SECTION INL
INTERIOR LIGHTING SYSTEM

CONTENTS

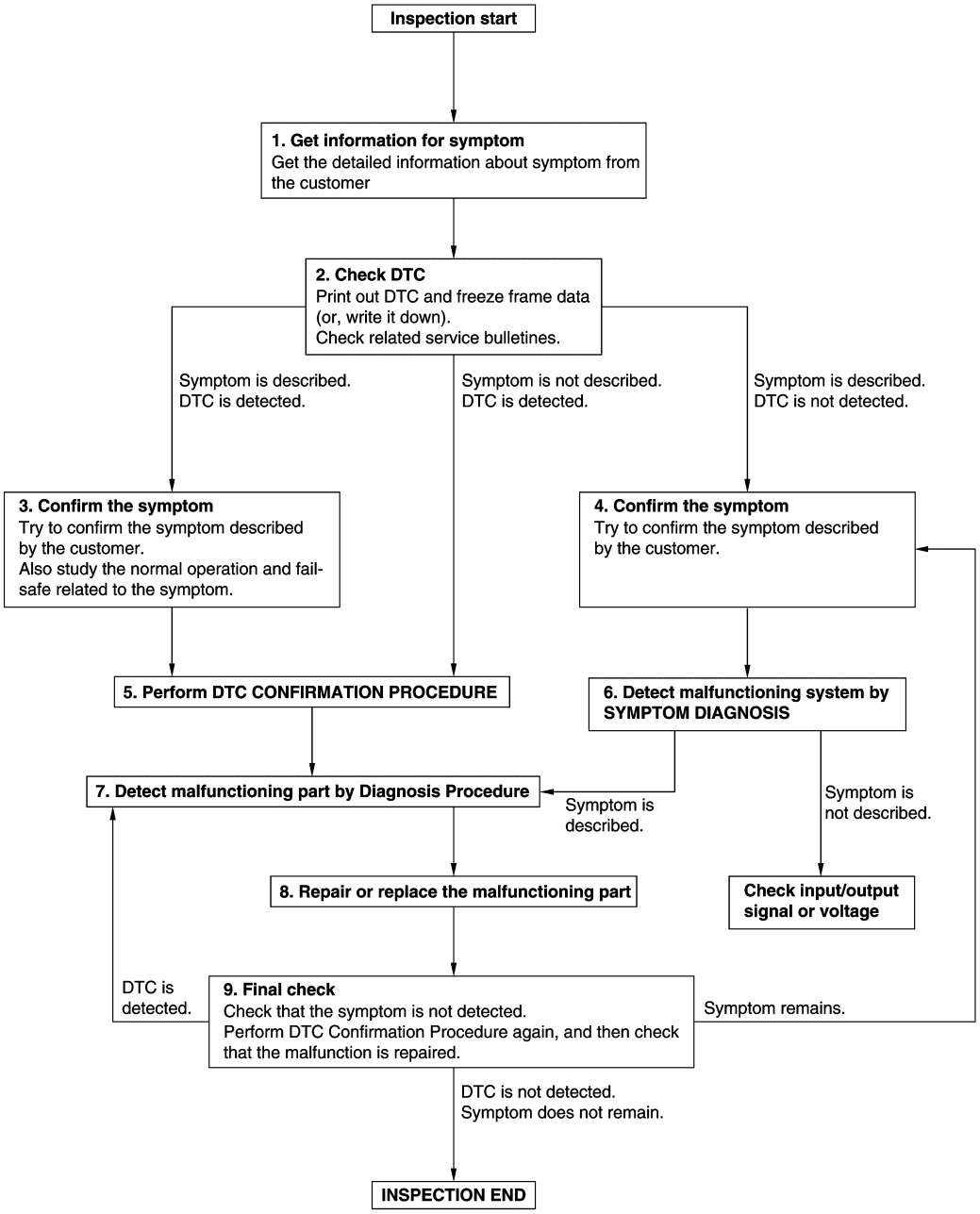
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000008160131

OVERALL SEQUENCE



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DETAILED FLOW

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

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?

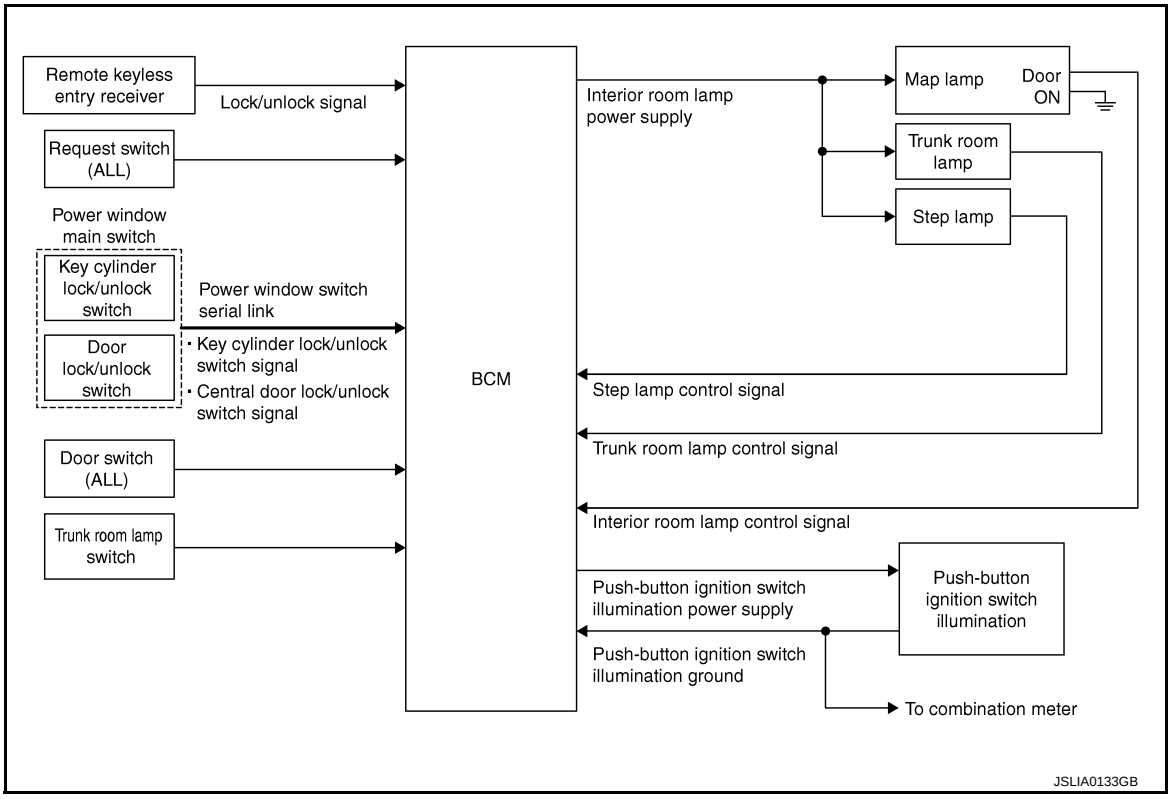
YES-1 >> DTC is detected: GO TO 7.
YES-2 >> Symptom remains: GO TO 4.
NO >> Before returning the vehicle to the customer, always erase DTC.

