

SECTION **INL**

INTERIOR LIGHTING SYSTEM

CONTENTS

BASIC INSPECTION	3	POWER SUPPLY AND GROUND CIRCUIT	17
DIAGNOSIS AND REPAIR WORKFLOW	3	BCM	17
Work Flow	3	BCM : Diagnosis Procedure	17
FUNCTION DIAGNOSIS	5	INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT	18
INTERIOR ROOM LAMP CONTROL SYSTEM	5	Description	18
System Diagram	5	Component Function Check	18
System Description	5	Diagnosis Procedure	18
Component Parts Location	6	INTERIOR ROOM LAMP CONTROL CIRCUIT	20
Component Description	7	Description	20
Component Function Check	20	Component Function Check	20
INTERIOR ROOM LAMP BATTERY SAVER SYSTEM	8	Diagnosis Procedure	20
System Diagram	8	INTERIOR ROOM LAMP CONTROL SYSTEM	22
System Description	8	Description	22
Component Parts Location	9	LHD	22
Component Description	10	LHD : Wiring Diagram - INTERIOR ROOM LAMP	22
ILLUMINATION CONTROL SYSTEM	11	-	22
System Diagram	11	RHD	29
System Description	11	RHD : Wiring Diagram - INTERIOR ROOM LAMP	29
Component Parts Location	12	-	30
Component Description	12	ILLUMINATION	38
DIAGNOSIS SYSTEM (BCM)	13	Wiring Diagram - ILLUMINATION -	38
COMMON ITEM	13	ECU DIAGNOSIS	47
COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)	13	BCM (BODY CONTROL MODULE)	47
INT LAMP	13	Reference Value	47
INT LAMP : CONSULT-III Function (BCM - INT LAMP)	14	Wiring Diagram - BCM -	64
BATTERY SAVER	15	Fail Safe	70
BATTERY SAVER : CONSULT-III Function (BCM - BATTERY SAVER)	15	DTC Inspection Priority Chart	71
COMPONENT DIAGNOSIS	17	DTC Index	72
		SYMPTOM DIAGNOSIS	73
		INTERIOR LIGHTING SYSTEM SYMPTOMS ...	73

A
B
C
D
E

F
G
H
I
J
K
L
M
N
O
P

INL

Symptom Table	73	STEP LAMP	78
PRECAUTION	74	Exploded View	78
PRECAUTIONS	74	Removal and Installation	78
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"	74	Replacement	78
ON-VEHICLE REPAIR	75	LUGGAGE ROOM LAMP	79
MAP LAMP	75	ROOF SIDE	79
Exploded View	75	ROOF SIDE : Exploded View	79
Removal and Installation	75	ROOF SIDE : Removal and Installation	79
Replacement	75	ROOF SIDE : Replacement	79
VANITY MIRROR LAMP	76	BACK DOOR SIDE	79
Exploded View	76	BACK DOOR SIDE : Exploded View	80
Replacement	76	BACK DOOR SIDE : Removal and Installation	80
Replacement	77	BACK DOOR SIDE : Replacement	80
ROOM LAMP	77	SERVICE DATA AND SPECIFICATIONS (SDS)	81
Exploded View	77	SERVICE DATA AND SPECIFICATIONS (SDS)	81
Removal and Installation	77	Bulb Specifications	81
Replacement	77		

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

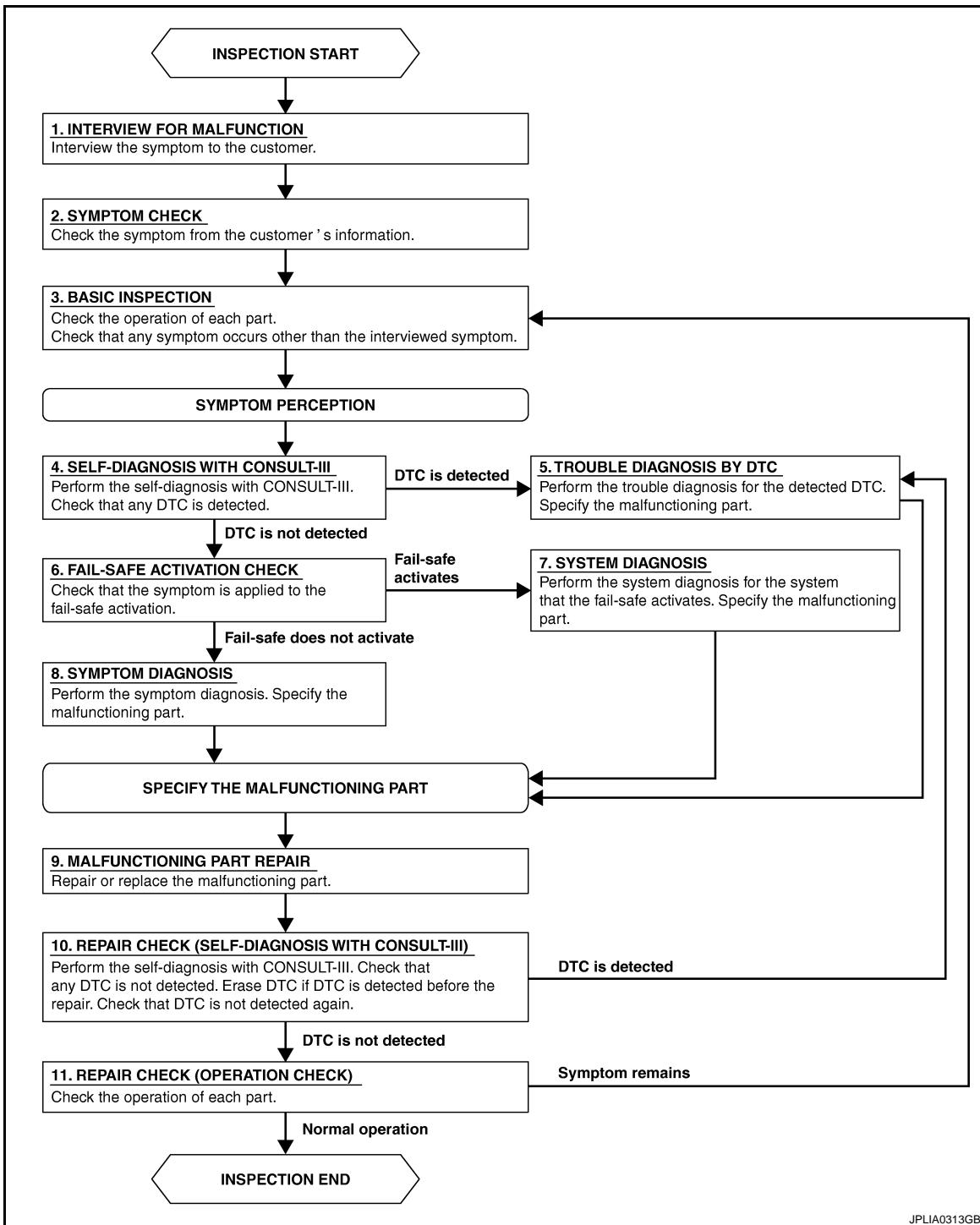
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000001338182

OVERALL SEQUENCE



JPLIA0313GB

DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

>> GO TO 2.

2. SYMPTOM CHECK

Check the symptom from the customer's information.

>> GO TO 3.

3. BASIC INSPECTION

Check the operation of each part. Check that any symptom occurs other than the interviewed symptom.

>> 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

Check that the symptom is applied to the 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 that 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. Check that any DTC is not detected. Erase DTC if DTC is detected before the repair. Check that DTC is not detected again.

Is any DTC detected?

YES >> GO TO 5.

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.

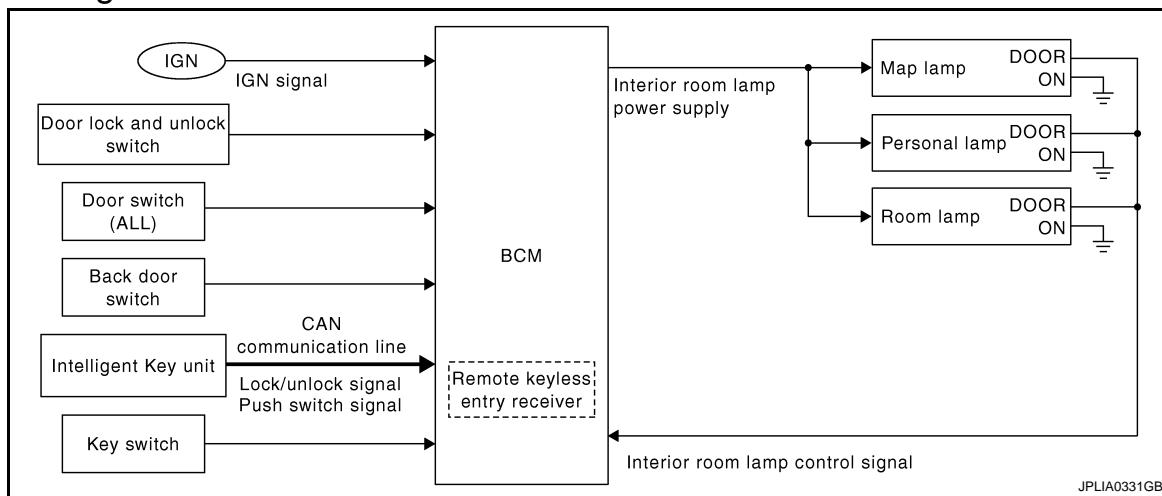
INTERIOR ROOM LAMP CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



System Description

INFOID:0000000001160319

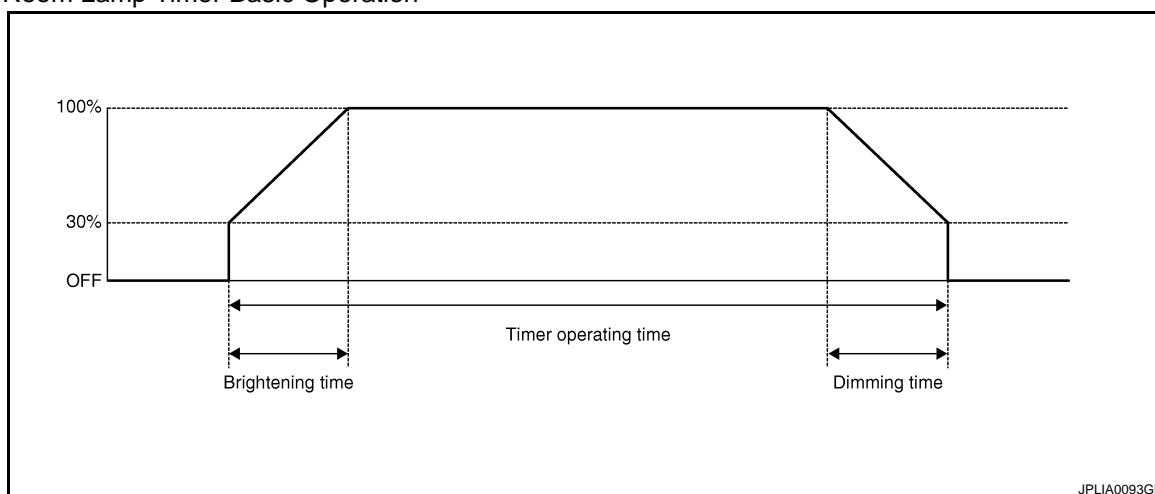
OUTLINE

Interior room lamps* are controlled by interior room lamp timer control function of BCM.

*: Map lamp, room lamp and personal lamp (when applicable lamp switch is in DOOR position).

INTERIOR ROOM LAMP TIMER CONTROL

Interior Room Lamp Timer Basic Operation



- The interior room lamp turns ON and OFF (gradual brightening and dimming) by the interior room timer.
- BCM judges the vehicle condition with the following items. It activates the interior room lamp timer.
 - Ignition switch status
 - Door switch signal (ALL)
 - Back door switch signal
 - Door lock/unlock signal (Remote keyless entry receiver, each request switch, door lock and unlock switch)
 - Key switch signal
 - Push switch signal

NOTE:

Each function of interior room lamp timer can be set by CONSULT-III. Refer to [INL-14, "INT LAMP : CONSULT-III Function \(BCM - INT LAMP\)"](#).

Interior Room Lamp ON Operation

- BCM always turns the interior room lamp ON when any door opens (back door include).

INTERIOR ROOM LAMP CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

- BCM activates the interior room timer in any of the following conditions to turn the interior room lamp ON for a period of time.
 - Any door opens before all doors close.
 - Key switch is turned ON → OFF.
 - Any door unlock signal is detected when all doors close with ignition switch OFF.
 - Key switch OFF.
 - Push switch is turned ON → OFF.

NOTE:

Restart the timer if new condition is input during the timer operating time.

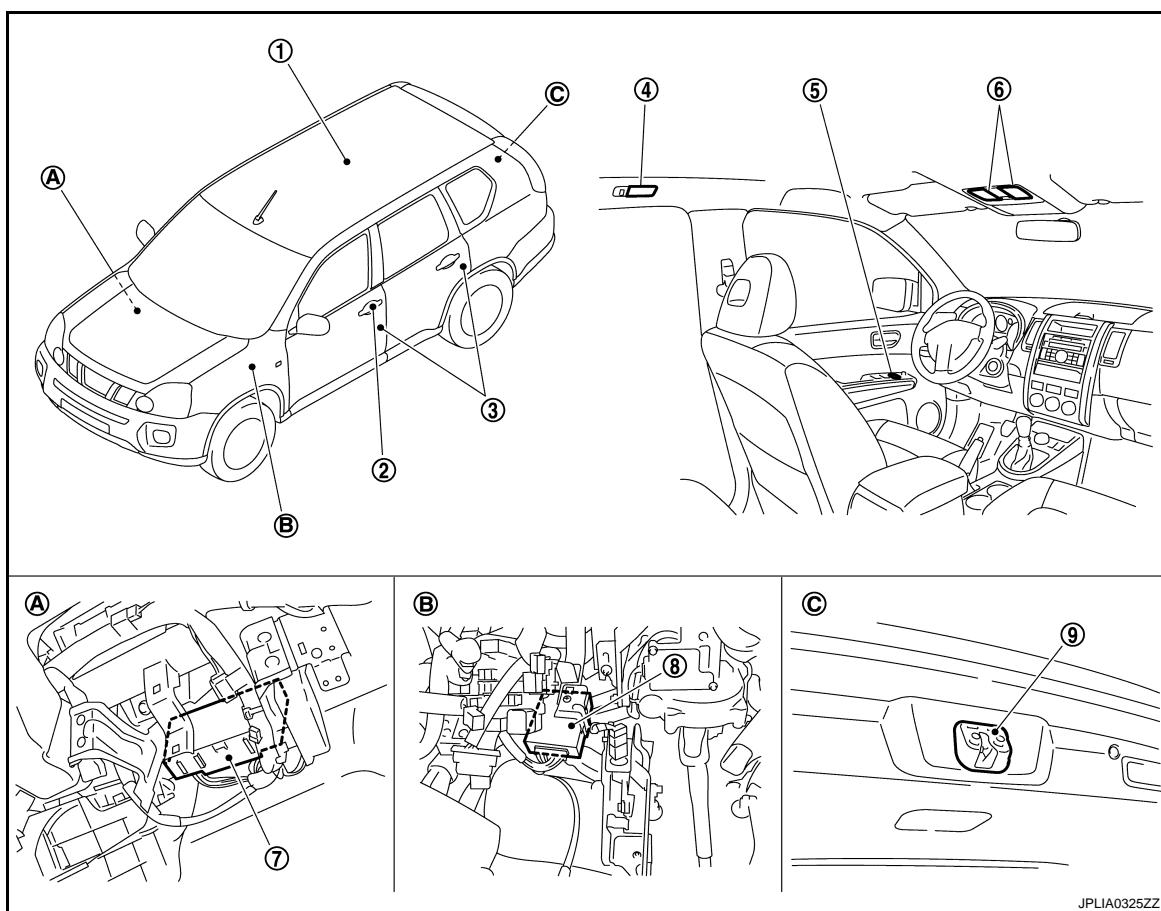
Interior Room Lamp OFF Operation

BCM stops the timer in any of the following conditions to turns the interior room lamp OFF.

- The timer operating time is expired.
- Ignition switch position is ON with all doors close.
- All door lock operation is detected with all doors close.

Component Parts Location

INFOID:0000000001160320



- | | | |
|------------------------------------|---|----------------------------|
| 1. Room lamp
(Without sunroof) | 2. Request switch | 3. Door switch |
| 4. Personal lamp
(With sunroof) | 5. Door lock and unlock switch | 6. Map lamp |
| 7. BCM | 8. Intelligent Key unit | 9. Back door switch |
| A. Over the glove box | B. Over the instrument lower panel
(driver side) | C. Back door lock assembly |

INTERIOR ROOM LAMP CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

Component Description

INFOID:000000001160321

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

P

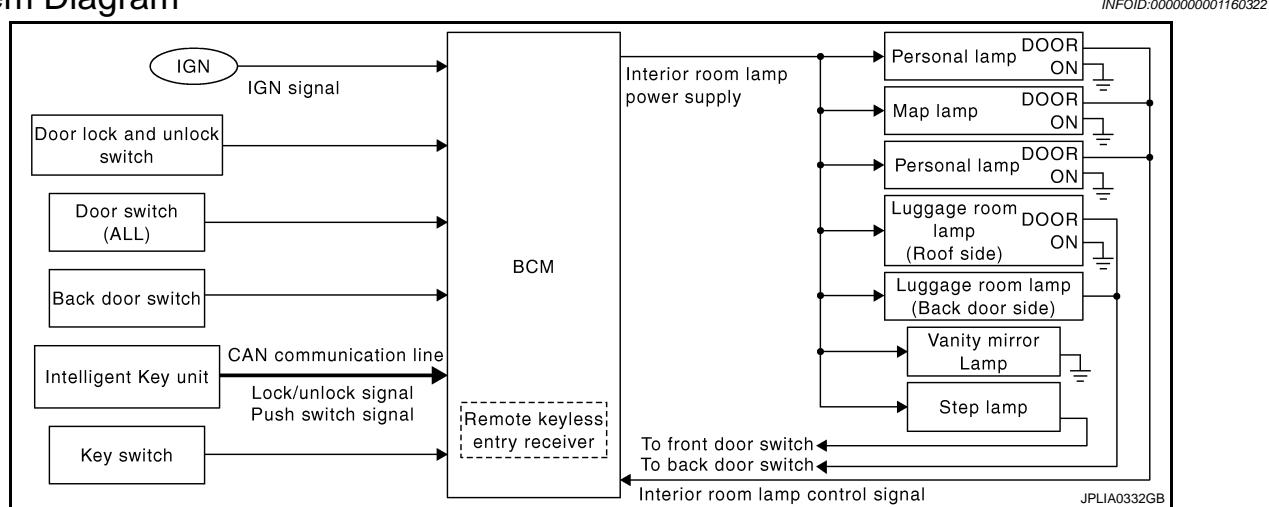
Part	Description
BCM	Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamps ON/OFF.
Remote keyless entry receiver (integrated in the BCM)	Receives the lock/unlock signal from Keyfob.
Intelligent Key unit	Transmits the lock/unlock signal and push switch signal to BCM with CAN communication.
Door lock and unlock switch	Inputs the lock/unlock signal to BCM.
• Door switch • Back door switch	Inputs the door switch signal to BCM.

