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### **CONTENTS**

WITH POWER DOOR LOCKS	Component Function Check	F
BASIC INSPECTION3	Diagnosis Procedure14	
DIA CNOCIC AND DEDAID WORKELOW	INTERIOR ROOM LAMP CONTROL CIRCUIT	G
DIAGNOSIS AND REPAIR WORKFLOW 3	16	
Work Flow3	Description16 Component Function Check16	
FUNCTION DIAGNOSIS5	Diagnosis Procedure16	Н
NTERIOR ROOM LAMP CONTROL SYSTEM	CARGO LAMP CONTROL CIRCUIT18	
5	Description18	
System Diagram5	Diagnosis Procedure18	
System Description5	Component Inspection20	
Component Pagarintian 6	IGNITION KEYHOLE ILLUMINATION CON-	J
Component Description7	TROL CIRCUIT21	
LLUMINATION CONTROL SYSTEM8	Description21	
System Diagram8	Component Function Check21	K
System Description8	Diagnosis Procedure21	1
Component Parts Location9	_	
Component Description9	INTERIOR ROOM LAMP CONTROL SYSTEM	INL
DIAGNOSIS SYSTEM (BCM)10	23 Wiring Diagram23	IINL
COMMON ITEM10	ILLUMINATION35	В. Л
COMMON ITEM : CONSULT-III Function10	Wiring Diagram35	M
NT LAMP10	ECU DIAGNOSIS46	
INT LAMP : CONSULT-III Function10		Ν
BATTERY SAVER12	BCM (BODY CONTROL MODULE)46	
BATTERY SAVER : CONSULT-III Function12	Reference Value46	
	Terminal Layout48	0
COMPONENT DIAGNOSIS13	Physical Values48	
POWER SUPPLY AND GROUND CIRCUIT13	Wiring Diagram54	
TOWER SUFFLY AND GROUND CIRCUIT13	DTC Inspection Priority Chart57	Р
3CM13	DTC Index58	
BCM : Diagnosis Procedure13	SYMPTOM DIAGNOSIS60	
BATTERY SAVER OUTPUT/POWER SUP-	INTERIOR LIGHTING SYSTEM SYMPTOMS 60	
PLY CIRCUIT14	Symptom Table 60	

PRECAUTION61	Component Inspection (Door Switch)76
PRECAUTIONS61	CARGO LAMP CONTROL CIRCUIT77
Supplemental Restraint System (SRS) "AIR BAG"	Description77
and "SEAT BELT PRE-TENSIONER"	Diagnosis Procedure77
General precautions for service operations 61	Component Inspection79
ON-VEHICLE REPAIR62	IGNITION KEYHOLE ILLUMINATION80
	Diagnosis Procedure80
INTERIOR ROOM LAMP62	Component Inspection (Door Switch)81
Removal and Installation62	INTERIOR ROOM LAMP 82
ILLUMINATION65	Wiring Diagram82
Removal and Installation65	
	ILLUMINATION90
SERVICE DATA AND SPECIFICATIONS	Wiring Diagram90
(SDS)66	ECU DIAGNOSIS101
DUI D CDECIFICATIONS	LCO DIAGNOSIS101
BULB SPECIFICATIONS	BCM (BODY CONTROL MODULE)101
Interior Lamp/Illumination	Reference Value101
WITHOUT POWER DOOR LOCKS	Terminal Layout103
BASIC INSPECTION67	Physical Values103
DASIC INSPECTION	Wiring Diagram 109
DIAGNOSIS AND REPAIR WORKFLOW 67	DTC Inspection Priority Chart112
Work Flow	DTC Index113
FUNCTION DIAGNOSIS69	SYMPTOM DIAGNOSIS115
INTERIOR ROOM LAMP69	INTERIOR LIGHTING SYSTEM SYMPTOMS115
System Diagram	Symptom Table115
System Description	
Component Parts Location70	PRECAUTION116
Component Description70	PRECAUTIONS116
	Supplemental Restraint System (SRS) "AIR BAG"
ILLUMINATION CONTROL SYSTEM71	and "SEAT BELT PRE-TENSIONER"116
System Diagram71	General precautions for service operations 116
System Description	General precautions for service operations
Component Parts Location	ON-VEHICLE REPAIR117
Component Description72	
DIAGNOSIS SYSTEM (BCM)73	INTERIOR ROOM LAMP117 Removal and Installation117
COMMON ITEM73	
COMMON ITEM : CONSULT-III Function	ILLUMINATION120
	Removal and Installation 120
INT LAMP	SERVICE DATA AND SPECIFICATIONS
INT LAMP : CONSULT-III Function	(SDS)121
COMPONENT DIAGNOSIS75	,
INTERIOR ROOM LAMP75	BULB SPECIFICATIONS
Diagnosis Procedure	Interior Lamp/Illumination 121

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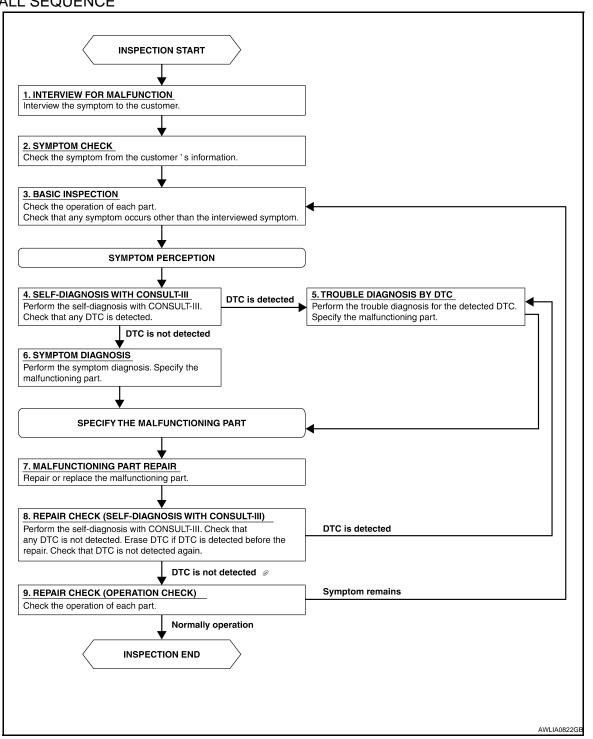
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### **BASIC INSPECTION**

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

### **OVERALL SEQUENCE**



### DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[WITH POWER DOOR LOCKS]

### **DETAILED FLOW**

### 1.INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> GO TO 2

### 2.SYMPTOM CHECK

Verify the symptom from the customer's information.

>> GO TO 3

### 3.BASIC INSPECTION

Check the operation of each part. Check that any concerns occur other than those mentioned in the customer interview.

>> GO TO 4

### 4. SELF-DIAGNOSIS WITH CONSULT-III

Perform the self-diagnosis with CONSULT-III. Check that any DTC is detected.

### Is any DTC detected?

YES >> GO TO 5

NO >> GO TO 6

### 5. TROUBLE DIAGNOSIS BY DTC

Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.

>> GO TO 7

### 6. SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 7

### 7.MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 8

### 8. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III)

Perform the self-diagnosis with CONSULT-III. Verfied that no DTCs are detected. Erase all DTCs detected prior to the repair. Verify that DTC is not detected again.

### Is any DTC detected?

YES >> GO TO 5

NO >> GO TO 9

### 9. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

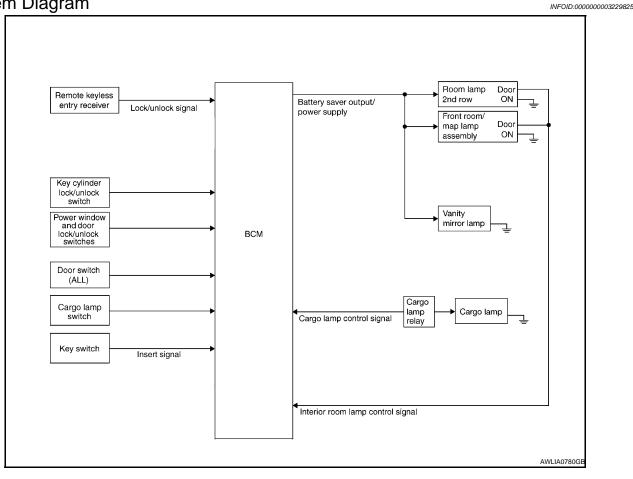
YES >> Inspection End

NO >> GO TO 3

### **FUNCTION DIAGNOSIS**

### INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



### System Description

INFOID:0000000003229826

### OUTLINE

- Front room/map lamp and room lamp 2nd row are controlled by the interior room lamp timer control function of the BCM.
- Cargo lamp is controlled by the cargo lamp control function of the BCM.

The timer control functions of the BCM activate based on inputs from the remote keyless entry receiver, the key cylinder lock/unlock switch, the door switches, the key switch and the power window and door lock/unlock switches.

### ROOM LAMP TIMER OPERATION

When the interior room lamp switch is in the DOOR position and when all conditions below are met, the BCM begins timer control (maximum 30 seconds) for interior room lamp ON/OFF.

- When the front door LH is unlocked [with main power window and door lock/unlock switch, or front door lock assembly (key cylinder switch)].
- When a door opens → closes.

Timer control is cancelled under the following conditions.

- When the front door LH is locked [with main power window and door lock/unlock switch, or front door lock assembly (key cylinder switch)].
- A door is opened (door switch turns ON).

Interior lamp operational settings can be changed with the function setting of CONSULT-III.

### INTERIOR LAMP BATTERY SAVER CONTROL

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[WITH POWER DOOR LOCKS]

### < FUNCTION DIAGNOSIS >

If an interior lamp is left ON and does not turn OFF even when the doors are closed, the BCM turns off power to the interior lamps automatically to save the battery 30 minutes after the ignition switch is turned OFF. The BCM controls power and ground to all interior lamps.

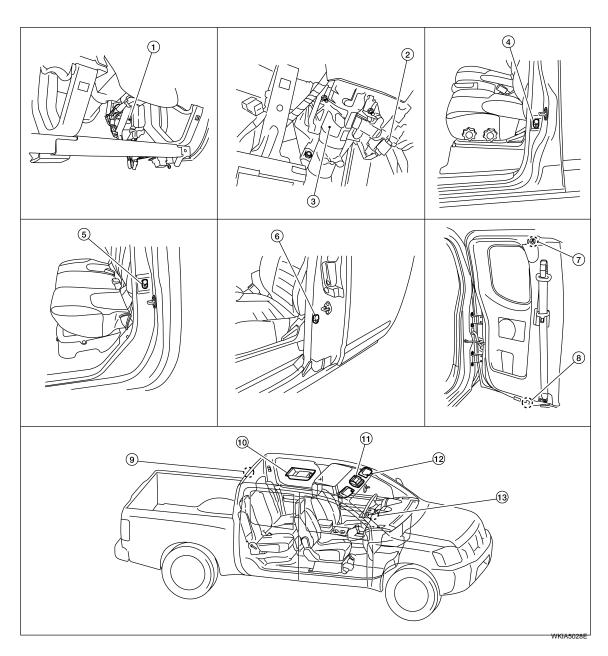
After the battery saver system turns the lamps OFF, the lamps will illuminate again when

- a signal is received from a main power window and door lock/unlock switch, or when the front door LH lock assembly (key cylinder switch) is locked or unlocked
- a door is opened or closed

The interior lamp battery saver control time period can be changed with the function setting of CONSULT-III.

### Component Parts Location

INFOID:0000000003229827



- BCM M18, M19, M20 (view with lower 2. instrument panel LH removed)
- Front door switch LH B8 (crew cab)
   Front door switch RH B108 (crew cab)
- Rear door switch upper LH D211 (king cab)
  - Rear door switch upper LH D312 (king cab)
- Key switch M27
- Rear door switch LH B18 (crew cab)
   Rear door switch RH B116 (crew cab)
- Rear door switch lower LH D212 (king cab)
  - Rear door switch lower LH D313 (king cab)
- 3. Steering column assembly
- 6. Front door switch LH D213 (king cab) Front door switch RH D316 (king cab)
- 9. Cargo lamp B161

### < FUNCTION DIAGNOSIS >

### [WITH POWER DOOR LOCKS]

10. Room lamp 2nd row R10

11. Front room/map lamp assembly R9

12. Vanity lamp LH B80 Vanity lamp RH B81

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13. Ignition keyhole illumination M150

### Component Description

INFOID:0000000003229828	

Part name	Description
BCM	Provides power and ground and controls timer functions for the interior room lamps and cargo lamp.
Key switch	Provides key in ignition status to the BCM.
Door switches	Provides door OPEN/CLOSED status to the BCM.
Back door switch	Provides back door OPEN/CLOSED status to the BCM.
Main power window and door lock/unlock switch	Provides door lock/unlock position switch status to the BCM.
Power window and door lock/unlock switch RH	Provides door lock/unlock position switch status to the bolw.
Front door lock assembly LH (key cylinder switch)	Provides door lock/unlock status to the BCM.

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### ILLUMINATION CONTROL SYSTEM

### System Diagram

INFOID:0000000003229829 Combination switch reading function IPDM E/R Combination CAN communication line всм switch TAIL LAME Illumination Parking light RELAY request signal To exterior lamps Combination meter CAN communication line Illumination control

### System Description

INFOID:0000000003229830

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The illumination lamps operation is dependent upon the position of the lighting switch (combination switch). When the lighting switch is placed in the 1ST or 2ND position the BCM (body control module) receives input requesting the parking lamps to illuminate. This input is communicated to the IPDM E/R (intelligent power distribution module engine room) via the CAN communication lines. The CPU (central processing unit) of the IPDM E/R controls the tail lamp relay coil. When energized, this relay directs power to the parking and illumination lamps, which then illuminate.

### **BATTERY SAVER CONTROL**

When the lighting switch (combination switch) is in the 1ST or 2ND position and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated. Under this condition, the illumination lamps remain illuminated for 30 minutes unless the lighting switch position is changed. If the lighting switch position is changed, then the illumination lamps are turned off after a 30 second delay. When the lighting switch is turned from OFF to 1ST or 2ND position after illumination lamps have been turned off by the battery saver control, the illumination lamps illuminate again.

### **Component Parts Location**

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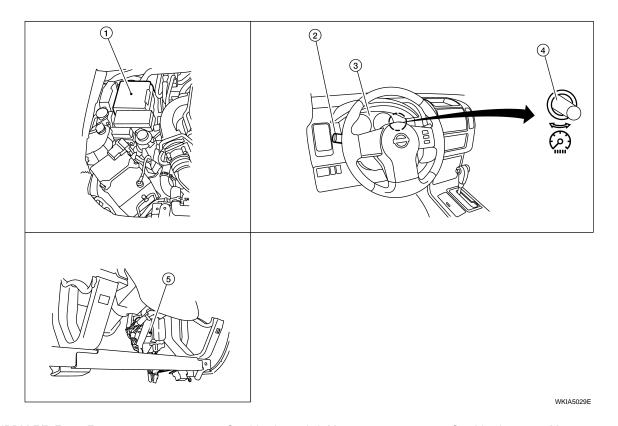
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- 1. IPDM E/R E122, E124
- 4. Illumination control switch (built into combination meter)
- 2. Combination switch M28
  - BCM M18, M20 (view with instrument lower panel LH removed)
- 3. Combination meter M24

### **Component Description**

INFOID:0000000003229832

Part name	Description
ВСМ	The BCM monitors the lighting switch position with the combination switch reading function. The BCM requests, via CAN communication, that the IPDM E/R activate the tail lamp relay.
IPDM E/R	The IPDM E/R activates the tail lamp relay based on inputs received from the BCM via the CAN communication network.
Combination meter (illumination control switch)	The illumination control switch is a part of the combination meter. The combination meter controls illumination intensity by varying ground to the illumination lamps based on the illumination control switch position.
Combination switch	The combination switch provides input to the BCM about the lighting switch position.

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### DIAGNOSIS SYSTEM (BCM)

**COMMON ITEM** 

**COMMON ITEM: CONSULT-III Function** 

INFOID:0000000003229833

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

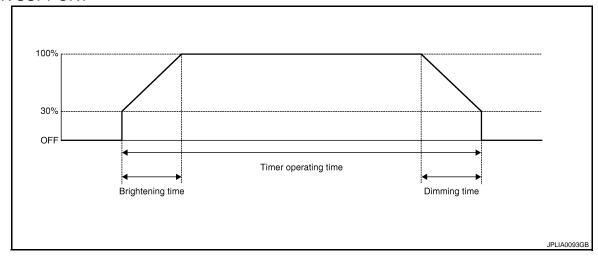
BCM diagnostic test item	Diagnostic mode	Description
WORK SUPPORT		Supports inspections and adjustments. Commands are transmitted to the BCM for setting the status suitable for required operation, input/output signals are received from the BCM and received data is displayed.
	DATA MONITOR	Displays BCM input/output data in real time.
Inspection by part	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

### INT LAMP

### INT LAMP: CONSULT-III Function

### INFOID:0000000003229834

### **WORK SUPPORT**



Service item	Setting item		Setting
OFT III BUNK OK INTOON	ON	With the i	nterior room lamp timer function
SET I/L D-UNLCK INTCON	OFF	Without th	ne interior room lamp timer function
ROOM LAMP ON TIME SET	MODE 1	0.5 sec.	
	MODE 2	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	Sets the interior room lamp gradual brightening time.
	MODE 5	4 sec.	
	MODE 6	5 sec.	
	MODE 7	0 sec.	

### **DIAGNOSIS SYSTEM (BCM)**

### < FUNCTION DIAGNOSIS >

### [WITH POWER DOOR LOCKS]

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Service item	Setting item		Setting
ROOM LAMP OFF TIME SET	MODE 1	0.5 sec.	
	MODE 2	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	Sets the interior room lamp gradual dimming time.
	MODE 5	4 sec.	
	MODE 6	5 sec.	
	MODE 7	0 sec.	

### DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [ON/OFF]	The switch status input from ignition switch
KEY ON SW [ON/OFF]	Key switch status input from key slot
DOOR SW-DR [ON/OFF]	The switch status input from front door switch LH
DOOR SW-AS [ON/OFF]	The switch status input from front door switch RH
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
BACK DOOR SW [ON/OFF]	This item is not used for this model
KEY CYL LK-SW [ON/OFF]	Lock switch status received from key cylinder switch
KEY CYL UN-SW [ON/OFF]	Unlock switch status received from key cylinder switch
CDL LOCK SW [ON/OFF]	Lock switch status received from door lock/unlock switch
CDL UNLOCK SW [ON/OFF]	Unlock switch status received from door lock/unlock switch
KEYLESS LOCK [ON/OFF]	Unlock signal status received from remote keyless entry receiver
KEYLESS UNLOCK [ON/OFF]	Unlock signal status received from remote keyless entry receiver

### **ACTIVE TEST**

Test item	Operation	Description
ON INT LAMP		Outputs the interior room lamp control signal to turn the front room/map lamp and personal lamp (switches are in DOOR position) ON.
INI LAWF	OFF	Stops the interior room lamp control signal to turn the front room/map lamp and personal lamp (switches are in DOOR position) OFF.
IGN ILLUM OFF	ON	Outputs the ignition keyhole illumination signal to turn the ignition keyhole illumination ON.
	Stops the ignition keyhole illumination signal to turn the ignition keyhole illumination OFF.	
LUGGAGE LAMP TEST ON OFF	This item is not used for this model	
	OFF	This term is not used for this model

### **BATTERY SAVER**

**BATTERY SAVER: CONSULT-III Function** 

### INFOID:0000000003229835

### **WORK SUPPORT**

Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1 (ON)	Interior room lamp timer activates with synchronizing all doors.
	MODE 2 (OFF)	Interior room lamp timer activates with synchronizing the front door LH only.

### **DATA MONITOR**

Monitor item [Unit]	Description
IGN ON SW [ON/OFF]	The switch status input from ignition switch
KEY ON SW [ON/OFF]	Key switch status input from key slot
DOOR SW-DR [ON/OFF]	The switch status input from front door switch LH
DOOR SW-AS [ON/OFF]	The switch status input from front door switch RH
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
BACK DOOR SW [ON/OFF]	This item is not used for this model
KEY CYL LK-SW [ON/OFF]	Lock switch status received from key cylinder switch by power window serial link
KEY CYL UN-SW [ON/OFF]	Unlock switch status received from key cylinder switch by power window serial link
CDL LOCK SW [ON/OFF]	Lock switch status received from door lock/unlock switch by power window serial link
CDL UNLOCK SW [ON/OFF]	Unlock switch status received from door lock/unlock switch by power window serial link
KEYLESS LOCK [ON/OFF]	Unlock signal status received from remote keyless entry receiver
KEYLESS UNLOCK [ON/OFF]	Unlock signal status received from remote keyless entry receiver

### **ACTIVE TEST**

Test item	Operation	Description
BATTERY SAVER ON OFF		Outputs the battery saver output/power supply to turn the interior lamps ON.
		Stops the battery saver output/power supply to turn the interior lamps OFF.

### POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

### **COMPONENT DIAGNOSIS**

## POWER SUPPLY AND GROUND CIRCUIT BCM

BCM : Diagnosis Procedure

INFOID:0000000003301467

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### 1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
57	Battery power supply	18 (10A)
70	Battery power supply	G (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	1 (10A)

### Is the fuse blown?

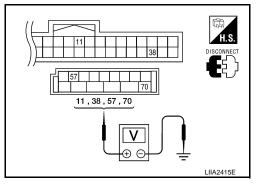
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

### 2. CHECK POWER SUPPLY CIRCUIT

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

Connector	Term	Terminals		Condition	Voltage (V) (Ap-	
Oomiccio	(+)	(-)	source	Condition	prox.)	
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage	
	38	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage	
M20	57	Ground	Battery power supply	Ignition switch OFF	Battery voltage	
M20	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage	



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### Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

### 3. CHECK GROUND CIRCUIT

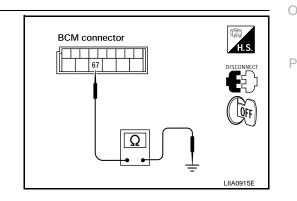
Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Connector Terminal		Continuity
M20	67		Yes

### Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



### BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

< COMPONENT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

### BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

**Description** 

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

### Component Function Check

INFOID:0000000003229838

### 1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY FUNCTION

### (P)CONSULT-III

- 1. Turn ignition switch ON.
- 2. Turn each interior room lamp ON.
- Front room/map lamp assembly (if equipped)
- Vanity lamps (if equipped)
- Cargo lamp
- Room lamp 2nd row
- 3. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- 4. While operating the test items, check that each interior room lamp turns ON/OFF.

OFF : Interior room lamp OFF
ON : Interior room lamp ON

### Is the inspection result normal?

YES >> Battery saver output/power supply circuit is normal.

NO >> Refer to INL-14, "Diagnosis Procedure".

### Diagnosis Procedure

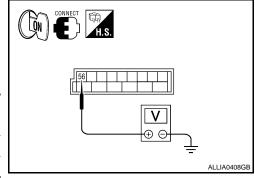
INFOID:0000000003229839

### 1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OUTPUT

### (P)CONSULT-III

- Turn ignition switch ON.
- Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- 3. With test item operating, check voltage between BCM harness connector M20 terminal 56 and ground.

(-	+)	()	Test item	Voltage
Connector	Terminal	(-)	BATTERY SAVER	voltage
M20	56	Ground	OFF	0V
IVIZU	30	Giodila	ON	Battery voltage



### Is the inspection result normal?

YES >> GO TO 2

NO >> Replace BCM. Refer to BCS-49, "Removal and Installation".

