

SECTION **INL**

INTERIOR LIGHTING SYSTEM

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

CONTENTS

<p>PRECAUTION 3</p> <p>PRECAUTIONS 3</p> <p style="padding-left: 20px;">Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"3</p> <p>SYSTEM DESCRIPTION 4</p> <p>COMPONENT PARTS 4</p> <p>INTERIOR LIGHTING SYSTEM4</p> <p style="padding-left: 20px;">INTERIOR LIGHTING SYSTEM : Component Parts Location4</p> <p style="padding-left: 20px;">INTERIOR LIGHTING SYSTEM : Component Description4</p> <p>SYSTEM 6</p> <p>INTERIOR ROOM LAMP CONTROL SYSTEM6</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP CONTROL SYSTEM : System Diagram6</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP CONTROL SYSTEM : System Description6</p> <p>INTERIOR ROOM LAMP BATTERY SAVER SYSTEM8</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Diagram8</p> <p style="padding-left: 20px;">INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description8</p> <p>ILLUMINATION CONTROL SYSTEM9</p> <p style="padding-left: 20px;">ILLUMINATION CONTROL SYSTEM : System Diagram9</p> <p style="padding-left: 20px;">ILLUMINATION CONTROL SYSTEM : System Description9</p> <p>DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)10</p> <p>COMMON ITEM10</p>	<p style="padding-left: 20px;">COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)10</p> <p>INT LAMP11</p> <p style="padding-left: 20px;">INT LAMP : CONSULT Function (BCM - INT LAMP)12</p> <p>BATTERY SAVER13</p> <p style="padding-left: 20px;">BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)13</p> <p>DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)15</p> <p>COMMON ITEM15</p> <p style="padding-left: 20px;">COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)15</p> <p>INT LAMP15</p> <p style="padding-left: 20px;">INT LAMP : CONSULT Function (BCM - INT LAMP)16</p> <p>BATTERY SAVER17</p> <p style="padding-left: 20px;">BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)17</p> <p>ECU DIAGNOSIS INFORMATION19</p> <p>BCM19</p> <p>WITH INTELLIGENT KEY19</p> <p style="padding-left: 20px;">WITH INTELLIGENT KEY : List of ECU Reference19</p> <p>WITHOUT INTELLIGENT KEY19</p> <p style="padding-left: 20px;">WITHOUT INTELLIGENT KEY : List of ECU Reference19</p> <p>WIRING DIAGRAM20</p> <p>INTERIOR ROOM LAMP CONTROL SYSTEM20</p> <p style="padding-left: 20px;">Wiring Diagram20</p>
--	--

ILLUMINATION	22	Diagnosis Procedure	34
Wiring Diagram	22		
BASIC INSPECTION	25	SYMPTOM DIAGNOSIS	36
DIAGNOSIS AND REPAIR WORK FLOW	25	INTERIOR LIGHTING SYSTEM SYMPTOMS...	36
Work Flow	25	Symptom Table	36
DTC/CIRCUIT DIAGNOSIS	28	REMOVAL AND INSTALLATION	37
INTERIOR ROOM LAMP POWER SUPPLY		MAP LAMP	37
CIRCUIT	28	Exploded View	37
Description	28	Removal and Installation	37
Component Function Check	28	Replacement	38
Diagnosis Procedure	28	GLOVE BOX LAMP	39
INTERIOR ROOM LAMP CONTROL CIRCUIT		Exploded View	39
.....	30	Removal and Installation	39
Description	30	Replacement	39
Component Function Check	30	LUGGAGE ROOM LAMP	40
Diagnosis Procedure	30	Exploded View	40
LUGGAGE ROOM LAMP CIRCUIT	32	Removal and Installation	40
Description	32	Replacement	40
Diagnosis Procedure	32	SERVICE DATA AND SPECIFICATIONS	
PUSH-BUTTON IGNITION SWITCH ILLUMI-		(SDS)	42
NATION CIRCUIT	34	SERVICE DATA AND SPECIFICATIONS	
Description	34	(SDS)	42
Component Function Check	34	Bulb Specifications	42

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000008277002

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 "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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.

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

INL

COMPONENT PARTS

< SYSTEM DESCRIPTION >

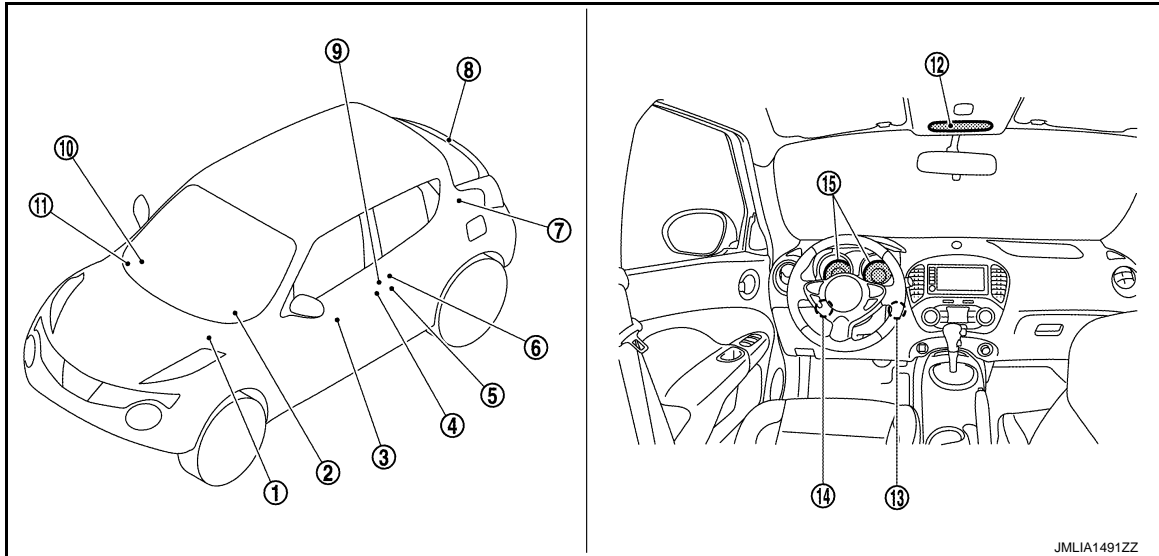
SYSTEM DESCRIPTION

COMPONENT PARTS

INTERIOR LIGHTING SYSTEM

INTERIOR LIGHTING SYSTEM : Component Parts Location

INFOID:000000008277003



- | | | |
|--|--|--------------------------------|
| 1. IPDM E/R
Refer to PCS-5, "Component Parts Location" | 2. BCM
Refer to BCS-6, "BODY CONTROL SYSTEM : Component Parts Location" | 3. Door lock and unlock switch |
| 4. Front door request switch (driver side) | 5. Front door lock assembly (driver side) (unlock sensor) | 6. Door switch |
| 7. Luggage room lamp | 8. Back door switch | 9. Door key cylinder switch |
| 10. Remote keyless entry receiver
Refer to DLK-11, "Component Parts Location" | 11. Optical sensor | 12. Map lamp |
| 13. Push-button ignition switch*1 | 14. Key switch*2 | 15. Combination meter |

*1:With Intelligent Key

*2:Without Intelligent Key

INTERIOR LIGHTING SYSTEM : Component Description

INFOID:000000008277004

Part	Description
BCM	Controls the interior lighting system.
IPDM E/R	Controls the integrated relay according to the request signal from BCM (via CAN communication).
Remote keyless entry receiver	Receives the lock/unlock signal form Keyfob.
Combination switch (Lighting & turn signal switch)	Refer to BCS-9, "COMBINATION SWITCH READING SYSTEM : System Description" .
<ul style="list-style-type: none"> • Door lock and unlock switch • Door request switch 	Inputs the lock/unlock signal to BCM.
Door switch	Inputs the door switch signal to BCM.
Back door switch	Inputs the back door switch signal to BCM.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

Part	Description
Unlock sensor	Detects door lock condition of driver side door.
Optical sensor	Refer to EXL-6. "Component Description" .

