

SECTION **INL**

INTERIOR LIGHTING SYSTEM

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

CONTENTS

<p>BASIC INSPECTION 3</p> <p>DIAGNOSIS AND REPAIR WORKFLOW 3</p> <p style="padding-left: 20px;">Work Flow3</p> <p>SYSTEM DESCRIPTION 6</p> <p>INTERIOR ROOM LAMP CONTROL SYSTEM</p> <p style="text-align: right; padding-right: 20px;">..... 6</p> <p style="padding-left: 20px;">System Diagram6</p> <p style="padding-left: 20px;">System Description6</p> <p style="padding-left: 20px;">Component Parts Location7</p> <p style="padding-left: 20px;">Component Description8</p> <p>ILLUMINATION CONTROL SYSTEM 9</p> <p style="padding-left: 20px;">System Diagram9</p> <p style="padding-left: 20px;">System Description9</p> <p style="padding-left: 20px;">Component Parts Location10</p> <p style="padding-left: 20px;">Component Description10</p> <p>DIAGNOSIS SYSTEM (BCM)11</p> <p>COMMON ITEM11</p> <p style="padding-left: 20px;">COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)11</p> <p>INT LAMP12</p> <p style="padding-left: 20px;">INT LAMP : CONSULT Function (BCM - INT LAMP)12</p> <p>BATTERY SAVER13</p> <p style="padding-left: 20px;">BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)13</p> <p>DTC/CIRCUIT DIAGNOSIS14</p> <p>POWER SUPPLY AND GROUND CIRCUIT14</p> <p>BCM14</p> <p style="padding-left: 20px;">BCM : Diagnosis Procedure14</p> <p>BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT16</p>	<p style="padding-left: 20px;">Description16</p> <p style="padding-left: 20px;">Component Function Check16</p> <p style="padding-left: 20px;">Diagnosis Procedure16</p> <p>INTERIOR ROOM LAMP CONTROL CIRCUIT18</p> <p style="text-align: right; padding-right: 20px;">.....18</p> <p style="padding-left: 20px;">Description18</p> <p style="padding-left: 20px;">Component Function Check18</p> <p style="padding-left: 20px;">Diagnosis Procedure18</p> <p>CARGO LAMP CONTROL CIRCUIT20</p> <p style="padding-left: 20px;">Description20</p> <p style="padding-left: 20px;">Component Function Check20</p> <p style="padding-left: 20px;">Diagnosis Procedure20</p> <p>IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT22</p> <p style="padding-left: 20px;">Description22</p> <p style="padding-left: 20px;">Component Function Check22</p> <p style="padding-left: 20px;">Diagnosis Procedure22</p> <p>ECU DIAGNOSIS INFORMATION24</p> <p>BCM (BODY CONTROL MODULE)24</p> <p style="padding-left: 20px;">Reference Value24</p> <p style="padding-left: 20px;">Terminal Layout27</p> <p style="padding-left: 20px;">Physical Values27</p> <p style="padding-left: 20px;">Fail Safe32</p> <p style="padding-left: 20px;">DTC Inspection Priority Chart32</p> <p style="padding-left: 20px;">DTC Index33</p> <p>WIRING DIAGRAM35</p> <p>INTERIOR ROOM LAMP35</p> <p style="padding-left: 20px;">Wiring Diagram35</p> <p>ILLUMINATION46</p> <p style="padding-left: 20px;">Wiring Diagram46</p> <p>SYMPTOM DIAGNOSIS58</p> <p>INTERIOR LIGHTING SYSTEM SYMPTOMS ...58</p>
---	---

Symptom Table	58	Special Service Tool	61
PRECAUTION	59	REMOVAL AND INSTALLATION	62
PRECAUTIONS	59	INTERIOR ROOM LAMP	62
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"	59	Removal and Installation	62
Precaution Necessary for Steering Wheel Rota- tion After Battery Disconnect	59	ILLUMINATION	66
Precaution for Work	60	Removal and Installation	66
PREPARATION	61	SERVICE DATA AND SPECIFICATIONS (SDS)	68
PREPARATION	61	BULB SPECIFICATIONS	68
		Interior Lamp/Illumination	68

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

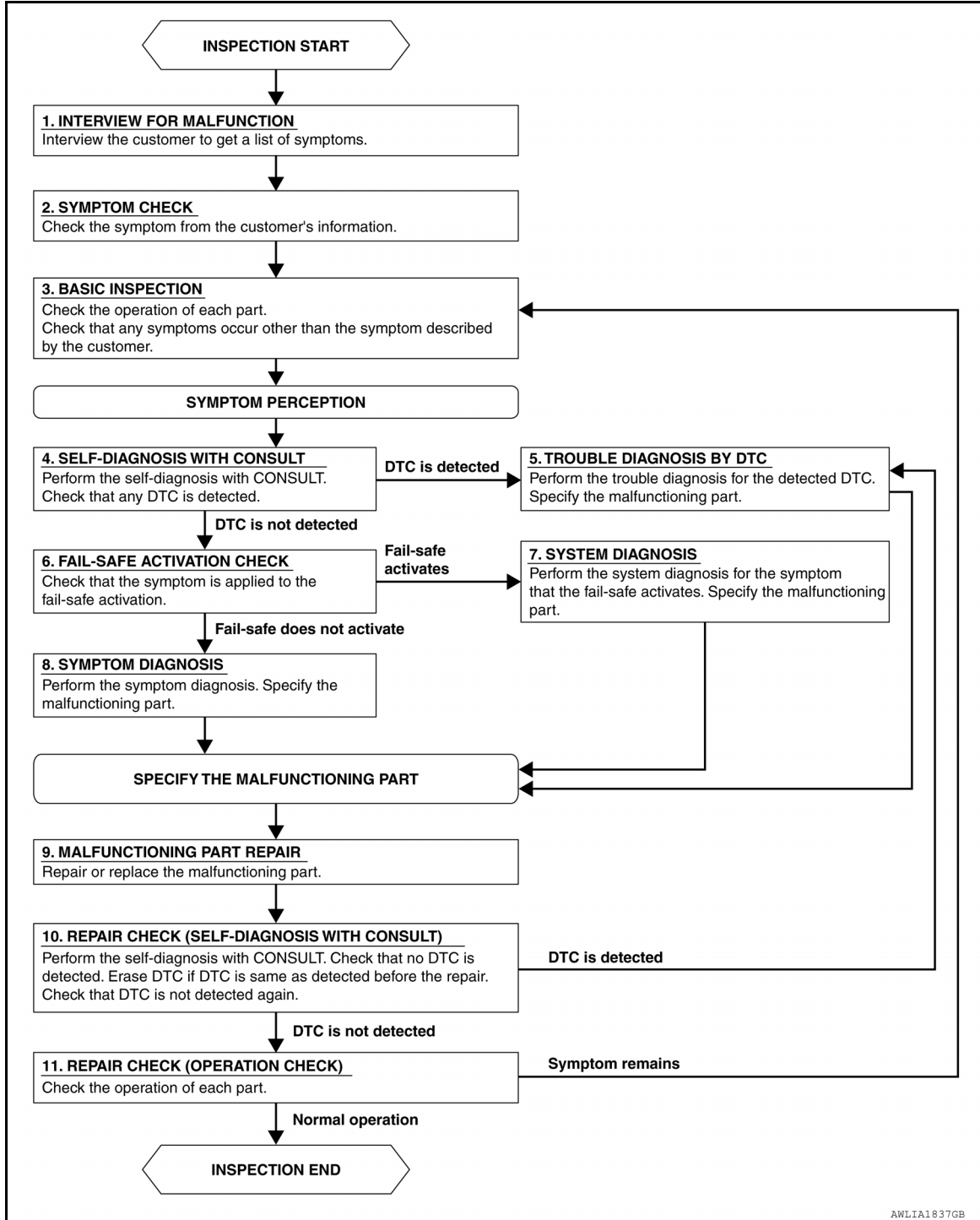
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007355217

OVERALL SEQUENCE



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

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

Perform the self-diagnosis with CONSULT. 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 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)

Perform the self-diagnosis with CONSULT. Verify 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

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

P

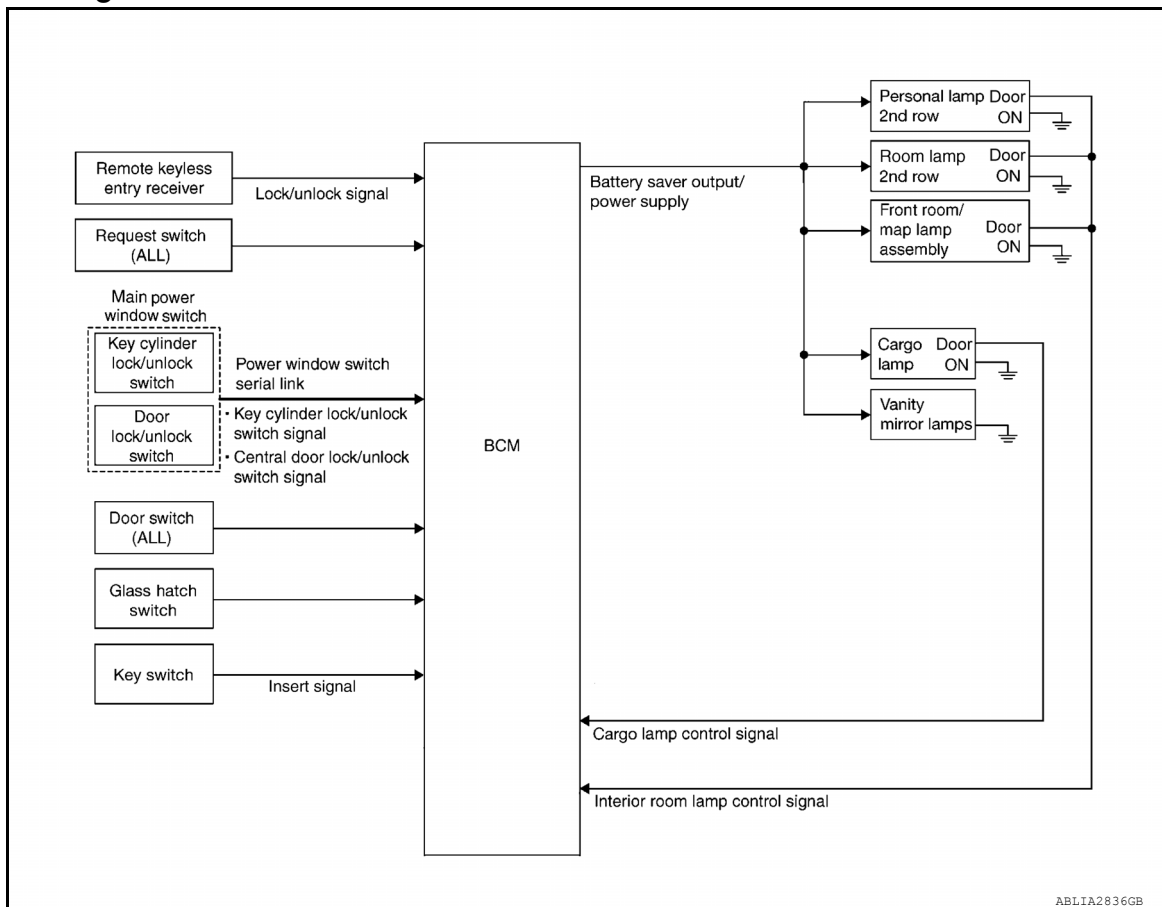
INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



System Description

INFOID:000000007355219

OUTLINE

- Interior room lamps* are controlled by the interior room lamp timer control function of the BCM.
*Front room/map lamp, personal lamp 2nd row (with personal lamp 2nd row) or room lamp 2nd row (without personal lamp 2nd row).
 - Cargo lamp is controlled by the cargo lamp control function of the BCM.
- The timer control functions of the BCM activate based on inputs from the remote keyless entry receiver, the key cylinder lock/unlock switch, the door switches, the key switch (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, main power window and door lock/unlock switch, or front door lock assembly LH (key cylinder switch)].
- When a door opens → closes and the Intelligent Key is not inserted in the key slot.

Timer control is cancelled under the following conditions.

- When the front door LH is locked [with 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).
- Intelligent Key is inserted into the key slot.

Interior lamp operational settings can be changed with the CONSULT.

INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

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 (early production) or 10 minutes (late production) after the ignition switch is turned OFF.

The BCM controls power and ground to all interior lamps.