### 2. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect the following connectors.
- BCM M20
- Ignition key hole illumination
- Front room/map lamp assembly (if equipped)
- Vanity lamp LH (if equipped)
- Vanity lamp RH (if equipped)
- Room lamp 2nd row
- 3. Check continuity between BCM harness connector and each interior room lamp harness connector.

### BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

### < COMPONENT DIAGNOSIS >

### [WITH POWER DOOR LOCKS]

BCI	М	Each interior room lamp			Continuity
Connector	Terminal	Connector Terminal			Continuity
		Ignition key hole illumination	M150	1	
		Front room/map lamp assembly (if equipped)	R9	1	
M20	56	Vanity lamp LH (if equipped)	B80	1	Yes
	Vanity lamp RH (if equipped)	B81	1		
		Room lamp 2nd row	R10	2	

### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair the harnesses or connectors.

### 3.CHECK BATTERY SAVER OUTPUT/POWER SUPPLY SHORT CIRCUIT

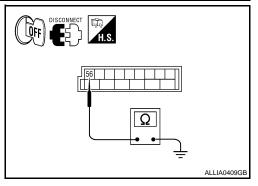
Check continuity between BCM harness connector M20 terminal 56 and ground.

Connector	Terminal	_	Continuity
M20	56	Ground	No

### Is the inspection result normal?

YES >> Replace the interior room lamp. Refer to <u>INL-62.</u> "Removal and Installation".

NO >> Repair the harnesses or connectors.



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### INTERIOR ROOM LAMP CONTROL CIRCUIT

< COMPONENT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

### INTERIOR ROOM LAMP CONTROL CIRCUIT

Description INFOID:000000003229840

Controls the following interior room lamps (ground side) by PWM signal

- Front room/map lamp assembly (if equipped)
- Room lamp 2nd row

### NOTE:

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

### Component Function Check

INFOID:0000000003229841

### **CAUTION:**

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

- Battery saver output/power supply
- Front room/map lamp bulbs
- Room lamp 2nd row bulb

### ${f 1}$ .CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

### (E)CONSULT-III

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

ON : Interior room lamp gradual brightening
OFF : Interior room lamp gradual dimming

### Is the inspection result normal?

YES >> Interior room lamp control circuit is normal.

NO >> Refer to INL-16, "Diagnosis Procedure".

### Diagnosis Procedure

INFOID:0000000003229842

### 1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

### (P)CONSULT-III

- 1. Turn ignition switch ON.
- 2. Select "INT LAMP" of BCM (INT LAMP) active test item.
- While operating the test item, check voltage between BCM harness connector M20 terminal 63 and ground.

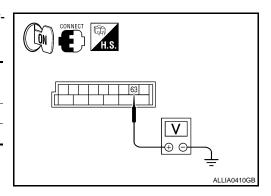
(+)		(-)	INT LAMP	Voltage	
Connector	Terminal	(-)	IIVI LAWII	voltage	
M20	63	Ground	ON	0V	
IVIZU	03	Ground	OFF	Battery voltage	

### Is the inspection result normal?

YES >> Interior room lamp control circuit is operating normally. Fixed ON>>GO TO 3

Fixed OFF>> GO TO 2

2.CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT



### INTERIOR ROOM LAMP CONTROL CIRCUIT

### < COMPONENT DIAGNOSIS >

### [WITH POWER DOOR LOCKS]

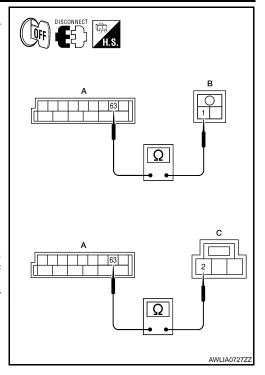
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M20, room lamp 2nd row connector and front room/map lamp connector (if equipped).
- 3. Check continuity between BCM harness connector M20 terminal 63 and interior room lamp connectors.

Term	inal	Terminal			Continuity
Connector	Terminal	Component Connector		Terminal	Continuity
		Room lamp 2nd row	B: R10	1	
A: M20	63	Front room/map lamp (if equipped)	C: R9	2	Yes

### Is the inspection result normal?

YES >> Check interior room lamp for an open. If OK, replace the BCM. Refer to <u>BCS-49</u>, "Removal and Installation". If NG, replace the interior room lamp. Refer to <u>INL-62</u>, "Removal and Installation".

NO >> Repair the harnesses or connectors.



### ${f 3.}$ CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

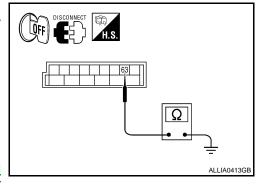
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M20, room lamp 2nd row connector and front room/map lamp connector (if equipped).
- 3. Check continuity between BCM harness connector and ground.

Connector	Terminal	_	Continuity
M20	63	Ground	No

### Is the inspection result normal?

YES >> Check interior room lamp for a short circuit. If OK, replace the BCM. Refer to <u>BCS-49</u>, "Removal and <u>Installation"</u>. If NG, replace the interior room lamp. Refer to <u>INL-62</u>, "Removal and <u>Installation"</u>.

NO >> Repair the harnesses or connectors.



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### CARGO LAMP CONTROL CIRCUIT

Description INFOID:000000003229843

Controls the cargo lamp relay coil (ground side) to turn the cargo lamp ON and OFF.

### Diagnosis Procedure

INFOID:0000000003229845

### **CAUTION:**

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

- Fuse
- Cargo lamp bulbs
- 1. CHECK CARGO LAMP OPERATION

Check the cargo lamp operation from the cargo lamp switch, the door switches, and a keyfob (if equipped). Is the cargo lamp inoperative from all of the above switches and the keyfob (if equipped)?

YES >> GO TO 4

NO

- >> Inoperative from cargo lamp switch only, GO TO 2
  - Inoperative from door switches only, refer to <u>DLK-21, "KING CAB: Description"</u> (king cab), <u>DLK-23, "CREW CAB: Description"</u> (crew cab).
  - Inoperative from keyfob only, refer to <a href="DLK-44">DLK-44</a>, "Description".

### 2.CHECK CARGO LAMP SWITCH

Check the cargo lamp switch. Refer to INL-20, "Component Inspection".

### Is the inspection result normal?

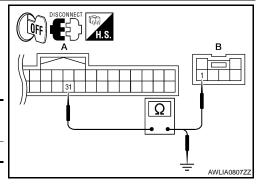
YES >> GO TO 3

NO >> Replace the cargo lamp switch.

### 3. CHECK CARGO LAMP SWITCH CIRCUIT

- Disconnect BCM connector M18 and cargo lamp switch connector.
- Check continuity between BCM harness connector M18 (A) terminal 31 and cargo lamp switch harness connector M71 (B) terminal 1.

В	BCM		Cargo lamp switch	
Connector	Terminal	Connector Terminal		Continuity
M18 (A)	31	M71 (B)	1	Yes



Check continuity between BCM harness connector M18 terminal 31 and ground.

Connector	Terminal	_	Continuity
M18 (A)	31	Ground	No

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-49. "Removal and Installation".

NO >> Repair harnesses or connectors.

### 4. CHECK CARGO LAMP RELAY

Check the cargo lamp relay. Refer to INL-20, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace the cargo lamp relay.

5. CHECK CARGO LAMP RELAY CONTROL

### CARGO LAMP CONTROL CIRCUIT

### < COMPONENT DIAGNOSIS >

### [WITH POWER DOOR LOCKS]

While operating the cargo lamp switch, check voltage between BCM harness connector M19 terminal 50 and ground.

Connector	Terminal	_	Cargo lamp switch	Voltage
M19	50	Ground	ON	0V
IVITS	30	Ground	OFF	Battery voltage

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### Is the inspection result normal?

YES >> GO TO 6 NO >> GO TO 8

### **6.**CHECK CARGO LAMP VOLTAGE

- Disconnect the cargo lamp harness connector.
- While operating the cargo lamp switch, check voltage between cargo lamp harness connector B161 terminal 3 and ground.

Connector	Terminal	_	Cargo lamp switch	Voltage
B161	3	Ground	ON	Battery voltage



YES >> Replace cargo lamp.

NO >> GO TO 7

### 7.CHECK CARGO LAMP RELAY VOLTAGE PART 1

Check voltage between cargo lamp relay harness connector M165 terminal 5 and ground.

Cargo la	amp relay		Voltage
Connector	Terminal	Ground	voltage
M165	5		Battery voltage

### Is the inspection result normal?

YES >> Repair harness or connectors between cargo lamp relay and cargo lamp.

NO >> Repair harness or connector between splice and cargo lamp relay.

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### 8. CHECK CARGO LAMP RELAY VOLTAGE PART 2

Check voltage between cargo lamp relay harness connector M165 terminal 2 and ground.

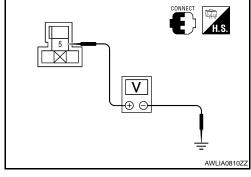
Cargo la	amp relay		Voltage
Connector	Terminal	Ground	voltage
M165	2		Battery voltage

### Is the inspection result normal?

YES >> GO TO 9

NO >> Repair harnesses or connectors.

### 9. CHECK CARGO LAMP RELAY CONTROL CIRCUIT



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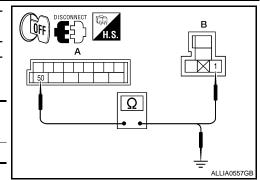
### **CARGO LAMP CONTROL CIRCUIT**

### < COMPONENT DIAGNOSIS >

### [WITH POWER DOOR LOCKS]

- Disconnect BCM connector M19 and cargo lamp relay connector.
- 2. Check continuity between BCM harness connector M19 (A) terminal 50 and cargo lamp relay harness connector B161 (B) terminal 1.

В	CM	Cargo la	ımp relay	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M19 (A)	50	B161 (B)	1	Yes



3. Check continuity between BCM harness connector M19 terminal 50 and ground.

Connector	Terminal	_	Continuity
M19 (A)	50	Ground	No

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-49, "Removal and Installation".

NO >> Repair harnesses or connectors.

### Component Inspection

INFOID:0000000003301694

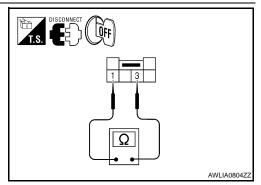
### **CARGO LAMP SWITCH**

### INSPECTION PROCEDURE

### 1. CHECK CARGO LAMP SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp switch harness connector.
- 3. Check continuity between cargo lamp switch terminals.

Cargo lamp switch	Condition	Continuity
Terminal	Condition	Continuity
1 – 3	ON	Yes
1 – 3	OFF	No



### Is the inspection result normal?

YES >> Inspection End

NO >> Replace cargo lamp switch.

### CARGO LAMP RELAY

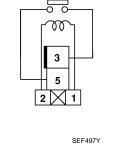
### INSPECTION PROCEDURE

### 1.CHECK CARGO LAMP RELAY

- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp relay harness connector.
- 3. Supply power to terminal 2 and ground to terminal 1 of the cargo lamp relay.
- 4. Check continuity between cargo lamp relay terminals 3 and 5.

Teri	minal	Condition	Continuity
2	5	Power and ground supplied to terminals 1 and 2	Yes
	7	No power and ground supplied	No

# ntinuity Yes No



### Is the inspection result normal?

YES >> Inspection End

NO >> Replace cargo lamp relay.

### IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT [WITH POWER DOOR LOCKS]

< COMPONENT DIAGNOSIS >

### IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

Description INFOID:0000000003229846

Controls the ignition keyhole illumination (ground side) to turn the ignition keyhole illumination ON and OFF.

Component Function Check

### **CAUTION:**

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

- Battery saver output/power supply circuit
- Ignition keyhole illumination bulb

### 1. CHECK IGNITION KEYHOLE ILLUMINATION OPERATION

### (P)CONSULT-III

- Turn the ignition switch ON.
- Select "IGN ILLUM" of BCM (INT LAMP) active test item.
- While operating the test items, check that the ignition keyhole illumination turns ON/OFF

: Ignition keyhole illumination ON ON : Ignition keyhole illumination OFF

### Is the inspection result normal?

>> Ignition keyhole illumination circuit is normal. >> Refer to INL-21, "Diagnosis Procedure". NO

### Diagnosis Procedure

### 1.CHECK IGNITION KEYHOLE OUTPUT

### (P)CONSULT-III

- Turn ignition switch ON.
- Select "IGN ILLUM" of BCM (INT LAMP) active test item. 2.
- While operating the test item, check voltage between BCM harness connector M18 terminal 1 and ground.

Connector	Terminal	_	IGN ILLUM	Voltage
M18	1	Ground	ON	0V
IVITO	'	Oloulia	OFF	Battery voltage

### Is the inspection result normal?

YES >> Ignition keyhole illumination control circuit is operating normally.

Fixed ON>>GO TO 3.

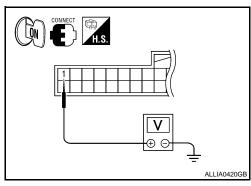
Fixed OFF>> GO TO 2.

### 2.CHECK IGNITION KEYHOLE ILLUMINATION OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M18 and ignition keyhole illumination connector M150.
- Check continuity between BCM harness connector M18 (A) ter-3. minal 1 and ignition keyhole illumination harness connector M150 (B) terminal 2.

	A		В	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M18	1	M150	2	Yes

Is the inspection result normal?



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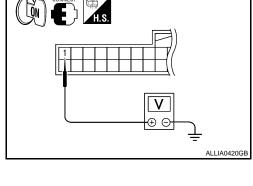
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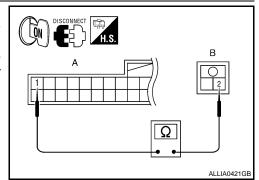
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INFOID:0000000003229848





### **IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT**

< COMPONENT DIAGNOSIS >

[WITH POWER DOOR LOCKS]

- YES >> Check the ignition keyhole illumination for an open. If OK, replace the BCM. Refer to <u>BCS-49</u>. "Removal and Installation". If NG, replace ignition keyhole illumination.
- NO >> Repair harnesses or connectors.

### 3.check ignition keyhole illumination short circuit

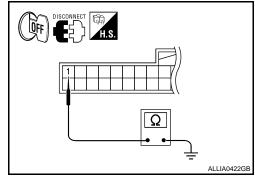
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M18 and ignition keyhole illumination connector M150.
- 3. Check continuity between BCM harness connector M18 terminal 1 and ground.

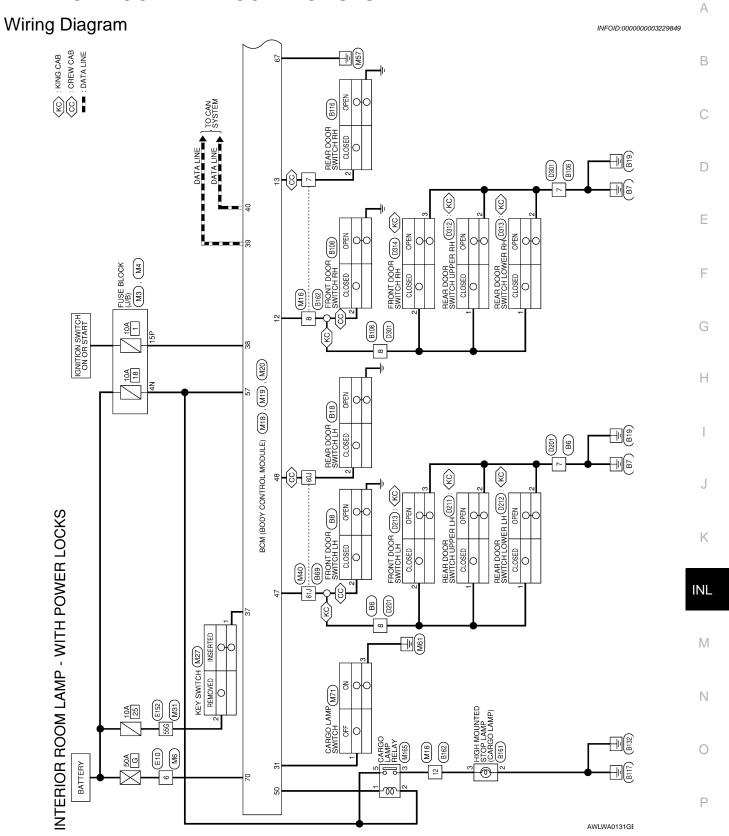
Connector	Terminal	_	Continuity
M18	1	Ground	No

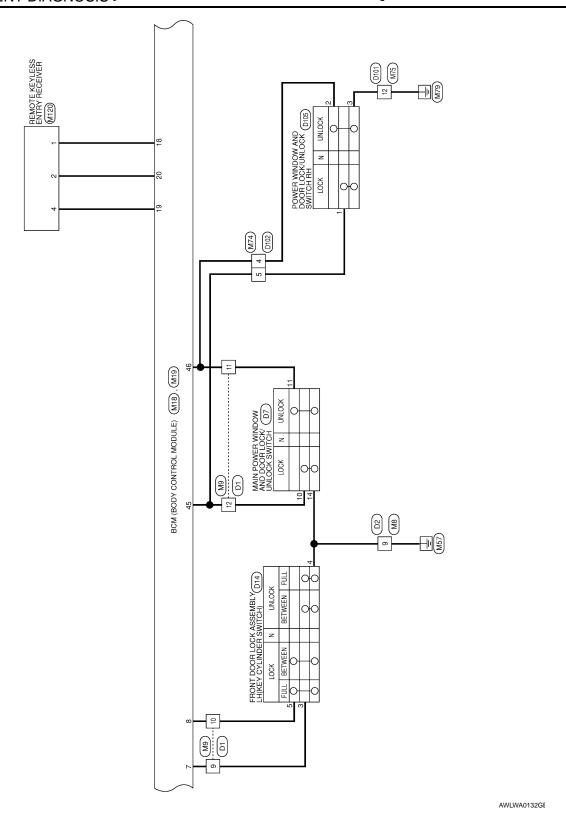
### Is the inspection result normal?

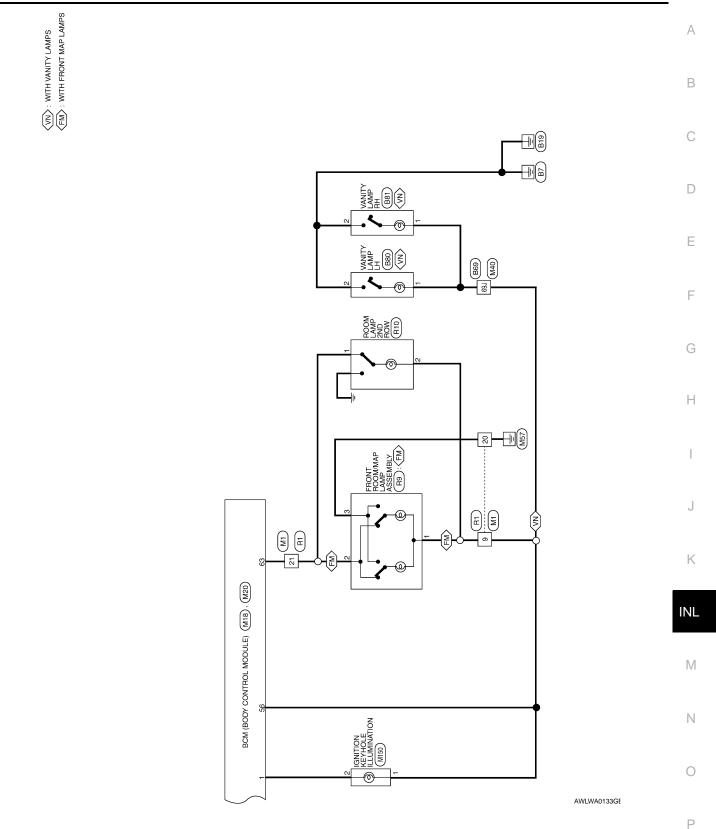
YES >> Check the ignition keyhole illumination for a short circuit. If OK, replace the BCM. Refer to <u>BCS-49</u>, "Removal and <u>Installation"</u>. If NG, replace ignition keyhole illumination.

NO >> Repair harnesses or connectors.









Signal Name

Color of Wire

Terminal No.

Signal Name

Color of Wire ≥

Terminal No. 9

GR SB LG

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Connector Name | FUSE BLOCK (J/B)

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Connector No.

Connector Color WHITE

# INTERIOR ROOM LAMP CONNECTORS - WITH POWER DOOR LOCKS

Connector No.	M1
Connector Name	Connector Name WIRE TO WIRE
Connector Color WHITE	WHITE

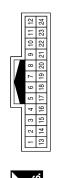
Connector Name FUSE BLOCK (J/B)

M3

Connector No.

Connector Color WHITE

ctor Name WIRE TO WIRE  ctor Color WHITE    1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   22   23   24	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ctor No.	Σ	_								
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1 2 3 4 5 6 7 8 9 10 111 12 13 14 15 16 17 18 19 20 21 22 23 24	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 10 20 21 22 22 22 22	or Color	≥		Ш							
1         2         3         4         5         6         7         8         9         10         11         12           13         14         15         16         17         18         19         20         21         22         23         24	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 24 24				'			II,	_			
1         2         3         4         5         6         7         8         9         10         11         12           13         14         15         16         17         18         19         20         21         22         23         24	13 14 15 16 17 18 19 20 21 22 24			ī	ĺ				_	١	١	١
13 14 15 16 17 18 19 20 21 22 23 24	13 14 15 16 17 18 19 20 21 22 24	-		4	2	9	7	8	6	10	11	12
		13	4 15	16	17	8	19	20	21	22	23	54



Signal Name	_	1	I
Color of Wire	R/Υ	В	BR
Terminal No.	6	50	21

Signal Name	_	
Color of Wire	W/R	
Terminal No. Wire	15P	

Signal Name

Color of Wire

Terminal No. 4 N

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7P 6P 5P 4P 3P 2P 1P 16P 15P 11P 10P 9P 8P

/R   -		M9	WIRE TO WIRE	WHITE
W/R		·	аше	olor
15P		Connector No.	Connector Name	Connector Color

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		RE TO WIRE	OWN		3 2 1	10 9 8 7 6		Signal Name	-
	. M8	me WI	lor BR		5 4	12 11		Color of Wire	В
	Connector No.	Connector Name WIRE TO WIRE	Connector Color BROWN		優	H.S.		Terminal No. Wire	6
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Connector Name WIRE TO WIRE

Connector No.

