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# **BASIC INSPECTION**

## DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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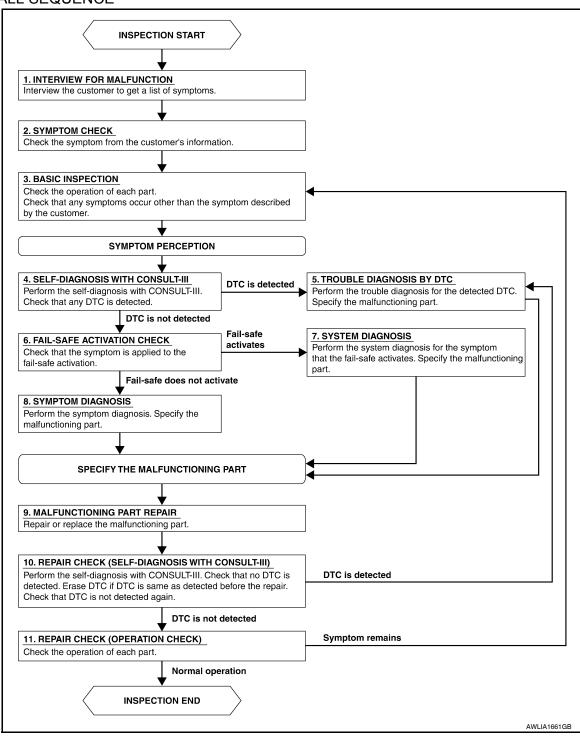
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#### **OVERALL SEQUENCE**



## **DIAGNOSIS AND REPAIR WORKFLOW**

#### < 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

## 5. TROUBLE DIAGNOSIS BY DTC

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

#### >> GO TO 9

## 6. FAIL-SAFE ACTIVATION CHECK

Determine if the customer's concern is related to fail-safe activation.

#### Does the fail-safe activate?

YES >> GO TO 7

NO >> GO TO 8

## 7. SYSTEM DIAGNOSIS

Perform the system diagnosis for the system in which the fail-safe activates. Specify the malfunctioning part.

#### >> GO TO 9

## 8. SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

#### >> GO TO 9

## 9. MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

#### >> GO TO 10

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

Perform the self-diagnosis with CONSULT-III. Verified 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

## **DIAGNOSIS AND REPAIR WORKFLOW**

## < BASIC INSPECTION >

NO >> GO TO 11 11.REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

YES >> Inspection End

NO >> GO TO 3

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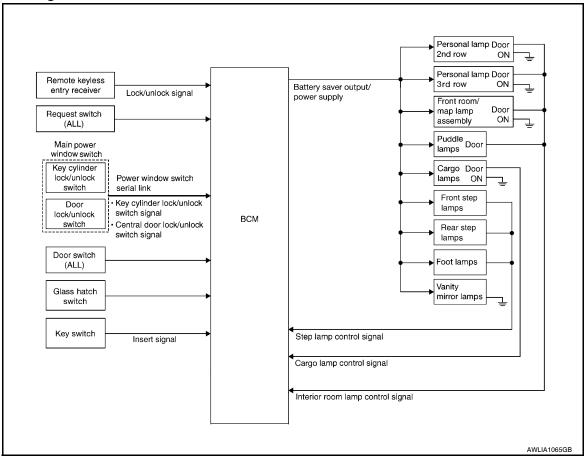
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## SYSTEM DESCRIPTION

## INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram

INFOID:0000000006145481



## System Description

INFOID:0000000006145482

#### OUTLINE

- Interior room lamps\* are controlled by the interior room lamp timer control function of the BCM.
   \*Front room/map lamps, personal lamp 2nd row, personal lamp 3rd row (when lamp switch is in DOOR position) and puddle lamps (if equipped).
- Cargo lamp is controlled by the cargo lamp control function of the BCM.
- Step lamps\* are controlled by the step lamp control function of the BCM.
  - \*Front step lamps, rear step lamps and foot lamps (if equipped).

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 lock solenoid (without Intelligent Key) or the key switch and ignition knob switch (with Intelligent Key).

#### 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 Intelligent Key (with Intelligent Key), key fob (without Intelligent Key), main power window and door lock/unlock switch, or front door lock assembly LH (key cylinder switch)].
- When a door opens → closes and the key is not inserted in the ignition switch.

Timer control is cancelled under the following conditions.

- When the front door LH is locked [with Intelligent Key (with Intelligent Key), key fob (without Intelligent Key), main power window and door lock/unlock switch, or front door lock assembly LH (key cylinder switch)].
- A door is opened (door switch turns ON).
- · Ignition switch is turned ON.

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

#### INTERIOR LAMP BATTERY SAVER CONTROL

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 15 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 an Intelligent Key (with Intelligent Key), key fob (without Intelligent Key), or main
  power window and door lock/unlock switch, or when the front door lock assembly LH (key cylinder switch) is
  locked or unlocked
- · a door is opened or closed
- the key is removed from or inserted into the ignition switch.

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

## Component Parts Location

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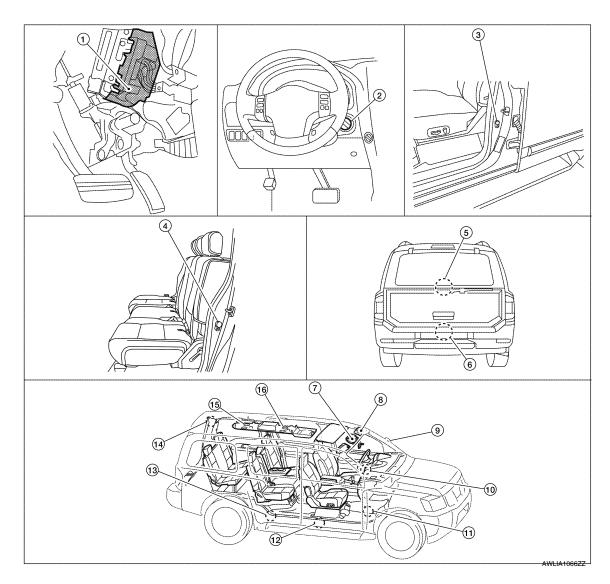
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- BCM M18, M19, M20 (view with instru- 2. ment lower panel LH removed)
- Key switch and ignition knob switch M12 (with Intelligent Key) Key switch and key lock solenoid M27 (without Intelligent Key)
- 4. Rear door switch LH B18
  - Rear door switch RH B116
- 5. Glass hatch ajar switch D707
- Front door switch LH B8
   Front door switch RH B108
- Back door switch D502 (without power back door)
   Back door latch (door ajar switch)
   D503 (with power back door)

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## INTERIOR ROOM LAMP CONTROL SYSTEM

#### < SYSTEM DESCRIPTION >

- 7. Front room/map lamp assembly R102 8.
- Vanity I
- 10. Ignition keyhole illumination M150
- 13. Rear step lamp LH D206 Rear step lamp RH D306
- 16. Personal lamp 2nd row R203
- 8. Vanity lamp LH R3 Vanity lamp RH R8
- 11. Foot lamp LH M99 (if equipped)
  Foot lamp RH M100 (if equipped)
- 14. Cargo lamp B153

- Door mirror LH (puddle lamp) D4
   Door mirror RH (puddle lamp) D107
- 12. Front step lamp LH D11 Front step lamp RH D109
- 15. Personal lamp 3rd row R205

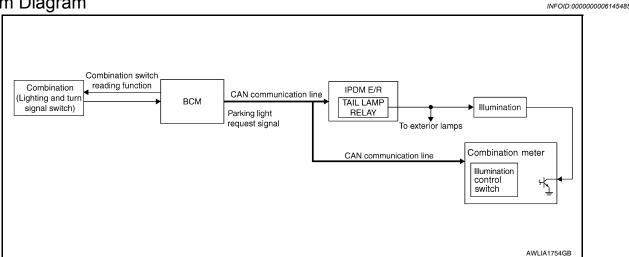
## **Component Description**

INFOID:0000000006145484

Part name	Description		
BCM	Provides power and ground and controls timer functions for the interior room lamps, step lamps and cargo lamp.		
Key switch and ignition knob switch (with Intelligent Key)	Dravides key in ignition status to the DCM		
Key switch and key lock solenoid (without Intelligent Key)	Provides key in ignition status to the BCM.		
Door switches	Provides door OPEN/CLOSED status to the BCM.		
Glass hatch switch	Provides glass hatch OPEN/CLOSED status to the BCM.		
Back door latch (with power back door)	Provides back door OPEN/CLOSED status to the BCM.		
Back door switch (without power back door)			
Power window and door lock/unlock switch RH	Provides door lock/unlock position switch RH status to the BCM.		
Main power window and door lock/unlock switch [front door lock assembly LH (key cylinder switch)].	Provides door lock/unlock position switch LH status to the BCM.		

## ILLUMINATION CONTROL SYSTEM

## System Diagram



## System Description

INFOID:0000000006145486

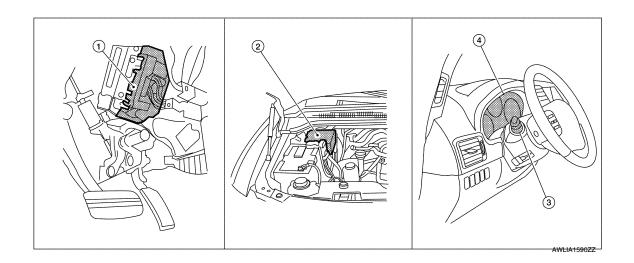
The illumination lamps operation is dependent upon the position of the combination switch (lighting and turn signal switch). When the combination switch (lighting and turn signal switch) is placed in the 1ST or 2ND position (or if the auto light system is activated) the BCM (body control module) receives 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 combination switch (lighting and turn signal 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 15 minutes unless the combination switch (lighting and turn signal switch) position is changed. If the combination switch (lighting and turn signal switch) position is changed, then the illumination lamps are turned off after a 30 second delay. When the combination switch (lighting and turn signal switch) is turned from OFF to 1ST or 2ND position (or if auto light system is activated) after illumination lamps have been turned off by the battery saver control, the illumination lamps illuminate again.

## **Component Parts Location**

INFOID:0000000006145487



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## **ILLUMINATION CONTROL SYSTEM**

#### < SYSTEM DESCRIPTION >

- BCM M18, M20 (view with instrument 2. IPDM E/R E122, E123, E124 lower panel LH removed)
  - Combination meter (illumination control switch) M23, M24

3. Combination switch (lighting and turn signal switch) M28

## **Component Description**

INFOID:0000000006145488

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 (lighting and turn signal switch)	The combination switch provides input to the BCM about the lighting switch position.		

## **DIAGNOSIS SYSTEM (BCM)**

## < SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

#### INFOID:0000000006634511

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## **APPLICATION ITEM**

CONSULT-III performs the following functions via CAN communication with BCM.

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

#### SYSTEM APPLICATION

BCM can perform the following functions.

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

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## **DIAGNOSIS SYSTEM (BCM)**

## < SYSTEM DESCRIPTION >

## **INT LAMP**

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

INFOID:0000000006634512

## **DATA MONITOR**

Monitor Item [Unit]	Description
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.
KEY ON SW [On/Off]	Indicates condition of key switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
BACK DOOR SW [On/Off]	Indicates condition of back door switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
I-KEY LOCK* [On/Off]	Indicates condition of lock signal from Intelligent Key.
I-KEY UNLOCK* [On/Off]	Indicates condition of unlock signal from Intelligent Key.
KEYLESS LOCK** [On/Off]	Indicates condition of lock signal from keyfob.
KEYLESS UNLOCK** [On/Off]	Indicates condition of unlock signal from keyfob.

<sup>\* :</sup> with Intelligent Key

## **ACTIVE TEST**

Test Item	Description
IGN ILLUM	This test is able to check ignition keyhole illumination operation [On/Off].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
STEP LAMP TEST	This test is able to check step lamp operation [On/Off].
LUGGAGE LAMP TEST	This test is able to check cargo lamp operation [On/Off].

## **WORK SUPPORT**

Support Item	Setting		Description
SET I/L D-UNLCK INTCON	Off		Interior room lamp timer function OFF.
SET I/L D-UNLCK INTCON	On*		Interior room lamp timer function ON.
	MODE7	0 sec.	
	MODE6	5 sec.	
	MODE5	4 sec.	
ROOM LAMP ON TIME SET	MODE4	3 sec.	Sets the interior room lamp gradual brightening time.
	MODE3	2 sec.	
	MODE2*	1 sec.	
	MODE1	0.5 sec.	

<sup>\*\*:</sup> without Intelligent Key

## **DIAGNOSIS SYSTEM (BCM)**

## < SYSTEM DESCRIPTION >

Support Item	Set	ting	Description
ROOM LAMP OFF TIME SET	MODE7	0 sec.	
	MODE6	5 sec.	
	MODE5	4 sec.	
	MODE4	3 sec.	Sets the interior room lamp gradual dimming time.
	MODE3	2 sec.	
	MODE2*	1 sec.	
	MODE1	0.5 sec.	