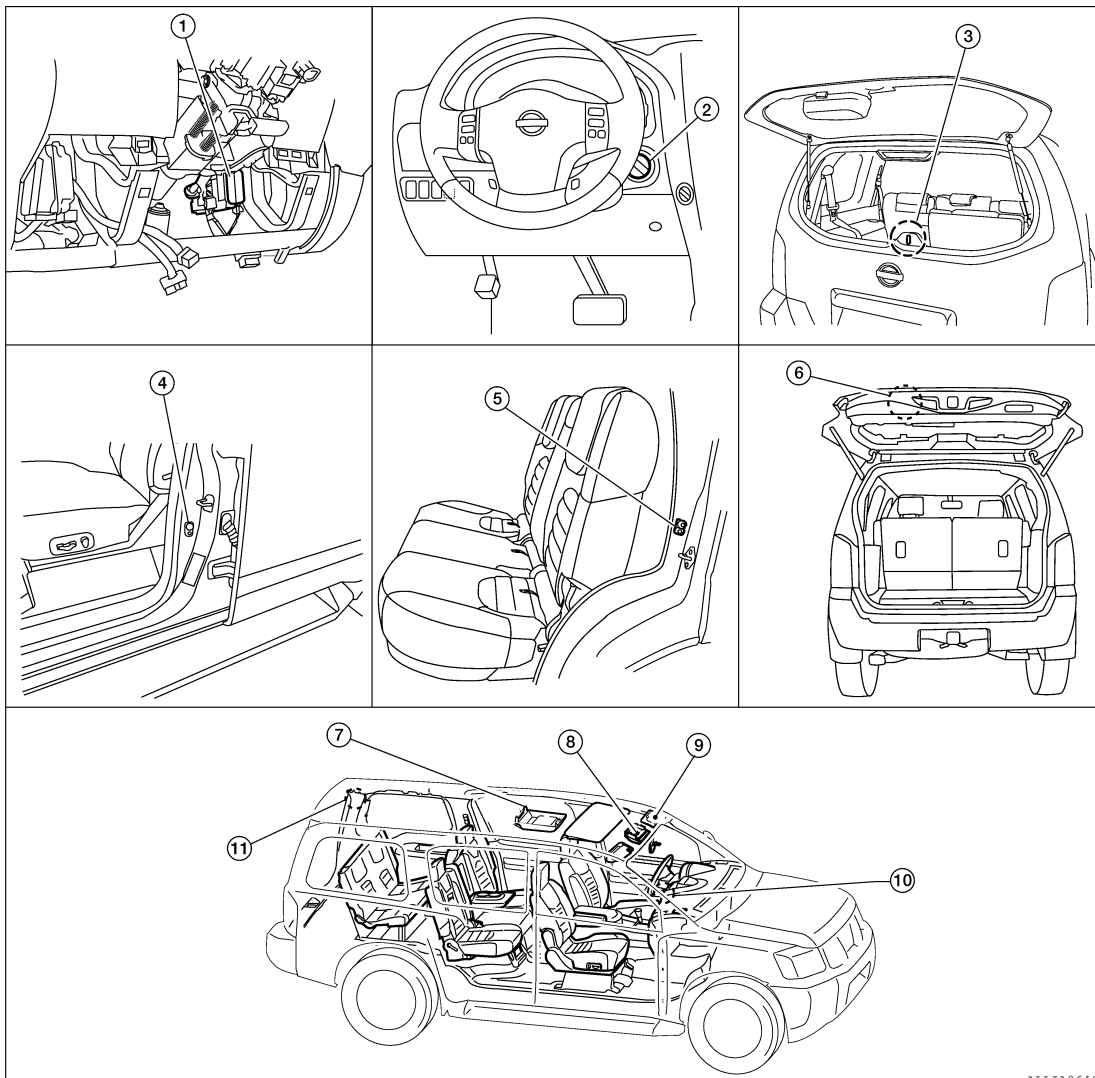
After the battery saver system turns the lamps OFF, the lamps will illuminate again when

- a signal is received from an Intelligent Key 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 Intelligent Key is removed from or inserted into the key slot.

The Interior lamp battery saver control time period can be changed with the CONSULT.

Component Parts Location

INFOID:000000007355220



- | | | |
|---|---|--|
| 1. BCM M18, M19, M20 (view with instrument panel removed) | 2. Key switch and ignition knob switch (with Intelligent Key) M66
Key switch (without Intelligent Key) M27 | 3. Glass hatch ajar switch D503 |
| 4. Front door switch LH B8
Front door switch RH B108 | 5. Rear door switch LH B18
Rear door switch RH B116 | 6. Back door latch (door ajar switch) D502 |

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

INL

INTERIOR ROOM LAMP CONTROL SYSTEM

< SYSTEM DESCRIPTION >

- | | | |
|--|------------------------------------|---|
| 7. Personal lamp 2nd row (with personal lamp 2nd row) R10
Room lamp 2nd row (without personal lamp 2nd row) R12 | 8. Front room/map lamp assembly R9 | 9. Vanity lamp LH (with vanity lamps) B80
Vanity lamp RH (with vanity lamps) B81 |
| 10. Ignition keyhole illumination M150 | 11. Cargo lamp R11 | |

Component Description

INFOID:000000007355221

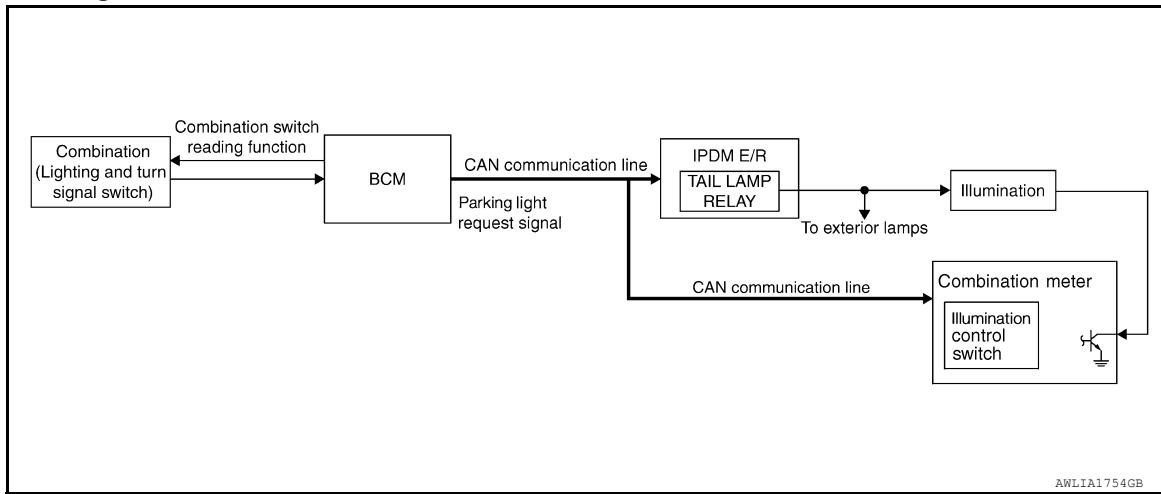
Part name	Description
BCM	Provides power and ground and controls timer functions for the interior room lamps and cargo lamp.
Key switch and ignition knob switch (with Intelligent Key)	Provides key in ignition status to the BCM.
Key switch (without Intelligent Key)	
Door switches	Provides door OPEN/CLOSED status to the BCM.
Glass hatch ajar switch	Provides glass hatch OPEN/CLOSED status to the BCM.
Back door latch (door ajar switch)	Provides back door OPEN/CLOSED status to the BCM.
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	Provides door lock/unlock position switch LH status to the BCM.
Front door lock assembly LH (key cylinder switch)	

ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

ILLUMINATION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000007355223

The illumination lamps operation is dependent upon the position of the lighting switch (combination switch). When the lighting switch is placed in the 1ST or 2ND position (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 lighting switch (combination switch) is in the 1ST or 2ND position and the ignition switch is turned from ON or ACC to OFF, the battery saver control feature is activated. Under this condition, the illumination lamps remain illuminated for 15 minutes (early production) or 10 minutes (late production) unless the lighting switch position is changed. If the lighting switch position is changed, then the illumination lamps are turned off after a 30 second delay. When the lighting switch is turned from OFF to 1ST or 2ND position (or if auto light system is activated) after illumination lamps have been turned off by the battery saver control, the illumination lamps illuminate again.

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

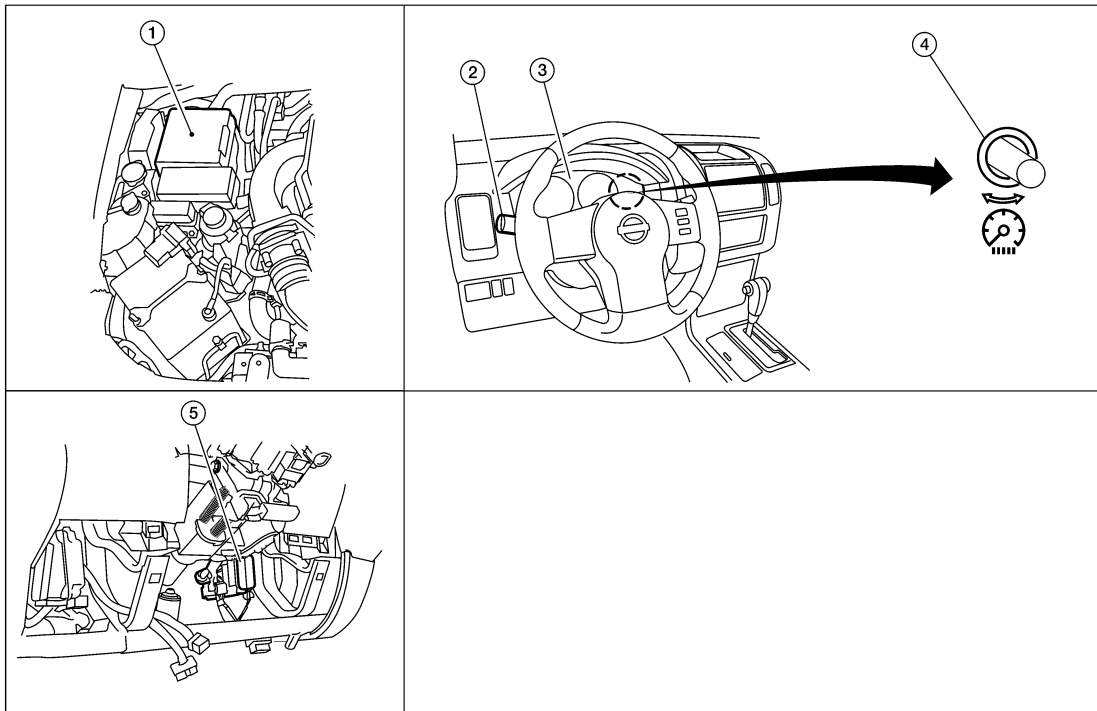
INL

ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000007355224



WKIA4973E

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

Component Description

INFOID:000000007355225

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 Function (BCM - COMMON ITEM)

INFOID:000000007830014

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
Ecu Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul style="list-style-type: none"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:000000007830015

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.

* : with Intelligent Key

** : without Intelligent Key

ACTIVE TEST

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

WORK SUPPORT

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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

* : Initial setting

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:000000007830016

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.

* : with Intelligent Key

** : without Intelligent Key

ACTIVE TEST

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

WORK SUPPORT

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

*: Initial setting

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000007830017

Regarding Wiring Diagram information, refer to [BCS-46, "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	Battery power supply	21 (10A)
70		G (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	1 (10A)

Is the fuse blown?

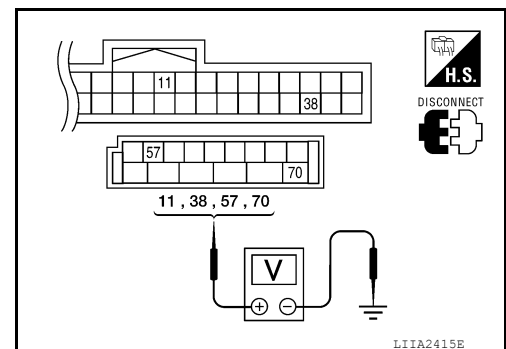
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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

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



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

POWER SUPPLY AND GROUND CIRCUIT

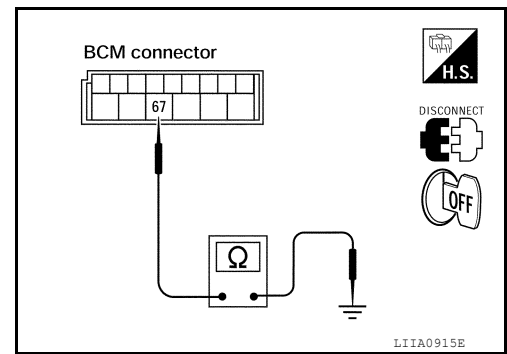
< DTC/CIRCUIT DIAGNOSIS >

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	67		Yes

Does continuity exist?

- YES >> Inspection End.
- NO >> Repair or replace harness.



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

INL

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

Description

INFOID:000000007355230

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:000000007355231

1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY FUNCTION

Ⓟ WITH CONSULT

1. Turn ignition switch ON.
2. Turn each interior room lamp ON.
 - Front room/map lamp assembly
 - Vanity lamps (if equipped)
 - Cargo lamp
 - Personal lamp 2nd row (with personal lamp 2nd row)
 - Room lamp 2nd row (without personal lamp 2nd row)
3. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
4. 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:000000007355232

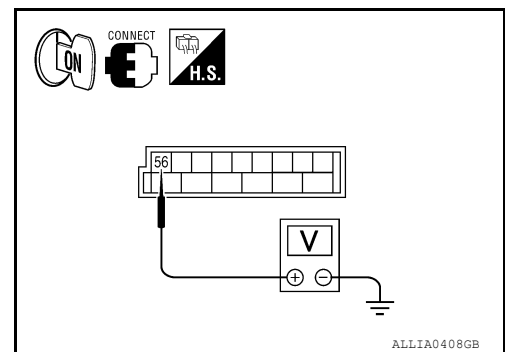
Regarding Wiring Diagram information, refer to [BCS-46. "Wiring Diagram"](#).

1. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OUTPUT

Ⓟ WITH CONSULT

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

(+)		(-)	Test item	Voltage
Connector	Terminal		BATTERY SAVER	
M20	56	Ground	OFF	0V
			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-53. "Removal and Installation"](#).

2. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the following connectors.
 - BCM M20
 - Ignition keyhole illumination
 - Front room/map lamp assembly

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- Vanity lamp LH (if equipped)
 - Vanity lamp RH (if equipped)
 - Cargo lamp
 - Personal lamp 2nd row (with personal lamp 2nd row)
 - Room lamp 2nd row (without personal lamp 2nd row)
3. Check continuity between BCM connector and each interior room lamp connector.