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

INFOID:0000000001160323

OUTLINE

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

Applicable lamps

- Map lamp
- Personal lamp
- Room lamp
- Luggage room lamp
- Step lamp
- Vanity mirror lamp

INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

- When the ignition switch is turned OFF, BCM operates the timer for a period of time to cut the interior room lamp power supply.
- BCM restart the timer when any of the following signals changes while operating the timer.
 - Ignition switch status
 - Door switch signal (ALL)
 - Door lock/unlock signal (Remote keyless entry receiver, each request switch, door lock and unlock switch)
 - Key switch signal
 - Push switch signal
- BCM provides the interior room lamp power supply continuously when the ignition switch position is ON.

NOTE:

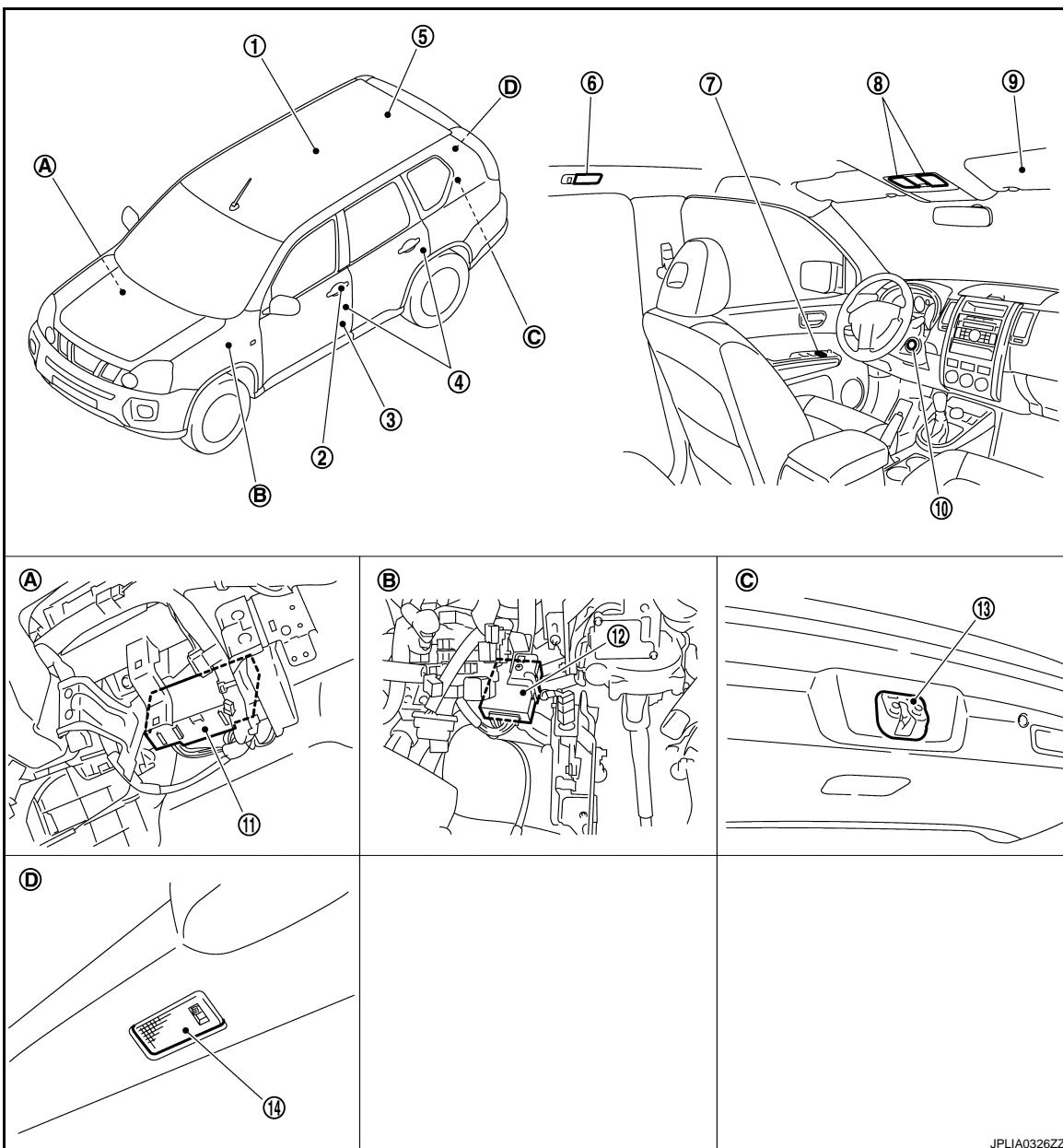
Each function of interior room lamp battery saver can be set by CONSULT-III. Refer to [INL-15, "BATTERY SAVER : CONSULT-III Function \(BCM - BATTERY SAVER\)".](#)

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000001160324



A
B
C
D
E
F
G
H
I
J
K

INL

M

N

O

P

- | | | |
|--|---|------------------------------------|
| 1. Room lamp
(Without sunroof) | 2. Request switch | 3. Step lamp |
| 4. Door switch | 5. Luggage room lamp (roof side) | 6. Personal lamp
(With sunroof) |
| 7. Door lock and unlock switch | 8. Map lamp | 9. Vanity mirror lamp |
| 10. • Key switch
• Push switch (With Intelligent Key) | 11. BCM | 12. Intelligent Key unit |
| 13. Back door switch | 14. Luggage room lamp (back door side) | |
| A. Over the glove box | B. Over the instrument lower panel
(driver side) | C. Back door lock assembly |
| D. Back door | | |

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

Component Description

INFOID:000000001160325

Part	Description
BCM	Operates the interior room lamp battery saver depending on the vehicle condition to cut the interior room lamp power supply.
Remote keyless entry receiver (integrated in the BCM)	Receives the lock/unlock signal from keyfob.
Intelligent Key unit	Transmits the lock/unlock signal and push switch signal to BCM with CAN communication.
Door lock and unlock switch	Inputs the lock/unlock signal to BCM.
• Door switch • Back door switch	Inputs the door switch signal to BCM.
Key switch	Inputs the key switch signal to BCM.

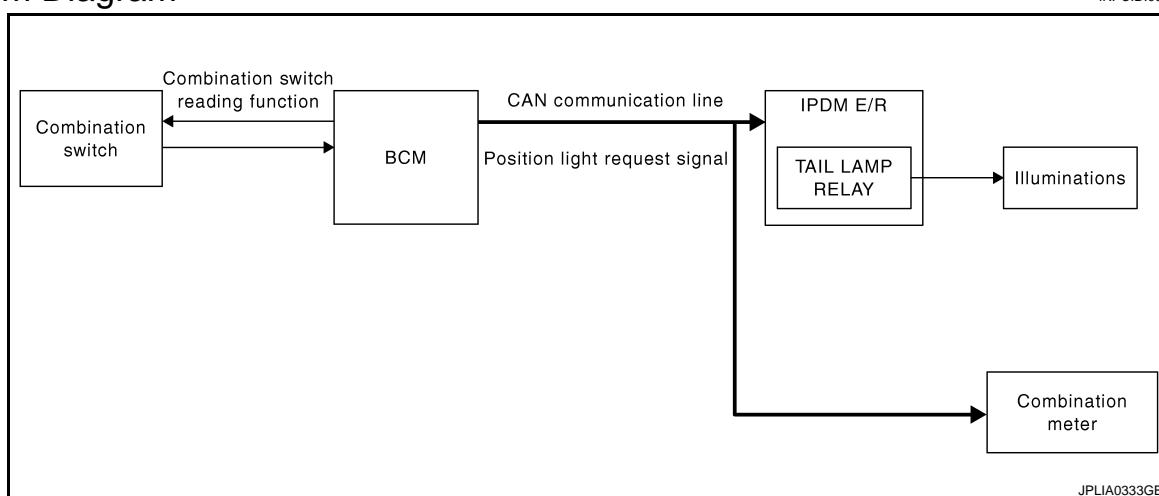
ILLUMINATION CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

ILLUMINATION CONTROL SYSTEM

System Diagram

INFOID:0000000001160326



System Description

INFOID:0000000001160327

OUTLINE

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

Control by BCM

- Combination switch reading function
- Headlamp control function

Control by IPDM E/R

- Relay control function

ILLUMINATION CONTROL

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits position light request signal to IPDM E/R and combination meter according to tail lamp ON condition.

Tail lamp ON condition

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- IPDM E/R turns the integrated tail lamp relay ON according to position light request signal. It provides the power supply to each illumination lamp.
- Combination meter illuminates the meter illumination according to position light request signal.

INL

M

N

O

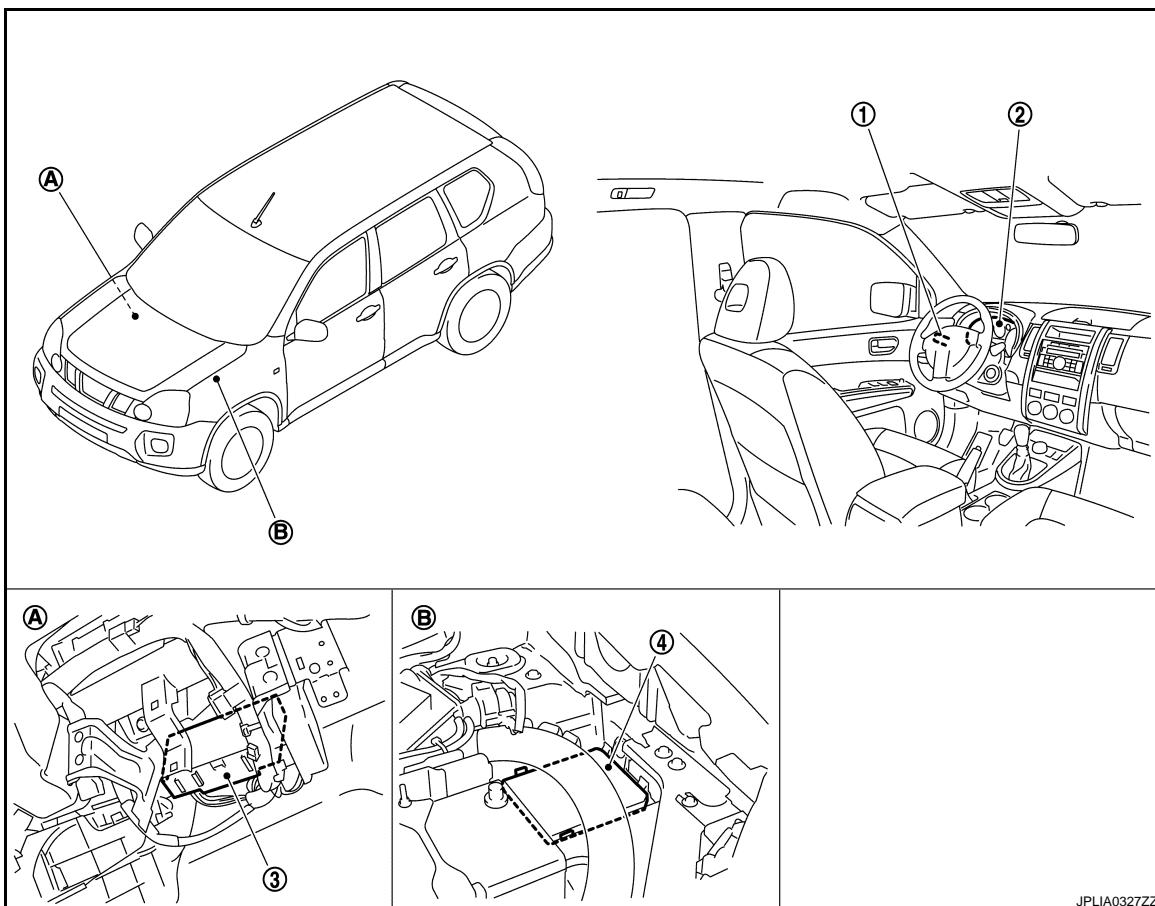
P

ILLUMINATION CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000001160328



1. Combination switch

2. Combination meter

3. BCM

4. IPDM E/R

A Over the glove box

B Engine room (left side)

Component Description

INFOID:000000001160329

Part	Description
BCM	<ul style="list-style-type: none">Judges each switch condition by the combination switch reading function.Judges the illumination lamp ON/OFF status depending on the vehicle condition. And then it transmits position light request signal to IPDM E/R and combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay according to the request signal from BCM (with CAN communication).
Combination meter	Illuminates the meter illumination according to the request signal from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-11, "System Diagram".

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000001527672

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

APPLICATION ITEM

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

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Results	Displays the diagnosis results judged by BCM. Refer to INL-72, "DTC Index" .
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
Configuration	<ul style="list-style-type: none"> • Read and save the vehicle specification. • Write the vehicle specification when replacing BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from 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.

x: Applicable item

System	CONSULT-III sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
—	BCM	x		
Door lock	DOOR LOCK	x	x	x
Rear window defogger	REAR DEFOGGER	x	x	x
Warning chime	BUZZER		x	x
Interior room lamp control	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	
Immobilizer	IMMU		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
Signal buffer system	SIGNAL BUFFER		x	x
—	PTC HEATER*			

*: This item is displayed, but is not function.

INT LAMP

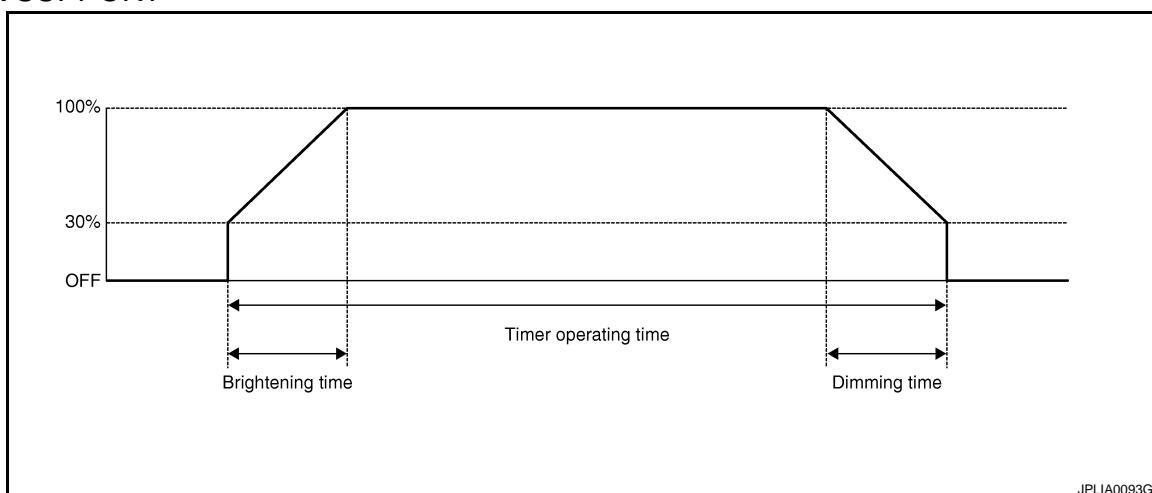
DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

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

INFOID:000000001160331

WORK SUPPORT



Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 2	7.5 sec.
	MODE 3*	15 sec.
	MODE 4	30 sec.
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	MODE 1	0.5 sec.
	MODE 2*	1 sec.
	MODE 3	2 sec.
	MODE 4	3 sec.
	MODE 5	4 sec.
	MODE 6	5 sec.
	MODE 7	0 sec.
	MODE 8	1 sec. linear
ROOM LAMP OFF TIME SET	MODE 1	0.5 sec.
	MODE 2*	1 sec.
	MODE 3	2 sec.
	MODE 4	3 sec.
	MODE 5	4 sec.
	MODE 6	5 sec.
	MODE 7	0 sec.
	MODE 8	1 sec. linear
R LAMP TIMER LOGIC SET	MODE 1*	Interior room lamp timer activates with synchronizing all doors.
	MODE 2	Interior room lamp timer activates with synchronizing the driver door only.

*: Initial setting

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
ACC SW [On/Off]	Ignition switch (ACC) status judges from ACC signal (ACC power supply)
KEY ON SW [On/Off]	The switch status input from key switch
PUSH SW [On/Off]	Push switch status received from Intelligent Key unit by CAN communication
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
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
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
I-KEY LOCK [On/Off]	Lock signal status received from Intelligent Key unit by CAN communication
I-KEY UNLOCK [On/Off]	Unlock signal status received from Intelligent Key unit by CAN communication
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
INT LAMP	On	Outputs the interior room lamp control signal to turn the interior room lamps ON. [Map lamp, personal lamp, room lamp, luggage room lamp (when applicable lamps switch is in DOOR position.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps.

INL

BATTERY SAVER

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

INFOID:0000000001160332

WORK SUPPORT

Service 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.	