<sup>\* :</sup> Initial setting

## **BATTERY SAVER**

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

INFOID:0000000006634513

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## **DATA MONITOR**

Monitor Item [Unit]	Description	
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.	
KEY ON SW [On/Off]	Indicates condition of key switch.	(-
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.	
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.	
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.	
BACK DOOR SW [On/Off]	Indicates condition of back door switch.	
KEY CYL LK SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.	'
KEY CYL UN SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.	
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.	J
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.	
I-KEY LOCK* [On/Off]	Indicates condition of lock signal from Intelligent Key.	
I-KEY UNLOCK* [On/Off]	Indicates condition of unlock signal from Intelligent Key.	r
KEYLESS LOCK** [On/Off]	Indicates condition of lock signal from keyfob.	
KEYLESS UNLOCK** [On/Off]	Indicates condition of unlock signal from keyfob.	IN

<sup>\*:</sup> with Intelligent Key

## **ACTIVE TEST**

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

#### **WORK SUPPORT**

Support Item	Setting		Description
	MODE3	10 min	
ROOM LAMP TIMER SET	MODE2	60 min	Sets the interior room lamp battery saver timer operating time.
	MODE1*	15 min	

<sup>\*:</sup> Initial setting

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<sup>\*\* :</sup> without Intelligent Key

## POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

# DTC/CIRCUIT DIAGNOSIS

# POWER SUPPLY AND GROUND CIRCUIT

**BCM** 

BCM : Diagnosis Procedure

INFOID:0000000006634514

Regarding Wiring Diagram information, refer to BCS-48, "Wiring Diagram".

## 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	Potton, nower gunnly	22 (15A)
70	Battery power supply	F (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	59 (10A)

#### Is the fuse blown?

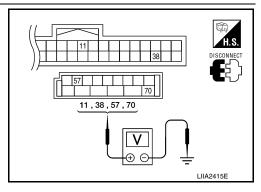
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

# 2. CHECK POWER SUPPLY CIRCUIT

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

Connector	Terminals		Power	Condition	Voltage (V) (Ap-
Connector	(+)	(-)	(-) source		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
IVIZU	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage



#### Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $oldsymbol{3}$ . CHECK GROUND CIRCUIT

## **POWER SUPPLY AND GROUND CIRCUIT**

## < DTC/CIRCUIT DIAGNOSIS >

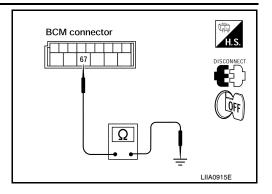
Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M20	67		Yes

## Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



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### BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

Description INFOID:000000006145493

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:0000000006145494

## 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
- Vanity lamps
- Personal lamp 2nd row
- Personal lamp 3rd row
- Cargo lamp
- 3. Open the driver door to turn ON the step lamps and puddle lamps.
- Front step lamps
- Rear step lamps
- Foot lamps (if equipped)
- Puddle lamps (if equipped)
- 4. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- 5. While operating the test item, 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-16, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000006145495

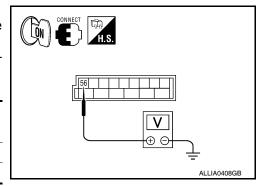
Regarding Wiring Diagram information, refer to BCS-48, "Wiring Diagram".

# 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.
- While operating the test item, check voltage between BCM connector M20 terminal 56 and ground.

(+)		(-)	Test item	Voltage
Connector	Terminal	(-)	BATTERY SAVER	voltage
M20 56		Ground	OFF	0V
IVIZU	120 56 G10u		ON	Battery voltage



#### Is the inspection result normal?

YES >> GO TO 2

NO >> Replace BCM after making sure battery saver output/power supply circuit is not shorted to voltage. Refer to BCS-56, "Removal and Installation".

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

## **BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT**

## < DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect the following connectors.
- BCM M20
- Ignition keyhole illumination
- Front step lamp LH
- Front step lamp RH
- Door mirror LH (with puddle lamps)
- Door mirror RH (with puddle lamps)
- Rear step lamp LH
- Rear step lamp RH
- Foot lamp LH (if equipped)
- Foot lamp RH (if equipped)
- Front room/map lamp assembly
- Vanity lamp LH
- Vanity lamp RH
- Cargo lamp
- Personal lamp 2nd row
- Personal lamp 3rd row
- 3. Check continuity between BCM connector M20 terminal 56 and each interior room lamp connector.

BCI	М	Each interior ro	oom lamp		Continuity
Connector	Terminal	Connector	Continuity		
		Ignition keyhole illumination	M150	1	
		Front step lamp LH	D11	1	
		Front step lamp RH	D109	1	
		Door mirror LH (with puddle lamps)	D4	12	
		Door mirror RH (with puddle lamps)	D107	12	
M20 56	Rear step lamp LH	D206	1		
	Rear step lamp RH	D306	1		
	Foot lamp LH (if equipped)	M99	1	Yes	
	Foot lamp RH (if equipped)	M100	1		
	Front room/map lamp assembly	R102	6		
	Vanity lamp LH	R3	1		
	Vanity lamp RH	R8	1		
		Cargo lamp	B153	2	
		Personal lamp 2nd row	R203	3	
		Personal lamp 3rd row	R205	3	

## Is the inspection result normal?

YES >> GO TO 3

NO >> Repair the harness or connectors.

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

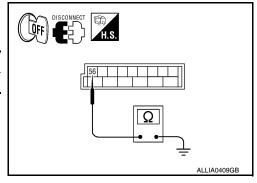
Check continuity between BCM connector M20 terminal 56 and ground.

Connector	Terminal	_	Continuity
M20	56	Ground	No

#### Is the inspection result normal?

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

NO >> Repair the harness or connectors.



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#### INTERIOR ROOM LAMP CONTROL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## INTERIOR ROOM LAMP CONTROL CIRCUIT

Description INFOID:000000006145498

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

- Puddle lamps (if equipped)
- Front room/map lamp assembly
- Personal lamp 2nd row
- Personal lamp 3rd row

#### NOTE:

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

## Component Function Check

INFOID:0000000006145497

#### **CAUTION:**

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

- Battery saver output/power supply
- Front room/map lamp bulbs
- Personal lamp bulbs
- Puddle lamp bulbs (if equipped)

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

## (P)CONSULT-III

- 1. Place the front room/map lamp assembly switch in the DOOR position.
- 2. Turn ignition switch ON.
- 3. Select "INT LAMP" of BCM (INT LAMP) active test item.
- While operating the test item, 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 <a href="INL-18">INL-18</a>, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000006145498

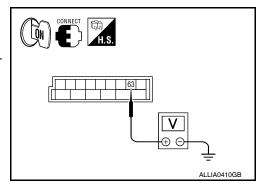
Regarding Wiring Diagram information, refer to <a href="INL-38">INL-38</a>, "Wiring Diagram".

# 1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

## CONSULT-III

- 1. Switch the front room/map lamp assembly switch to DOOR.
- Turn ignition switch ON.
- Select "INT LAMP" of BCM (INT LAMP) active test item.
- While operating the test item, check voltage between BCM connector M20 terminal 63 and ground.

(+)		(-)	INT LAMP	Voltage	
Connector	Terminal	(-)	IIVI LAWI	voltage	
M20 63		Ground	ON	0V	
IVIZU	IVI2U 63		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

## INTERIOR ROOM LAMP CONTROL CIRCUIT

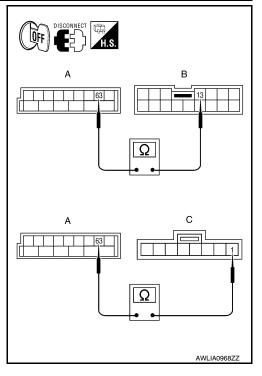
#### < DTC/CIRCUIT DIAGNOSIS >

# $\overline{2}$ .check interior room LAMP CONTROL OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM connector M20, door mirror connectors (if equipped with puddle lamps) and front room/map lamp assembly connector.
- 3. Check continuity between BCM connector M20 (A) terminal 63 and the door mirror connectors (B) terminal 13 and front room/ map lamp assembly connector R102 (C) terminal 1.

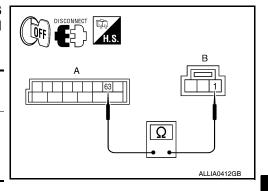
ВСМ		Interio	Continuity		
Connector	Terminal	Component	Connector	Terminal	Continuity
		Door mirror LH (if equipped with puddle lamps)	D4 (B)	13	
M20 (A)	63	Door mirror RH (if equipped with puddle lamps)	D107 (B)	13	Yes
		Front room/map lamp	R102 (C)	1	

Reconnect the front room/map lamp assembly connector.



Check continuity between BCM connector M20 (A) terminal 63 and the 2nd and 3rd row personal lamp connectors (B) terminal 1.

ВС	CM	Interior	r room lamp	Continuity	
Connector	Terminal	Component	Connector	Terminal	Continuity
M20 (A)	Personal lamp 2nd row	R203 (B)	1	Yes	
IVIZO (A)	M20 (A) 63	Personal lamp 3rd row	R205 (B)	1	163



#### Is the inspection result normal?

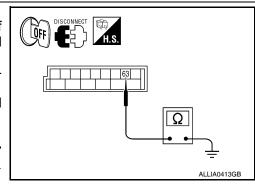
- >> Check interior room lamps for an open. If OK, replace BCM. Refer to BCS-56, "Removal and YES Installation". If NG, replace interior room lamp. Refer to INL-73, "Removal and Installation" or EXL-143, "Removal and Installation".
- NO >> Repair the harness or connectors.

# 3.CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect BCM connector M20, door mirror connectors (if equipped with puddle lamps) and 2nd and 3rd row personal lamp connectors.
- 3. Switch the front room/map lamp assembly switch to ON posi-
- 4. Check continuity between BCM connector M20 terminal 63 and ground.

Connector	Terminal	_	Continuity
M20	63	Ground	No

Is the inspection result normal?



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**INL-19** Revision: July 2010 2011 Armada

## INTERIOR ROOM LAMP CONTROL CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

- YES >> Check interior room lamps for a short circuit. If OK, replace BCM. Refer to <u>BCS-56</u>, "Removal and <u>Installation"</u>. If NG, replace interior room lamp. Refer to <u>INL-73</u>, "Removal and Installation" or <u>EXL-143</u>, "Removal and Installation".
- NO >> Repair the harness or connectors.

## STEP LAMP CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## STEP LAMP CIRCUIT

Description INFOID:0000000006145499

Controls the front and rear step lamps and the foot lamps (if equipped) (ground side) to turn the lamps ON and

## Component Function Check

#### INFOID:0000000006145500

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#### **CAUTION:**

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

- Battery saver output/power supply
- Front step lamp bulbs
- Rear step lamp bulbs
- Foot lamp bulbs (if equipped)

## 1. CHECK STEP LAMP OPERATION

## (P)CONSULT-III

- Turn ignition switch ON.
- Select "STEP LAMP TEST" of BCM (INT LAMP) active test item.
- While operating the test item, check that the front step lamps, rear step lamps and foot lamps (if equipped) turn ON/OFF.

ON : Step lamp ON **OFF** : Step lamp OFF

#### Is the inspection result normal?

YES >> Step lamp circuit is normal.

>> Refer to INL-21, "Diagnosis Procedure". NO

## Diagnosis Procedure

INFOID:0000000006145501

Regarding Wiring Diagram information, refer to INL-38, "Wiring Diagram".

## 1. CHECK STEP LAMP OUTPUT

#### CONSULT-III

- Turn ignition switch ON.
- Select "STEP LAMP TEST" of BCM (INT LAMP) active test item.
- While operating the test item, check voltage between BCM connector M20 terminal 62 and ground.

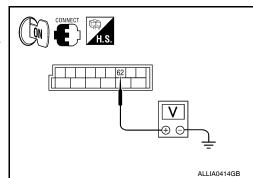
Connector	Terminal	_	STEP LAMP TEST	Voltage
Mao	M20 62	Ground	ON	0V
IVIZU			OFF	Battery voltage

#### Is the inspection result normal?

>> Step lamp control circuit is operating normally.

Fixed ON>>GO TO 3 Fixed OFF>>GO TO 2

2.CHECK STEP LAMP OPEN CIRCUIT



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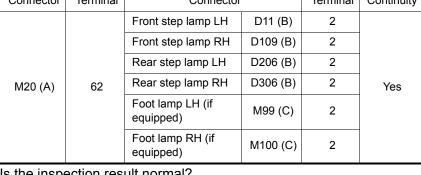
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## STEP LAMP CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect BCM connector M20 and front step lamp, rear step lamp and foot lamp connectors (if equipped).
- Check continuity between BCM connector M20 (A) terminal 62 and step lamp connectors (B) terminal 2 and foot lamp connectors (C) terminal 2.