SYSTEM DESCRIPTION

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram

INFOID:0000000008160132



System Description

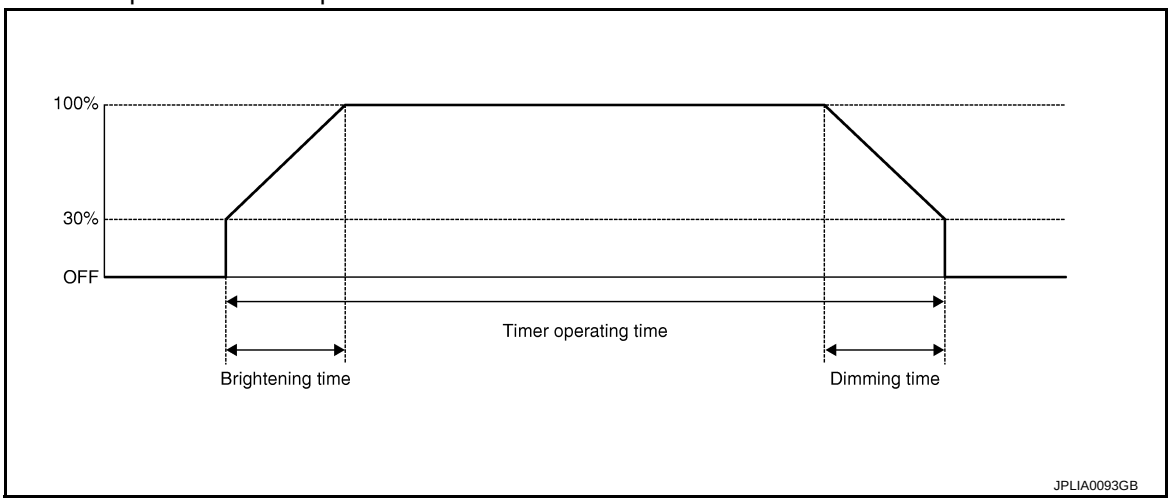
INFOID:0000000008160133

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).
- Trunk room lamp is controlled by trunk room lamp control function of BCM.
- Step lamp is controlled by step lamp control function of BCM.
- Push-button ignition switch illumination is controlled by the push-button ignition switch illumination control function of BCM.

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 timer.
  - Ignition switch status
  - Door switch signal (ALL)
  - Door lock/unlock signal (Remote keyless entry receiver, each request switch, key cylinder lock/unlock switch, central door lock/unlock switch)

NOTE:
Each function of interior room lamp timer can be set by CONSULT. Refer to INL-17, "INT LAMP : CONSULT Function (BCM - INT LAMP)".

Interior Room Lamp ON Operation

- BCM always turns the interior room lamp ON when any door opens.
- 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.
  - Any door opens before all doors close.
  - Ignition switch is turned ON → OFF.
  - Any door unlock signal is detected when all doors close with ignition switch 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 other than OFF with all doors close.
- Any door lock operation is detected with all doors close.

TRUNK ROOM LAMP CONTROL

BCM controls the trunk room lamp (ground-side) to turn ON with the trunk room lamp switch ON.

STEP LAMP CONTROL

BCM controls the step lamp (ground-side) to turn ON with any door switch ON.

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CONTROL

Push-button Ignition Switch Illumination Basic Operation

- BCM provides the power supply and the ground to turn the push-button ignition switch illumination ON.
- BCM cuts the ground supply while the each illumination (tail lamp) ON. BCM switches to the ground control with the meter illumination control function.

Push-button Ignition Switch Illumination ON Operation

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

- Ignition switch ON
- Each illumination (tail lamp) ON
- Any of the following conditions with ignition switch OFF
  - Engine start permission is entered.
  - Intelligent Key inserted into the key slot.
  - Driver door is LOCK → UNLOCK.
  - Driver door is open.

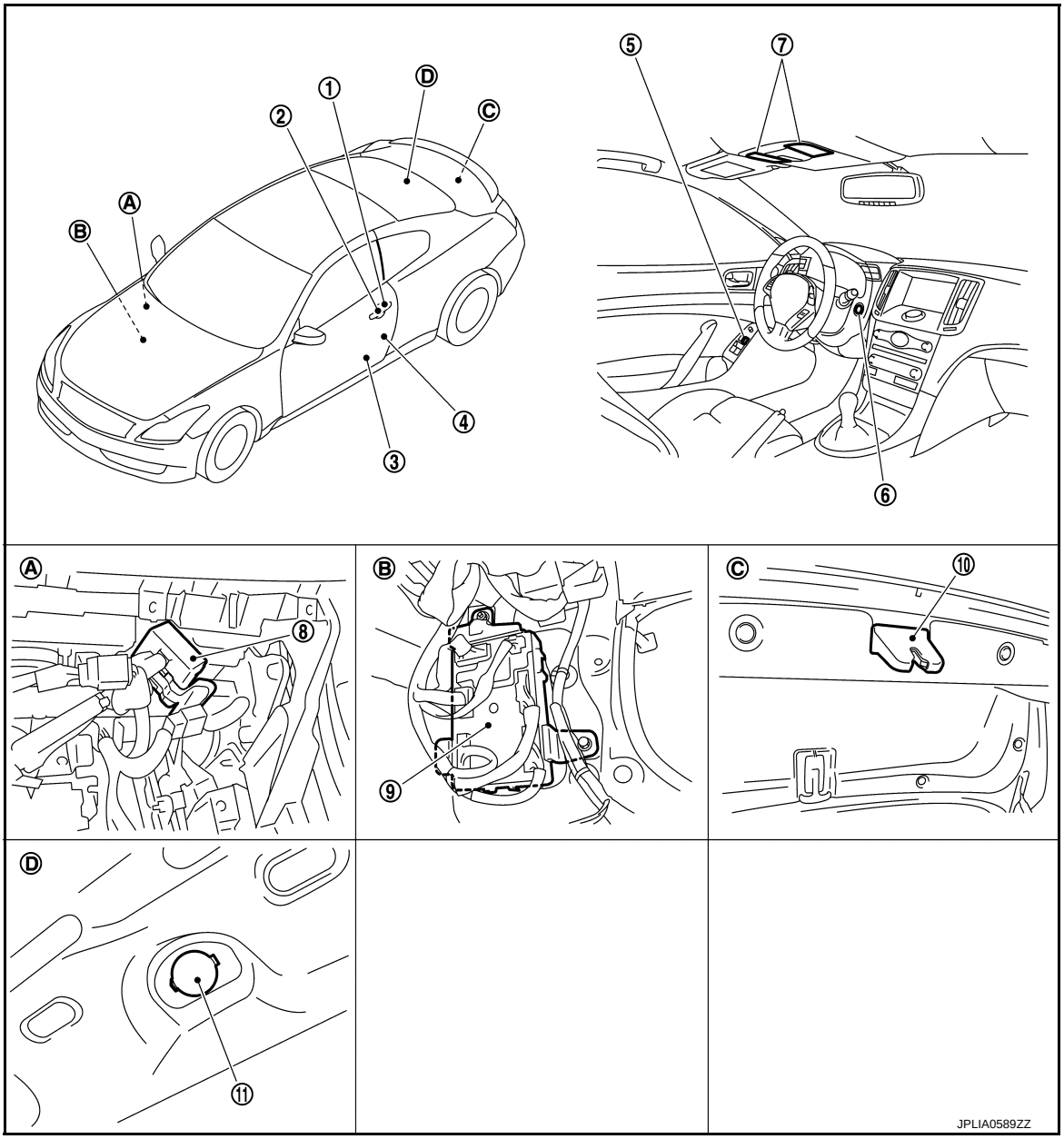
Push-button Ignition Switch Illumination OFF Operation