*: Initial setting

DATA MONITOR

A
B
C
D
E
F
G
H
I
J
K

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
ACC SW [On/Off]	Ignition switch (ACC) status judges from ACC signal (ACC power supply)
KEY ON SW [On/Off]	The switch status input from key switch
PUSH SW [On/Off]	Push switch status received from Intelligent Key unit by CAN communication
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
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
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
I-KEY LOCK [On/Off]	Lock signal status received from Intelligent Key unit by CAN communication
I-KEY UNLOCK [On/Off]	Unlock signal status received from Intelligent Key unit by CAN communication
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.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000001527671

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
41	Battery power supply	10
57		J
4	ACC power supply	20
3	Ignition power supply	1

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		Ignition switch position		
(+)	BCM	(-)	OFF	ACC
Connector	Terminal		ON	
M67	57	Ground	Battery voltage	Battery voltage
M66	41		Approx. 0 V	Battery voltage
M65	4		Approx. 0 V	Approx. 0 V
	3		Approx. 0 V	Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		Existed
M67	55		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

Description

INFOID:0000000001160334

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

Component Function Check

INFOID:0000000001160335

1.CHECK INTERIOR ROOM LAMP POWER SUPPLY FUNCTION

(B)CONSULT-III ACTIVE TEST

1. Turn ignition switch ON.
2. Turn each interior room lamp ON.
 - Map lamp
 - Room lamp
 - Personal lamp
 - Vanity mirror lamp
 - Step lamp
 - Luggage room lamp
3. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
4. With operating the test items, check that each interior room lamp is turned ON/OFF.

Off : Interior room lamp OFF

On : Interior room lamp ON

Is the interior room lamp turned ON/OFF?

YES >> Interior room lamp power supply circuit is normal.

NO >> Refer to [INL-18, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000001160336

1.CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

(B)CONSULT-III ACTIVE TEST

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

Terminals		Test item	Voltage (Ap- prox.)
(+)	(-)		
BCM		BATTERY SAVER	
Connector	Terminal		
M66	42		Off 0 V
			On Battery volt- age

Is the measurement value normal?

YES >> GO TO 2.

NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

2.CHECK INTERIOR ROOM LAMP POWER SUPPLY OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the following connectors.
 - Map lamp
 - Room lamp
 - Personal lamp (RH)
 - Personal lamp (LH)
 - Vanity mirror lamp (passenger side)
 - Step lamp (driver side)

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< COMPONENT DIAGNOSIS >

- Step lamp (passenger side)
 - Luggage room lamp (roof side)
 - Luggage room lamp (back door side)
3. Check continuity between BCM harness connector and each interior room lamp harness connector.

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

BCM		Each interior room lamp		Continuity
Connector	Terminal	Connector	Terminal	
M66	42	Map lamp	R4	3
		Room lamp	R15	2
		Personal lamp (RH)	R8	2
		Personal lamp (LH)	R7	2
		Vanity mirror lamp (passenger side)	R10	1
		Step lamp (driver side)	D12 ^{*1} D32 ^{*2}	1
		Step lamp (passenger side)	D51 ^{*1} D71 ^{*2}	1
		Luggage room lamp (roof side)	R18	2
		Luggage room lamp (back door side)	D188	2

*1: LHD models

*2: RHD models

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT

I
J
K
L
INL

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	42		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

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

M
N
O
P

INTERIOR ROOM LAMP CONTROL CIRCUIT

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description

INFOID:0000000001160337

Controls each interior room lamp (ground side) by PWM signal.

NOTE:

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

Component Function Check

INFOID:0000000001160338

CAUTION:

Before the diagnosis, check that the following items are normal.

- Interior room lamp power supply
- Map lamp bulb
- Room lamp bulb
- Personal lamp bulb

1.CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

(B)CONSULT-III ACTIVE TEST

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. With operating the test items, check that each interior room lamp turns ON/OFF (gradual brightening/dimming).

On : Interior room lamp gradual
brightening

Off : Interior room lamp gradual dim-
ming

Does the interior room lamp turns ON/OFF (gradual brightening/dimming)?

YES >> Interior room lamp control circuit is normal.

NO >> Refer to [INL-20, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000001160339

1.CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

(B)CONSULT-III ACTIVE TEST

1. Turn ignition switch OFF.
2. Remove all the bulbs of following lamps.
 - Map lamp
 - Room lamp
 - Personal lamp (RH)
 - Personal lamp (LH)
3. Select "INT LAMP" of BCM (INT LAMP) active test item.
4. With operating the test item, check continuity between BCM harness connector and ground.

BCM		Ground	Test item	Continuity
Connector	Terminal		INT LAMP	
M66	52		On	Existed
			Off	Not existed

Is the measurement value normal?

YES >> GO TO 2.

Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM. Refer to [BCS-68, "Exploded View"](#).

2.CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT

1. Turn ignition switch OFF.

INTERIOR ROOM LAMP CONTROL CIRCUIT

< COMPONENT DIAGNOSIS >

2. Disconnect the following connectors.
 - Map lamp
 - Room lamp
 - Personal lamp (RH)
 - Personal lamp (LH)
3. Check continuity between BCM harness connector, map lamp harness connector, and personal lamp harness connector.

BCM		Map lamp/personal lamp			Continuity
Connector	Terminal	Connector		Terminal	
M66	52	Map lamp	R4	2	Existed
		Room lamp	R15	1	
		Personal lamp (RH)	R8	1	
		Personal lamp (LH)	R7	1	

Does continuity exist?

YES >> Replace the map lamp or the personal lamp.

NO >> Repair the harnesses or connectors.

3.CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector, map lamp connector and personal lamp connector.
3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	52		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

P

INTERIOR ROOM LAMP CONTROL SYSTEM

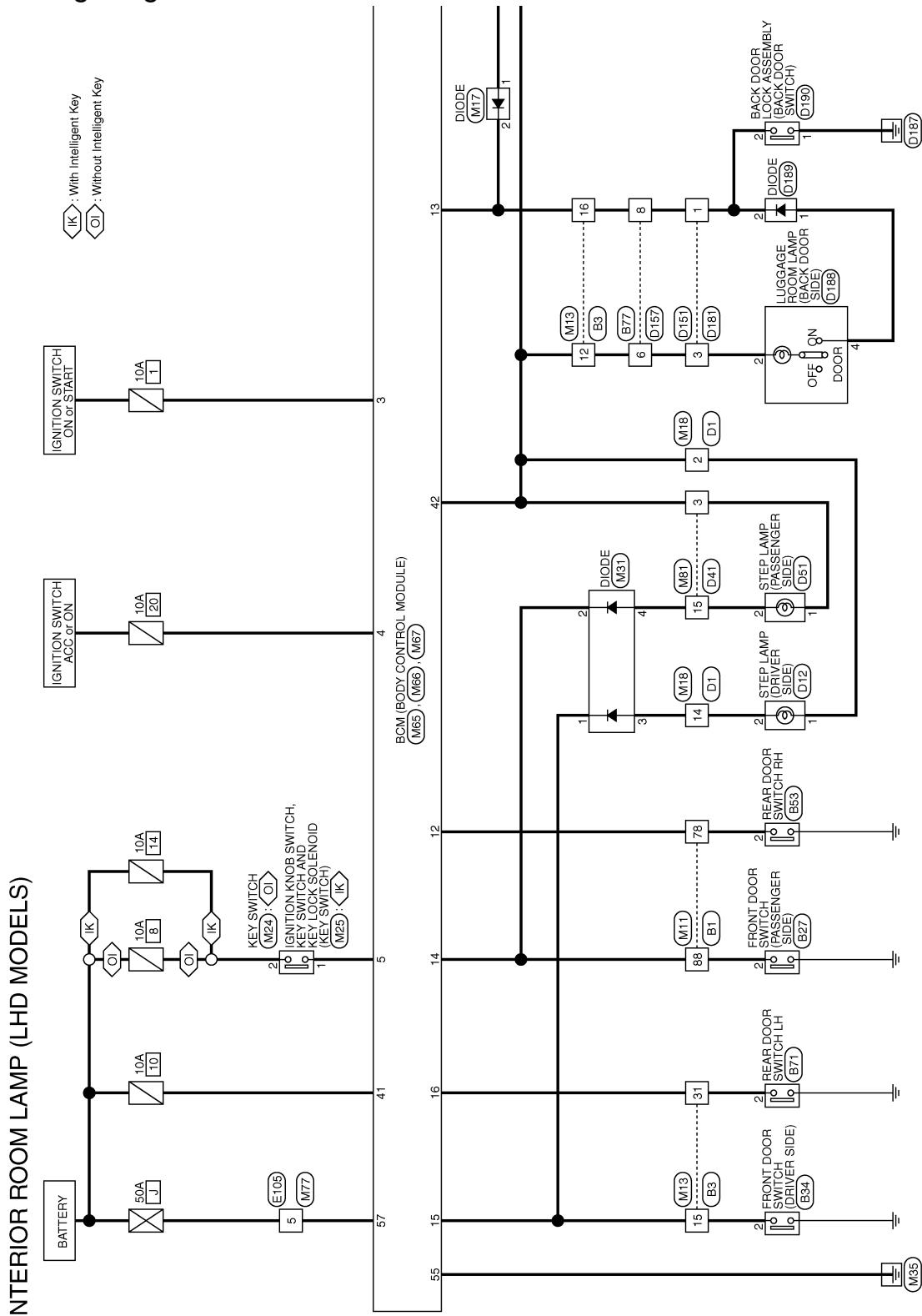
< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL SYSTEM

LHD

LHD : Wiring Diagram - INTERIOR ROOM LAMP -

INFOID:0000000001160340

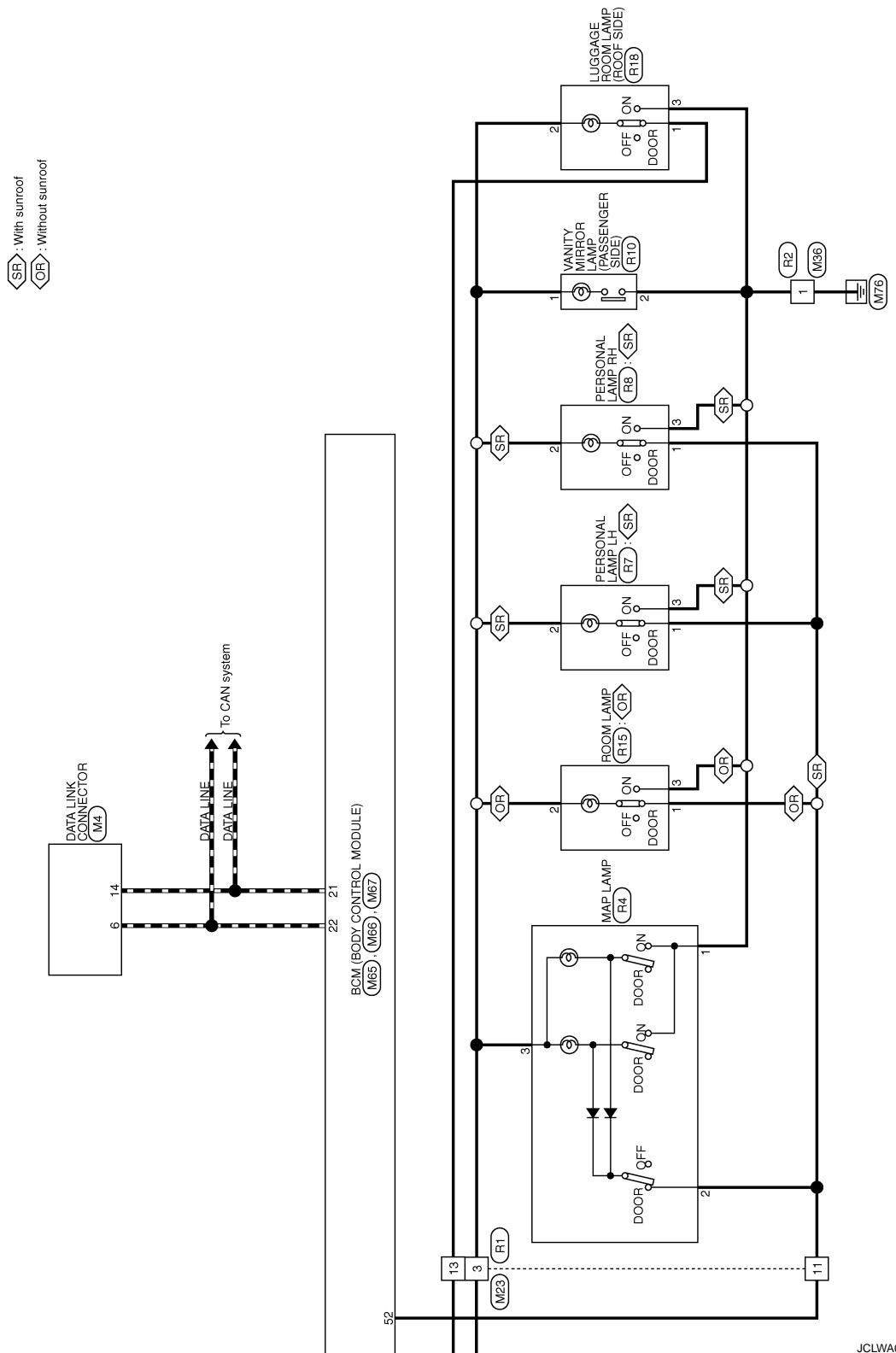


2007/02/28

JCLWA0487GB

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >



JCLWA0488GB

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP (LHD MODELS)

Connector No.	Color of Wire	Signal Name [Specification]
B1	Y	-
78	BR	-
88	BR	-
98	GR	-

Connector No.	Color of Wire	Signal Name [Specification]
B3	WIRE TO WIRE	-
B27	BR	-
B34	P	-
A03FW	V	-
A03FW	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
12	P	-
15	P	-
16	V	-
31	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	2	1
2	3	2
3	4	3
4	5	4
5	6	5
6	7	6
7	8	7
8	9	8
9	10	9
10	11	10
11	12	11
12	13	12
13	14	13
14	15	14
15	16	15
16	17	16
17	18	17
18	19	18
19	20	19
20	21	20
21	22	21
22	23	22
23	24	23
24	25	24
25	26	25
26	27	26
27	28	27
28	29	28
29	30	29
30	31	30
31	32	31
32	33	32

Connector No.	Color of Wire	Signal Name [Specification]
B71	P	-
A03FW	V	-
A03FW	SB	-

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP (LHD MODELS)

Connector No.	Color of Wire	Signal Name [Specification]
12	V	-
15	P	-

Connector No.	Color of Wire	Signal Name [Specification]
1	B	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-	6	L	-
14	P	-	78	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	2	3	2	7	6
2	3	4	3	8	15

Connector No.	Color of Wire	Signal Name [Specification]	Connector No.	Color of Wire	Signal Name [Specification]
13	GR	-	14	LG	-
16	V	-	15	P	-

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP (LHD MODELS)

Connector No.	Color of Wire	Signal Name [Specification]
M24	R	-
	Y	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	R	-

--	--

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	R	-

--	--

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	BR	-
3	LG	-
4	L	-

--	--

--	--

Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F-L)

--	--

--	--

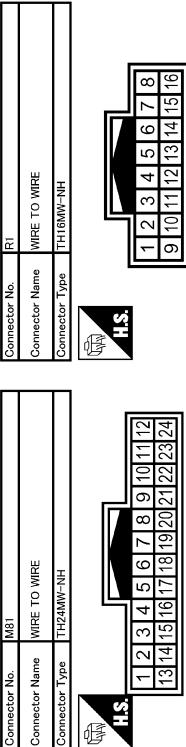
A B C D E F G H I J K L M Z O P

INTERIOR ROOM LAMP CONTROL SYSTEM

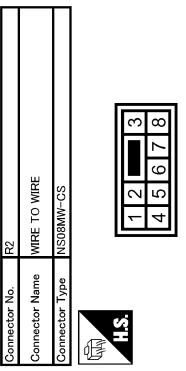
< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP (LHD MODELS)

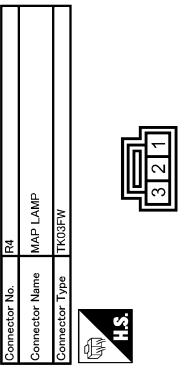
Connector No.	MB1	Connector No.	R1	Connector No.	R2	Connector No.	R4
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	MAP LAMP
Connector Type	TH16MW-NH	Connector Type	TH16MW-NH	Connector Type	NSUBMW-CS	Connector Type	TK03FW



Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-	1	V	-
15	L	-	11	R	-
13	L	-	13	L	-



Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
3	V	-	1	V	-
11	R	-	11	R	-
13	L	-	13	L	-



Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-	1	R	-
2	V	-	2	V	-
3	B	-	3	B	-

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-	1	R	-
2	V	-	2	V	-
3	B	-	3	B	-

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-	1	R	-
2	V	-	2	V	-
3	B	-	3	V	-

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-	1	R	-
2	V	-	2	V	-
3	B	-	3	V	-

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-	1	R	-
2	V	-	2	V	-
3	B	-	3	B	-

JCLWA0493GB

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

P

INTERIOR ROOM LAMP (LHD MODELS)

Connector No.	R18
Connector Name	LUGGAGE ROOM LAMP (ROOF SIDE)
Connector Type	TR00FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	V	-
3	B	-