Connector	Terminal	Connector	Terminal	Continuity	
		Front step lamp LH	D11 (B)	2	
		Front step lamp RH	D109 (B)	2	
		Rear step lamp LH	LH D206 (B) 2		
M20 (A)	62	Rear step lamp RH	D306 (B)	2	Yes
		Foot lamp LH (if equipped)	M99 (C)	2	
		Foot lamp RH (if equipped) M100 (C)		2	



## Is the inspection result normal?

YES >> Check step lamp or foot lamp for an open. If OK, replace BCM. Refer to BCS-56, "Removal and Installation". If NG, replace step lamp or foot lamp. Refer to INL-73. "Removal and Installation".

NO >> Repair harness or connectors.

# 3.CHECK STEP LAMP SHORT CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector M20, front step lamp, rear step lamp and foot lamp connectors (if equipped).
- Check continuity between BCM connector M20 terminal 62 and ground.

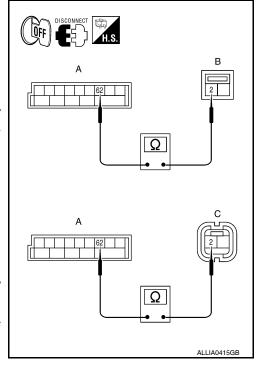
Connector	Terminal	_	Continuity
M20	62	Ground	No

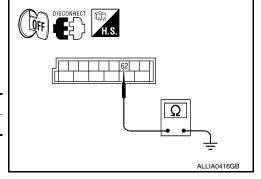
#### Is the inspection result normal?

YES >> Check step lamp or foot lamp for a short circuit. If OK, replace BCM. Refer to BCS-56, "Removal and Installa-

tion". If NG, replace step lamp or foot lamp. Refer to INL-73, "Removal and Installation".

NO >> Repair the harness or connectors.





## CARGO LAMP CONTROL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## CARGO LAMP CONTROL CIRCUIT

Description INFOID:0000000006145502

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

Component Function Check

#### INFOID:0000000006145503

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#### **CAUTION:**

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

- Battery saver output/power supply
- Cargo lamp bulb
- 1. CHECK CARGO LAMP OPERATION

## (P)CONSULT-III

- 1. Turn ignition switch ON.
- 2. Select "LUGGAGE LAMP TEST" of BCM (INT LAMP) active test item.
- While operating the test item, check that cargo lamp turns ON/OFF.

ON : Cargo lamp ON OFF : Cargo lamp OFF

#### Is the inspection result normal?

YES >> Cargo lamp circuit is normal.

NO >> Refer to INL-23, "Diagnosis Procedure".

## Diagnosis Procedure

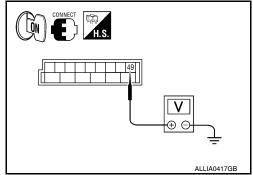
Regarding Wiring Diagram information, refer to INL-38, "Wiring Diagram".

# 1. CHECK CARGO LAMP OUTPUT

#### (P)CONSULT-III

- Turn ignition switch ON.
- Select "LUGGAGE LAMP TEST" of BCM (INT LAMP) active test item.
- 3. While operating the test item, check voltage between BCM connector M19 terminal 49 and ground.

Connector	Terminal	_	LUGGAGE LAMP TEST	Voltage
M19	49	49 Ground	ON	0V
IVITS			Ground	OFF



#### Is the inspection result normal?

YES >> Cargo lamp control circuit is operating normally.

Fixed ON>>GO TO 3

Fixed OFF>>GO TO 2

# 2.CHECK CARGO LAMP OPEN CIRCUIT

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#### CARGO LAMP CONTROL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect BCM connector M19 and cargo lamp connector.
- Check continuity between BCM connector M19 (A) terminal 49 and cargo lamp connector B153 (B) terminal 1.

В	CM	Cargo	o lamp	Continuity
Connector	Terminal	Connector Terminal		Continuity
M19 (A)	49	B153 (B)	1	Yes

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## Is the inspection result normal?

>> Check cargo lamp for an open. If OK, replace BCM. YES Refer to BCS-56, "Removal and Installation". If NG, replace cargo lamp. Refer to INL-77, "Removal and Installation".

NO >> Repair harness or connectors.

# 3.CHECK CARGO LAMP SHORT CIRCUIT

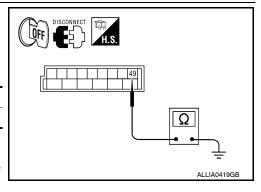
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M19 and cargo lamp connector.
- Check continuity between BCM connector M19 terminal 49 and ground.

Connector	Terminal	_	Continuity
M19	49	Ground	No

## Is the inspection result normal?

YES >> Check cargo lamp for a short circuit. If OK, replace BCM. Refer to BCS-56, "Removal and Installation". If NG, replace cargo lamp. Refer to INL-77, "Removal and Installation".

NO >> Repair harness or connectors.



## IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

Description INFOID:0000000006145505

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

### **@CONSULT-III**

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

ON : Ignition keyhole illumination ON OFF : Ignition keyhole illumination OFF

#### Is the inspection result normal?

YES >> Ignition keyhole illumination circuit is normal. NO >> Refer to INL-25, "Diagnosis Procedure".

## Diagnosis Procedure

Regarding Wiring Diagram information, refer to INL-38, "Wiring Diagram".

# 1. CHECK IGNITION KEYHOLE OUTPUT

#### (P)CONSULT-III

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

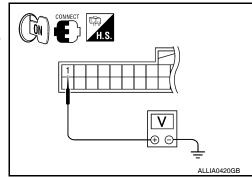
Connector	Terminal	_	IGN ILLUM	Voltage
M18 1	1	1 Ground	ON	0V
IVITO	'		OFF	Battery voltage

#### Is the inspection result normal?

YES >> Ignition keyhole illumination circuit is operating normally. Fixed ON>>GO TO 3

Fixed OFF>>GO TO 3

2.check ignition keyhole illumination open circuit



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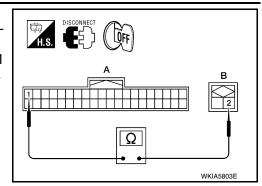
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#### IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

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

В	CM	Ignition keyho	ole illumination	Continuity
Connector	Terminal	Connector Terminal		Continuity
M18 (A)	1	M150 (B)	2	Yes



#### Is the inspection result normal?

- YES >> Check the ignition keyhole illumination for an open. If OK, replace BCM. Refer to <u>BCS-56</u>, <u>"Removal and Installation"</u>. If NG, replace ignition keyhole illumination.
- NO >> Repair harness or connectors.

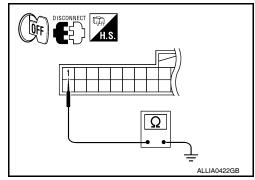
# 3.check ignition keyhole illumination short circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector M18 and ignition keyhole illumination connector.
- 3. Check continuity between BCM 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 BCM. Refer to <u>BCS-56</u>, "Removal and <u>Installation"</u>. If NG, replace ignition keyhole illumination.
- NO >> Repair harness or connectors.



< ECU DIAGNOSIS INFORMATION >

# **ECU DIAGNOSIS INFORMATION**

# BCM (BODY CONTROL MODULE)

Reference Value

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## VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
ACC ON CW	Ignition switch OFF or ON	Off	
ACC ON SW	Ignition switch ACC	On	
AIR COND SW	A/C switch OFF	Off	
AIR COIND SW	A/C switch ON	On	_
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm <sup>2</sup> , psi	_
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm², psi	_
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm <sup>2</sup> , psi	
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm <sup>2</sup> , psi	
ALITO LIGHT OW	Lighting switch OFF	Off	
AUTO LIGHT SW	Lighting switch AUTO	On	_
	Back door closed	Off	<del></del>
BACK DOOR SW	Back door opened	On	
BRAKE SW	Brake pedal released	Off	
DRAKE SW	Brake pedal applied	On	
DLICKI E CW	Seat belt buckle unfastened	Off	
BUCKLE SW	Seat belt buckle fastened	On	
BUZZER	Buzzer in combination meter OFF	Off	_
DUZZER	Buzzer in combination meter ON	On	
CARGO LAMP SW	Cargo lamp switch OFF	Off	
CARGO LAWIF 3W	Cargo lamp switch ON	On	
CDL LOCK SW	Door lock/unlock switch does not operate	Off	_
ODE LOOK OW	Press door lock/unlock switch to the LOCK side	On	
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off	
ODE ONLOCK OV	Press door lock/unlock switch to the UNLOCK side	On	
DOOR SW-AS	Front door RH closed	Off	
Book ov no	Front door RH opened	On	
DOOR SW-DR	Front door LH closed	Off	
DOOK OW-DIC	Front door LH opened	On	
DOOR SW-RL	Rear door LH closed	Off	
DOOK SW-KE	Rear door LH opened	On	
DOOR SW-RR	Rear door RH closed	Off	
	Rear door RH opened	On	
FAN ON SIG	Blower motor fan switch OFF	Off	
	Blower motor fan switch ON	On	_
FR FOG SW	Front fog lamp switch OFF	Off	
	Front fog lamp switch ON	On	

# < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
ED WASHED SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
ED WIDED LOW	Front wiper switch OFF	Off
FR WIPER LOW	Front wiper switch LO	On
ED WIDED III	Front wiper switch OFF	Off
FR WIPER HI	Front wiper switch HI	On
ED MUDED INT	Front wiper switch OFF	Off
FR WIPER INT	Front wiper switch INT	On
ED WIDED CTOD	Any position other than front wiper stop position	Off
FR WIPER STOP	Front wiper stop position	On
114.74.DD 014/	When hazard switch is not pressed	Off
HAZARD SW	When hazard switch is pressed	On
11545 1 4445 0144	Headlamp switch OFF	Off
HEAD LAMP SW1	Headlamp switch 1st	On
	Headlamp switch OFF	Off
HEAD LAMP SW2	Headlamp switch 1st	On
	High beam switch OFF	Off
HI BEAM SW	High beam switch HI	On
	ID registration of front left tire incomplete	YET
ID REGST FL1	ID registration of front left tire complete	DONE
	ID registration of front right tire incomplete	YET
ID REGST FR1	ID registration of front right tire complete	DONE
	ID registration of rear left tire incomplete	YET
ID REGST RL1	ID registration of rear left tire complete	DONE
	ID registration of rear right tire incomplete	YET
ID REGST RR1	ID registration of rear right tire complete	DONE
	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
	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
	LOCK button of Intelligent Key is not pressed	Off
I-KEY LOCK <sup>1</sup>	LOCK button of Intelligent Key is pressed	On
	PANIC button of Intelligent Key is not pressed	Off
I-KEY PANIC <sup>1</sup>	PANIC button of Intelligent Key is pressed	On
	UNLOCK button of Intelligent Key is not pressed	Off
I-KEY PW DWN <sup>1</sup>	UNLOCK button of Intelligent Key is pressed for greater than 3 seconds and driver's window operating in DOWN direction	On
	UNLOCK button of Intelligent Key is not pressed	Off
I-KEY UNLOCK <sup>1</sup>	UNLOCK button of Intelligent Key is pressed	On
	Door key cylinder LOCK position	Off
KEY CYL LK-SW	Door key cylinder other than LOCK position	On
	Door key cylinder UNLOCK position	Off
KEY CYL UN-SW	= 13. 115) 5/11.125. 5.1.25 511 position	

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
KEY ON OW	Mechanical key is removed from key cylinder	Off
KEY ON SW	Mechanical key is inserted to key cylinder	On
	LOCK button of key fob is not pressed	Off
KEYLESS LOCK <sup>2</sup>	LOCK button of key fob is pressed	On
	PANIC button of key fob is not pressed	Off
KEYLESS PANIC <sup>2</sup>	PANIC button of key fob is pressed	On
	UNLOCK button of key fob is not pressed	Off
KEYLESS UNLOCK <sup>2</sup>	UNLOCK button of key fob is pressed	On
LIQUE OW 40T	Lighting switch OFF	Off
LIGHT SW 1ST	Lighting switch 1st	On
OIL PRESS SW	Ignition switch OFF or ACC     Engine running	Off
	Ignition switch ON	On
ODTICAL SENSOR	Bright outside of the vehicle	Close to 5V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0V
DACCING CW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
PUSH SW <sup>1</sup>	Return to ignition switch to LOCK position	Off
	Press ignition switch	On
DEAD DEE CW	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
RR WASHER SW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
DD WIDED INT	Rear wiper switch OFF	Off
RR WIPER INT	Rear wiper switch INT	On
RR WIPER ON	Rear wiper switch OFF	Off
RR WIPER ON	Rear wiper switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
RR WIPER STOP	Other than rear wiper stop position	On
DD WIDED CTD2	Rear wiper stop position	Off
RR WIPER STP2	Other than rear wiper stop position	On
TUDN SICNAL I	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
TUDNI CICNAL D	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
MADNING LAND	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAMP	Low tire pressure warning lamp in combination meter ON	On