Connector Color WHITE

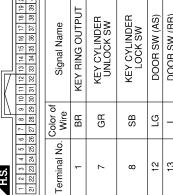
### [WITH POWER DOOR LOCKS]

< COMPONENT	DIAGNOSIS >
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Signal Name	KEYLESS & AUTO LIGHT SENSOR GND	KEYLESS TUNER POWER SUPPLY OUTPUT	KEYLESS TUNER SIGNAL	CARGO LAMP SW	KEY SW	IGN SW	CAN-H	CAN-L
Color of Wire	BR	۸	В	GR	В	W/R	L	Ь
Terminal No.	18	19	20	31	37	38	39	40

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		SWITCH	壨		Signal Name	ı	1
	M27	ne KE	or WH	M≈J	Color of Wire	В	>
	Connector No.	Connector Name KEY SWITCH	Connector Color WHITE	崎 H.S.	Terminal No.	-	٥

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color WHITE	WHITE



Signal Name	KEY RING OUTPUT	KEY CYLINDER UNLOCK SW	KEY CYLINDER LOCK SW	DOOR SW (AS)	DOOR SW (RR)	
Color of Wire	BR	GR	SB	ГG	٦	
Terminal No.	1	7	8	12	13	

<u>δ</u> (Ε)		DOOR SW (RR)
Connector No. Connector Nam	MZ0 MOD	Connector Name BCM (BODY CONTROL MODULE)



Connector Color BLACK

Signal Name	BATTERY SAVER OUTPUT	BAT (FUSE)	ROOM LAMP OUTPUT	GND (POWER)	BAT (F/L)
Color of Wire	>	R/Y	BR	В	Μ
Terminal No. Wire	56	22	63	29	20

Connector No. M16 Connector Name WIRE TO WIRE Connector Color WHITE	H.S. 6 5 4 3 2 1 1 11 11 10 9 8 7 7
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000	_	-		Signal Name	-	_	I
- u	, <u>:</u>	0 1		Color of Wire	7	ГG	G
•	1.5.		•	Terminal No.	7	8	12

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

11 42] 43 44 45] 46 47 48] 49 50   51   52   53   54   55	Signal Name	CDL LOCK SW	CDL UNLOCK SW	DOOR SW (DR)	DOOR SW (RL)	CARGO LAMP OUTPUT
41 42 43 50 51	Color of Wire	>	LG	GR	۵	Ь
Ø	ninal No.	45	46	47	48	20

H.S.		
Terminal No.	Color of Wire	0)
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46	БJ	IGO
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48	Ы	М
20	Ы	CARG

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[WITH POWER DOOR LOCKS]

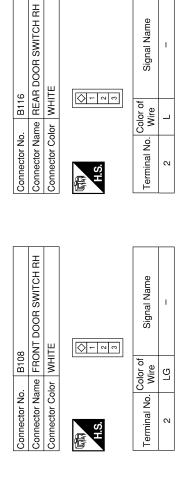
Connector No. M71 Connector Name CARGO LAMP SWITCH Connector Color WHITE	H.S.   Color of   Signal Name   1 GR   -		Connector No. M120 Connector Name REMOTE KEYLESS ENTRY RECEIVER Connector Color WHITE		Terminal No. Wire Signal Name	S
Connector No. M40 Connector Name WIRE TO WIRE Connector Color WHITE	S. M. (3. (2. 14.)  S. M. (3. (2. 14.)  10. 19. 18. 17.3 (M. 18.)  10. 19. 18. 18. 17.3 (M. 18.)  10. 19. 18. 18. 18. 18. 18. 18. 18. 18. 18. 18	Terminal No.         Color of Wire         Signal Name           60J         P         -           61J         GR         -	Connector No. M75 Connector Name WIRE TO WIRE Connector Color WHITE	(5   4   10   9   8   7   6   11   12   14   10   9   8   7   6   1   15   1   1   1   1   1   1   1	Terminal No. Wire Signal Name	
Connector No. M31 Connector Name WIRE TO WIRE Connector Color WHITE	90.0 0.1 00.1 00.1 00.1 00.0 00 00.0 00.0 00.0 00.1 00.1 00.1 00.1 00.1	Terminal No.   Color of   Signal Name   S5G   Y   -	Connector No. M74 Connector Name WIRE TO WIRE Connector Color WHITE	8 7 6 5 4 3 2 1 16 15 14 13 12 11 10 9	Terminal No. Color of Signal Name  4 LG -	5 P

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[WITH POWER DOOR LOCKS]

Connector No. E10 Connector Name WIRE TO WIRE Connector Color WHITE  Terminal No. Color of Signal Name  6 W -	Connector No. B8 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE  H.S. Color of Signal Name 2 GR -	A B C D
Connector No. M165 Connector Name CARGO LAMP RELAY Connector Color BLUE    Terminal No. Wire Signal Name  1 P − 2 R/Y − 3 G − 5 R/Y − 5 R/Y − 5 R/Y − 5 R/Y −	Connector No. B6 Connector Name WIRE TO WIRE Connector Color WHITE  ALS.  Terminal No. Color of Signal Name  7 B - 8 8 GR	G H J
Connector No. M150 Connector Name IGNITION KEYHOLE ILLUMINATION Connector Color WHITE  H.S. Terminal No. Wire Signal Name  1 R/Y - 2 BR -	Connector No. E152 Connector Name WIRE TO WIRE Connector Color WHITE  Connector Color WHITE  Connector Color WHITE  FINANCIAL COLOR	INL M O

Connector No.	). B69		Connector No.	B80		Connector No.		B81	
Connector Name WIRE TO WIRE	me WIR	E TO WIRE	Connector Name VANITY LAMP LH	me VANITY	'LAMP LH	Connector	r Name	Connector Name VANITY LAMP RH	MP RH
Connector Color WHITE	lor WHI	Щ	Connector Color WHITE	or WHITE		Connector Color WHITE	r Color	WHITE	
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	22 23 23 23	17.1 (12) (13) (14) (15) (16) (17) (18) (19) (20) (20) (20) (20) (20) (20) (20) (20							
	313233	(31) (32) (33) (34) (35) (38) (37) (38) (38) (49) (49) (49) (49) (49) (49) (49) (49	Terminal No. Wire	Color of Wire	Signal Name	Terminal No. Wire	No.		Signal Name
	23	102 103 103 103 103 103 103 103 103 103 103	-	R/Y	ı	-	т.	R/Υ	ı
	É	17.0 72.0 173.0 175.0	2	В	ı	2		В	1
	120	78. 77. 78. 78. 80.							
Terminal No.	Color of Wire	Signal Name							
609	۵	ı							
61J	GR	1							



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Signal Name

Color of Wire

Terminal No.

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Connector Name WIRE TO WIRE Connector Color WHITE

Connector No. B106

### [WITH POWER DOOR LOCKS]

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Name	Tame Page Page Page Page Page Page Page Pag	В
E TO WIRE  TE  8 7 6 5 4 3 2  20 19 18 17 16 15 14	Signa Signa	С
12 11 10 9 8 7 1 12 12 12 12 12 12 13 19 1 1 10 9 18 7 1 10 9 18 7 1 10 10 10 10 10 10 10 10 10 10 10 10 1	Name   NIRE TO   NIRE TO	D
Connector No. R1 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No.   D1	Е
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NIRE	MP 2ND ROW Signal Name -	G
VHITE  VHITE  VHITE  2 3 4 5 6 8 9 10 11 12 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Signal I	Н
	Connector No. R10 Connector Name ROOM LAMP 2ND ROW Connector Color WHTE  Terminal No. Wire  1 BR - 2 R/Y - 2 R/Y -	I
Connector No. Connector Colnector Co	Connector No. Connector Cold Terminal No.  1 2	J
		K
NATED STOP GGO LAMP) Signal Name	Signal Name	INL
B161 LAMP(CARGO WHITE Or of Sign B G G G G G G G G G G G G G G G G G G	ENT LE EMBR.	M
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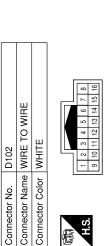
	Connector Name   FRONT DOOR LOCK   ASSEMBLY LH(KEY   CYLINDER SWITCH)	٩Y	4 3 2 1	Signal Name	1	ı	1
D14	he FRC ASS CYL	or GR/	6 5	Solor of Wire	B/W	В	SB
Connector No.	Connector Nan	Connector Color GRAY	赋 H.S.	Terminal No. Wire	3	4	5
	NDOW NUNLOCK			lame			

	15	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	ITE	2	Signal Name	_	ı	
	D105		or WHITE	- w	Color of Wire	ГG	8	
	Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	1	2	

Connector No.	. D7	
Connector Na	me MAII AND SWII	Connector Name MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color WHITE	lor WHI	11
雨 H.S.	8 9 10 11 12	11 12 13 14 15 16
Terminal No.	Color of Wire	Signal Name

Signal Name	I	I	1
Color of Wire	ГG	M	В
Terminal No. Wire	10	11	14

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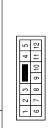


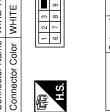
2 3 4 5 6 7 8 10 11 12 13 14 15 16	Signal Name	1	1
9 10	Color of Wire	×	LG
H.S.	Terminal No.	4	5

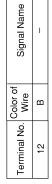
Connector No.	D2	2			
Connector Name WIRE TO WIRE	3	<u>=</u>	ET	>	IIRE
Connector Color WHITE	3	Ī	丑		
	2	3		4	2
9	7	8	6 7 8 9 10 11 12	11	12

	Signal Name	1
	Color of Wire	В
H.S.	Ferminal No.	6

D101	WIRE TO WIRE
Connector No.	Connector Name WIRE TO WIRE







AWLIA0447GB

### [WITH POWER DOOR LOCKS]

Signal Name

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### < COMPONENT DIAGNOSIS >

Connector No.	. D201		Connector No. D211	. D211		Connector No. D212	o. D21	
Connector Name WIRE TO WIRE	me WIRE T	ro wire	Connector Na	me REAR	Connector Name REAR DOOR SWITCH	Connector No	ame REA	Connector Name REAR DOOR SWITCH
Connector Color WHITE	or WHITE			UPPE	UPPER LH		LOW	LOWER LH
	1		Connector Color BLACK	lor BLAC	<b>Y</b>	Connector Color BLACK	olor BLA	OK.
H.S.	2 d d 4 d d			[2]		E	[2]	(F)
1			ń.			25		
	Color of						Color of	
Terminal No. Wire	Wire	Signal Name	Terminal No	Color of	Signal Name	Terminal No. Wire	Wire	Signal Name
7	<u>~</u>	ı	2	Wire	0.814		_	1
- 0	ı <u>c</u>	1	-	re	ſ	0	m	1
0	3		c	۵	1	3	1	
			7	۵	ı			

Conne	onnector No.	D301	Conn	onnector No.	D312
Conne	ctor Name	Connector Name WIRE TO WIRE	Conn	ector Name	Connector Name REAR DOOR SWITCH
0	Copportor Color WHITE	WHITE			

D312	EAR DO	JPPER	ACK	2-1	Je					
	me RI	5	or Bl		Color	Wire	_	ן	Ω	1
Connector No.	Connector Name REAR DO		Connector Color BLACK	(南) H.S.		Terminal No. Wire	-	-	^	ı
			7							
-	E TO WIRE	TE		7 8 4		Signal Name	2	ı		1
. D301	me WIR	lor WHI		5 1 2		Color of	Wire	α	۵	ГG
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE		H.S.		Terminal No	5	7	,	∞
			•							

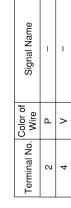
8	FRONT DOOR SWITCH LH	11		Signal Name	ı	ı
. D213		lor WHITE		Color of Wire	ГG	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	2	က

AWLIA0448GB

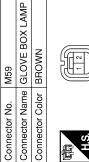
**INL-33** 











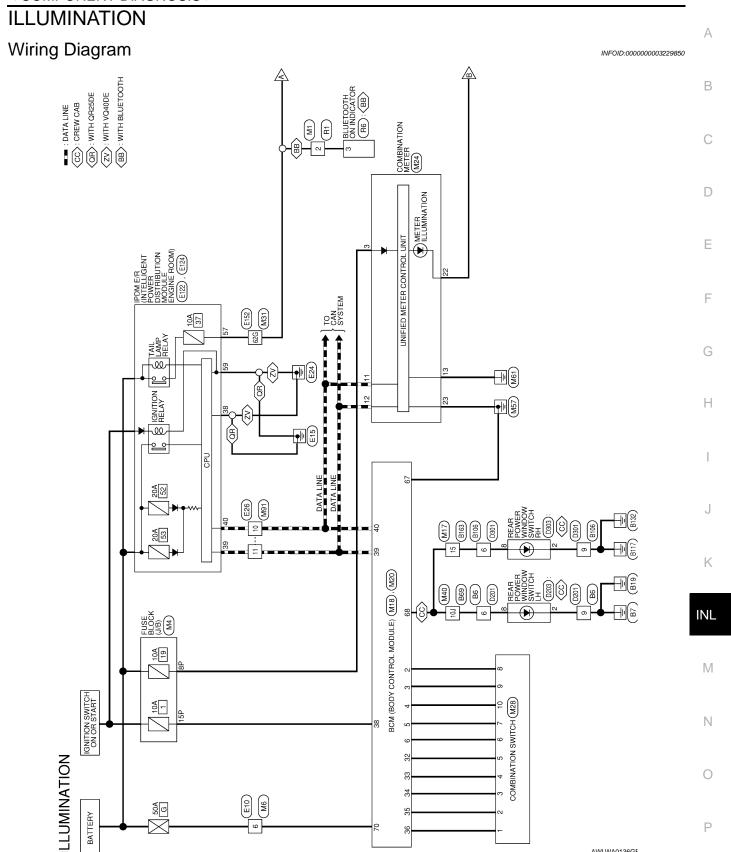




Signal Name	I	1
Color of Wire	В	В
Terminal No.	1	2

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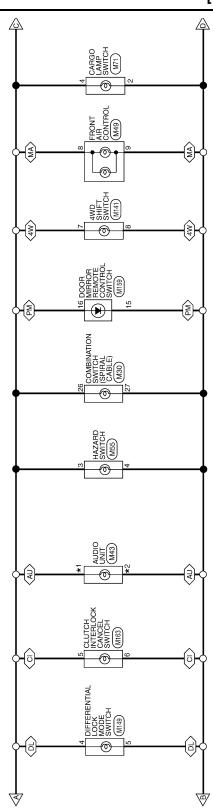
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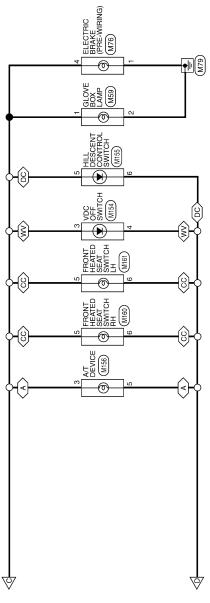


(CI) : WITH CLUTCH INTERLOCK CANCEL SWITCH
(PM) : WITH POWER OUTSIDE MIRRORS
(MA) : WITH MANUAL A/C
(EB) : EXCEPT BASE AUDIO SYSTEM
(BA) : WITH BASE AUDIO SYSTEM
(AU) : WITH AUDIO UNIT
(△W) : WITH 4 WHEEL DRIVE



AWLWA0137GE

 $\begin{tabular}{ll} $\langle DC \rangle$ : WITH HILL DESCENT CONTROL AND HILL START ASSIST $$\langle A \rangle$ : WITH AT $$\langle CC \rangle$ : CREW CAB $$\langle WV \rangle$ : WITH VDC $$$ 



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COMBI SW INPUT 3 (LOW SIDE)

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COMBI SW INPUT 2 (LOW SIDE)

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COMBI SW INPUT 1 (LOW SIDE)

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COMBI SW INPUT 5 (LOW SIDE)

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Signal Name

Color of Wire

Terminal No.

COMBI SW INPUT 4 (LOW SIDE)

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WIRE TO WIRE

Connector Name Connector No.

M6

Connector Color WHITE

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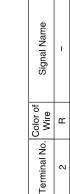
7P 6P 5P 4P 3P 1P 1P 1P 1P 9P 8P

# ILLUMINATION CONNECTORS

M4	nnector Name FUSE BLOCK (J/B)	WHITE
Connector No.	Connector Name	Connector Color
M1	WIRE TO WIRE	WHITE
Connector No.	Connector Name	Connector Color









Signal Name

Color of Wire

Terminal No. 9

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M18	Connector Name BCM (BODY CONTROL MODULE)	WHITE
Connector No.	Connector Name	Connector Color

Connector Name WIRE TO WIRE

M17

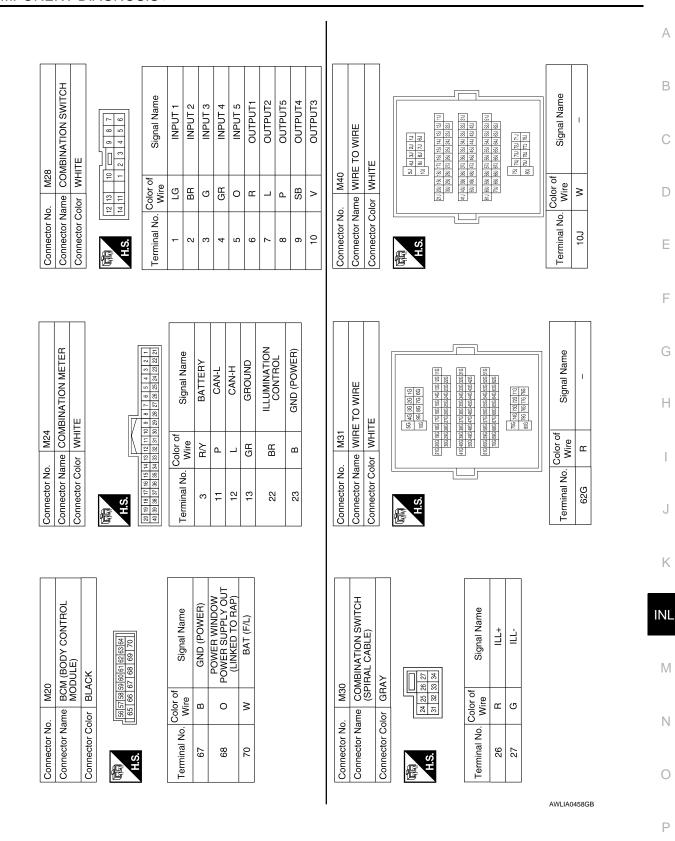
Connector No.



7 6 5 4	Signal Name	ı
7 6 5	Color of Wire	>
H.S.	Terminal No.	15

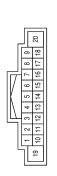
Signal Name	COMBI SW OUTPUT 5 (PULL UP SIDE)	COMBI SW OUTPUT 4 (PULL UP SIDE)	COMBI SW OUTPUT 3 (PULL UP SIDE)	COMBI SW OUTPUT 2 (PULL UP SIDE)	COMBI SW OUTPUT 1 (PULL UP SIDE)	IGN SW	CAN-H	CAN-L
Color of Wire	0	GR	Э	BR	Ы	W/R	Γ	Ь
Terminal No.	32	33	34	35	98	38	39	40

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**INL-39** 

M43	Connector Name AUDIO UNIT (BASE AUDIO SYSTEM)	WHITE
Connector No.	Connector Name	Connector Color WHITE
		_
	RE	







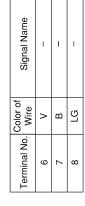


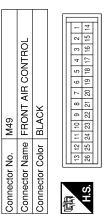


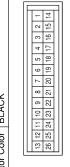










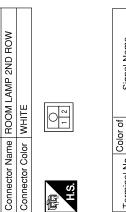


Signal Name	I	_
Color of Wire	G	BR
Terminal No.	8	6



B10

Connector No.



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Signal Name	_	I
Color of Wire	BR	R/Y
rerminal No.	-	2

Connector No.	M43
Connector Name	Connector Name AUDIO UNIT (EXCEPT BASE AUDIO SYSTEM)
Connector Color WHITE	WHITE





Signal Name	ILL CONT	LIGHT SW
Color of Wire	GR	g
Terminal No.	7	8

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Connector No.         M91         Connector Name         W141           Connector Name         WIRE TO WIRE         Connector Name         4WD SHIFT SWITCH           Connector Color         GRAY         Connector Color         GRAY           H.S.         A.S.         TErminal No.         Color of Wire         Signal Name           Terminal No.         Wire         Signal Name           Total Intervention of Mire         Signal Name           Total Intervention of Mire         BR         GND	Connector No.   M91	Connector No.   M91   Connector Name   WIRE TO WIRE   Connector Name   WID SHIF   Connector Color   GRAY   Connector Color   GRAY   Connector Color   GRAY   Color of   Fis		тсн		F			Name	SW	٥
O WIRE	Connector No.   M91	Connector No.   M91   Connector Name   WIRE TO WIRE   Connector Color   WHITE   Connector Color   MHITE   Connector Colo	M141	4WD SHIFT SWI	GRAY		112345678				
	Connector No.   M91	Connector No.   M91	Connector No.	Connector Name	Connector Color		H.S.		Terminal No. Wi	7	
Connector No.   M91		Signal Name GROUND ILL (TAIL)		WIRE		-			Signal Name	ı	ı
Connector Na Connector Co Connector Co H.S. H.S.		Signal Name GROUND ILL (TAIL)	. M91	me WIRE TO	or WHITE	2	14 13		Color of Wire	<u>a</u>	_
	AAKE(PRE- nal Name GOUND	M76 WIRING) WHITE    Carroll Brake(PRE- WIRING)   WHITE   Carroll   Carroll	Connector No	Connector Na	Connector Co		H.S.		Terminal No.	10	-

			1			
55	Connector Name HILL DESCENT CONTROL SWITCH	ITE	Z   I   9	Signal Name	-	ı
. M155	me HIL SW	lor WH	<u> </u>	Color of Wire	Ж	BB
Connector No.	Connector Na	Connector Color WHITE	咸 H.S.	Terminal No.	2	9

4.	VDC OFF SWITCH	٨t	4 3 2 1	Signal Name	-	_
. M154	me VDC	lor GRAY	9	Color of Wire	В	BR
Connector No.	Connector Name	Connector Color	赋 H.S.	Terminal No.	8	4
			· <u></u>			

6:	Connector Name DIFFERENTIAL LOCK MODE SWITCH	TE TE	83 <u>0</u> 1	Signal Name	I	-
M149	ne DIF SW	or WH	4 0	Color of Wire	<u>~</u>	ä
Connector No.	Connector Na	Connector Color WHITE	H.S.	Terminal No.	4	ư

Signal N	I	-	
Color of Wire	ш	BR	
Terminal No.	4	5	

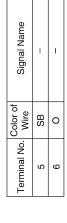
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		Sonnector Name FRONT HEATED SEAT SWITCH RH	
	M160	FRONT HEAT SWITCH RH	BROWN
	onnector No. M160	nector Name	Connector Color BROWN
Į	ပိ	Con	Con
	M159 Cor	connector Name DOOR MIRROR REMOTE Con	Connector Color WHITE

Signal Name	1	I
Color of Wire	SB	0
erminal No.	5	9



Signal Name	ı	_	
Color of Wire	BR	В	
Terminal No.	15	16	

Signal Name	ı	I
Wire	BR	В
erminai No.	15	16



Connector Name | WIRE TO WIRE Connector Color WHITE

Connector No. E10



Signal Name

Color of Wire ≥

Terminal No.

Connector Name A/T DE Connector Color WHITE	Connector No. M156 Connector Name A/T DEVICE (SHIFT LOCK) Connector Color WHITE
SH SH	1 3 7 9 2 4 5 6 8 10

Connector No.



