DRIVER CONTROLS

CONTENTS

BASIC INSPECTION
DIAGNOSIS AND REPAIR WORKFLOW
Work Flow

INFOID:0000000005280235

OVERALL SEQUENCE

```
                    ┌─────────────────────┐
                    │   INSPECTION START   │
                    └─────────────────────┘
                              │
                              ▼
    ┌──────────────────────────────────────────┐
    │ 1. INTERVIEW FOR MALFUNCTION              │
    │ Interview the customer to get a list of   │
    │ symptoms.                                 │
    └──────────────────────────────────────────┘
                              │
                              ▼
    ┌──────────────────────────────────────────┐
    │ 2. SYMPTOM CHECK                          │
    │ Check the symptom from the customer's     │
    │ information.                              │
    └──────────────────────────────────────────┘
                              │
                              ▼
    ┌──────────────────────────────────────────┐
    │ 3. BASIC INSPECTION                       │
    │ Check the operation of each part.         │
    │ Check that any symptoms occur other than  │
    │ the symptom described by the customer.    │
    └──────────────────────────────────────────┘
                              │
                              ▼
    ┌──────────────────────────────────────────┐
    │           SYMPTOM PERCEPTION              │
    └──────────────────────────────────────────┘
                              │
                              ▼
    ┌─────────────────────────────┐  DTC is detected  ┌──────────────────────────────┐
    │ 4. SELF-DIAGNOSIS WITH      │ ─────────────────▶ │ 5. TROUBLE DIAGNOSIS BY DTC  │
    │ CONSULT-III                 │                    │ Perform the trouble          │
    │ Perform the self-diagnosis  │                    │ diagnosis for the detected   │
    │ with CONSULT-III. Check     │                    │ DTC. Specify the             │
    │ that any DTC is detected.   │                    │ malfunctioning part.         │
    └─────────────────────────────┘                    └──────────────────────────────┘
             │ DTC is not detected
             ▼                         Fail-safe
    ┌─────────────────────────────┐  activates        ┌──────────────────────────────┐
    │ 6. FAIL-SAFE ACTIVATION     │ ─────────────────▶ │ 7. SYSTEM DIAGNOSIS          │
    │ CHECK                       │                    │ Perform the system           │
    │ Check that the symptom is   │                    │ diagnosis for the symptom    │
    │ applied to the fail-safe    │                    │ that the fail-safe           │
    │ activation.                 │                    │ activates. Specify the       │
    └─────────────────────────────┘                    │ malfunctioning part.         │
             │ Fail-safe does not activate             └──────────────────────────────┘
             ▼
    ┌─────────────────────────────┐
    │ 8. SYMPTOM DIAGNOSIS        │
    │ Perform the symptom         │
    │ diagnosis. Specify the      │
    │ malfunctioning part.        │
    └─────────────────────────────┘
             │
             ▼
    ┌──────────────────────────────────────────┐
    │      SPECIFY THE MALFUNCTIONING PART      │
    └──────────────────────────────────────────┘
             │
             ▼
    ┌──────────────────────────────────────────┐
    │ 9. MALFUNCTIONING PART REPAIR             │
    │ Repair or replace the malfunctioning part.│
    └──────────────────────────────────────────┘
             │
             ▼
    ┌──────────────────────────────────────────┐  DTC is detected
    │ 10. REPAIR CHECK (SELF-DIAGNOSIS WITH     │ ───────────────▶
    │ CONSULT-III)                              │
    │ Perform the self-diagnosis with           │
    │ CONSULT-III. Check that no DTC is         │
    │ detected. Erase DTC if DTC is same as     │
    │ detected before the repair.               │
    │ Check that DTC is not detected again.     │
    └──────────────────────────────────────────┘
             │ DTC is not detected
             ▼                                           Symptom remains
    ┌──────────────────────────────────────────┐ ───────────────▶
    │ 11. REPAIR CHECK (OPERATION CHECK)        │
    │ Check the operation of each part.         │
    └──────────────────────────────────────────┘
             │ Normal operation
             ▼
    ┌─────────────────────┐
    │   INSPECTION END    │
    └─────────────────────┘
```

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

DETAILED FLOW

1.INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> GO TO 2

2.SYMPTOM CHECK

Verify the symptom from the customer's information.

>> GO TO 3

3.BASIC INSPECTION

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

>> GO TO 4

4.SELF-DIAGNOSIS WITH CONSULT-III

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

Is any DTC detected?

YES   >> GO TO 5
NO   >> GO TO 6

5.TROUBLE DIAGNOSIS BY DTC

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

>> GO TO 9

6.FAIL-SAFE ACTIVATION CHECK

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

Does the fail-safe activate?

YES   >> GO TO 7
NO   >> GO TO 8

7.SYSTEM DIAGNOSIS

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

>> GO TO 9

8.SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9

9.MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10

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

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

Is any DTC detected?

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

YES >> GO TO 5
NO >> GO TO 11

11.REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

<u>Does it operate normally?</u>
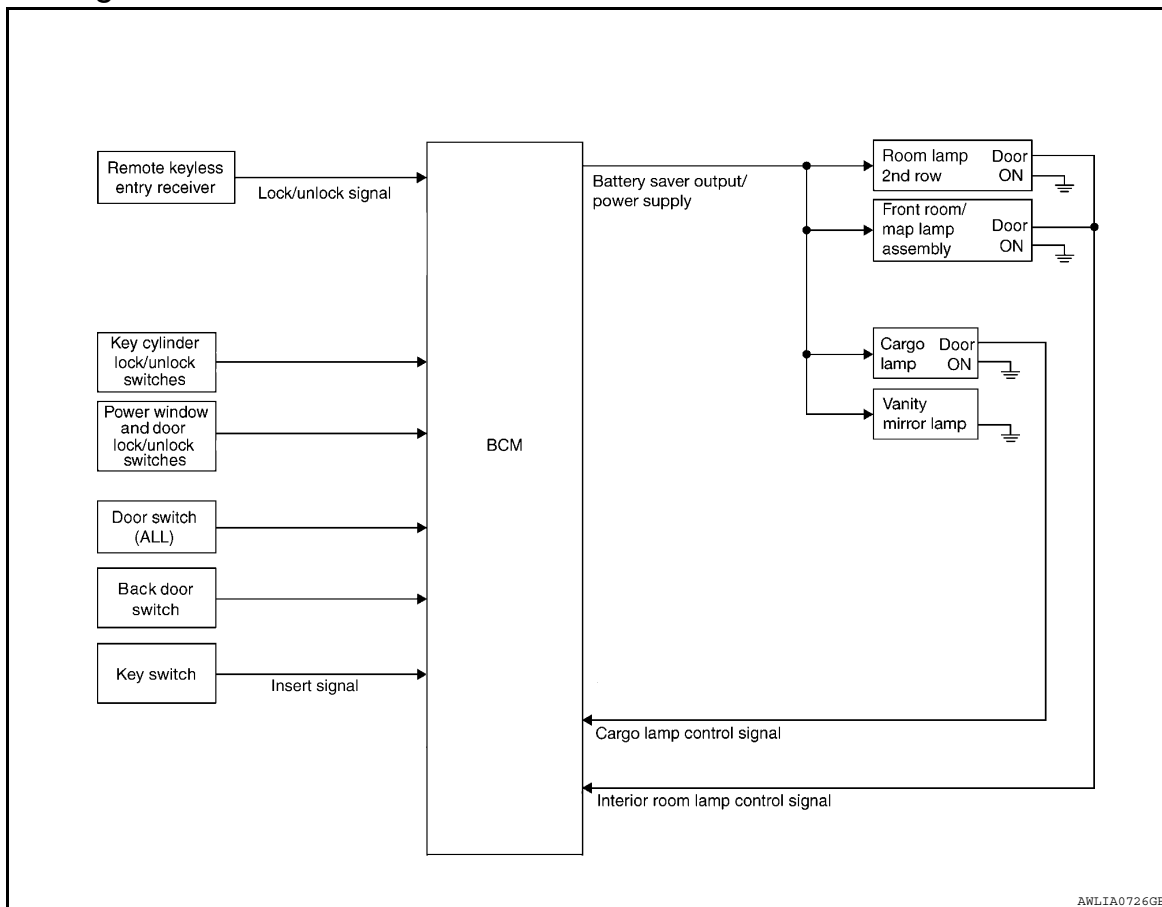
YES >> Inspection End
NO >> GO TO 3

FUNCTION DIAGNOSIS

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram

INFOID:0000000005280236

AWLIA0726GB

System Description

INFOID:0000000005280237

OUTLINE
• Front room/map lamp and room lamp 2nd row are controlled by the interior room lamp timer control function of the BCM.
• Cargo lamp is controlled by the cargo lamp control function of the BCM.
The timer control functions of the BCM activate based on inputs from the remote keyless entry receiver, the key cylinder lock/unlock switches, the door switches, the key switch and the power window and door lock/unlock switches.

ROOM LAMP TIMER OPERATION
When the interior room lamp switch is in the DOOR position and when all conditions below are met, the BCM begins timer control (maximum 30 seconds) for interior room lamp ON/OFF.
• When the front door LH is unlocked [with main power window and door lock/unlock switch, or front door lock assembly LH (key cylinder switch)].
• When a door opens → closes.
Timer control is cancelled under the following conditions.
• When the front door LH is locked [with main power window and door lock/unlock switch, or front door lock assembly LH (key cylinder switch)].
• A door is opened (door switch turns ON).
Interior lamp operational settings can be changed with the function setting of CONSULT-III.

INTERIOR LAMP BATTERY SAVER CONTROL

INTERIOR ROOM LAMP CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

If an interior lamp is left ON and does not turn OFF even when the doors are closed, the BCM turns off power to the interior lamps automatically to save the battery 30 minutes after the ignition switch is turned OFF.
The BCM controls power and ground to all interior lamps.
After the battery saver system turns the lamps OFF, the lamps will illuminate again when
• a signal is received from a main power window and door lock/unlock switch, or when the front door LH lock assembly LH (key cylinder switch) is locked or unlocked
• a door is opened or closed
The interior lamp battery saver control time period can be changed with the function setting of CONSULT-III.

Component Parts Location

INFOID:0000000005280238

WKIA5084E
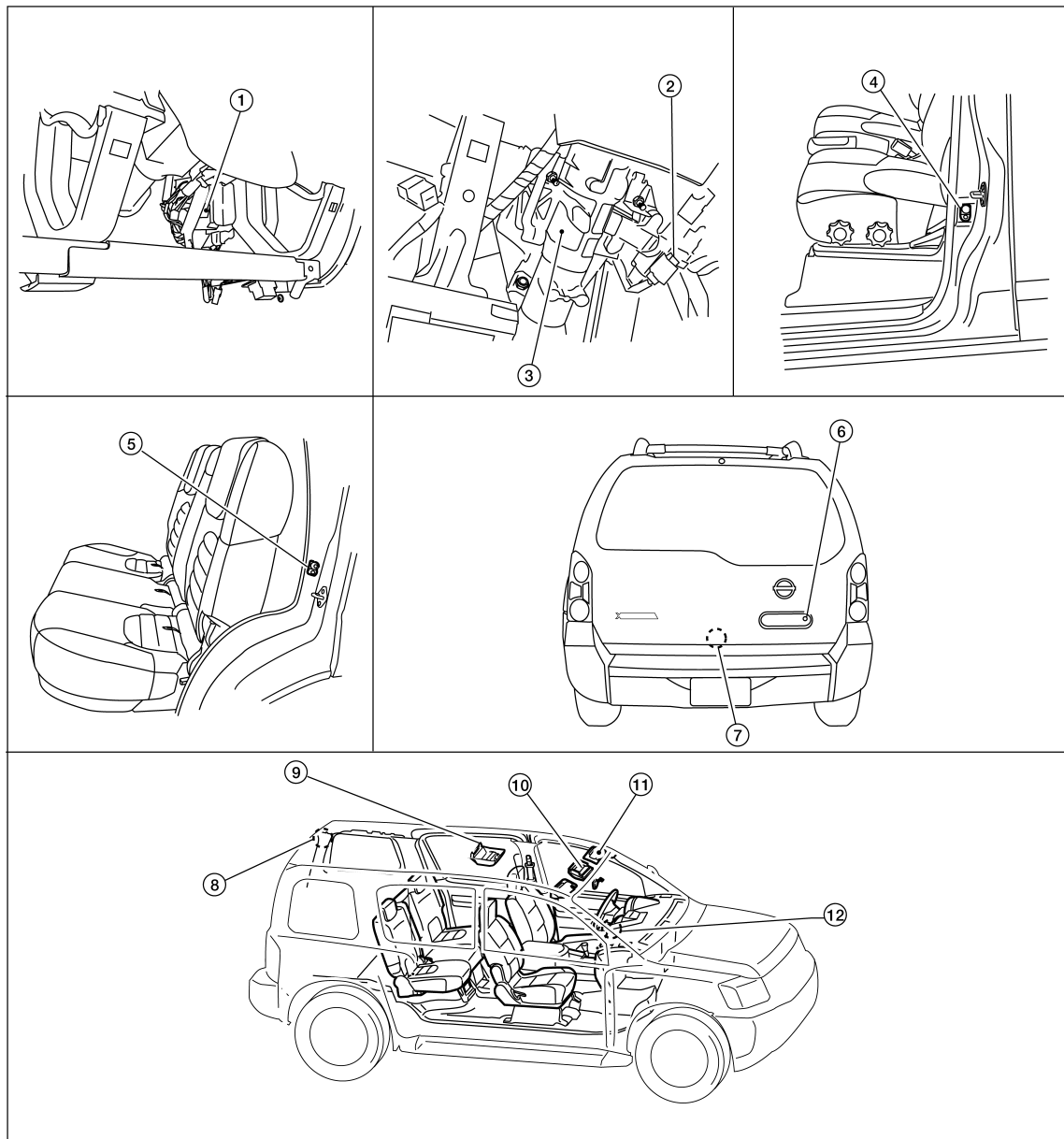
1. BCM M18, M19, M20 (view with lower instrument panel LH removed)	2. Key switch M27	3. Steering column assembly
4. Front door switch LH B8 RH B108	5. Rear door switch LH B18 RH B116	6. Back door key cylinder switch D505