<sup>1:</sup> With Intelligent Key

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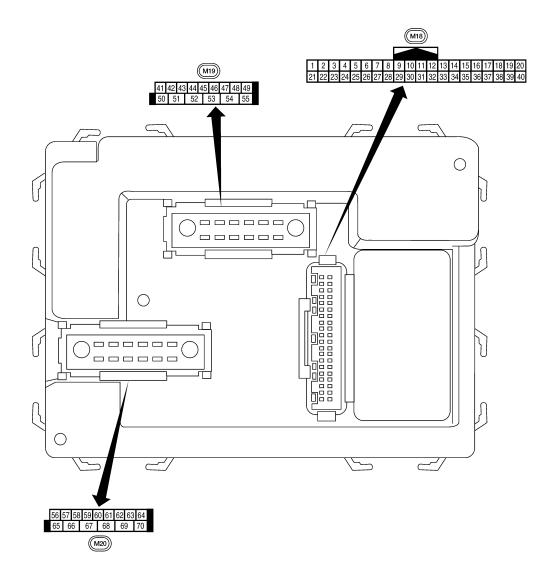
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<sup>2:</sup> With remote keyless entry system

Terminal Layout



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Physical Values

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## < ECU DIAGNOSIS INFORMATION >

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
1	BR/W	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage
	DIV/VV	nation	Output	OFF	Door is unlocked (SW ON)	0V
2	SB	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 +5ms SKIA5291E
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ++5ms SKIA5292E
4	~	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms SKIA5291E
5	G/B	Combination switch input 2				0.0
6	V	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ++5ms SKIA5292E
					Rear window defogger switch	0V
9	GR/R	Rear window defogger switch	Input	ON	ON  Rear window defogger switch  OFF	5V
					ON (opening or closing)	0V
10	G	Hazard lamp flash	Input	OFF	OFF (other than above)	Battery voltage
11	0	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	R/L	Front door switch RH	Input	OFF	ON (open) OFF (closed)	0V Battery voltage
13	GR	Rear door switch RH	Input	OFF	ON (open)  OFF (closed)	0V  Battery voltage
15	L/W	Tire pressure warning check connector	Input	OFF	_	5V
18	Р	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	_	OV

< ECU D	BCM (BODY CONTROL MODULE) < ECU DIAGNOSIS INFORMATION >									
			Cianal		Measuring condition					
Terminal	Wire color	Signal name	Signal input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)				
19	V/W	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 +-50 ms				
20	G/W	Remote keyless entry receiver (signal)	Input	OFF	Stand-by (keyfob buttons released)	(V) 6 4 2 0 +-50 ms				
_0					When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 0 • • • 50 ms				
21	G	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.				
22	W/V	BUS	_	_	Ignition switch ON or power window timer operates	(V) 15 10 5 0 200 ms				
23	G/O	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V				
25	25 BR NATS ant		Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.				
	Y/L	Rear wiper auto stop switch 2	Input	ON	Rise up position (rear wiper arm on stopper)	0V				
					A Position (full clockwise stop position)	0V				
26					Forward sweep (counterclockwise direction)	Fluctuating				
					B Position (full counterclockwise stop position)	Battery voltage				
					Reverse sweep (clockwise direction)	Fluctuating				
27	W/R	Compressor ON sig-	Input	ON	A/C switch OFF	5V				
		nal	прис	O1 <b>4</b>	A/C switch ON	0V				

# < ECU DIAGNOSIS INFORMATION >

Tamain al Wir			Signal	Measuring condition		Reference value or waveform	
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)	
28	L/R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage	
20   L/K   1		1 Tork blower morntor	input	ON	Front blower motor ON	0V	
29	W/B	Hazard switch	Input	OFF	ON	0V	
	VV/D	Tidzard Switch	Прис	OH	OFF	5V	
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms	
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	SKIA5291E  (V) 6 4 2 0 ++5ms SKIA5292E	
34	L O/B	Combination switch output 3  Combination switch	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms	
36	R/W	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *********************************	
37 <sup>1</sup>	B/R	Key switch and igni-	Input	OFF	Intelligent Key inserted	Battery voltage	
-		tion knob switch	•		Intelligent Key inserted	0V	
37 <sup>2</sup>	B/R	Key switch and key lock solenoid	Input	OFF	Key inserted	Battery voltage	
00	1877		lant f	ON!	Key inserted	0V	
38	W/L	Ignition switch (ON)	Input	ON	_	Battery voltage	
39	L P	CAN I		_	_	_	
40	Р	CAN-L			Class batch and	0	
42	GR	Glass hatch ajar switch	Input	ON	Glass hatch open		
					Glass hatch closed	Battery	
43	R/B	Back door switch (without power back door) or back door latch (door ajar switch) (with power back door)	Input	OFF	ON (open)  OFF (closed)	0V  Battery voltage	

## < ECU DIAGNOSIS INFORMATION >

	Wire		Signal	Measuring condition		Reference value or waveform	
Terminal color		Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)	
		Rear wiper auto stop switch 1	Input	ON	Rise up position (rear wiper arm on stopper)	0V	
					A Position (full clockwise stop position)	Battery voltage	
44	0				Forward sweep (counterclockwise direction)	Fluctuating	
					B Position (full counterclockwise stop position)	0V	
					Reverse sweep (clockwise direction)	Fluctuating	
47	SB	Front door switch LH	lan: 4	OFF	ON (open)	0V	
47	36	TIOTIL GOOF SWILCH LIT	Input	OH	OFF (closed)	Battery voltage	
40	DW	Door door quitab III	lmm: if	OFF	ON (open)	0V	
48	R/Y	Rear door switch LH	Input		OFF (closed)	Battery voltage	
40	_	Cargo lamp	0	055	Any door open (ON)	0V	
49	R	Cargo lamp	Output	OFF	All doors closed (OFF)	Battery voltage	
51	G/Y	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 5 0 500 ms	
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 5 0 500 ms	
					Rise up position (rear wiper arm on stopper)	0V	
		Rear wiper output circuit 2	Input	ON	A Position (full clockwise stop position)	0V	
54	Υ				Forward sweep (counterclockwise direction)	0V	
					B Position (full counterclockwise stop position)	Battery voltage	
					Reverse sweep (clockwise direction)	Battery voltage	
55	SB	Rear wiper output cir- cuit 1	Output	ON	OFF	0	
			Catput		ON	Battery voltage	
56	R/G	Battery saver output	Output	OFF	15 minutes after ignition switch is turned OFF	OV	
		ON			_	Battery voltage	
57	Y/R	Battery power supply	Input	OFF	_	Battery voltage	

# < ECU DIAGNOSIS INFORMATION >

	Wire		Signal	Measuring condition		Reference value or waveform			
Terminal	color	Signal name	input/ output	Ignition switch	Operation	or condition	(Approx.)		
58 W/R		Outhelesses	land	ON	When optical sensor is illuminated		3.1V or more		
		Optical sensor	Input		When optical sensor is not illuminated		0.6V or less		
50		Front door lock as-		0	OFF (neutral)		0V		
59	G	sembly LH actuator (unlock)	Output	OFF	ON (unlock)		Battery voltage		
60	G/B	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 500 ms SKIA3009J		
61	G/Y	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 500 ms SKIA3009J		
62	R/W	Step lamp LH and RH	Output	OFF	ON (any door open) OFF (all doors closed)		0V Battery voltage		
63 L		Interior room/map lamp	Output	OFF	Any door	ON (open)	OV		
	L				switch	OFF (closed)	Battery voltage		
		All door lock actuators		2==	OFF (neutral)	, ,	0V		
65	V	(lock)	Output	OFF	ON (lock)		Battery voltage		
		Front door lock actua-			OFF (neutral)		0V		
66	G/Y	tor RH, rear door lock actuators LH/RH and back door lock actua- tor (unlock)	Output	OFF	ON (unlock)		Battery voltage		
67	В	Ground	Input	ON	_		0V		
					Ignition switch		Battery voltage		
68	W/L	Power window power supply (RAP)	Output	_	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	W/R	Power window power supply	Output	_	_		_		Battery voltage
70	W/B	Battery power supply	Input	OFF	_		_		Battery voltage

<sup>1:</sup> With Intelligent Key system

Fail Safe

<sup>2:</sup> With remote keyless entry system

#### < ECU DIAGNOSIS INFORMATION >

BCM performs fail-safe control when any DTC listed below is detected.

Display contents of CONSULT	Fail-safe	Cancellation		
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.		

## DTC Inspection Priority Chart

INFOID:0000000006634519

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
2	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2013: STRG COMM 1 B2552: INTELLIGENT KEY B2590: NATS MALFUNCTION
3	C1729: VHCL SPEED SIG ERR     C1735: IGNITION SIGNAL
4	<ul> <li>C1708: [NO DATA] FL</li> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [CHECKSUM ERR] FL</li> <li>C1712: [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] FR</li> <li>C1719: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RL</li> <li>C1720: [CODE ERR] FL</li> <li>C1721: [CODE ERR] FR</li> <li>C1722: [CODE ERR] RR</li> <li>C1723: [CODE ERR] RR</li> <li>C1724: [BATT VOLT LOW] FL</li> <li>C1725: [BATT VOLT LOW] RR</li> <li>C1727: [BATT VOLT LOW] RL</li> <li>C1727: [BATT VOLT LOW] RL</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-29

# **BCM (BODY CONTROL MODULE)**

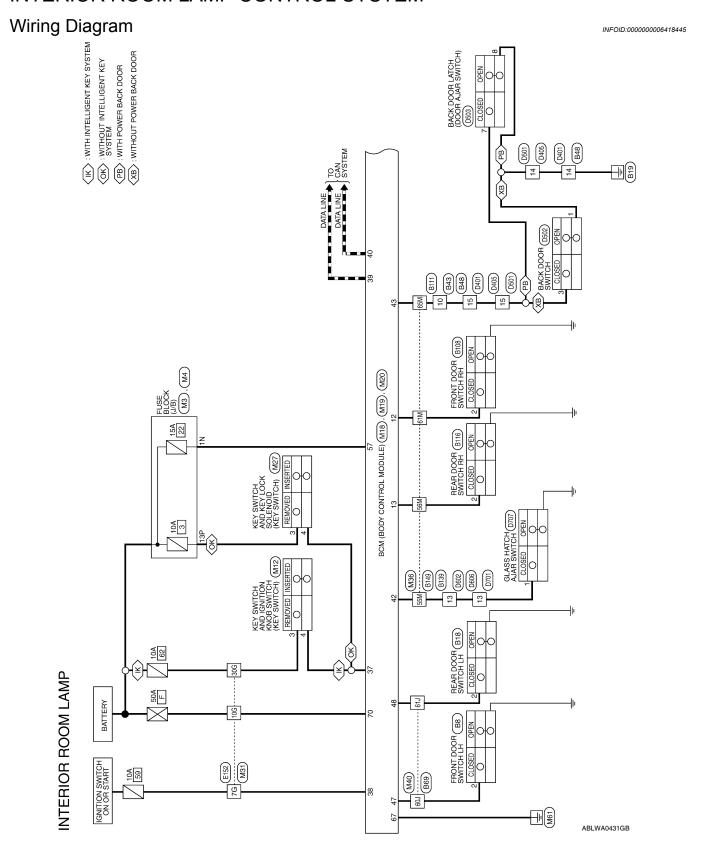
# < ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2013: STRG COMM 1	_	_	_	SEC-30
B2190: NATS ANTENNA AMP	_	_	_	SEC-33 (with I- Key), SEC-139 (without I-Key)
B2191: DIFFERENCE OF KEY	_	_	_	SEC-36 (with I- Key), SEC-142 (without I-Key)
B2192: ID DISCORD BCM-ECM	_	_	_	SEC-37 (with I- Key), SEC-143 (without I-Key)
B2193: CHAIN OF BCM-ECM	_	_	_	SEC-39 (with I- Key), SEC-145 (without I-Key)
B2552: INTELLIGENT KEY	_	_	_	SEC-41
B2590: NATS MALFUNCTION	_	_	_	SEC-42
C1708: [NO DATA] FL	_	_	_	<u>WT-14</u>
C1709: [NO DATA] FR	_	_	_	<u>WT-16</u>
C1710: [NO DATA] RR	_	_	_	<u>WT-16</u>
C1711: [NO DATA] RL	_	_	_	<u>WT-16</u>
C1712: [CHECKSUM ERR] FL	_	_	_	<u>WT-16</u>
C1713: [CHECKSUM ERR] FR	_	_	_	<u>WT-16</u>
C1714: [CHECKSUM ERR] RR	_	_	_	<u>WT-16</u>
C1715: [CHECKSUM ERR] RL	_	_	_	<u>WT-16</u>
C1716: [PRESSDATA ERR] FL	_	_	_	<u>WT-18</u>
C1717: [PRESSDATA ERR] FR	_	_	_	<u>WT-16</u>
C1718: [PRESSDATA ERR] RR	_	_	_	<u>WT-16</u>
C1719: [PRESSDATA ERR] RL	_	_	_	<u>WT-16</u>
C1720: [CODE ERR] FL	_	_	_	<u>WT-16</u>
C1721: [CODE ERR] FR		_	_	<u>WT-16</u>
C1722: [CODE ERR] RR	_	_	_	<u>WT-16</u>
C1723: [CODE ERR] RL	_	_	_	<u>WT-16</u>
C1724: [BATT VOLT LOW] FL	_	_	_	<u>WT-16</u>
C1725: [BATT VOLT LOW] FR	_	_	_	<u>WT-16</u>
C1726: [BATT VOLT LOW] RR	_	_	_	<u>WT-16</u>
C1727: [BATT VOLT LOW] RL	_	_	_	<u>WT-16</u>
C1729: VHCL SPEED SIG ERR	_	_	_	<u>WT-19</u>
C1735: IGN_CIRCUIT_OPEN	_	_	_	_