BCM		Each interior room lamp			Continuity
Connector	Terminal	Connector		Terminal	
M20	56	Ignition keyhole illumination	M150	1	Yes
		Front room/map lamp assembly	R9	1	
		Vanity lamp LH (if equipped)	B80	1	
		Vanity lamp RH (if equipped)	B81	1	
		Cargo lamp	R11	2	
		Personal lamp 2nd row (with personal lamp 2nd row)	R10	1	
		Room lamp 2nd row (without personal lamp 2nd row)	R12	2	

Is the inspection result normal?

- YES >> GO TO 3
- NO >> Repair the harness or connectors.

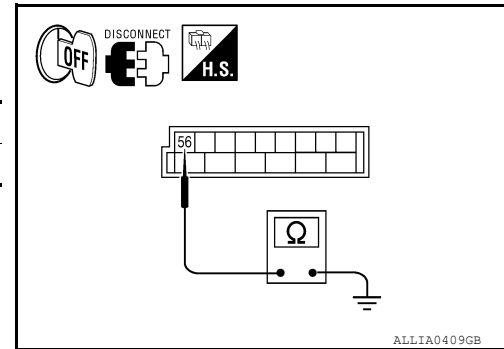
3. CHECK BATTERY SAVER OUTPUT/POWER SUPPLY SHORT CIRCUIT

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.



A
B
C
D
E
F
G
H
I
J
K

INL

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description

INFOID:000000007355233

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

- Front room/map lamp assembly
- Personal lamp 2nd row (with personal lamp 2nd row)
- Room lamp 2nd row (without personal lamp 2nd row)

NOTE:

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

Component Function Check

INFOID:000000007355234

CAUTION:

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

- Battery saver output/power supply
- Front room/map lamp bulbs
- Personal lamp 2nd row bulbs (with personal lamp 2nd row)
- Room lamp 2nd row bulbs (without personal lamp 2nd row)

1. CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

Ⓢ WITH CONSULT

1. Switch the map lamp switch to DOOR.
2. Turn ignition switch ON.
3. Select "INT LAMP" of BCM (INT LAMP) active test item.
4. 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 [INL-18, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000007355235

Regarding Wiring Diagram information, refer to [INL-35, "Wiring Diagram"](#).

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

Ⓢ WITH CONSULT

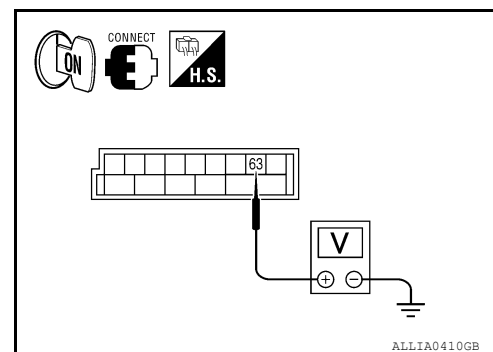
1. Turn ignition switch ON.
2. Select "INT LAMP" of BCM (INT LAMP) active test item.
3. While operating the test item, check voltage between BCM harness connector M20 terminal 63 and ground.

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

Is the inspection result normal?

- YES >> Interior room lamp control circuit is operating normally.
Fixed ON>>GO TO 3
Fixed OFF>> GO TO 2

2. CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT



INTERIOR ROOM LAMP CONTROL CIRCUIT

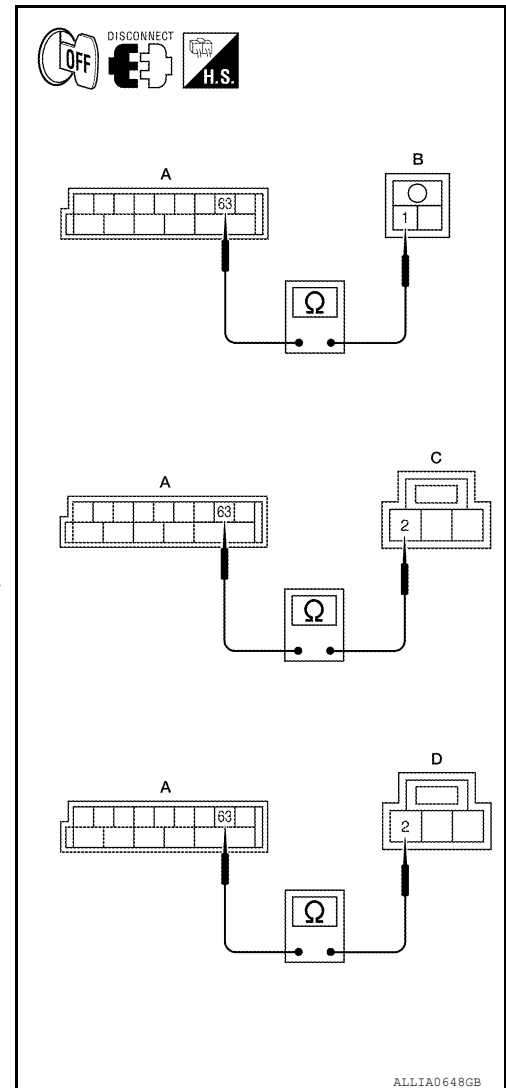
< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect BCM connector M20, personal lamp 2nd row connector (with personal lamp 2nd row) or room lamp 2nd row connector (without personal lamp 2nd row) and front room/map lamp connector.
3. Check continuity between BCM connector M20 (A) terminal 63 and interior room lamp connectors.

BCM		Interior room lamp			Continuity
connector	Terminal	Component	Connector	Terminal	
M20 (A)	63	Room lamp 2nd row (without personal lamp 2nd row)	R12 (B)	1	Yes
		Personal lamp 2nd row (with personal lamp 2nd row)	R10 (C)	2	
		Front room/map lamp	R9 (D)	2	

Is the inspection result normal?

- YES >> Check interior room lamps for an open. If OK, replace BCM. Refer to [BCS-53. "Removal and Installation"](#). If NG, replace interior room lamp. Refer to [INL-62. "Removal and Installation"](#).
- NO >> Repair the harness or connectors.



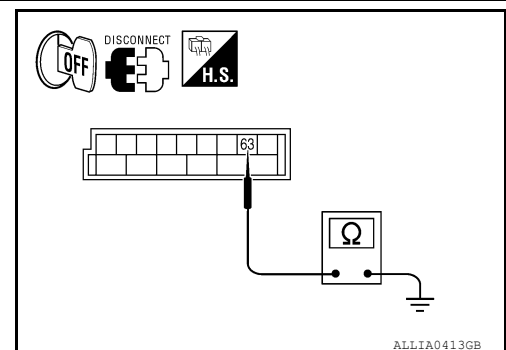
3. CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector M20, personal lamps 2nd row connector (with personal lamp 2nd row) or room lamp 2nd row connector (without personal lamp 2nd row).
3. Check continuity between BCM connector M20 terminal 63 and ground.

Connector	Terminal	—	Continuity
M20	63	Ground	No

Is the inspection result normal?

- YES >> Check interior room lamps for a short circuit. If OK, replace BCM. Refer to [BCS-53. "Removal and Installation"](#). If NG, replace interior room lamp. Refer to [INL-62. "Removal and Installation"](#).
- NO >> Repair the harness or connectors.



CARGO LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

CARGO LAMP CONTROL CIRCUIT

Description

INFOID:000000007355236

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

Component Function Check

INFOID:000000007355237

CAUTION:

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

- Battery saver output/power supply
- Cargo lamp bulb

1.CHECK CARGO LAMP OPERATION

Ⓜ WITH CONSULT

1. Turn ignition switch ON.
2. Select "LUGGAGE LAMP TEST" of BCM (INT LAMP) active test item.
3. 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-20, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000007355238

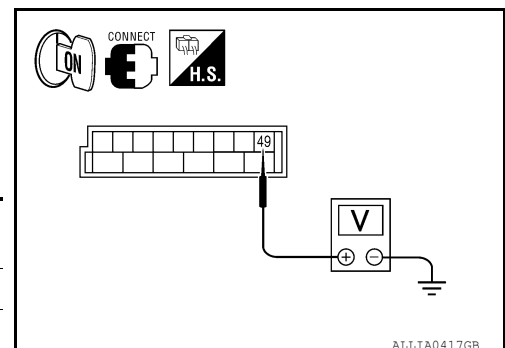
Regarding Wiring Diagram information, refer to [INL-35, "Wiring Diagram"](#).

1.CHECK CARGO LAMP OUTPUT

Ⓜ WITH CONSULT

1. Turn ignition switch ON.
2. 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	Ground	ON	0V
			OFF	Battery voltage



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

CARGO LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect BCM connector M19 and cargo lamp connector.
3. Check continuity between BCM connector M19 (A) terminal 49 and cargo lamp connector R11 (B) terminal 1.

BCM		Cargo lamp		Continuity
Connector	Terminal	Connector	Terminal	
M19 (A)	49	R11 (B)	1	Yes

Is the inspection result normal?

- YES >> Check cargo lamp for an open. If OK, replace BCM. Refer to [BCS-53, "Removal and Installation"](#). If NG, replace cargo lamp. Refer to [INL-66, "Removal and Installation"](#).
- NO >> Repair harness or connectors.

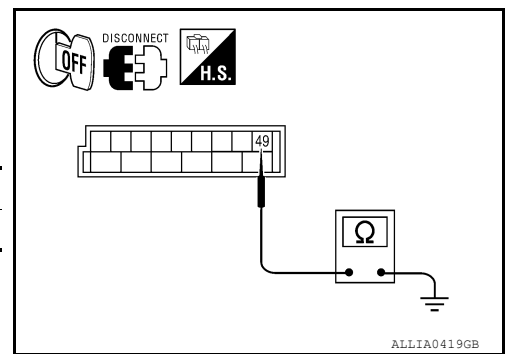
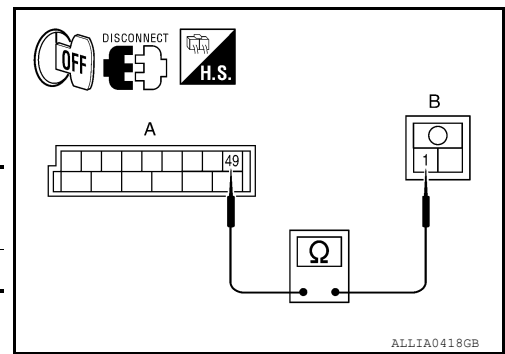
3. CHECK CARGO LAMP SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector M19 and cargo lamp connector.
3. 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-53, "Removal and Installation"](#). If NG, replace cargo lamp. Refer to [INL-66, "Removal and Installation"](#).
- NO >> Repair harness or connectors.



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

INL

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

Description

INFOID:000000007355239

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

Component Function Check

INFOID:000000007355240

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

WITH CONSULT

1. Turn ignition switch ON.
2. Select "IGN ILLUM" of BCM (INT LAMP) active test item.
3. 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-22, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000007355241

Regarding Wiring Diagram information, refer to [INL-35, "Wiring Diagram"](#).

1.CHECK IGNITION KEYHOLE OUTPUT

WITH CONSULT

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

Connector	Terminal	—	IGN ILLUM	Voltage
M18	1	Ground	ON	0V
			OFF	Battery voltage

Is the inspection result normal?

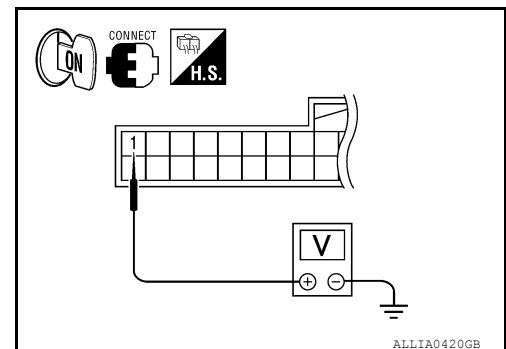
- YES >> Ignition keyhole illumination is operating normally.
 Fixed ON>>GO TO 3
 Fixed OFF>>GO TO 2

2.CHECK IGNITION KEYHOLE ILLUMINATION OPEN CIRCUIT

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

BCM		Ignition keyhole illumination		Continuity
Connector	Terminal	Connector	Terminal	
M18 (A)	1	M150 (B)	2	Yes

Is the inspection result normal?



IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- YES >> Check ignition keyhole illumination for an open. If OK, replace BCM. Refer to [BCS-53. "Removal and Installation"](#). If NG, replace ignition keyhole illumination.
- NO >> Repair harness or connectors.

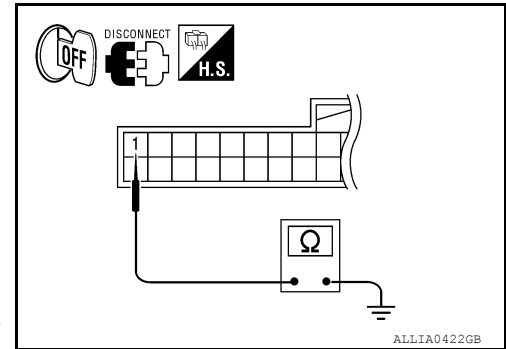
3. CHECK IGNITION KEYHOLE ILLUMINATION SHORT CIRCUIT

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 ignition keyhole illumination for a short circuit. If OK, replace BCM. Refer to [BCS-53. "Removal and Installation"](#). If NG, replace ignition keyhole illumination.
- NO >> Repair harness or connectors.