A

B

C

D

E

F

G

H

I

J

K

INL

M

N

O

P

SYSTEM

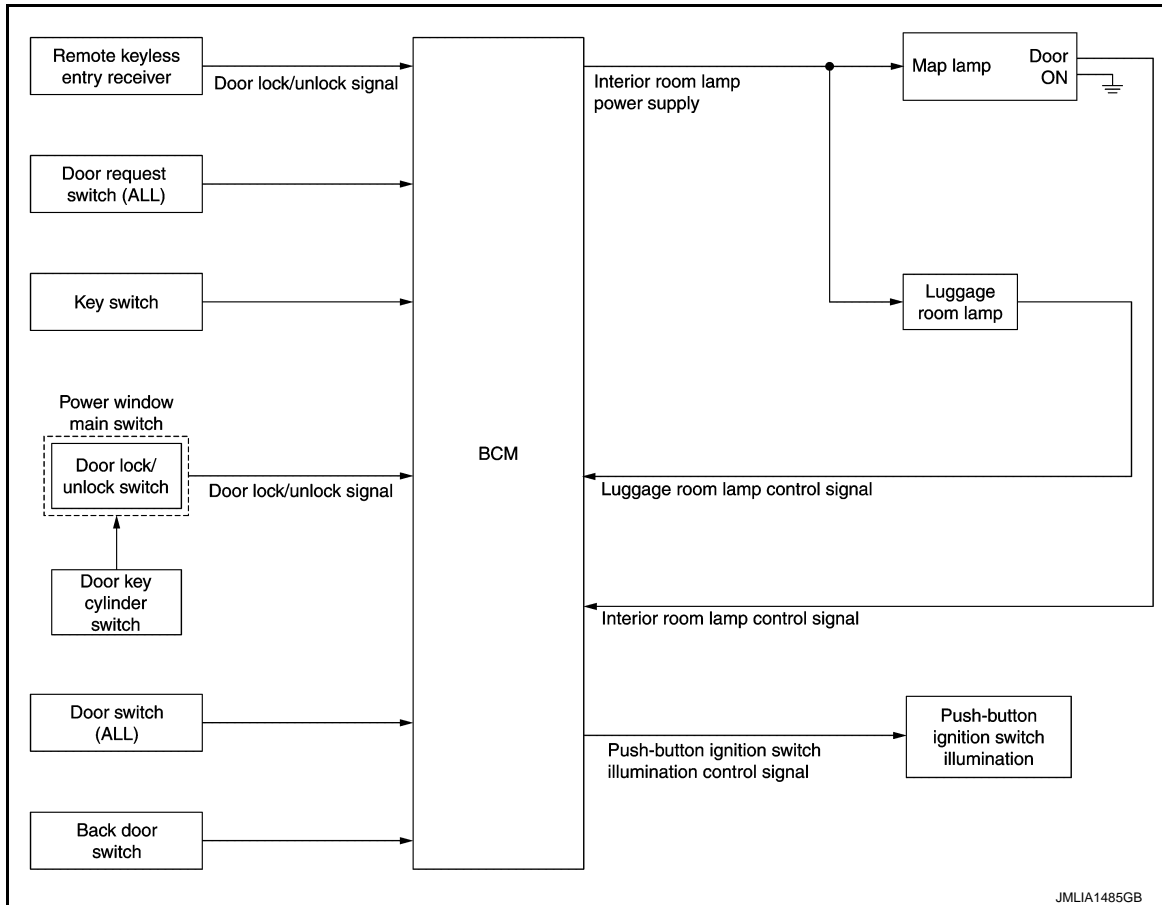
< SYSTEM DESCRIPTION >

SYSTEM

INTERIOR ROOM LAMP CONTROL SYSTEM

INTERIOR ROOM LAMP CONTROL SYSTEM : System Diagram

INFOID:000000008277005



INTERIOR ROOM LAMP CONTROL SYSTEM : System Description

INFOID:000000008277006

OUTLINE

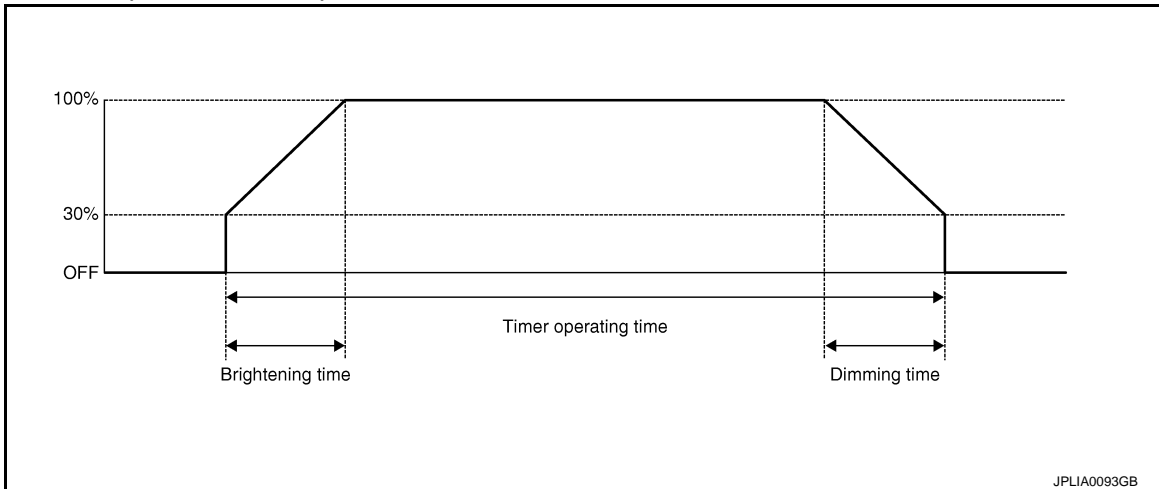
- Interior room lamps* are controlled by interior room lamp timer control function of BCM.
*: Map lamp (when map lamp switch is in DOOR position).
- Luggage room lamp is controlled by luggage room lamp control function of BCM.
- Push-button ignition switch illumination is controlled by the push-button ignition switch illumination control function of BCM.(With Intelligent Key)

INTERIOR ROOM LAMP TIMER CONTROL

SYSTEM

< SYSTEM DESCRIPTION >

Interior Room Lamp Timer Basic Operation



- The interior room lamp turns ON and OFF (gradual brightening and dimming) by the interior room lamp timer.
 - BCM judges the vehicle condition with the following items. It activates the interior room lamp timer.
 - Ignition switch status^{*1}
 - Door switch signal (except back door)
 - Door lock/unlock signal (Remote keyless entry receiver, each door request switch^{*1}, door lock and unlock switch, key cylinder switch)
 - Key switch signal^{*2}
- ^{*1}:With Intelligent Key
^{*2}:Without Intelligent Key

NOTE:

Each function of interior room lamp timer can be set by CONSULT. Refer to [INL-12, "INT LAMP : CONSULT Function \(BCM - INT LAMP\)"](#).

Interior Room Lamp ON Operation

- BCM always turns the interior room lamp ON when any door opens except back door.
- BCM activates the interior room lamp timer in any of the following conditions to turn the interior room lamp ON for a period of time.
 - Status of all doors except back door changes from open to close
 - Ignition switch is turned ON → OFF
 - Door unlock signal is detected when all doors close except back door with ignition switch OFF

NOTE:

The timer restarts 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 turn the interior room lamp OFF.

- The timer operating time is expired
- Ignition switch is turned OFF → ACC/ON
- Door lock signal is detected with all doors close except back door.

LUGGAGE ROOM LAMP CONTROL

BCM turns luggage room lamp ON when the following condition is detected.

- Back door switch is ON

BCM turns luggage room lamp OFF when the following condition is detected.

- Back door switch is OFF

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CONTROL (WITH INTELLIGENT KEY)

Push-button Ignition Switch Illumination Basic Operation

BCM provides the power supply to turn the push-button ignition switch illumination ON.

Push-button Ignition Switch Illumination ON Operation

BCM turns the push-button ignition switch illumination ON in the following conditions.

- Ignition switch ON
- Any of the following conditions with ignition switch OFF/ACC

SYSTEM

< SYSTEM DESCRIPTION >

- Engine start permission is entered
- Driver side door is LOCK → UNLOCK
- Driver side door is open

Push-button Ignition Switch Illumination OFF Operation

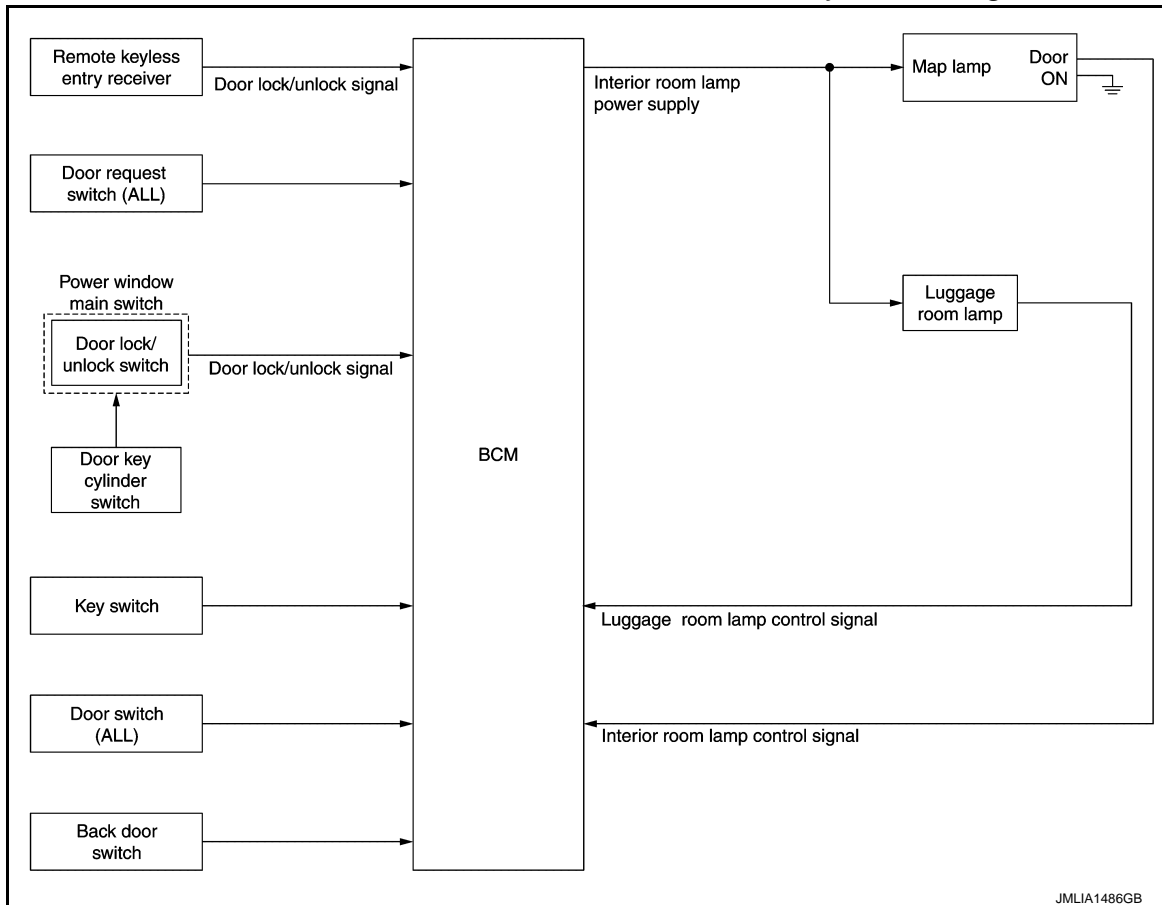
BCM turns the push-button ignition switch illumination OFF in any of the following conditions.

- The push-button ignition switch illumination ON conditions do not satisfy.
- Any of the following conditions with ignition switch OFF.
- The push-button ignition switch illumination ON conditions do not change (15 seconds after the ignition switch OFF)
- Driver side door is UNLOCK → LOCK

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Diagram

INFOID:000000008277007



INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description

INFOID:000000008277008

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 neglects turning OFF the lamps.