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# WIRING DIAGRAM

# INTERIOR ROOM LAMP CONTROL SYSTEM



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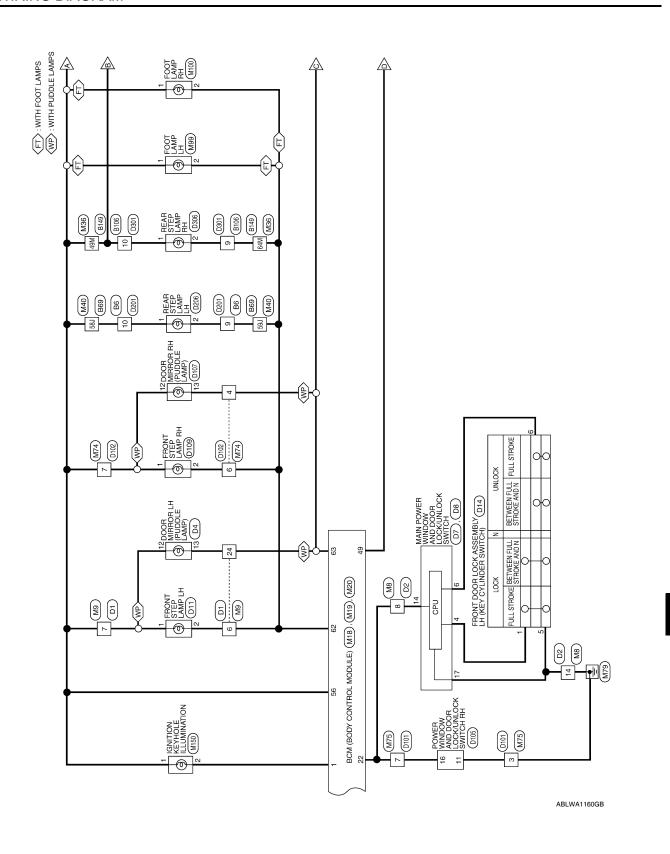
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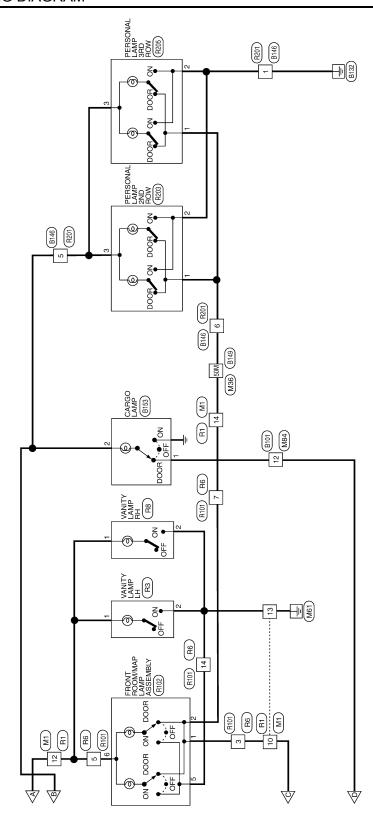
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### < WIRING DIAGRAM >

Connector Name FUSE BLOCK (J/B)

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Connector No.

Connector Color WHITE

# INTERIOR ROOM LAMP CONNECTORS

	E TO WIRE	11	12 11 10 9 8 8	Signal Name	ı	ı	ı	ı
Ξ	e WIR	or WHITE	7 6 5 4 16 15 14 13	Color of Wire	_	R/G	В	Œ
connector No.	Connector Name WIRE TO WIRE	Connector Color	H.S.	Terminal No. Wire	10	12	13	14
_					•	•	•	

	Т	]	
Signal Name	1		
Color of Wire	۵		
Terminal No. Wire	13P		
_ ⊢			
<u> </u>			
Signal Name	1		
	Y/R –		

	M12	Connector Name KEY SWITCH AND IGNITION	KNOB SWITCH
	Connector No. M12	Connector Name	
	M9	Connector Name WIRE TO WIRE	BROWN
	Connector No. M9	Connector Name	Connector Color BROWN
	M8	WIRE TO WIRE	WHITE
	Connector No. N	Connector Name WIRE TO W	Connector Color WHIT

Connector No.         M8         Connector No.         M9           Connector Name         WIRE TO WIRE         Connector Name         WIRE TO WIRE           Connector Color         WHITE         Connector Color         BROWN           Is a 14 is 12 it is 19 s   1 is 14 is 12 it is 19 s   1 is 14 is 12 it is 18 is 14 is 12 it is 14				]	Г
O WIRE Connector   Connector   Connector     1   1   1   1     1   1   1   1     1   1	M9	WIRE TO WIRE	BROWN	3 2 14 13	30
O WIR	Connector No.	Connector Name	Connector Color	S	Č
	Connector No. M8	Connector Name WIRE TO WIRE	Connector Color WHITE	S.	30,000

Connector Color GRAY

Color of Wire	Υ	B/R	
Terminal No.	3	4	
nal Name	I	ı	

Signal Name

Signal Name	Î	I	-
Color of Wire	R/W	R/G	Т
Terminal No.	9	7	24

Signal Name	ı	ı	
Color of Wire	N/M	В	
Terminal No.	8	14	

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۷	Connector No.	o. M18	88	Connector No.		M19		Co	Connector No.	M20	
	Connector Name		BCM (BODY CONTROL MODULE)	Connect	Connector Name	BCM (BOI MODULE)	BCM (BODY CONTROL MODULE)	Co	Connector Name		BCM (BODY CONTROL MODULE)
1	Connector Color	+	WHITE	Connect	Connector Color	WHITE		Co	Connector Color	+	OK
						1 1				56 57 58 56	56 57 58 59 60 61 62 63 64
		2 3 4 22 23 24	5 6 7 8 9 10 11 12 13 14 25 26 27 28 29 30 31 32 33 34	16 17 18 19 20 36 37 38 39 40	50	51 43 44 45	41 42 43 44 45 46 47 48 49 50 51 52 53 54 55	Y	⊒ نن	99 99	67 68 69 70
l				- Constant	Color of	ır of	O S S S S S S S S S S S S S S S S S S S	<u>;</u>	O OC	Color of	O Second
	Terminal No.	Color of Wire	of Signal Name	1 emilia 42			Signal Name			Wire	Signal Name
	-	BR/W	KEY RING OUTPUT	7-		+	BACK DOOR SW		oc .	5	DALIERT SAVER OUTPUT
	12	B/L	DOOR SW (AS)	47		0 60	DOOB SW (DB)			Y/R	BAT (FUSE)
-	13	GR	DOOR SW (RR)	48		_	DOOR SW (RL)			W/W	STEP LAMP OUTPUT
	22	N/N	ANTI-PINCH SERIAL	49	a	-	LUGGAGE LAMP		63		ROOM LAMP OUTPUT
	37	B/B	KEY SW		$\frac{1}{2}$	+	OUTPUT			W/B	GIND (POWER)
1	38	M/L	IGN SW							1	
	39	_	CAN-H								
	40	۵	CAN-L								
<u></u>	Connector No.	o. M27	75	Connector No.	or No.	M31		Ter	Terminal No.	Color of	Signal Name
	Connector Na	ame KE	Connector Name   KEY SWITCH AND KEY   LOCK SOLENOID	Connect	_	WIRE 1	ro wire			W/L	
10	Connector Color	olor	WHITE			M H H				M/B	1
J									30G	>	1
	H.S.	4	3 2 1	H.S.		56	3 4G 3G 2G 1G 3 9G 8G 7G 6G				
					21G 200	19G 18G	21G 20G 19G 18G 17G 16G 15G 14G 13G 12G 11G				
	Terminal No.	Color of Wire	f Signal Name		416 400	16 396 386	416 406 396 386 376 366 356 346 336 326 316				
	3	۵	ı		200	JG 49G 48G	50G 49G 48G 47G 46G 45G 44G 43G 42G				
	4	B/B	ı		619 600	06 596 586	61G 60G 59G 58G 57G 56G 55G 54G 53G 52G 51G				
					2	000000000	المرطامة مامخطامة مامخط				
						75(	75G 74G 73G 72G 71G 80G 79G 78G 77G 76G				
								=			

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### < WIRING DIAGRAM >

Connector No. M74  Connector Name WIRE TO WIRE  Connector Color BROWN	9 8 7 6 5 4 3 2 1 20 19 18 17 16 15 14 13 12 11 10	Terminal No. Wire Signal Name	6 R/W – 7 R/G –										
Connector No. M40 Connector Name WIRE TO WIRE Connector Color WHITE	5.0 4.0 3.0 2.1.0 10.0 9.1 8.0 7.1 6.1	211 201 162 1 163 1 163 1 164 1 153 144 1 153 152 1 164 1 153 1 154 1 153 1 154 1 153 1 154 1 153 1 154 1 15	(41) 440, 880, 881, 877, 861, 854, 831, 820, 871, 871, 861, 851, 854, 852, 851, 851, 851, 851, 851, 851, 851, 851	700 (890 (851) (85	Color of Signal Name			61J R/Y –					
Connector No. M36 Connector Name WIRE TO WIRE Connector Color WHITE		The   Town   T	50M 49M 49M 47M 46M 45M 44M 42M 42M 42M 62M 66M 65M 65M 65M 65M 65M 65M 65M 65M 65	75M 74M 73M 72M 71M 80M 75M 75M 75M	Terminal No. Wire Signal Name	_	55M GR	B/L	64M R/W –	65M R/B –	ABLIA2687	GB	

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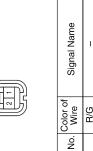
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### < WIRING DIAGRAM >









Sić		
Color of Wire	B/G	B/W
Terminal No.	1	2

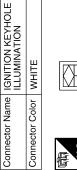








s RE TO WIRE	ITE	8 7 7 8 8 1	Signal Name	ı	ı
M75 me WIRE	lor WHITE	4 10 9	Color of Wire	В	NW
Connector No. M75 Connector Name WIRE TO WIRE	Connector Color	H.S.	Terminal No. Wire	ဧ	ı



M150

Connector No.