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

INL

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000007830018

NOTE:

The Signal Tech II Tool (J-50190) can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF or ON	Off
	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
BRAKE SW	Brake pedal released	Off
	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
	Buzzer in combination meter ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
	Front door RH opened	On
DOOR SW-DR	Front door LH closed	Off
	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
	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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
FR FOG SW	Front fog lamp switch OFF	Off	A
	Front fog lamp switch ON	On	
FR WASHER SW	Front washer switch OFF	Off	B
	Front washer switch ON	On	
FR WIPER LOW	Front wiper switch OFF	Off	C
	Front wiper switch LO	On	
FR WIPER HI	Front wiper switch OFF	Off	D
	Front wiper switch HI	On	
FR WIPER INT	Front wiper switch OFF	Off	E
	Front wiper switch INT	On	
FR WIPER STOP	Any position other than front wiper stop position	Off	
	Front wiper stop position	On	
HAZARD SW	When hazard switch is not pressed	Off	F
	When hazard switch is pressed	On	
HEAD LAMP SW 1	Headlamp switch OFF	Off	G
	Headlamp switch 1st	On	
HEAD LAMP SW 2	Headlamp switch OFF	Off	H
	Headlamp switch 1st	On	
HI BEAM SW	High beam switch OFF	Off	I
	High beam switch HI	On	
ID REGST FL1	ID registration of front left tire incomplete	YET	J
	ID registration of front left tire complete	DONE	
ID REGST FR1	ID registration of front right tire incomplete	YET	K
	ID registration of front right tire complete	DONE	
ID REGST RL1	ID registration of rear left tire incomplete	YET	
	ID registration of rear left tire complete	DONE	
ID REGST RR1	ID registration of rear right tire incomplete	YET	
	ID registration of rear right tire complete	DONE	
IGN ON SW	Ignition switch OFF or ACC	Off	INL
	Ignition switch ON	On	
IGN SW CAN	Ignition switch OFF or ACC	Off	M
	Ignition switch ON	On	
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	N
I-KEY LOCK ¹	LOCK button of Intelligent Key is not pressed	Off	O
	LOCK button of Intelligent Key is pressed	On	
I-KEY PANIC ¹	PANIC button of Intelligent Key is not pressed	Off	P
	PANIC button of Intelligent Key is pressed	On	
I-KEY PW DWN ¹	UNLOCK button of Intelligent Key is not pressed	Off	
	UNLOCK button of Intelligent Key is pressed for greater than 3 seconds and driver's window operating in DOWN direction	On	
I-KEY UNLOCK ¹	UNLOCK button of Intelligent Key is not pressed	Off	
	UNLOCK button of Intelligent Key is pressed	On	
KEY CYL LK-SW	Door key cylinder LOCK position	Off	
	Door key cylinder other than LOCK position	On	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off
	Door key cylinder other than UNLOCK position	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
KEYLESS LOCK ²	LOCK button of key fob is not pressed	Off
	LOCK button of key fob is pressed	On
KEYLESS PANIC ²	PANIC button of key fob is not pressed	Off
	PANIC button of key fob is pressed	On
KEYLESS UNLOCK ²	UNLOCK button of key fob is not pressed	Off
	UNLOCK button of key fob is pressed	On
LIGHT SW 1ST	Lighting switch OFF	Off
	Lighting switch 1st	On
OIL PRESS SW	<ul style="list-style-type: none"> • Ignition switch OFF or ACC • Engine running 	Off
	Ignition switch ON	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5V
	Dark outside of the vehicle	Close to 0V
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
PUSH SW ¹	Return to ignition switch to LOCK position	Off
	Press ignition switch	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
WARNING LAMP	Low tire pressure warning lamp in combination meter OFF	Off
	Low tire pressure warning lamp in combination meter ON	On

1: With Intelligent Key

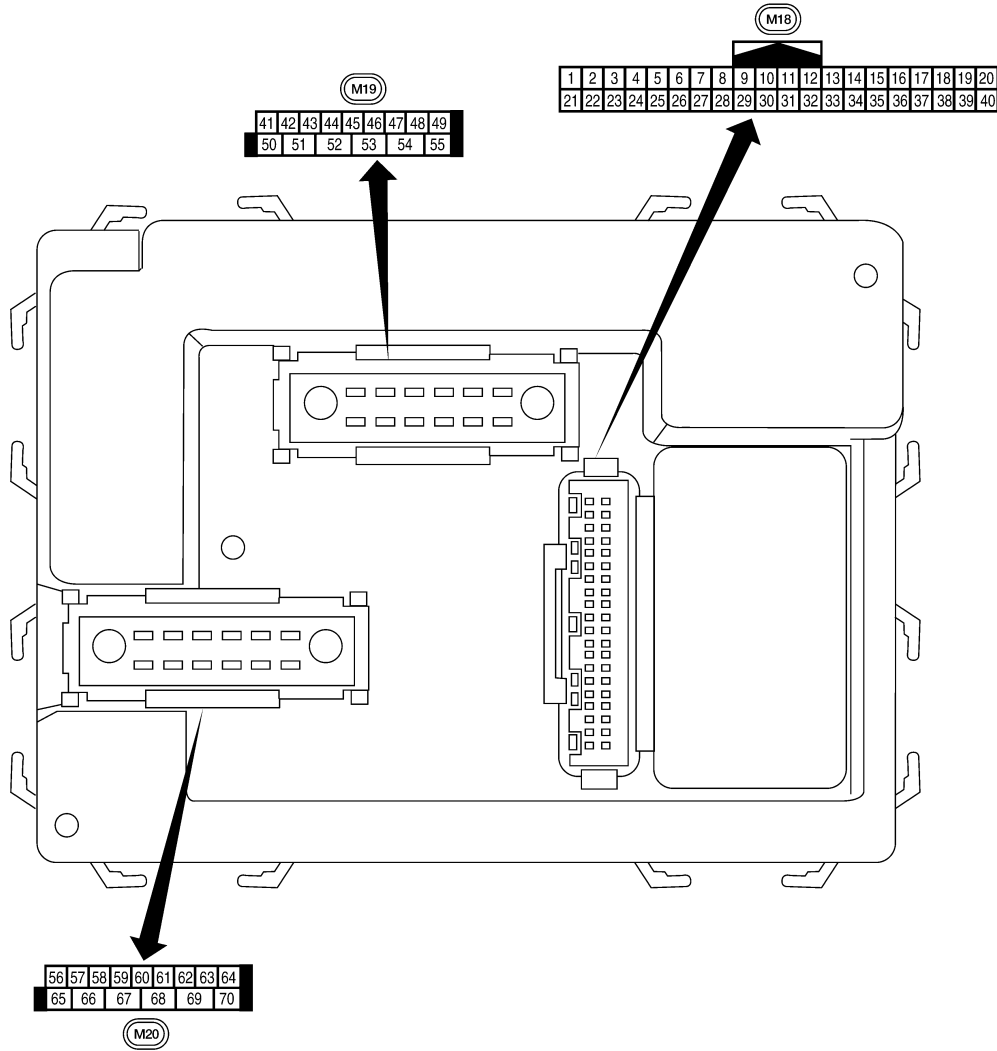
2: With remote keyless entry system

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal Layout

INFOID:000000007830019



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

INL


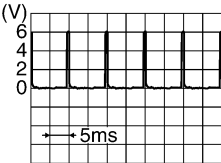

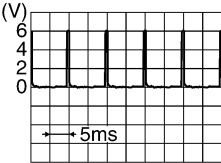
Physical Values

LIIA2443E

INFOID:000000007830020

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
1	BR	Ignition keyhole illumination	Output	OFF	Door is locked (SW OFF)	Battery voltage
					Door is unlocked (SW ON)	0V
2	P	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5291E
5	L	Combination switch input 2	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	 SKIA5292E
6	R	Combination switch input 1				
9	Y	Rear window defogger switch	Input	ON	Rear window defogger switch ON	0V
					Rear window defogger switch OFF	5V
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	LG	Front door switch RH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
13	L	Rear door switch RH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
15	W	Tire pressure warning check connector	Input	OFF	—	5V
18	BR	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	—	0V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

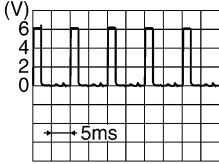

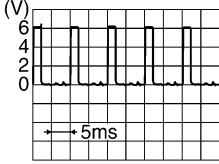
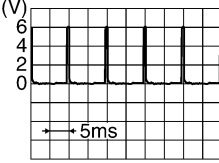
Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
19	V	Remote keyless entry receiver (power supply)	Output	OFF	Ignition switch OFF	<p style="text-align: right; font-size: small;">LIIA1893E</p>
20	G	Remote keyless entry receiver (signal)	Input	OFF	Stand-by (keyfob buttons released)	<p style="text-align: right; font-size: small;">LIIA1894E</p>
					When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	<p style="text-align: right; font-size: small;">LIIA1895E</p>
21	GR	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	V	BUS	—	—	Ignition switch ON or power window timer operates	<p style="text-align: right; font-size: small;">PIIA2344E</p>
23	G	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.
27	W	Compressor ON signal	Input	ON	A/C switch OFF	5V
					A/C switch ON	0V
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage
					Front blower motor ON	0V
29	G	Hazard switch	Input	OFF	ON	0V
					OFF	5V
30 ¹	G	Back door opener switch	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
30 ²	SB	Back door opener switch	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage

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

INL

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
32	O	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right; font-size: small;">SKIA5291E</p>
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right; font-size: small;">SKIA5292E</p>
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right; font-size: small;">SKIA5291E</p>
35	BR	Combination switch output 2	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	 <p style="text-align: right; font-size: small;">SKIA5292E</p>
36	LG	Combination switch output 1				
37 ¹	B	Key switch and key lock solenoid	Input	OFF	Key inserted	Battery voltage
					Key inserted	0V
37 ²	B	Key switch and ignition knob switch	Input	OFF	Intelligent Key inserted	Battery voltage
					Intelligent Key inserted	0V
38	W/R	Ignition switch (ON)	Input	ON	—	Battery voltage
39	L	CAN-H	—	—	—	—
40	P	CAN-L	—	—	—	—
42	LG	Glass hatch ajar switch	Input	ON	Glass hatch open	0V
					Glass hatch closed	Battery voltage
43	P	Back door latch switch	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage

BCM (BODY CONTROL MODULE)

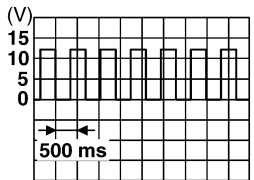
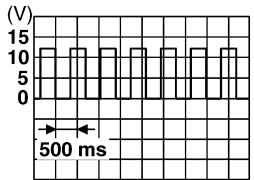
< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
44	O	Rear wiper auto stop switch	Input	ON	Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	Battery voltage
					Forward sweep (counterclockwise direction)	Fluctuating
					B Position (full counterclockwise stop position)	0V
					Reverse sweep (clockwise direction)	Fluctuating
47	GR	Front door switch LH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
48	P	Rear door switch LH	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
49	L	Cargo lamp	Output	OFF	Any door open (ON)	0V
					All doors closed (OFF)	Battery voltage
51	O	Trailer turn signal (right)	Output	ON	Turn right ON	<p style="text-align: right; font-size: small;">SKIA3009J</p>
52	LG	Trailer turn signal (left)	Output	ON	Turn left ON	<p style="text-align: right; font-size: small;">SKIA3009J</p>
53	L	Back door latch actuator	Output	OFF	OFF	0
					ON	Battery voltage
55	W	Rear wiper output circuit 1	Output	ON	OFF	0
					ON	Battery voltage
56	R/Y	Battery saver output	Output	OFF	15 minutes (early production) or 10 minutes (late production) after ignition switch is turned OFF	0V
				ON	—	Battery voltage
57	R/Y	Battery power supply	Input	OFF	—	Battery voltage
58	W	Optical sensor	Input	ON	When optical sensor is illuminated	3.1V or more
					When optical sensor is not illuminated	0.6V or less
59	GR	Front door lock assembly LH actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
60	LG	Turn signal (left)	Output	ON	Turn left ON	 SKIA3009J
61	G	Turn signal (right)	Output	ON	Turn right ON	 SKIA3009J
63	BR	Interior room/map lamp	Output	OFF	Any door switch ON (open)	0V
					OFF (closed)	Battery voltage
65	V	All door lock actuators (lock)	Output	OFF	OFF (neutral)	0V
					ON (lock)	Battery voltage
66	L	Front door lock actuator RH, rear door lock actuators LH/RH and glass hatch lock actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
67	B	Ground	Input	ON	—	0V
68	W/R	Power window power supply (RAP)	Output	—	Ignition switch ON	Battery voltage
					Within 45 seconds after ignition switch OFF	Battery voltage
					More than 45 seconds after ignition switch OFF	0V
					When front door LH or RH is open or power window timer operates	0V
69	L	Power window power supply	Output	—	—	Battery voltage
70	W	Battery power supply	Input	OFF	—	Battery voltage

1: With remote keyless entry system

2: With Intelligent Key system

Fail Safe

INFOID:000000007830021

Fail-safe index

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:000000007830022

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
1	• U1000: CAN COMM CIRCUIT	A
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	B C
3	• C1729: VHCL SPEED SIG ERR • C1735: IGNITION SIGNAL	D
4	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL	E F G H I J

DTC Index

INFOID:000000007830023

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	Low tire pressure warning lamp ON	Reference page
No DTC is detected. Further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	X	—	—	BCS-29
B2013: STRG COMM 1	—	—	—	SEC-30
B2190: NATS ANTENNA AMP	—	—	—	SEC-33 (with I-Key) SEC-132 (without I-Key)
B2191: DIFFERENCE OF KEY	—	—	—	SEC-36 (with I-Key) SEC-135 (without I-Key)

BCM (BODY CONTROL MODULE)