7. Back door switch D502
8. Cargo lamp R11
9. Room lamp 2nd row R12
10. Front room/map lamp assembly R9
11. Vanity lamp (with vanity lamps) LH B80 RH B81
12. Ignition keyhole illumination M150

Component Description

INFOID:0000000005280239

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

ILLUMINATION CONTROL SYSTEM

System Diagram

INFOID:0000000005714032

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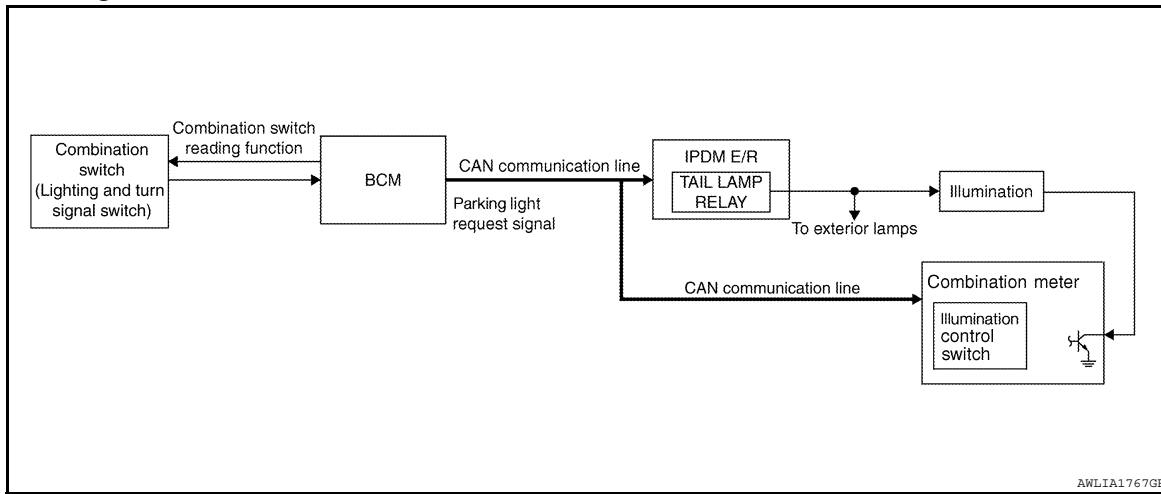
System Description

INFOID:0000000005714033

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

BATTERY SAVER CONTROL

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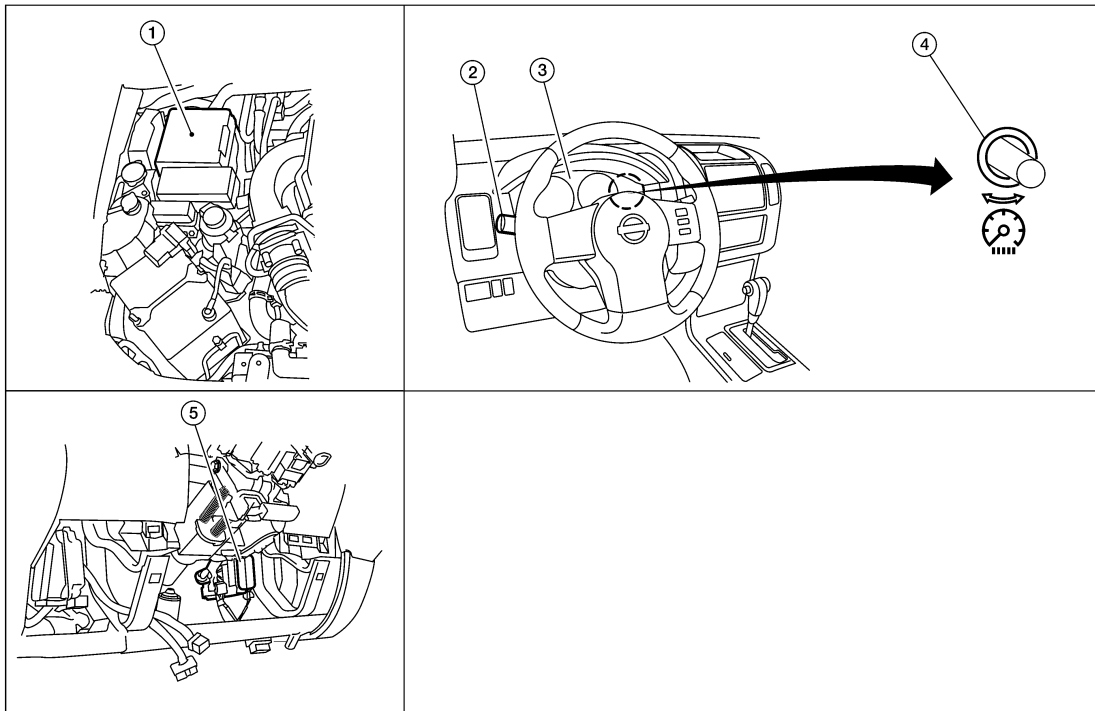
Component Parts Location

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 lower instrument panel LH removed)

Component Description

Part name	Description
BCM	The BCM monitors the combination switch (lighting and turn signal switch) position with the combination switch (lighting and turn signal 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 (lighting and turn signal switch) provides input to the BCM about the lighting switch position.

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM

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

INFOID:0000000005714036

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

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF DIAG RESULT	Displays the diagnosis results judged by BCM. Refer to BCS-52, "DTC Index".
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFICATION	The BCM part number is displayed.
CONFIGURATION	• Enables to read and save the vehicle specification. • Enables to write the vehicle specification when replacing BCM.

SYSTEM APPLICATION
BCM can perform the following functions for each system.
NOTE:
It can perform the diagnosis modes except the following for all sub system selection items.

| System	Sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
BCM	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
RAP (retained accessory power)	RETAINED PWR	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
TPMS (tire pressure monitoring system)	AIR PRESSURE MONITOR	×	×	×
Vehicle security system	THEFT ALM	×	×	×
Panic alarm system	PANIC ALARM			×

INT LAMP

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

INFOID:0000000005714037

WORK SUPPORT
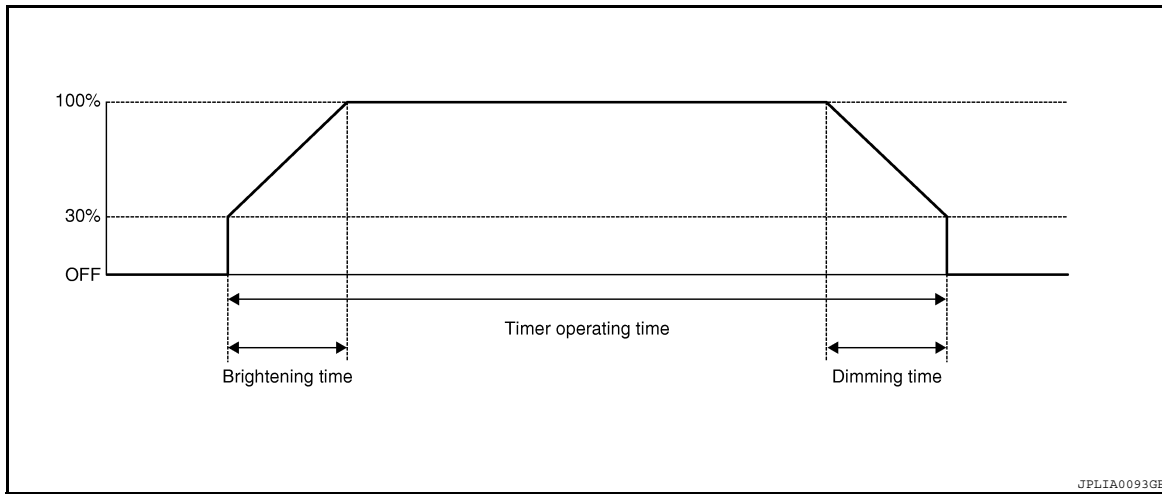
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Work Item	Setting item	Setting	
SET I/L D-UNLCK INTCON	ON*	With the interior room lamp timer function	
	OFF	Without the interior room lamp timer function	
ROOM LAMP ON TIME SET	MODE1	0.5 sec.	Sets the interior room lamp gradual brightening time.
	MODE2*	1 sec.	
	MODE3	2 sec.	
	MODE4	3 sec.	
	MODE5	4 sec.	
	MODE6	5 sec.	
	MODE7	0 sec.	
ROOM LAMP OFF TIME SET	MODE1	0.5 sec.	Sets the interior room lamp gradual dimming time.
	MODE2	1 sec.	
	MODE3	2 sec.	
	MODE4*	3 sec.	
	MODE5	4 sec.	
	MODE6	5 sec.	
	MODE7	0 sec.	

* : Initial setting

DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [ON/OFF]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
KEY ON SW [ON/OFF]	The switch status input from key switch
DOOR SW-DR [ON/OFF]	The switch status input from front door switch LH
DOOR SW-AS [ON/OFF]	The switch status input from front door switch RH
DOOR SW-RR [ON/OFF]	The switch status input from rear door switch RH
DOOR SW-RL [ON/OFF]	The switch status input from rear door switch LH
BACK DOOR SW [ON/OFF]	The switch status input from back door switch
KEY CYL LK-SW [ON/OFF]	Lock switch status input from door lock and unlock switch
KEY CYL UN-SW [ON/OFF]	Lock switch status input from door lock and unlock switch

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Monitor Item [Unit]	Description
CDL LOCK SW [ON/OFF]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [ON/OFF]	Unlock switch status input from door lock and unlock switch
KEYLESS LOCK [ON/OFF]	Lock signal status received from remote keyless entry receiver (integrated in the BCM)
KEYLESS UNLOCK [ON/OFF]	Unlock signal status received from remote keyless entry receiver (integrated in the BCM)

ACTIVE TEST

Test Item	Operation	Description
IGN ILLUM	ON	Outputs the ignition keyhole illumination control signal to turn the ignition keyhole illumination lamp ON.
	OFF	Stops the ignition keyhole illumination control signal to turn the ignition keyhole illumination lamp OFF.
INT LAMP	ON	Outputs the interior room lamp control signal to turn the interior room lamps ON.
	OFF	Stops the interior room lamp control signal to turn the interior room lamps OFF.
STEP LAMP TEST	ON	Outputs the step lamp control signal to turn the step lamps ON.
	OFF	Stops the step lamp control signal to turn the step lamps OFF.
LUGGAGE LAMP TEST	ON	Outputs the luggage lamp control signal to turn the luggage lamp ON.
	OFF	Stops the luggage lamp control signal to turn the luggage lamp OFF.

BATTERY SAVER

BATTERY SAVER : CONSULT-III Function (BCM - BATTERY SAVER)   *INFOID:0000000005714038*

WORK SUPPORT

Work Item	Setting Item		Setting
ROOM LAMP TIMER SET	MODE 1*	30 min.	Sets the interior room lamp battery saver timer operating time.
	MODE 2	60 min.	
	MODE 3	10 min.	