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M161	Connector Name   FRONT HEATED SEAT   SWITCH LH	WHITE	
Connector No.	Connector Name	Connector Color WHITE	

Signal Name	I	ı	
Color of Wire	ш	BR	
Terminal No.	5	9	

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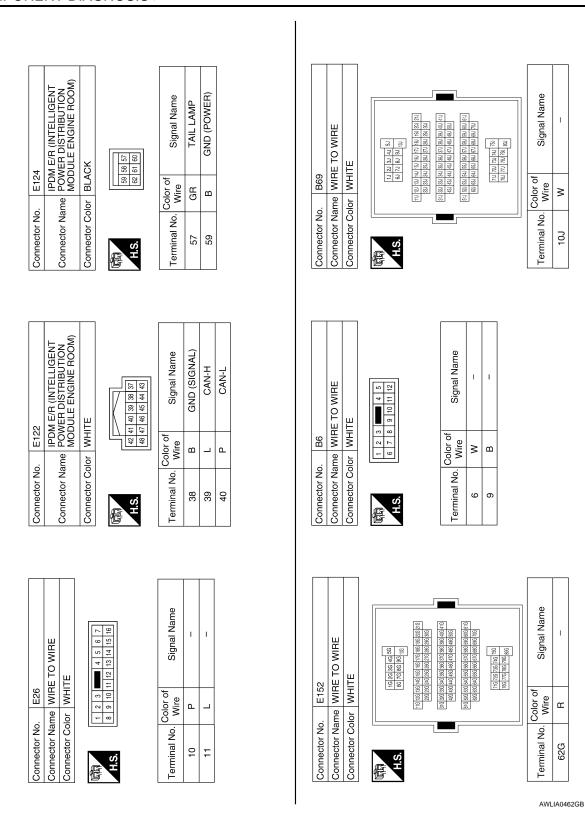
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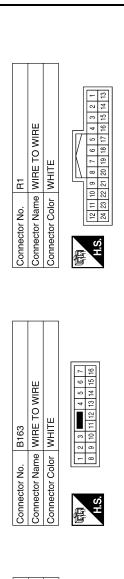
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Connector Name WIRE TO WIRE Connector Color WHITE

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Connector No.

Signal Name

Color of Wire

Terminal No.

Signal Name

Color of Wire

Terminal No.

Signal Name -

Color of Wire

Terminal No.

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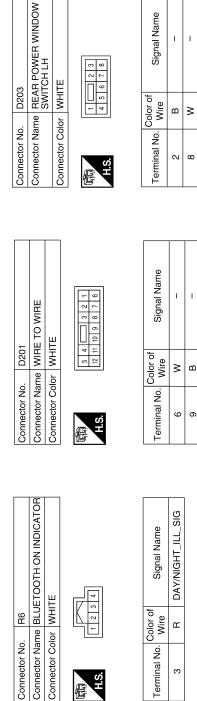
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	5 6 7 8	or of Signal Name	-		
Connector No. D303 Connector Name REAR F SWITCI Connector Color WHITE	H.S.	Terminal No. Wire	2 B	8 W	
TO WIRE		Signal Name	-	ı	
MITE WHITE		Color of Wire	M	В	
Connector No. D301  Connector Name WIRE TO WIRE  Connector Color WHITE    5   4     3   2   1   1   1   1   1   1   1   1   1	12	Terminal No. Wire	9	6	

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# **ECU DIAGNOSIS**

# **BCM (BODY CONTROL MODULE)**

Reference Value

#### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
AIR COND SW	A/C switch OFF	OFF
AIR COIND 3W	A/C switch ON	ON
CDL LOCK SW	Door lock/unlock switch does not operate	OFF
CDL LOCK SW	Press door lock/unlock switch to the LOCK side	ON
	Door lock/unlock switch does not operate	OFF
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	ON
DOOD CW AC	Front door RH closed	OFF
DOOR SW-AS	Front door RH opened	ON
D00D 0W DD	Front door LH closed	OFF
DOOR SW-DR	Front door LH opened	ON
DOOD OW DI	Rear door LH closed	OFF
DOOR SW-RL	Rear door LH opened	ON
D00D 0W DD	Rear door RH closed	OFF
DOOR SW-RR	Rear door RH opened	ON
ENOINE BUIL	Engine stopped	OFF
ENGINE RUN	Engine running	ON
	Front fog lamp switch OFF	OFF
FR FOG SW	Front fog lamp switch ON	ON
ED 144 OUED 0144	Front washer switch OFF	OFF
FR WASHER SW	Front washer switch ON	ON
ED WIDED   OW	Front wiper switch OFF	OFF
FR WIPER LOW	Front wiper switch LO	ON
	Front wiper switch OFF	OFF
FR WIPER HI	Front wiper switch HI	ON
ED WIDED INT	Front wiper switch OFF	OFF
FR WIPER INT	Front wiper switch INT	ON
ED WIDED OTOD	Any position other than front wiper stop position	OFF
FR WIPER STOP	Front wiper stop position	ON
LIAZADD CW	When hazard switch is not pressed	OFF
HAZARD SW	When hazard switch is pressed	ON
LICHTOWACT	Lighting switch OFF	OFF
LIGHT SW 1ST	Lighting switch 1st	ON
HEADLAMD CM4	Headlamp switch OFF	OFF
HEADLAMP SW1	Headlamp switch 1st	ON
LIEADI AMB OMO	Headlamp switch OFF	OFF
HEADLAMP SW2	Headlamp switch 1st	ON
LUDEANA CYAY	High beam switch OFF	OFF
HI BEAM SW	High beam switch HI	ON

# **BCM (BODY CONTROL MODULE)**

#### < ECU DIAGNOSIS >

# [WITH POWER DOOR LOCKS]

Monitor Item	Condition	Value/Status
H/L WASH SW	NOTE: The item is indicated, but not monitored	OFF
ICAL CAL CIAL	Ignition switch OFF or ACC	OFF
IGN ON SW	Ignition switch ON	ON
IGN SW CAN	Ignition switch OFF or ACC	OFF
IGN SW CAN	Ignition switch ON	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
KEY ON SW	Mechanical key is removed from key cylinder	OFF
KET ON SW	Mechanical key is inserted to key cylinder	ON
KEVI ESS I OSK	LOCK button of key fob is not pressed	OFF
KEYLESS LOCK	LOCK button of key fob is pressed	ON
KEVI EGG LINII OOK	UNLOCK button of key fob is not pressed	OFF
KEYLESS UNLOCK	UNLOCK button of key fob is pressed	ON
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	OFF
	Ignition switch ON	ON
DA COINIO OM	Other than lighting switch PASS	OFF
PASSING SW	Lighting switch PASS	ON
RKE LOCK AND UN-	NOTE:	OFF
LOCK	The item is indicated, but not monitored	ON
TAIL LAND CVA	Lighting switch OFF	OFF
TAIL LAMP SW	Lighting switch 1ST	ON
TUDNI CIONALI	Turn signal switch OFF	OFF
TURN SIGNAL L	Turn signal switch LH	ON
TUDNI CIONAL D	Turn signal switch OFF	OFF
TURN SIGNAL R	Turn signal switch RH	ON
VEHICLE SPEED	While driving	Equivalent to speedometer reading

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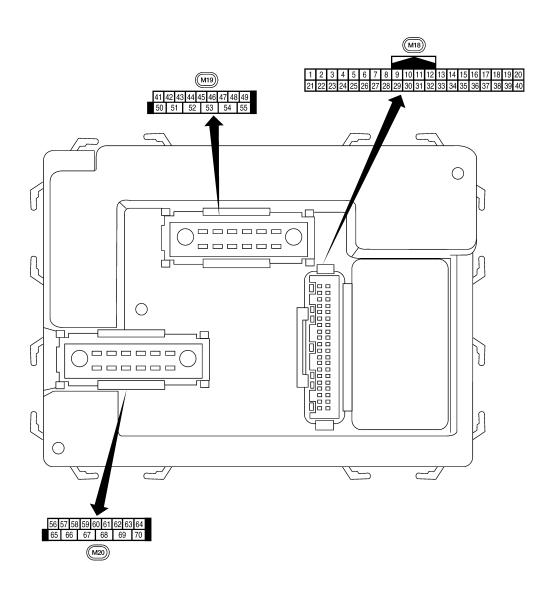
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Terminal Layout

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LIIA2443E

Physical Values

	Miro		Signal		Measuring condition	Potoronoo value er wayata
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
1	BR	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage
•	DIX	nation	Output	011	Door is unlocked (SW ON)	0V
2	Р	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ++5ms SKIA5291E
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + + 5ms SKIA5292E
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0
5	L	Combination switch input 2				\$KIA5291E
6	R	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	6 4 2 0 + + 5 ms SKIA5292E
		Front door lock as-			ON (open, 2nd turn)	Momentary 1.5V
7	GR	sembly LH (key cylin- der switch) unlock	Input		OFF (closed)	0V
		Front door lock as-		OFF	On (open)	Momentary 1.5V
8	SB	sembly LH (key cylin- der switch) lock	Input		OFF (closed)	0V
0	V	Rear window defogger	lan:-4	ON	Rear window defogger switch ON	0V
9	Y	switch	Input	ON	Rear window defogger switch OFF	5V
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
		Front door switch RH (All)			ON (open)	OV
12	LG	Rear door switch up- per RH (King Cab)	Input	OFF	OFF (closed)	Battery voltage
		Rear door switch low- er RH (King Cab)			, ,	

# [WITH POWER DOOR LOCKS]

	Wire		Signal		Measuring condition	D-f
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
13	L	Rear door switch RH	Input	OFF	ON (open)	0V
	_	(Crew Cab)	put	011	OFF (closed)	Battery voltage
15	W	Tire pressure warning check connector	Input	OFF	_	5V
18	BR	Remote keyless entry receiver (Ground)	Output	OFF	_	0V
19	V	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 50 ms
20	G	Remote keyless entry receiver signal (Sig-	Input	OFF	Stand-by (keyfob buttons released)	(V) 6 4 2 0 
20	0	nal)	при	OI I	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 -1
21	GR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF $\rightarrow$ ON)	Just after turning ignition switch ON: Pointer of tester should move.
23	G	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF $\rightarrow$ ON)	Just after turning ignition switch ON: Pointer of tester should move.
27	W	Compressor ON sig-	Input	ON	A/C switch OFF	5V
	.,	nal		3.,	A/C switch ON	0V
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
-			•		Front blower motor ON	0V
29	G	Hazard switch	Input	OFF	ON	0V
					OFF	5V
31	GR	Cargo lamp switch	Input	OFF	ON OFF	0V Battery voltage
					Ol I	Dattery voltage

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)
32	0	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **-5ms
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 
35	BR	Combination switch output 2				SKIA5291E
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	5ms SKIA5292E
07				055	Key inserted	Battery voltage
37	В	Key switch	Input	OFF	Key removed	0V
38	W/R	Ignition switch (ON)	Input	ON	_	Battery voltage
39	L	CAN-H	_	_	_	_
40	Р	CAN-L		_	_	_
45	V	Lock switch	Input	OFF	ON (lock) OFF	0V Battery voltage
46	LG	Unlock switch	Input	OFF	ON (unlock) OFF	0V Battery voltage
		Front door switch LH (All)			ON (open)	OV
47	GR	Rear door switch up- per LH (King Cab) Rear door switch low-	Input	OFF	OFF (closed)	Battery voltage
		er LH (King Cab)				
48	Р	Rear door switch LH	Input	OFF	ON (open)	0V
.0	•	(Crew Cab)	pat	0.1	OFF (closed)	Battery voltage
50	Р	Cargo lamp	Output	OFF	Any door open (ON)	0V
		<b>5</b> ,			All doors closed (OFF)	Battery voltage

			Signal		Measuring cond	dition	
Terminal	Wire color	Item	input/ output	Ignition switch	Operation (	or condition	Reference value or waveform (Approx.)
51	G	Trailer turn signal (right)	Output	ON	Turn right ON		(V) 15 10 50 500 ms SKIA3009J
52	V	Trailer turn signal (left)	Output	ON	Turn left ON		(V) 15 10 50 500 ms SKIA3009J
56	V	Battery saver output	Output	OFF	30 minutes after switch is turned		0V
00	v	Battery Saver Suspec	Output	ON	_	_	Battery voltage
57	R/Y	Battery power supply	Input	_	_	_	Battery voltage
58	W	Ontical concer	lanut	ON	When optical s nated	ensor is illumi-	3.1V or more
56	VV	Optical sensor	Input	ON	When optical siminated	ensor is not illu-	0.6V or less
59	GR	Front door lock as-	Output	OFF	OFF (neutral)		0V
39	GIX	sembly LH (unlock)	Output	OH	ON (unlock)		Battery voltage
60	LG	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 5 0 500 ms
61	G	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 500 ms SKIA3009J
63	BR	Interior room/map lamp	Output	OFF	Any door switch	ON (open) OFF (closed)	0V Battery voltage
65	V	All door lock actuators	Output	OFF	OFF (neutral)	()	0V
		(lock)			ON (lock)		Battery voltage
66	L	Front door lock actuator RH, rear door lock	Output	OFF	OFF (neutral)		0V
00	_	actuators LH/RH (unlock)	Guipui	011	ON (unlock)		Battery voltage
67	В	Ground	Input	ON	_		0V

# **BCM (BODY CONTROL MODULE)**

#### < ECU DIAGNOSIS >

# [WITH POWER DOOR LOCKS]

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)
					Ignition switch ON	Battery voltage
					Within 45 seconds after ignition switch OFF	Battery voltage
68	0	Power window power supply (RAP)	Output	_	More than 45 seconds after ignition switch OFF	0V
					When front door LH or RH is open or power window timer operates	0V
69	Р	Power window power supply (BAT)	Output	OFF	_	Battery voltage
70	W	Battery power supply	Input	OFF	_	Battery voltage

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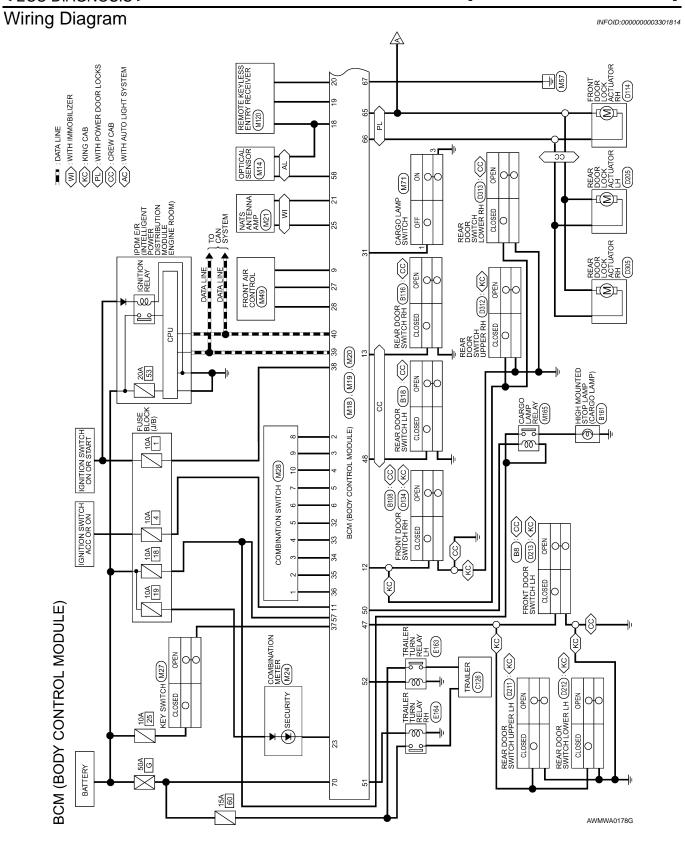
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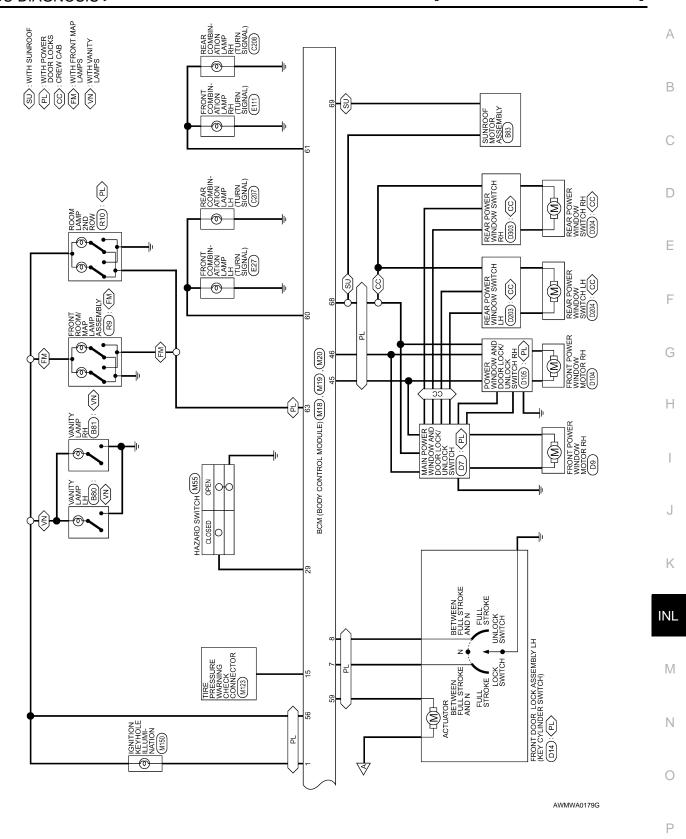
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# BCM (BODY CONTROL MODULE) CONNECTORS

Connector No. M18
Connector Name BCM (BODY CONTROL MODULE)

WHITE

Connector Color

Signal Name	1	SECURITY INDICATOR OUTPUT	ı	IMMOBILISER ATNENNA SIGNAL (TX,RX)	_	AIRCON SW	BLOWER FAN SW	HAZARD SW	ı	CARGO LAMP SW	COMBI SW OUTPUT 5 (PULL UP SIDE)	COMBI SW OUTPUT 4 (PULL UP SIDE)	COMBI SW OUTPUT 3 (PULL UP SIDE)	COMBI SW OUTPUT 2 (PULL UP SIDE)	COMBI SW OUTPUT 1 (PULL UP SIDE)	KEY SW	IGN SW	CAN-H	CAN-L
Color of Wire	1	ŋ	ı	BB	I	>	Œ	G	GR	GR	0	GR	g	BR	FG	В	W/R	Г	۵
Terminal No.	22	23	24	25	26	27	28	59	30	31	32	33	34	35	36	37	38	39	40
			•																

Signal Name	KEY CYLINDER UNLOCK SW	KEY CYLINDER LOCK SW	RR DEFOGGER SW	1	ACC_SW	DOOR SW (AS)	DOOR SW (RR)	I	TPMS MODE TRIGGER SW	ı	I	KEYLESS & AUTO LIGHT SENSOR GND	KEYLESS TUNER POWER SUPPLY OUTPUT	KEYLESS TUNER SIGNAL	IMMOBILSER ATNENNA SIG (CLOCK)
Color of Wire	GR	SB	>	ı	G/B	LG	٦	1	Μ	ı	1	BB	>	Ŋ	GR
Terminal No.	7	ω	6	10	Ξ	12	13	14	15	16	17	18	19	20	21

	9 10 11 12 13 14 15 16 17 18 19 20	21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	Signal Name	KEY RING OUTPUT	COMBI SW INPUT 5 (LOW SIDE)	COMBI SW INPUT 3 (LOW SIDE)	COMBI SW INPUT 4 (LOW SIDE)	COMBI SW INPUT 2 (LOW SIDE)	COMBI SW INPUT 1 (LOW SIDE)
Ī	7 8 9 10	27 28 29 30	Color of Wire	BR	Ь	SB	>	٦	ш
	1 2 3 4 5 6	21 22 23 24 25 26	Terminal No.	-	5	3	4	5	9

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Signal Name	CDL LOCK SW	CDL UNLOCK SW	DOOR SW (DR)	DOOR SW (RL)	1	CARGO LAMP CARGO OUTPUT	TRAILER FLASHER OUTPUT (RIGHT)	TRAILER FLASHER OUTPUT (LEFT)	ı	I	I
Color of Wire	>	FIG	GR	۵	-	Ь	g	>	1	-	-
Terminal No.	45	46	47	48	49	50	51	52	53	54	22

Connector No.		M19	
Connector Name		BCM (BODY CONTROL MODULE)	
Connector Color WHITE	olor M	ИІТЕ	
引 H.S.	<u> </u>	41 42 43 44 45 46 47 48 49    50 51 52 53 54 55	
Terminal No.	Color of Wire	of Signal Name	
41	-	ı	
42	_	-	
43	ı	ı	
44	I	ı	

Signal Name	FLASHER OUTPUT (RIGHT)	1	ROOM LAMP OUTPUT	1	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)	POWER WINDOW POWER SUPPLY OUTPUT (LINKED TO RAP)	POWER WINDOW POWER SUPPLY OUTPUT (BAT)	BAT (F/L)	
Color of Wire	9	ı	BR	_	^	7	В	0	Ь	>	
Terminal No.	61	62	63	64	65	99	29	89	69	70	

M20	BCM (BODY CONTROL MODULE)	BLACK	SE  57  58  58  60  61  62  63  64	f Signal Name	BATTERY SAVER OUTPUT	BAT (FUSE)	AUTO LIGHT SENSOR INPUT 2	DOOR UNLOCK OUTPUT (DR)	FLASHER OUTPUT (LEFT)
			5657	Color of Wire	>	R/Y	>	GR	P
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	99	22	58	59	09

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INFOID:0000000003301815

# DTC Inspection Priority Chart

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	B2190: NATS ANTENNA AMP     B2191: DIFFERENCE OF KEY     B2192: ID DISCORD BCM-ECM     B2193: CHAIN OF BCM-ECM
3	C1729: VHCL SPEED SIG ERR
4	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] FR C1711: [NO DATA] RR C1711: [NO DATA] RR C1711: [NO DATA] RR C1711: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] FR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FR C1717: [PRESSDATA ERR] FR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [CODE ERR] FR C1720: [CODE ERR] FR C1721: [CODE ERR] RR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FR C1725: [BATT VOLT LOW] RR C1726: [BATT VOLT LOW] RR

DTC Index

#### NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
   → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
   remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
   OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-25
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-26
B2190: NATS ANTTENA AMP	_	_	_	<u>SEC-17</u>
B2191: DIFFERENCE OF KEY	_	_	_	<u>SEC-20</u>
B2192: ID DISCORD BCM-ECM	_	_	_	SEC-21
B2193: CHAIN OF BCM-ECM	_	_	_	SEC-23
C1708: [NO DATA] FL	_	_	_	<u>WT-13</u>
C1709: [NO DATA] FR	_	_	_	<u>WT-13</u>

# BCM (BODY CONTROL MODULE) [WITH POWER DOOR LOCKS]

#### < ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	А
C1710: [NO DATA] RR	_	_	_	<u>WT-13</u>	
C1711: [NO DATA] RL	_	_	_	<u>WT-13</u>	В
C1712: [CHECKSUM ERR] FL	_	_	_	<u>WT-15</u>	
C1713: [CHECKSUM ERR] FR	_	_	_	<u>WT-15</u>	С
C1714: [CHECKSUM ERR] RR	_	_	_	<u>WT-15</u>	
C1715: [CHECKSUM ERR] RL	_	_	_	<u>WT-15</u>	
C1716: [PRESSDATA ERR] FL	_	_	_	<u>WT-17</u>	D
C1717: [PRESSDATA ERR] FR	_	_	_	<u>WT-17</u>	
C1718: [PRESSDATA ERR] RR	_	_	_	<u>WT-17</u>	Е
C1719: [PRESSDATA ERR] RL	_	_	_	<u>WT-17</u>	_
C1720: [CODE ERR] FL	_	_	_	<u>WT-15</u>	
C1721: [CODE ERR] FR	_	_	_	<u>WT-15</u>	F
C1722: [CODE ERR] RR	_	_	_	<u>WT-15</u>	
C1723: [CODE ERR] RL	_	_	_	<u>WT-15</u>	
C1724: [BATT VOLT LOW] FL	_	_	_	<u>WT-15</u>	G
C1725: [BATT VOLT LOW] FR	_	_	_	<u>WT-15</u>	
C1726: [BATT VOLT LOW] RR	_	_	_	<u>WT-15</u>	Н
C1727: [BATT VOLT LOW] RL	_	_	_	<u>WT-15</u>	
C1729: VHCL SPEED SIG ERR	_	_	_	<u>WT-18</u>	

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#### **INTERIOR LIGHTING SYSTEM SYMPTOMS**

< SYMPTOM DIAGNOSIS >

[WITH POWER DOOR LOCKS]

# SYMPTOM DIAGNOSIS

# INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

#### **CAUTION:**

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

Symptom	Possible cause	Inspection item	
All of the following lamps do not turn ON  Front room/map lamp assembly  Room lamp 2nd row  Vanity mirror lamps  Ignition keyhole illumination	Harness between BCM and each interior room lamp     Harness between BCM and each door switch     BCM	Battery saver output/power supply circuit Refer to INL-14.	
Some or all of the following interior room lamps do not turn ON/OFF  Front room/map lamp assembly  Room lamp 2nd row	Harness between BCM and each interior room lamp     BCM	Interior room lamp control circuit Refer to INL-16.	
Cargo lamp does not turn ON/OFF	Harness between fuse block (J/B) and cargo lamp relay     Harness between cargo lamp relay and cargo lamp     Harness between BCM and cargo lamp relay     BCM	Cargo lamp control circuit Refer to INL-18.	
Ignition keyhole illumination does not turn ON/ OFF	Harness between BCM and ignition keyhole illumination     BCM	Ignition keyhole illumination circuit Refer to INL-21	
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-10.	
Interior room lamp battery saver does not activate.	_	Check the interior room lamp battery saver setting. Refer to INL-10.	