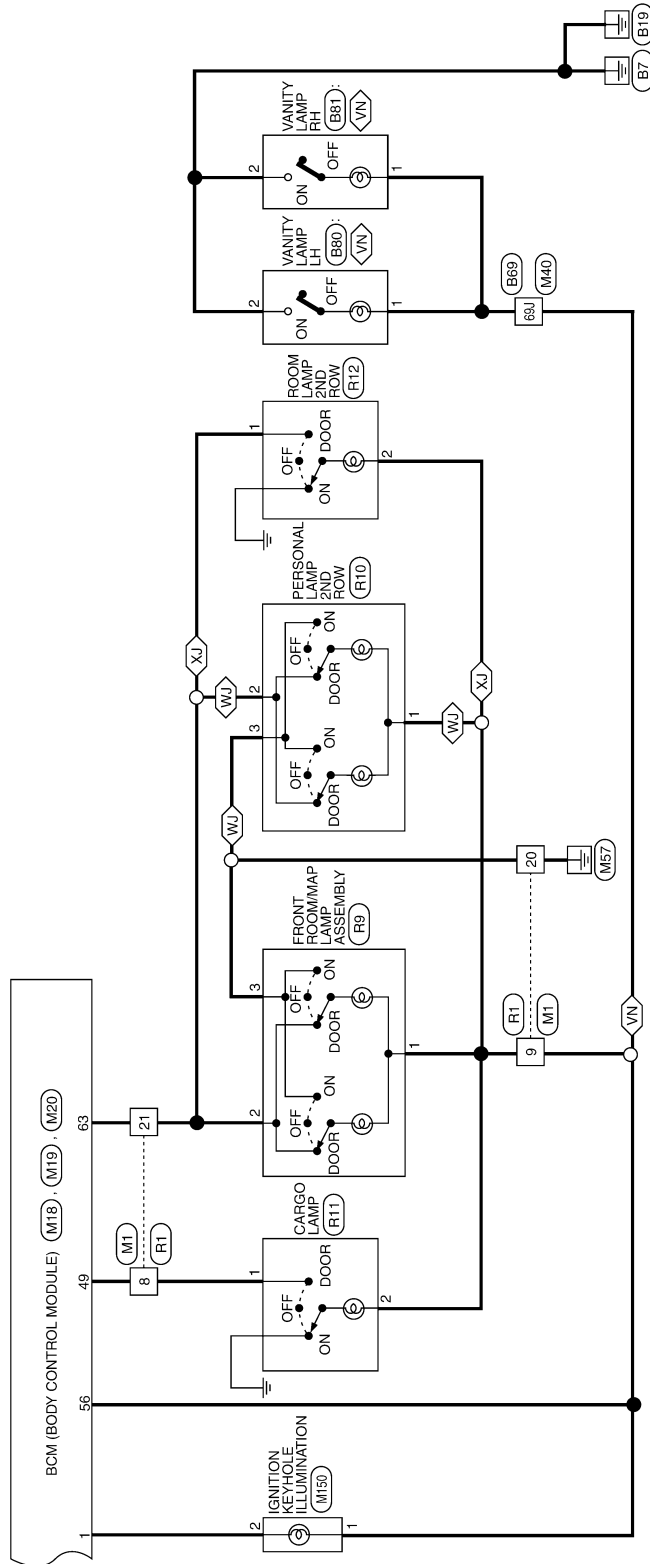
< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Low tire pressure warning lamp ON	Reference page
B2192: ID DISCORD BCM-ECM	—	—	—	SEC-37 (with I-Key) SEC-136 (without I-Key)
B2193: CHAIN OF BCM-ECM	—	—	—	SEC-39 (with I-Key) SEC-138 (without I-Key)
B2552: INTELLIGENT KEY	—	—	—	SEC-41
B2590: NATS MALFUNCTION	—	—	—	SEC-42
C1708: [NO DATA] FL	—	—	X	WT-14
C1709: [NO DATA] FR	—	—	X	WT-14
C1710: [NO DATA] RR	—	—	X	WT-14
C1711: [NO DATA] RL	—	—	X	WT-14
C1712: [CHECKSUM ERR] FL	—	—	X	WT-16
C1713: [CHECKSUM ERR] FR	—	—	X	WT-16
C1714: [CHECKSUM ERR] RR	—	—	X	WT-16
C1715: [CHECKSUM ERR] RL	—	—	X	WT-16
C1716: [PRESSDATA ERR] FL	—	—	X	WT-18
C1717: [PRESSDATA ERR] FR	—	—	X	WT-18
C1718: [PRESSDATA ERR] RR	—	—	X	WT-18
C1719: [PRESSDATA ERR] RL	—	—	X	WT-18
C1720: [CODE ERR] FL	—	—	X	WT-16
C1721: [CODE ERR] FR	—	—	X	WT-16
C1722: [CODE ERR] RR	—	—	X	WT-16
C1723: [CODE ERR] RL	—	—	X	WT-16
C1724: [BATT VOLT LOW] FL	—	—	X	WT-16
C1725: [BATT VOLT LOW] FR	—	—	X	WT-16
C1726: [BATT VOLT LOW] RR	—	—	X	WT-16
C1727: [BATT VOLT LOW] RL	—	—	X	WT-16
C1729: VHCL SPEED SIG ERR	—	—	X	WT-20
C1735: IGNITION SWITCH	—	—	X	WT-21

INTERIOR ROOM LAMP

< WIRING DIAGRAM >

- : WITH VANITY LAMPS
- : WITH PERSONAL LAMP 2ND ROW
- : WITHOUT PERSONAL LAMP 2ND ROW



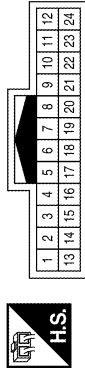
ABLWA1614GB

INTERIOR ROOM LAMP

< WIRING DIAGRAM >

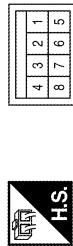
INTERIOR ROOM LAMP CONNECTORS

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



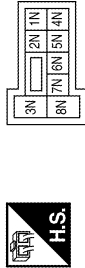
Terminal No.	Color of Wire	Signal Name
8	L	-
9	R/Y	-
20	B	-
21	BR	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



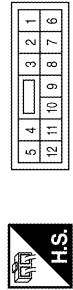
Terminal No.	Color of Wire	Signal Name
7	W	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



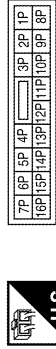
Terminal No.	Color of Wire	Signal Name
4N	R/Y	-

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Color	BROWN



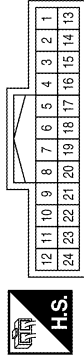
Terminal No.	Color of Wire	Signal Name
9	B	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

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



Terminal No.	Color of Wire	Signal Name
21	V	-

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

INTERIOR ROOM LAMP

< WIRING DIAGRAM >

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



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	BR	KEY RING OUTPUT
12	LG	DOOR SW (AS)
13	L	DOOR SW (RR)
22	V	ANTI-PINCH SERIAL LINK (RX, TX)
37	B	KEY SW
38	W/R	IGN SW
39	L	CAN-H
40	P	CAN-L

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



41	42	43	44	45	46	47	48	49
50	51	52	53	54	55			

Terminal No.	Color of Wire	Signal Name
42	LG	GLASS HATCH SW
43	P	BACK DOOR SW
47	GR	DOOR SW (DR)
48	P	DOOR SW (RL)
49	L	LUGGAGE LAMP OUTPUT

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



56	57	63	67	70
85	86	87	88	89
90	91	92	93	94

Terminal No.	Color of Wire	Signal Name
56	R/Y	BAT SAVER OUTPUT
57	R/Y	BAT (FUSE)
63	BR	ROOM LAMP
67	B	GND (POWER)
70	W	BAT (F/L)

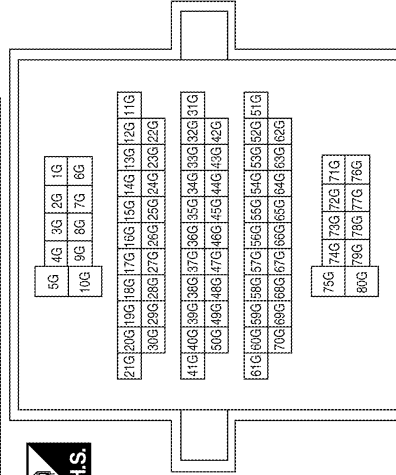
Connector No.	M27
Connector Name	KEY SWITCH
Connector Color	WHITE



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	B	-
2	Y	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



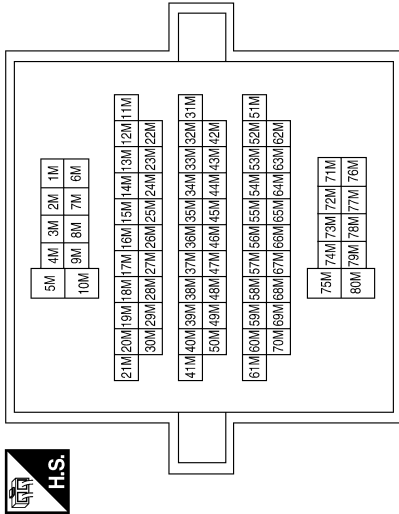
ABL1A1656GB

INTERIOR ROOM LAMP

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
57M	LG	-
58M	L	-

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Color	WHITE



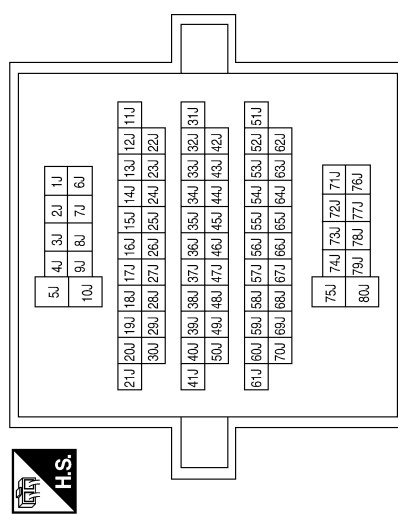
Connector No.	M66
Connector Name	KEY SWITCH AND IGNITION KNOB SWITCH
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
3	R/B	-
4	SB	-

Terminal No.	Color of Wire	Signal Name
56J	LG	-
60J	P	-
61J	GR	-
66J	P	-
69J	R/Y	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	WHITE



ABLIA0443GB

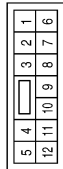
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

INL

INTERIOR ROOM LAMP

< WIRING DIAGRAM >

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Color	WHITE



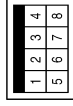
Terminal No.	Color of Wire	Signal Name
5	V	-
12	B	-

Connector No.	M150
Connector Name	IGNITION KEYHOLE ILLUMINATION
Connector Color	WHITE



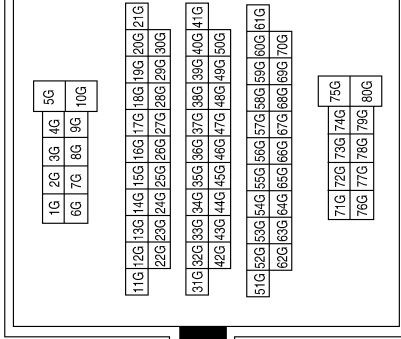
Terminal No.	Color of Wire	Signal Name
1	R/Y	-
2	BR	-

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	W	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
33G	R/B	-
55G	Y	-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



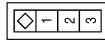
Terminal No.	Color of Wire	Signal Name
2	GR	-

ABLIA0444GB

INTERIOR ROOM LAMP

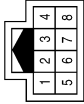
< WIRING DIAGRAM >

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE



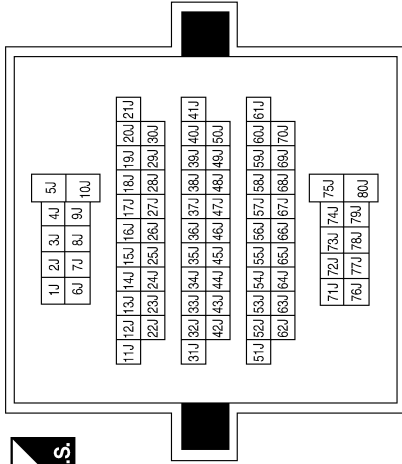
Terminal No.	Color of Wire	Signal Name
2	P	-

Connector No.	B43
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	P	-
6	LG	-

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
56J	LG	-
60J	P	-
61J	GR	-
66J	P	-
69J	R/Y	-

Connector No.	B80
Connector Name	VANITY LAMP LH
Connector Color	WHITE



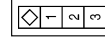
Terminal No.	Color of Wire	Signal Name
1	R/Y	-
2	B	-

Connector No.	B81
Connector Name	VANITY LAMP RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R/Y	-
2	B	-

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	LG	-

ABLIA0445GB

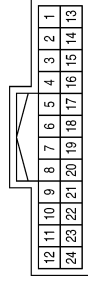
A B C D E F G H I J K L M N O P



INTERIOR ROOM LAMP

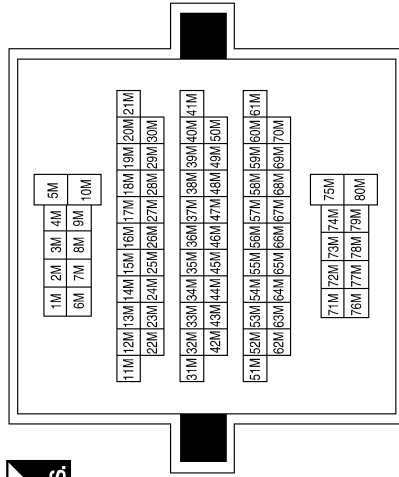
< WIRING DIAGRAM >

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



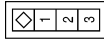
Terminal No.	Color of Wire	Signal Name
8	L	-
9	R/Y	-
20	B	-
21	BR	-

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
57M	LG	-
58M	L	-

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



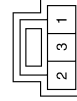
Terminal No.	Color of Wire	Signal Name
2	L	-

Connector No.	R11
Connector Name	CARGO LAMP
Connector Color	WHITE



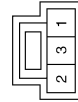
Terminal No.	Color of Wire	Signal Name
1	L	-
2	R/Y	-

Connector No.	R10
Connector Name	PERSONAL LAMP 2ND ROW
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R/Y	-
2	BR	-
3	B	-