Applicable lamps

- Map lamp
- Luggage room lamp

INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

- When the ignition switch is turned to other position than ON, BCM operates the timer for a period of time to cut the interior room lamp power supply.
- BCM restarts the timer when any of the following signals changes while operating the timer.
- Ignition switch status^{*1}

SYSTEM

< SYSTEM DESCRIPTION >

- Key switch status*2
- Door switch signal (ALL)
- Door lock/unlock signal (remote keyless entry receiver, each door request switch*1, door lock and unlock switch, key cylinder switch)
- BCM provides the interior room lamp power supply continuously when the ignition switch position is ON.

*1:With Intelligent Key

*2:Without Intelligent Key

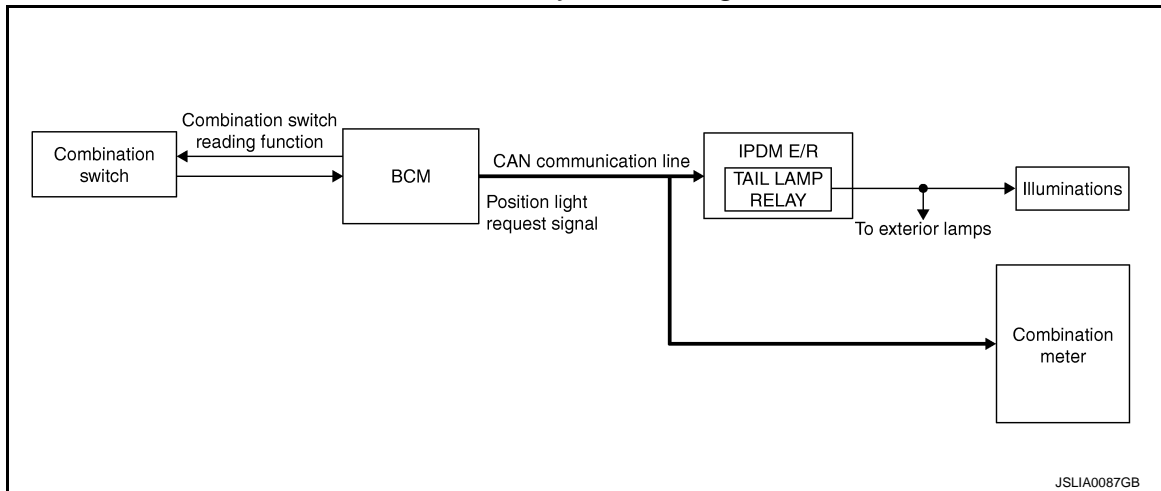
NOTE:

Each function of interior room lamp battery saver can be set by CONSULT. Refer to [INL-13. "BATTERY SAVER : CONSULT Function \(BCM - BATTERY SAVER\)"](#).

ILLUMINATION CONTROL SYSTEM

ILLUMINATION CONTROL SYSTEM : System Diagram

INFOID:000000008277009



ILLUMINATION CONTROL SYSTEM : System Description

INFOID:000000008277010

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

Control by combination meter

- Meter illumination control function (Refer to [MWI-10. "SPEEDOMETER : System Description"](#).)

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 enters in the nighttime mode according to position light request signal. Under the nighttime mode the combination meter controls the illuminance by controlling the each illumination lamp (ground side).

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000008843754

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	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	<ul style="list-style-type: none"> Read and save the vehicle specification. 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.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioning system	AIR CONDITONER		×	×*
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU	×	×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	
Theft warning alarm	THEFT ALM	×	×	×
RAP	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

NOTE:

*: For models with automatic A/C, this diagnosis mode is not used.

FREEZE FRAME DATA (FFD)

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power position is "LOCK".)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power position is "OFF".)
	LOCK>ACC		While turning power position from "LOCK"* to "ACC"
	ACC>ON		While turning power position from "ACC" to "IGN"
	RUN>ACC		While turning power position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		While turning power position from "ACC" to "OFF"
	OFF>LOCK		While turning power position from "OFF" to "LOCK"*
	OFF>ACC		While turning power position from "OFF" to "ACC"
	ON>CRANK		While turning power position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power position is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power position is "LOCK".) to low power consumption mode
	LOCK		Power position is "LOCK"*
	OFF		Power position is "OFF" (Ignition switch OFF)
	ACC		Power position is "ACC" (Ignition switch ACC)
	ON		Power position is "IGN" (Ignition switch ON with engine stopped)
ENGINE RUN	Power position is "RUN" (Ignition switch ON with engine running)		
CRANKING	Power position is "CRANKING" (At engine cranking)		
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 	

NOTE:

*: Power position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position (A/T models and CVT models), and any of the following conditions are met.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

INT LAMP

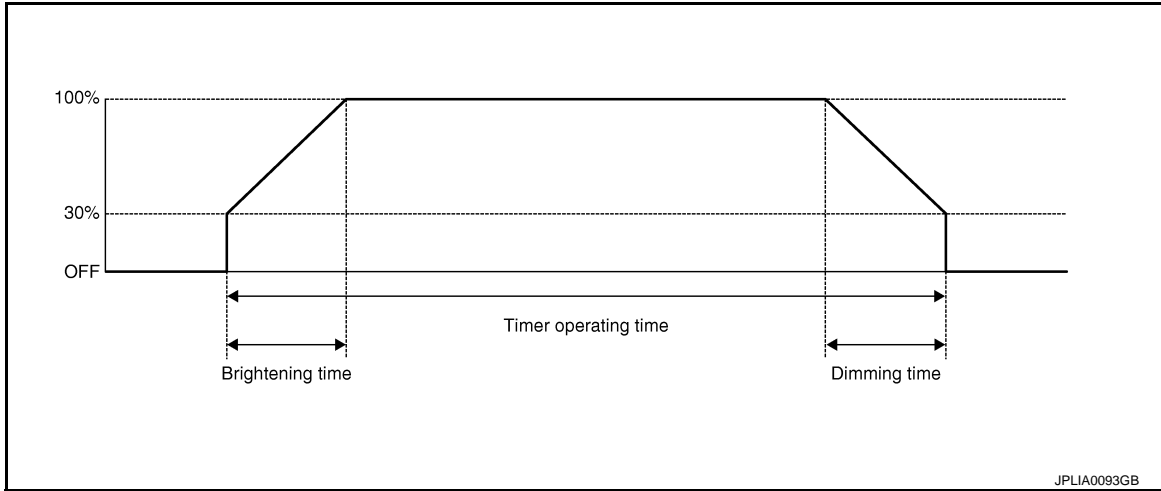
DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:000000008277012

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	0 sec.
ROOM LAMP OFF TIME SET	MODE 1	0.5 sec.
	MODE 2*	1 sec.
	MODE 3	2 sec.
	MODE 4	3 sec.
	MODE 5	0 sec.
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.

*: Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)
REQ SW-AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)
REQ SW-RR [On/Off]	NOTE: This item is displayed, but cannot be monitored

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
REQ SW-RL [On/Off]	NOTE: This item is displayed, but cannot be monitored
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR [On/Off]	Indicates [On/Off] condition of driver door UNLOCK status
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH
DOOR SW- RL [On/Off]	Indicated [On/Off] condition of rear door switch LH
DOOR SW- BK [On/Off]	Indicated [On/Off] condition of back door switch
CDL LOCK SW [On/Off]	Indicated [On/Off] condition of lock signal from door lock unlock switch
CDL UNLOCK SW [On/Off]	Indicated [On/Off] condition of unlock signal from door lock unlock switch
TRNK/HAT MNTR [On/Off]	NOTE: This item is displayed, but cannot be monitored
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the interior room lamp control signal.
	Off	Stops the interior room lamp control signal.
STEP LAMP TEST	On	NOTE: This item is indicated, but can not tested
	Off	

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:000000008277013

WORK SUPPORT

Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1	30 min.
	MODE 2	60 min.
	MODE 3*	15 min.
Sets the interior room lamp battery saver timer operating time.		
BATTERY SAVER SET	On*	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

Service item	Setting item	Setting
ROOM LAMP BAT SAV SET	On*	With the interior room lamp battery saver function
	Off	Without the interior room lamp battery saver function

*:Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)
REQ SW-AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)
REQ SW-RR [On/Off]	NOTE: This item is displayed, but cannot be monitored
REQ SW-RL [On/Off]	NOTE: This item is displayed, but cannot be monitored
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR [On/Off]	Indicates [On/Off] condition of driver door UNLOCK status
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH
DOOR SW- RL [On/Off]	Indicated [On/Off] condition of rear door switch LH
DOOR SW- BK [On/Off]	Indicated [On/Off] condition of back door switch
CDL LOCK SW [On/Off]	Indicated [On/Off] condition of lock signal from door lock unlock switch
CDL UNLOCK SW [On/Off]	Indicated [On/Off] condition of unlock signal from door lock unlock switch
TRNK/HAT MNTR [On/Off]	NOTE: This item is displayed, but cannot be monitored
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key

ACTIVE TEST

Test item	Operation	Description
BATTERY SAVER	Off	Cuts the interior room lamp power supply.
	On	Outputs the interior room lamp power supply.

