
- 1. Remove luggage room lamp. Refer to INL-61, "Removal and Installation".
- Release pawls using a suitable tool and remove luggage room lamp cover (1).
 - (_): Pawl
- 3. Push the tab to release one bulb end, then grasp the luggage room lamp bulb (3) and pull out the second end to remove.
- 4. Install luggage room lamp bulb (3) to luggage room lamp (2).
- 5. Install luggage room lamp cover (1).



6. Install luggage room lamp. Refer to Refer to INL-61, "Removal and Installation".

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METER CONTROL SWITCH

< REMOVAL AND INSTALLATION >

METER CONTROL SWITCH

Removal and Installation

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REMOVAL

- 1. Remove the instrument finisher A. Refer to <u>IP-15. "INSTRUMENT FINISHER A : Removal and Installa-</u> tion".
- 2. Remove the screws (A) and the meter control switch (1).



INSTALLATION Installation is in the reverse order of removal.

SERVICE DATA AND SPECIFICATIONS (SDS)

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

Bulb Specifications

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Item	Wattage (W)*	
Map lamp	(–)	(
Room lamp (if equipped)	8	
Vanity mirror lamp	1.8	[
Personal lamp (if equipped)	8	
Luggage room lamp	5	

*: Always check with the parts department for the latest parts information.

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