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.
- All of the following conditions with ignition switch OFF
  - Each illumination (tail lamp) OFF
  - The push-button ignition switch illumination ON conditions do not change (15 seconds after the ignition switch OFF) or the driver door is UNLOCK → LOCK.

Component Parts Location

INFOID:0000000008160134



1. Key cylinder switch	2. Request switch	3. Step lamp
4. Door switch	5. Door lock and unlock switch	6. Push-button ignition switch (Push-button ignition switch illumination)
7. Map lamp	8. Remote keyless entry receiver	9. BCM
10. Trunk room lamp switch	11. Trunk room lamp	
A. Behind the glove box	B. Dash side lower (passenger side)	C. Trunk lid lock assembly
D. Trunk room upward		

Component Description

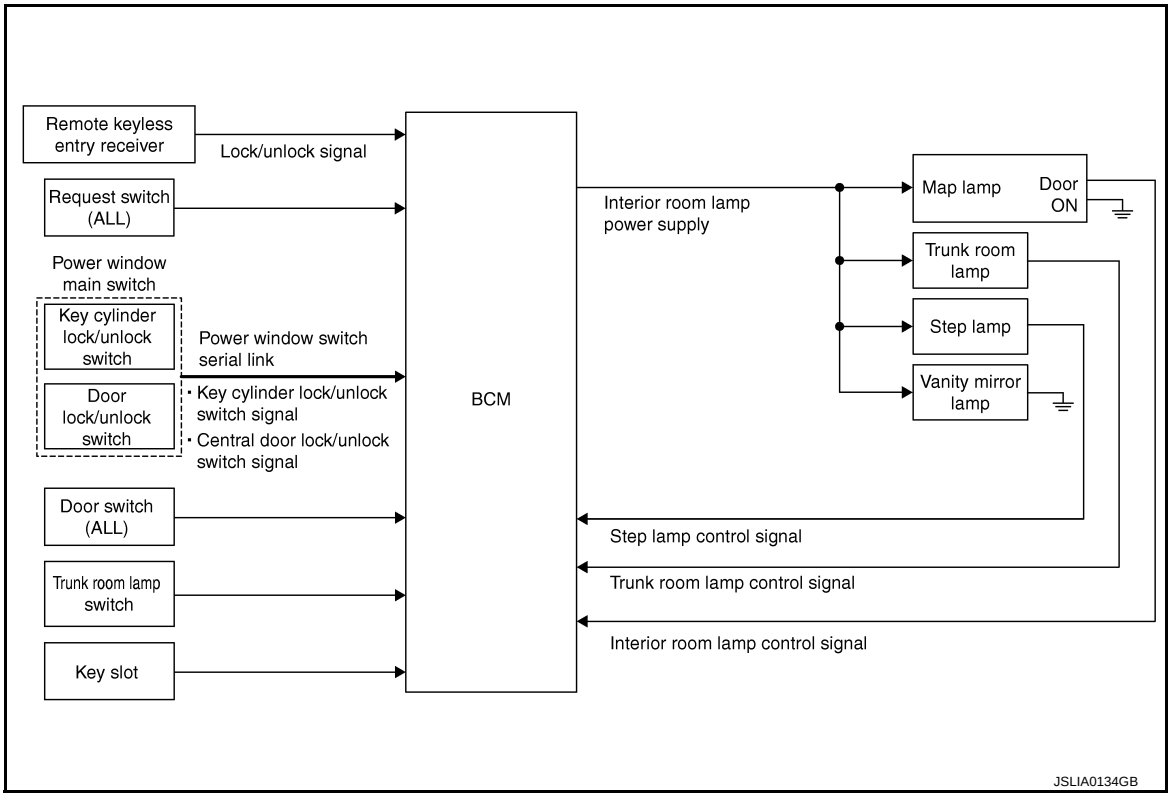
INFOID:0000000008160135

Part	Description
BCM	• Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamp ON/OFF. • Turns the trunk room lamp ON /OFF according to the trunk room lamp switch status. • Turns the step lamp ON /OFF according to any door switch status.
Remote keyless entry receiver	Transmits the lock/unlock signal to BCM.
• Door lock and unlock switch • Key cylinder switch	Transmits a switch signal by power window switch serial link.
• Request switch • Door switch • Trunk room lamp switch	Inputs a switch signal to BCM.

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

System Diagram

INFOID:0000000008160136



System Description

INFOID:0000000008160137

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
- Step lamp
- Trunk room lamp
- Vanity mirror lamp

INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

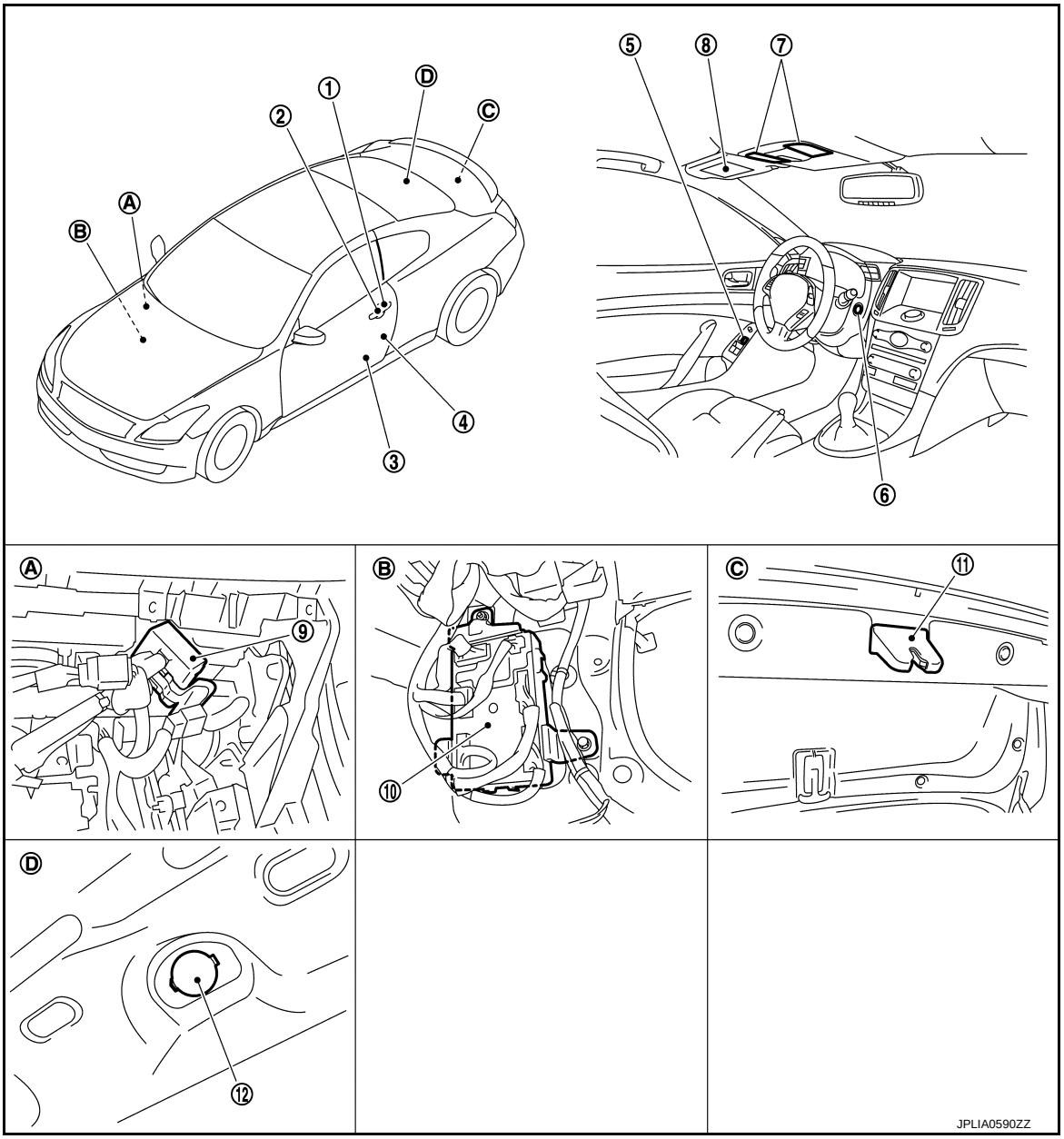
- When the ignition switch is turned OFF, BCM operates the timer for a period of time to cut the interior room lamp power supply.
- BCM restart the timer when any of the following signals changes while operating the timer.
- Ignition switch status
- Door switch signal (ALL)
- Door lock/unlock signal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

NOTE:

Each function of interior room lamp battery saver can be set by CONSULT. Refer to INL-18, "BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)".

Component Parts Location

INFOID:0000000008160138



1. Key cylinder switch
2. Request switch
3. Step lamp
4. Door switch
5. Door lock and unlock switch
6. Push-button ignition switch
7. Map lamp
8. Vanity mirror lamp
9. Remote keyless entry receiver
10. BCM
11. Trunk room lamp switch
12. Trunk room lamp

A. Behind the glove box
B. Dash side lower (passenger side)
C. Trunk lid lock assembly
D. Trunk room upward

Component Description

INFOID:0000000008160139

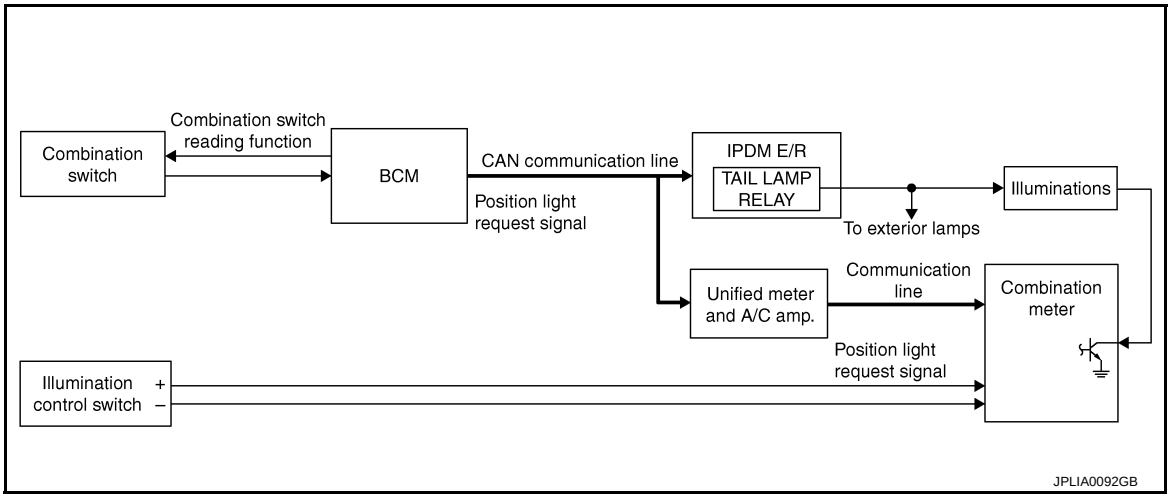
Part	Description
BCM	Operates the interior room lamp battery saver depending on the vehicle condition to cut the interior room lamp power supply.
Remote keyless entry receiver	Transmits the lock/unlock signal to BCM.

Part	Description
• Door lock and unlock switch • Key cylinder switch	Transmits a switch signal by power window switch serial link.
• Request switch • Door switch • Trunk room lamp switch	Inputs a switch signal to BCM.
Key slot	Inputs the key switch status to BCM.

ILLUMINATION CONTROL SYSTEM

System Diagram

INFOID:0000000008160140



System Description

INFOID:0000000008160141

OUTLINE

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

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-25, "METER ILLUMINATION CONTROL : System Diagram".)