# **PRECAUTION**

#### **PRECAUTIONS**

Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSION-ER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

#### **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal
  injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag
  Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

#### General precautions for service operations

- When removing or disassembling any part, be careful not to damage or deform it. Protect parts which may
  get in the way with cloth.
- When removing parts with a screw driver or other tool, protect parts by wrapping them with vinyl or tape.
- Keep removed parts protected with cloth.
- If an non-reuseable part is removed, replace it with a new one.
- After re-assembly has been completed, make sure each part functions correctly.
- · Never work with wet hands.
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- Do not use organic solvent (paint thinner or gasoline) to clean lamps or remove sealant residue.

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# **ON-VEHICLE REPAIR**

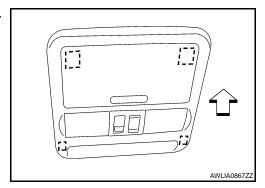
# INTERIOR ROOM LAMP

#### Removal and Installation

#### MAP LAMP

#### Removal

The map lamp is replaced as part of the overhead console assembly. Refer to <a href="INT-23">INT-23</a>, "Removal and Installation".



#### Installation

Installation is in the reverse order of removal.

#### **Bulb Replacement**

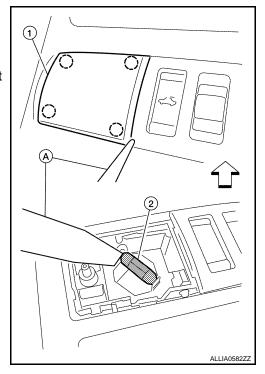
- 1. Disconnect the negative battery terminal.
- Using a suitable tool (A), remove map lamp lens (1).⇐: Vehicle front

#### **CAUTION:**

Wrap a cloth around tool to protect the housing and lens.

3. Release one side of the bulb (2) from the tab, then pull straight downward to remove.

Map lamp bulb : 12V - 8W



#### VANITY MIRROR LAMP

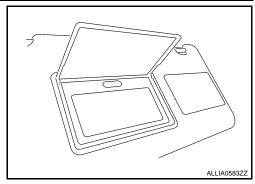
Removal

#### INTERIOR ROOM LAMP

#### < ON-VEHICLE REPAIR >

#### [WITH POWER DOOR LOCKS]

The vanity mirror lamp is replaced as part of the sunvisor assembly. Refer to INT-23, "Removal and Installation".



Installation

Installation is in the reverse order of removal.

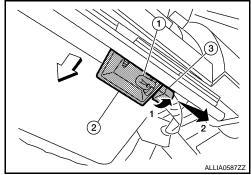
**Bulb Replacement** 

The vanity mirror lamp bulb is replaced as part of the sunvisor assembly. Refer to <a href="INT-23">INT-23</a>, "Removal and Installation".

GLOVE BOX LAMP

Removal

- 1. Remove lower instrument panel RH and glove box. Refer to IP-10, "Removal and Installation".
- 2. Rotate glove box lamp socket (3) with bulb (1) counterclockwise, then pull away from lamp shield (2) on steering member to remove.



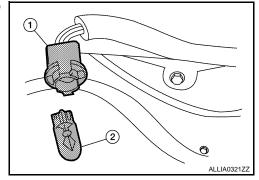
Installation

Installation is in the reverse order of removal.

**Bulb Replacement** 

- 1. Disconnect the negative battery terminal.
- 2. Remove glove box lamp.
- 3. Pull bulb (2) straight out from glove box lamp socket (1) to remove.

Glove box lamp bulb : 12V - 3.4W



**ROOM LAMP** 

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#### INTERIOR ROOM LAMP

#### < ON-VEHICLE REPAIR >

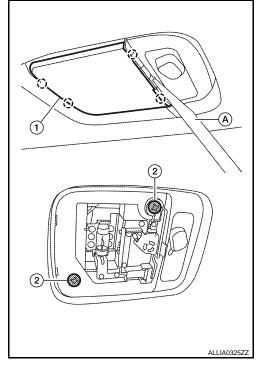
#### [WITH POWER DOOR LOCKS]

- 1. Disconnect the negative battery terminal.
- 2. Using a suitable tool (A), release the pawls and remove the room lamp lens (1).

#### **CAUTION:**

Wrap a cloth around tool to protect the housing and lens.

- 3. Remove room lamp screws (2).
- 4. Disconnect the connector, then remove room lamp.



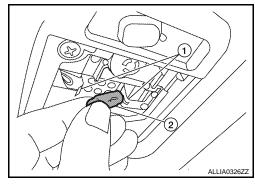
#### Installation

Installation is in the reverse order of removal.

#### **Bulb Replacement**

- 1. Disconnect the negative battery terminal.
- 2. Using a suitable tool, release the pawls and remove the room lamp lens.
- 3. Release the room lamp bulb retainers (1), then pull bulb (2) straight out to remove.

Room lamp bulb : 12V - 8W



#### [WITH POWER DOOR LOCKS]

#### **ILLUMINATION**

#### Removal and Installation

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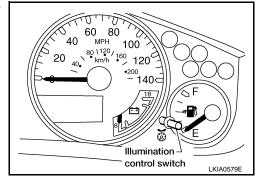
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#### **ILLUMINATION CONTROL SWITCH**

#### Removal

The illumination control switch (1) is replaced as a part of the combination meter assembly. Refer to MWI-91, "Removal and Installation".



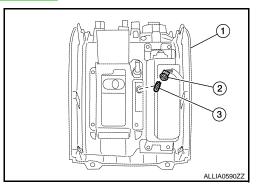
#### Installation

Installation is in the reverse order of removal.

#### A/T FINISHER LAMP

#### Removal

- Remove A/T finisher from center console. Refer to <u>IP-16</u>, "<u>Exploded View</u>".
- 2. Rotate A/T finisher lamp socket (2) with bulb (3) counterclockwise, then pull away from finisher (1).



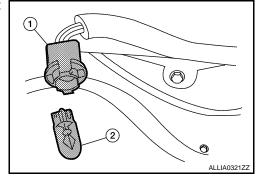
#### Installation

Installation is in the reverse order of removal.

#### **Bulb Replacement**

- Remove A/T finisher from center console. Refer to <u>IP-16</u>, "<u>Exploded View</u>".
- 2. Remove A/T finisher lamp socket (1), then pull bulb (2) straight out away from socket.

AT finisher lamp bulb : 12V - 3W



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#### **BULB SPECIFICATIONS**

< SERVICE DATA AND SPECIFICATIONS (SDS)

[WITH POWER DOOR LOCKS]

# SERVICE DATA AND SPECIFICATIONS (SDS)

# **BULB SPECIFICATIONS**

# Interior Lamp/Illumination

INFOID:0000000003229857

Item	Wattage (W)*	
Map lamp	8	
Vanity lamp	*	
Glove box lamp	3.4	
Room lamp	8	
A/T finisher lamp	3	

<sup>\*:</sup> Always check with the Parts Department for the latest parts information.

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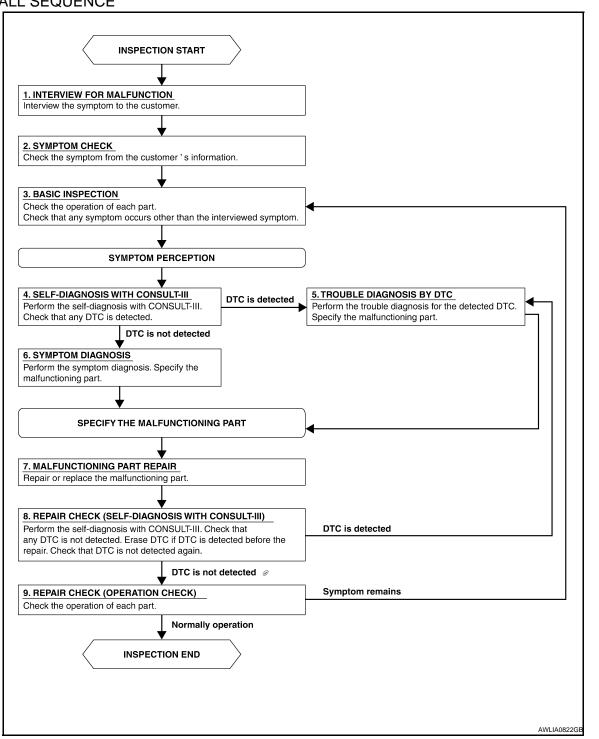
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# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

#### **OVERALL SEQUENCE**



#### DIAGNOSIS AND REPAIR WORKFLOW

[WITHOUT POWER DOOR LOCKS]

#### < BASIC INSPECTION >

#### **DETAILED FLOW**

#### 1.INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> GO TO 2

#### 2.SYMPTOM CHECK

Verify the symptom from the customer's information.

>> GO TO 3

# 3.BASIC INSPECTION

Check the operation of each part. Check that any concerns occur other than those mentioned in the customer interview.

>> GO TO 4

#### 4. SELF-DIAGNOSIS WITH CONSULT-III

Perform the self-diagnosis with CONSULT-III. Check that any DTC is detected.

#### Is any DTC detected?

YES >> GO TO 5

NO >> GO TO 6

#### ${f 5}.$ TROUBLE DIAGNOSIS BY DTC

Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.

>> GO TO 7

#### 6. SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 7

#### 7. MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 8

# 8. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III)

Perform the self-diagnosis with CONSULT-III. Verfied that no DTCs are detected. Erase all DTCs detected prior to the repair. Verify that DTC is not detected again.

#### Is any DTC detected?

YES >> GO TO 5

NO >> GO TO 9

#### 9. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

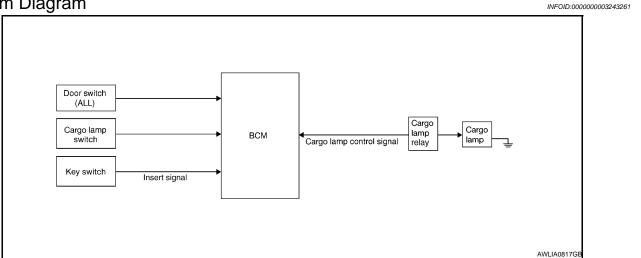
YES >> Inspection End

NO >> GO TO 3

# **FUNCTION DIAGNOSIS**

# INTERIOR ROOM LAMP

System Diagram



# System Description

INFOID:0000000003243262

#### **OUTLINE**

• Front room/map lamp (if equipped) and room lamp 2nd row are powered by fuse block (J/B) fuse number 18 (10A). When the lamps are set to the DOOR position, ground is provided through the door switches.

Cargo lamp is controlled by the cargo lamp control function of the BCM.

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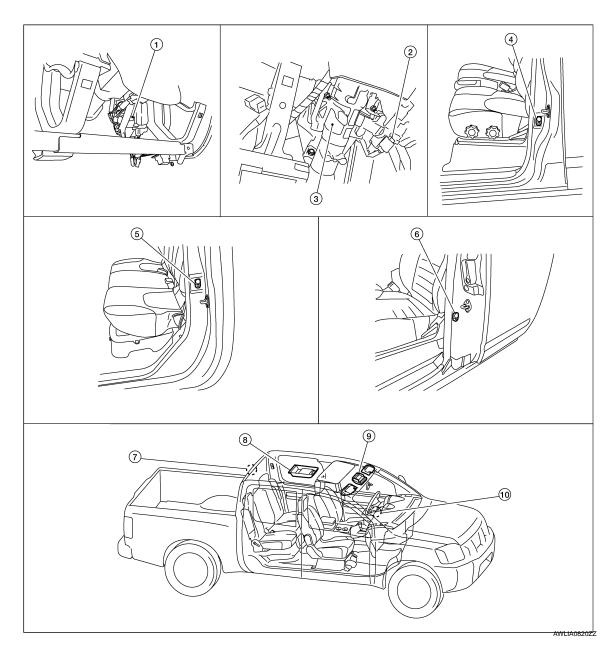
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# **Component Parts Location**

INFOID:0000000003243263



- 1. BCM M18, M19, M20 (view with lower 2. instrument panel LH removed)
- 4. Front door switch LH B8 (crew cab)
  Front door switch RH B108 (crew cab)
- 7. Cargo lamp B161
- or switch third foo (crew sub)
- Key switch M27
- Rear door switch LH B18 (crew cab)
  Rear door switch RH B116 (crew cab)
- . Room lamp 2nd row R10
- 3. Steering column assembly
- 6. Front door switch LH D213 (king cab) Front door switch RH D314 (king cab)
- Front room/map lamp assembly (with front map lamps) R9

10. Ignition keyhole illumination M150

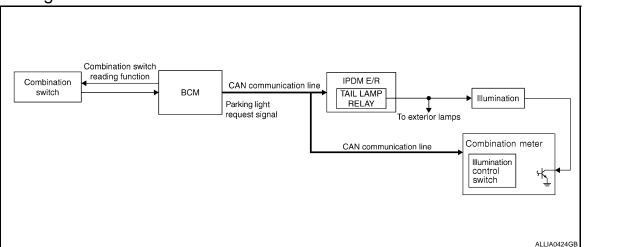
# Component Description

INFOID:0000000003243264

Part name	Description
BCM	Provides ground for the cargo lamp relay.
Key switch	Provides key in ignition status to the BCM.
Door switches	Provides door OPEN/CLOSED status to the BCM.

# **ILLUMINATION CONTROL SYSTEM**

#### System Diagram



# System Description

INFOID:0000000003243266

INFOID:0000000003243265

The illumination lamps operation is dependent upon the position of the lighting switch (combination switch). When the lighting switch is placed in the 1ST or 2ND position the BCM (body control module) receives input requesting the parking lamps to illuminate. This input is communicated to the IPDM E/R (intelligent power distribution module engine room) via the CAN communication lines. The CPU (central processing unit) of the IPDM E/R controls the tail lamp relay coil. When energized, this relay directs power to the parking and illumination lamps, which then illuminate.

#### BATTERY SAVER CONTROL

When the lighting switch (combination switch) is in the 1ST or 2ND position and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated. Under this condition, the illumination lamps remain illuminated for 30 minutes unless the lighting switch position is changed. If the lighting switch position is changed, then the illumination lamps are turned off after a 30 second delay. When the lighting switch is turned from OFF to 1ST or 2ND position after illumination lamps have been turned off by the battery saver control, the illumination lamps illuminate again.

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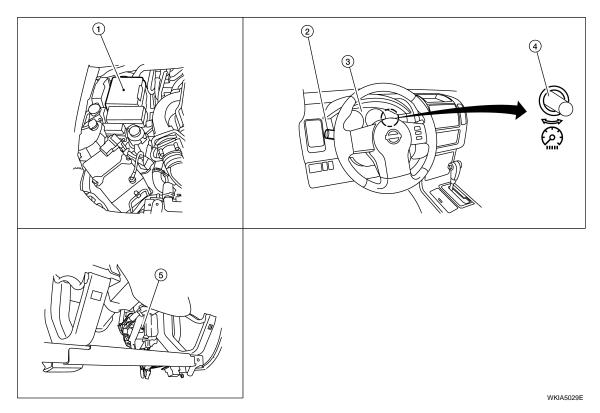
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# **Component Parts Location**

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- 1. IPDM E/R E122, E124
- 4. Illumination control switch (built into combination meter)
- 2. Combination switch M28
- BCM M18, M20 (view with instrument lower panel LH removed)

Combination meter M24

# **Component Description**

INFOID:0000000003243268

Part name	Description
BCM	The BCM monitors the lighting switch position with the combination switch reading function. The BCM requests, via CAN communication, that the IPDM E/R activate the tail lamp relay.
IPDM E/R	The IPDM E/R activates the tail lamp relay based on inputs received from the BCM via the CAN communication network.
Combination meter (illumination control switch)	The illumination control switch is a part of the combination meter. The combination meter controls illumination intensity by varying ground to the illumination lamps based on the illumination control switch position.
Combination switch	The combination switch provides input to the BCM about the lighting switch position.

### **DIAGNOSIS SYSTEM (BCM)**

< FUNCTION DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

### DIAGNOSIS SYSTEM (BCM)

**COMMON ITEM** 

**COMMON ITEM: CONSULT-III Function** 

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CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

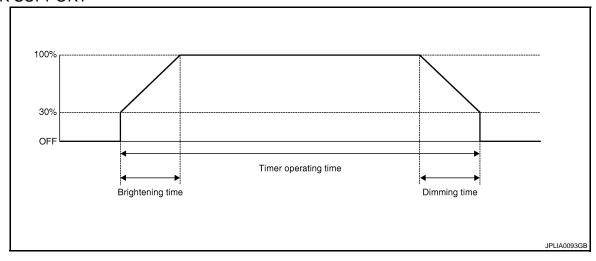
BCM diagnostic test item	Diagnostic mode	Description
	WORK SUPPORT	Supports inspections and adjustments. Commands are transmitted to the BCM for setting the status suitable for required operation, input/output signals are received from the BCM and received data is displayed.
	DATA MONITOR	Displays BCM input/output data in real time.
Inspection by part	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

**INT LAMP** 

**INT LAMP: CONSULT-III Function** 

INFOID:0000000003243270

### **WORK SUPPORT**



Service item	Setting item	Setting		
SET I/L D-UNLCK INTCON	ON	This item is not used for this model		
SET I/L D-UNLOK INTOON	OFF			
	MODE 1	0.5 sec.		
	MODE 2	1 sec.		
	MODE 3	2 sec.		
ROOM LAMP ON TIME SET	MODE 4	3 sec.	This item is not used for this model	
	MODE 5	4 sec.		
	MODE 6	5 sec.		
	MODE 7	0 sec.		

Service item	Setting item	Setting		
	MODE 1	0.5 sec.		
	MODE 2	1 sec.		
	MODE 3	2 sec.		
ROOM LAMP OFF TIME SET	MODE 4	3 sec.	This item is not used for this model	
	MODE 5	4 sec.		
	MODE 6	5 sec.		
	MODE 7	0 sec.		

### **DATA MONITOR**

Monitor item [Unit]	Description
IGN ON SW [ON/OFF]	The switch status input from ignition switch
KEY ON SW [ON/OFF]	Key switch status input from key slot
DOOR SW-DR [ON/OFF]	The switch status input from front door switch LH
DOOR SW-AS [ON/OFF]	The switch status input from front door switch RH
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
BACK DOOR SW [ON/OFF]	This item is not used for this model
KEY CYL LK-SW [ON/OFF]	This item is not used for this model
KEY CYL UN-SW [ON/OFF]	This item is not used for this model
CDL LOCK SW [ON/OFF]	This item is not used for this model
CDL UNLOCK SW [ON/OFF]	This item is not used for this model
KEYLESS LOCK [ON/OFF]	This item is not used for this model
KEYLESS UNLOCK [ON/OFF]	This item is not used for this model

### **ACTIVE TEST**

Test item Operation		Description	
INT LAMP	ON	This item is not used for this model	
INT LAWF	OFF	This item is not used for this model	
IGN ILLUM	ON	This item is not used for this model	
IGN ILLOW	OFF		
LUGGAGE LAMP TEST	ON	This item is not used for this model	
LOGOAGE LAWIF TEST	OFF	This item is not used for this model	

### COMPONENT DIAGNOSIS

### INTERIOR ROOM LAMP

### Diagnosis Procedure

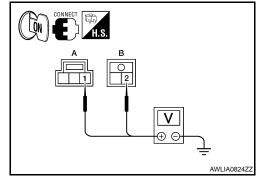
### **CAUTION:**

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

- Fuse
- Interior room lamp bulbs
- 1. CHECK INTERIOR ROOM LAMP POWER SUPPLY

Check voltage between interior room lamp connectors and ground.

Component	(	+)	(-)	Voltage
Component	Connector	Terminal	(-)	
Front room/map lamp (if equipped)	R9 (A)	1	Ground	Battery voltage
Room lamp 2nd row	R10 (B)	2		



### Is the inspection result normal?

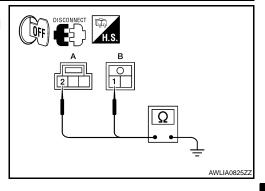
YES >> GO TO 2

NO >> Repair the harnesses or connectors.

### 2.CHECK INTERIOR ROOM LAMP GROUND

- 1. Disconnect interior room lamp connectors.
- 2. Check continuity between interior room lamp connectors and ground while operating the door switches.

Component	(+)		(-)	Door	Continuity
Component	Connector	Terminal	(-)	switches	Continuity
Front room/map lamp	R9 (A)	2		Open	Yes
(if equipped)	N9 (A)	2	Ground	Closed	No
Room lamp 2nd row	R10 (B)	1	Glodila	Open	Yes
Noom lamp znu row	KIU (B)	ı		Closed	No



### Is the inspection result normal?

YES >> Replace the interior room lamp. Refer to <a href="INL-117">INL-117</a>, "Removal and Installation".

NO >> GO TO 3

### 3.CHECK DOOR SWITCHES

Check the door switches. Refer to INL-76, "Component Inspection (Door Switch)".

### Is the inspection result normal?

YES >> • Crew cab models, repair the harnesses or connectors between the interior room lamp and the door switches.

King cab models, GO TO 4

NO >> Replace the door switch.

4. CHECK DOOR SWITCH GROUND (KING CAB)

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### INTERIOR ROOM LAMP

### < COMPONENT DIAGNOSIS >

### [WITHOUT POWER DOOR LOCKS]

Check continuity between door switch connectors and ground.

Component	(+	)	(-)	Continuity
Component	Connector	Terminal	(-)	
Front door switch LH	D213	3	Ground	Yes
Front door switch RH	D314	3	Ground	163

### Is the inspection result normal?

YES >> Repair the harnesses or connectors between the interior room lamp and the door switches.

NO >> Repair the harnesses or connectors between the door switch and ground.