*: Initial setting

DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [ON/OFF]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
KEY ON SW [ON/OFF]	The switch status input from key switch
DOOR SW-DR [ON/OFF]	The switch status input from front door switch LH
DOOR SW-AS [ON/OFF]	The switch status input from front door switch RH
DOOR SW-RR [ON/OFF]	The switch status input from rear door switch RH
DOOR SW- RL [ON/OFF]	The switch status input from rear door switch LH
BACK DOOR SW [ON/OFF]	The switch status input from back door switch
KEY CYL LK SW [ON/OFF]	Lock switch status input from door key cylinder switch
KEY CYL UN SW [ON/OFF]	Unlock switch status input from door key cylinder switch
CDL LOCK SW [ON/OFF]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [ON/OFF]	Unlock switch status input from door lock and unlock switch

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Monitor Item [Unit]	Description
KEYLESS LOCK [ON/OFF]	Lock signal status received from remote keyless entry receiver (integrated in the BCM)
KEYLESS UNLOCK [ON/OFF]	Unlock signal status received from remote keyless entry receiver (integrated in the BCM)

ACTIVE TEST

Test Item	Operation	Description
BATTERY SAVER	OFF	Cuts the interior room lamp power supply to turn interior room lamps OFF.
	ON	Outputs the interior room lamp power supply to turn interior room lamps ON.*

*: Each lamp switch is in ON position.

A

B

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT
BCM

BCM : Diagnosis Procedure

INFOID:0000000005714040

C

D

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

1. CHECK FUSES AND FUSIBLE LINK

E

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

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

F

G

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

H

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

I

J

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

K

INL
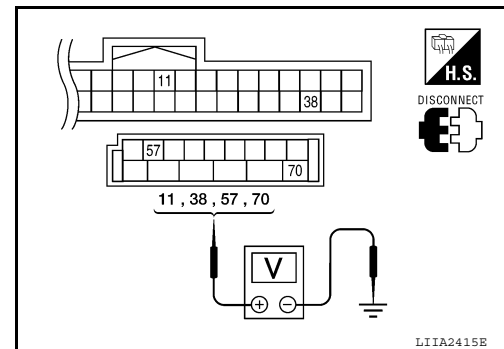
Is the measurement value normal?
  YES >> GO TO 3
  NO   >> Repair or replace harness.

M

N

3. CHECK GROUND CIRCUIT

O

P

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT 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.

BCM connector

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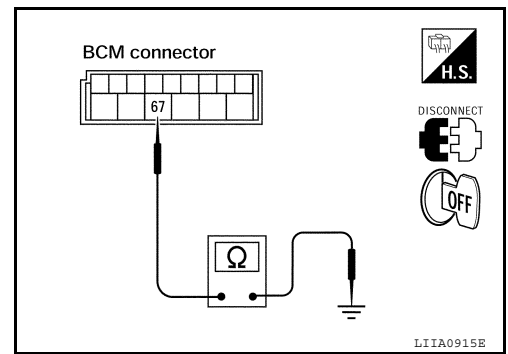
BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

< COMPONENT DIAGNOSIS >

BATTERY SAVER OUTPUT/POWER SUPPLY CIRCUIT

Description

INFOID:000000005280248

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:000000005280249

1.CHECK BATTERY SAVER OUTPUT/POWER SUPPLY FUNCTION

CONSULT-III
1. Turn ignition switch ON.
2. Turn each interior room lamp ON.
- Front room/map lamp assembly
- Vanity lamps (if equipped)
- Cargo lamp
- Room lamp 2nd row
3. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
4. While operating the test 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-17, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000005280250

Regarding Wiring Diagram information, refer to INL-25, "Wiring Diagram".

1.CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OUTPUT

CONSULT-III
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.

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(+)		(-)	Test item	Voltage
Connector	Terminal		BATTERY SAVER	
M20	56	Ground	OFF	0V
			ON	Battery voltage
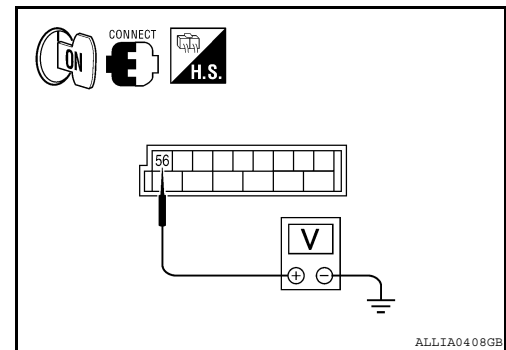
Is the inspection result normal?

YES >> GO TO 2
NO >> Replace BCM. Refer to BCS-56, "Removal and Installation".

2.CHECK BATTERY SAVER OUTPUT/POWER SUPPLY OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the following connectors.
- BCM M20
- Ignition key hole illumination
- Front room/map lamp assembly
- Vanity lamp LH (if equipped)
- Vanity lamp RH (if equipped)

- Cargo lamp
- Room lamp 2nd row

3. Check continuity between BCM connector and each interior room lamp connector.

BCM		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	
		Room 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   >> Replace the interior room lamp. Refer to INL-60, "Removal and Installation".
NO   >> Repair the harness or connectors.

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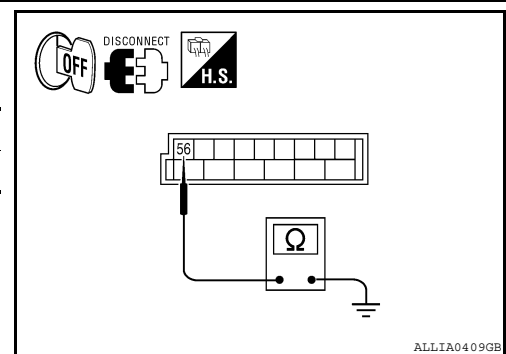
INTERIOR ROOM LAMP CONTROL CIRCUIT

Description

INFOID:0000000005280251

Controls the following interior room lamps (ground side) by PWM signal
• Front room/map lamp assembly
• Room lamp 2nd row
NOTE:
PWM signal control period is approximately 250 Hz (in the gradual brightening/dimming).

Component Function Check

INFOID:0000000005280252

CAUTION:
 Before performing the diagnosis, check that the following is normal.
• **Battery saver output/power supply**
• **Front room/map lamp bulbs**
• **Room lamp 2nd row bulb**

1.CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

CONSULT-III
1. Switch the front room/map lamp assembly and room lamp 2nd row switches 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-19, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005280253

Regarding Wiring Diagram information, refer to INL-25, "Wiring Diagram".

1.CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

CONSULT-III
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 connector M20 terminal 63 and ground.

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

ALLIA0410GB

Is the inspection result normal?

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

## 2.CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT
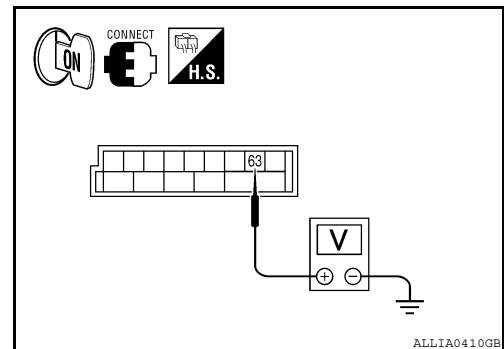
INTERIOR ROOM LAMP CONTROL CIRCUIT

< COMPONENT DIAGNOSIS >

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

Terminal		Terminal			Continuity
Connector	Terminal	Component	Connector	Terminal	
M20 (A)	63	Room lamp 2nd row (without rear map lamps)	R12 (B)	1	Yes
		Front room/map lamp	R9 (C)	2	

Is the inspection result normal?

YES >> Check interior room lamp for an open. If OK, replace the BCM. Refer to BCS-56, "Removal and Installation". If NG, replace the interior room lamp. Refer to INL-60, "Removal and Installation".

NO >> Repair the harness or connectors.
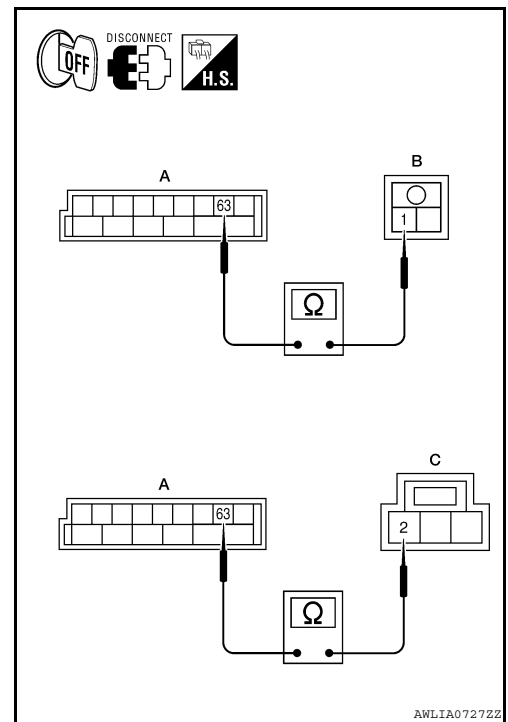
AWLIA0727ZZ

3. CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

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

Connector	Terminal	—	Continuity
M20	63	Ground	No

Is the inspection result normal?

YES >> Check interior room lamp for a short circuit. If OK, replace the BCM. Refer to BCS-56, "Removal and Installation". If NG, replace the interior room lamp. Refer to INL-60, "Removal and Installation".

NO >> Repair the harness or connectors.
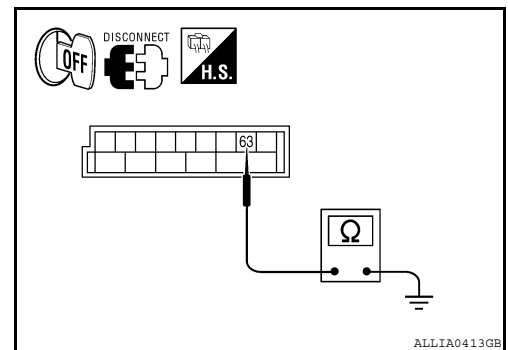
ALLIA0413GB

CARGO LAMP CONTROL CIRCUIT

Description

INFOID:0000000005280254

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

Component Function Check

INFOID:0000000005280255

CAUTION:
Before performing the diagnosis, check that the following is normal.
• **Battery saver output/power supply**
• **Cargo lamp bulb**

1.CHECK CARGO LAMP OPERATION

CONSULT-III
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-21, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005280256

Regarding Wiring Diagram information, refer to INL-25, "Wiring Diagram".

1.CHECK CARGO LAMP OUTPUT

CONSULT-III
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.

ALLIA0417GB

Connector	Terminal	—	LUGGAGE LAMP TEST	Voltage
M19	49	Ground	ON	0V
			OFF	Battery voltage
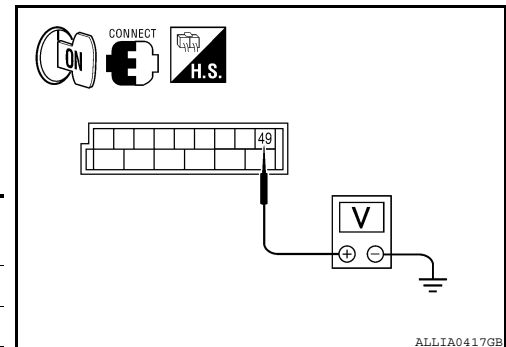
Is the inspection result normal?

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

< COMPONENT 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

<u>Is the inspection result normal?</u>

YES >> Check cargo lamp for an open. If OK, replace BCM. Refer to BCS-56, "Removal and Installation". If NG, replace cargo lamp. Refer to INL-60, "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 R11.
3. Check continuity between BCM connector M19 terminal 49 and ground.

Connector	Terminal	—	Continuity
M19	49	Ground	No

<u>Is the inspection result normal?</u>

YES >> Check cargo lamp for a short circuit. If OK, replace BCM. Refer to BCS-56, "Removal and Installation". If NG, replace cargo lamp. Refer to INL-60, "Removal and Installation".

NO >> Repair harness or connectors.
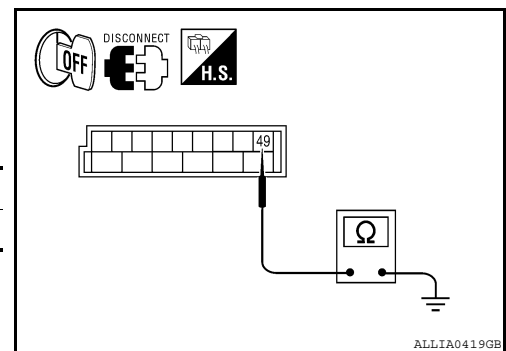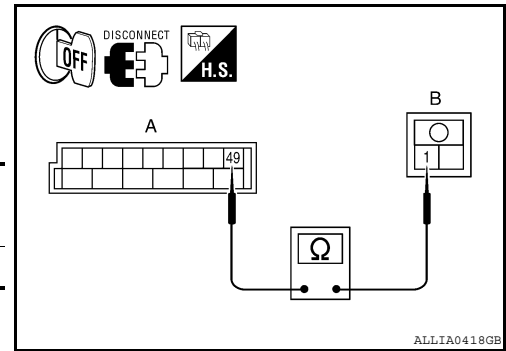
IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

Description
INFOID:0000000005280257

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

Component Function Check
INFOID:0000000005280258

CAUTION:
Before performing the diagnosis, check that the following is normal.
- **Battery saver output/power supply circuit**
- **Ignition keyhole illumination bulb**

1.CHECK IGNITION KEYHOLE ILLUMINATION OPERATION

Ⓑ CONSULT-III
1. Turn the 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-23, "Diagnosis Procedure".