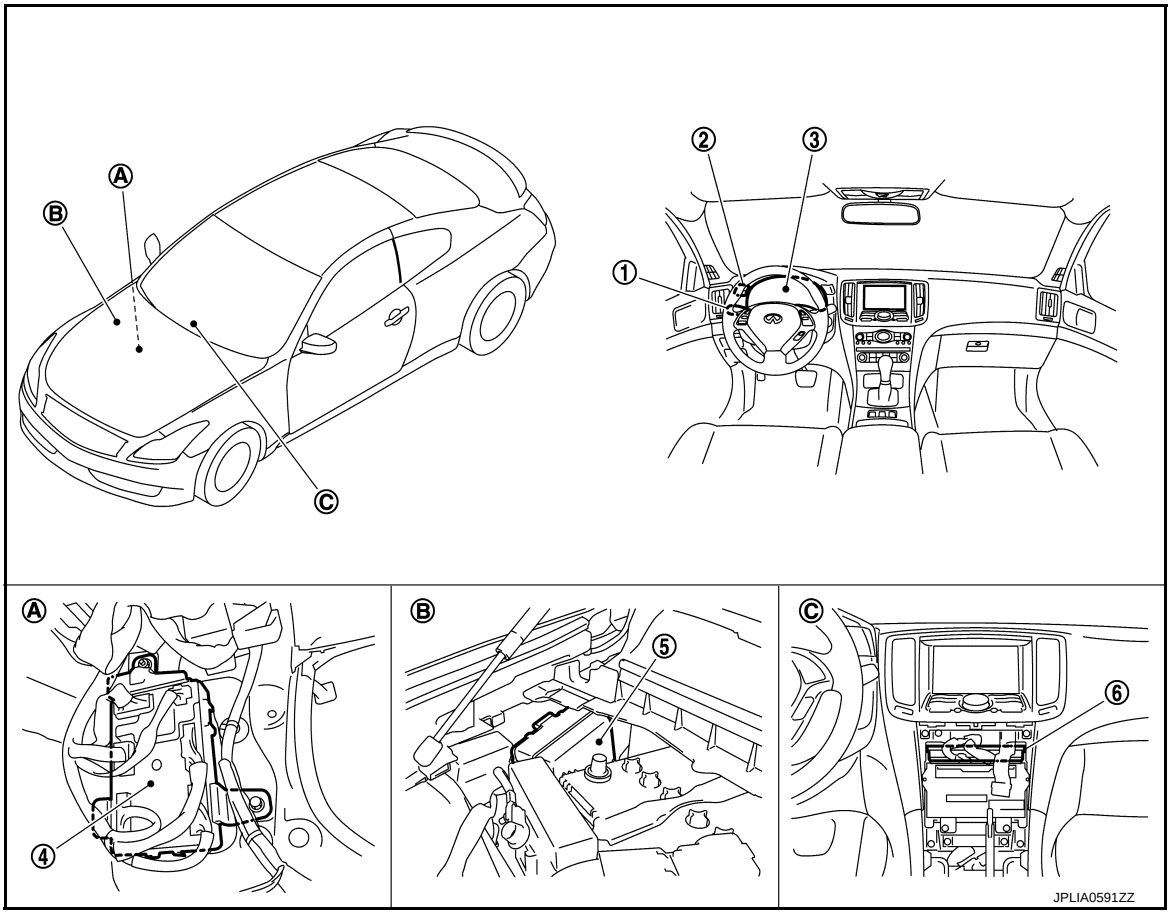
ILLUMINATION CONTROL

- 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 (through the unified meter and A/C amp.) 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).

Component Parts Location

INFOID:0000000008160142



1. Combination switch
2. Illumination control switch
3. Combination meter
4. BCM
5. IPDM E/R
6. Unified meter and A/C amp.

A Dash side lower (passenger side)
B. Engine room dash panel (RH)
C. Behind the cluster lid C

Component Description

INFOID:0000000008160143

Part	Description
BCM	• Detects 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 (through the unified meter and A/C amp.)] .
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination meter	• Enters in nighttime mode according to the request from BCM (with CAN communication). • Controls the each illumination in the nighttime mode. Refer to MWI-25, "METER ILLUMINATION CONTROL : System Diagram".
Combination switch (Lighting & turn signal switch)	Refer to BCS-7, "System Diagram".

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000008833034

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	This function is not used even though it is displayed.

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 CONDITONER*			
• Intelligent Key system • Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

NOTE:

*: This item is displayed, but 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.

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 supply position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK”* to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK”*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • 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 supply 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 any of the following conditions are met.

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

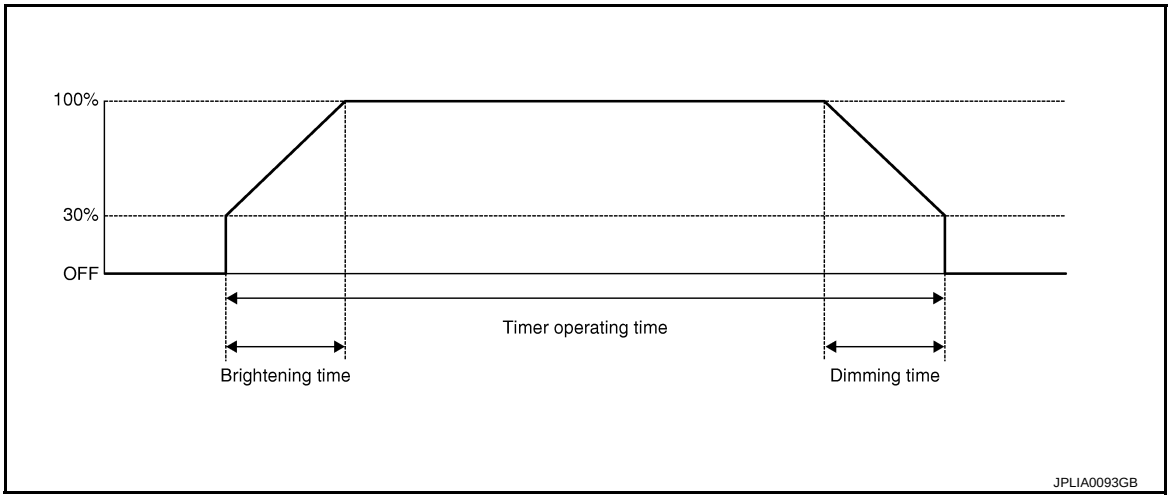
The power supply position shifts to “ACC” when the push-button ignition switch (push switch) is pushed at “LOCK”.

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000008160145

WORK SUPPORT



Service item	Setting item	Setting	
SET I/L D-UNLCK INTCON	ON*	With the interior room lamp timer function	
	OFF	Without the interior room lamp timer function	
ROOM LAMP TIMER SET	MODE 2	7.5 sec.	Sets the interior room lamp ON time. (Timer operating time)
	MODE 3*	15 sec.	
	MODE 4	30 sec.	
ROOM LAMP ON TIME SET	MODE 1	0.5 sec.	Sets the interior room lamp gradual brightening time.
	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.	Sets the interior room lamp gradual dimming time.
	MODE 2	1 sec.	
	MODE 3	2 sec.	
	MODE 4*	3 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).
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch.

Monitor item [Unit]	Description
ACC RLY-F/B [On/Off]	**NOTE:** This item is displayed, but cannot be monitored.
KEY SW-SLOT [On/Off]	Indicates [ON/OFF] condition of key slot.
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]	**NOTE:** This item is displayed, but cannot be monitored.
DOOR SW- RL [On/Off]	**NOTE:** This item is displayed, but cannot be monitored.
DOOR SW-BK [On/Off]	**NOTE:** This item is displayed, but cannot be monitored.
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.
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.
TRNK/HAT MNTR [On/Off]	Indicates [ON/OFF] condition of trunk lid.
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	Outputs the step lamp control signal.
	Off	Stops the step lamp control signal.
LUGGAGE LAMP TEST	On	Outputs the trunk room lamp control signal.
	Off	Stops the trunk room lamp control signal.