Connector No. M100

Connector Name Connector Color





Signal Name

BR/W

7



FOOT LAMP RH	
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Signal Name	1	1
Color of Wire	R/G	B/W
Terminal No.	-	2

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### < WIRING DIAGRAM >

				А
	rme		ame ame	В
TE TO WIRE	Signal Name	TE TO WIRE	Signal Name	С
10. B6 MRR 20lor WHR	Color of Wire B/W B/G	10. B43 Iame WIRE Color WHIT	Color of R/W	D
Connector Connector Children	Terminal No 9 9 10	Connector N Connector C Connector C	Terminal No	Е
				F
ame		11СН ГН	аше	G
Signal Ni		A DOOR SW	Signal N.	Н
S = N/B   N/B   >		o. B18 ame REAF olor WHIT	Color of R/Y	I
7G 7G 30G		Connector N Connector C Connector C H.S.	Terminal No	J
				K
20	100	SWITCH LH	lame	INL
TE TO WIRE TE TO WIRE 16 26 36 46 66 76 86 96 96 96 96 96 96 96 96 96 96 96 96 96	146   156   156   176   186   176   186   176   186   176   186   176   186   176   186   176   186   176   186   176   186   176   186   186   176   186   176   186   176	NT DOON S	Signal N	M
Name WIR Color WHI	116   126   136   226   236   136   226   236   136   226   236   136   226   236   136   226   236   136   226   236   136   226   236   136   236	No. B8 Color WHI	O. Color of SB SB	N
Connector Connector H.S.		Connector Connector Connector Connector H.S.	Terminal N. 2	0
			ABLIA0164GB	Р
Terminal No. Wire   Signal Name   Connector No. Wire   Signal Name   Connector No. Wire   Signal Name   Connector No.   Connector Color   TG   W/B   -   Connector Color   TG   TG   TG   TG   TG   TG   TG   T	FG   TG   RG   TG   T	nector No. B8 Connector No. B18 Connector No. B18 Connector No. B43 Connector No. B43 Connector Name REAR DOOR SWITCH LH Connector Color WHITE  Connector Color WHITE  S. A. A. Connector No. B43 Connector No. B4	Terminal No. Wire Signal Name Terminal No. Wire Signal Name Color of Signal Name Terminal No. Wire Ter	F G H N N

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Terminal No. Color of Signal Name 58J R/W - 60J SB - 61J R/Y -	Connector No. B108 Connector Name FRONT DOOR SWITCH RH Connector Color WHITE	Terminal No. Wire Signal Name
Connector No. B69 Connector Name WIRE TO WIRE Connector Color WHITE  1.1 21 31 41 51 E4 77 84 94 100  31.1 321 331 341 551 561 277 181 181 201 271  22.1 23.1 241 552 1851 271 381 381 401 411  42.1 43.1 441 451 461 477 481 481 501  51.1 321 331 341 451 551 561 571 581 581 501 101  51.1 321 331 341 451 551 561 571 581 591 501 101  51.1 321 331 341 451 551 561 571 581 591 501 101  52.1 321 331 341 451 551 561 571 581 591 501 101  51.1 321 331 341 451 551 561 571 581 591 501 101  51.1 321 331 341 451 551 561 571 581 591 501 170  77.1 722 733 741 773 781 781 801	Connector No. B106 Connector Name WIRE TO WIRE Connector Color WHITHE    10   10   10   10   11   11   12   11   11	Terminal No.   Color of   Signal Name   9   R/W   -
Connector No. B48  Connector Name WIRE TO WIRE  Connector Color WHITE  Terminal No. Color of Signal Name  14 B	Connector No. B101  Connector Name WIRE TO WIRE  Connector Color WHITE	Terminal No. Wire Signal Name

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### < WIRING DIAGRAM >

	А
Signal Name	В
B139   Sign	C
Connector No.   B139	E
	F
B116   Signal Name   Signal	G
Connector No. B116  Connector Name REAR DOOR SWITCH RH Connector Color WHITE  2 GR Signal Name  Connector No. B149  Connector No. B149  Connector Color WHITE  Connector Color WHITE  Connector Color WHITE  Connector Color WHITE  Connector Real Sam	Н
No.   B116	I
Connector No. Connector Name Connector Name Connector Name Connector Name Connector Name Connector Name Connector Color  ##\$    111   122   22   314   324	J
	K
No.   B111   Signal Name   NHITE   Signal Name   NHITE   Signal Name   NMR TO WIRE   NMR TO WIRE   NMR TO WIRE   Signal Name   NMR TO WIRE	INL
Connector No. B111  Connector Name WHE TO WIRE  Connector Color   WHITE    1 2 3	M
Connector No.   B11	N
	0
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### < WIRING DIAGRAM >

tor No.	٩	B153	Connector No. R1	B1	TO WIBE	Conne	Connector No.	R3	Connector No. R3	
tor Color	olor WHITE	TE ITE	Connector Color	olor WHITE		Conne	Connector Color	r WHITE	1. CAWIL CI.	
			H.S.	8 9 10 11	3	原引 H.S.		- 2	[	
No.	8≥	Signal	o N N	Color of Wire	Signal Name	Termin	lal No.	Color of Wire	Signal Name	
	R/G	1 1	12	L R/G	1 1	- 2		Б В В	1 1	
			13	m m	1 1					7
tor No.	o. R6		Connector No.	R8		Conne	Connector No.	R101		
tor N	ame WIR	tor Name WIRE TO WIRE	Connector Name VANITY LAMP RH	ıme VANI	TY LAMP RH	Conne	Connector Name	e WIRE	WIRE TO WIRE	
tor Color	olor WHITE	ITE	Connector Color	olor WHITE	щ	Conne	Connector Color	r WHITE	щ	
	7 6 5 4 6 6 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	13 12 11 10 9 8	H.S.	- 2		原 H.S.	<u>- ∞</u>	9 10	4 5 6 7 11 12 13 14 15 16	
al No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	lal No.	Color of Wire	Signal Name	
	_	1	-	R/G	ı	က		_	1	
	B/G	I	2	В	ı	5		R/G	I	
	ш	-				7		œ	1	
١.	В	_				14	_	В	ı	

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### < WIRING DIAGRAM >

		А
<u>e</u>	<u> </u>	В
PERSONAL LAMP 2ND ROW WHITE  Is a column of signal Name Red Signal Name	TO WIRE Signal Name	С
	Connector No. D2  Connector Name WIRE TO WIRE  Connector Color WHITE  MAS  Terminal No. Wire  8  LG/W  14  B	D
Connector No. Connector Color H.S.  Terminal No. Color  2 E E 2 E 3 P.	Connector No. Connector Name Connector Color H.S. H.S. 14	Е
		F
me	21 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	G
No. R201  Name WIRE TO WIRE  Color BROWN  11 10 9 8 7 6 5 4 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Н
No. R201  Vame WIRE TC  Color of B  R/G  RAG	Connector No. D1  Connector Name WIRE TO WIRE  Connector Color BROWN  Terminal No. Wire  6 R/W  7 R/G  24 L	I
Connector No. Connector Name Connector Color H.S. Terminal No. WW 6 F R	Connector No. Connector Name Connector Color H.S. Terminal No. W 6 R 7 F 7 F	J
		К
COM/MAP LAMP LY LY LY LY Signal Name DOOR BATT GND GND BAT	MP Name	INL
AAA AAAA AAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Connector No. R205  Connector Name PERSONAL LAMP 3RD ROW Connector Color WHITE  H.S. A Signal Name  1 R	M
	No. R205 Name PERSO Solor WHITE Color of B B B R/G	N
Connector No.  Connector Name Connector Color  H.S.  1 1 2 8 5 6 R.  Region 1	Connector No. Connector Name Connector Color H.S.  Terminal No. W	0

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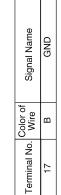
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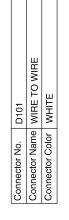
Revision: July 2010 INL-49 2011 Armada

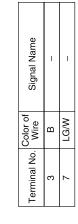
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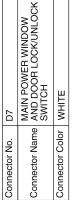


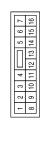
18 19	Signal Name	GND
11	Color of Wire	В
	al No.	

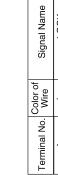






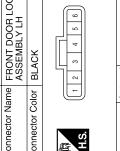




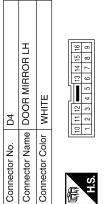


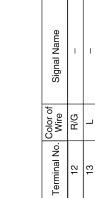
Signal Name	LOCK	UNLOCK	ANTI PINCH SERIAL LINK	
Color of Wire	٦	Œ	LG/W	
Terminal No. Wire	4	9	14	

D14	Connector Name FRONT DOOR LOCK ASSEMBLY LH	BLACK	
Connector No.	Connector Name	Connector Color BLACK	

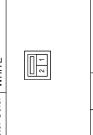


Signal Name	LOCK	GND	UNLOCK
Color of Wire	7	В	В
Terminal No.	-	2	9





Connector No. D11 Connector Name FRONT STEP LAMP LH Connector Color WHITE
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Signal Name	1	-	
Color of Wire	B/G	R/W	
Terminal No.	-	2	

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### < WIRING DIAGRAM >

			А
THE BUT	H	еш	В
DDOR MIRROR RH WHITE  WHITE  12   14   5   6   7   8   9    or of Signal Name  (G	Connector No. D206 Connector Name REAR STEP LAMP LH Connector Color WHITE	Signal Name	С
	No. D206 Vame REAR 6 Color WHITE	Color of Wire R/G R/W	D
Connector No. Connector Name Connector Color  H.S.  Terminal No. William 12 P.  13 II	Connector No. Connector Name Connector Color H.S.	Terminal No.	Е
			F
R WINDOW AND I LOCKUNLOCK CH RH SH 15 6 7 1 13 14 15 16 16 16 16 17 18 14 15 16 16 16 18 18 18 18 18 18 18 18 18 18 18 18 18	<u> </u>	ame	G
	Connector No. D201 Connector Name WIRE TO WIRE Connector Color WHITE	Signal Name	Н
	Connector No. D201 Connector Name WIRE T Connector Color WHITE	Color of Wire R/W R/G	I
Connector No.  Connector Name Connector Color H.S.  Terminal No. Color 11 16 LG	Connector Na. Connector Cold	Terminal No. 9	J
			К
3 WIRE 6 7 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	LAMP RH	Signal Name	INL
Connector No. D102 Connector Name WIRE TO WIRE Connector Color BROWN      2   4   5   6   7   18   14   15   16   17   18	Connector No. D109 Connector Name FRONT STEP LAMP Connector Color WHITE		M
Connector No. D102 Connector Name WIRE TC Connector Color BROWN  Terminal No. Wire  RW  RW  RW  RW  RW  RW  RW  RW  RW  R	or No. D1	Color of Wire R/G RAW	N
Connector Nan Connector Cold H.S. 10 Terminal No. C	Connector No. Connector Color Connector Color	Terminal No.	0

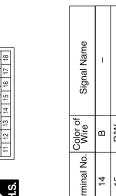
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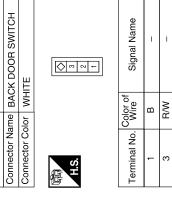
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5   6   7   8   9   10	Signal Name	I	1
1 2 3 4 5 11 12 13 13	Color of Wire	В	W.
H.S.	Terminal No.	14	7.





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Terminal No.	ŀ	7
Ф		

Connector No. Connector Name
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Signal Name	I	I
Color of Wire	В	W/A
Terminal No.	14	15

Connector No. D301 Connector Name WIRE TO WIRE Connector Color WHITE	D301 WIRE TO WIRE WHITE 3 4 5 6 7 8 9 10
Z III	12 13 14 15 16 17 18



Signal Name	ı	_
Color of Wire	R/W	R/G
Terminal No.	6	10

D405	WIRE TO WIRE	WHITE
Connector No.	Connector Name WIRE TO WIRE	Connector Color



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		А
e w		В
TO WIRE  E  Signal Name		С
Connector No. D606 Connector Name WIRE TO WIRE Connector Color WHITE  H.S. To S 4 TO S 2 TO S 3 2 TO S 3 4 TO S 3 5 TO S 3 TO		D
Connector No. Connector Name Connector Color Terminal No.  Terminal No.  To the state of the sta		Е
		F
Signal Name	Signal Name	G
		Н
or No. D600 or Name WIR or Color WHI    16   15   14   14   14   14   14   14   14	195 (5)	I
Connector No.  Connector Name Connector No.  Terminal No.  Connector No.  Connector No.	Connector Name Connector Color H.S.  Terminal No. Co	J
		K
Signal Name DOOR AJAR SW GND	Signal Name	INL
D503  BACK DOOF  WHITE  1	D/01   NIRE TO WIRE   NIRE TO WIRE   NIRE TO WIRE   NIRE   NIRE	М
ctor No.	Connector Name WIRE TO WIRE  Connector Color WHITE      2	N
Connec  Termin  Termin  Connec		IBLIA0172GB
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Revision: July 2010 INL-53 2011 Armada

BATTERY

**ILLUMINATION** Wiring Diagram INFOID:0000000006418446 (SPIRAL CABLE) (M30), (M102)\* FUSE BLOCK (J/B) (M4) 10A UNIFIED METER CONTROL UNIT (WITH INFORMATION DISPLAY) 10A METER ILLUMINATION IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E122), (E123) JOINT CONNECTOR-M31 E152 10A \*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION. W 20A 53 , M20 JOINT CONNECTOR-M10 (M175) 20A 52 BCM (BODY CONTROL MODULE) (M18), 1 2 3 4 5 6 7 10 9 COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)(M28) IGNITION SWITCH ON OR START 10A ILLUMINATION E152 50A