Diagnosis Procedure
INFOID:0000000005280259

Regarding Wiring Diagram information, refer to INL-25, "Wiring Diagram".

1.CHECK IGNITION KEYHOLE OUTPUT

Ⓑ CONSULT-III
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.

ALLIA0420GB

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

Is the inspection result normal?

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

## 2.CHECK IGNITION KEYHOLE ILLUMINATION OPEN CIRCUIT
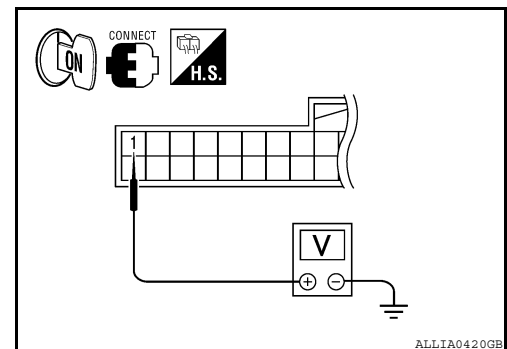
IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

< COMPONENT DIAGNOSIS >

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?

YES >> Check the ignition keyhole illumination for an open. If OK, replace the BCM. Refer to BCS-56, "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 the ignition keyhole illumination for a short circuit. If OK, replace the BCM. Refer to BCS-56, "Removal and Installation". If NG, replace ignition keyhole illumination.

NO >> Repair harness or connectors.
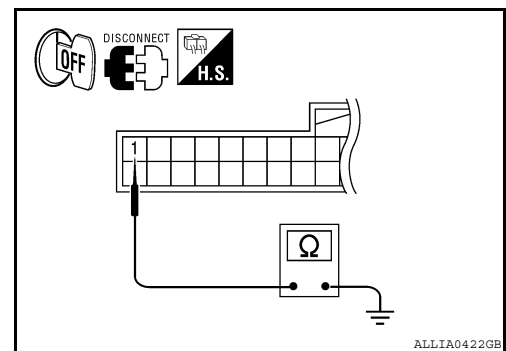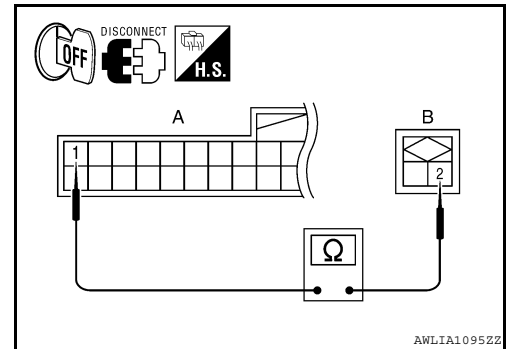
INTERIOR ROOM LAMP CONTROL SYSTEM

Wiring Diagram

INFOID:000000005280260
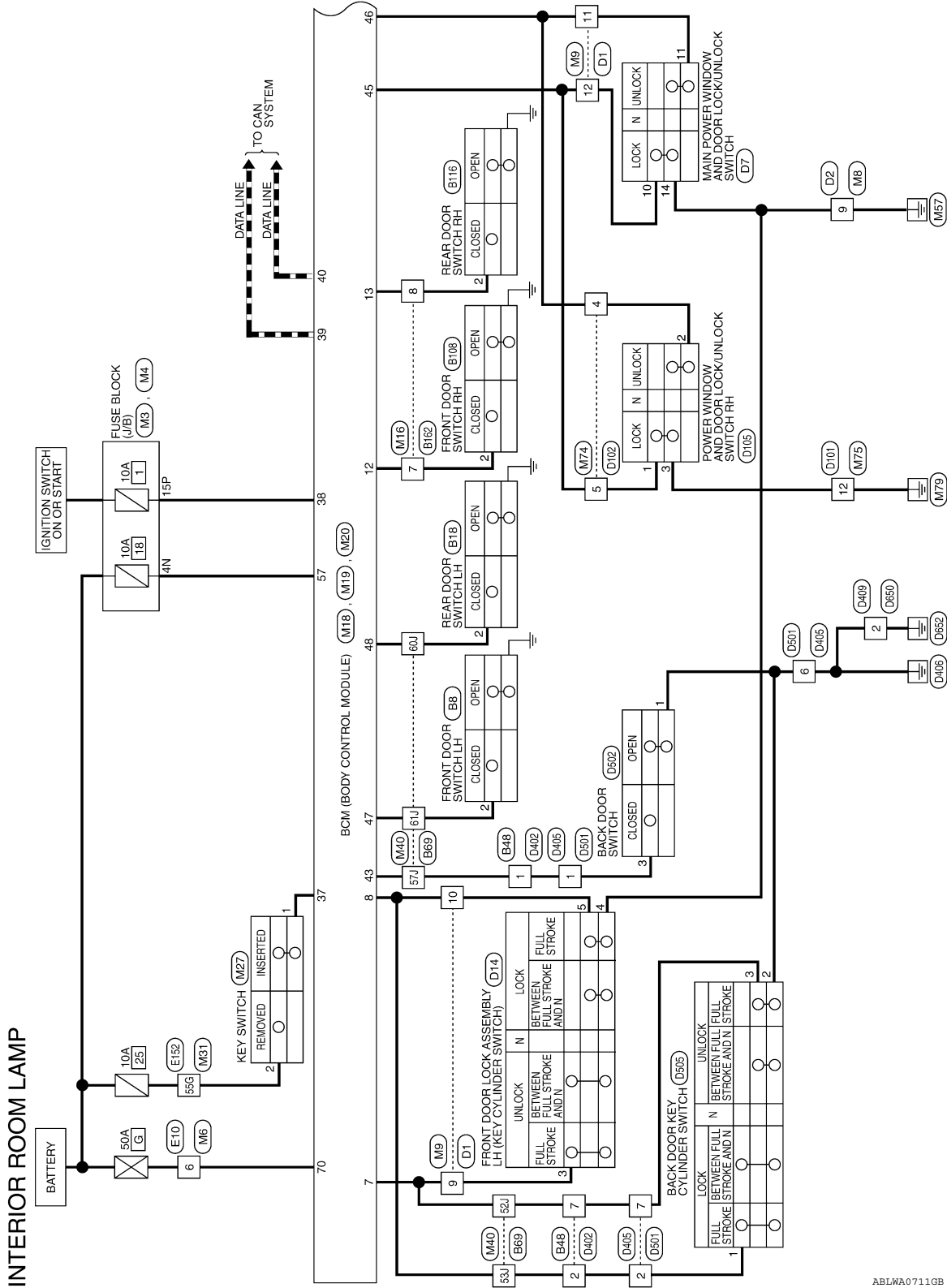
ABLWA0711GB

⟨VN⟩ : WITH VANITY LAMPS

B19

B7

VANITY LAMP RH (B81) ⟨VN⟩
2   OFF   ON   1

VANITY LAMP LH (B80) ⟨VN⟩
2   OFF   ON   1

B69   M40
69J

ROOM LAMP 2ND ROW (R12)
1   OFF   DOOR   ON   2

FRONT ROOM/MAP LAMP ASSEMBLY (R9)
OFF   ON
3   ON DOOR
OFF   ON DOOR
DOOR

20   M57

R1   M1

VN

9

21
63

M20   M19   M18
(BCM (BODY CONTROL MODULE))

M1   R1
8
49

CARGO LAMP (R11)
OFF   DOOR   ON
1   2

56

IGNITION KEYHOLE ILLUMINATION (M150)
2   1
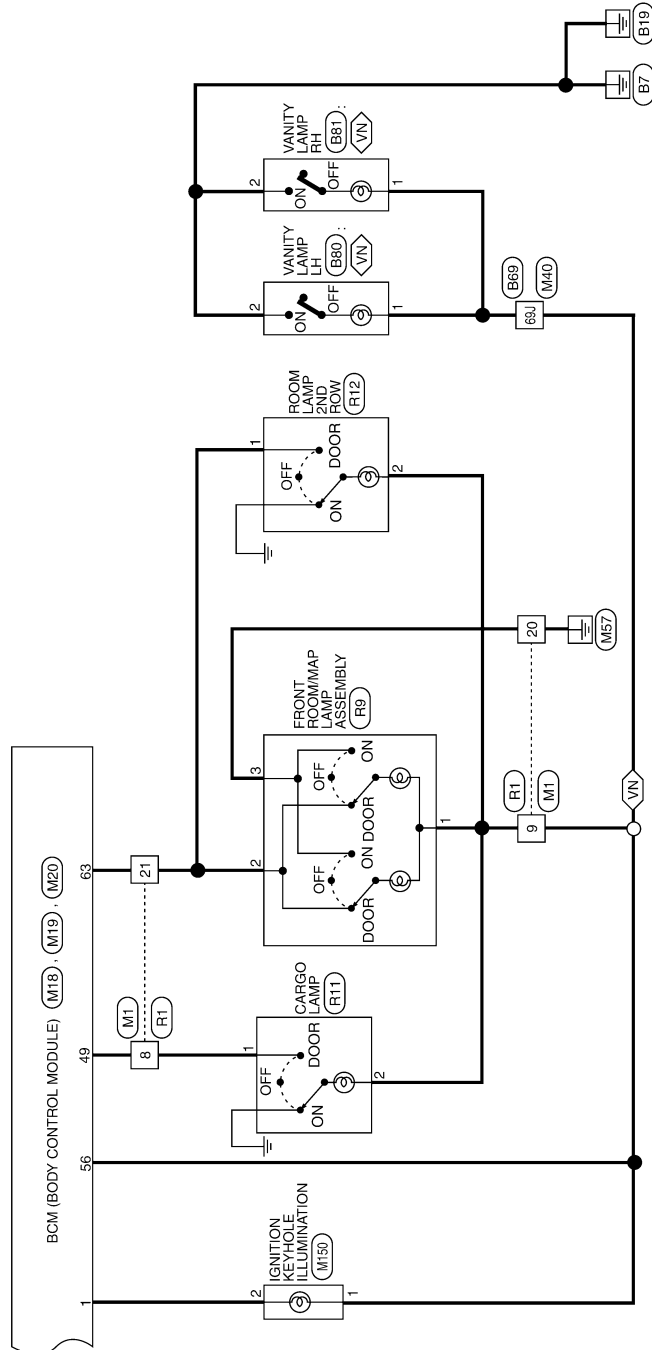
ABLWA0712GB

INTERIOR ROOM LAMP CONNECTORS

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
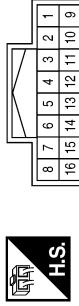
Terminal No.	Color of Wire	Signal Name
9	GR	–
10	SB	–
11	LG	–
12	V	–

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.	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
6	W	–

ABLIA0992GB

Terminal No.	Color of Wire	Signal Name
12	LG	DOOR SW (AS)
13	L	DOOR SW (RR)
37	B	KEY SW
38	W/R	IGN SW
39	L	CAN-H
40	P	CAN-L

Connector No.	M27
Connector Name	KEY SWITCH
Connector Color	WHITE

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

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE
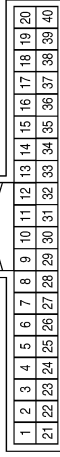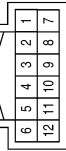
Terminal No.	Color of Wire	Signal Name
1	BR	KEY RING OUTPUT
7	GR	KEY CYLINDER UNLOCK SW
8	SB	KEY CYLINDER LOCK SW

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

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

Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
7	LG	–
8	L	–

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE
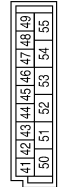
Terminal No.	Color of Wire	Signal Name
43	Y	BACK DOOR SW
45	V	CDL LOCK SW
46	LG	CDL UNLOCK SW
47	GR	DOOR SW (DR)
48	P	DOOR SW (RL)
49	L	CARGO LAMP OUTPUT

ABLIA1957GB

Terminal No.	Color of Wire	Signal Name
52J	GR	–
53J	SB	–
57J	Y	–
60J	P	–
61J	GR	–
69J	R/Y	–

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.	M40
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Color	WHITE
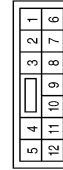
Terminal No.	Color of Wire	Signal Name
12	B	–

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

Terminal No.	Color of Wire	Signal Name
55G	Y	–

Connector No.	M74
Connector Name	WIRE TO WIRE
Connector Color	WHITE
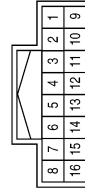
Terminal No.	Color of Wire	Signal Name
4	LG	–
5	P	–

ABLIA0994GB

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

H.S.
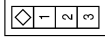
Terminal No.	Color of Wire	Signal Name
2	GR	–

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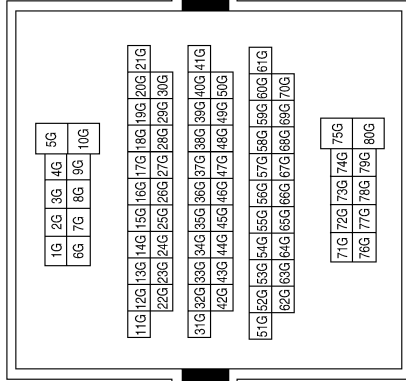
H.S.