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000008160146

WORK SUPPORT

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

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.	
	MODE 3*	15 min.	

*: 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).
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch.
ACC RLY-F/B [On/Off]	**NOTE:** This item is displayed, but cannot be monitored.
KEY SW-SLOT [On/Off]	Indicates [ON/OFF] condition of key slot.
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]	**NOTE:** This item is displayed, but cannot be monitored.
DOOR SW- RL [On/Off]	**NOTE:** This item is displayed, but cannot be monitored.
DOOR SW-BK [On/Off]	**NOTE:** This item is displayed, but cannot be monitored.
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.
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.
TRNK/HAT MNTR [On/Off]	Indicates [ON/OFF] condition of trunk lid.
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.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:0000000008833035

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.
Battery power supply	K
	10

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			Voltage (Approx.)
(+)		(–)	
BCM		Ground	
Connector	Terminal		
M118	1		Battery voltage
M119	11		

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		
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

Description

INFOID:0000000008160148

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

Component Function Check

INFOID:0000000008160149

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY FUNCTION

CONSULT ACTIVE TEST
1. Turn the ignition switch ON.
2. Turn each interior room lamp ON.
- Map lamp
- Step lamp
- Vanity mirror lamp
- Trunk 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 the interior room lamp turn ON/OFF?

YES >> Interior room lamp power supply circuit is normal.
NO >> Refer to INL-21, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008160150

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

CONSULT ACTIVE TEST
1. Turn the 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 the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(–)		
BCM		Ground	BATTERY SAVER	
Connector	Terminal			
M119	4		Off	0 V
			On	Battery voltage

Is the measurement value normal?

YES >> GO TO 2.
NO >> Replace BCM.

2. CHECK INTERIOR ROOM LAMP POWER SUPPLY OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the following connectors.
- Map lamp
- Vanity mirror lamp (LH)
- Vanity mirror lamp (RH)
- Trunk room lamp
- Step lamp (driver side)
- Step lamp (passenger side)
3. Check continuity between BCM harness connector and each interior room lamp harness connector.

BCM		Each interior room lamp			Continuity
Connector	Terminal	Connector		Terminal	
M119	4	Map lamp	R15	1	Existed
		Vanity mirror lamp (LH)	R12	2	
		Vanity mirror lamp (RH)	R13	2	
		Trunk room lamp	B47	1	
		Step lamp (driver side)	D12	1	
		Step lamp (passenger side)	D42	1	

Does continuity exist?

YES >> GO TO 3.
NO >> Repair the harnesses or connectors.

3. CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT

Check continuity between BCM harness connector and the ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	4		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> Check that each interior room lamp has no internal short circuit.

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description

INFOID:0000000008160151

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:0000000008160152

CAUTION:
Before performing the diagnosis, check that the following is 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 the 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-23, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008160153

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

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

BCM		Ground	Test item	Continuity
Connector	Terminal		INT LAMP	
M119	19		On	Existed
			Off	Not existed

Is the measurement value normal?

YES >> GO TO 2.
Fixed ON>>GO TO 3.
Fixed OFF>>Replace BCM.

2. CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT

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

BCM		Map lamp		Continuity
Connector	Terminal	Connector	Terminal	
M119	19	R15	2	Existed

Does continuity exist?

YES >> Replace the map lamp.
NO >> Repair the harnesses or connectors.

3. CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

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

BCM		Ground	Continuity
Connector	Terminal		
M119	19		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> Replace BCM.

STEP LAMP CIRCUIT

Description

INFOID:0000000008160154

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

Component Function Check

INFOID:0000000008160155

CAUTION:
Before performing the diagnosis, check that the following is normal.
- **Interior room lamp power supply**
- **Step lamp bulb**

1.CHECK STEP LAMP OPERATION

CONSULT ACTIVE TEST
1. Turn the ignition switch ON.
2. Select "STEP LAMP TEST" of BCM (INT LAMP) active test item.
3. With operating the test items, check that step lamp turns ON/OFF.

On : Step lamp ON
Off : Step lamp OFF

Does the step lamp turn ON/OFF?

YES >> Step lamp circuit is normal.
NO >> Refer to INL-25, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008160156

1.CHECK STEP LAMP OUTPUT

CONSULT ACTIVE TEST
1. Turn the ignition switch OFF.
2. Remove the step lamp bulbs (driver side and passenger side).
3. Turn the ignition switch ON.
4. Select “STEP LAMP TEST” of BCM (INT LAMP) active test item.
5. With operating the test item, check continuity between BCM harness connector and the ground.

BCM		Ground	Test item	Continuity
Connector	Terminal		STEP LAMP TEST	
M119	7		On	Existed
			Off	Not existed

Is the measurement value normal?

YES >> GO TO 2.
Fixed ON>>GO TO 3.
Fixed OFF>>Replace BCM.

2.CHECK STEP LAMP OPEN CIRCUIT

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

BCM		Step lamp			Continuity
Connector	Terminal	Connector		Terminal	
M119	7	Driver side	D12	2	Existed
		Passen-ger side	D42	2	

Does continuity exist?

YES >> Replace the step lamp.
NO >> Repair the harnesses or connectors.

3. CHECK STEP LAMP SHORT CIRCUIT

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

BCM		Ground	Continuity
Connector	Terminal		
M119	7		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> Replace BCM.

TRUNK ROOM LAMP CIRCUIT

Description

INFOID:0000000008160157

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

Component Function Check

INFOID:0000000008160158

CAUTION:
Before performing the diagnosis, check that the following is normal.
- **Interior room lamp power supply**
- **Trunk room lamp bulb**

1. CHECK TRUNK ROOM LAMP OPERATION

CONSULT ACTIVE TEST
1. Turn the ignition switch ON.
2. Select “LUGGAGE LAMP TEST” of BCM (INT LAMP) active test item.
3. With operating the test items, check that trunk room lamp turns ON/OFF.

On : Trunk room lamp ON
Off : Trunk room lamp OFF

Does the trunk room lamp turn ON/OFF?

YES >> Trunk room lamp circuit is normal.
NO >> Refer to INL-25, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008160159

1. CHECK TRUNK ROOM LAMP OUTPUT

CONSULT ACTIVE TEST
1. Turn the ignition switch OFF.
2. Remove trunk room lamp bulb.
3. Turn the ignition switch ON.
4. Select “LUGGAGE LAMP TEST” of BCM (INT LAMP) active test item.
5. With operating the test item, check continuity between BCM harness connector and the ground.

BCM		Ground	Test item	Continuity
Connector	Terminal		LUGGAGE LAMP TEST	
M120	30		On	Existed
			Off	Not existed

Is the measurement value normal?

YES >> GO TO 2.
Fixed ON>>GO TO 3.
Fixed OFF>>Replace BCM.