## DISCONNECT HI.S. AWLIA0866ZZ

INFOID:0000000003303044

### Component Inspection (Door Switch)

### **CREW CAB**

### 1. CHECK DOOR SWITCHES

- 1. Disconnect door switch.
- 2. Check continuity between door switch terminals.

	Terminal	Condition	Continuity
Door switch	1 – Ground	Open	Yes
	i – Giodila	Closed	No

### DISCONNECT O AWLIA0864ZZ

### Is the inspection result normal?

YES >> Inspection End

NO >> Replace door switch.

### KING CAB

### 1. CHECK DOOR SWITCHES

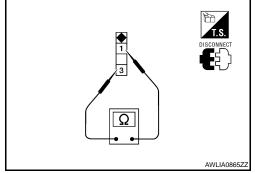
- 1. Disconnect door switch.
- 2. Check continuity between door switch terminals.

ltem	Terminal	Condition	Continuity
Door switches	1 – 3	Open	Yes
Door switches	1 – 3	Closed	No

### Is the inspection result normal?

YES >> Inspection End

NO >> Replace door switch.



### CARGO LAMP CONTROL CIRCUIT

Description INFOID:0000000003302859

Controls the cargo lamp relay coil (ground side) to turn the cargo lamp ON and OFF.

Diagnosis Procedure

### **CAUTION:**

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

- Fuse
- Cargo lamp bulbs

### 1. CHECK CARGO LAMP OPERATION

Check the cargo lamp operation from the cargo lamp switch and the door switches.

Is the cargo lamp inoperative from all of the above switches?

YES >> GO TO 4

NO >> • Inoperative from cargo lamp switch only, GO TO 2

• Inoperative from door switches only, refer to DLK-21, "KING CAB: Description" (king cab), DLK-23, "CREW CAB: Description" (crew cab).

### 2.CHECK CARGO LAMP SWITCH

Check the cargo lamp switch. Refer to INL-79, "Component Inspection".

### Is the inspection result normal?

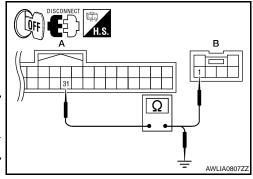
YES >> GO TO 3

NO >> Replace the cargo lamp switch.

### 3.CHECK CARGO LAMP SWITCH CIRCUIT

- Disconnect BCM connector M18 and cargo lamp switch connec-
- Check continuity between BCM harness connector M18 (A) terminal 31 and cargo lamp switch harness connector M71 (B) terminal 1.

ConnectorTerminalConnectorTerminalM18 (A)31M71 (B)1Yes		BCM		Cargo la	Continuity	
M18 (A) 31 M71 (B) 1 Yes	Connec	tor	Terminal	Connector	Terminal	Continuity
	M18 (A	A)	31	M71 (B)	1	Yes



Check continuity between BCM harness connector M18 terminal 31 and ground.

Connector	Terminal	_	Continuity
M18 (A)	31	Ground	No

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-49, "Removal and Installation".

NO >> Repair harnesses or connectors.

### 4. CHECK CARGO LAMP RELAY

Check the cargo lamp relay. Refer to INL-79, "Component Inspection".

### Is the inspection result normal?

YES >> GO TO 5

NO >> Replace the cargo lamp relay.

### ${f 5}.$ CHECK CARGO LAMP RELAY CONTROL

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### **CARGO LAMP CONTROL CIRCUIT**

### < COMPONENT DIAGNOSIS >

### [WITHOUT POWER DOOR LOCKS]

While operating the cargo lamp switch, check voltage between BCM harness connector M19 terminal 50 and ground.

Connector	Terminal	_	Cargo lamp switch	Voltage
M19	M19 50		ON	0V
IVITS	50	Ground	OFF	Battery voltage

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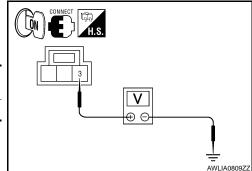
### Is the inspection result normal?

YES >> GO TO 6 NO >> GO TO 8

### 6.CHECK CARGO LAMP VOLTAGE

- 1. Disconnect the cargo lamp harness connector.
- 2. While operating the cargo lamp switch, check voltage between cargo lamp harness connector B161 terminal 3 and ground.

Connector	Terminal	_	Cargo lamp switch	Voltage
B161	3	Ground	ON	Battery voltage



### Is the inspection result normal?

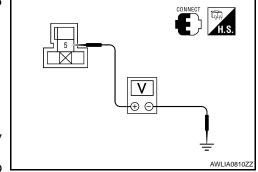
YES >> Replace cargo lamp.

NO >> GO TO 7

### 7.CHECK CARGO LAMP RELAY VOLTAGE PART 1

Check voltage between cargo lamp relay harness connector M165 terminal 5 and ground.

Cargo la	ımp relay		Voltage
Connector	Terminal	Ground	voltage
M165	5		Battery voltage



### Is the inspection result normal?

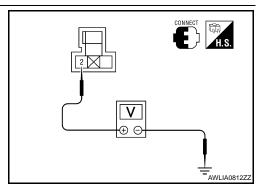
YES >> Repair harness or connectors between cargo lamp relay and cargo lamp.

NO >> Repair harness or connector between splice and cargo lamp relay.

### 8. CHECK CARGO LAMP RELAY VOLTAGE PART 2

Check voltage between cargo lamp relay harness connector M165 terminal 2 and ground.

Cargo la	Cargo lamp relay		Voltage
Connector	Terminal	Ground	voltage
M165	2		Battery voltage



### Is the inspection result normal?

YES >> GO TO 9

NO >> Repair harnesses or connectors.

### 9. CHECK CARGO LAMP RELAY CONTROL CIRCUIT

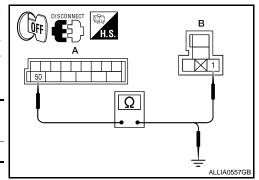
### CARGO LAMP CONTROL CIRCUIT

### < COMPONENT DIAGNOSIS >

### [WITHOUT POWER DOOR LOCKS]

- Disconnect BCM connector M19 and cargo lamp relay connector.
- Check continuity between BCM harness connector M19 (A) terminal 50 and cargo lamp relay harness connector B161 (B) terminal 1.

В	CM	Cargo lamp relay		Continuity
Connector	Terminal	Connector Terminal		Continuity
M19 (A)	50	B161 (B)	1	Yes



3. Check continuity between BCM harness connector M19 terminal 50 and ground.

Connector	Terminal	_	Continuity
M19 (A)	50	Ground	No

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-49, "Removal and Installation".

NO >> Repair harnesses or connectors.

### Component Inspection

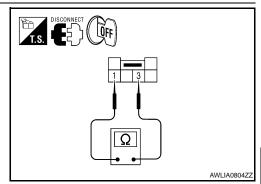
CARGO LAMP SWITCH

INSPECTION PROCEDURE

### 1. CHECK CARGO LAMP SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp switch harness connector.
- 3. Check continuity between cargo lamp switch terminals.

Cargo lamp switch	Condition	Continuity	
Terminal	Condition	Continuity	
1 – 3	ON	Yes	
1-3	OFF	No	



### Is the inspection result normal?

YES >> Inspection End

NO >> Replace cargo lamp switch.

### CARGO LAMP RELAY

### INSPECTION PROCEDURE

### 1.CHECK CARGO LAMP RELAY

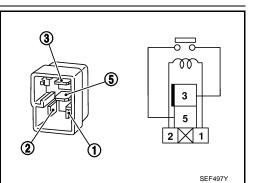
- 1. Turn ignition switch OFF.
- 2. Disconnect cargo lamp relay harness connector.
- 3. Supply power to terminal 2 and ground to terminal 1 of the cargo lamp relay.
- 4. Check continuity between cargo lamp relay terminals 3 and 5.

Teri	minal	Condition	Continuity
2	5	Power and ground supplied to terminals 1 and 2	Yes
	3	No power and ground supplied	No

### Is the inspection result normal?

YES >> Inspection End

NO >> Replace cargo lamp relay.



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### **IGNITION KEYHOLE ILLUMINATION**

### Diagnosis Procedure

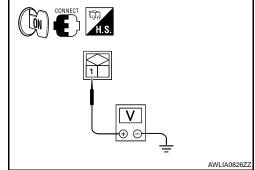
### **CAUTION:**

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

- Fuse
- Ignition keyhole illumination bulb
- 1. CHECK IGNITION KEYHOLE ILLUMINATION POWER SUPPLY

Check voltage between ignition keyhole illumination connector and ground.

Component	(+)		(-)	Voltage
Component	Connector	Terminal	(-)	voltage
Ignition keyhole illumi- nation	M150	1	Ground	Battery voltage



### Is the inspection result normal?

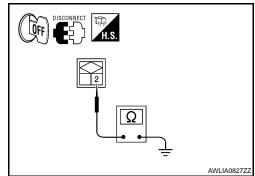
YES >> GO TO 2

NO >> Repair the harness or connector.

### 2. CHECK IGNITION KEYHOLE ILLUMINATION GROUND

- 1. Disconnect ignition keyhole illumination connector.
- 2. Check continuity between ignition keyhole illumination connector and ground while operating the door switches.

Component	(+	)	(-)	Door	Continuity
Component	Connector	Terminal	(-)	switches	Continuity
Ignition keyhole illu-	M150	2	Ground	Open	Yes
mination	WITOU		Olodila	Closed	No



### Is the inspection result normal?

YES >> Replace the ignition keyhole illumination.

NO >> GO TO 3

### 3. CHECK DOOR SWITCHES

Check the door switches. Refer to INL-76, "Component Inspection (Door Switch)".

### Is the inspection result normal?

YES >> • Crew cab models, repair the harnesses or connectors between the interior room lamp and the door switches.

• King cab models, GO TO 4

NO >> Replace the door switch.

### 4. CHECK DOOR SWITCH GROUND (KING CAB)

Check continuity between door switch connectors and ground.

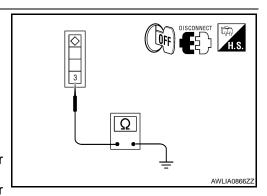
Component	(+	)	(-)	Continuity	
Component	Connector	Terminal	(-)	Continuity	
Front door switch LH	D213	3	Ground	Yes	
Front door switch RH	D314	3	Giodila	165	

### Is the inspection result normal?

YES >> Repair the harnesses or connectors between the interior room lamp and the door switches.

NO >> Repair the harnesses or connectors between the door

>> Repair the harnesses or connectors between the door switch and ground.



### **IGNITION KEYHOLE ILLUMINATION**

### < COMPONENT DIAGNOSIS >

### [WITHOUT POWER DOOR LOCKS]

### Component Inspection (Door Switch)

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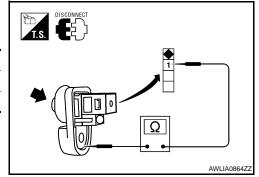
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### **CREW CAB**

### 1. CHECK DOOR SWITCHES

- 1. Disconnect door switch.
- 2. Check continuity between door switch terminals.

	Terminal	Condition	Continuity
Door switch	1 – Ground	Open	Yes
	i – Giouria	Closed	No



### Is the inspection result normal?

YES >> Inspection End

NO >> Replace door switch.

### KING CAB

### 1. CHECK DOOR SWITCHES

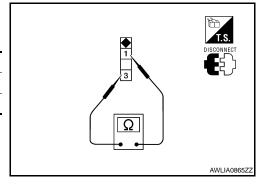
- 1. Disconnect door switch.
- 2. Check continuity between door switch terminals.

Item	Terminal	Condition	Continuity
Door switches	1 – 3	Open	Yes
	1-3	Closed	No

### Is the inspection result normal?

YES >> Inspection End

NO >> Replace door switch.



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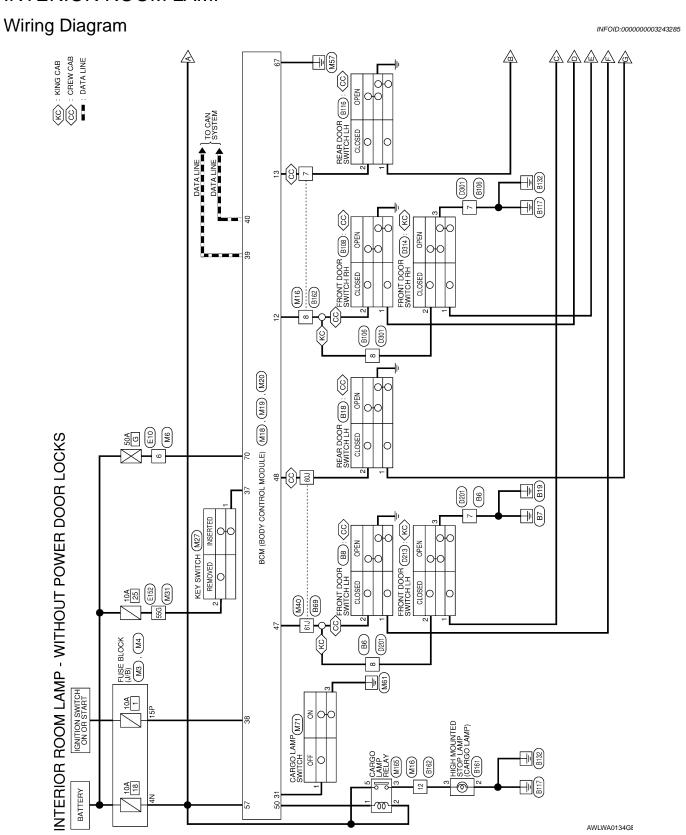
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### **INTERIOR ROOM LAMP**



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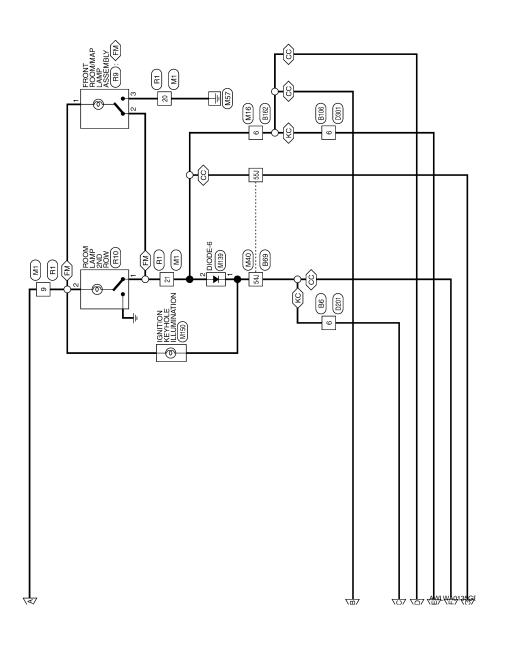
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Connector No.

# INTERIOR ROOM LAMP CONNECTORS - WITHOUT POWER DOOR LOCKS

M3	onnector Name FUSE BLOCK (J/B)	WHITE
Connector No.	Connector Name	Connector Color WHITE
M1	onnector Name WIRE TO WIRE	WHITE
Connector No.	Connector Name	Connector Color WHITE

Ö	Con	Ö	_	•	
M1	lame WIRE TO WIRE	Solor WHITE	2 3 4 5 6 7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22 23 24	
	lame	olor	-	13	

N.

Signal Name	I	_	ı
Color of Wire	В/Υ	В	BB
erminal No.	6	20	21

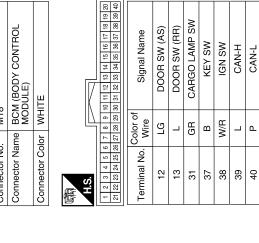
Signal Name

Color of Wire ₽Y

Terminal No. 4 N

Connector Na	me FUS	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	olor WHI	11
H.S.	7P 6P 5P 4P 6P 13P 14P 13P	7P (8P (SP 4P () 3P (2P 1.P) (18P (3P 13P 13P 13P 13P 11P 10P (9P (9P (9P (9P (9P (9P (9P (9P (9P (9
Terminal No.	Color of Wire	Signal Name
15P	W/R	I

M18	Connector Name BCM (BODY CONTROL MODULE)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



9	WIRE TO WIRE	WHITE	4 9 8 7 1 1 Z	:  Signal Name
M16	me WII	lor WH	12 11 10	Color of
Connector No.	Connector Name	Connector Color	斯 H.S.	Terminal No.

WIRE TO WIRE	ITE	L   C   S   S   S	Signal Name	_	-	-	_
	lor WHITE	6 5 4 4 11 10	Color of Wire	Я	7	٦С	9
Connector Name	Connector Color	所 H.S.	Terminal No.	9	7	8	12
•		·					

	WIRE TO WIRE	ITE	<u>0</u> 0	Signal Name	_
. Me	me WIF	lor WHITE		Color of Wire	Μ
Connector No.	Connector Name	Connector Color	诵 H.S.	Terminal No.	9

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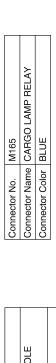
### **INTERIOR ROOM LAMP**

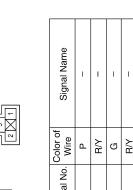
### [WITHOUT POWER DOOR LOCKS]

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### < COMPONENT DIAGNOSIS >

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				Signal Name	I	ı			SWITCH					Signal Name	1	1						В
M27	KEY SWITCH	] ]	<del>-</del>					M71	Connector Name CARGO LAMP SWITCH	WHITE	0 1 2 3 4 5											С
tor No.	Connector Name   KEY SWITCH			Color of Wire	В	>			tor Name C	Connector Color M				al No. Wire		В						D
Connector No.	Connect		H.S.	Terminal No.	_	2		Connector No.	Connec	Connec	品S.H.S.			Terminal No.	-	<u>ග</u>						Е
									ı										1		1	F
	NTROL			Name	-USE)	OWER)	(F/L)					=	U 310			Signal Name		ı				G
	BCM (BODY CONTROL MODULE)	X	56 57 58 59 60 61 62 63 64   65  66  67  68  69  70	Signal Name	BAT (FUSE)	GND (POWER)	BAT (F/L)		E TO WIRE	TE	5.4 4.1 3.1 2.1 1.1 10.0 9.1 8.1 7.1 6.1	21 20 19 19 19 17 19 19 19 19 15 17 19 19 15 17 19 15 15 15 15 15 15 15 15 15 15 15 15 15	(41.) (40.) (59.)	681 671 661 661 641 631 62 751 751 751 751 771	80 75 75 75 80	Signal	'	'	'			Н
		olor BLACK	56 57 58 59	Color of Wire	₽/A	ш	8	o. M40	ame WIR	olor WHITE		21, 20, 19, 30, 29, 3	41.1 40.1 39.1 50.1 49.1 49.1 49.1 49.1 49.1 49.1 49.1 49	700 680		Color of Wire	>	Œ	۵	GR		1
Connector No.	Connector Name	Connector Color	原动 H.S.	Terminal No.	57	29	70	Connector No.	Connector Name WIRE TO WIRE	Connector Color	原 H.S.					Terminal No.	54.)	55J	F09	61)		J
																		_				K
	BCM (BODY CONTROL MODULE)		53 54 55	Signal Name	DOOR SW (DR)	DOOR SW (RL)	CARGO LAMP OUTPUT		O WIRE		50 4c) 3C 2C 1C 10C 9C 8C 7C 6C	210 200 (190 ) 170   180   180   140   130   120   110   300	015 GAZO GAZO GAZO GAZO GAZO GAZO GAZO GAZO	1860   1860	16 786 776 786	Signal Name	ı					INL M
	Connector Name   BCM (E	Connector Color WHITE	41 42 43 44 45 46 47 48 49 49 50 51 52 53 54 55	Terminal No. Wire	47 GR	48 P	50 P CA	Connector No. M31	Connector Name WIRE TO WIRE	Connector Color WHITE		216206196186176	4164 405 3805 3805 3705 3805 3805 9405 3305 3705 4805 4805 4705 4805 4805 4405 4405 4405 6105 6205 6305 63705 6305 63405 6305	7/05/886/886/87/	2008	Terminal No. Wiro	55G Y					Ν
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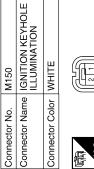












Connector Name DIODE-6 Connector Color BLACK

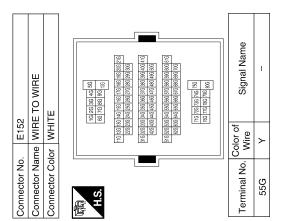
Connector No. M139



Signal Name	I	I	
Color of Wire	R/Y	BR	
Terminal No.	-	2	

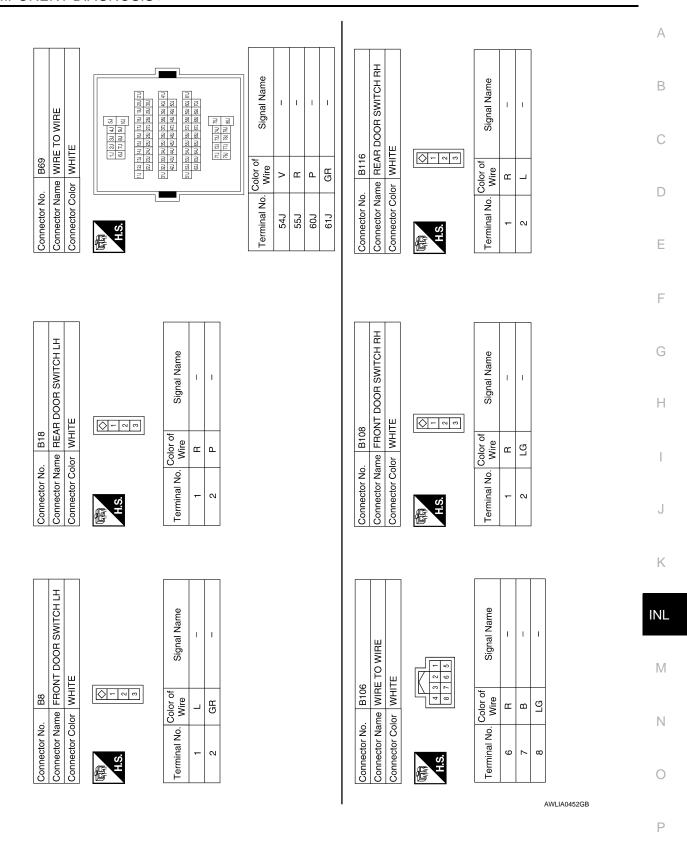
[2]	Signal Name	1	1
	Color of Wire	۸	BR
H.S.	Terminal No. Wire	1	7

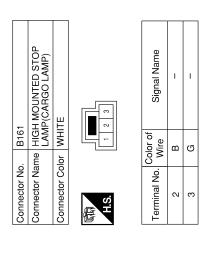
	WIRE TO WIRE	11	2 9 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	Signal Name	ı	-	1
Be		or WHITE	4 8	Color of Wire	^	В	GR
Connector No.	Connector Name	Connector Color	in H.S.	Terminal No.	9	7	8



Connector No.	. E10	
Connector Name WIRE TO WIRE	me WIR	IE TO WIRE
Connector Color WHITE	lor WHI	ПЕ
H.S.	- 4 2 c	<b>8</b> 0 0
Terminal No.	Color of Wire	Signal Name
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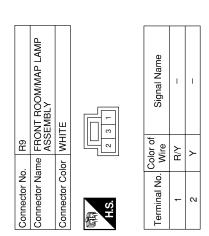
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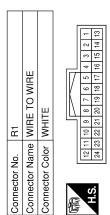




4	Connector Name FRONT DOOR SWITCH RH	TE		Signal Name	ı	ı
D314	ne FRC	or WHITE	0 - 0 6	Color of Wire	LG	В
Connector No.	Connector Na	Connector Color	(中国) H.S.	Terminal No.	2	က

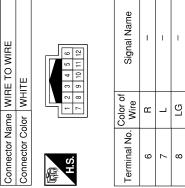
Connector No.	. D313	3
Connector Na	me REA	Connector Name REAR DOOR SWITCH LOWER RH
Connector Color	lor BLACK	CK
同 H.S.	\ <u>1</u> &]	
Terminal No.	Color of Wire	Signal Name
-	٦	I
2	В	-





ш	8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13	Signal Name	-	-	_
lor WH	12 11 10 9 8 8 22 22 12 20 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Color of Wire	R/Y	В	BR
Connector Color WHITE	H.S.	Terminal No.	6	20	21

B162	WIRE TO WIRE	WHITE	1 2 3 4 5 6 7 8 9 10 11 12
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S.