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000008843756

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	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	<ul style="list-style-type: none"> Read and save the vehicle specification. 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.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp control	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 conditioning system	AIR CONDITONER		×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NATS	IMMU	×		×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	
Theft warning alarm	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	×
Signal buffer system	SIGNAL BUFFER		×	×
Panic alarm	PANIC ALARM			×
TPMS	AIR PRESSUE MONITOR	×	×	×

INT LAMP

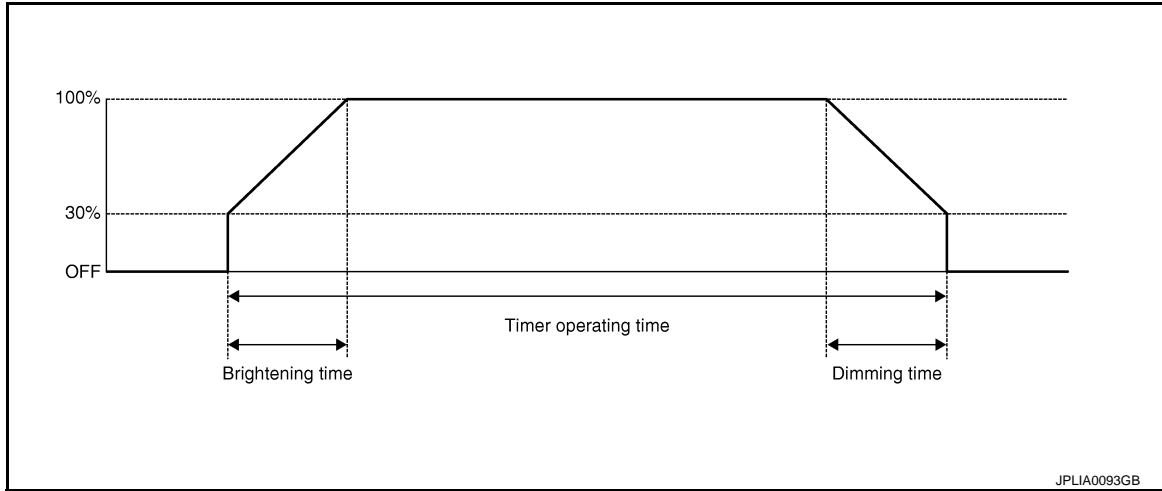
DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:000000008277015

WORK SUPPORT



Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1	0 sec.
	MODE 2	7.5 sec.
	MODE 3*	15 sec.
	MODE 4	30 sec.
Sets the interior room lamp ON time. (Timer operating time)		
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.
Sets the interior room lamp gradual brightening time.		
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.
Sets the interior room lamp gradual dimming time.		
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.

*: Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Indicated [On/Off] condition of ignition switch in ON position
KEY ON SW [On/Off]	Indicated [On/Off] condition of key switch
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH
DOOR SW- RL [On/Off]	Indicated [On/Off] condition of rear door switch LH
BACK DOOR SW [On/Off]	Indicated [On/Off] condition of back door switch
LOCK STATUS [On/Off]	The switch status input from door lock status switch (driver side)
CDL LOCK SW [On/Off]	Indicates [On/Off] condition of door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicates [On/Off] condition of door lock and unlock switch
KEYLESS LOCK [On/Off]	Indicates [On/Off] condition of lock signal from keyfob
KEYLESS UNLOCK [On/Off]	Indicates [On/Off] condition of unlock signal from keyfob
TRNK/HAT MNTR [On/Off]	NOTE: This item is displayed, but cannot be tested
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder
ACC ON SW [On/Off]	Indicates [On/Off] condition of ignition switch in ACC position

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the interior room lamp control signal.
	Off	Stops the interior room lamp control signal.

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:000000008277016

WORK SUPPORT

Service item	Setting item	Setting
ROOM LAMP TIMER SET	MODE 1	30 min.
	MODE 2	60 min.
	MODE 3*	15 min.
Sets the interior room lamp battery saver timer operating time.		
ROOM LAMP BAT SAV SET	On*	With the interior room lamp battery saver function
	Off	Without the interior room lamp battery saver function

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

*:Factory setting

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Indicated [On/Off] condition of ignition switch in ON position
KEY ON SW [On/Off]	Indicated [On/Off] condition of key switch
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH
DOOR SW- RL [On/Off]	Indicated [On/Off] condition of rear door switch LH
BACK DOOR SW [On/Off]	Indicated [On/Off] condition of back door switch
LOCK STATUS [On/Off]	The switch status input from door lock status switch (driver side)
CDL LOCK SW [On/Off]	Indicates [On/Off] condition of door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicates [On/Off] condition of door lock and unlock switch
KEYLESS LOCK [On/Off]	Indicates [On/Off] condition of lock signal from keyfob
KEYLESS UNLOCK [On/Off]	Indicates [On/Off] condition of unlock signal from keyfob
TRNK/HAT MNTR [On/Off]	NOTE: This item is displayed, but cannot be tested
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder
ACC ON SW [On/Off]	Indicates [On/Off] condition of ignition switch in ACC position

ACTIVE TEST

Test item	Operation	Description
BATTERY SAVER	Off	Cuts the interior room lamp power supply.
	On	Outputs the interior room lamp power supply.

BCM

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM

WITH INTELLIGENT KEY

WITH INTELLIGENT KEY : List of ECU Reference

INFOID:0000000008277017

ECU	Reference
BCM	BCS-36. "Reference Value"
	BCS-57. "Fail-safe"
	BCS-58. "DTC Inspection Priority Chart"
	BCS-59. "DTC Index"

WITHOUT INTELLIGENT KEY

WITHOUT INTELLIGENT KEY : List of ECU Reference

INFOID:0000000008277018

ECU	Reference
BCM	BCS-109. "Reference Value"
	BCS-122. "Fail-safe"
	BCS-123. "DTC Inspection Priority Chart"
	BCS-123. "DTC Index"