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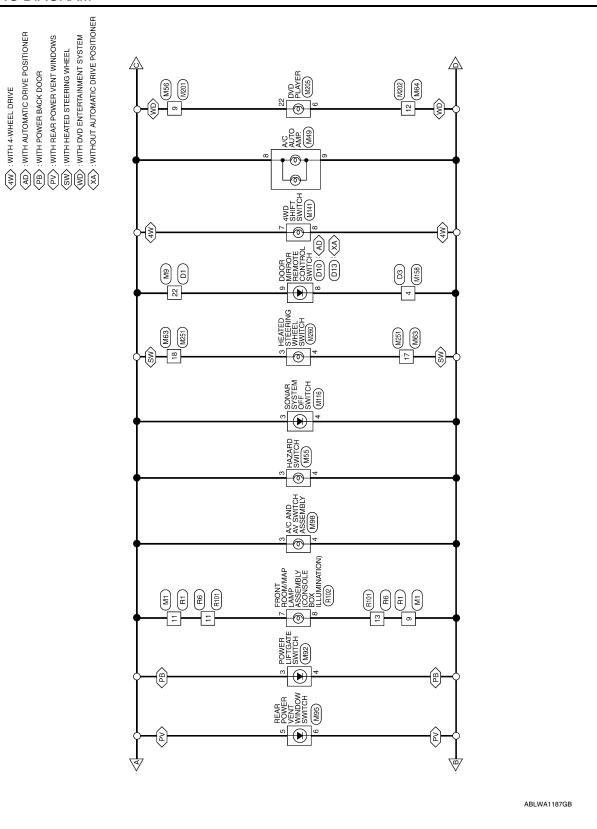
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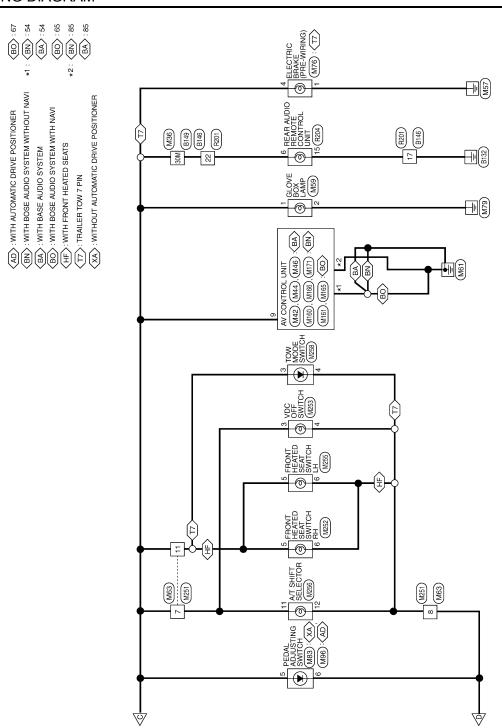
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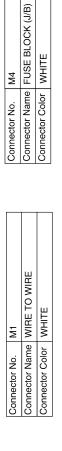
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Connector No. M9
Connector Name WIRE TO WIRE
Connector Color BROWN

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

Signal Name	-
Color of Wire	B/L
Terminal No.	22

Signal Name	I	I
Color of Wire	J/O	Ь
Terminal No.	5P	13P

Signal Name	I	ı
Color of Wire	BR	R/L
Terminal No.	6	11

Change		
	INIZO	
Connector Name	ne BCr MO	BCM (BODY CONTROL MODULE)
Connector Color	or BLACK	ÓK
H.S.	56 57 8	56 57 56 59 60 61 62 63 64 8 65 70 1
Terminal No.	Color of Wire	Signal Name
29	В	GND (POWER)
02	M/B	BAT (F/L)
70	M/B	B/

							_						_
Signal Name	INPUT 5	INPUT 4	INPUT 3	INPUT 2	INPUT 1	OUTPUT 5	OUTPUT 4	OUTPUT 3	OUTPUT 2	OUTPUT 1	MS NDI	CAN-H	CAN-L
Color of Wire	SB	G/Y	٨	G/B	^	R/G	R/Y	7	O/B	R/W	M/L	7	Ь
Terminal No.	2	3	4	5	9	32	33	34	35	36	38	39	40

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Revision: July 2010 INL-57 2011 Armada

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Connector No. M28 Connector Name COMBINATION SWITCH Connector Color WHITE	12 13 10 0 0 8 7 14 11 1 2 3 4 5 6	Color of Signal Name	R/W INPUT 1	O/B INPUT 2	L INPUT 3	R/Y INPUT 4	R/G INPUT 5	V OUTPUT 1	G/B OUTPUT 2	SB OUTPUT 5	G/Y OUTPUT 4	Y OUTPUT 3	Color of Signal Name	//M	W/B –	-	R/L –								
Connector No. Connector Name Connector Color	H.S.	Terminal No.	-	2	3	4	2	9	7	80	6	10	Terminal No.	76	10G	31G	37G	42G		Б					
Connector No. M24 Connector Name COMBINATION METER Connector Color WHITE	原 H.S.	20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 1 10 10 10 10 10 10 10 10 10 10 10 10	22 02 147 02 03 04 05 05 05 05 05 05 05 05 05 05 05 05 05	Color of	Terminal No. Wire Signal Name	8 P BATTERY	9 B GND	11 L CAN-H	12 P CAN-L	24 O/L RUN/START				a.	Connector Color WHITE		56 46	100 96 86 76 86	216 206 199 186 176 169 156 146 138 126 116	30G 29G 28G 27G 28G 28G 24G 23G 22G	416 406   396   376   366   356   336   336   316	50G 49G 47G 46G 45G 44G 43G 42G	616   600   590   590   570   580   540   530   520   510	756 746 736 736 776	800 730 786 776 766
Connector No. M23 Connector Name COMBINATION METER Connector Color WHITE	(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)		Color of	Terminal No. Wire Signal Name	50 BR ILL LED CON OUTPUT	52 B ILL GND							M30		Connector Color   GRAY		[24] 25 38 27	8		Color of Color Wire Signal Name	26 Y –	27 BR –		ABLIA	269165

Revision: July 2010 INL-58 2011 Armada

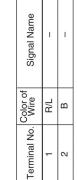
		А
MA4 AV CONTROL UNIT (WITH BASE AUDIO SYSTEM) WHITE  I do so	Signal Name	В
	M55 HAZARD WHITE Or of fire 3 1 2 4 SR	D
Connector No.  Connector Color  H.S.  Terminal No. W  54	Connector No. Connector Name Connector Color H.S.  Terminal No. W 3 F 4 E	E
		F
M42 AV CONTROL UNIT (WITH BASE AUDIO SYSTEM) WHITE  WHITE  To a signal Name  To Signal Name  L	M49  A/C AUTO AMP.  BLACK    0   0   0   7   0   18   17   16   15   4	G
		11
Connector No.  Connector Name Connector Color  H.S.  Terminal No.  9  R	Connector No.  Connector Name Connector Color  13 12 11  H.S.  R.S.  8  8  8  8  9  B	I
		J
WI W	H	K
SM   SM   SM   TM   SM   S	Name Name	INI
WIRE TO WIRE   WHITE   WHITE   SM   4M   3M   2M   1M   1M   2M   2M   2M   2M   2	M46 AV CONTROL UNIT ( BASE AUDIO SYSTE WHITE  WHO IS IN THE IN TH	M
WWIRI		
Stor Col Na No C		N
Connecte Con	Connel Connel Termin	0
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Connector Color BROWN	Connector Name WIRE TO WIRE	Connector No. M63
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5 6 7 8 9	10 11 12 13 14 15 16 17 18 19 20	Signal Name	1	1	-	1	
2 3 4	11 12 13 1	Color of Wire	R/L	BR	R/L	BR	Ε/Ι
1	H.S. 10	rerminal No.	7	8	11	17	18



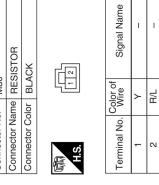




	E TO WIRE	TE TE	3	Signal Name	1
. M56	me WIF	lor WHITE	8 9 10 1	Color of Wire	B/L
Connector No.	Connector Name   WIRE TO WIRE	Connector Color	H.S.	Terminal No.	6







M76	Connector Name   ELECTRIC BRAKE   (PRE-WIRING)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	

ELECTRIC BRAKE (PRE-WIRING)	WHITE	2   3   4   5	r of Signal Name	GND	(TAIL)
			Color of Wire	В	R/L
Connector Name	Connector Color	呵呵 H.S.	Terminal No.	-	4

Connector No.	. M64	4
Connector Name WIRE TO WIRE	me WIF	RE TO WIRE
Connector Color		BROWN
斯 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3 4 5 13 14 15 16	1 2 3 4 5 6
Terminal No. Wire	Color of Wire	Signal Name
12	BB	1

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M83	Connector No.	M92	Connector No. M95	M95
PEDAL ADJUSTING SWITCH	Connector Nam	Connector Name POWER LIFTGATE SWITCH	Connector Name	Connector Name REAR POWER
DRIVE POSITIONER	Connector Color GRAY	r GRAY		VENT WINDOW SWITCH
DIMERCULATION			Connector Color   WHITE	WHITE
or BROWN				
	雪	6 5 4 3 2 1		\( \tau_0 \)
2 0 4	H.S.		A.S.	
Solor of Signal Name	Terminal No. Wire	color of Signal Name	Terminal No. Wire	or of Signal Name

Connector Color BROWN

Connector Name Connector No.

ෂ

2 9

ILL CONT GND

R/L BR

က 4

Color of Wire

Terminal No. 2 9

R/L BR

	M102	Connector Name COMBINATION SWITCH
	Connector No. M102	Connector Name
	M98	Connector Name A/C AND AV SWITCH
	Connector No. M98	Connector Name
	M96	PEDAL ADJUSTING SWITCH
	onnector No.	

Connector No.   M96	Connector Nam		Connector Color   BROWN	南 H.S.	Terminal No. Wire	5	9
96W	PEDA (WITF	2	or BRO	8       4       5       4	color of Wire	B/L	BB
	Sonnector Name (WITH AUTOMATIC DRIVE DOCUTIONED)	(אם אוסוו		3.0	Signal Name	ı	ı
Connector No.	Connector	Connector		所 H.S.	Terminal N	က	
No. M98	Name A/C ASS	Connector Color WHITE		4 60	Terminal No. Wire	R/L	aa
	Connector Name   A/C AND AV SWITCH   ASSEMBLY	<u>=</u>		6 8 10 112 14 16 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Signal Name	ILL	CIAC FIACO
Conn	Conn		4	দিন্দ্র H.S.	Term		
Connector No.	Connector Name COMB		_	<u></u>	Terminal No. Wire	18	21
M102	ie COMBI	5		14 15 16 17 18 19 20 21	olor of Wire	0	
	Connector Name COMBINATION SWITCH			19 20 21	Signal Name	1	1

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Connector No.   M158	Sonnector No. M141 Sonnector Name 4WD SHIFT SWITCH Sonnector Color GRAY
	GHAT
3	TIME THE DM
2	M141

RE TO WIRE	<u> </u>	2 1	Signal Name	-
me WIF	lor WH	10 9 8	Color of Wire	BR
Connector Name   WIRE TO WIRE	Connector Color WHITE	H.S.	Terminal No.	4

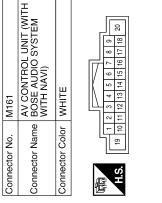
actor Nam		
	Connector Name 4WD SHIFT SWITCH	VITCH
Connector Color	GRAY	
	8 8 8	8 2
Terminal No.	Color of Signal	Signal Name
	R/L	1
	BR	1

SONAR SYSTEM OFF SWITCH	AY	4 3 2 1	Signal Name	-	-
SM	lor GRAY	9 2	Color of Wire	B/L	BR
Connector Name	Connector Color	南 H.S.	Terminal No.	3	4

M116

Connector No.

		ı		102 104			
22	Connector Name BOSE AUDIO SYSTEM WITH NAVI)	皿		66 68 70 72 74 76 78 80 82 84 86 89 90 92 94 96 98 100102109 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99 101103	Signal Name	GND	GND
M165	ne BOS	or WHITE		76 78 80 75 77 79	Color of Wire	В	В
Connector No.	Connector Nar	Connector Color	原南 H.S.	66 68 70 72 74 76 78 65 67 69 71 73 75 77	Terminal No.	<u> </u>	29



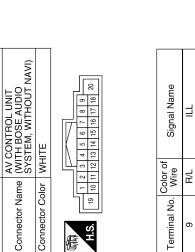
Signal Name

Color of Wire

Terminal No.

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M160

Connector No.