2. CHECK TRUNK ROOM LAMP OPEN CIRCUIT

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

BCM		Trunk room lamp		Continuity
Connector	Terminal	Connector	Terminal	
M120	30	B47	2	Existed

Does continuity exist?

YES >> Replace the trunk room lamp.

NO >> Repair the harnesses or connectors.

3. CHECK TRUNK ROOM LAMP SHORT CIRCUIT

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

BCM		Ground	Continuity
Connector	Terminal		
M120	30		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> Replace BCM.

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

Description

INFOID:0000000008160160

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

Component Function Check

INFOID:0000000008160161

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-29, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008160162

1. CHECK ILLUMINATION CONTROL SWITCHING OPERATION

1. Turn the ignition switch ON.
2. With operating the lighting switch, check that the push-button ignition switch illumination turns ON/OFF

Condition	Push-button ignition switch illumination
• Ignition switch ON • Lighting switch 1ST	ON
• Ignition switch OFF • Lighting switch OFF • Driver door LOCK	OFF

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

YES >> GO TO 2.
NO >> GO TO 3.

2. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and the push-button ignition switch 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	
M119	14	M50	2	Existed

Does the continuity exist?

YES >> Replace BCM.
NO >> Repair the harness or the connector.

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

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 item, check voltage between BCM harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(–)		
BCM		Ground	ENGINE SW ILLUMI	
Connector	Terminal			
M123	133		ON	5 V
			OFF	0 V

Is the measurement value normal?

YES >> GO TO 4.
NO >> GO TO 5.

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

1. Turn the ignition switch OFF.
2. Disconnect BCM connector and the push-button ignition switch 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	
M123	133	M50	3	Existed

Does the continuity exist?

YES >> Replace the push-button ignition switch.
NO >> Repair the harness or the connector.

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

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

BCM		Ground	Continuity
Connector	Terminal		
M123	133		Not existed

Does the continuity exist?

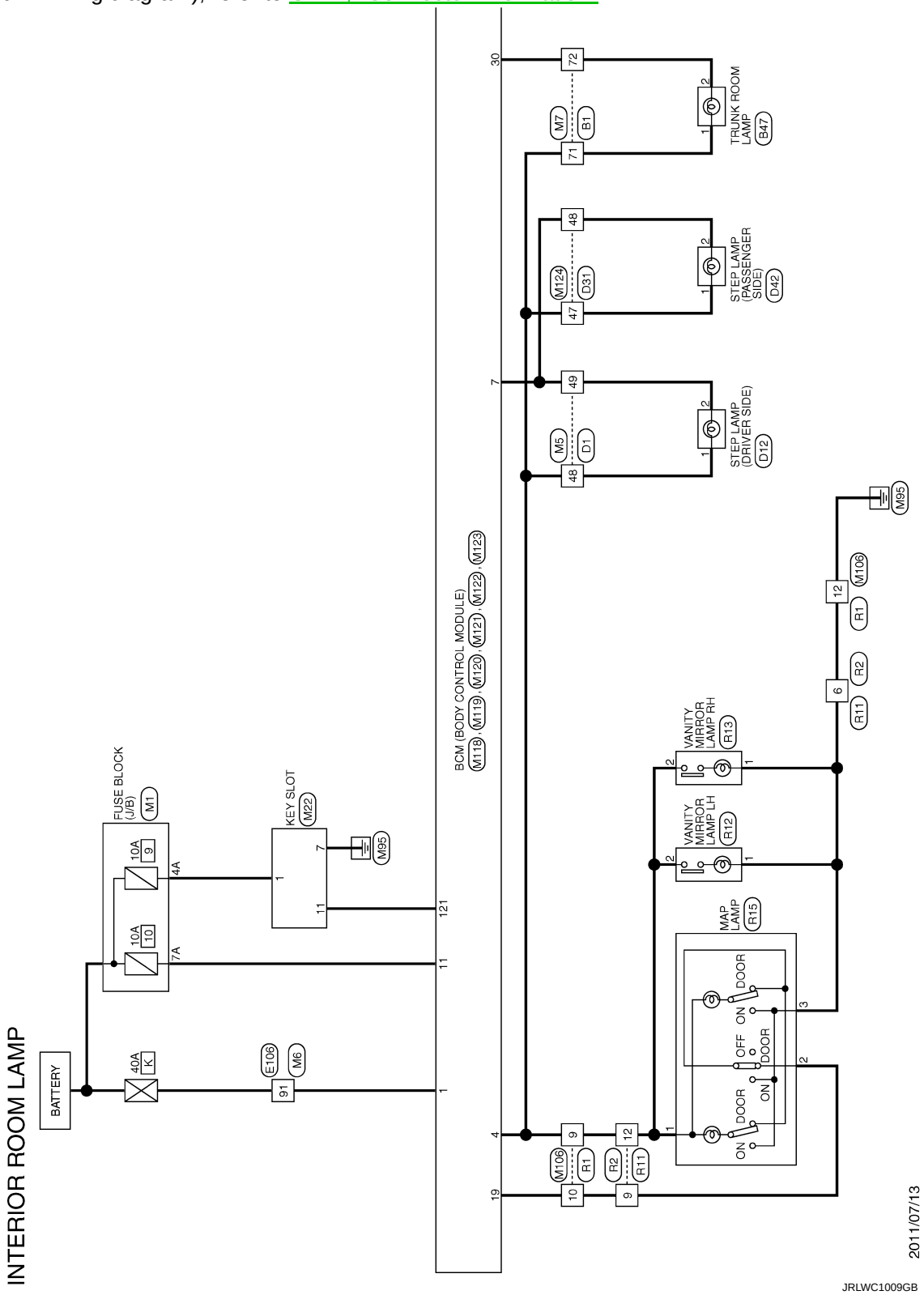
YES >> Repair the harness or the connector.
NO >> Replace BCM.