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

INL

INTERIOR ROOM LAMP CONTROL SYSTEM


< WIRING DIAGRAM >

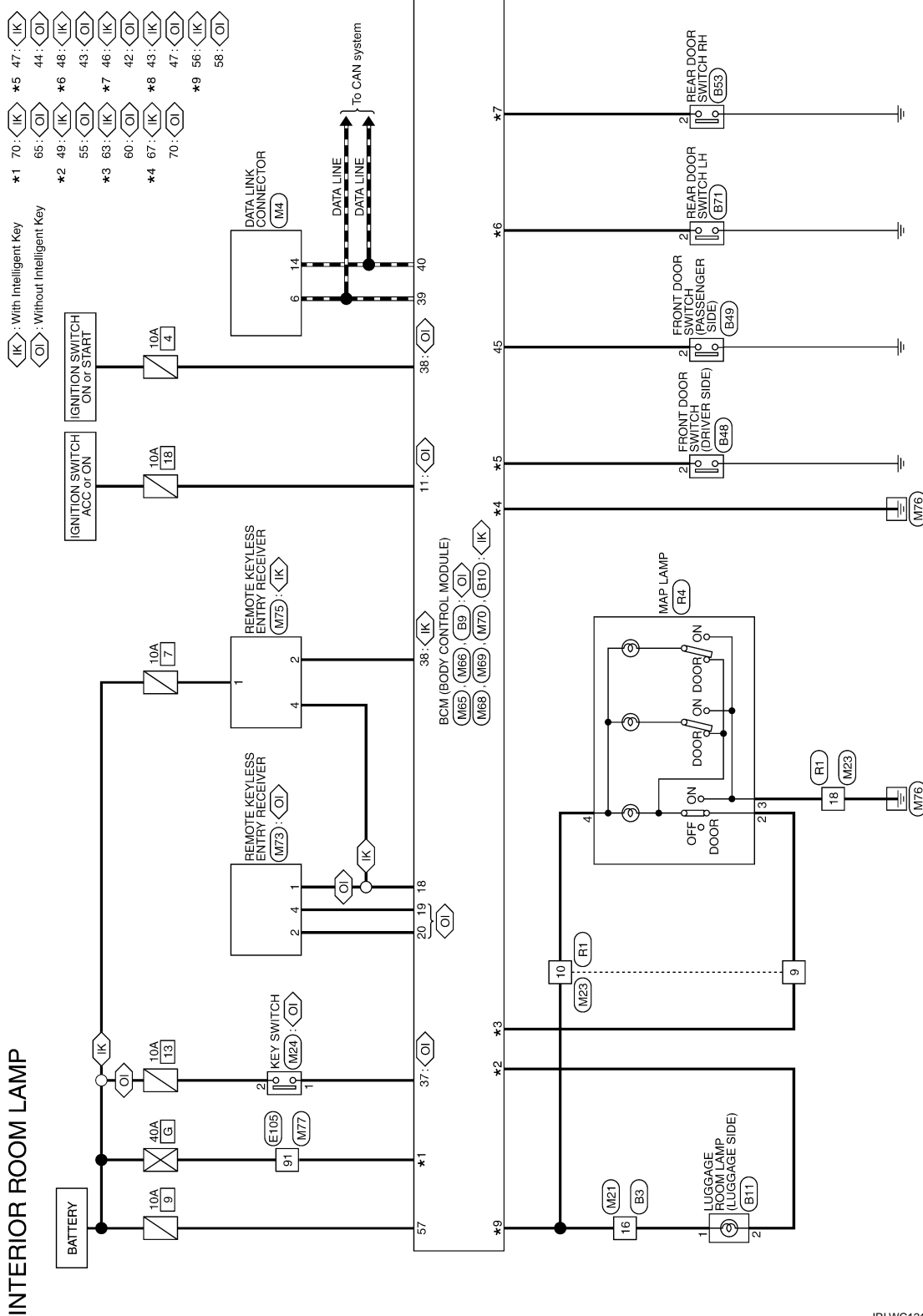
WIRING DIAGRAM

INTERIOR ROOM LAMP CONTROL SYSTEM

Wiring Diagram

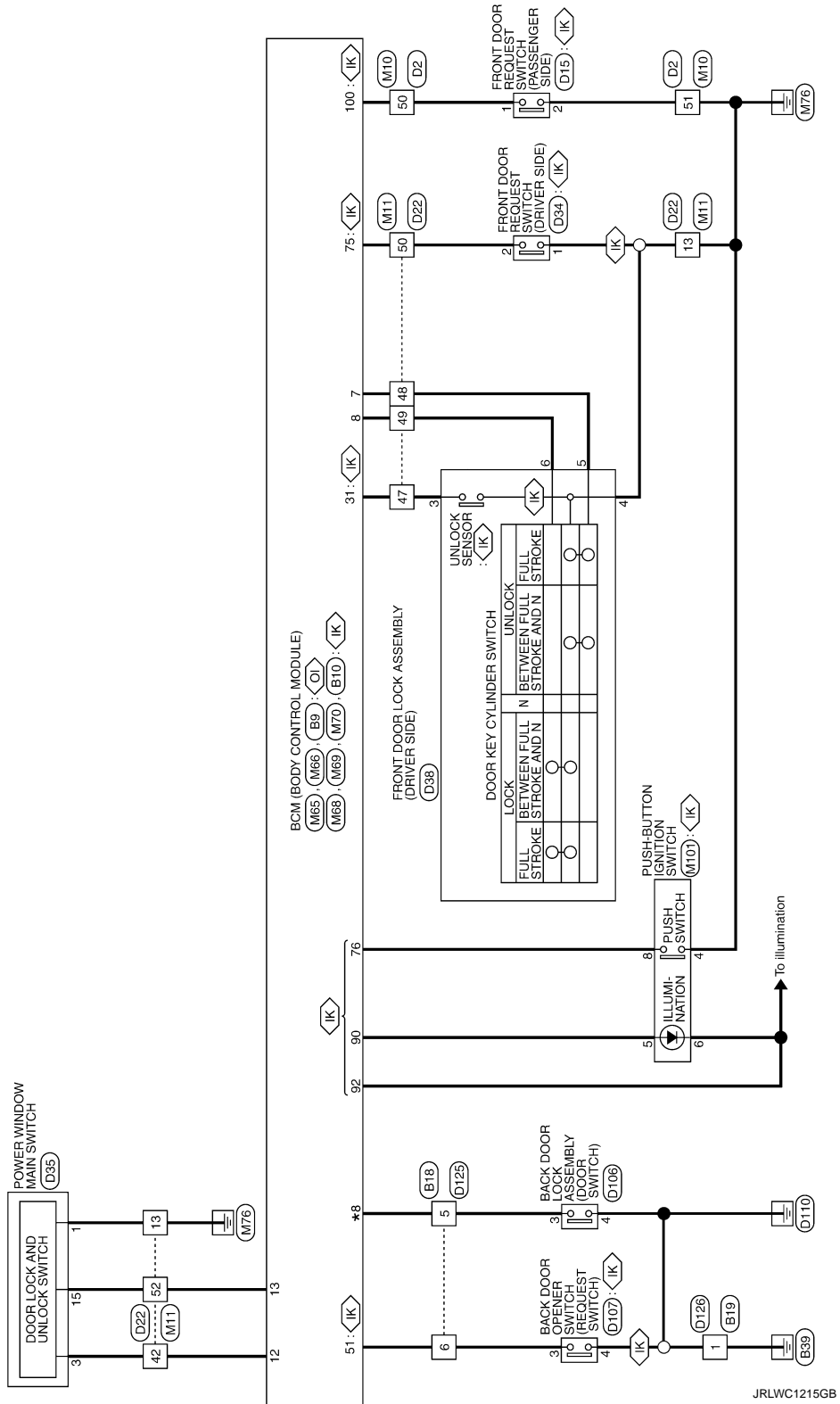
INFOID:0000000008277019

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12. "Connector Information"](#).



INTERIOR ROOM LAMP CONTROL SYSTEM

< WIRING DIAGRAM >



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

INL


ILLUMINATION

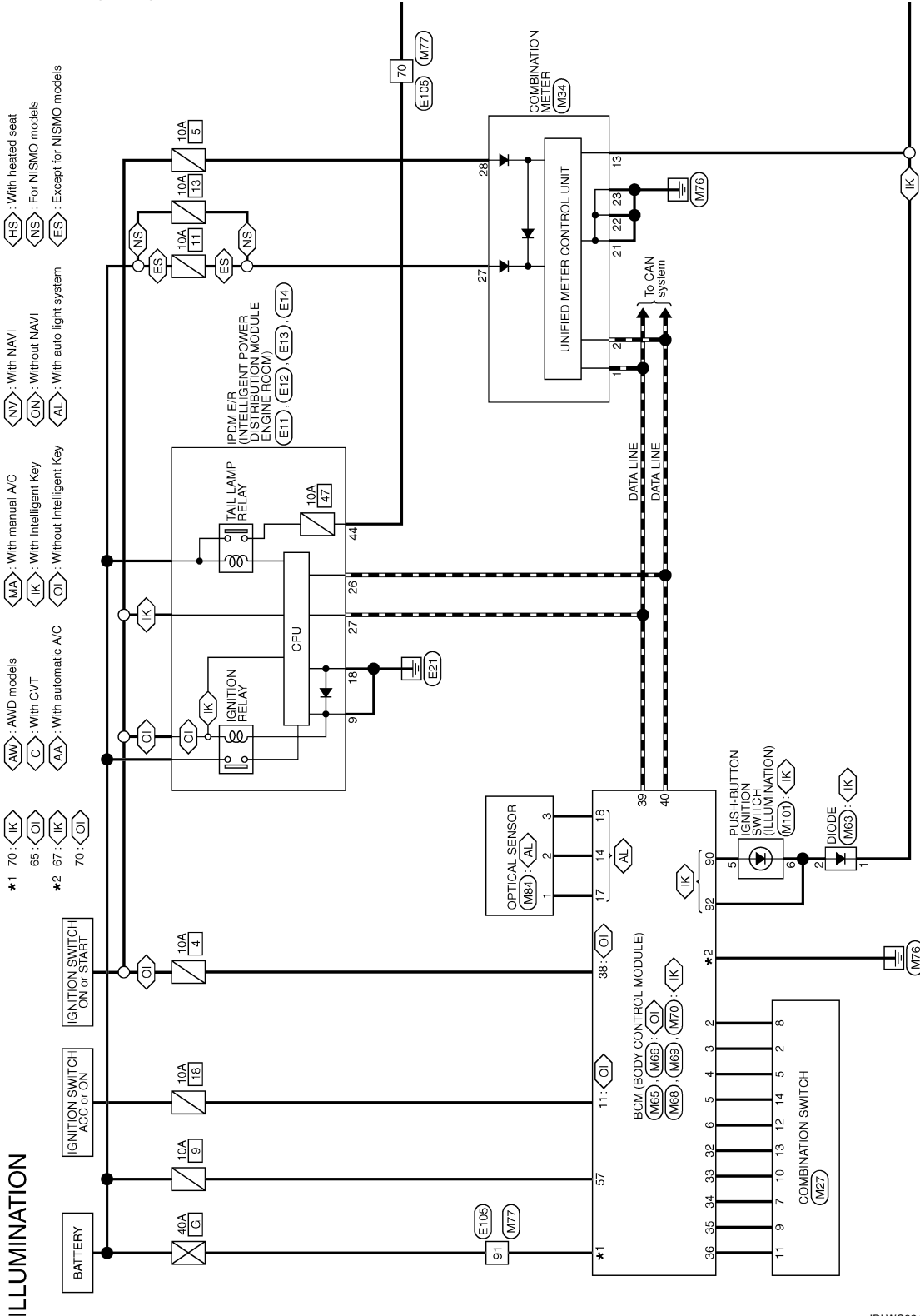
< WIRING DIAGRAM >

ILLUMINATION

Wiring Diagram

INFOID:000000008277020

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



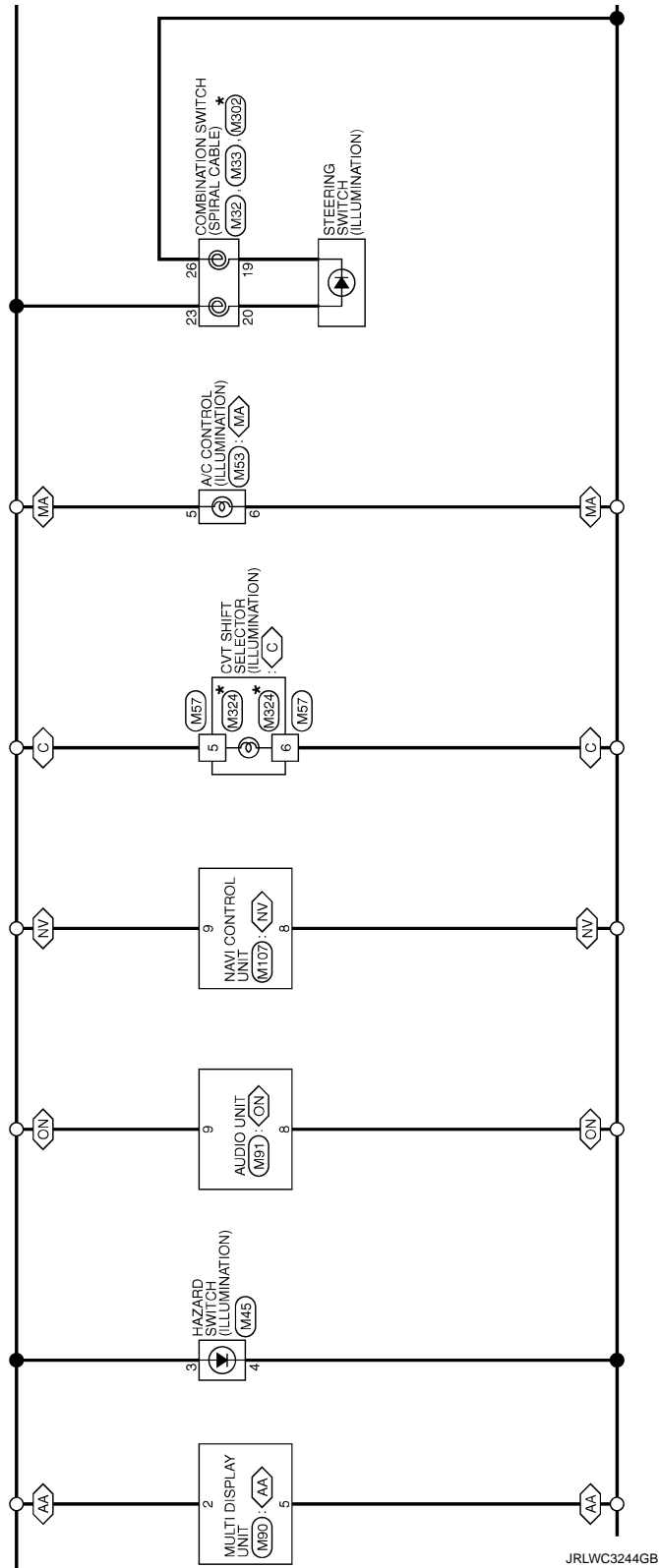
*: This connector is not shown in "Harness Layout".