JCLWA0494GB

RHD

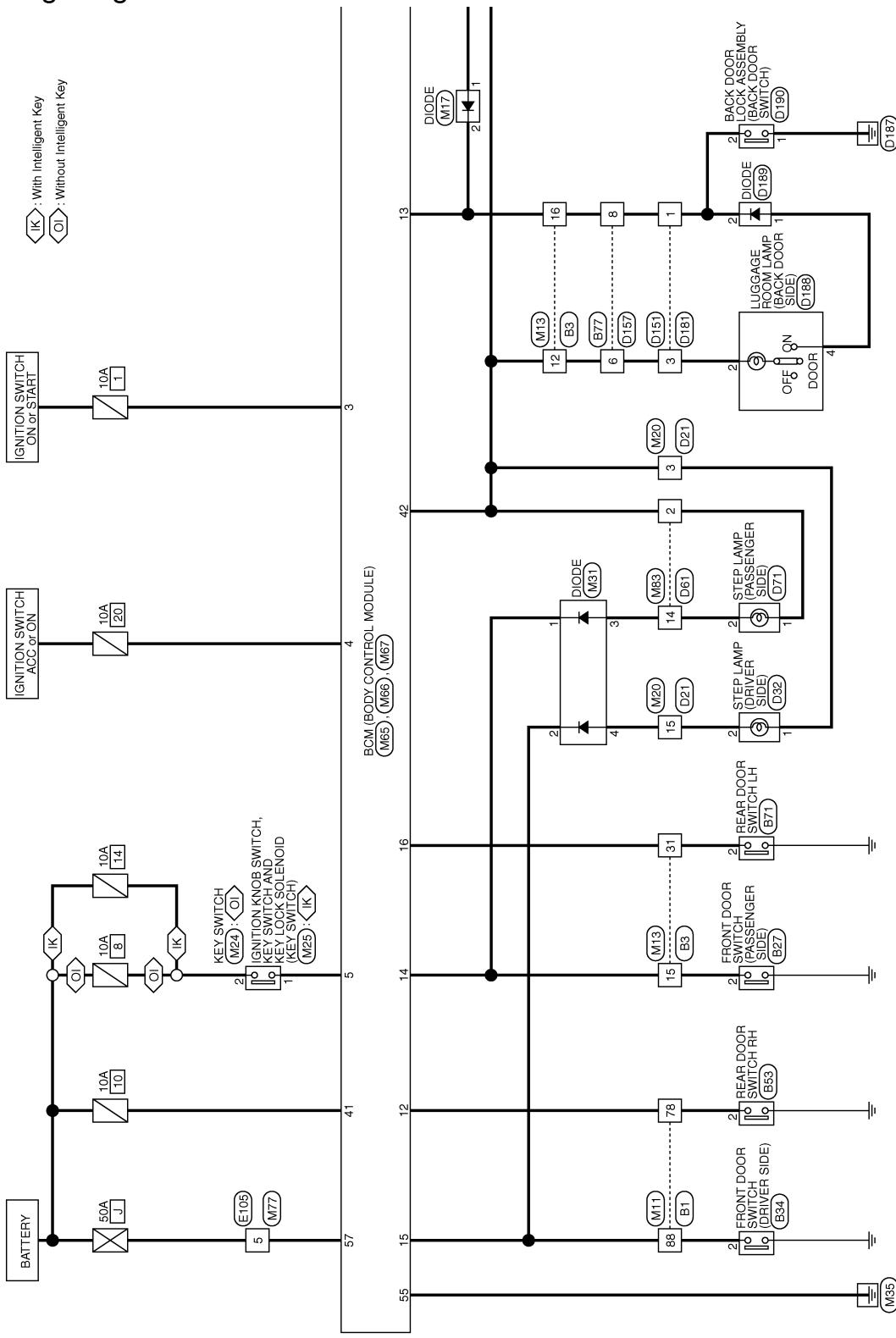
INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

RHD : Wiring Diagram - INTERIOR ROOM LAMP -

INFOID:0000000001534754

INTERIOR ROOM LAMP (RHD MODELS)

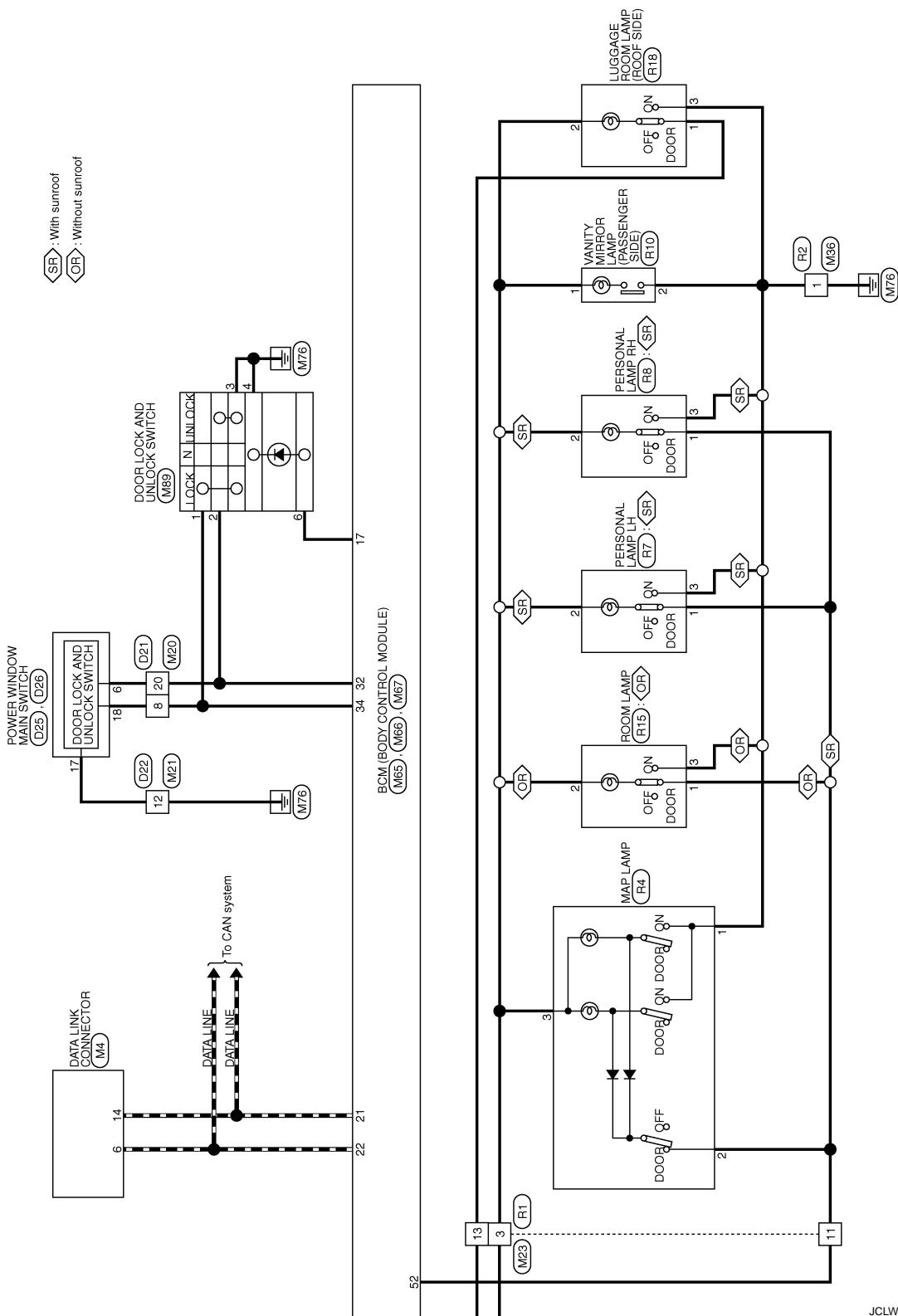


2007/02/28

JCLWA0495GB

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >



JCLWA0496GB

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP (RHD MODELS)

Connector No.	Color of Wire	Signal Name [Specification]
B1	Y	-
78	BR	-
88	BR	-
98	GR	-

Connector No.	Color of Wire	Signal Name [Specification]
B3	WIRE TO WIRE	-
27	P	-
28	V	-

Connector No.	Color of Wire	Signal Name [Specification]
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32

Connector No.	Color of Wire	Signal Name [Specification]
B1	WIRE TO WIRE	-
27	P	-
28	V	-
29	GR	-

Connector No.	Color of Wire	Signal Name [Specification]
B1	WIRE TO WIRE	-
27	P	-
28	V	-
29	GR	-

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

A

B

C

D

E

F

G

H

K

L

M

N

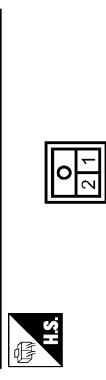
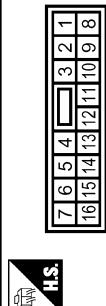
O

P

INTERIOR ROOM LAMP (RHD MODELS)

Connector No.	D22	Connector No.	D25
Connector Name	WIRE TO WIRE	Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS	Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
12	B	-



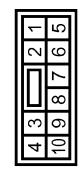
Terminal No.	Color of Wire	Signal Name [Specification]
6	BR	-



STEP LAMP (PASSENGER SIDE)

Connector No.	D26	Connector No.	D32
Connector Name	POWER WINDOW MAIN SWITCH	Connector Name	STEP LAMP (DRIVER SIDE)
Connector Type	NS16FW-CS	Connector Type	CO2FW

Terminal No.	Color of Wire	Signal Name [Specification]
17	B	-



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	SB	-



INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP (RHD MODELS)

Connector No.	Color of Wire	Signal Name [Specification]
D181	V	-
1	P	-
3	P	-

Connector No.	Color of Wire	Signal Name [Specification]
D188	P	-
2	L	-
4	L	-

Connector No.	Color of Wire	Signal Name [Specification]
D189	L	-
1	V	-

Connector No.	Color of Wire	Signal Name [Specification]
D190	B	-
1	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	V	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
78	LG	-
88	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
16	Y	-
31	R	-

JCLWA0499GB

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

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

INTERIOR ROOM LAMP (RHD MODELS)

Connector No.	M17	Connector No.	M20
Connector Name	DIODE	Connector Name	WIRE TO WIRE
Connector Type	2A355 CB9000	Connector Type	TH24MW-NH
			NS16MW-CS

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-	12	B	-
2	LG	-	13	V	-
			14	-	-
			15	L	-
			16	-	-
			17	-	-
			18	-	-
			19	-	-
			20	BR	-
			21	-	-
			22	-	-
			23	-	-
			24	-	-

Connector No.	M21	Connector No.	M23
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS	Connector Type	TH16FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
8	7	-	9	6	-
9	8	-	10	5	-
10	9	-	11	4	-
11	10	-	12	3	-
12	11	-	13	2	-
13	12	-	14	1	-
14	-	-	15	-	-
15	-	-	16	-	-
16	-	-	17	-	-
17	-	-	18	-	-
18	-	-	19	-	-
19	-	-	20	-	-
20	-	-	21	-	-
21	-	-	22	-	-
22	-	-	23	-	-
23	-	-	24	-	-

Connector No.	M24	Connector No.	M31
Connector Name	KEY SWITCH	Connector Name	DIODE
Connector Type	TK02MNR-P	Connector Type	S04FL

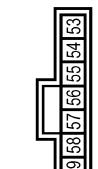
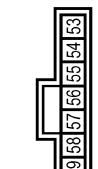
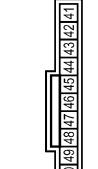
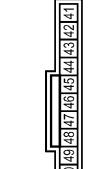
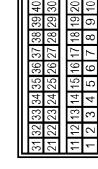
 

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-	1	B	-
2	BR	-	2	-	-
3	LG	-	3	-	-
4	L	-	4	-	-

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

INTERIOR ROOM LAMP (RHD MODELS)		CAN-H			
Connector No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
M65	L	CAN-H	22	L	CAN-H
	BR	LOCK UNLOCK SW (UNLOCK)	32	LG	LOCK UNLOCK SW (UNLOCK)
	SB	LOCK UNLOCK SW (LOCK[RHD models])	34	V	LOCK UNLOCK SW (LOCK[RHD models])
Connector Name	BCM (BODY CONTROL MODULE)				
Connector Type	AAB40FB				
					
					
INTERIOR ROOM LAMP (RHD MODELS)		CAN-L		CAN-L	
Connector No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
M66	W	IGN SW	41	LG	BATT(USE)
	SB	ACC SW	42	V	ROOM LAMP POWER SUPPLY
	LG	KEY SW[With intelligent Key]	52	R	ROOM LAMP CONTROL
	R	KEY SW[Without Intelligent Key]			
Connector Name	BCM (BODY CONTROL MODULE)				
Connector Type	FEA12FBR				
					
					
DOOR SW (FR)		CAN-H		CAN-L	
Connector No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
M83	Y	DOOR SW (BACK[RHD models])	1	2	CAN-H
	P	DOOR SW AS[RHD models]	2	3	DOOR SW (FR)
	BR	DOOR SW DR[RHD models]	3	4	DOOR SW (FR)
	R	DOOR SW RL[RHD models]	4	5	DOOR SW (FR)
	L	DOOR LOCK INDICATOR	5	6	DOOR SW (FR)
	P	OAH_L	6	7	DOOR SW (FR)
Connector Name	WIRE TO WIRE				
Connector Type	TH180MW-CS16-TM4				
					
					
DOOR LOCK AND UNLOCK SWITCH		CAN-H		CAN-L	
Connector No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
M87	WIRE TO WIRE		1	P	CAN-H
	WIRE TO WIRE		2	BR	DOOR LOCK AND UNLOCK SWITCH
	WIRE TO WIRE		3	V	DOOR LOCK AND UNLOCK SWITCH
	WIRE TO WIRE		4	R	DOOR LOCK AND UNLOCK SWITCH
	WIRE TO WIRE		5	L	DOOR LOCK AND UNLOCK SWITCH
Connector Name	DOOR LOCK AND UNLOCK SWITCH				
Connector Type	TK10FW				
					
					
DOOR SW (FR)		CAN-H		CAN-L	
Connector No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
M89	Y	DOOR SW (FR)	1	P	CAN-H
	Y	DOOR SW (FR)	2	BR	DOOR SW (FR)
	Y	DOOR SW (FR)	3	V	DOOR SW (FR)
	Y	DOOR SW (FR)	4	R	DOOR SW (FR)
	Y	DOOR SW (FR)	5	L	DOOR SW (FR)
Connector Name	DOOR SW (FR)				
Connector Type	TH16MW-NH				
					
					

JCLWA0501GB

INTERIOR ROOM LAMP CONTROL SYSTEM

< COMPONENT DIAGNOSIS >

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

INTERIOR ROOM LAMP (RHD MODELS)

Connector No.	Color of Wire	Signal Name [Specification]
R2	B	-
	V	-
	Y	-

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	V	-
3	B	-

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	V	-
3	B	-

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	V	-
3	B	-

H.S.