Connector No. Connector Name Connector Color		M166 AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM, WITHOUT NAVI)	Connector No. M171  AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM, WITHOUT NAVI)  Connector Color WHITE	Connector No. M175 Connector Name JOINT CONNECTOR-M10 Connector Color BLUE
H.S.	S, 91 90 89 88 87 86 85 84 107 106 106 104 103 102 101 100	84 83 82 81 80 79 78 77 76 100 99 98 97 96 95 94 93 92	H.S. (29 58 57 56 55 54 53 52 51 50 49 48	H.S. (20 19 18 17 16 15 14 13 12 11 10
Terminal No. 85	Color of B	Signal Name GND	Terminal No. Oolor of Signal Name  54 B GND	Color of Signal Name
Connector No. Connector Color		M176  JOINT CONNECTOR-M11  BLUE	ctor No. M201 ctor Name WIRE TO WIRE ctor Color WHITE	Connector No. M202  Connector Name WIRE TO WIRE  Connector Color BROWN  IT 10 9 8 7 6 5 4 3 2 1  A.S.  A.S.
Terminal No.	Color	Signal Name	Terminal No. Wire Signal Name	No.
- 2		1 1	9 R/L –	12 BR –
4	_	1		
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- 4	۵ ۵	I		
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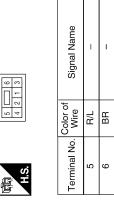
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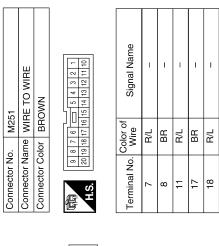
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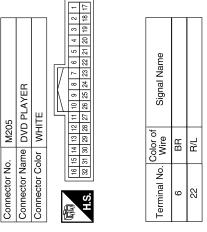
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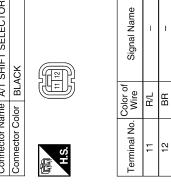
Connector No. M251	M251	Connector No. M252	M252
nnector Name	Connector Name WIRE TO WIRE	Connector Name	Connector Name FRONT HEATED SEAT
Connector Color   BROWN	BROWN		SWITCH RH
		Connector Color BROWN	BROWN
2 8 6	9 8 7 6 5 4 3 2 1		

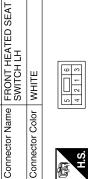




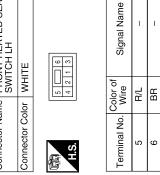


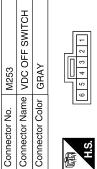


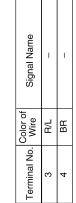




Connector No. M255







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. M25	me TOV		6 5 4 3 2	Color of Wire	B/L	BR	
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Connector No. B149 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. Connector Name Connector Color		R1 WIRE TO WIRE WHITE	Connector No. Connector Name Connector Color	ne WIRE TO WIRE	
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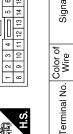
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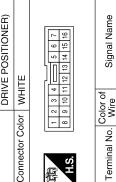




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(WITH AUTOMATIC DRIVE POSITIONER)	BROWN	2 3 4	Signal Name	1	
(W) Poor	nector Color BR		Color of Wire	BR	



D10	DOOR MIRROR REMOTI CONTROL SWITCH (WITH AUTOMATIC DRIV POSITIONER)	BROWN	3 4 5 6 7	of Signal Name	ı	1
		-	1 8 9 9	Color of Wire	BB	R/L
Connector No.	Connector Name	Connector Color	南 H.S.	Terminal No.	8	6

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### **INTERIOR LIGHTING SYSTEM SYMPTOMS**

< SYMPTOM DIAGNOSIS >

# 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  Personal lamp 2nd and 3rd row  Cargo room lamp  Front and rear step lamps  Vanity mirror lamps  Ignition keyhole illumination  Puddle lamps (if equipped)  Foot lamps (if equipped)	Harness between BCM and each interior room lamp     BCM	Battery saver output/power supply circuit Refer to INL-16.
Some or all of the following interior room lamps do not turn ON/OFF  Puddle lamps (if equipped)  Front room/map lamp assembly	Harness between BCM and each door switch     Harness between BCM and each	Door switch circuit Refer to <u>DLK-74</u> (with Intelligent Key) or <u>DLK-273</u> (without Intelligent Key).
<ul><li>Personal lamp 2nd row</li><li>Personal lamp 3rd row</li></ul>	interior room lamp • BCM	Interior room lamp control circuit Refer to INL-18.
Some or all of the following lamps do not turn ON/OFF  • Front step lamps  • Rear step lamps  • Foot lamps (if equipped)	Harness between BCM and step lamps and foot lamps     BCM	Step lamp circuit Refer to INL-21.
Cargo lamp does not turn ON/OFF	Harness between BCM and cargo lamp     BCM	Cargo lamp control circuit Refer to INL-23.
Ignition keyhole illumination does not turn ON/OFF	Harness between BCM and ignition keyhole illumination     BCM	Ignition keyhole illumination control circuit Refer to INL-25
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	_	Check the interior room lamp setting. Refer to BCS-18.
Interior room lamp battery saver does not activate.	_	Check the interior room lamp battery saver setting. Refer to BCS-18.

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# PRECAUTION

### **PRECAUTIONS**

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

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

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

### **WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

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### NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYS-TEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

### **OPERATION PROCEDURE**

1. Connect both battery cables.

### NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
- Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
- 4. Perform the necessary repair operation.

### **PRECAUTIONS**

### < PRECAUTION >

- 5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
- 6. Perform a self-diagnosis check of all control units using CONSULT-III.

Precaution for Work

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- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- · Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.
  - Then rub with a soft and dry cloth.
- Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.
  - Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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### **PREPARATION**

# < PREPARATION >

# **PREPARATION**

# **PREPARATION**

# Special Service Tool

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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
 ( J-46534 ) Trim tool set	AWJIA0483ZZ	For removing trim

# REMOVAL AND INSTALLATION

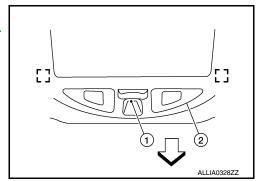
### INTERIOR ROOM LAMP

### Removal and Installation

### FRONT ROOM/MAP LAMP

The front room/map lamp assembly (2) and console illumination lamp (1) is replaced with the overhead console. Refer to <a href="INT-17">INT-17</a>. "Removal and Installation".

⟨□: Vehicle front



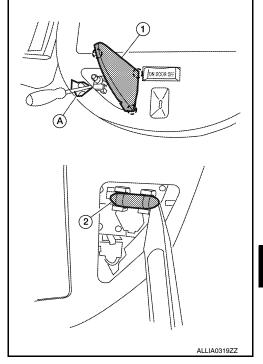
### **Bulb Replacement**

- Using a suitable tool (A), remove front room/map lamp lens (1).
   Pawl
- 2. Release one side of the bulb (2) from the tab, then pull straight downward to remove.

Front room/ : 12V - 8W map lamp bulb

### **CAUTION:**

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



### **VANITY MIRROR LAMP**

Removal

The vanity mirror lamp is replaced as part of the sunvisor assembly. Refer to <a href="INT-17">INT-17</a>, "Removal and Installation".

Installation

Installation is in the reverse order of removal.

**Bulb Replacement** 

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### **INTERIOR ROOM LAMP**

### < REMOVAL AND INSTALLATION >

1. Using a suitable tool (A), release the tabs and remove the vanity mirror lamp lens (1).

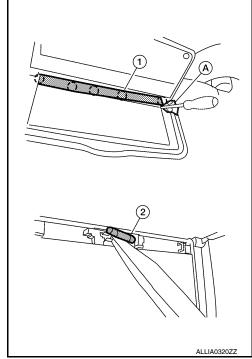
( ): Pawl

2. Release one side of the bulb (2) from the tab, then pull staight out to remove.

Vanity mirror lamp bulb : 12V - 1.8W

### **CAUTION:**

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



### **GLOVE BOX LAMP**

### Removal

- 1. Remove instrument lower panel RH and glove box. Refer to IP-18, "Removal and Installation".
- 2. Rotate glove box lamp socket and rotate counterclockwise to release from steering member.

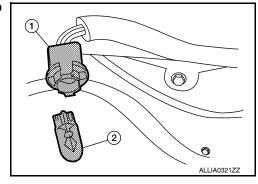
Installation

Installation is in the reverse order of removal.

### **Bulb Replacement**

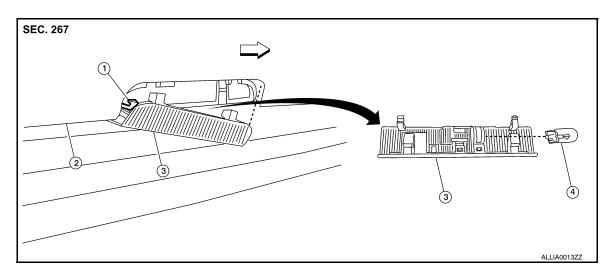
- 1. Remove instrument lower panel RH and glove box. Refer to IP-18, "Removal and Installation".
- 2. Pull bulb (2) straight out from glove box lamp socket (1) to remove.

Glove box lamp bulb : 12V - 3.4W



### STEP LAMP

Removal



- Step lamp connector
- Door finisher

3. Step lamp lens/socket

4. Step lamp bulb

- 1. Insert a suitable tool between door finisher and step lamp lens/socket to release the pawls.
- 2. Disconnect the step lamp connector, then remove step lamp.

### Installation

Installation is in the reverse order of removal.

### **Bulb Replacement**

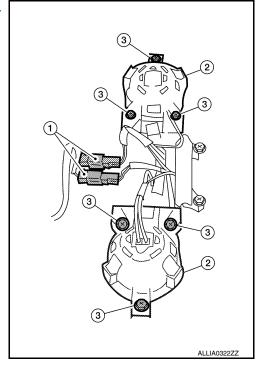
- 1. Remove the step lamp lens/socket.
- 2. Pull the bulb straight out to remove.

### Step lamp bulb : 12V - 3.8W

### PERSONAL LAMP

### Removal

- 1. Remove overhead console. Refer to <a href="INT-17">INT-17</a>, "Removal and <a href="Installation"</a>.
- 2. Remove personal lamp screws (3).
- 3. Disconnect personal lamp electrical connectors (1), then remove personal lamps (2) from overhead console.



Installation

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### INTERIOR ROOM LAMP

### < REMOVAL AND INSTALLATION >

Installation is in the reverse order of removal.

### **Bulb Replacement**

1. Using a suitable tool (A), release the pawls and remove personal lamp lens (1).

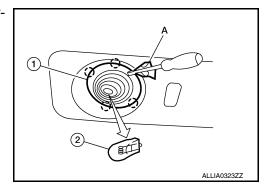
( ): Pawl

2. Pull bulb (2) straight out to remove.

Personal lamp bulb : 12V - 6W

### **CAUTION:**

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



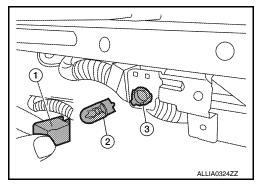
### **FOOT LAMP**

### Removal

Rotate foot lamp socket (3) counterclockwise to remove from bracket.

Bulb shield (1)

Bulb (2)



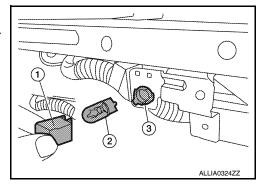
### Installation

Installation is in the reverse order of removal.

### **Bulb Replacement**

- 1. Release the pawls and remove bulb shield from bracket (1).
- 2. Pull bulb (2) straight out from foot (1) lamp socket (3) to remove.

Foot lamp bulb : 12V - 3.4W



### **ILLUMINATION**

### < REMOVAL AND INSTALLATION >

### **ILLUMINATION**

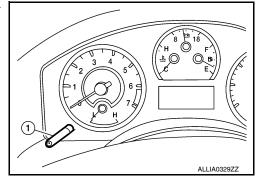
### Removal and Installation

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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 <a href="MWI-97">MWI-97</a>, "Removal and Installation".



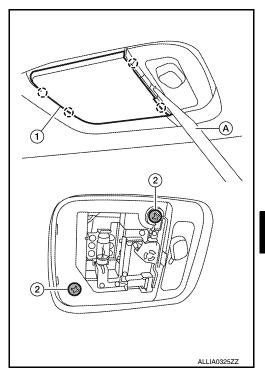
### Installation

Installation is in the reverse order of removal.

### **CARGO LAMP**

### Removal

- 1. Using a suitable tool (A), release the pawls and remove the cargo lamp lens (1).
  - ( ): Pawl
- 2. Remove cargo lamp screws (2).
- 3. Disconnect the connector, then remove cargo lamp.



### Installation

Installation is in the reverse order of removal.

**Bulb Replacement** 

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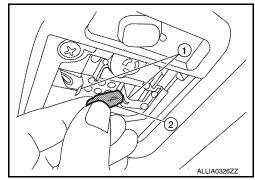
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### **ILLUMINATION**

### < REMOVAL AND INSTALLATION >

- 1. Using a suitable tool, release the pawls and remove the cargo lamp lens.
- 2. Release the cargo lamp bulb retainers (1), then pull bulb (2) straight out to remove.

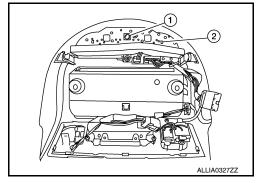
Cargo lamp bulb : 12V - 8W



### **CONSOLE ILLUMINATION LAMP**

### **Bulb Replacement**

- 1. Remove overhead console. Refer to INT-17, "Removal and Installation".
- 2. Rotate console illumination lamp bulb (1) counterclockwise, then pull straight out away from front room/map lamp assembly (2) to remove.



### **BULB SPECIFICATIONS**

< SERVICE DATA AND SPECIFICATIONS (SDS)

# SERVICE DATA AND SPECIFICATIONS (SDS)

# **BULB SPECIFICATIONS**

# Interior Lamp/Illumination

INFOID:0000000006145523

Item	Wattage (W)*
Front room/map lamp	8
Vanity mirror lamp	1.8
Glove box lamp	3.4
Step lamp	3.8
Personal lamp	6
Foot lamp (if equipped)	3.4
Cargo lamp	8

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

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