2012/12/12

JRLWC3243GB

ILLUMINATION

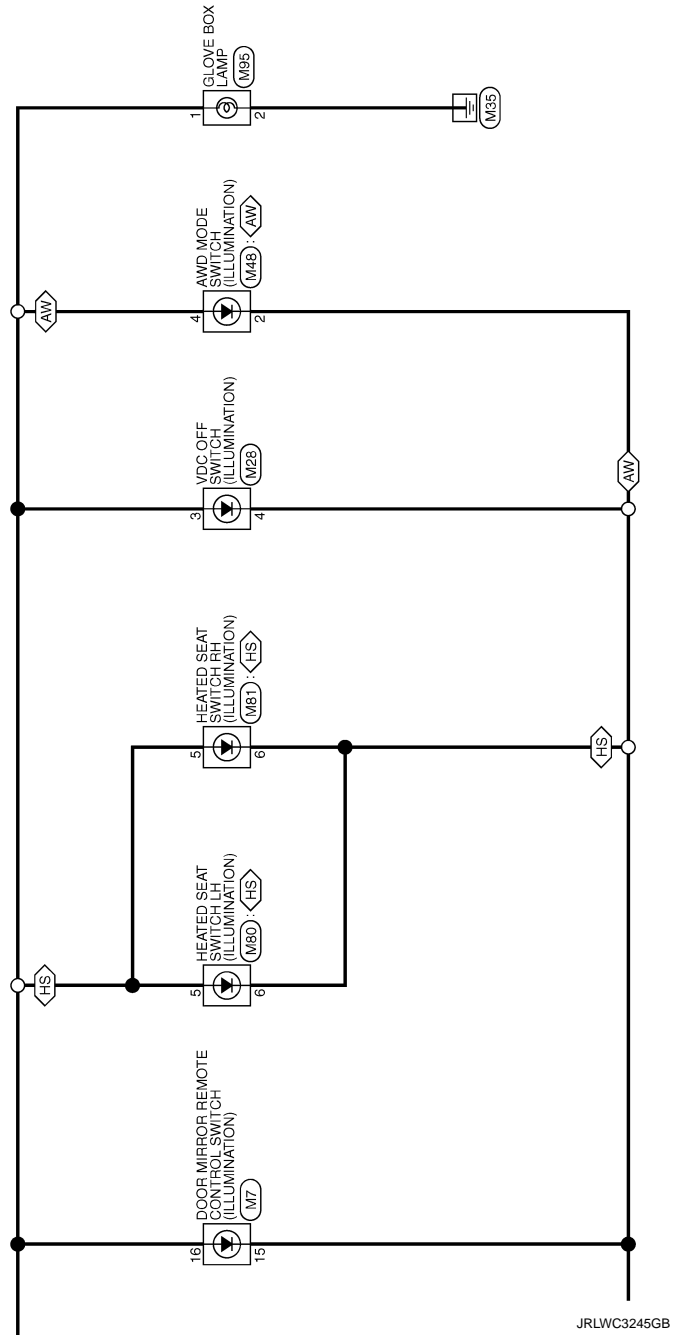
< WIRING DIAGRAM >



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

ILLUMINATION

< WIRING DIAGRAM >



DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

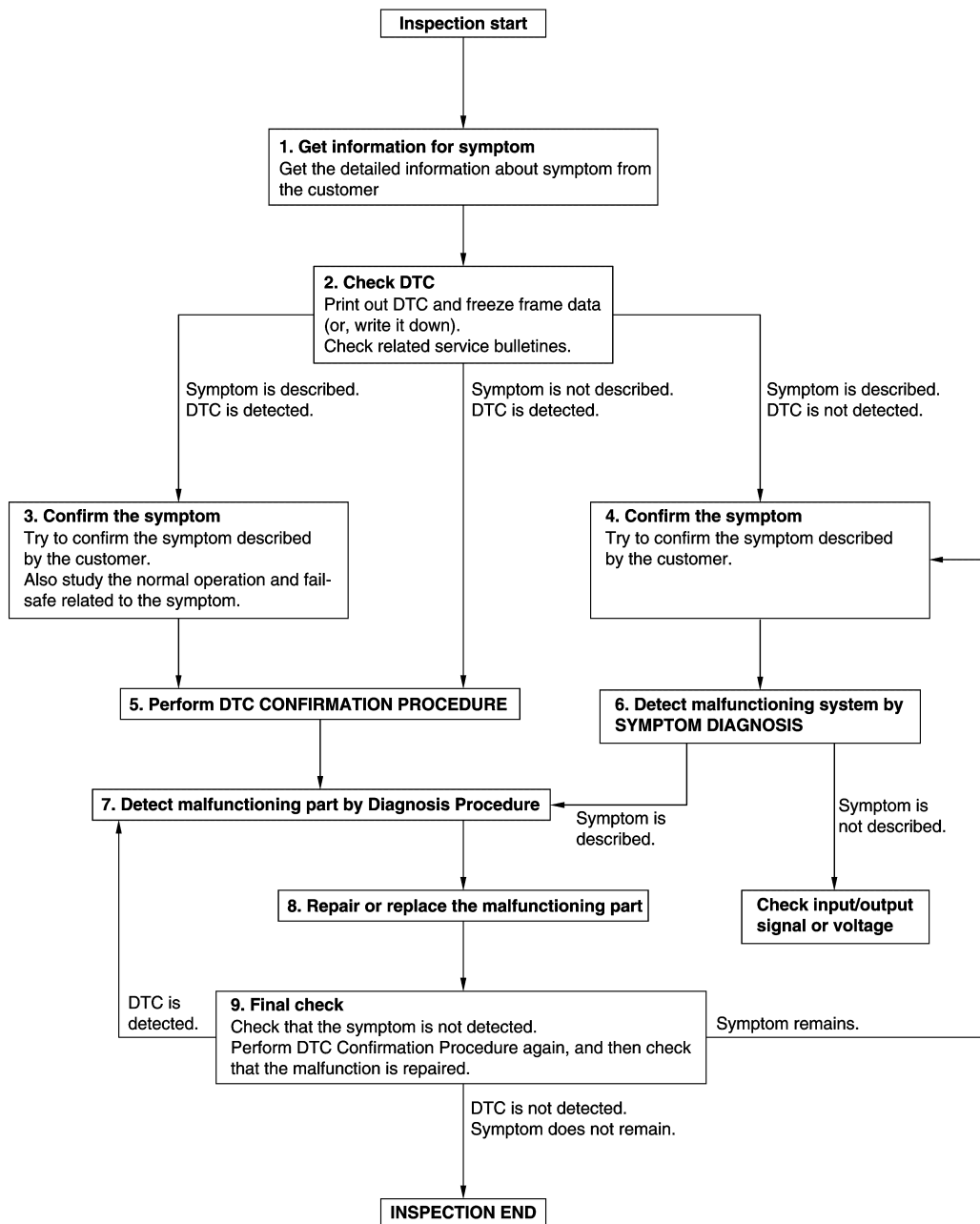
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000008277021

OVERALL SEQUENCE



DETAILED FLOW

JMKIA8652GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2. CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.
 - Record DTC and freeze frame data (Print them out using CONSULT.)
 - Erase DTC.
 - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 5.

3. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time. If two or more DTCs are detected, refer to DTC INSPECTION PRIORITY CHART, and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-43. "Intermittent Incident"](#).

6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

YES >> GO TO 7.

NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-43. "Intermittent Incident"](#).

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.

YES-2 >> Symptom remains: GO TO 4.

NO >> Before returning the vehicle to the customer, always erase DTC.

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

INL

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

Description

INFOID:000000008277022

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

Component Function Check

INFOID:000000008277023

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY FUNCTION

CONSULT ACTIVE TEST

1. Turn ignition switch ON.
2. Turn each interior room lamp ON.
 - Map 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 turns ON/OFF.

Off : Interior room lamp OFF

On : Interior room lamp ON

Does each interior room lamp turn ON/OFF?

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

NO >> Refer to [INL-28, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000008277024

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

CONSULT ACTIVE TEST

1. Turn ignition switch OFF.
2. Disconnect the following connectors.
 - Map lamp
 - Luggage room lamp
3. Turn ignition switch ON.
4. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
5. With operating the test item, check voltage between BCM harness connector and ground.

With Intelligent Key

BCM		(-)	Test item	Voltage (Approx.)	
(+)					
Connector	Terminal			Off	On
M69	56	Ground	BATTERY SAVER	0 V	12 V
				0 V	12 V

Without Intelligent Key

BCM		(-)	Test item	Voltage (Approx.)	
(+)					
Connector	Terminal			Off	On
M66	58	Ground	BATTERY SAVER	0 V	12 V
				0 V	12 V

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK INTERIOR ROOM LAMP POWER SUPPLY OPEN CIRCUIT

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect the BCM connector.
3. Check continuity between BCM harness connector and each interior room lamp harness connector.

With Intelligent Key

BCM		Each interior room lamp			Continuity
Connector	Terminal	Connector	Terminal		
M69	56	Map lamp	R4	4	Existed
		Luggage room lamp	B11	1	

Without Intelligent Key

BCM		Each interior room lamp			Continuity
Connector	Terminal	Connector	Terminal		
M66	58	Map lamp	R4	4	Existed
		Luggage room lamp	B11	1	

Is the inspection result normal?

YES >> Check for internal short circuit of each interior room lamp.

NO >> Repair or replace harnesses.

3. CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT

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

With Intelligent Key

BCM		Ground	Continuity
Connector	Terminal		
M69	56		Not existed

Without Intelligent Key

BCM		Ground	Continuity
Connector	Terminal		
M66	58		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

NO >> Repair or replace harnesses.