JCLWA0502GB

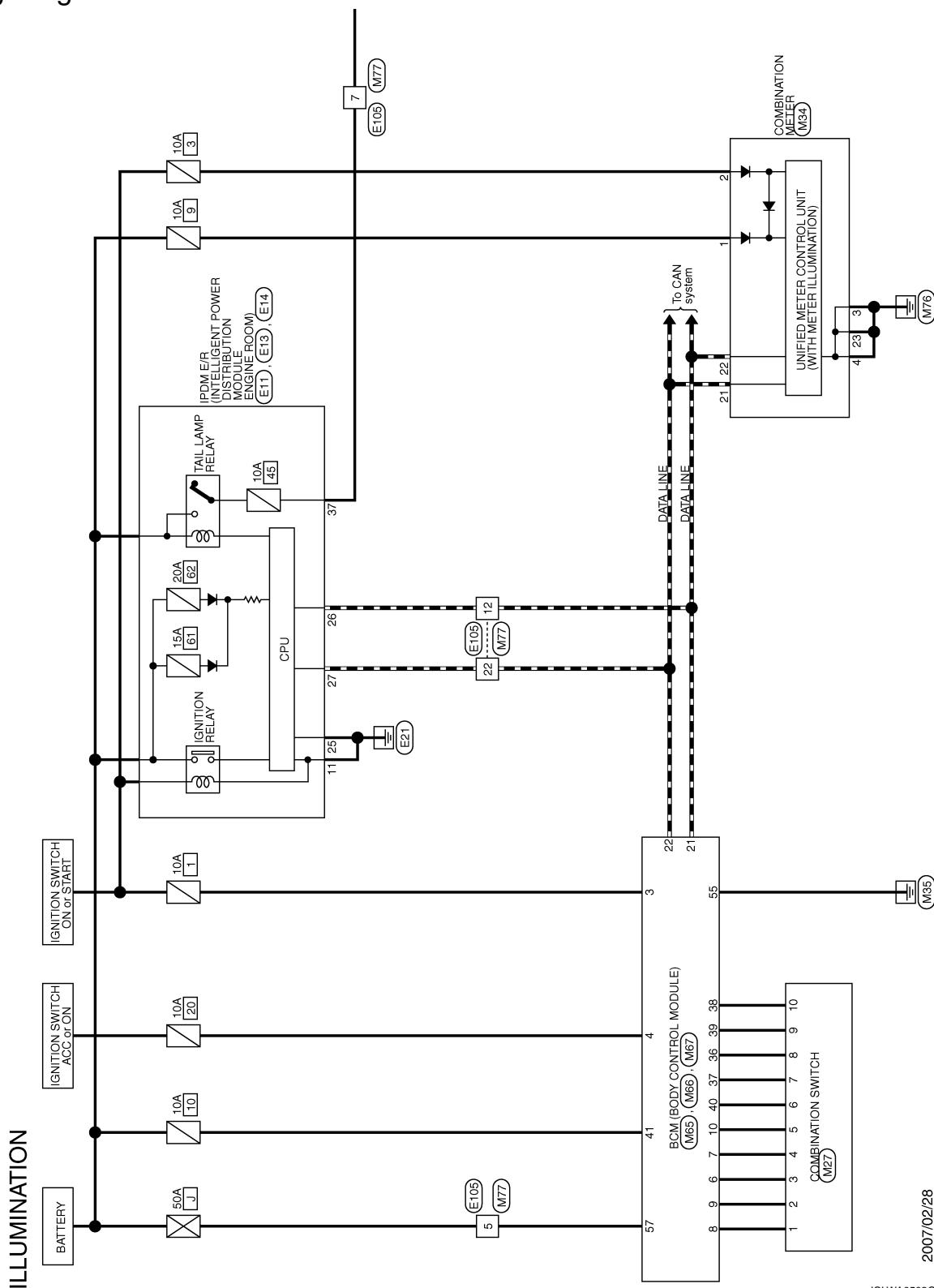
ILLUMINATION

< COMPONENT DIAGNOSIS >

ILLUMINATION

Wiring Diagram - ILLUMINATION -

INFOID:0000000001160341



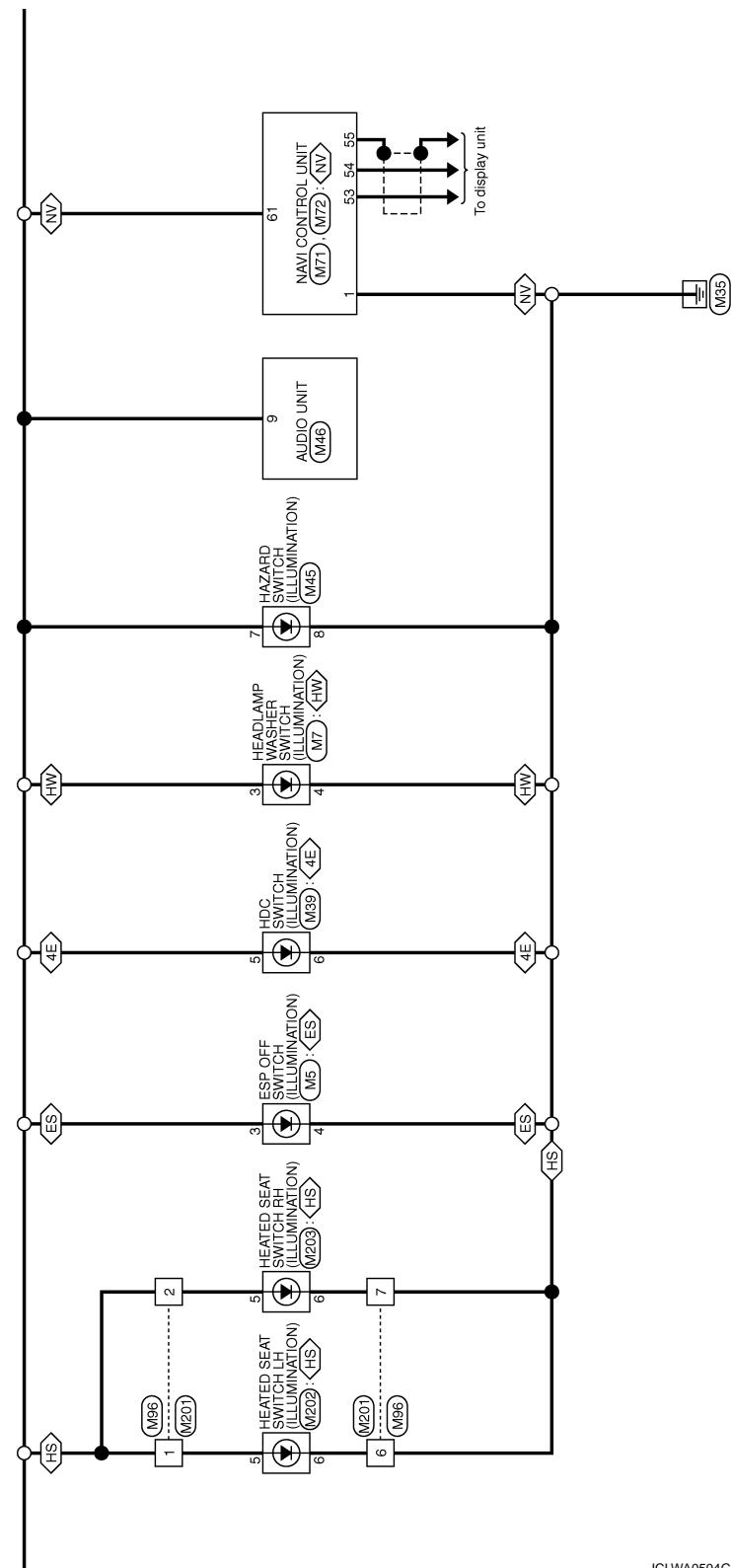
2007/02/28

JCLWA0503GB

ILLUMINATION

< COMPONENT DIAGNOSIS >

◀ES : With ESP
 ◀4E : 4WD models with ESP
 ◀HW : With headlamp washer
 ◀HS : With heated seat
 ◀NV : With navigation system

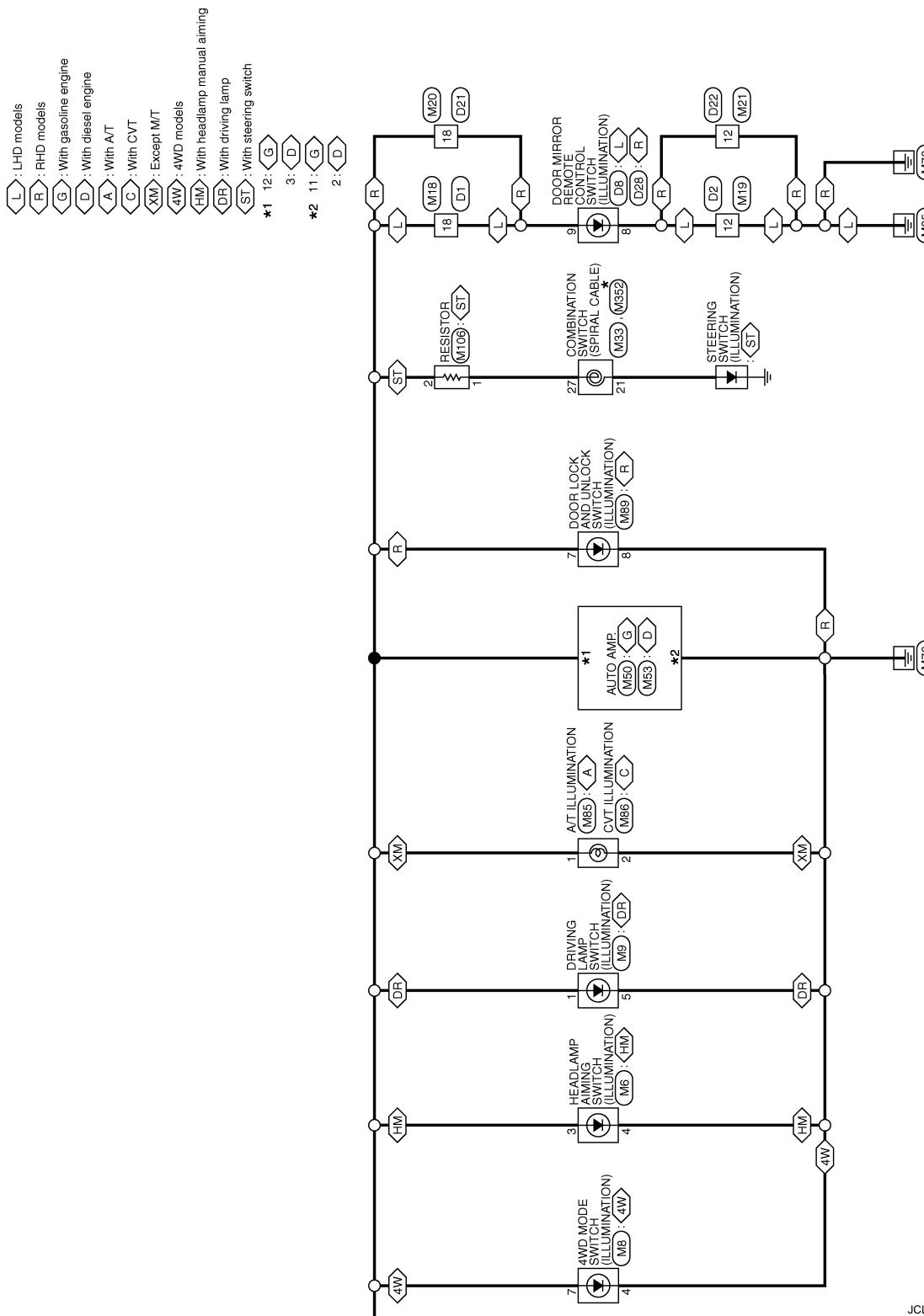


A B C D E F G H I J K L M N O P INL

JCLWA0504GB

ILLUMINATION

< COMPONENT DIAGNOSIS >



JCLWA0505GB

ILLUMINATION

< COMPONENT DIAGNOSIS >

ILLUMINATION

Connector No.		D1		Connector No.		D2		
Connector Name	WIRE TO WIRE	Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH	Connector No.	D8 <th>Connector Name</th> <td>WIRE TO WIRE</td>	Connector Name	WIRE TO WIRE	
Connector Type	TH12FW-NH	Connector Type	TK16FW	Connector Name		Connector Type	TH24FW-NH	
								
7 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	
P	=							
18	B							

Connector No.		D28		Connector No.		E13		
Connector Name	WIRE TO WIRE	Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH	Connector Name	IPDM E/R (INTELLIGENT POWER			
Connector Type	NS18FW-CS	Connector Type	TK16FW	Connector Type	DIS/ROUT MODULE ENGINE ROOM)			
								
7 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		28 27 26 25 24 23 34 33 32 31 30 29		
P	=							
12	B							
18	R							

Connector No.		D22		Connector No.		E11	
Connector Name	WIRE TO WIRE	Connector Name	DOOR MIRROR REMOTE CONTROL SWITCH	Connector Name	IPDM E/R (INTELLIGENT POWER		
Connector Type	NS18FW-CS	Connector Type	TK16FW	Connector Type	DIS/ROUT MODULE ENGINE ROOM)		
							
7 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24		11 10 9 14 13 12		28 27 26 25 24 23 34 33 32 31 30 29	
P	=						
12	B						
18	R						

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
_

ILLUMINATION

< COMPONENT DIAGNOSIS >

ILLUMINATION

Connector No.	Connector Name	Wire To Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
E105	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)			5	Y	-	3	R	-
	Connector Type	(TH80FW-CS16-TM4		7	R	-	4	B	-
				12	P	-			
				22	L	-			
M7	HEADLAMP WASHER SWITCH			5	6	7	1	2	ILL
	Connector Name	TK0BFGY		6	7	8	2	3	ILL OR EARTH
	Connector Type			7	R	-	4	5	-
				8	B	-	5	6	-
M8	4WD MODE SWITCH			4	B	-	1	R	-
	Connector Name	TH0BFW-NH		7	R	-	2	Y	-
	Connector Type			12	P	-	3	G	-
				22	L	-	4	B	-
M9	DRIVING LAMP SWITCH			5	6	7	1	2	ILL
	Connector Name	TK0BFW		6	7	8	2	3	ILL OR EARTH
	Connector Type			7	R	-	4	5	-
				8	B	-	5	6	-
I5	ESP OFF SWITCH			4	B	-	1	R	-
	Connector Name	TRUFGY		7	R	-	2	Y	-
	Connector Type			12	P	-	3	G	-
				22	L	-	4	B	-
M6	HEADLAMP AIMING SWITCH			3	R	-	1	R	-
	Connector Name	AU4FW		4	B	-	2	Y	-
	Connector Type			12	P	-	3	G	-
				22	L	-	4	B	-

JCLWA0507GB

ILLUMINATION

< COMPONENT DIAGNOSIS >

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

ILLUMINATION

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	NSTBMW-CS
	
	

Terminal No.	Color of Wire	Signal Name [Specification]
12	B	-
18	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
12	3	1
18	4	2
24	5	3
30	6	4
36	7	5

Terminal No.	Color of Wire	Signal Name [Specification]
10	W	OUTPUT 3
16	BR	-
22	BR	-
28	BR	-
34	BR	-

Connector No.	M33
Connector Name	COMBINATION SWITCH (SHIRAL CABLE)
Connector Type	TK0BF-GY-IV
	
	

Terminal No.	Color of Wire	Signal Name [Specification]
24	25	4
30	26	5
36	27	6
42	31	7
48	32	8
54	33	9
60	34	10
66	35	11
72	36	12
78	37	13
84	38	14
90	39	15
96	32	16
102	33	17
108	34	18
114	35	19
120	36	20
126	37	21
132	38	22
138	39	23
144	32	24
150	33	25
156	34	26
162	35	27
168	36	28
174	37	29
180	38	30
186	39	31
192	32	32
198	33	33
204	34	34
210	35	35
216	36	36
222	37	37
228	38	38
234	39	39
240	32	30
246	33	31
252	34	32
258	35	33
264	36	34
270	37	35
276	38	36
282	39	37

Connector No.	M20
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
	
	

Connector No.	M21
Connector Name	WIRE TO WIRE
Connector Type	NSTBMW-CS
	
	

JCLWA0508GB

ILLUMINATION

< COMPONENT DIAGNOSIS >

ILLUMINATION

Connector No.	M39	Connector No.	M45										
Connector Name	HDC SWITCH	Connector Name	HAZARD SWITCH										
Connector Type	SABDFW	Connector Type	NSGBFW-CS										
		Terminal No.	Color of Wire	Signal Name [Specification]		5	R	LIGHT SW		6	B	GRD	
Terminal No.	Color of Wire	Signal Name [Specification]											
5	R	LIGHT SW											
6	B	GRD											

Connector No.	M46	Connector No.	M50
Connector Name	AUDIO UNIT	Connector Name	AUTO AMP
Connector Type	TH13FW-CS2	Connector Type	TK20F-GY

Terminal No.	Color of Wire	Signal Name [Specification]	
7	R	LIGHT (-)	
8	B	LIGHT (+)	

Terminal No.	Color of Wire	Signal Name [Specification]	
9	R	ILL.	

Terminal No.	Color of Wire	Signal Name [Specification]	
11	B	LIGHT(-)	
12	GR	LIGHT(+)	

Terminal No.	Color of Wire	Signal Name [Specification]	
36	G	COMBI SW OUTPUT 5	
37	R	COMBI SW OUTPUT 2	
38	W	COMBI SW OUTPUT 3	
39	Y	COMBI SW OUTPUT 4	
40	P	COMBI SW OUTPUT 1	

Terminal No.	Color of Wire	Signal Name [Specification]							
1	2	3	4	5	6	7	8	9	10
2	1	4	3	5	6	7	8	9	10
3	5	2	1	3	6	7	8	9	10
4	6	3	2	4	5	7	8	9	10
5	7	4	3	6	8	9	10		
6	8	5	4	7	9	10			
7	9	6	5	8	10				
8	10	7	6	9					

Terminal No.	Color of Wire	Signal Name [Specification]							
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name [Specification]	
3	W	IGN SW	
4	SG	ACC SW	
6	L	COMBI SW INPUT 3	
7	GR	COMBI SW INPUT 4	
8	V	COMBI SW INPUT 1	
9	LG	COMBI SW INPUT 2 (RHD models)	
9	B	COMBI SW INPUT 2 (LHD models)	
10	O	COMBI SW 5 IN (RHD models)	
10	BR	COMBI SW 5 IN (LHD models)	
21	P	CAN-L	
22	L	CAN-H	

JCLWA0509GB

ILLUMINATION

< COMPONENT DIAGNOSIS >

ILLUMINATION

Connector No.	M106	Connector No.	M201
Connector Name	RESISTOR	Connector Name	WIRE TO WIRE
Connector Type	24336 C9902	Connector Type	NS12EW-CS
			



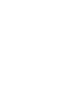
Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	-	1	R	-	5	R	-
2	R	-	2	L	-	6	B	-
			6	B	-	7	B	-
			7	B	-			



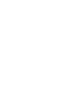
Terminal No.	Color of Wire	Signal Name [Specification]
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-



Connector No.	M352	Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK00MGY-X		



Terminal No.	Color of Wire	Signal Name [Specification]
21	-	-



JCLWA0511GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000001527673

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VEHICLE SPEED	While driving	Equivalent to speedometer reading
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
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off
	"LOCK" button of Intelligent Key or door request switch are pressed	On
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
PUSH SW	Return to ignition switch to "LOCK" position	Off
	Press ignition switch	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
SHOCK SENSOR	Ignition switch ON	NOMAL
	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On
UNLOCK SHOCK	Other than the following	Off
	During the unlock operation interlocked with air bag	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
UNLOCK WITH DR	NOTE: The item is indicated, but not monitored	On
		Off
LOCK WITH SPEED	Vehicle speed sensing auto door lock function does not operate	Off
	Vehicle speed sensing auto door lock function is operating	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
TAIL LAMP SW	Lighting switch OFF	Off
	Lighting switch 1ST	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
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
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
ENGINE RUN	Engine stopped	Off
	Engine running	On
LIT-SEN FAIL	Light & rain sensor is in normal condition	OK
	Light & rain sensor is with error	NOTOK
AUT LIGHT SYS	Outside of the room is dark	On
	Outside of the room is bright	Off
HD LIGHT TIME	—	Displays a setting time of the follow me home function set by the work support
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

BCM (BODY CONTROL MODULE)

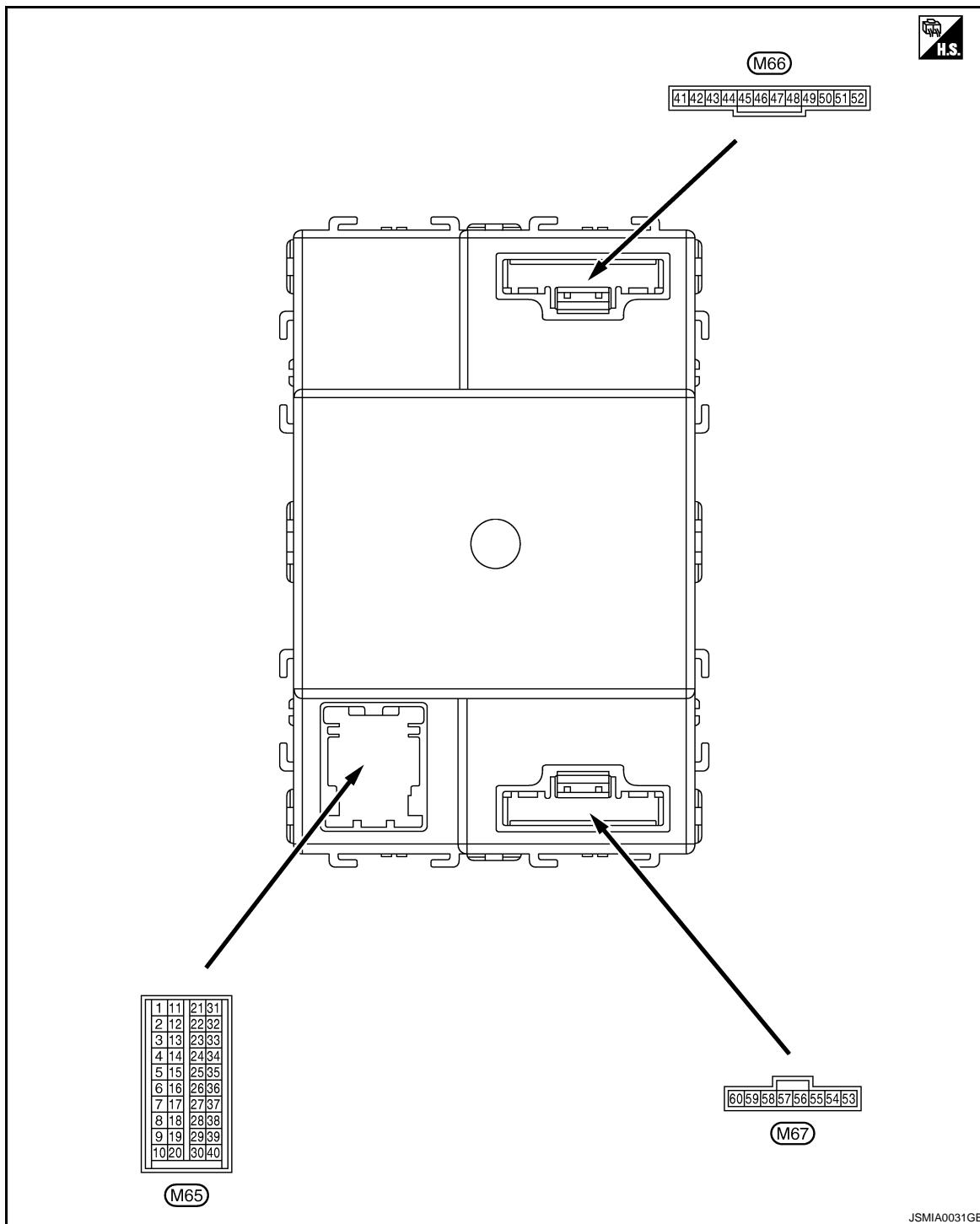
< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
FR WASHER SW	Front washer switch OFF	Off	A
	Front washer switch ON	On	
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	B
FR WIPER STOP	Any position other than front wiper stop position	Off	C
	Front wiper stop position	On	
RR WIPER ON	Rear wiper switch OFF	Off	D
	Rear wiper switch ON	On	
RR WIPER INT	Rear wiper switch OFF	Off	E
	Rear wiper switch INT	On	
RR WIPER STOP	Rear wiper stop position	Off	F
	Other than rear wiper stop position	On	
RR WASHER SW	Rear washer switch OFF	Off	G
	Rear washer switch ON	On	
REVERSE SW CAN	NOTE: The item is indicated, but not monitored	Off	H
		On	
H/L WASH SW	When headlamp washer switch is not pressed	Off	I
	When headlamp washer switch is pressed	On	
FAN ON SIG	Blower fan motor switch OFF	Off	J
	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	K
	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On	
HAZARD SW	Hazard switch OFF	Off	L
	Hazard switch ON	On	
BRAKE SW	Brake pedal is not depressed	Off	M
	Brake pedal is depressed	On	
TRNK OPNR SW	When back door opener switch is not pressed	Off	N
	When back door opener switch is pressed	On	
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	Off	O
	Open the hood	On	
AUTO RELOCK	Auto lock function does not operate	Off	P
	Auto lock function is operating	On	
GLS BREAK SEN	The vehicle without glass break sensor	Off	
	The vehicle with glass break sensor	On	
OIL PRESS SW	• Ignition switch OFF or ACC • Engine running	Off	
	Ignition switch ON	On	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

TERMINAL LAYOUT



JSMIA0031GB

PHYSICAL VALUES

CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to [BCS-28, "COMB SW : CONSULT-III Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-9, "System Description"](#).