Terminal No.	Color of Wire	Signal Name
55G	Y	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
6	W	–

Connector No. B48
Connector Name WIRE TO WIRE
Connector Color WHITE
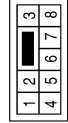
H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
7	GR	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
2	P	–

ABLIA0995GB

B80

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

H.S.

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

B116

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

H.S.

Terminal No.	Color of Wire	Signal Name
2	L	–

B69 / Signal Name table

Terminal No.	Color of Wire	Signal Name
52J	GR	–
53J	SB	–
57J	Y	–
60J	P	–
61J	GR	–
69J	R/Y	–
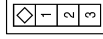
B108

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

H.S.

Terminal No.	Color of Wire	Signal Name
2	LG	–

B69

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

H.S.

| 1J | 2J | 3J | 4J | | 5J | | |
| 6J | 7J | 8J | 9J | | 10J | | |

| 11J | 12J | 13J | 14J | 15J | 16J | 17J | 18J | 19J | 20J | 21J |
| 22J | 23J | 24J | 25J | 26J | 27J | 28J | 29J | 30J | | |

| 31J | 32J | 33J | 34J | 35J | 36J | 37J | 38J | 39J | 40J | 41J |
| 42J | 43J | 44J | 45J | 46J | 47J | 48J | 49J | 50J | | |

| 51J | 52J | 53J | 54J | 55J | 56J | 57J | 58J | 59J | 60J | 61J |
| 62J | 63J | 64J | 65J | 66J | 67J | 68J | 69J | 70J | | |

| 71J | 72J | 73J | 74J | 75J | |
| 76J | 77J | 78J | 79J | 80J | |

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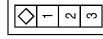
Connector No.	B81
Connector Name	VANITY LAMP RH
Connector Color	WHITE

H.S.

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

ABLIA1970GB

Connector No.	R9
Connector Name	FRONT ROOM/MAP LAMP ASSEMBLY
Connector Color	WHITE
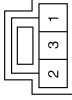
Terminal No.	Color of Wire	Signal Name
1	R/Y	–
2	Y	–
3	B	–

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE
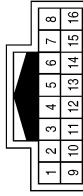
Terminal No.	Color of Wire	Signal Name
9	R/W	–
10	SB	–
11	W	–
12	LG	–

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.	R12
Connector Name	ROOM LAMP 2ND ROW
Connector Color	WHITE

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

Connector No.	B162
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
7	LG	–
8	L	–

Connector No.	R11
Connector Name	CARGO LAMP
Connector Color	WHITE

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

ABLIA1971GB

Connector No.	D14
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Color	GRAY
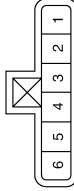
Terminal No.	Color of Wire	Signal Name
3	R/W	–
4	B	–
5	SB	–

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color	WHITE
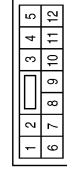
Terminal No.	Color of Wire	Signal Name
1	LG	–
2	W	–
3	B	–

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

Terminal No.	Color of Wire	Signal Name
10	LG	–
11	W	–
14	B	–

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
4	W	–
5	LG	–

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

Terminal No.	Color of Wire	Signal Name
9	B	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE
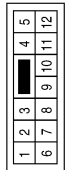
Terminal No.	Color of Wire	Signal Name
12	B	–

ABLIA1972GB

Connector No.	D409
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
2	B	–

Connector No.	D505
Connector Name	BACK DOOR KEY CYLINDER SWITCH
Connector Color	BROWN

Terminal No.	Color of Wire	Signal Name
1	SB	–
2	B	–
3	GR	–

Connector No.	D405
Connector Name	WIRE TO WIRE
Connector Color	WHITE
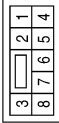
Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
6	B	–
7	GR	–

Connector No.	D502
Connector Name	BACK DOOR SWITCH
Connector Color	WHITE
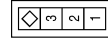
Terminal No.	Color of Wire	Signal Name
1	B	–
3	Y	–

Connector No.	D402
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
7	GR	–

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE
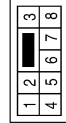
Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
6	B	–
7	GR	–

ABLIA1973GB

Connector No.	D650
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	B	—

ABLIA1974GB

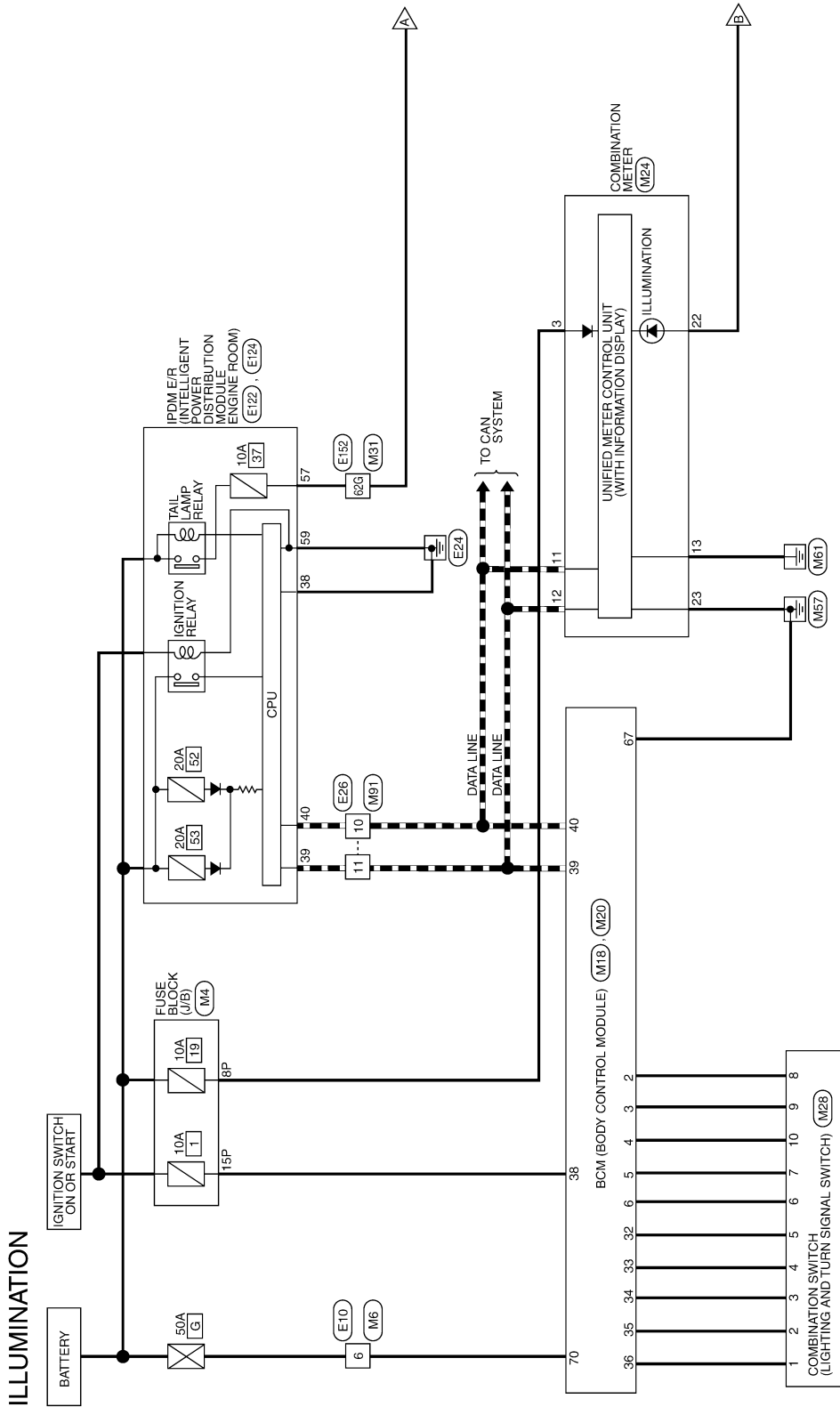# ILLUMINATION

Wiring Diagram

INFOID:000000005280261
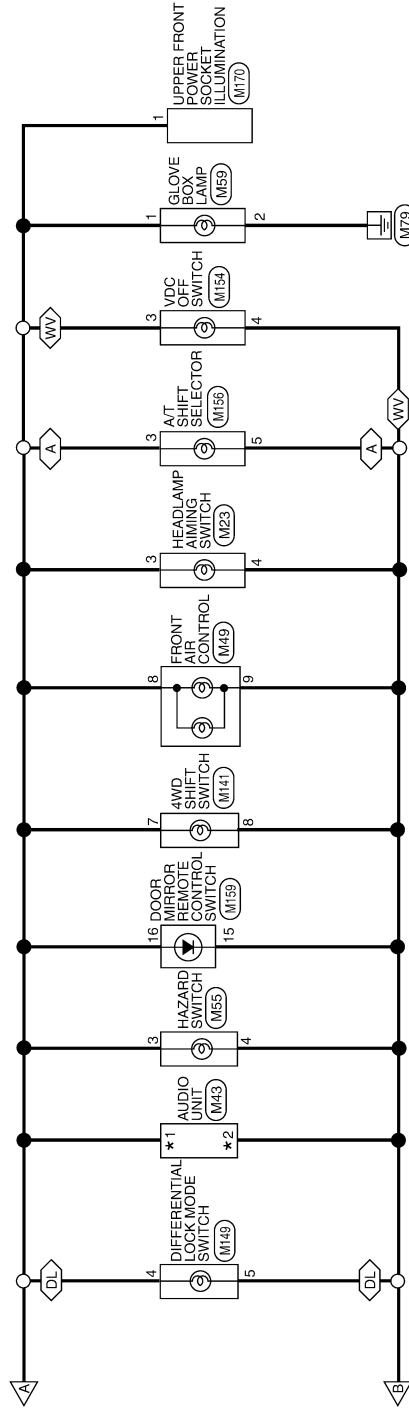

ABLWA0713GB

ILLUMINATION

< COMPONENT DIAGNOSIS >

A : WITH A/T
BA : WITH BASE AUDIO SYSTEM
DL : WITH ELECTRONIC LOCKING REAR DIFFERENTIAL
PA : WITH PREMIUM AUDIO SYSTEM
WV : WITH VDC

BA : 9
PA : 8
BA : 8
PA : 7

*1
*2

UPPER FRONT POWER SOCKET ILLUMINATION (M170)

GLOVE BOX LAMP (M59)

M79

VDC OFF SWITCH (M154)

A/T SHIFT SELECTOR (M156)

HEADLAMP AIMING SWITCH (M23)

FRONT AIR CONTROL (M49)

4WD SHIFT SWITCH (M141)

DOOR MIRROR REMOTE CONTROL SWITCH (M159)

HAZARD SWITCH (M55)

AUDIO UNIT (M43)

DIFFERENTIAL LOCK MODE SWITCH (M149)

ABLWA0714GB

ILLUMINATION

< COMPONENT DIAGNOSIS >

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
6	W	–

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE
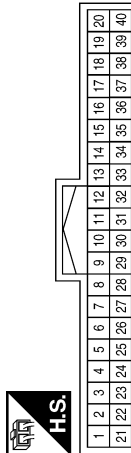
Terminal No.	Color of Wire	Signal Name
2	P	INPUT 5
3	SB	INPUT 4
4	V	INPUT 3
5	L	INPUT 2
6	R	INPUT 1

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)

Terminal No.	Color of Wire	Signal Name
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

ABLIA1000GB

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE
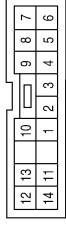
Terminal No.	Color of Wire	Signal Name
1	LG	INPUT 1
2	BR	INPUT 2
3	G	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5
6	R	OUTPUT 1
7	L	OUTPUT 2
8	P	OUTPUT 5
9	SB	OUTPUT 4
10	V	OUTPUT 3

Connector No.	M43
Connector Name	AUDIO UNIT (WITH PREMIUM AUDIO SYSTEM)
Connector Color	WHITE
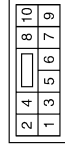
Terminal No.	Color of Wire	Signal Name
7	GR	ILL CONT
8	R	LIGHT SW

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

Terminal No.	Color of Wire	Signal Name
62G	R	—

Connector No.	M23
Connector Name	HEADLAMP AIMING SWITCH
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
3	R	—
4	B	—

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

ABLIA1001GB
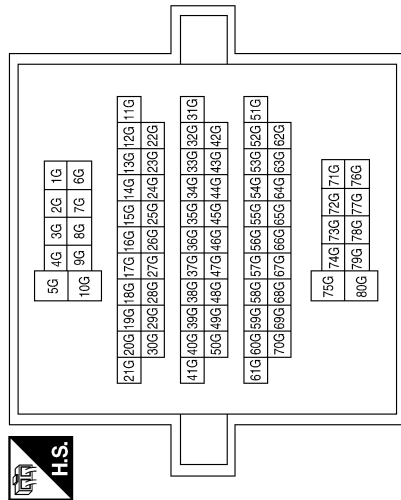
Connector No. M55
Connector Name HAZARD SWITCH
Connector Color WHITE

H.S.