A
B
C
D
E
F
G
H
I
J
K

INL

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description

INFOID:000000008277025

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:000000008277026

CAUTION:

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

- Interior room lamp power supply
- Map lamp bulb

1. CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

CONSULT 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 dimming

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

YES >> Interior room lamp control circuit is normal.

NO >> Refer to [INL-30, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000008277027

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

CONSULT ACTIVE TEST

1. Turn ignition switch OFF.
2. Remove all the bulbs of map lamp.
3. Turn ignition switch ON.
4. Select "INT LAMP" of BCM (INT LAMP) active test item.
5. With operating the test item, check continuity between BCM harness connector and ground.

With Intelligent Key

BCM		Ground	Test item		Continuity
Connector	Terminal		INT LAMP	On	Existed
M69	63			On	Existed
			Off	Not existed	

Without Intelligent Key

BCM		Ground	Test item		Continuity
Connector	Terminal		INT LAMP	On	Existed
M66	60			On	Existed
			Off	Not existed	

Is the inspection result normal?

YES >> GO TO 2.

Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

2. CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector, map lamp connector.

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between BCM harness connector and map lamp harness connector.

With Intelligent Key

BCM		Map lamp		Continuity
Connector	Terminal	Connector	Terminal	
M69	63	R4	2	Existed

Without Intelligent Key

BCM		Map lamp		Continuity
Connector	Terminal	Connector	Terminal	
M66	60	R4	2	Existed

Is the inspection result normal?

YES >> Replace map lamp. Refer to [INL-37, "Removal and Installation"](#).

NO >> Repair or replace harnesses.

3. CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

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

With Intelligent Key

BCM		Ground	Continuity
Connector	Terminal		
M69	63		Not existed

Without Intelligent Key

BCM		Ground	Continuity
Connector	Terminal		
M66	60		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

NO >> Repair or replace harnesses.

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

INL

LUGGAGE ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

LUGGAGE ROOM LAMP CIRCUIT

Description

INFOID:000000008277028

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

Diagnosis Procedure

INFOID:000000008277029

CAUTION:

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

- Interior room lamp power supply
- Luggage room lamp bulb

1. CHECK LUGGAGE ROOM LAMP OUTPUT

1. Turn ignition switch OFF.
2. Remove the luggage room lamp bulb.
3. Check continuity between BCM harness connector and ground.

With Intelligent Key

BCM		Ground	Condition		Continuity
Connector	Terminal		Back door	Open	
B10	49			Open	Existed
			Closed	Not existed	

Without Intelligent Key

BCM		Ground	Condition		Continuity
Connector	Terminal		Back door	Open	
B9	55			Open	Existed
			Closed	Not existed	

Is the inspection result normal?

- YES >> GO TO 2.
 Fixed ON>>GO TO 3.
 Fixed OFF>>Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

2. CHECK LUGGAGE ROOM LAMP OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and luggage room lamp harness connector.

With Intelligent Key

BCM		Luggage room lamp		Continuity
Connector	(+) Terminal	Connector	(-) Terminal	
	B10		49	B11

Without Intelligent Key

BCM		Luggage room lamp		Continuity
Connector	(+) Terminal	Connector	(-) Terminal	
	B9		55	B11

Is the inspection result normal?

- YES >> Replace luggage room lamp.
 NO >> Repair or replace harnesses.

3. CHECK LUGGAGE ROOM LAMP SHORT CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and ground.

LUGGAGE ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

With Intelligent Key

BCM		Ground	Continuity
Connector	Terminal		
B10	49		Not existed

Without Intelligent Key

BCM		Ground	Continuity
Connector	Terminal		
B9	55		Not existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-81. "Removal and Installation"](#).
- NO >> Repair or replace harnesses.

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

INL

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

Description

INFOID:000000008277030

Provides the power supply and the ground to control the push-button ignition switch illumination.

Component Function Check

INFOID:000000008277031

1. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION OPERATION

CONSULT ACTIVE TEST

1. Turn the ignition switch ON.
2. Select "ENGINE SW ILLUMI" of BCM (INTELLIGENT KEY) active test item.
3. With operating the test items, check that the push-button ignition switch illumination turns ON/OFF.

On : Push-button ignition switch illumination ON

Off : Push-button ignition switch illumination OFF

Does the push-button ignition switch illumination turn ON/OFF?

- YES >> Push-button ignition switch illumination circuit is normal.
NO >> Refer to [INL-34, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000008277032

1. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY OUTPUT

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

(+)		(-)	Condition	Voltage (Approx.)	
Connector	Terminal				
M101	5	Ground	Push-button ignition switch illumination	ON	12 V
			OFF	0 V	

Is the inspection result normal?

- YES >> GO TO 4.
NO >> GO TO 2.

2. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and the push-button ignition switch harness connector.

BCM		Push-button ignition switch		Continuity
Connector	Terminal	Connector	Terminal	
M70	90	M101	5	Existed

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harnesses.

3. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY SHORT CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M70	90		Not existed

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

NO >> Repair or replace harnesses.

4. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check continuity between push-button ignition switch harness connector and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M101	6		Existed

Is the inspection result normal?

YES >> Replace push-button ignition switch.

NO >> Repair or replace harnesses.

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

INL

INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000008277033

NOTE:

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

Symptom	Possible cause	Inspection item
All the following lamps do not turn ON. <ul style="list-style-type: none"> Map 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-28 .
<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 DLK-71 .
		Interior room lamp control circuit Refer to INL-30 .
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	—	Check the interior room lamp setting. Refer to DLK-71 .
<ul style="list-style-type: none"> Luggage room lamp does not turn ON even though the back door is open. Luggage room lamp does not turn OFF even though the back door is closed. 	<ul style="list-style-type: none"> Harness between BCM and back door switch Harness between BCM and luggage room lamp BCM 	Back door switch circuit Refer to DLK-71 .
		Luggage room lamp circuit Refer to INL-32 .
Push-button ignition switch illumination does not illuminate.	<ul style="list-style-type: none"> Harness between BCM and push-button ignition switch BCM 	Push-button ignition switch illumination circuit Refer to INL-34 .
Interior room lamp battery saver does not activate.	BCM	Replace BCM. Refer to BCS-81 .

MAP LAMP

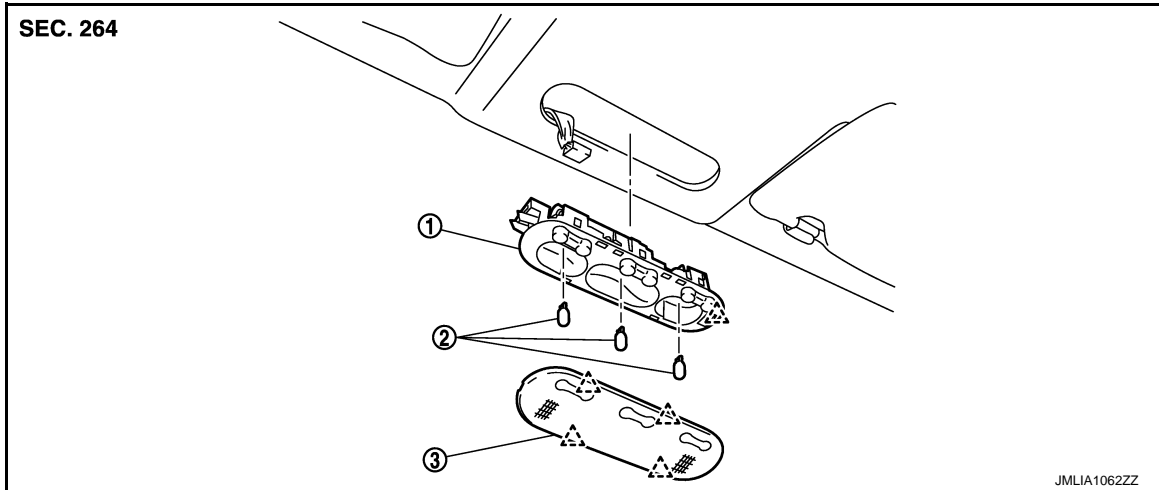
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

MAP LAMP

Exploded View

INFOID:000000008277034



1. Bulb housing

2. Bulb

3. Lens

△ : Pawl

Removal and Installation

INFOID:000000008277035

REMOVAL

CAUTION:

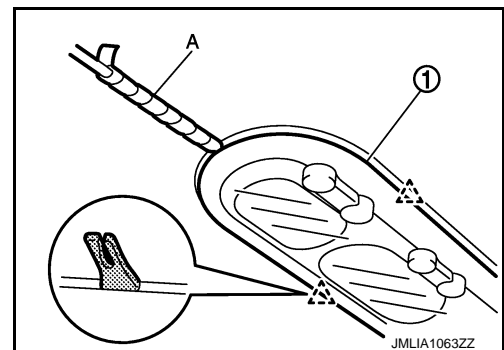
Disconnect the battery negative terminal or remove power circuit fuse when performing the operation for preventing electric leakage.

1. Disengage lens fixing pawls using a remover tool (A), and then remove lens (1).

CAUTION:

- Use a remover tool wrapped in tape.
- Insert a remover tool into the gap between bulb housing and lens.

△ : Pawl

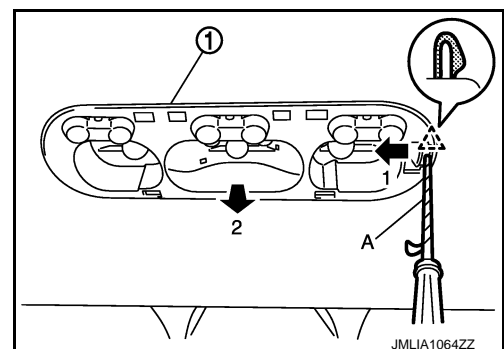


2. Disengage bulb housing (1) fixing pawl using a remover tool (A) according to numerical order 1→2 indicated by the arrows as shown in the figure.

CAUTION:

Use a remover tool wrapped in tape.