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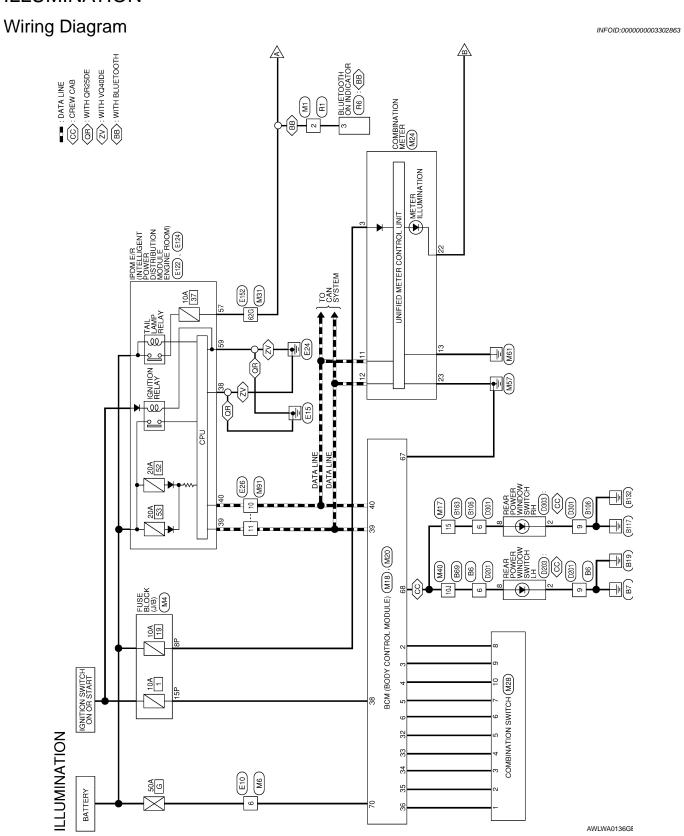
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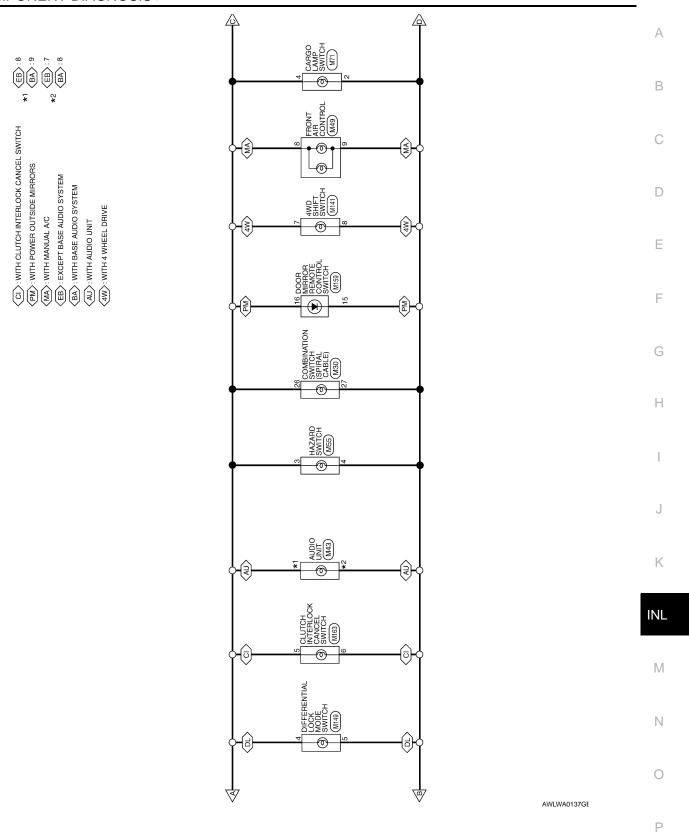
	Connector Name FRONT DOOR SWITCH RH					Signal Name	ı	ı				
D314	FRON	WHITE		> -  ~	6	olor of Wire	ш	LG				
Connector No.	Connector Name	Connector Color WHITE		H.S.		Terminal No. Wire	-	2				
			1									
	E TO WIRE	IE I		3 4 7 8	]	Signal Name	1	ı	1			
D301	ne WIRE	or WHIT		5 1		Color of Wire	>	В	LG			
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE		H.S.		Terminal No.	9	7	8			
			. <u> </u>					1		1		
	Connector Name FRONT DOOR SWITCH LH	щ				Signal Name	ı	ı	ı			
D213	ne FRON	or WHIT		> - 0	8	Color of Wire	>	D D	В			
Connector No.	Connector Nar	Connector Color WHITE		H.S.		Terminal No.	-	2	က			

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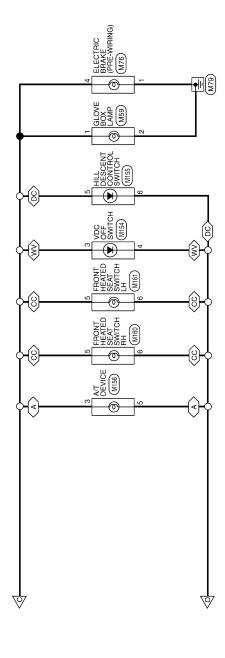
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### **ILLUMINATION**





 $\begin{tabular}{ll} $\langle \underline{\rm DC} \rangle : {\rm WITH~HILL~DESCENT~CONTROL~AND~HILL~START~ASSIST$} \\ $\langle \underline{\rm A} \rangle : {\rm WITH~AT}$ \\ $\langle \underline{\rm CC} \rangle : {\rm CREW~CAB}$ \\ $\langle \underline{\rm WV} \rangle : {\rm WITH~VDC}$ \\ \end{tabular}$ 



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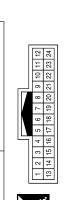
WIRE TO WIRE

Connector Name Connector No.

Connector Color WHITE

## ILLUMINATION CONNECTORS

M4	onnector Name FUSE BLOCK (J/B)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	
M1	nnector Name   WIRE TO WIRE	nnector Color WHITE	



Signal Name	ı	
Color of Wire	œ	
erminal No.	2	

Signal Name

Color of Wire

Terminal No.

R/W W/R

8P 15P

Terminal No.	Color of Wire	Signal Name
9	Μ	I
Terminal No.	Color of Wire	Signal Name
32	0	COMBI SW OUTPUT 5 (PULL UP SIDE)
33	GR	COMBI SW OUTPUT 4 (PULL UP SIDE)
34	G	COMBI SW OUTPUT 3 (PULL UP SIDE)
35	BR	COMBI SW OUTPUT 2 (PULL UP SIDE)
36	FG	COMBI SW OUTPUT 1 (PULL UP SIDE)
38	W/R	IGN SW
39	Г	CAN-H
40	Ь	CAN-L

Connector No.	M18
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE	WHITE

	Ó			15	à
	Ö			14	3
	∖			13	8
	Q (ii		l 1177	5	8
	@   	ш	I IV	10 11 12 13 14 15	3
.	≥ 0	₩	I IN	유	9
	BCM (BODY CON MODULE)	WHITE		6	20 00 00 00 00 00
				8	8
	Connector Name	Connector Color		7	15
	ā	Ì		9	00
	~	15		S	1
	유	유		4	3
	ĕ	ĕ	(Ġ	က	8
	Ĕ	Ĕ	H.S.	7	8
	ŏ	ပြ	優工	-	3

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Signal Name	COMBI SW INPUT 5 (LOW SIDE)	COMBI SW INPUT 4 (LOW SIDE)	COMBI SW INPUT 3 (LOW SIDE)	COMBI SW INPUT 2 (LOW SIDE)	COMBI SW INPUT 1 (LOW SIDE)
6 27 28 29	Color of Wire	Д	SB	>	Γ	Ж
21 22 23 24 25 2	Terminal No.	2	3	4	9	9

	WIRE TO WIRE	WHITE	6 5 4 3 2 1 15 14 13 12 11 10 9 8	Signal Name	1
. M17		_	16 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Color of Wire	>
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	15

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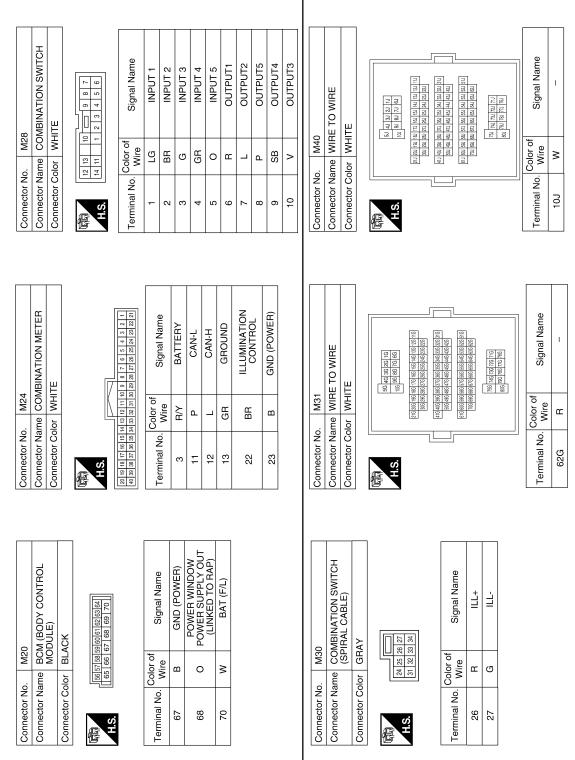
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### **ILLUMINATION**

### [WITHOUT POWER DOOR LOCKS]

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									_
	Connector Name AUDIO UNIT (BASE	IO SYSTEM)	<u> </u>	3 4 5 6 7 8 9 7 15 15 15 17 18 20		Signal Name	ILL CONT	LIGHT SW	
M43	me AUD	AUD	or WHI	19 10 11		Color of Wire	GR	<u>«</u>	
Connector No. M43	Connector Na		Connector Color WHITE	原列 H.S.		Terminal No. Wire	8	6	
	E TO WIRE	3.1		4 8		Signal Name	1	1	1
D201	e WIRE	r WHI		5 1 2 3		Solor of Wire	>	В	Ľ
Connector No. D201	Connector Name WIRE TO WIRE	Connector Color WHITE		H.S.		Terminal No. Wire	9	7	80
			7		Г				
	r Name ROOM LAMP 2ND ROW	ITE				Signal Name	-	I	
. R10	me RO	r Color WHITE				Color of Wire	BR	R/Y	
or No.	or Na	S				No.			

Sonnector No. M55	Connector Name HAZARD SWITCH	Connector Color WHITE		Ŀ	# 7 - C	5			Terminal No Color of Signal Name		В В	
Connector No. M49 Conr	AIR CONTROL	Connector Color   BLACK   Conr		0 2 0 2 0	13 12 11 10 8 0 7 0 0 1	<b>7.5.</b>				olgilal Ivallie	- 5	
Connector No. M43	Connector Name AUDIO UNIT (EXCEPT	BASE AUDIO SYSTEM)	Connector Color WHITE		2 4       8   10	1 3 5 6 7 9	Ġ.E.		Color of Sizzal Mana	Tellillia No.   Wire   Olylla Nalle	7 GR ILL CONT	

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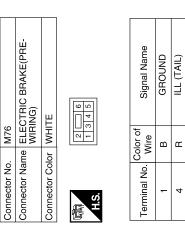
INL-95

M91	Connector No.	M141
onnector Name WIRE TO WIRE	Connector Name	onnector Name 4WD SHIFT SWITCH
lor WHITE	Connector Color   GRAY	GRAY

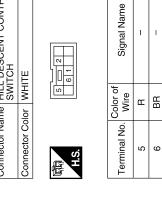
Signal Name	LIGHT_SW	GND	
Color of Wire	В	BR	
Terminal No.	7	8	



Signal Name	1	_
Color of Wire	Ь	Γ
Terminal No.	10	11



Connector No.	M155
Connector Name	Connector Name   HILL DESCENT CONTROL SWITCH
Connector Color WHITE	WHITE
	5 1 2 2



M154	Connector Name VDC OFF SWITCH	GRAY	6 5 4 3 2 1
Connector No.	Connector Name	Connector Color GRAY	高 H.S.

Connector Name VDC OFF SWITCH	٨٨	4 8 2 1	Signal Name	_	-
me VDC	lor GRAY	9	Color of Wire	Ж	BB
Connector Na	Connector Color	赋 H.S.	Terminal No.	8	4

Connector No.	). M149	61
Connector Name	tme DIF SW	DIFFERENTIAL LOCK MODE SWITCH
Connector Color	olor WHITE	
所 H.S.	4 0	29-1
Terminal No.	Color of Wire	Signal Name
4	ш	ı
2	BR	I

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### **ILLUMINATION**

### [WITHOUT POWER DOOR LOCKS]

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M160	Connector Name   FRONT HEATED SEAT   SWITCH RH	BROWN	2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	r of Signal Name	- 8	-
o.	ame	olor		Colo	SB	0
Connector No. M160	Connector N	Connector Color BROWN	H.S.	Terminal No. Wire	22	9
	Connector Name DOOR MIRROR REMOTE CONTROL SWITCH		11   12   13   14   15   16	Signal Name	1	1
M159	ne DOOF	or WHIT	9 10 4 11 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Color of Wire	BB	Ж
Connector No.	Connector Nar	Connector Color WHITE	H.S.	Terminal No. Wire	15	16
<u>8</u>		<u>8</u>	re \	<u> </u>		
56	Connector Name A/T DEVICE (SHIFT LOCK) Connector Color WHITE	J ====================================	4 3 5 6 8 10 0 10 0 10 0 10 0 10 0 10 0 10 0	Signal Name	ı	1
M156	ne A/T	5	2 1	Color o	<u>~</u>	BR
Connector No.	Connector Name A/T DE		所S.	Terminal No. Wire	က	5

		_				
	E TO WIRE		<b>8</b> 9	Signal Name	ı	
E10	ne WIRI		1 4 5	Solor of Wire	>	
Connector No. E10	Connector Name WIRE TO WIRE		H.S.	Terminal No. Wire	9	
					ı	
33	Connector Name CLUTCH INTERLOCK CANCEL SWITCH	<u> </u>	6 2 1 4	Signal Name	ı	ı
M16	me CLU	or WHI	380	Color of Wire	۳	BB
Connector No. M163	Connector Nar	Connector Color WHITE	雨 H.S.	Terminal No. Wire	5	9
E	Connector Name   FRONT HEATED SEAT   SWITCH LH	TE TE	9 8	Signal Name	I	ı
M16	ne FRC SWI	or WHI	2 4 2	Color of Wire	œ	BR
Connector No. M161	Connector Nar	Connector Color WHITE	H.S.	Terminal No. Wire	5	9

Signal Name	I	ı				
Color of Wire	œ	BR				
Terminal No. Wire	5	9				
			_			Α

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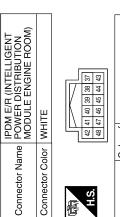
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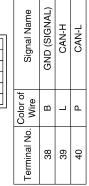
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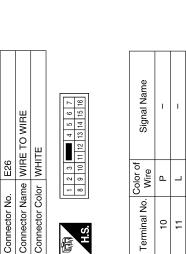
Connector No.

				1
59 58 57 62 61 60	Signal Name	TAIL LAMP	GND (POWER)	
62 29	Color of Wire	GR	В	
H.S.	Terminal No.	22	59	

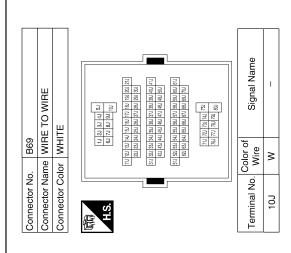


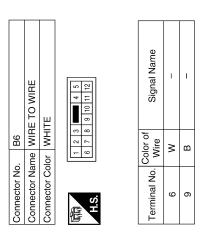
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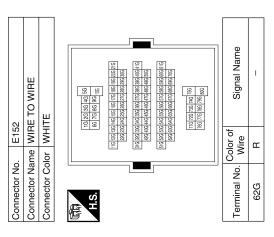




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### **ILLUMINATION**

### [WITHOUT POWER DOOR LOCKS]

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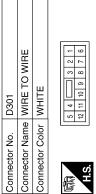
Connector No. R1  Connector Color WHITE  Connector Color WHITE    Connector Color   WHITE	Terminal No. Wire Signal Name 2 R –	Connector No. D203 Connector Name REAR POWER WINDOW SWITCH LH Connector Color WHITE	Terminal No. Color of Signal Name  2 B
Connector No.       B163         Connector Name       WIRE TO WIRE         Connector Color       WHITE         Image:	Terminal No. Wire Signal Name	Connector No. D201  Connector Name WIRE TO WIRE  Connector Color WHITE  \$\frac{5}{12} \frac{1}{10} \frac{3}{9} \frac{1}{8} \frac{7}{16} \frac{1}{10}	Terminal No.         Color of Wire         Signal Name           6         W         -           9         B         -
Connector No.         B106           Connector Name         WIRE TO WIRE           Connector Color         WHITE           Image: All States of the color of the co	Terminal No. Wire Signal Name 6 W - 9 B -	Connector No. R6 Connector Name BLUETOOTH ON INDICATOR Connector Color WHITE	Terminal No. Wire Signal Name  3 R DAY/NIGHT_ILL_SIG

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D303	Connector Name REAR POWER WINDOW SWITCH RH	WHITE	
Connector No.	Connector Name	Connector Color WHITE	









Signal Name	I	I
Color of Wire	W	В
Terminal No.	9	6

Signal Name Color of Wire ∞ |> Terminal No. 0 0

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### **ECU DIAGNOSIS**

### **BCM (BODY CONTROL MODULE)**

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
AID COND CM	A/C switch OFF	OFF	
AIR COND SW	A/C switch ON	ON	D
ODL LOOK OW	Door lock/unlock switch does not operate	OFF	
CDL LOCK SW	Press door lock/unlock switch to the LOCK side	ON	
	Door lock/unlock switch does not operate	OFF	—— E
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	ON	
DOOD SW AS	Front door RH closed	OFF	F
DOOR SW-AS	Front door RH opened	ON	
DOOD OW DD	Front door LH closed	OFF	
DOOR SW-DR	Front door LH opened	ON	G
DOOD OW DI	Rear door LH closed	OFF	
DOOR SW-RL	Rear door LH opened	ON	— Н
DOOD OW DD	Rear door RH closed	OFF	
DOOR SW-RR	Rear door RH opened	ON	
ENGINE DUN	Engine stopped	OFF	
ENGINE RUN	Engine running	ON	
ED E00 0W	Front fog lamp switch OFF	OFF	.1
FR FOG SW	Front fog lamp switch ON	ON	
ED WACHED CW	Front washer switch OFF	OFF	
FR WASHER SW	Front washer switch ON	ON	K
ED WIDED LOW	Front wiper switch OFF	OFF	
FR WIPER LOW	Front wiper switch LO	ON	INL
ED WIDED III	Front wiper switch OFF	OFF	IINL
FR WIPER HI	Front wiper switch HI	ON	
ED WIDED INT	Front wiper switch OFF	OFF	M
FR WIPER INT	Front wiper switch INT	ON	
ED WIDED STOD	Any position other than front wiper stop position	OFF	
FR WIPER STOP	Front wiper stop position	ON	— N
LIAZADD CM	When hazard switch is not pressed	OFF	
HAZARD SW	When hazard switch is pressed	ON	0
LICHT OW ACT	Lighting switch OFF	OFF	
LIGHT SW 1ST	Lighting switch 1st	ON	
HEADI AMD CM/4	Headlamp switch OFF	OFF	P
HEADLAMP SW1	Headlamp switch 1st	ON	
HEADI AMD SWO	Headlamp switch OFF	OFF	
HEADLAMP SW2	Headlamp switch 1st	ON	
LI DEAM CVA	High beam switch OFF	OFF	
HI BEAM SW	High beam switch HI	ON	

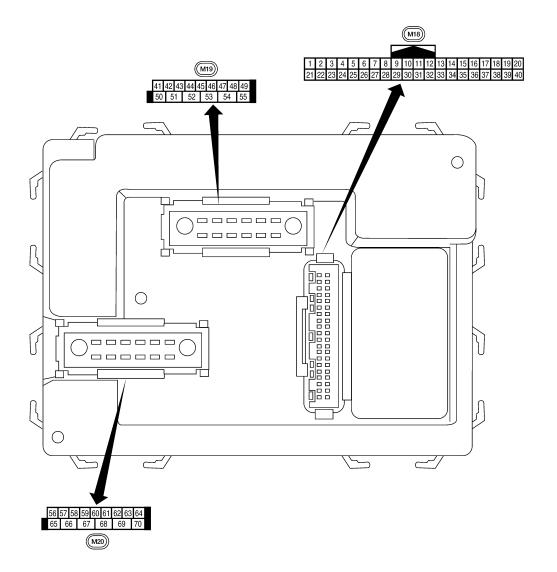
### **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS >

### [WITHOUT POWER DOOR LOCKS]

Monitor Item	Condition	Value/Status
H/L WASH SW	NOTE: The item is indicated, but not monitored	OFF
IGN ON SW	Ignition switch OFF or ACC	OFF
IGN ON SW	Ignition switch ON	ON
IONI CIM CANI	Ignition switch OFF or ACC	OFF
IGN SW CAN	Ignition switch ON	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
KEY ON OW	Mechanical key is removed from key cylinder	OFF
KEY ON SW	Mechanical key is inserted to key cylinder	ON
KEVI FOO I OOK	LOCK button of key fob is not pressed	OFF
KEYLESS LOCK	LOCK button of key fob is pressed	ON
WEW 500 LINE 00K	UNLOCK button of key fob is not pressed	OFF
KEYLESS UNLOCK	UNLOCK button of key fob is pressed	ON
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	OFF
	Ignition switch ON	ON
DA COINIC CIVI	Other than lighting switch PASS	OFF
PASSING SW	Lighting switch PASS	ON
RKE LOCK AND UN-	NOTE:	OFF
LOCK	The item is indicated, but not monitored	ON
TAIL LAMP CW	Lighting switch OFF	OFF
TAIL LAMP SW	Lighting switch 1ST	ON
TUDNI CIONALI	Turn signal switch OFF	OFF
TURN SIGNAL L	Turn signal switch LH	ON
TUDNI CICNIAL D	Turn signal switch OFF	OFF
TURN SIGNAL R	Turn signal switch RH	ON
VEHICLE SPEED	While driving	Equivalent to speedometer reading