Connector No.	R9
Connector Name	FRONT ROOM/IMP LAMP ASSEMBLY
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R/Y	-
2	Y	-
3	B	-

ABLIA0446GB

INTERIOR ROOM LAMP

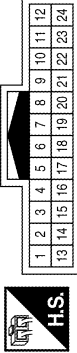
< WIRING DIAGRAM >

Connector No.	R12
Connector Name	ROOM LAMP 2ND ROW
Connector Color	WHITE



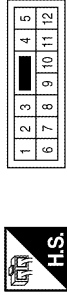
Terminal No.	Color of Wire	Signal Name
1	BR	--
2	R/Y	--

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



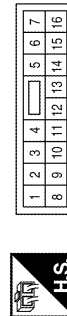
Terminal No.	Color of Wire	Signal Name
21	V	--

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	BROWN



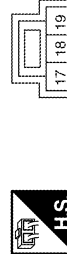
Terminal No.	Color of Wire	Signal Name
9	B	--

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE



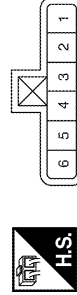
Terminal No.	Color of Wire	Signal Name
4	SB	KEY CYL LOCK SW
6	R/W	KEY CYL UNLOCK SW
14	V	POWER WINDOW SERIAL LINK

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	B	GND

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



Terminal No.	Color of Wire	Signal Name
3	R/W	--
4	B	--
5	SB	--

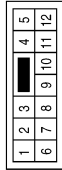
ABL1A1657GB

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

INTERIOR ROOM LAMP

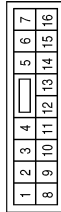
< WIRING DIAGRAM >

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



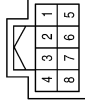
Terminal No.	Color of Wire	Signal Name
5	V	-
12	B	-

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color	WHITE



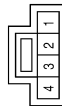
Terminal No.	Color of Wire	Signal Name
11	B	GND
16	V	POWER WINDOW SERIAL LINK

Connector No.	D401
Connector Name	WIRE TO WIRE
Connector Color	WHITE



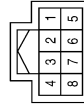
Terminal No.	Color of Wire	Signal Name
4	P	-
6	LG	-

Connector No.	D404
Connector Name	WIRE TO WIRE
Connector Color	WHITE



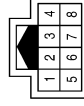
Terminal No.	Color of Wire	Signal Name
1	B	-

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



Terminal No.	Color of Wire	Signal Name
4	P	-
6	LG	-

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



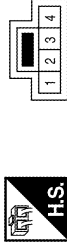
Terminal No.	Color of Wire	Signal Name
4	P	-
6	LG	-

ABLIA0448GB

INTERIOR ROOM LAMP


< WIRING DIAGRAM >

Connector No.	D505
Connector Name	WIRE TO WIRE
Connector Color	WHITE



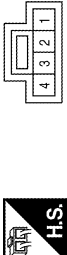
Terminal No.	1	B	Signal Name	-
--------------	---	---	-------------	---

Connector No.	D503
Connector Name	GLASS HATCH AJAR SWITCH
Connector Color	BLACK



Terminal No.	1	LG	Signal Name	-
--------------	---	----	-------------	---

Connector No.	D502
Connector Name	BACK DOOR LATCH
Connector Color	WHITE



Terminal No.	3	P	Signal Name	-
	4	BR		-

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

ABL1A1658GB

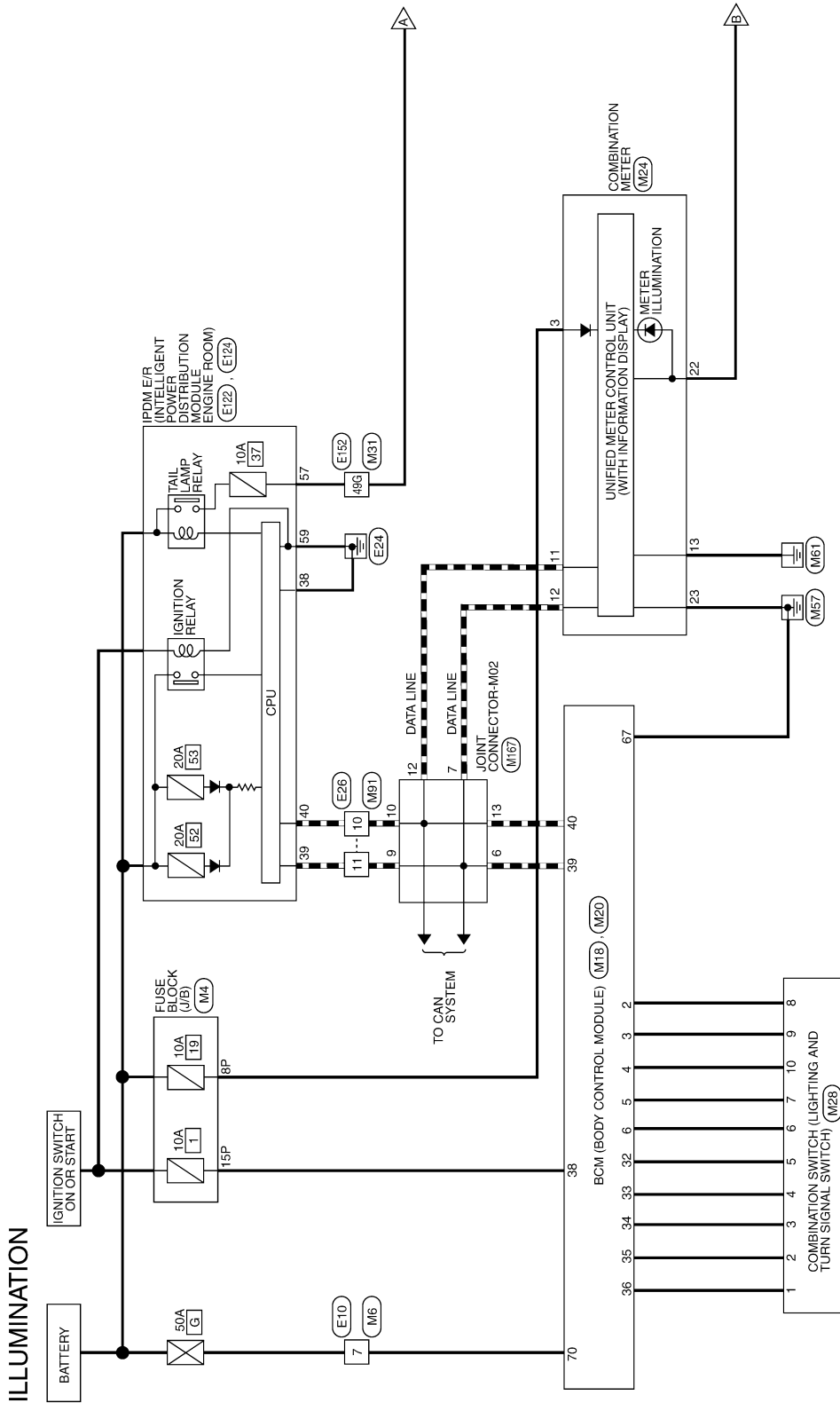
ILLUMINATION

< WIRING DIAGRAM >

ILLUMINATION

Wiring Diagram

INFOID:000000007355249

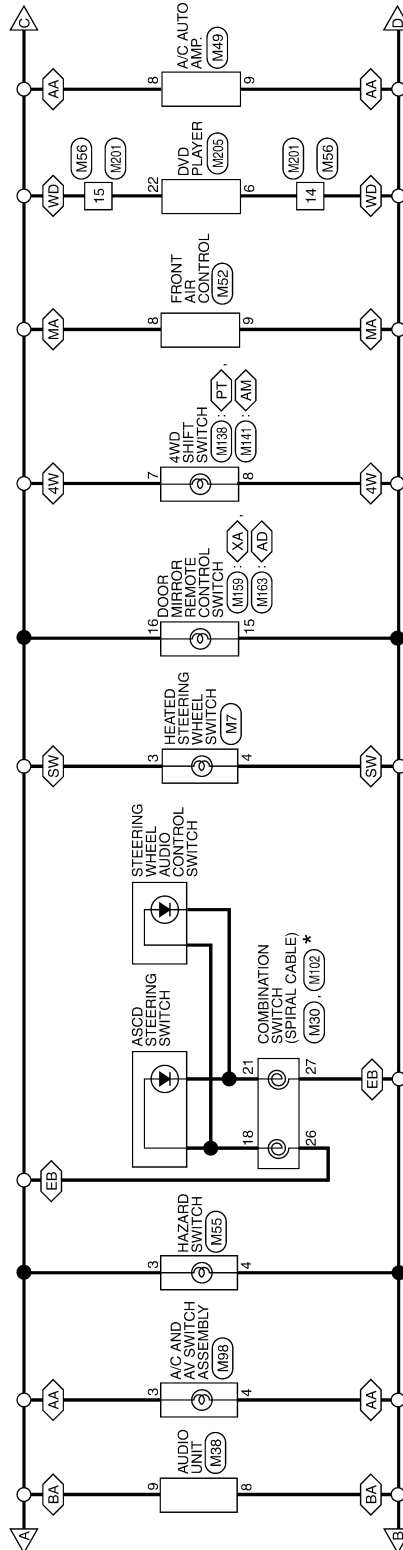


ABLWA1611GB

ILLUMINATION

< WIRING DIAGRAM >

- ◁4W▷ : WITH 4-WHEEL DRIVE
- ◁AA▷ : WITH AUTO A/C
- ◁AD▷ : WITH AUTOMATIC DRIVE POSITIONER
- ◁AM▷ : ALL-MODE 4WD SYSTEM
- ◁BA▷ : WITH BASE AUDIO SYSTEM
- ◁EB▷ : EXCEPT BASE AUDIO SYSTEM
- ◁MA▷ : WITHOUT AUTO A/C
- ◁PT▷ : PART TIME 4WD SYSTEM
- ◁SW▷ : WITH HEATED STEERING WHEEL
- ◁WD▷ : WITH DVD ENTERTAINMENT SYSTEM
- ◁XA▷ : WITHOUT AUTOMATIC DRIVE POSITIONER



* THIS CONNECTOR IS NOT SHOWN IN "HARNES LAYOUT" OF PG SECTION.

ABLW1198GB

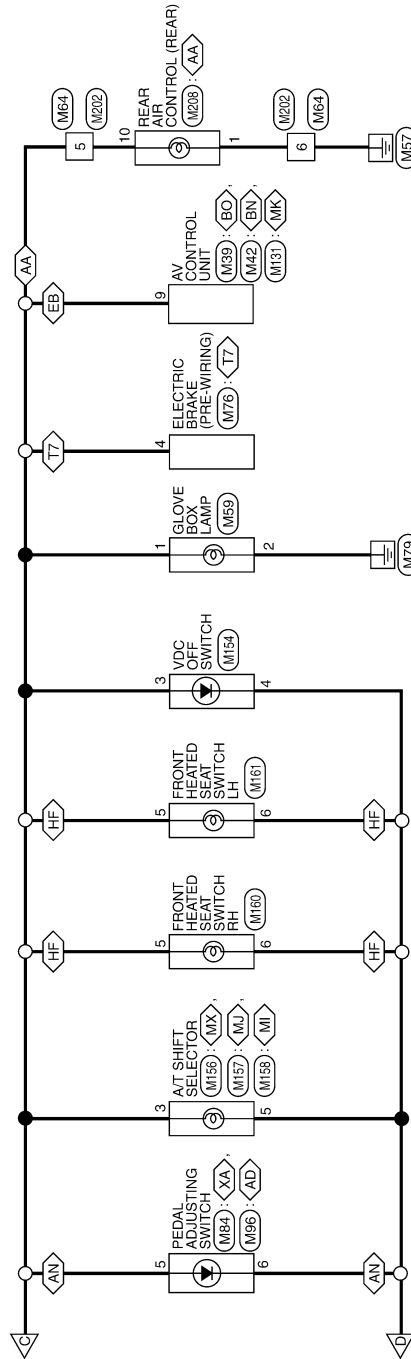
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

INL

ILLUMINATION

< WIRING DIAGRAM >

- ◊ AA : WITH AUTO A/C
- ◊ AD : WITH AUTOMATIC DRIVE POSITIONER
- ◊ AN : WITH ADJUSTABLE PEDALS
- ◊ BN : WITH BOSE AUDIO SYSTEM, WITHOUT NAVI
- ◊ BO : WITH BOSE AUDIO SYSTEM, WITH NAVI
- ◊ EB : EXCEPT BASE AUDIO SYSTEM
- ◊ HF : WITH FRONT HEATED SEATS
- ◊ MI : WITH MANUAL MODE SWITCH AND INTELLIGENT KEY SYSTEM
- ◊ MK : WITH MID AUDIO SYSTEM
- ◊ MJ : WITH MANUAL MODE SWITCH WITHOUT INTELLIGENT KEY SYSTEM
- ◊ MX : WITHOUT MANUAL MODE SWITCH
- ◊ T7 : TRAILER TOW 7 PIN
- ◊ XA : WITHOUT AUTOMATIC DRIVE POSITIONER



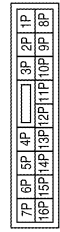
ABLWA1612GB

ILLUMINATION

< WIRING DIAGRAM >

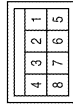
ILLUMINATION CONNECTORS

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



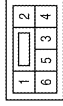
Terminal No.	Color of Wire	Signal Name
8P	R/Y	--
15P	W/R	--

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



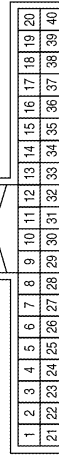
Terminal No.	Color of Wire	Signal Name
7	W	--