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

Connector No. M141
Connector Name 4WD SHIFT SWITCH
Connector Color GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
7	R	LIGHT SW
8	BR	GND

Connector No. M49
Connector Name FRONT AIR CONTROL
Connector Color BLACK

H.S.
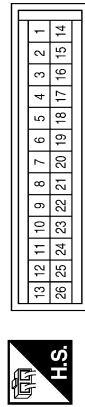
Terminal No.	Color of Wire	Signal Name
8	G	ILLUM (+)
9	BR	ILLUM (-)

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

H.S.

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

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

H.S.
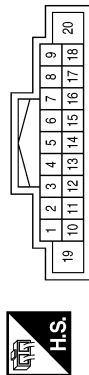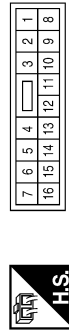
Terminal No.	Color of Wire	Signal Name
8	GR	ILL CONT
9	R	LIGHT SW

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

H.S.

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

ABLIA1958GB

Connector No.	M156
Connector Name	A/T SHIFT SELECTOR
Connector Color	WHITE

H.S.
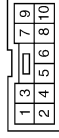
Terminal No.	Color of Wire	Signal Name
3	R	–
5	BR	–

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

H.S.
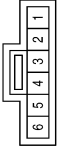
Terminal No.	Color of Wire	Signal Name
3	R	–
4	BR	–

Connector No.	M149
Connector Name	DIFFERENTIAL LOCK MODE SWITCH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
4	R	–
5	BR	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
6	W	–

Connector No.	M170
Connector Name	UPPER FRONT POWER SOCKET ILLUMINATION
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	O	–

Connector No.	M159
Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH
Connector Color	WHITE

H.S.
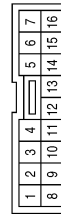
Terminal No.	Color of Wire	Signal Name
15	BR	–
16	R	–

ABLIA1959GB

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)

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE
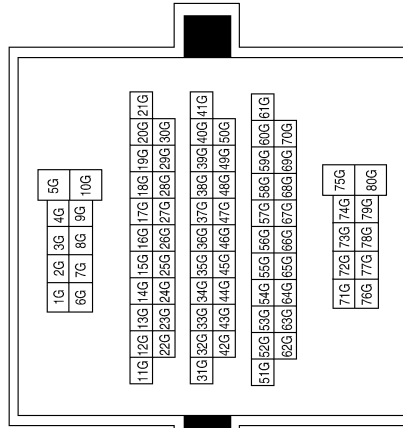
Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
39	L	CAN-H
40	P	CAN-L

Terminal No.	Color of Wire	Signal Name
62G	R	–

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

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

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

ABLIA1960GB

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000005714041

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
IGN ON SW	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
KEY ON SW	Mechanical key is removed from key cylinder	OFF
	Mechanical key is inserted to key cylinder	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-DR	Driver's door closed	OFF
	Driver's door opened	ON
DOOR SW-AS	Passenger door closed	OFF
	Passenger door opened	ON
DOOR SW-RR	Rear RH door closed	OFF
	Rear RH door opened	ON
DOOR SW-RL	Rear LH door closed	OFF
	Rear LH door opened	ON
BACK DOOR SW	Back door closed	OFF
	Back door opened	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
KEYLESS LOCK	"LOCK" button of key fob is not pressed	OFF
	"LOCK" button of key fob is pressed	ON
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	OFF
	"UNLOCK" button of key fob is pressed	ON
ACC ON SW	Ignition switch OFF	OFF
	Ignition switch ACC or ON	ON
REAR DEF SW	Rear window defogger switch OFF	OFF
	Rear window defogger switch ON	ON
LIGHT SW 1ST	Lighting switch OFF	OFF
	Lighting switch 1ST	ON
BUCKLE SW	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) OFF]	OFF
	The seat belt (driver side) is fastened. [Seat belt switch (driver side) ON]	ON
KEYLESS PANIC	PANIC button of key fob is not pressed	OFF
	PANIC button of key fob is pressed	ON

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

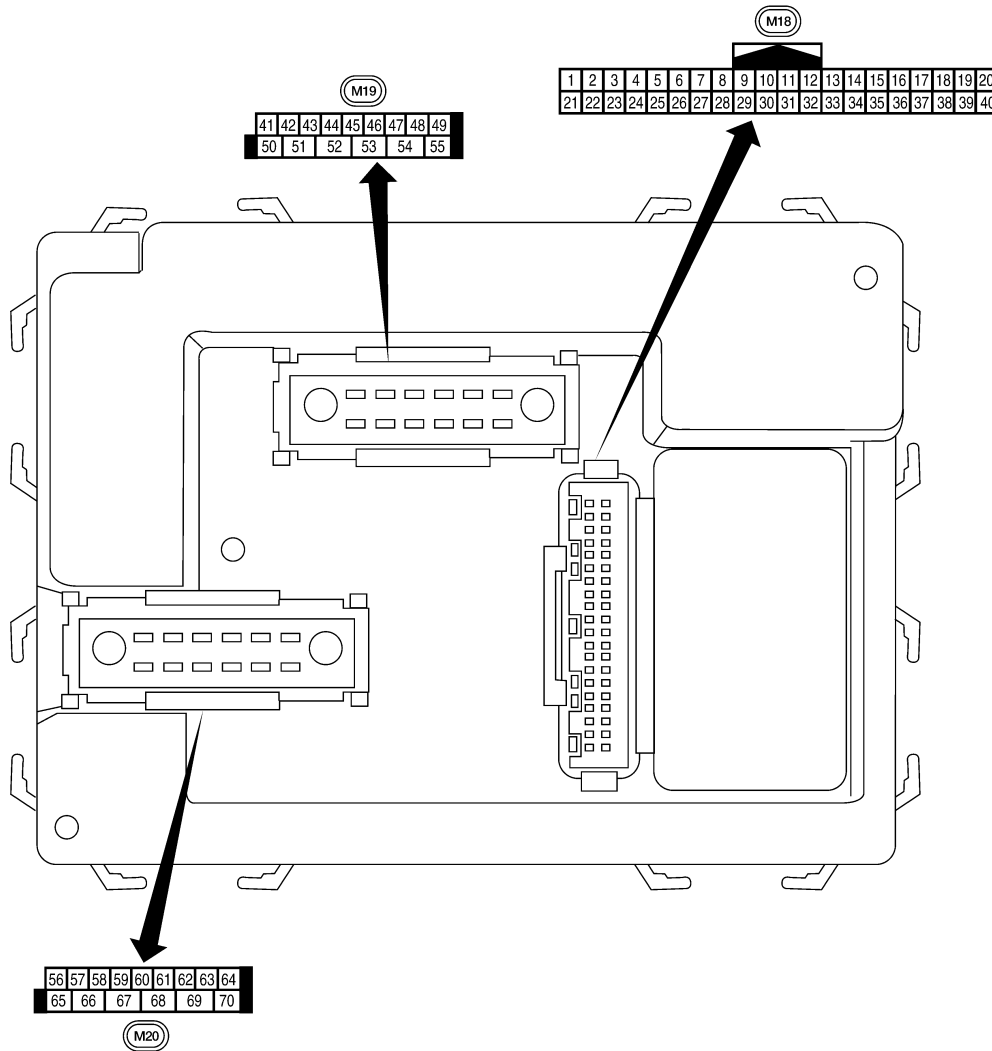| Monitor Item	Condition	Value/Status
RKE LCK-UNLCK	LOCK/UNLOCK button of key fob is not pressed and held simultaneously	OFF
	LOCK/UNLOCK button of key fob is pressed and held simultaneously	ON
RKE KEEP UNLK	UNLOCK button of key fob is not pressed	OFF
	UNLOCK button of key fob is pressed and held	ON
HI BEAM SW	Lighting switch OFF	OFF
	Lighting switch HI	ON
HEAD LAMP SW 1	Lighting switch OFF	OFF
	Lighting switch 2ND	ON
HEAD LAMP SW 2	Lighting switch OFF	OFF
	Lighting switch 2ND	ON
PASSING SW	Other than lighting switch PASS	OFF
	Lighting switch PASS	ON
FR FOG SW	Front fog lamp switch OFF	OFF
	Front fog lamp switch ON	ON
TURN SIGNAL R	Turn signal switch OFF	OFF
	Turn signal switch RH	ON
TURN SIGNAL L	Turn signal switch OFF	OFF
	Turn signal switch LH	ON
CARGO LAMP SW	Cargo lamp switch OFF	OFF
	Cargo lamp switch ON	ON
IGN SW CAN	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
FR WIPER HI	Front wiper switch OFF	OFF
	Front wiper switch HI	ON
FR WIPER LOW	Front wiper switch OFF	OFF
	Front wiper switch LO	ON
FR WIPER INT	Front wiper switch OFF	OFF
	Front wiper switch INT	ON
FR WASHER SW	Front washer switch OFF	OFF
	Front washer switch ON	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
FR WIPER STOP	Any position other than front wiper stop position	OFF
	Front wiper stop position	ON
VEHICLE SPEED	While driving	Equivalent to speedometer reading
RR WIPER ON	Rear wiper switch OFF	OFF
	Rear wiper switch ON	ON
RR WIPER INT	Rear wiper switch OFF	OFF
	Rear wiper switch INT	ON
RR WASHER SW	Rear washer switch OFF	OFF
	Rear washer switch ON	ON
RR WIPER STOP	Any position other than rear wiper stop position	OFF
	Rear wiper stop position	ON

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
HAZARD SW	Hazard switch OFF	OFF
	Hazard switch ON	ON
BRAKE SW	Brake pedal is not depressed	OFF
	Brake pedal is depressed	ON
FAN ON SIG	Blower fan motor switch OFF	OFF
	Blower fan motor switch ON (other than OFF)	ON
AIR COND SW	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	OFF
	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	ON
OIL PRESS SW	• Ignition switch OFF or ACC • Engine running	OFF
	Ignition switch ON	ON
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	DONE
	ID of front LH tire transmitter is not registered	YET
ID REGST FR1	ID of front RH tire transmitter is registered	DONE
	ID of front RH tire transmitter is not registered	YET
ID REGST RR1	ID of rear RH tire transmitter is registered	DONE
	ID of rear RH tire transmitter is not registered	YET
ID REGST RL1	ID of rear LH tire transmitter is registered	DONE
	ID of rear LH tire transmitter is not registered	YET
WARNING LAMP	Tire pressure indicator OFF	OFF
	Tire pressure indicator ON	ON
BUZZER	Tire pressure warning alarm is not sounding	OFF
	Tire pressure warning alarm is sounding	ON

BCM (BODY CONTROL MODULE)

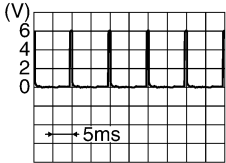< ECU DIAGNOSIS >

Terminal Layout
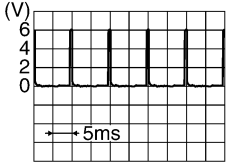
LIIA2443E

Physical Values
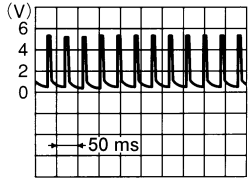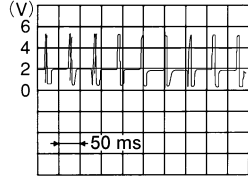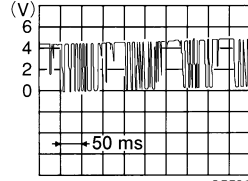
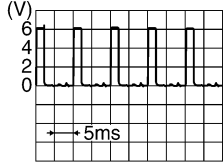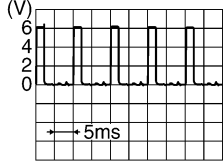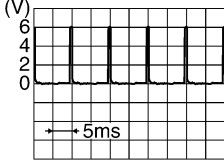| Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
1	BR	Ignition keyhole illumination	Output	OFF	Door is locked (SW OFF)	Battery voltage
					Door is unlocked (SW ON)	0V
2	P	Combination switch input 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				
7	GR	Front door lock assembly LH (key cylinder switch) and back door key cylinder switch (unlock)	Input	OFF	ON (open, 2nd turn)	Momentary 1.5V
					OFF (closed)	0V
8	SB	Front door lock assembly LH (key cylinder switch) and back door key cylinder switch (lock)	Input	OFF	ON (open)	Momentary 1.5V
					OFF (closed)	0V
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
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
19	V	Remote keyless entry receiver (power supply)	Output	OFF	Ignition switch OFF	LIIA1893E
20	G	Remote keyless entry receiver (signal)	Input	OFF	Stand-by (keyfob buttons released)	LIIA1894E
					When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	LIIA1895E
21	GR	Immobilizer antenna signal (clock)	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.
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