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	+	-		
1 (W)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
2 (G)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
3 (W)	Ground	Ignition power supply	Input	Ignition switch OFF or ACC 0 V
				Ignition switch ON or START Battery voltage
4 (SB)	Ground	ACC power supply	Input	Ignition switch OFF 0 V
				Ignition switch ON or ACC Battery voltage
5 (LG) ^{*1} (R) ^{*2}	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder Battery voltage
				Remove mechanical key from ignition key cylinder 0 V

A

B

C

D

E

F

G

H

I

J

K

INL

M

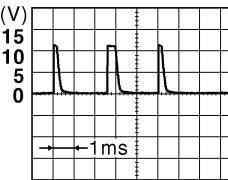
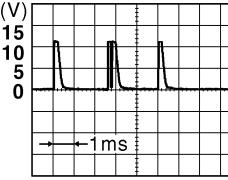
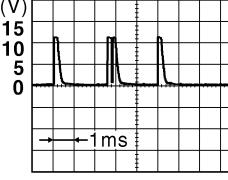
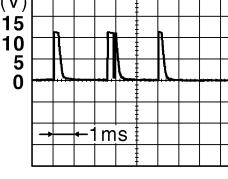
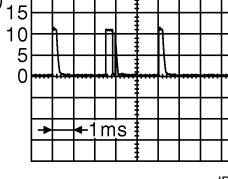
N

O

P

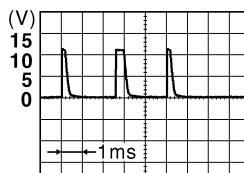
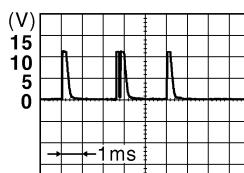
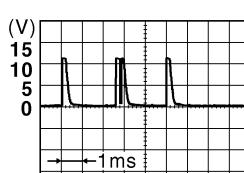
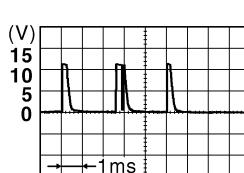
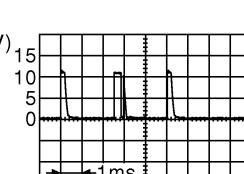
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
+	-			
6 (L)	Ground	Combination switch INPUT 3	Input	 All switch OFF (Wiper intermittent dial 4)
				 Lighting switch HI (Wiper intermittent dial 4)
				 Lighting switch 2ND (Wiper intermittent dial 4)
				 Rear washer switch ON
				 Any of the condition below with all switch OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3

BCM (BODY CONTROL MODULE)

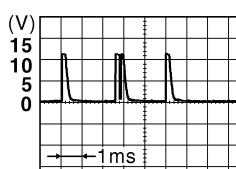
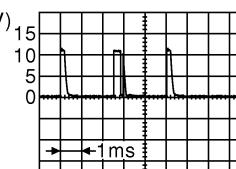
< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)	
	Signal name	Input/ Output			
+	-				
7 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)
					 1.4 V JPMIA0165GB
					Lighting switch 1ST (Wiper intermittent dial 4)
					 1.3 V JPMIA0166GB
					Lighting switch AUTO (Wiper intermittent dial 4)
					 1.3 V JPMIA0168GB
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 6
					 1.3 V JPMIA0169GB
					Rear wiper INT (Wiper intermittent dial 4)
					 1.3 V JPMIA0196GB

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

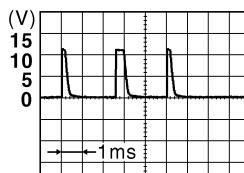
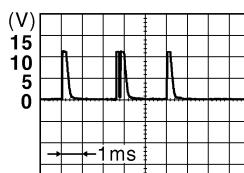
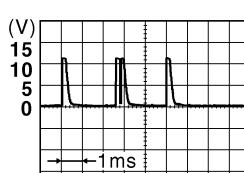
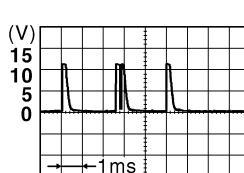
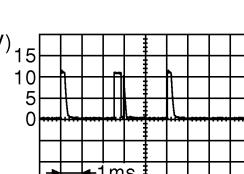
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
+	-			
8 (V)	Ground	Combination switch INPUT 1	Combination switch (Wiper intermit- tent dial 4)	All switch OFF
				 JPMIA0165GB 1.4 V
				 JPMIA0166GB 1.3 V
				 JPMIA0167GB 1.3 V
				 JPMIA0168GB 1.3 V
				 JPMIA0196GB 1.3 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)	
	Signal name	Input/ Output			
+	-				
9 (G) ^{*3} (B) ^{*4}	Ground	Combination switch INPUT 2	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 1.4 V <small>JPMIA0165GB</small>
				Lighting switch 2ND	 1.3 V <small>JPMIA0166GB</small>
				Lighting switch PASS	 1.3 V <small>JPMIA0167GB</small>
				Front wiper switch INT	 1.3 V <small>JPMIA0168GB</small>
				Front wiper switch HI	 1.3 V <small>JPMIA0196GB</small>

A

B

C

D

E

F

G

H

I

J

K

INL

M

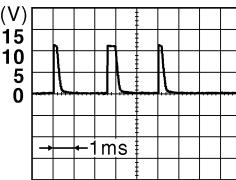
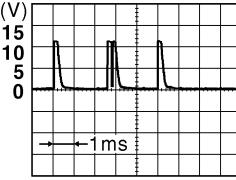
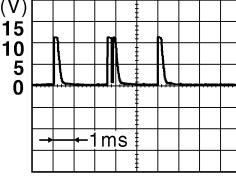
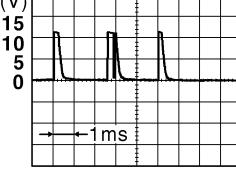
N

O

P

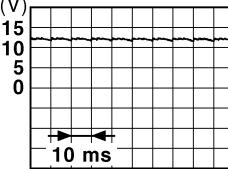
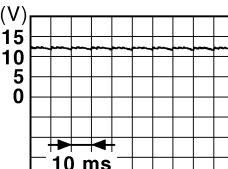
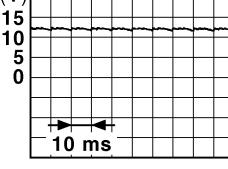
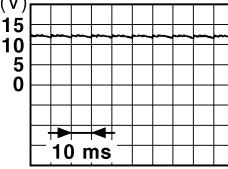
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
+	-			
10 (BR)	Ground	Combination switch INPUT 5	Input	 JPMIA0165GB 1.3 V
				All switch OFF (Wiper intermittent dial 4)
				 JPMIA0167GB 1.3 V
				 JPMIA0168GB 1.3 V
				 JPMIA0169GB 1.3 V
11 (B)	Ground	Audio link	Input/ Output	—

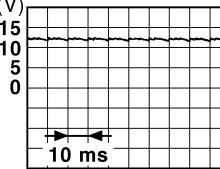
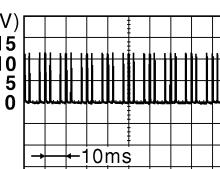
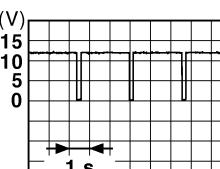
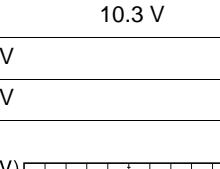
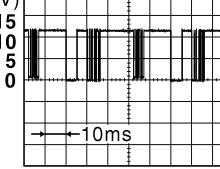
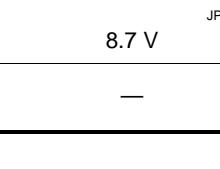
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)	A B C D E F G H I J K INL M N O P	
	Signal name	Input/ Output				
+	-					
12 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	 PKID0924E 11.2 V
					ON (When rear door RH opened)	
13 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 PKID0924E 11.2 V
					ON (When back door opened)	
14 (P) ^{*3} (BR) ^{*4}	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 PKID0924E 11.2 V
					ON (When passenger door opened)	
15 (BR) ^{*3} (P) ^{*4}	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 PKID0924E 11.2 V
					ON (When driver door opened)	

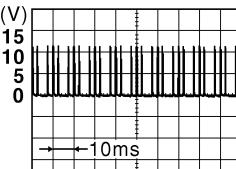
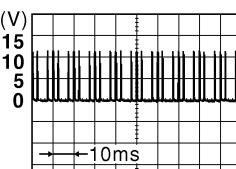
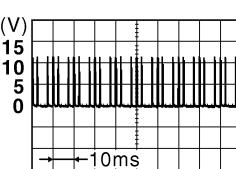
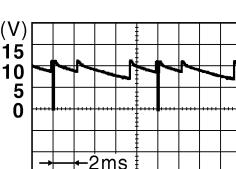
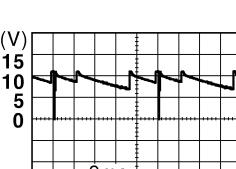
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
+	-			
16 (GR)	Ground	Rear door switch LH	Input	OFF (When rear door LH closed)  PKID0924E 11.2 V
				ON (When rear door LH opened) 0 V
17 (L)	Ground	Door lock status indicator	Output	ON 12 V
				OFF 0 V
20 (SB)	Ground	Rear window defogger switch	Input	Not pressed  JPMIA0154GB 1.1 V
				While pressing 0 V
21 (P)	—	CAN-L	Input/ Output	—
22 (L)	—	CAN-H	Input/ Output	—
23 (V)	Ground	Security indicator	Output	ON  10.3 V
				Blinking 
				OFF 12 V
24 (GR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch OFF or ACC  JPMIA0156GB 8.7 V
				Ignition switch ON 
25 (G)	Ground	Alarm link	Output	—

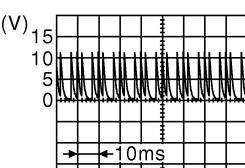
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
+	-			
33 (W) ^{*9} (Y) ^{*10}	Ground	Hazard switch	Input	 1.3 V
34 (SB) ^{*3} (P) ^{*4}	Ground	Door lock/unlock switch (Lock)	Input	 1.2 V
				0 V
35 (G)	Ground	Headlamp washer switch	Input	 1.2 V
				0 V
36 (G)	Ground	Combination switch OUTPUT 5	Output	 9.1 V
				0 V
37 (R)	Ground	Combination switch OUTPUT 2	Output	 9.1 V
				0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)	
	Signal name	Input/ Output			
+	-				
38 (W)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF
					Front wiper switch LO
					Front wiper switch MIST
					Front wiper switch INT
					Lighting switch AUTO
					Rear fog lamp switch ON
39 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF
					Turn signal switch LH
					Lighting switch PASS
					Lighting switch 2ND
					Front fog lamp switch ON
40 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)
					Front wiper switch HI (Wiper intermittent dial 4)
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7
					Rear wiper switch INT (Wiper intermittent dial 4)
41 (LG)	Ground				9.1 V
42 (V)	Ground	Interior room lamp power supply	Output		0 V
					12 V
43 (SB)	Ground	Rear wiper motor	Output		0 V
					12 V
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	(V) 15 10 5 0  JPMIA0197GB
					Any position other than rear wiper stop position
					0 V

BCM (BODY CONTROL MODULE)

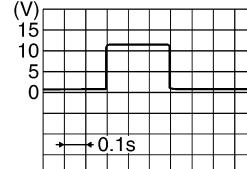
< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
+	-			
45 (V)	Ground	Back door lock actuator	Output	Back door opener switch Pressed
47 (BR)	Ground	Turn signal LH	Output	Turn signal switch OFF
				Turn signal switch LH Ignition switch ON
48 (GR)	Ground	Turn signal RH	Output	Turn signal switch OFF
				Turn signal switch RH Ignition switch ON
49 (Y)	Ground	Rear fog lamp	Output	OFF
				ON
50 (G)	Ground	Unlock sensor	Input	Unlock
				lock
51 (R)	Ground	Stop lamp switch	Input	Depress the brake pedal
				Release the brake pedal
52 (R)	Ground	Room lamp timer control	Output	OFF
				ON
53 (L)	Ground	Power window power supply (IGN)	Output	OFF or ACC
				ON
54 (O)	Ground	Door unlock (All other than driver's door)	Output	Pressed to the unlock side
				Not pressed
55 (B)	Ground	Ground	—	Ignition switch ON
				0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)	Description		Condition	Value (Approx.)
	Signal name	Input/ Output		
+	-			
56 (V)	Ground	Door lock (All) and fuel lid lock	Output	Not pressed
				Pressed to the lock side
57 (Y)	Ground	Battery power supply	Input	Ignition switch OFF
				Battery voltage
58 (P)	Ground	Power window power supply (BAT)	Output	Ignition switch OFF
				12 V
59 (R)	Ground	Super lock	Output	When lock button of key fob or Intelligent Key is not pressed
				When lock button of key fob or Intelligent Key is pressed
60 (G)	Ground	Driver's door unlock and fuel lid unlock	Output	Door lock/unlock switch
				Pressed to the unlock side
				Not pressed
				0 V



SKIA9232E

*1: With Intelligent Key

*2: Without Intelligent Key

*3: RHD models

*4: LHD models

*5: With gasoline engine

*6: With diesel engine

*7: RHD models with side air bag

*8: LHD models with side air bag

*9: With xenon headlamp and daytime light system

*10: Except with xenon headlamp and daytime light system

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

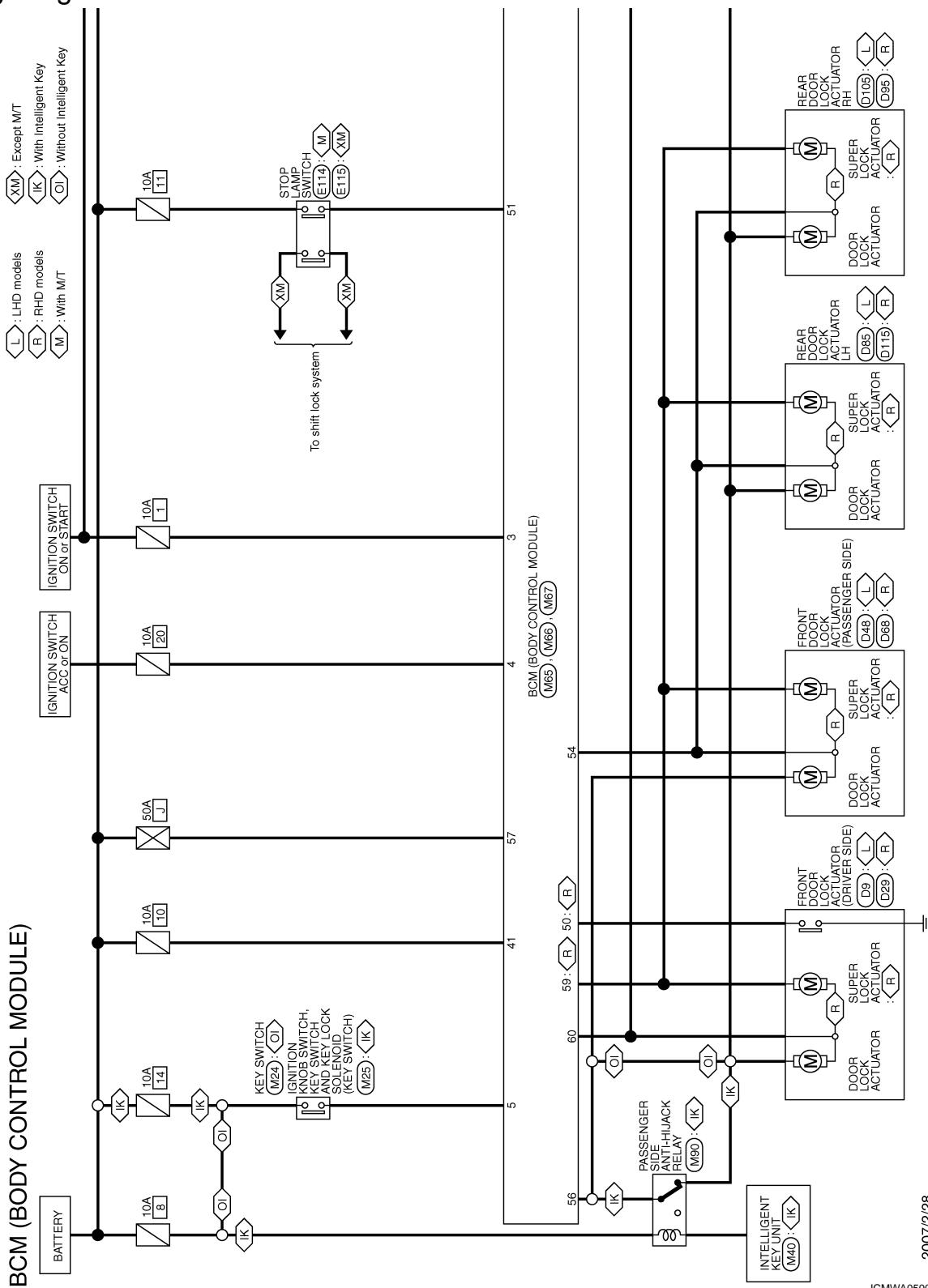
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Wiring Diagram - BCM -