Connector No.	M7
Connector Name	HEATED STEERING WHEEL SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	R	--
4	BR	--

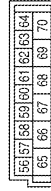
Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	P	INPUT 5
3	SB	INPUT 4
4	V	INPUT 3
5	L	INPUT 2

Terminal No.	Color of Wire	Signal Name
6	R	INPUT 1
32	O	OUTPUT 5
33	GR	OUTPUT 4
34	G	OUTPUT 3
35	BR	OUTPUT 2
36	LG	OUTPUT 1
38	W/R	IGN SW
39	L	CAN-H
40	P	CAN-L

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
67	B	GND (POWER)
70	W	BAT (F/L)

ABL1A17016B

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

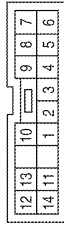
INL

ILLUMINATION

< WIRING DIAGRAM >

Terminal No.	Color of Wire	Signal Name
9	SB	OUTPUT 4
10	V	OUTPUT 3

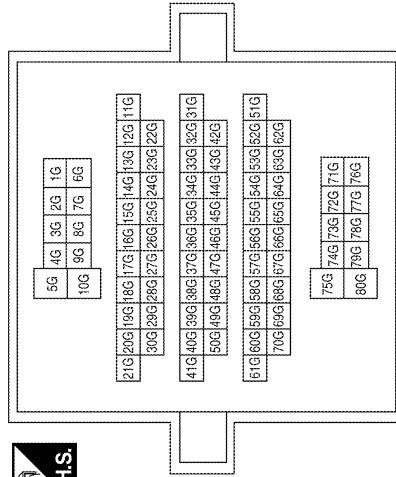
Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE



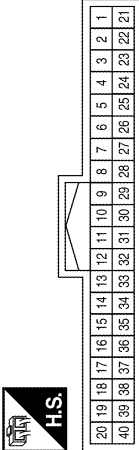
Terminal No.	Color of Wire	Signal Name
1	LG	INPUT 1
2	BR	INPUT 2
3	G	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5
6	R	OUTPUT 1
7	L	OUTPUT 2
8	P	OUTPUT 5

Terminal No.	Color of Wire	Signal Name
49G	V	--

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE

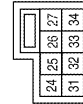


Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	R/Y	BATTERY
11	P	CAN-L
12	L	CAN-H
13	GR	GROUND
22	BR	ILLUMINATION CONTROL
23	B	POWER GND

Connector No.	M30
Connector Name	COMBINATION SWITCH
Connector Color	GRAY



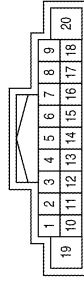
Terminal No.	Color of Wire	Signal Name
26	R	ILL+
27	G	ILL-

ABL1A1659GB

ILLUMINATION

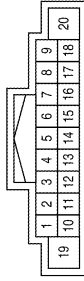
< WIRING DIAGRAM >

Connector No.	M42
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM, WITHOUT NAVI)
Connector Color	WHITE



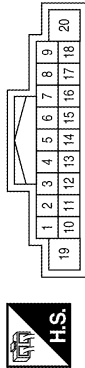
Terminal No.	9	Color of Wire	V	Signal Name	ILL+
--------------	---	---------------	---	-------------	------

Connector No.	M39
Connector Name	AV CONTROL UNIT (WITH BOSE AUDIO SYSTEM, WITH NAVI)
Connector Color	WHITE



Terminal No.	9	Color of Wire	V	Signal Name	ILL+
--------------	---	---------------	---	-------------	------

Connector No.	M38
Connector Name	AUDIO UNIT
Connector Color	WHITE



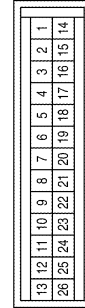
Terminal No.	8	Color of Wire	GR	Signal Name	ILL CONT OUT
9	R			TAIL/ILL RLY	

Connector No.	M55
Connector Name	HAZARD SWITCH
Connector Color	WHITE



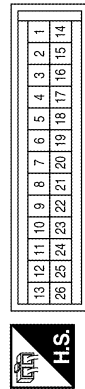
Terminal No.	3	Color of Wire	R	Signal Name	--
4	BR			--	

Connector No.	M52
Connector Name	FRONT AIR CONTROL
Connector Color	BLACK



Terminal No.	8	Color of Wire	G	Signal Name	--
9	BR			--	

Connector No.	M49
Connector Name	A/C AUTO AMP.
Connector Color	BLACK



Terminal No.	8	Color of Wire	G	Signal Name	--
9	BR			--	

ABL1A1660GB

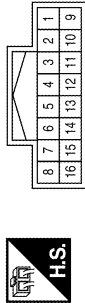
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

INL

ILLUMINATION

< WIRING DIAGRAM >

Connector No.	M56
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
14	BR	--
15	SB	--

Connector No.	M59
Connector Name	GLOVE BOX LAMP
Connector Color	BROWN



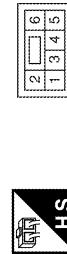
Terminal No.	Color of Wire	Signal Name
1	R	--
2	B	--

Connector No.	M64
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G	--
6	B	--

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



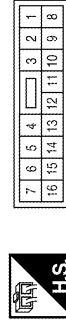
Terminal No.	Color of Wire	Signal Name
4	R	--

Connector No.	M84
Connector Name	PEDAL-ADJUSTING SWITCH (WITHOUT AUTOMATIC DRIVE POSITIONER)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
5	R	--
6	BR	--

Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	P	--
11	L	--

ILLUMINATION

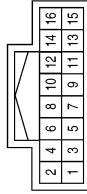
< WIRING DIAGRAM >

Connector No.	M102
Connector Name	COMBINATION SWITCH
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
18	R	-
21	G	-

Connector No.	M98
Connector Name	A/C AND AV SWITCH ASSEMBLY
Connector Color	WHITE



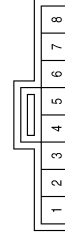
Terminal No.	Color of Wire	Signal Name
3	LG	ILL
4	BR	ILL CONT GND

Connector No.	M96
Connector Name	PEDAL ADJUSTING SWITCH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	BROWN



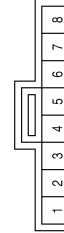
Terminal No.	Color of Wire	Signal Name
5	R	-
6	BR	-

Connector No.	M141
Connector Name	4WD SHIFT SWITCH (ALL-MODE 4WD SYSTEM)
Connector Color	GRAY



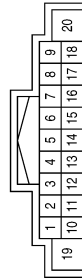
Terminal No.	Color of Wire	Signal Name
7	R	-
8	BR	-

Connector No.	M138
Connector Name	4WD SHIFT SWITCH (PART TIME 4WD SYSTEM)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
7	R	-
8	BR	-

Connector No.	M131
Connector Name	AV CONTROL UNIT (WITH MID AUDIO SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	V	ILL+

ABLIA2797GB


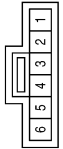
A B C D E F G H I J K L M N O P

INL

ILLUMINATION


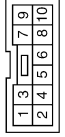
< WIRING DIAGRAM >

Connector No.	M154
Connector Name	VDC OFF SWITCH
Connector Color	GRAY


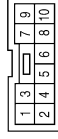
Terminal No.	Color of Wire	Signal Name
3	R	-
4	BR	-

Connector No.	M156
Connector Name	A/T SHIFT SELECTOR (WITHOUT MANUAL MODE SWITCH)
Connector Color	WHITE


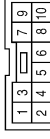
Terminal No.	Color of Wire	Signal Name
3	R	-
5	BR	-

Connector No.	M157
Connector Name	A/T SHIFT SELECTOR (WITH MANUAL MODE SWITCH WITHOUT INTELLIGENT KEY SYSTEM)
Connector Color	WHITE


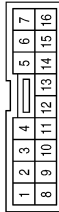
Terminal No.	Color of Wire	Signal Name
3	R	-
5	BR	-

Connector No.	M158
Connector Name	A/T SHIFT SELECTOR (WITH MANUAL MODE SWITCH AND INTELLIGENT KEY SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	R	-
5	BR	-

Connector No.	M159
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH (WITHOUT AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
15	BR	-
16	R	-

Connector No.	M160
Connector Name	FRONT HEATED SEAT SWITCH RH
Connector Color	BROWN

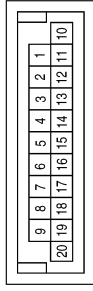
Terminal No.	Color of Wire	Signal Name
5	SB	-
6	O	-

ABLIA3367GB

ILLUMINATION

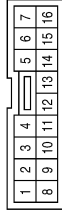
< WIRING DIAGRAM >

Connector No.	M167
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



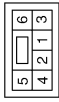
Terminal No.	Color of Wire	Signal Name
6	L	-
7	L	-
9	L	-
10	P	-
12	P	-
13	P	-

Connector No.	M163
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	BROWN



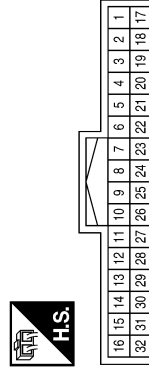
Terminal No.	Color of Wire	Signal Name
15	BR	-
16	R	-

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



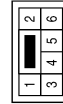
Terminal No.	Color of Wire	Signal Name
5	R	-
6	BR	-

Connector No.	M205
Connector Name	DVD PLAYER
Connector Color	WHITE



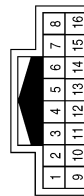
Terminal No.	Color of Wire	Signal Name
6	BR	ILL-
22	SB	ILL+

Connector No.	M202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G	-
6	B	-

Connector No.	M201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
14	BR	-
15	SB	-

ABLIA3368GB


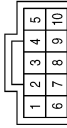
A B C D E F G H I J K L M N O P

INL

ILLUMINATION


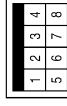
< WIRING DIAGRAM >

Connector No.	M208
Connector Name	REAR AIR CONTROL (REAR)
Connector Color	BLACK


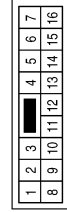
Terminal No.	Color of Wire	Signal Name
1	B	GND
10	G	ILL+

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE


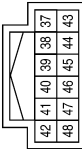
Terminal No.	Color of Wire	Signal Name
7	W	-

Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	P	-
11	L	-

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
39	L	CAN-H
40	P	CAN-L

Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK

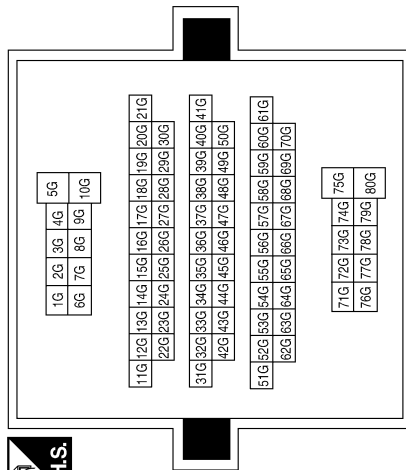



Terminal No.	Color of Wire	Signal Name
57	GR	TAIL LAMP
59	B	GND (POWER)

ILLUMINATION

< WIRING DIAGRAM >

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
49G	V	-

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

INL

ABLIA3370GB

INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000007355250

CAUTION:

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

Symptom	Possible cause	Inspection item
All of the following lamps do not turn ON <ul style="list-style-type: none"> • Front room/map lamp assembly • Personal lamp 2nd row (with personal lamp 2nd row) • Room lamp 2nd row (without personal lamp 2nd row) • Cargo room lamp • Vanity mirror lamps (if equipped) • Ignition keyhole illumination 	<ul style="list-style-type: none"> • Harness between BCM and each interior room lamp • Harness between BCM and each door switch • BCM 	Battery saver output/power supply circuit Refer to INL-16 .
Some or all of the following interior room lamps do not turn ON/OFF <ul style="list-style-type: none"> • Front room/map lamp assembly • Personal lamp 2nd row (with personal lamp 2nd row) • Room lamp 2nd row (without personal lamp 2nd row) 	<ul style="list-style-type: none"> • Harness between BCM and each interior room lamp • BCM 	Door switch circuit Refer to DLK-56 (with Intelligent Key system) or DLK-229 (without Intelligent Key system). Interior room lamp control circuit Refer to INL-18 .
Cargo lamp does not turn ON/OFF	<ul style="list-style-type: none"> • Harness between BCM and cargo lamp • BCM 	Cargo lamp circuit Refer to INL-20 .
Ignition keyhole illumination does not turn ON/OFF	<ul style="list-style-type: none"> • Harness between BCM and cargo lamp • BCM 	Ignition keyhole illumination circuit Refer to INL-22
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-24 .

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000007355251

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

INFOID:000000007355252

NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT 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.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

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

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.

Precaution for Work

INFOID:000000007355253

- 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.

PREPARATION

< PREPARATION >

PREPARATION

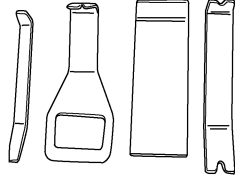
PREPARATION

Special Service Tool

INFOID:000000007355254

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	For removing trim



AWJIA0483Z2

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

INL

INTERIOR ROOM LAMP

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

INTERIOR ROOM LAMP

Removal and Installation

INFOID:000000007355255

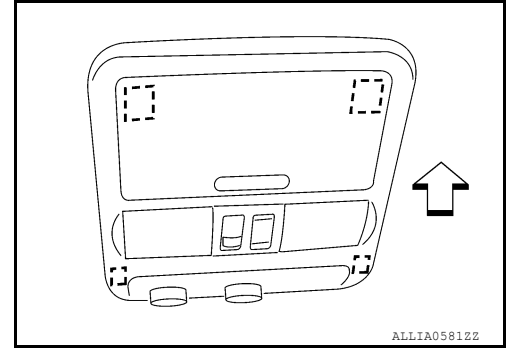
FRONT ROOM/MAP LAMP ASSEMBLY

Removal

The front room/map lamp assembly is replaced as part of the overhead console assembly. Refer to [INT-22. "Removal and Installation"](#).