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	(V) 6 4 2 0 ←→5ms SKIA5291E
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ←→5ms SKIA5292E
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ←→5ms SKIA5291E
35	BR	Combination switch output 2	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ←→5ms SKIA5292E
36	LG	Combination switch output 1				
37	B	Key switch and key lock solenoid	Input	OFF	Key inserted	Battery voltage
					Key inserted	0V
38	W/R	Ignition switch (ON)	Input	ON	—	Battery voltage
39	L	CAN-H	—	—	—	—
40	P	CAN-L	—	—	—	—
43	Y	Back door switch	Input	OFF	ON (open)	0V
					OFF (closed)	Battery voltage
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
45	V	Lock switch	Input	OFF	ON (lock)	0V
					OFF	Battery voltage
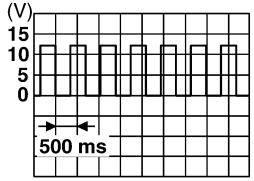
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal	Wire color	Signal name	Signal input/ output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
46	LG	Unlock switch	Input	OFF	ON (unlock)	0V
					OFF	Battery voltage
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
55	W	Rear wiper output circuit 1	Output	ON	OFF	0
					ON	Battery voltage
56	R/Y	Battery saver output	Output	OFF	30 minutes after ignition switch is turned OFF	0V
				ON	—	Battery voltage
57	R/Y	Battery power supply	Input	OFF	—	Battery voltage
59	GR	Front door lock assembly LH actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
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
					Any door switch — 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 back door lock actuator (unlock)	Output	OFF	OFF (neutral)	0V
					ON (unlock)	Battery voltage
67	B	Ground	Input	ON	—	0V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

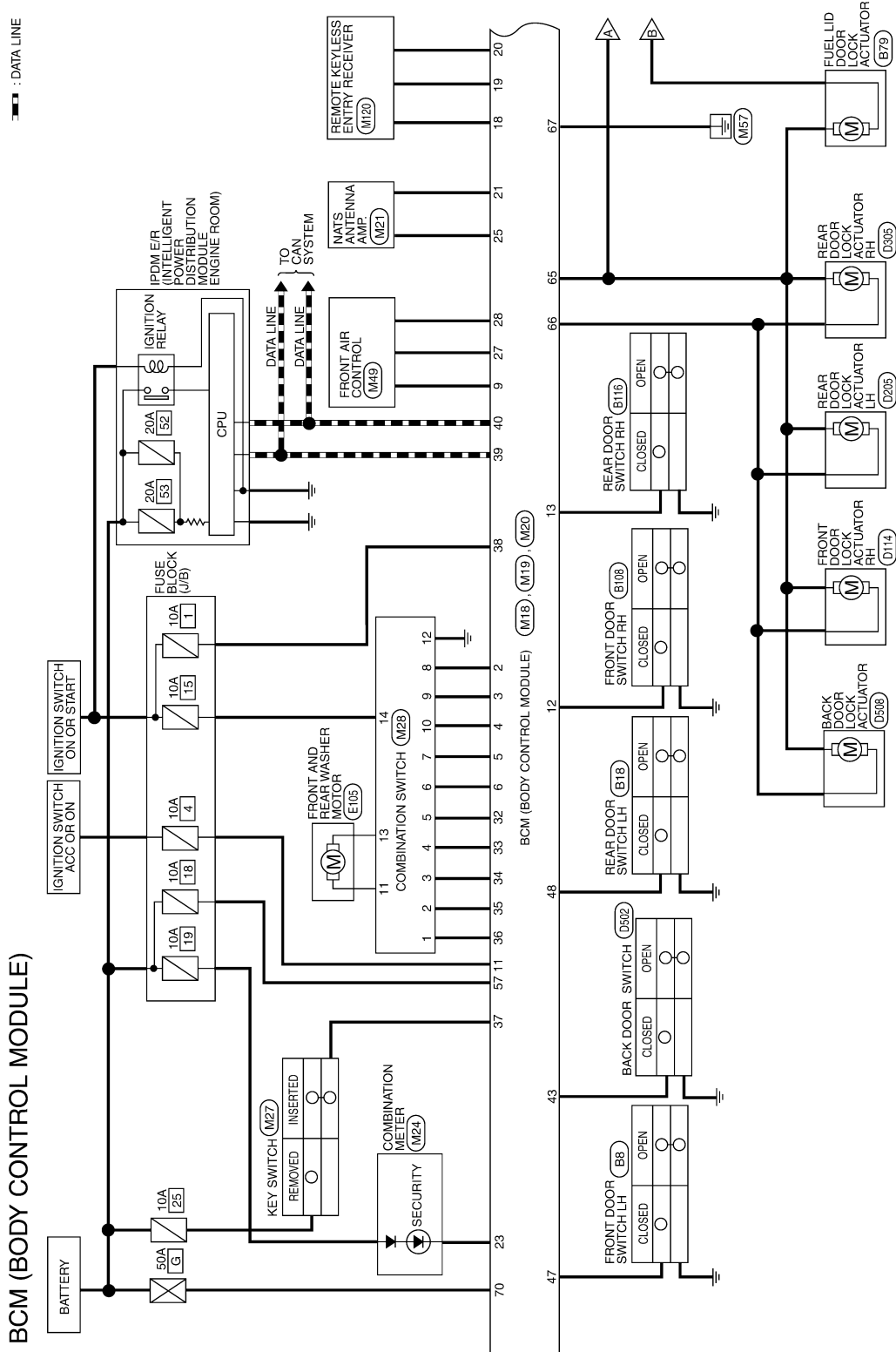| Terminal	Wire color	Signal name	Signal input/output	Measuring condition		Reference value or waveform (Approx.)
				Ignition switch	Operation or condition	
68	O	Power window power supply (RAP)	Output	—	Ignition switch ON	Battery voltage
					Within 45 seconds after ignition switch OFF	Battery voltage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

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

P

Wiring Diagram

ABMWA0212GB

ABMWA0213GB

BCM (BODY CONTROL MODULE) CONNECTORS

Terminal No.	Color of Wire	Signal Name
9	Y	DEFOGGER SW
10	–	–
11	G/B	ACC_SW
12	LG	DOOR SW (AS)
13	L	DOOR SW (RR)
14	–	–
15	W	TPMS MODE TRIGGER SW
16	–	–
17	–	–
18	BR	KEYLESS & AUTO LIGHT SENSOR GND
19	V	KEYLESS TUNER POWER SUPPLY OUTPUT
20	G	KEYLESS TUNER SIGNAL
21	GR	ANTENNA SIGNAL IMMOBILIZER
22	–	–

Terminal No.	Color of Wire	Signal Name
23	G	SECURITY INDICATOR OUTPUT
24	–	–
25	BR	IMMOBILIZER ANTENNA SIG (RX,TX)
26	–	–
27	W	AIRCON SW
28	R	BLOWER FAN SW
29	G	HAZARD SW
30	–	–
31	–	–
32	O	OUTPUT 5
33	GR	OUTPUT 4
34	G	OUTPUT 3
35	BR	OUTPUT 2
36	LG	OUTPUT 1
37	B	KEY SW
38	W/R	IGN SW
39	L	CAN-H
40	P	CAN-L

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

H.S.

| 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 |
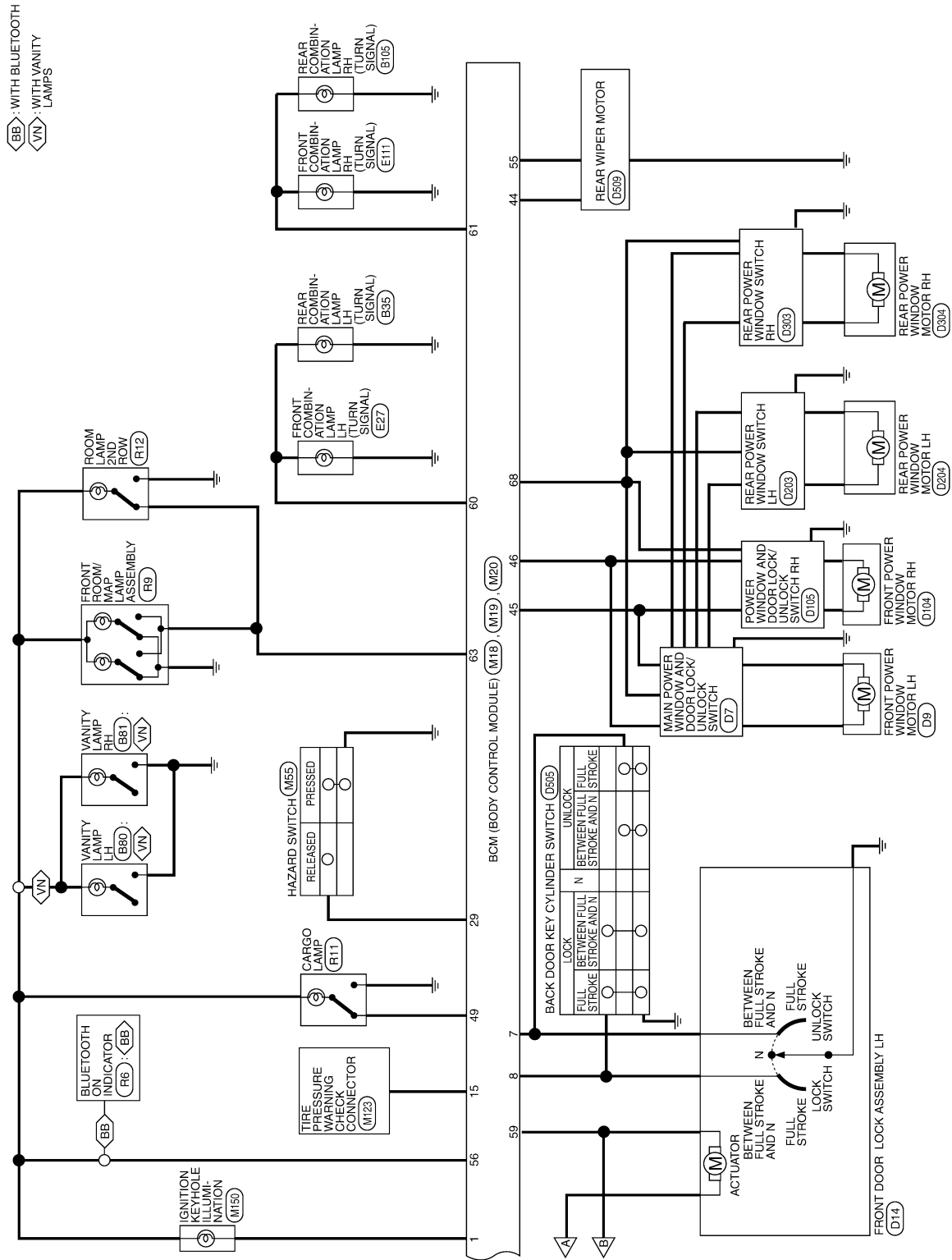
Terminal No.	Color of Wire	Signal Name
1	BR	KEY RING OUTPUT
2	P	INPUT 5
3	SB	INPUT 3
4	V	INPUT 4
5	L	INPUT 2
6	R	INPUT 1
7	GR	KEY CYLINDER UNLOCK SW
8	SB	KEY CYLINDER LOCK SW

Terminal No.	Color of Wire	Signal Name
42	–	–
43	Y	BACK DOOR SW
44	O	REAR WIPER AUTO STOP SW1
45	V	CDL LOCK SW
46	LG	CDL UNLOCK SW
47	GR	DOOR SW (DR)
48	P	DOOR SW (RL)
49	L	CARGO LAMP OUTPUT

Terminal No.	Color of Wire	Signal Name
50	–	–
51	–	–
52	–	–
53	–	–
54	–	–
55	W	REAR WIPER MOTOR OUTPUT 1

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
41	–	–

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Terminal No.	Color of Wire	Signal Name
61	G	FLASHER OUTPUT (RIGHT)
62	–	–
63	BR	ROOM LAMP OUTPUT
64	–	–
65	V	DOOR LOCK OUTPUT (ALL)
66	L	DOOR UNLOCK OUTPUT (OTHER)
67	B	GND (POWER)
68	O	POWER WINDOW POWER SUPPLY OUT (LINKED TO RAP)
69	–	–
70	W	BAT (F/L)

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
9	SB	OUTPUT 4
10	V	OUTPUT 3
11	O	WASH_FR (-)_RR(+)
12	B	GND
13	L	WASH_FR (+)_RR(-)
14	W	ING

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

Terminal No.	Color of Wire	Signal Name
56	V	BATTERY SAVER OUTPUT
57	R/Y	BAT (FUSE)
58	–	–
59	GR	DOOR UNLOCK OUTPUT (DR)
60	LG	FLASHER OUTPUT (LEFT)

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

ABMIA0642GB
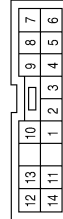
Fail Safe

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.
U1010: CONTROL UNIT (CAN)	Inhibit engine cranking	When the BCM re-start communicating with the other modules.