INFOID:000000001527674

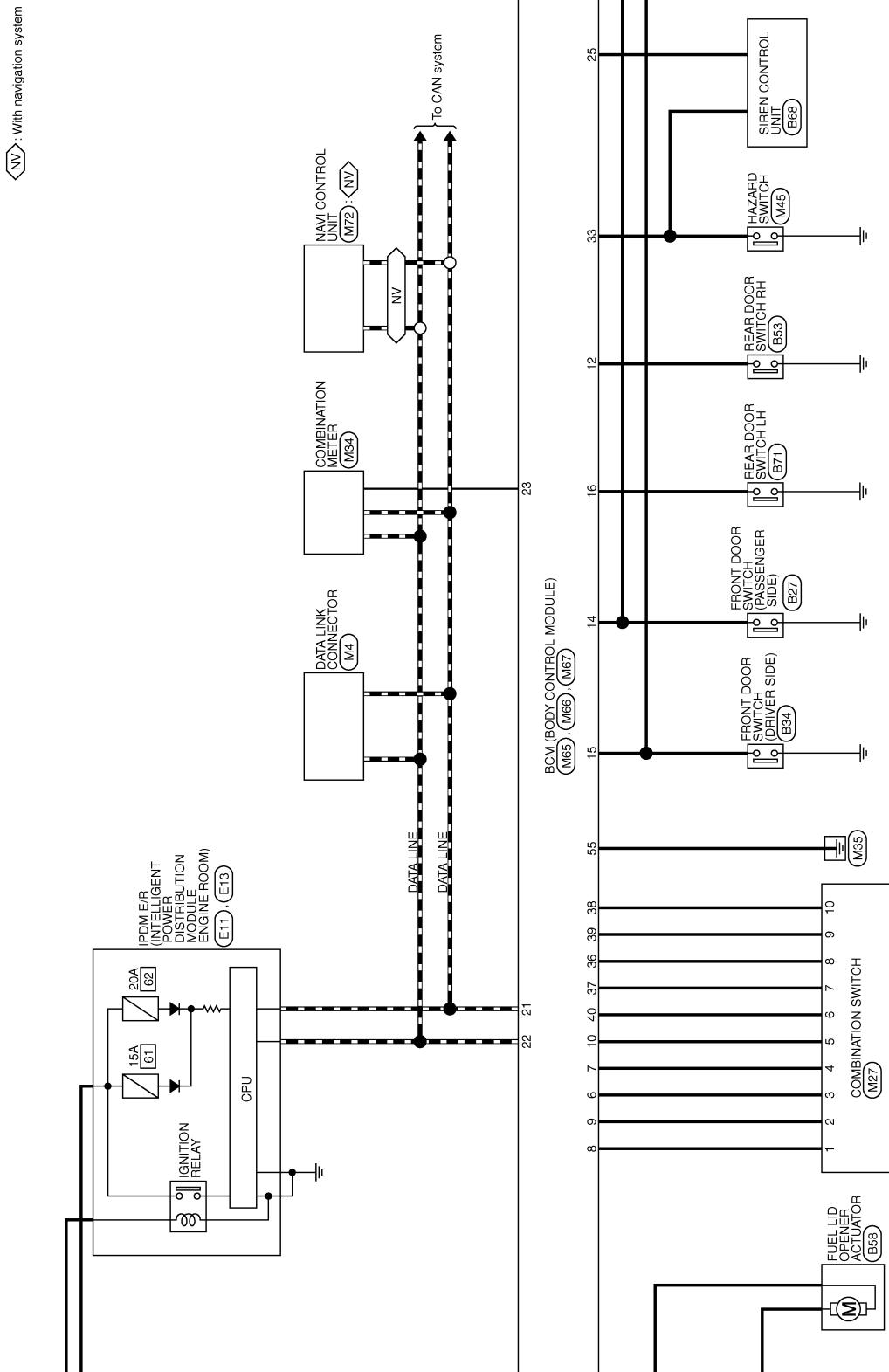


2007/2/28

JCMWA0500GE

BCM (BODY CONTROL MODULE)

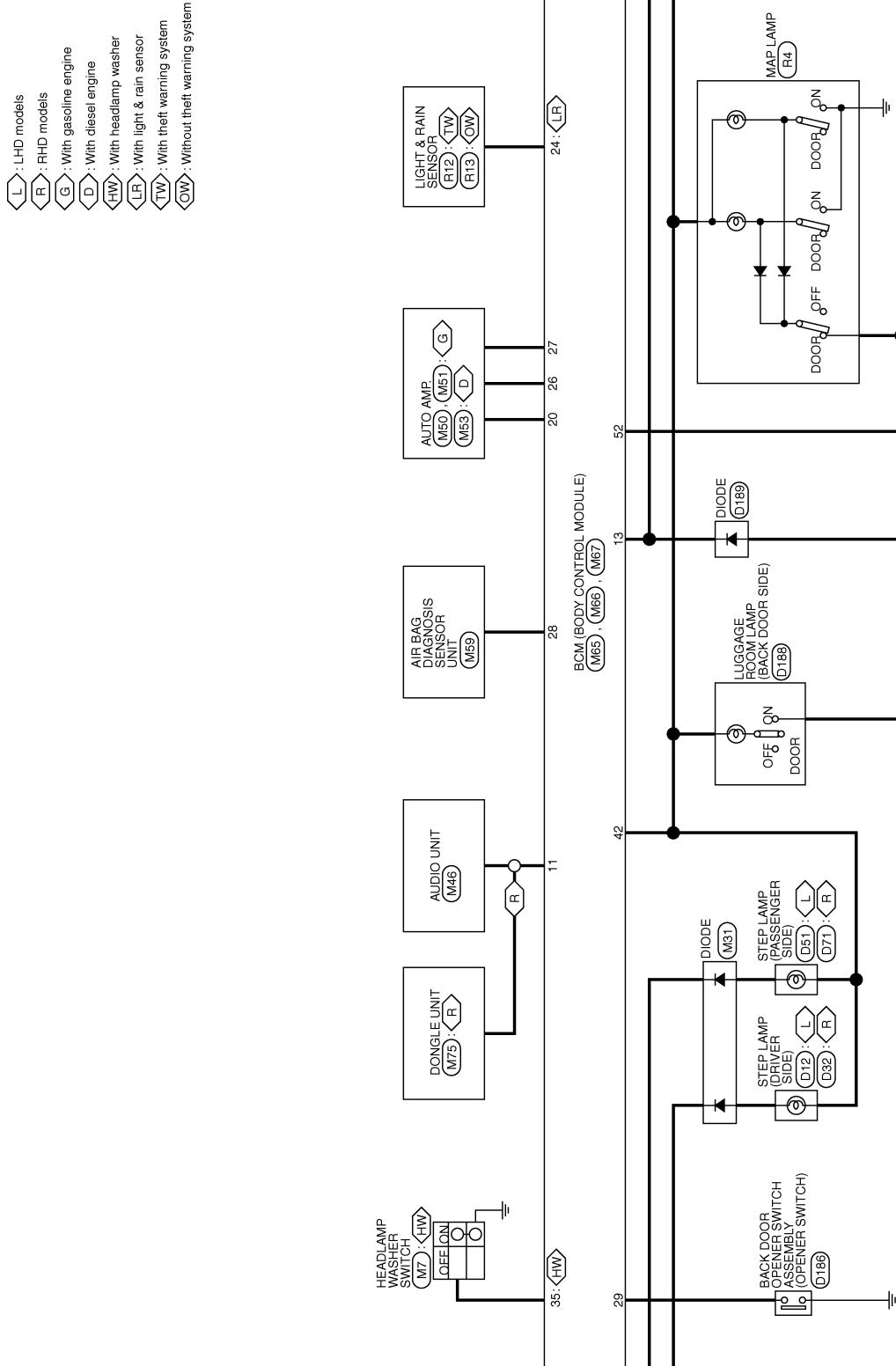
< ECU DIAGNOSIS >



JCMWA0501GE

BCM (BODY CONTROL MODULE)

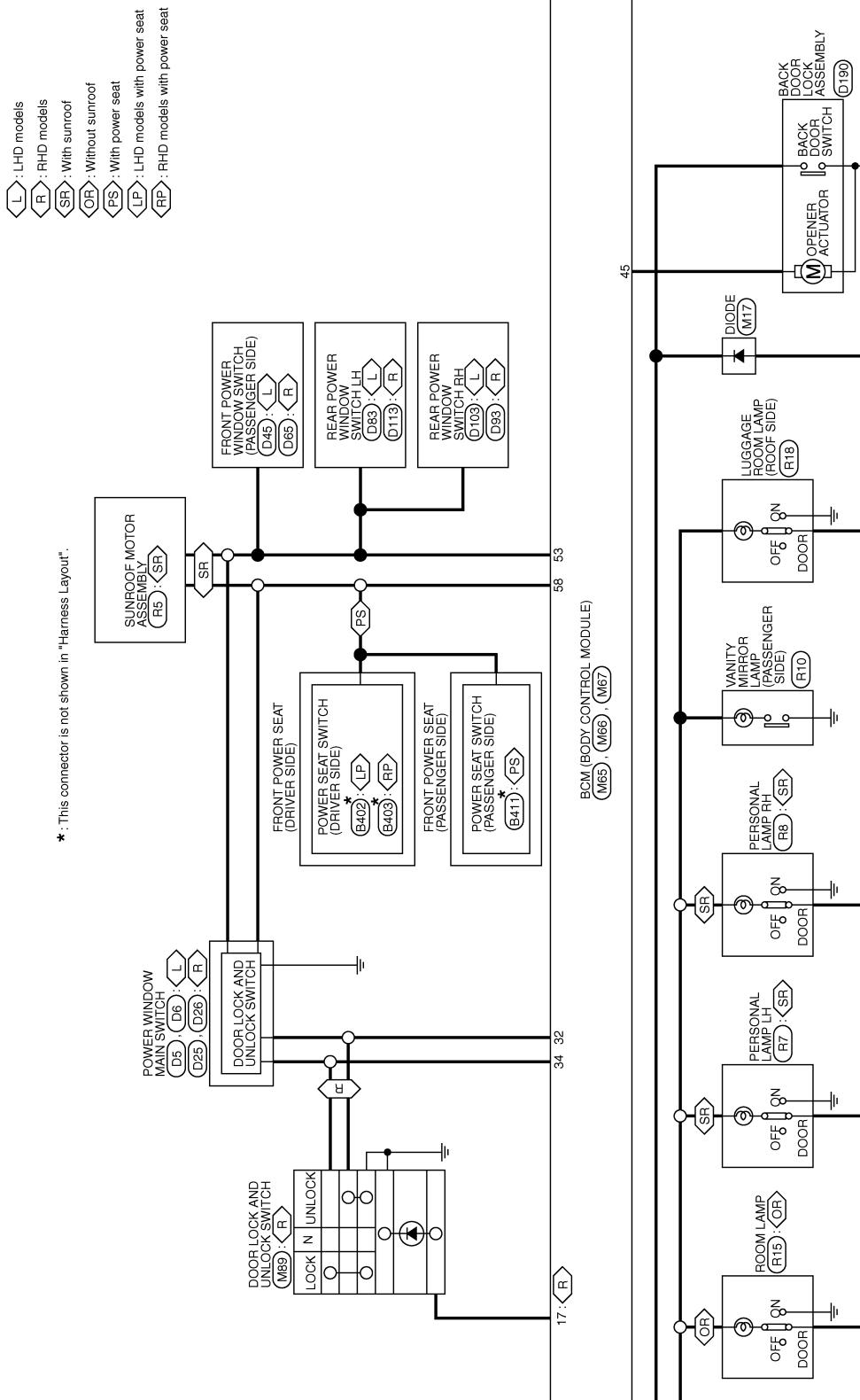
< ECU DIAGNOSIS >



JCMWA0502GF

BCM (BODY CONTROL MODULE)

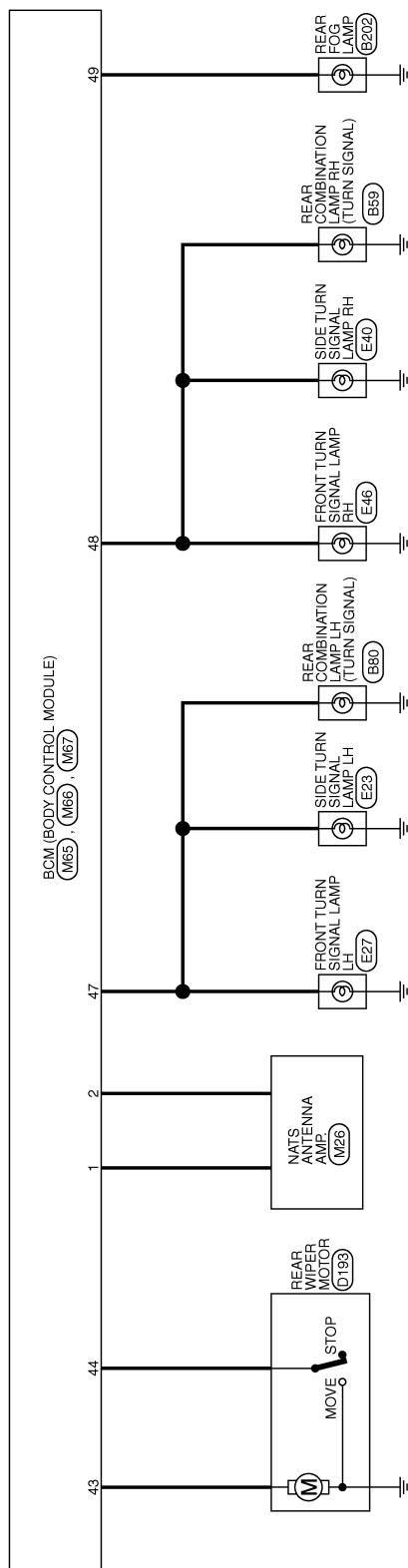
< ECU DIAGNOSIS >



JCMWA0503GE

BCM (BODY CONTROL MODULE)

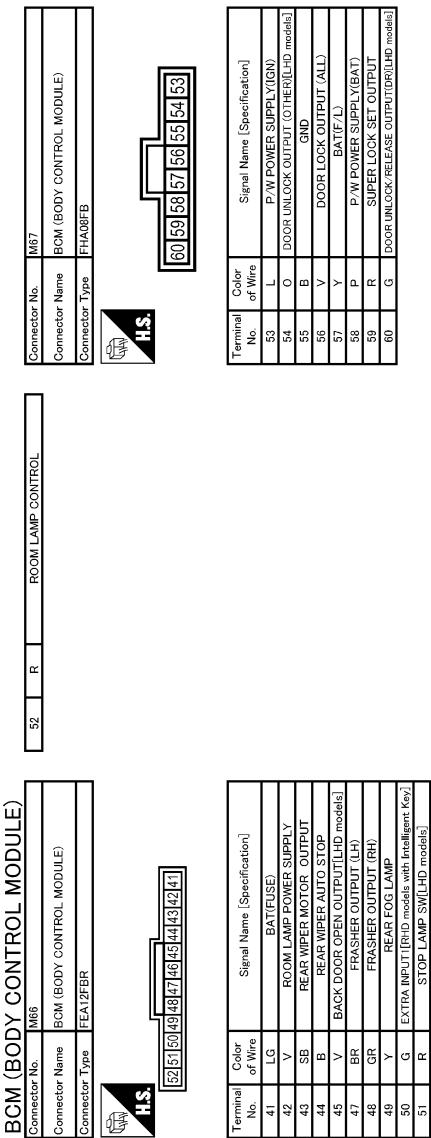
< ECU DIAGNOSIS >



JCMWA0504Ge

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >



JCMWA0506GF

INFOID:0000000001527675

Fail Safe

FAIL-SAFE CONTROL BY DTC

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

DTC	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2191: DIFFERENCE OF KEY	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2195: ANTI SCANNING	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2196: DONGLE NG	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

When the rear wiper auto stop signal does not change more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. Turn ignition switch OFF.
2. Pass more than 1 minute after the rear wiper stop.
3. Turn ignition switch ON.
4. Operate the rear wiper switch.

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

FAIL-SAFE CONTROL BY LIGHT & RAIN SENSOR MALFUNCTION

BCM detects the light & rain sensor serial link error and the light & rain sensor malfunction.

BCM controls the following fail-safe when light & rain sensor has a malfunction.

INL

Fail-safe Control

- Auto light control: Headlamp is turned ON.
- Front wiper control: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.

DTC Inspection Priority Chart

INFOID:000000001527676

Priority	DTC
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • B2190: NATS ANTENNA AMP • B2191: DIFFERNCIE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2194: DISCORD BCM-I-KEY • B2195: ANTI SCANNING • B2196: DONGLE NG

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

DTC Index

INFOID:000000001527677

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.
- PAST: Displays when there is a malfunction that is detected in the past and stored.
- 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.