☐: Metal clip

←: Vehicle front



Installation

Installation is in the reverse order of removal.

Bulb Replacement

1. Using a suitable tool (A), remove front room/map lamp assembly lens (1).

○: Pawl

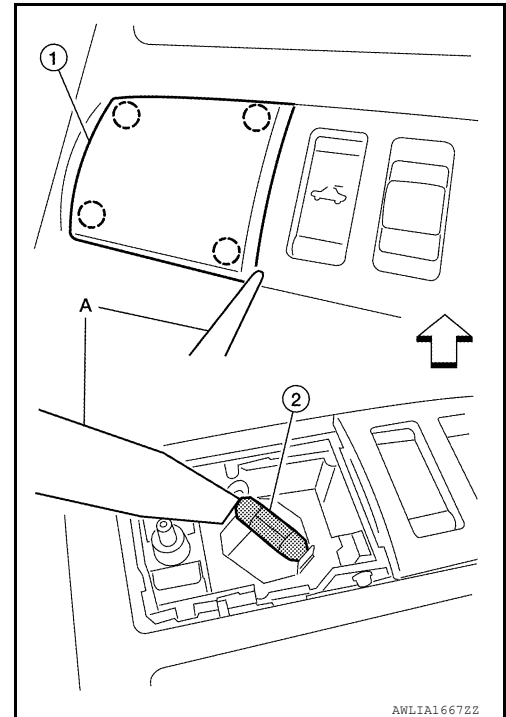
←: Vehicle front

CAUTION:

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

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

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



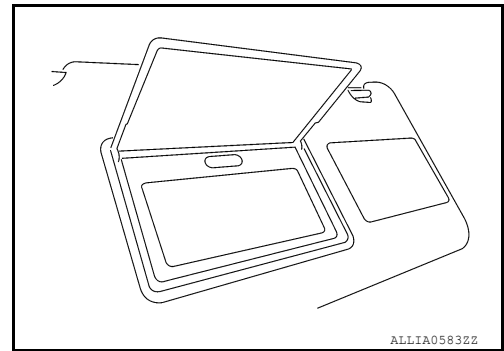
VANITY MIRROR LAMP (IF EQUIPPED)

Removal

INTERIOR ROOM LAMP

< REMOVAL AND INSTALLATION >

The vanity mirror lamp is replaced as part of the sun visor assembly. Refer to [INT-22, "Removal and Installation"](#).



Installation

Installation is in the reverse order of removal.

Bulb Replacement

The vanity mirror lamp bulb is replaced as part of the sun visor assembly. Refer to [INT-22, "Removal and Installation"](#).

PERSONAL LAMP (IF EQUIPPED)

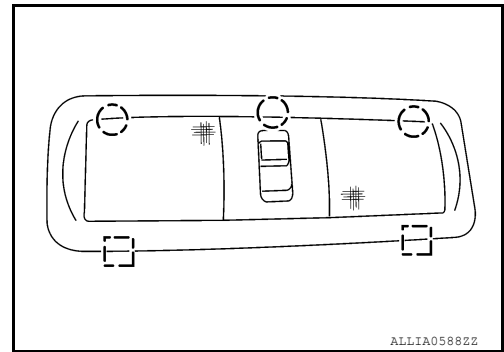
Removal

1. Release the clips and remove personal lamp from headlining. Refer to [INT-22, "Removal and Installation"](#).

○: Pawl

□: Metal clip

2. Disconnect personal lamp electrical connector, then remove from overhead console.



Installation

Installation is in the reverse order of removal.

Bulb Replacement

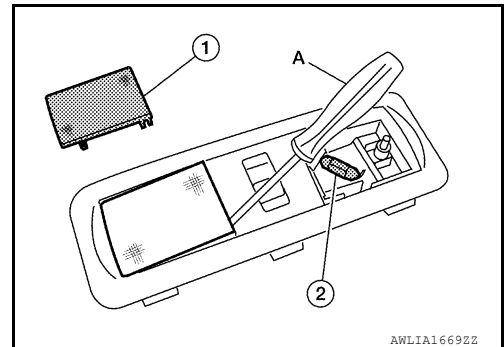
1. Remove personal lamp.
2. Using a suitable tool (A), release the pawls and remove personal lamp lens (1).

CAUTION:

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

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

Personal lamp bulb : 12V - 8W



ROOM LAMP (IF EQUIPPED)

Removal

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

INTERIOR ROOM LAMP

< REMOVAL AND INSTALLATION >

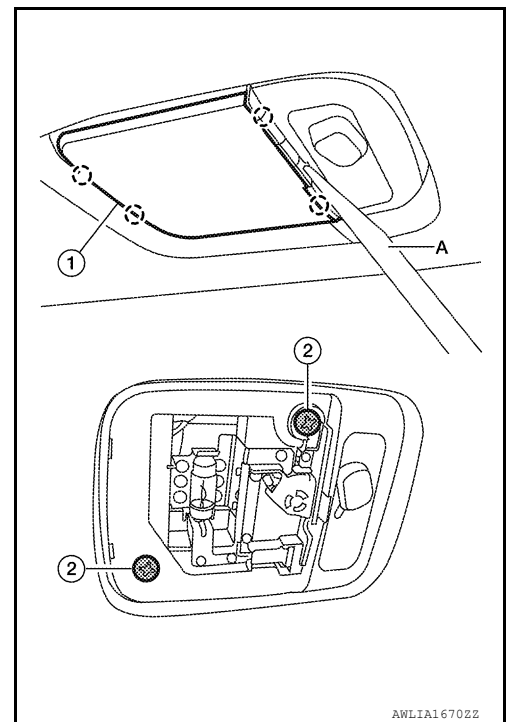
1. Using a suitable tool (A), release the pawls and remove the room lamp lens (1).

○: Pawl

CAUTION:

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

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



AWLIA16702Z

Installation

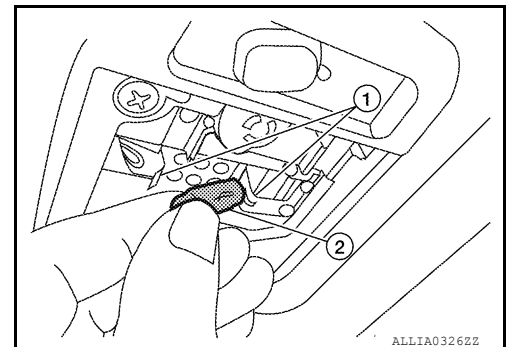
Installation is in the reverse order of removal.

Bulb Replacement

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

Room lamp bulb

: 12V - 8W



ALLIA03262Z

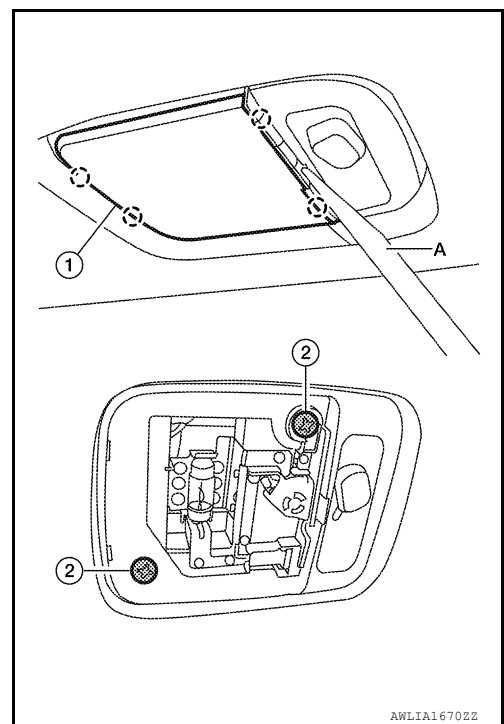
CARGO LAMP

Removal

INTERIOR ROOM LAMP

< REMOVAL AND INSTALLATION >

1. Using a suitable tool (A), release the pawls and remove the cargo lamp lens (1).
○: Pawl
CAUTION:
Wrap a cloth around suitable tool to protect the housing and lens.
2. Remove cargo lamp screws (2).
3. Disconnect the connector, then remove cargo lamp.



Installation

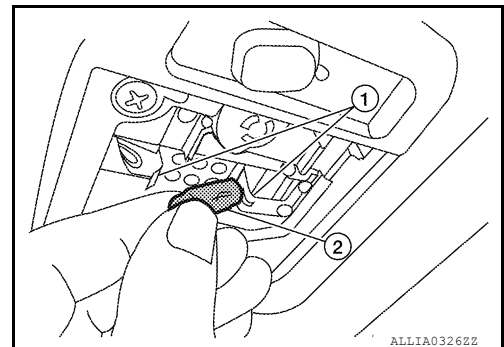
Installation is in the reverse order of removal.

Bulb Replacement

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



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

ILLUMINATION

< REMOVAL AND INSTALLATION >

ILLUMINATION

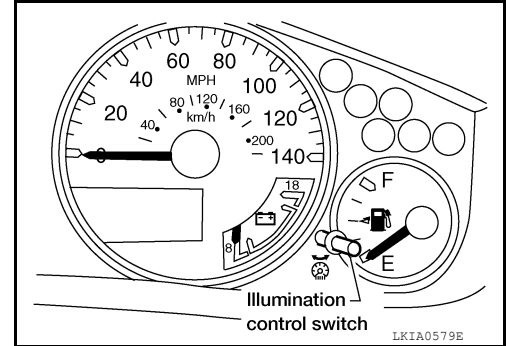
Removal and Installation

INFOID:000000007355256

ILLUMINATION CONTROL SWITCH

Removal

The illumination control switch (1) is replaced as a part of the combination meter assembly. Refer to [MWI-89, "Removal and Installation"](#).



Installation

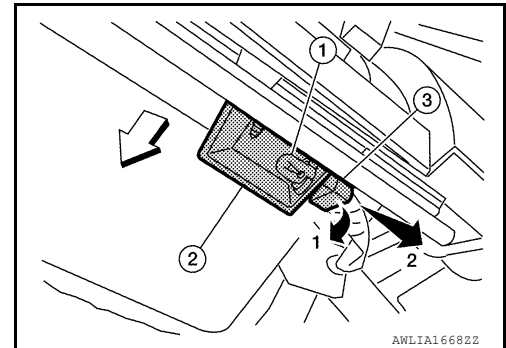
Installation is in the reverse order of removal.

GLOVE BOX LAMP

Removal

1. Remove instrument lower panel RH and glove box. Refer to [IP-20, "Removal and Installation"](#).
2. Rotate glove box lamp socket (3) with bulb (1) counterclockwise, then pull away from lamp shield (2) on steering member to remove.

↔: Vehicle front



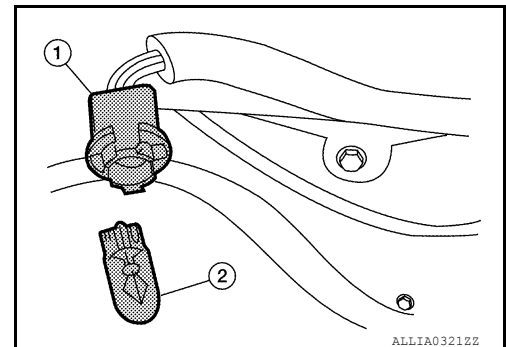
Installation

Installation is in the reverse order of removal.

Bulb Replacement

1. Remove glove box lamp.
2. Pull bulb (2) straight out from glove box lamp socket (1) to remove.

Glove box lamp bulb : 12V - 3.4W



AT FINISHER LAMP

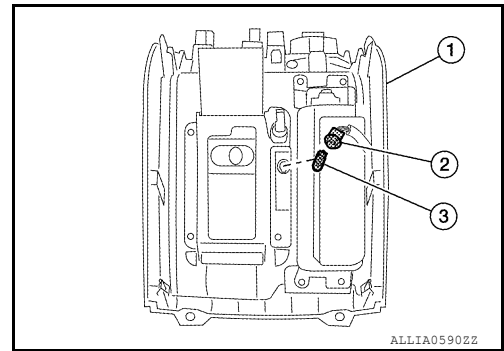
Removal

1. Remove AT finisher from center console. Refer to [IP-21, "Removal and Installation"](#).

ILLUMINATION

< REMOVAL AND INSTALLATION >

2. Rotate AT finisher lamp socket (2) with bulb (3) counterclockwise, then pull away from finisher (1).



Installation

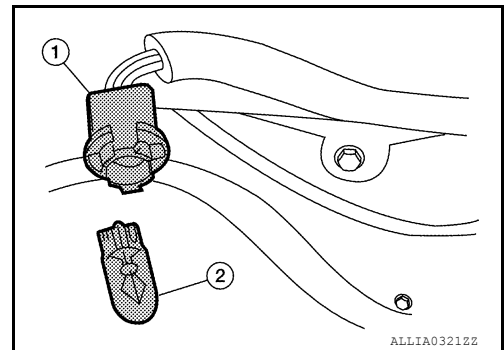
Installation is in the reverse order of removal.

Bulb Replacement

1. Remove AT finisher from center console. Refer to [IP-21. "Removal and Installation"](#).
2. Remove AT finisher lamp socket (1), then pull bulb (2) straight out from socket.

AT finisher lamp bulb

: 12V - 3W



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

INL

BULB SPECIFICATIONS

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

BULB SPECIFICATIONS

Interior Lamp/Illumination

INFOID:000000007355257

Item	Wattage (W)*
Front room/map lamp	8
Vanity lamp (if equipped)	*
Personal lamp (if equipped)	8
Room lamp (if equipped)	8
Cargo lamp	8
Glove box lamp	3.4
A/T finisher lamp	3

*: Always check with the Parts Department for the latest parts information.