DTC Inspection Priority Chart

INFOID:0000000005714046

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

Priority	DTC
1	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	• B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM
3	• C1729: VHCL SPEED SIG ERR
4	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] 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 • C1735: IGNITION SIGNAL

DTC Index

INFOID:0000000005714047

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.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

CONSULT display	Fail-safe	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—
U1000: CAN COMM CIRCUIT	—	—	BCS-29
U1010: CONTROL UNIT (CAN)	—	—	BCS-30
B2190: NATS ANTENNA AMP	—	—	SEC-18
B2191: DIFFERENCE OF KEY	—	—	SEC-21
B2192: ID DISCORD BCM-ECM	—	—	SEC-22
B2193: CHAIN OF BCM-ECM	—	—	SEC-24
C1708: [NO DATA] FL	—	—	WT-14
C1709: [NO DATA] FR	—	—	WT-14
C1710: [NO DATA] RR	—	—	WT-14
C1711: [NO DATA] RL	—	—	WT-14
C1712: [CHECKSUM ERR] FL	—	—	WT-16
C1713: [CHECKSUM ERR] FR	—	—	WT-16
C1714: [CHECKSUM ERR] RR	—	—	WT-16
C1715: [CHECKSUM ERR] RL	—	—	WT-16
C1716: [PRESSDATA ERR] FL	—	—	WT-18
C1717: [PRESSDATA ERR] FR	—	—	WT-18
C1718: [PRESSDATA ERR] RR	—	—	WT-18
C1719: [PRESSDATA ERR] RL	—	—	WT-18
C1720: [CODE ERR] FL	—	—	WT-16
C1721: [CODE ERR] FR	—	—	WT-16
C1722: [CODE ERR] RR	—	—	WT-16
C1723: [CODE ERR] RL	—	—	WT-16
C1724: [BATT VOLT LOW] FL	—	—	WT-16
C1725: [BATT VOLT LOW] FR	—	—	WT-16
C1726: [BATT VOLT LOW] RR	—	—	WT-16
C1727: [BATT VOLT LOW] RL	—	—	WT-16
C1729: VHCL SPEED SIG ERR	—	—	WT-19
C1735: IGNITION SIGNAL	—	—	WT-20

SYMPTOM DIAGNOSIS
INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000005280268

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

Symptom	Possible cause	Inspection item
All of the following lamps do not turn ON • Front room/map lamp assembly • Room lamp 2nd row • Cargo room lamp • Vanity mirror lamps (if equipped) • Ignition keyhole illumination	• Harness between BCM and each interior room lamp • Harness between BCM and each door switch • BCM	Battery saver output/power supply circuit Refer to INL-17.
Some or all of the following interior room lamps do not turn ON/OFF • Front room/map lamp assembly • Room lamp 2nd row	• Harness between BCM and each door switch • Harness between BCM and each interior room lamp • BCM	Door switch circuit Refer to DLK-25.
		Interior room lamp control circuit Refer to INL-19.
Cargo lamp does not turn ON/OFF	• Harness between BCM and cargo lamp • BCM	Cargo lamp circuit Refer to INL-21.
Ignition keyhole illumination does not turn ON/OFF	• Harness between BCM and ignition keyhole illumination • BCM	Ignition keyhole illumination circuit Refer to INL-23.
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	—	Check the interior room lamp setting. Refer to INL-12.
Interior room lamp battery saver does not activate.	—	Check the interior room lamp battery saver setting. Refer to INL-13.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000005775263

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.**

General precautions for service operations

INFOID:0000000005280270

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

ON-VEHICLE REPAIR

INTERIOR ROOM LAMP

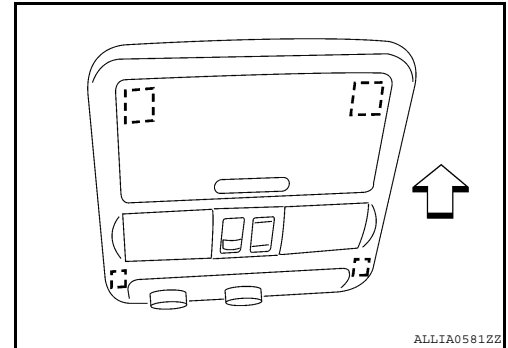### Removal and Installation

INFOID:0000000005280271

FRONT ROOM/MAP LAMP

Removal

The front room/map lamp is replaced as part of the overhead console assembly. Refer to <u>INT-17, "Removal and Installation"</u>.

⇦: Vehicle front

[ ]: Metal clip

ALLIA0581ZZ

Installation

Installation is in the reverse order of removal.

Bulb Replacement

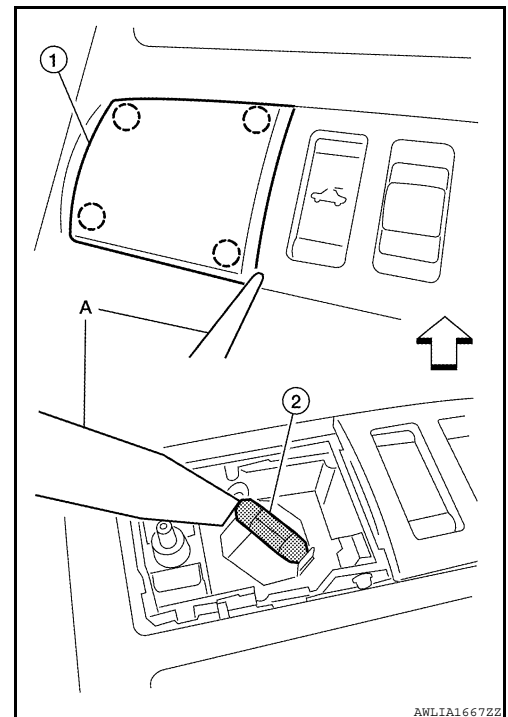1. Using a suitable tool (A), remove front room/map lamp lens (1).
   ⇦: Vehicle front
   ( ): Pawl
   CAUTION:
   Wrap a cloth around tool to protect the housing and lens.

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

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

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VANITY MIRROR LAMP

Removal

INTERIOR ROOM LAMP

< ON-VEHICLE REPAIR >

The vanity mirror lamp is replaced as part of the sunvisor assembly.
Refer to INT-17, "Removal and Installation".

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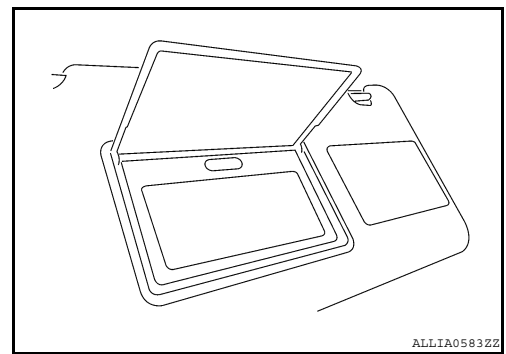
Installation
Installation is in the reverse order of removal.

Bulb Replacement
The vanity mirror lamp bulb is replaced as part of the sunvisor assembly. Refer to INT-17, "Removal and Installation".
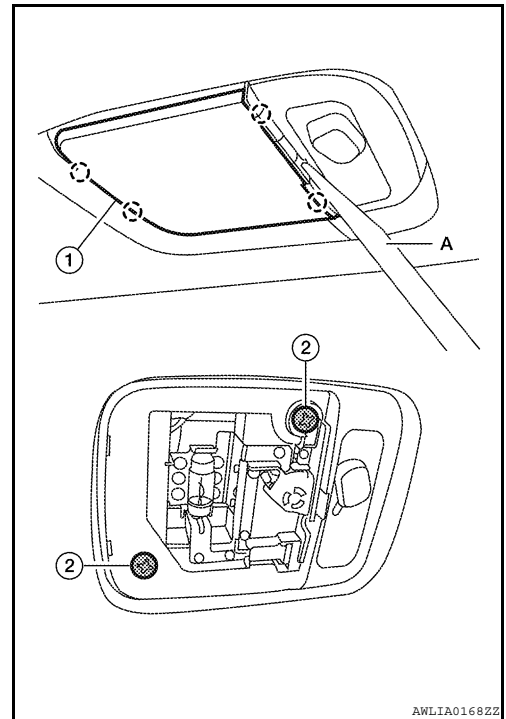
CARGO LAMP

Removal

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

AWLIA0168ZZ

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**

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ILLUMINATION

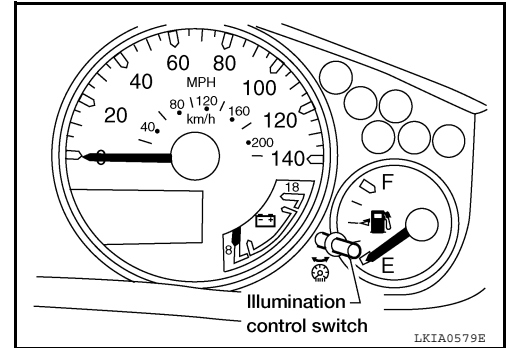## Removal and Installation

ILLUMINATION CONTROL SWITCH

Removal

The illumination control switch is replaced as a part of the combination meter assembly. Refer to MWI-86, "Removal and Installation".
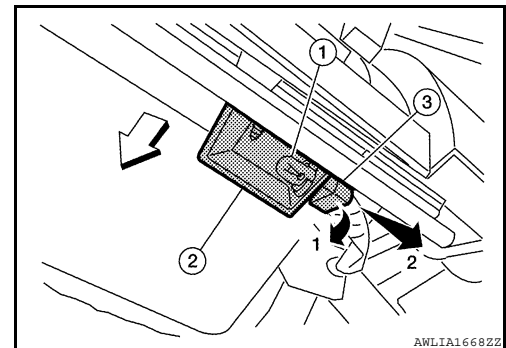
Installation

Installation is in the reverse order of removal.

GLOVE BOX LAMP

Removal

1. Remove instrument lower panel RH and glove box. Refer to IP-11, "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.
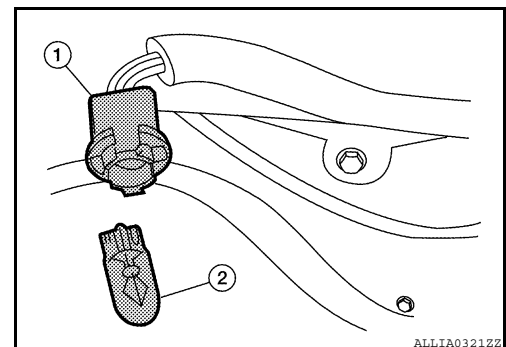
⇦: Vehicle front

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**
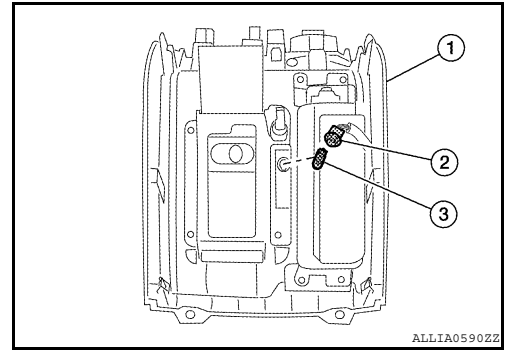
A/T FINISHER LAMP

Removal

1. Remove A/T finisher from center console. Refer to IP-11, "Removal and Installation".

ILLUMINATION

< ON-VEHICLE REPAIR >

2. Rotate A/T finisher lamp socket (2) with bulb (3) counterclock-wise, then pull away from finisher (1).
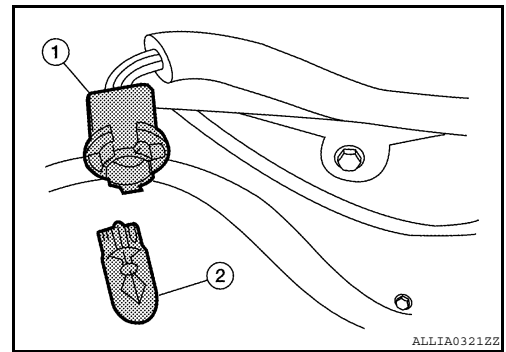

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Installation

Installation is in the reverse order of removal.

Bulb Replacement

1. Remove A/T finisher from center console. Refer to IP-11, "Removal and Installation".

2. Remove A/T finisher lamp socket (1), then pull bulb (2) straight out away from socket.

   A/T finisher lamp bulb   **: 12V - 3W**

ALLIA0321ZZ

BULB SPECIFICATIONS

SERVICE DATA AND SPECIFICATIONS (SDS)
BULB SPECIFICATIONS

Interior Lamp/Illumination

INFOID:0000000005280273

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

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