DTC	TIME		Fail-safe	Reference
U1000: CAN COMM CIRCUIT	0	1 - 39	—	BCS-33
U1010: CONTROL UNIT (CAN)	0	1 - 39	—	BCS-34
B2190: NATS ANTENNA AMP	CRNT	PAST	×	<ul style="list-style-type: none">With Intelligent Key system: SEC-41Without Intelligent Key system: SEC-254
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	<ul style="list-style-type: none">With Intelligent Key system: SEC-43Without Intelligent Key system: SEC-256
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none">With Intelligent Key system: SEC-38Without Intelligent Key system: SEC-251
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none">With Intelligent Key system: SEC-40Without Intelligent Key system: SEC-253
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	SEC-53
B2195: ANTI SCANNING	CRNT	PAST	×	<ul style="list-style-type: none">With Intelligent Key system: SEC-54Without Intelligent Key system: SEC-264
B2196: DONGLE NG	CRNT	PAST	×	<ul style="list-style-type: none">With Intelligent Key system: SEC-55Without Intelligent Key system: SEC-265

INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000001160347

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 the following lamps do not turn ON. <ul style="list-style-type: none">• Map lamp• Room lamp• Personal lamp• Vanity mirror lamp• Step lamp• Luggage room lamp	<ul style="list-style-type: none">• Harness between BCM and each interior room lamp• BCM	Interior room lamp power supply circuit Refer to INL-18 .
<ul style="list-style-type: none">• Interior room lamp does not turn ON even though the door is open. (It turns ON when turning the interior room lamp ON.)• Interior room lamp does not turn OFF even though the door is closed.	<ul style="list-style-type: none">• Harness between BCM and each door switch• Harness between BCM and each interior room lamp• BCM	Door switch circuit Refer to the following. WITH I-KEY, WITHOUT SUPER LOCK <ul style="list-style-type: none">• Driver side: DLK-83• Passenger side: DLK-84• Rear LH: DLK-86• Rear RH: DLK-87• Back door: DLK-89 WITH I-KEY & SUPER LOCK <ul style="list-style-type: none">• Driver side: DLK-367• Passenger side: DLK-368• Rear LH: DLK-370• Rear RH: DLK-371• Back door: DLK-373 WITHOUT I-KEY & SUPER LOCK <ul style="list-style-type: none">• Driver side: DLK-633• Passenger side: DLK-634• Rear LH: DLK-636• Rear RH: DLK-637• Back door: DLK-639 WITHOUT I-KEY, WITH SUPER LOCK <ul style="list-style-type: none">• Driver side: DLK-794• Passenger side: DLK-795• Rear LH: DLK-797• Rear RH: DLK-798• Back door: DLK-800
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	—	Interior room lamp control circuit Refer to INL-20 .
Interior room lamp battery saver does not activate.	—	Check the interior room lamp setting. Refer to INL-14 .

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:0000000001569523

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" 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 "SRS AIRBAG".
- 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.

MAP LAMP

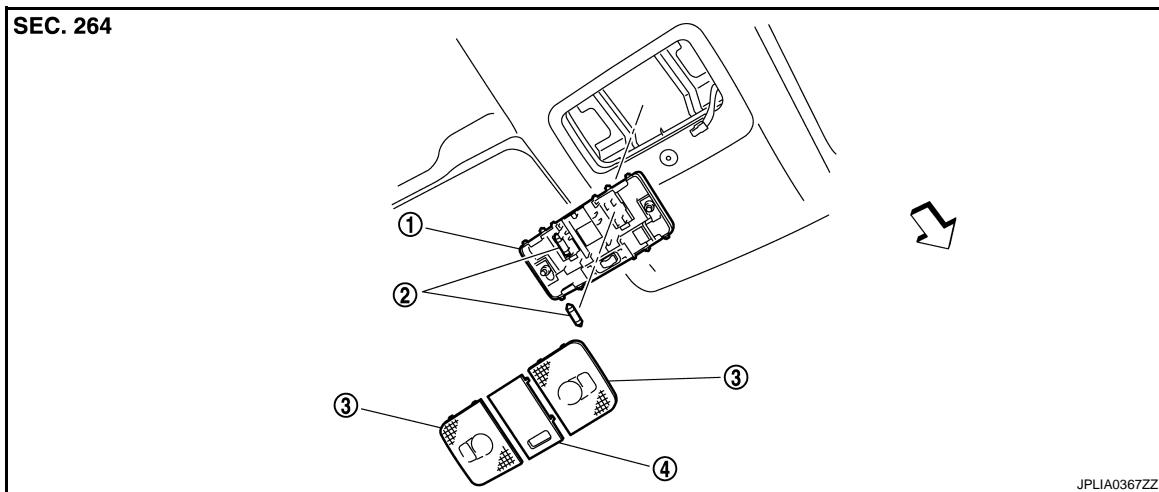
< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

MAP LAMP

Exploded View

INFOID:0000000001160349



1. Map lamp bulb housing

2. Bulb

3. Lens

4. Center cover

↖ : Vehicle front

Removal and Installation

INFOID:0000000001160350

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the lens. And then remove the lens.
2. Insert any appropriate tool into the gap between the map lamp bulb housing. And then remove the map lamp bulb housing.
3. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

INL

Replacement

INFOID:0000000001160351

CAUTION:

Disconnect the battery negative terminal or the fuse.

MAP LAMP BULB

1. Insert any appropriate tool into the gap between the lens. And then remove the lens.
2. Remove the bulb.

N

O

P

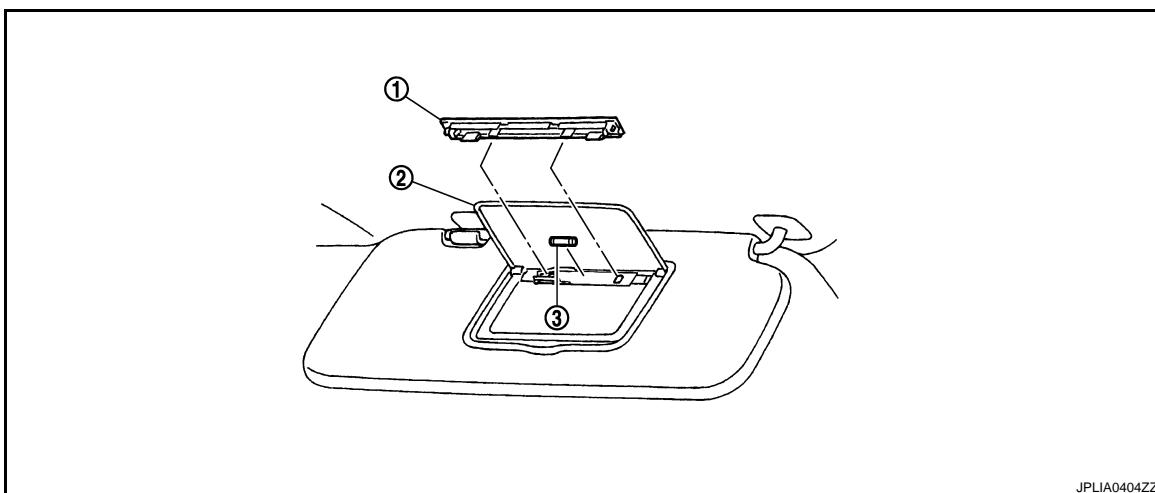
VANITY MIRROR LAMP

< ON-VEHICLE REPAIR >

VANITY MIRROR LAMP

Exploded View

INFOID:0000000001160352



JPLIA0404ZZ

1. Lens

2. Vanity mirror assembly

3. Bulb

Replacement

INFOID:0000000001160353

CAUTION:

Disconnect the battery negative terminal or the fuse.

VANITY MIRROR LAMP BULB

1. Insert any appropriate tool into the gap between the lens. Remove the lens.
2. Remove the bulb.

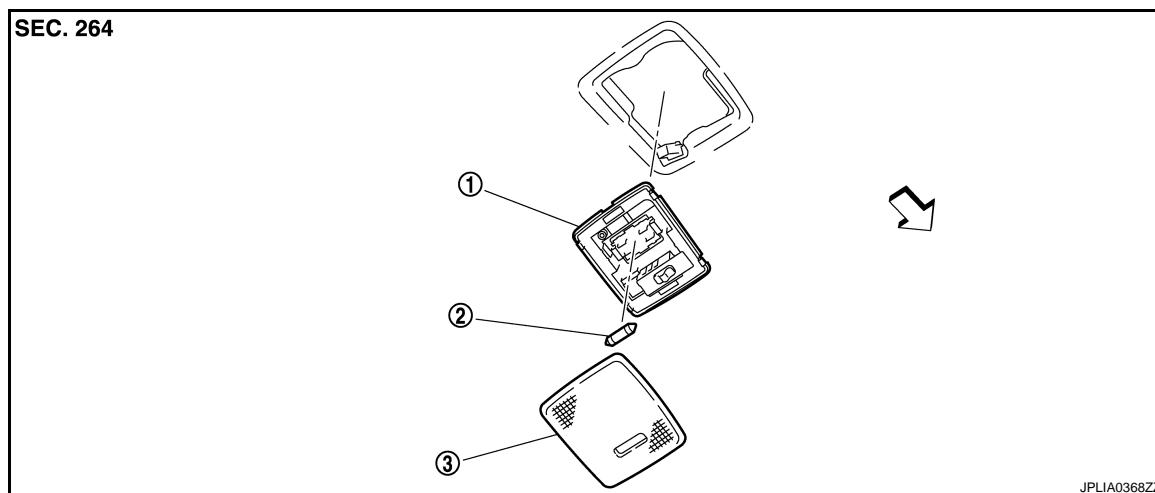
ROOM LAMP

< ON-VEHICLE REPAIR >

ROOM LAMP

Exploded View

INFOID:0000000001160356



1. Room lamp bulb housing

2. Bulb

3. Lens

↳ : Vehicle front

Removal and Installation

INFOID:0000000001160357

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the lens. And then remove the lens.
2. Insert any appropriate tool into the gap between the room lamp bulb housing and headlining. And then remove the room lamp bulb housing.
3. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

INL

Replacement

INFOID:0000000001160358

CAUTION:

Disconnect the battery negative terminal or the fuse.

ROOM LAMP BULB

1. Insert any appropriate tool into the gap between the lens. And then remove the lens.
2. Remove the bulb.

M

N

O

P

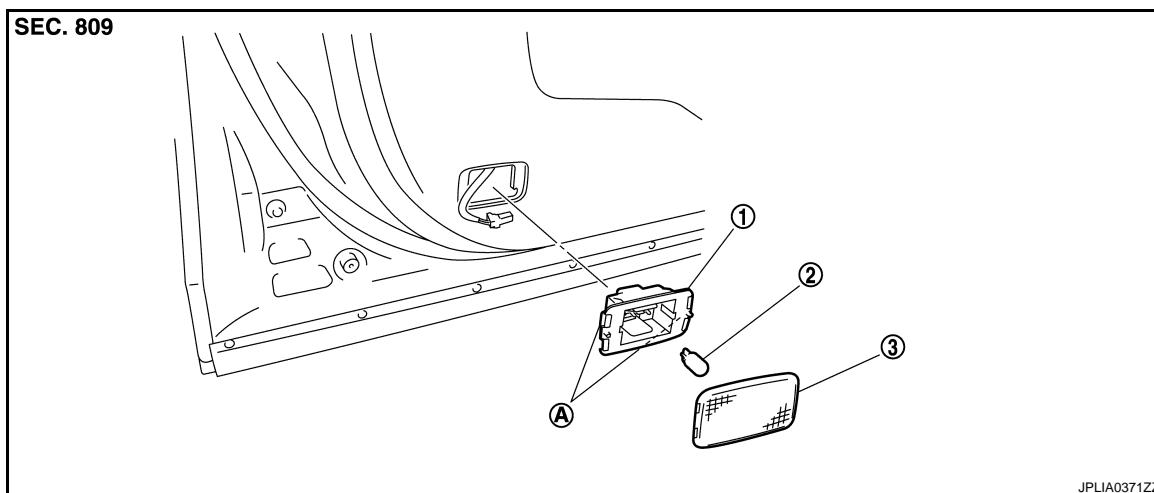
STEP LAMP

< ON-VEHICLE REPAIR >

STEP LAMP

Exploded View

INFOID:0000000001303614



- 1. Step lamp case
- 2. Bulb
- 3. Lens
- A Metal clip

JPLIA0371ZZ

Removal and Installation

INFOID:0000000001303615

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the lens. And then remove the lens.
2. Insert any appropriate tool into the gap between the step lamp case and the door trim. And then remove the step lamp case.
3. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:0000000001303616

CAUTION:

Disconnect the battery negative terminal or the fuse.

STEP LAMP BULB

1. Insert any appropriate tool into the gap between the lens. And then remove the lens.
2. Remove the bulb.

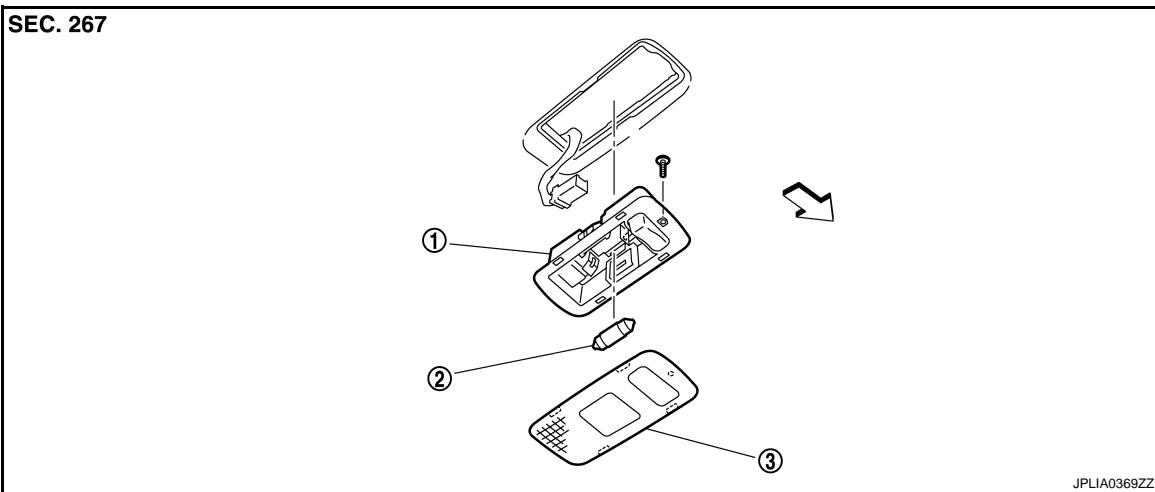
LUGGAGE ROOM LAMP

< ON-VEHICLE REPAIR >

LUGGAGE ROOM LAMP ROOF SIDE

ROOF SIDE : Exploded View

INFOID:0000000001160362



1. Luggage room lamp (roof side) housing

2. Bulb

3. lens

⬅ : Vehicle front

ROOF SIDE : Removal and Installation

INFOID:0000000001160363

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the luggage room lamp (roof side) and headlining. And then remove the luggage room lamp (roof side).
2. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

ROOF SIDE : Replacement

INFOID:0000000001160364

CAUTION:

Disconnect the battery negative terminal or the fuse.

LUGGAGE ROOM LAMP (ROOF SIDE) BULB

1. Remove the luggage room lamp (roof side).
2. Remove screw. And then remove lens.
3. Remove the bulb.

BACK DOOR SIDE

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

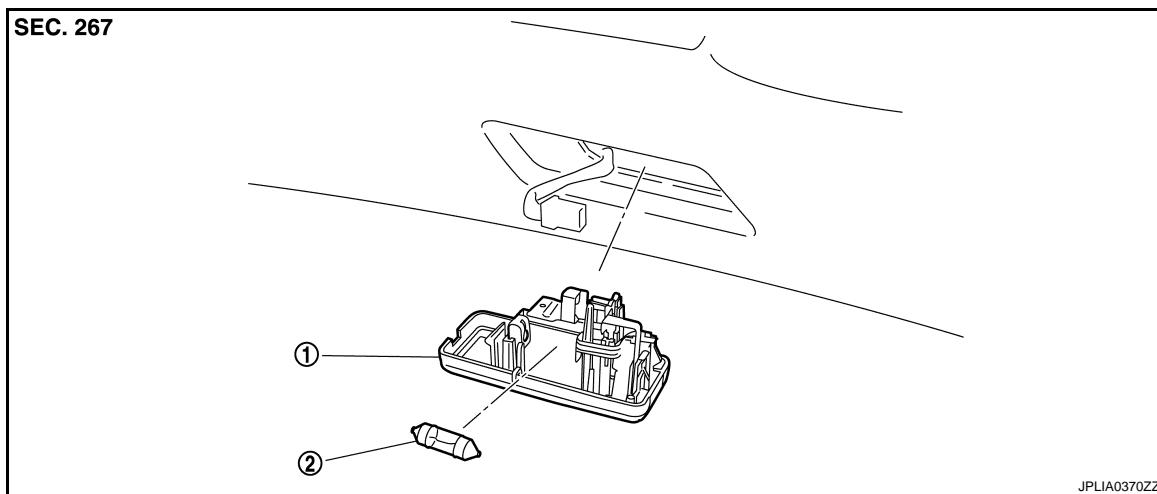
P

LUGGAGE ROOM LAMP

< ON-VEHICLE REPAIR >

BACK DOOR SIDE : Exploded View

INFOID:0000000001278610



1. Luggage room lamp (back door side)
2. Bulb assembly

BACK DOOR SIDE : Removal and Installation

INFOID:0000000001278611

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the luggage room lamp (back door side) assembly and back door trim finisher lower. Remove the luggage room lamp (back door side) assembly.
2. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

BACK DOOR SIDE : Replacement

INFOID:0000000001278612

CAUTION:

Disconnect the battery negative terminal or the fuse.

LUGGAGE ROOM LAMP BULB

1. Remove the luggage room lamp (back door side) assembly.
2. Remove the bulb.

SERVICE DATA AND SPECIFICATIONS (SDS)

<SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:000000001160365

Item	Type	Wattage (W)
Map lamp	—	8
Vanity mirror lamp	—	1.8
Step lamp	Wedge	2.7
Room lamp (Without sunroof)	—	8
Personal lamp (With sunroof)	—	8
Luggage room lamp (roof side)	—	8
Luggage room lamp (back door side)	—	8

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

P