Terminal Layout



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**Physical Values** 

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)
1	BR	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage
· ·	DIX	nation	Output	OH	Door is unlocked (SW ON)	0V
2	Р	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 2 0 +
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E
5	L R	Combination switch input 2  Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *
		Front door lock as-			ON (open, 2nd turn)	Momentary 1.5V
7	GR	sembly LH (key cylin- der switch) unlock	Input		OFF (closed)	0V
		Front door lock as-		OFF	On (open)	Momentary 1.5V
8	SB	sembly LH (key cylin- der switch) lock	Input		OFF (closed)	0V
9	Y	Rear window defogger	Input	ON	Rear window defogger switch ON	0V
3	ī	switch	input	ON	Rear window defogger switch OFF	5V
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
		Front door switch RH (All)			ON (open)	OV
12	LG	Rear door switch up- per RH (King Cab)  Rear door switch low- er RH (King Cab)	Input	OFF	OFF (closed)	Battery voltage

### **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS >

### [WITHOUT POWER DOOR LOCKS]

	100		Signal		Measuring condition	D (
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
13	L	Rear door switch RH	Input	OFF	ON (open)	0V
13	L	(Crew Cab)	прис	OH	OFF (closed)	Battery voltage
15	W	Tire pressure warning check connector	Input	OFF	_	5V
18	BR	Remote keyless entry receiver (Ground)	Output	OFF	_	0V
19	V	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 + 50 ms
20	G	Remote keyless entry receiver signal (Sig-	locut	OFF	Stand-by (keyfob buttons re- leased)	(V) 6 4 2 2 0 + 50 ms
20	G	nal)	Input	OFF	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 0 + 50 ms
21	GR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF $\rightarrow$ ON)	Just after turning ignition switch ON: Pointer of tester should move.
23	G	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF $\rightarrow$ ON)	Just after turning ignition switch ON: Pointer of tester should move.
27	W	Compressor ON sig-	Input	ON	A/C switch OFF	5V
·		nal		3.1	A/C switch ON	0V
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
			'		Front blower motor ON	0V
29	G	Hazard switch	Input	OFF	ON	UV
					OFF	5V
31	GR	Cargo lamp switch	Input	OFF	ON	0V
					OFF	Battery voltage

### [WITHOUT POWER DOOR LOCKS]

	100		Signal		Measuring condition													
Terminal	Wire color	Item	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)												
32	0	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *												
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 +-5ms SKIA5292E												
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 2 0 **-5ms SKIA5291E												
35	BR	Combination switch output 2				(V)												
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	5ms SKIA5292E												
37	В	Key switch	Input	OFF	Key inserted	Battery voltage												
			,		Key removed	0V												
38	W/R	Ignition switch (ON)	Input	ON	_	Battery voltage												
39	L	CAN-H	_	_	_	_												
40	Р	CAN-L	<del>-</del>	_	——————————————————————————————————————													
45	V	Lock switch	Input	OFF	ON (lock) OFF	0V Battery voltage												
46	LG	Unlock switch	Input	OFF	ON (unlock) OFF	0V Battery voltage												
		Front door switch LH (All)			ON (open)	0V												
47	GR	Rear door switch up- per LH (King Cab)	Input	out OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF (deep 1)	D. H I'
		Rear door switch low- er LH (King Cab)			OFF (closed)	Battery voltage												
40	ı	Rear door switch LH	l	055	ON (open)	0V												
48	Р	(Crew Cab)	Input	OFF	OFF (closed)	Battery voltage												
50	Р	Cargo lamp	Output	OFF	Any door open (ON)	0V												
50	'	Sargo lamp	σαιραί	511	All doors closed (OFF)	Battery voltage												

### **BCM (BODY CONTROL MODULE)**

### [WITHOUT POWER DOOR LOCKS]

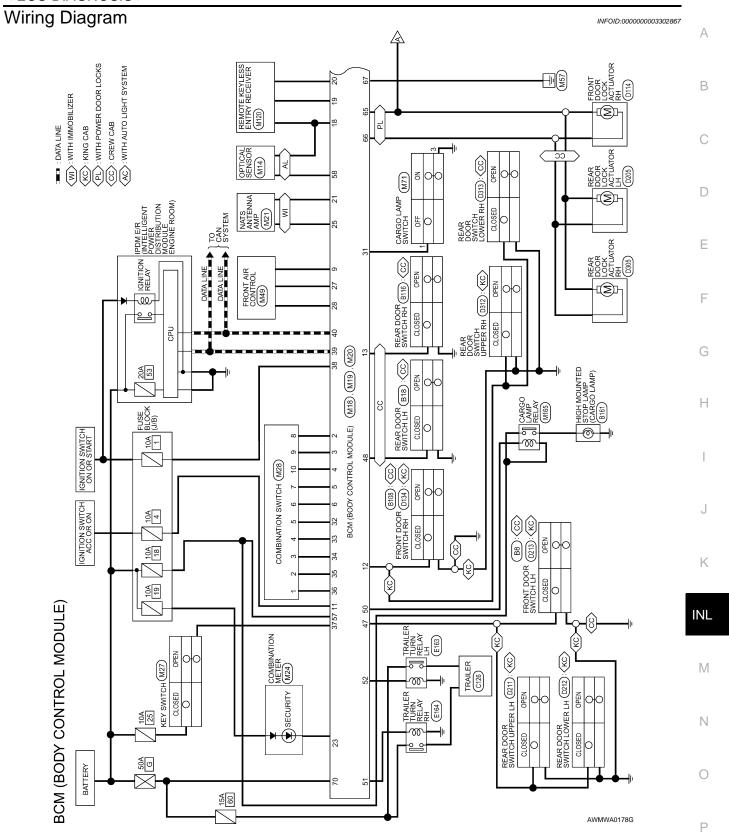
	Wire		Signal		Measuring condition	Reference value or waveform
erminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)
51	G	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 500 ms SKIA3009J
52	V	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 500 ms
56	V	Battery saver output	Output	OFF	30 minutes after ignition switch is turned OFF	0V
	•	zane.y cave. carput	Carpar	ON	_	Battery voltage
57	R/Y	Battery power supply	Input	_	_	Battery voltage
50	10/	Ontical	land	ON	When optical sensor is illuminated	3.1V or more
58	W	Optical sensor	Input	ON	When optical sensor is not illuminated	0.6V or less
59	GR	Front door lock as-	Output	OFF	OFF (neutral)	0V
33	OIX	sembly LH (unlock)	Output	OIT	ON (unlock)	Battery voltage
60	LG	Turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 0 500 ms
61	G	Turn signal (right)	Output	ON	Turn right ON	(V) 15 10 500 ms
63	BR	Interior room/map	Output	OFF	Any door switch ON (open) OFF (closed)	0V Battery voltage
65	V	All door lock actuators (lock)	Output	OFF	OFF (neutral) ON (lock)	0V Battery voltage
66	L	Front door lock actuator RH, rear door lock actuators LH/RH (un-	Output	OFF	OFF (neutral) ON (unlock)	0V  Battery voltage
67		lock)		01:		
67	В	Ground	Input	ON	_	0V

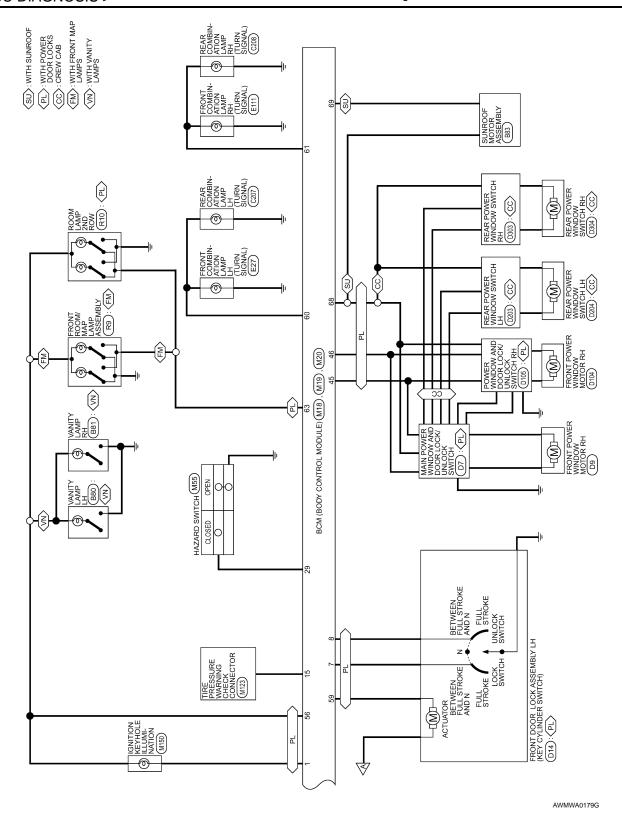
### **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS >

### [WITHOUT POWER DOOR LOCKS]

Terminal	Wire color	Item	Signal input/ output	Measuring condition		Reference value or waveform
				Ignition switch	Operation or condition	(Approx.)
68	0	Power window power supply (RAP)	Output	_	Ignition switch ON	Battery voltage
					Within 45 seconds after ignition switch OFF	Battery voltage
					More than 45 seconds after ignition switch OFF	0V
					When front door LH or RH is open or power window timer operates	0V
69	Р	Power window power supply (BAT)	Output	OFF	_	Battery voltage
70	W	Battery power supply	Input	OFF	_	Battery voltage



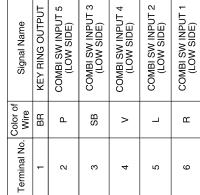


Terminal No.	Color of Wire	Signal Name
22	1	ı
23	ŋ	SECURITY INDICATOR OUTPUT
24	1	I
25	BR	IMMOBILISER ATNENNA SIGNAL (TX,RX)
26	-	ľ
27	8	AIRCON SW
28	Œ	BLOWER FAN SW
29	ŋ	HAZARD SW
30	GR	I
31	GR	CARGO LAMP SW
32	0	COMBI SW OUTPUT 5 (PULL UP SIDE)
33	GR	COMBI SW OUTPUT 4 (PULL UP SIDE)
34	G	COMBI SW OUTPUT 3 (PULL UP SIDE)
35	BR	COMBI SW OUTPUT 2 (PULL UP SIDE)
36	ГС	COMBI SW OUTPUT 1 (PULL UP SIDE)
37	В	KEY SW
38	W/R	IGN SW
39	L	CAN-H
40	Ь	CAN-L

Signal Name	KEY CYLINDER UNLOCK SW	KEY CYLINDER LOCK SW	RR DEFOGGER SW	1	ACC_SW	DOOR SW (AS)	DOOR SW (RR)	1	TPMS MODE TRIGGER SW	1	1	KEYLESS & AUTO LIGHT SENSOR GND	KEYLESS TUNER POWER SUPPLY OUTPUT	KEYLESS TUNER SIGNAL	IMMOBILSER ATNENNA SIG (CLOCK)
Color of Wire	GR	SB	>	ı	G/B	LG	L	-	M	1	_	BR	>	g	GR
Terminal No.	7	ω	6	10	11	12	13	14	15	16	17	18	19	20	21

Connector No.	M18
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE	WHITE

BCM (BODY CONTROL MODULE) CONNECTORS



Connector Col

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Signal Name	CDL LOCK SW	CDL UNLOCK SW	DOOR SW (DR)	DOOR SW (RL)	ı	CARGO LAMP CARGO OUTPUT	TRAILER FLASHER OUTPUT (RIGHT)	TRAILER FLASHER OUTPUT (LEFT)	I	I	ı
Color of Wire	>	Pl	GR	۵	1	Ь	ŋ	>	1	1	ı
Terminal No.	45	46	47	48	49	50	51	52	53	54	55

Signal Name	FLASHER OUTPUT (RIGHT)	1	ROOM LAMP OUTPUT	ı	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)	POWER WINDOW POWER SUPPLY OUTPUT (LINKED TO RAP)	POWER WINDOW POWER SUPPLY OUTPUT (BAT)	BAT (F/L)
Color of Wire	9	-	BR	-	>	٦	В	0	Ь	W
Terminal No.	61	62	63	64	99	99	29	89	69	70

ttor Color No. Wir	Connector No.	o. M19	6
0r of ire	Connector Na		BCM (BODY CONTROL MODULE)
Color of Wire	Connector Co		IITE
Wire	哥 H.S.		42  43  44  45  46  47  48  49  60   51   52   53   54  55
1 1 1 1		Color of Wire	Signal Name
42 43	41	-	I
43 44	42	_	-
_   _	43	_	-
-	44	ı	ı

Connector No.	). M20	0
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color		BLACK
僵	56 57 58 65 66	56   57   58   59   60   61   62   63   64         65   66   67   68   69   70
Ġ.H		
Terminal No.	Color of Wire	Signal Name
56	>	BATTERY SAVER OUTPUT
22	R/Y	BAT (FUSE)
58	M	AUTO LIGHT SENSOR INPUT 2
59	GR	DOOR UNLOCK OUTPUT (DR)
09	97	FLASHER OUTPUT (LEFT)

AWMIA0383GB

# DTC Inspection Priority Chart

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

#### < ECU DIAGNOSIS >

Priority	DTC	•
1	U1000: CAN COMM CIRCUIT     U1010: CONTROL UNIT (CAN)	_
2	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM	_
3	C1729: VHCL SPEED SIG ERR	-
4	<ul> <li>C1704: LOW PRESSURE FL</li> <li>C1705: LOW PRESSURE FR</li> <li>C1706: LOW PRESSURE RR</li> <li>C1707: LOW PRESSURE RL</li> <li>C1708: [NO DATA] FL</li> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RR</li> <li>C1711: [CHECKSUM ERR] FL</li> <li>C1713: [CHECKSUM ERR] FR</li> <li>C1714: [CHECKSUM ERR] FR</li> <li>C1715: [CHECKSUM ERR] RR</li> <li>C1716: [PRESSDATA ERR] FL</li> <li>C1717: [PRESSDATA ERR] FR</li> <li>C1718: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RR</li> <li>C1720: [CODE ERR] FL</li> <li>C1721: [CODE ERR] FR</li> <li>C1721: [CODE ERR] RR</li> <li>C1722: [GODE ERR] RR</li> <li>C1723: [CODE ERR] RR</li> <li>C1724: [BATT VOLT LOW] FR</li> <li>C1726: [BATT VOLT LOW] FR</li> <li>C1727: [BATT VOLT LOW] RR</li> <li>C1727: [BATT VOLT LOW] RR</li> <li>C1727: [BATT VOLT LOW] RR</li> </ul>	_

DTC Index

#### NOTE:

Details of time display

CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.

1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-25
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-26
B2190: NATS ANTTENA AMP	_	_	_	SEC-17
B2191: DIFFERENCE OF KEY	_	_	_	SEC-20
B2192: ID DISCORD BCM-ECM	_	_	_	<u>SEC-21</u>
B2193: CHAIN OF BCM-ECM	_	_	_	SEC-23
C1708: [NO DATA] FL	_	_	_	<u>WT-13</u>
C1709: [NO DATA] FR	_	_	_	<u>WT-13</u>

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# **BCM (BODY CONTROL MODULE)**

# < ECU DIAGNOSIS >

# [WITHOUT POWER DOOR LOCKS]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1710: [NO DATA] RR	_	_	_	<u>WT-13</u>
C1711: [NO DATA] RL	_	_	_	<u>WT-13</u>
C1712: [CHECKSUM ERR] FL	_	_	_	<u>WT-15</u>
C1713: [CHECKSUM ERR] FR	_	_	_	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	_	_	_	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	_	_	_	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	_	_	_	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	_	_	_	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	_	_	_	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	_	_	_	<u>WT-17</u>
C1720: [CODE ERR] FL	_	_	_	<u>WT-15</u>
C1721: [CODE ERR] FR	_	_	_	<u>WT-15</u>
C1722: [CODE ERR] RR	_	_	_	<u>WT-15</u>
C1723: [CODE ERR] RL	_	_	_	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	_	_	_	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	_	_	_	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	_	_	_	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	_	_	_	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	_	_	_	<u>WT-18</u>

# **INTERIOR LIGHTING SYSTEM SYMPTOMS**

< SYMPTOM DIAGNOSIS >

[WITHOUT POWER DOOR LOCKS]

# SYMPTOM DIAGNOSIS

# INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

#### **CAUTION:**

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

Symptom	Possible cause	Inspection item
interior room lamps do not turn ON/OFF  • Front room/map lamp assembly (if equipped)  • Room lamp 2nd row	Harness between fuse block (J/B) and each interior room lamp     Harness between each interior room lamp and door switches     Door switches	Interior room lamp Refer to INL-75.
Cargo lamp does not turn ON/OFF	Harness between fuse block (J/B) and cargo lamp relay     Harness between cargo lamp relay and cargo lamp     Harness between BCM and cargo lamp relay     BCM	Cargo lamp control circuit Refer to <u>INL-77</u> .
Ignition keyhole illumination does not turn ON/ OFF	<ul> <li>Harness between fuse block (J/B) and ignition keyhole illumination</li> <li>Harness between ignition keyhole illumination and door switches</li> <li>Door switches</li> </ul>	Ignition keyhole illumination Refer to INL-80

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# **PRECAUTION**

# **PRECAUTIONS**

Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSION-ER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

#### **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal
  injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag
  Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

# General precautions for service operations

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- When removing or disassembling any part, be careful not to damage or deform it. Protect parts which may
  get in the way with cloth.
- When removing parts with a screw driver or other tool, protect parts by wrapping them with vinyl or tape.
- Keep removed parts protected with cloth.
- If an non-reuseable part is removed, replace it with a new one.
- After re-assembly has been completed, make sure each part functions correctly.
- · Never work with wet hands.
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- Do not use organic solvent (paint thinner or gasoline) to clean lamps or remove sealant residue.

## [WITHOUT POWER DOOR LOCKS]

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# **ON-VEHICLE REPAIR**

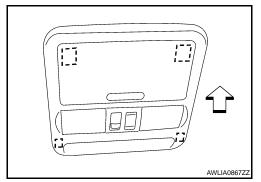
# INTERIOR ROOM LAMP

# Removal and Installation

#### MAP LAMP

#### Removal

The map lamp is replaced as part of the overhead console assembly. Refer to INT-23, "Removal and Installation".



Installation

Installation is in the reverse order of removal.

## **Bulb Replacement**

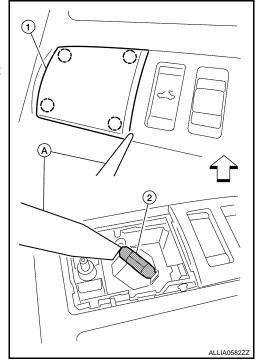
- 1. Disconnect the negative battery terminal.
- Using a suitable tool (A), remove map lamp lens (1).
   ⇐: Vehicle front

# **CAUTION:**

Wrap a cloth around tool to protect the housing and lens.

3. Release one side of the bulb (2) from the tab, then pull straight downward to remove.

Map lamp bulb : 12V - 8W



VANITY MIRROR LAMP

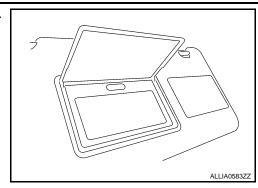
Removal

# **INTERIOR ROOM LAMP**

## < ON-VEHICLE REPAIR >

#### [WITHOUT POWER DOOR LOCKS]

The vanity mirror lamp is replaced as part of the sunvisor assembly. Refer to INT-23, "Removal and Installation".



#### Installation

Installation is in the reverse order of removal.

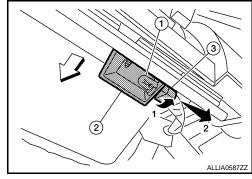
## **Bulb Replacement**

The vanity mirror lamp bulb is replaced as part of the sunvisor assembly. Refer to <a href="INT-23">INT-23</a>, "Removal and Installation".

#### **GLOVE BOX LAMP**

#### Removal

- 1. Remove lower instrument panel RH and glove box. Refer to IP-10, "Removal and Installation".
- Rotate glove box lamp socket (3) with bulb (1) counterclockwise, then pull away from lamp shield (2) on steering member to remove.



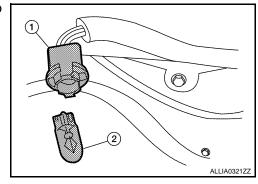
#### Installation

Installation is in the reverse order of removal.

## **Bulb Replacement**

- 1. Disconnect the negative battery terminal.
- 2. Remove glove box lamp.
- 3. Pull bulb (2) straight out from glove box lamp socket (1) to remove.

Glove box lamp bulb : 12V - 3.4W



#### **ROOM LAMP**

Removal

# **INTERIOR ROOM LAMP**

# < ON-VEHICLE REPAIR >

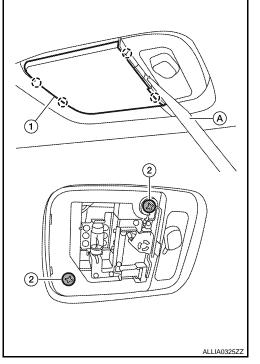
# [WITHOUT POWER DOOR LOCKS]

- 1. Disconnect the negative battery terminal.
- 2. Using a suitable tool (A), release the pawls and remove the room lamp lens (1).

#### **CAUTION:**

Wrap a cloth around tool to protect the housing and lens.

- 3. Remove room lamp screws (2).
- 4. Disconnect the connector, then remove room lamp.



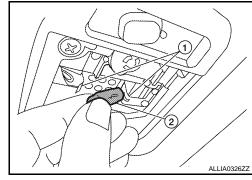
#### Installation

Installation is in the reverse order of removal.

#### **Bulb Replacement**

- 1. Disconnect the negative battery terminal.
- 2. Using a suitable tool, release the pawls and remove the room lamp lens.
- 3. Release the room lamp bulb retainers (1), then pull bulb (2) straight out to remove.

Room lamp bulb : 12V - 8W



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# **ILLUMINATION**

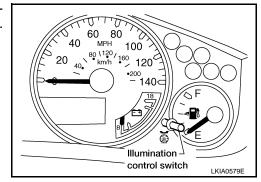
## Removal and Installation

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## **ILLUMINATION CONTROL SWITCH**

#### Removal

The illumination control switch (1) is replaced as a part of the combination meter assembly. Refer to MWI-91, "Removal and Installation".



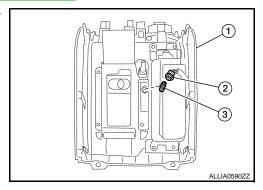
#### Installation

Installation is in the reverse order of removal.

#### A/T FINISHER LAMP

#### Removal

- 1. Remove A/T finisher from center console. Refer to TM-353, "Exploded view".
- 2. Rotate A/T finisher lamp socket (2) with bulb (3) counterclockwise, then pull away from finisher (1).



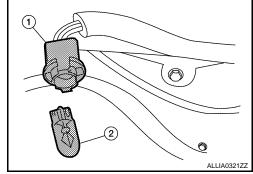
#### Installation

Installation is in the reverse order of removal.

#### **Bulb Replacement**

- Remove A/T finisher from center console. Refer to TM-353, "Exploded view".
- 2. Remove A/T finisher lamp socket (1), then pull bulb (2) straight out away from socket.

AT finisher lamp bulb : 12V - 3W



# **BULB SPECIFICATIONS**

< SERVICE DATA AND SPECIFICATIONS (SDS)

[WITHOUT POWER DOOR LOCKS]

# SERVICE DATA AND SPECIFICATIONS (SDS)

# **BULB SPECIFICATIONS**

Interior Lamp/Illumination

Item	Wattage (W)*
Map lamp	8
Vanity lamp	*
Glove box lamp	3.4
Room lamp	8
A/T finisher lamp	3

<sup>\*:</sup> Always check with the Parts Department for the latest parts information.

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