△ : Pawl



3. Disconnect map lamp harness connector, and then remove bulb housing.

MAP LAMP

< REMOVAL AND INSTALLATION >

INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:000000008277036

CAUTION:


- Disconnect the battery negative terminal or remove power circuit fuse when performing the operation for preventing electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it for preventing damage to the bulb.
- The surface of the bulb is very hot just after the lamp is turned OFF. Never touch the glass surface of the bulb with bare hands for preventing burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (due to dirt or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

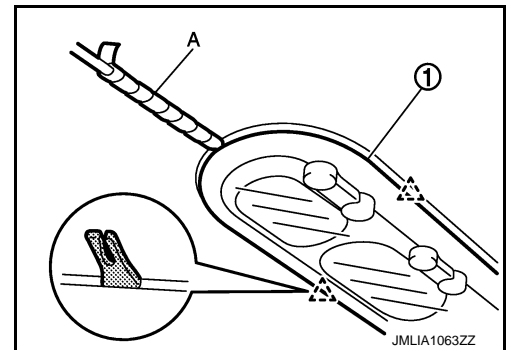
MAP LAMP BULB

1. Disengage lens fixing pawls using a remover tool (A), and then remove lens (1).

CAUTION:

- Use a remover tool wrapped in tape.
- Insert a remover tool into the gap between bulb housing and lens.

 : Pawl



2. Remove bulb.

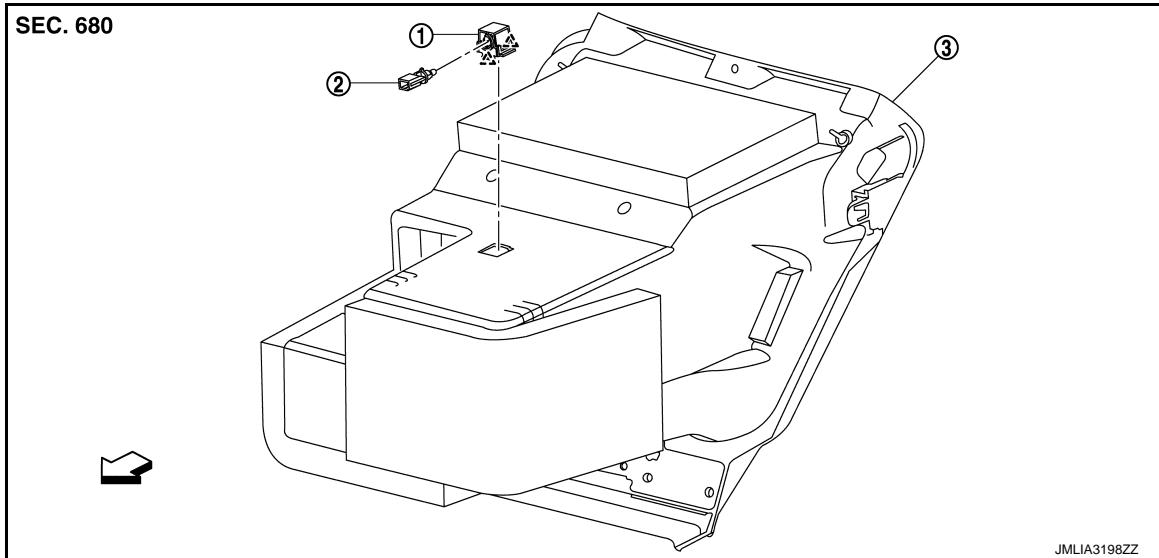
GLOVE BOX LAMP

< REMOVAL AND INSTALLATION >

GLOVE BOX LAMP

Exploded View


INFOID:000000008277037



1. Bulb housing

2. Bulb & socket assembly

3. Glove box assembly

 : Pawl

 : Vehicle front

Removal and Installation

INFOID:000000008277038

Replacement

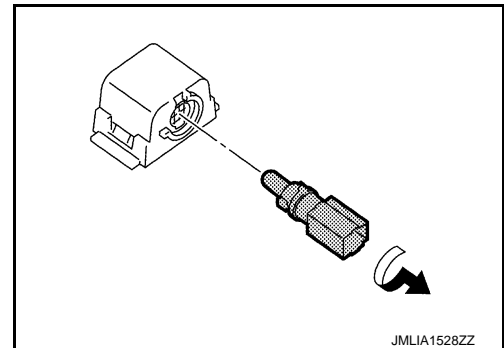
INFOID:000000008277039

CAUTION:

- Disconnect the battery negative terminal or remove power circuit fuse when performing the operation for preventing electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it for preventing damage to the bulb.
- The surface of the bulb is very hot just after the lamp is turned OFF. Never touch the glass surface of the bulb with bare hands for preventing burns.
- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (due to dirt or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

GLOVE BOX LAMP BULB

1. Remove glove box assembly. Refer to [IP-12, "Removal and Installation"](#).
2. Rotate the bulb & socket assembly counterclockwise and unlock it, and then remove bulb & socket assembly.



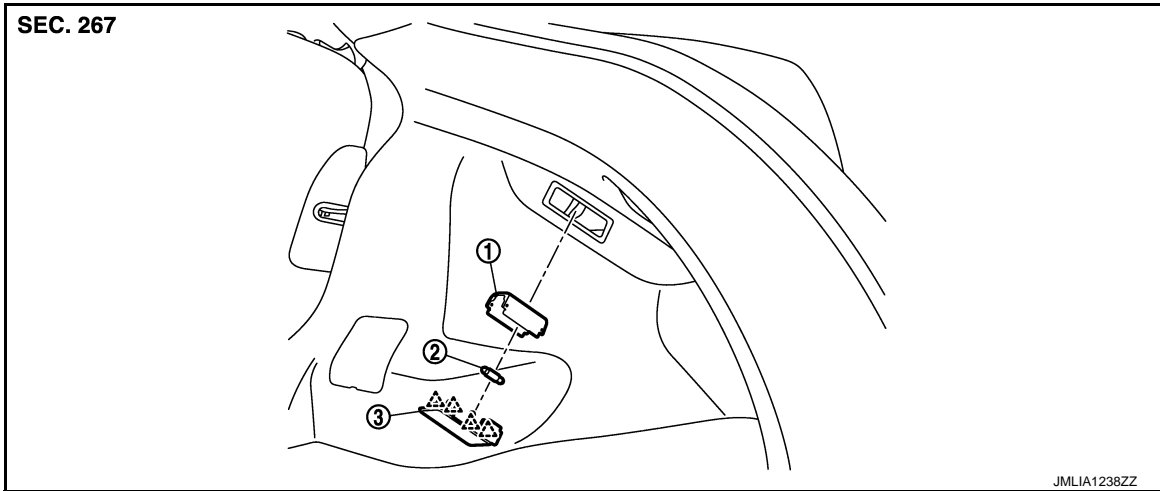
LUGGAGE ROOM LAMP

< REMOVAL AND INSTALLATION >

LUGGAGE ROOM LAMP

Exploded View


INFOID:000000008277040



1. Shade

2. Bulb

3. Lens

 : Pawl

Removal and Installation

INFOID:000000008277041

REMOVAL


CAUTION:

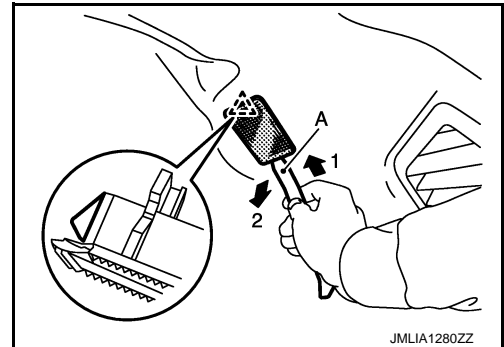
- Disconnect the battery negative terminal or remove power circuit fuse when performing the operation for preventing electric leakage.
- When removing, always use a remover tool that is made of plastic to prevent damage to the parts.

1. Disengage luggage room lamp fixing pawl using a remover tool (A) according to numerical order 1→2 indicated by the arrows as shown in the figure.

CAUTION:

Insert a remover tool into the gap between luggage room lamp and luggage side lower finisher RH.

 : Pawl



2. Disconnect luggage room lamp harness connector, and then remove luggage room lamp.

INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:000000008277042

CAUTION:

- Disconnect the battery negative terminal or remove power circuit fuse when performing the operation for preventing electric leakage.
- Never touch the glass surface of the bulb with bare hands or allow oil or grease to get on it for preventing damage to the bulb.
- The surface of the bulb is very hot just after the lamp is turned OFF. Never touch the glass surface of the bulb with bare hands for preventing burns.

LUGGAGE ROOM LAMP

< REMOVAL AND INSTALLATION >


- Leaving the bulb removed from housing for a long period of time can deteriorate performance of the lens and reflector (due to dirt or clouding). Always prepare a new bulb and have it on hand when replacing the bulb.

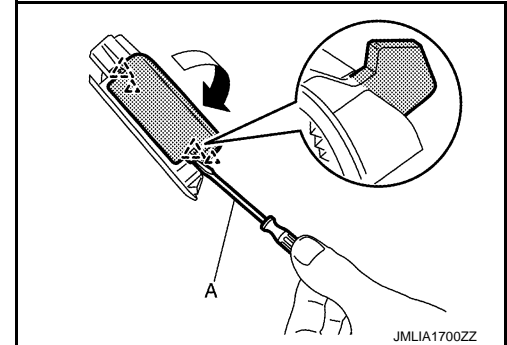
LUGGAGE ROOM LAMP BULB

1. Remove luggage room lamp. Refer to [INL-40. "Removal and Installation"](#).
2. Disengage shade fixing pawls using a remover tool (A) according to the direction indicated by the arrow as shown in the figure.

CAUTION:

Use remover tool wrapped in tape.

 : Pawl



3. Remove shade, and then remove bulb.

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

INL

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:000000008277043

Item	Type	Wattage (W)
Push-button ignition switch illumination*	LED	—
Map lamp	W5W	5
Glove box lamp	—	1.4
Luggage room lamp	—	5

*: With Intelligent Key