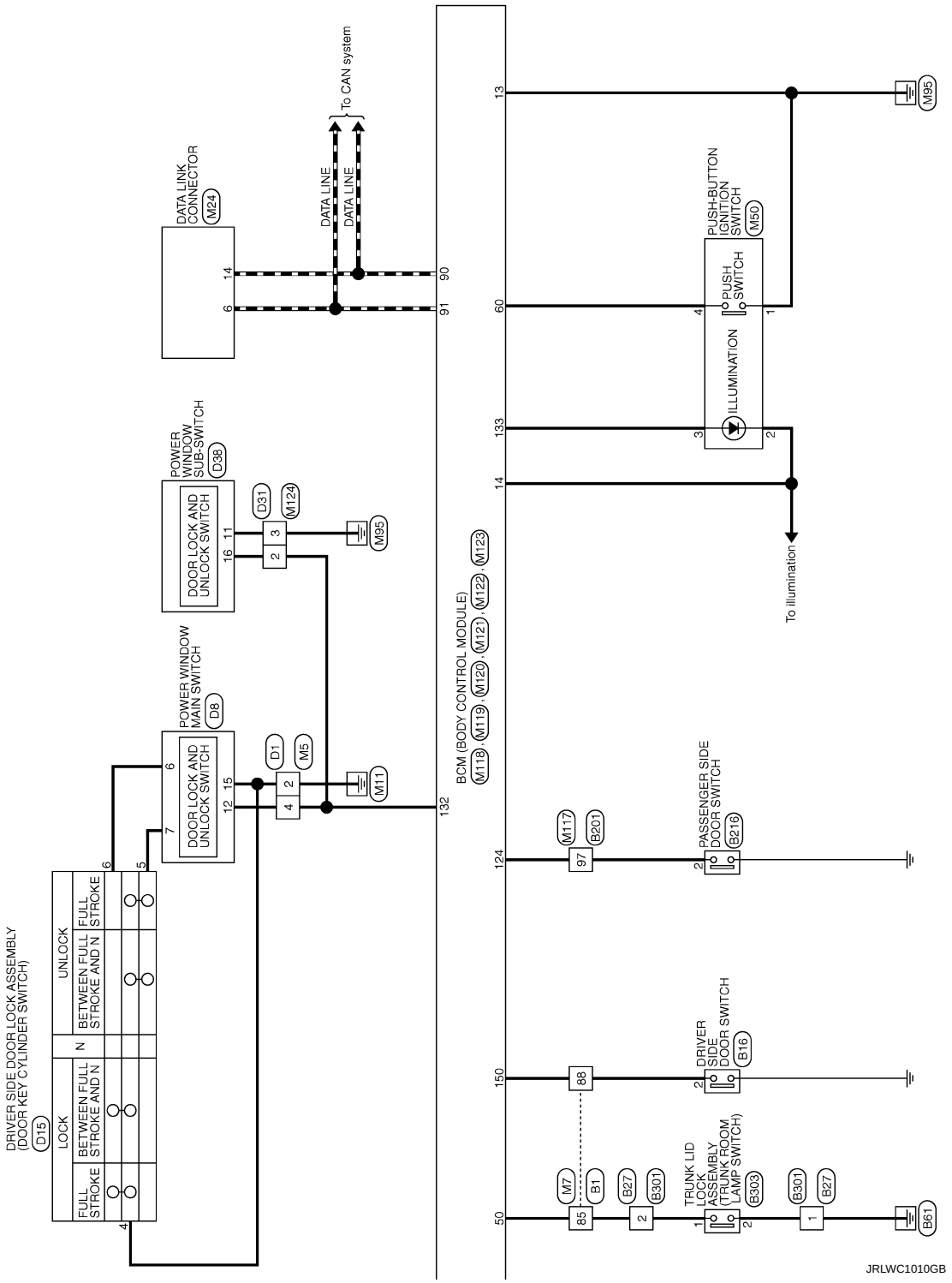
INTERIOR ROOM LAMP CONTROL SYSTEM

Wiring Diagram - INTERIOR ROOM LAMP -

INFOID:0000000008160163

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



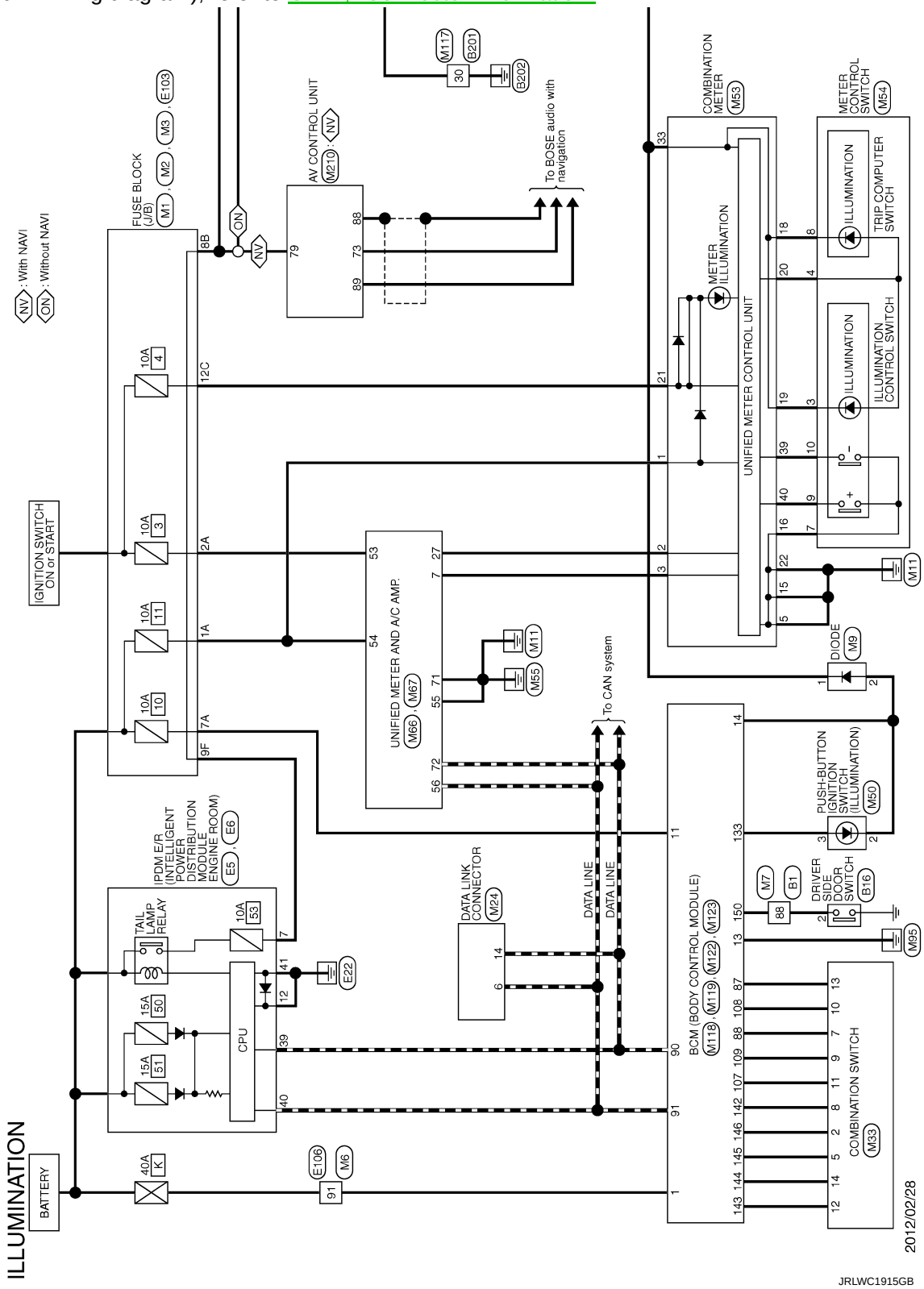

DRIVER SIDE DOOR LOCK ASSEMBLY (DOOR KEY CYLINDER SWITCH)
D15
LOCK
N
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
BETWEEN FULL STROKE AND N
FULL STROKE
POWER WINDOW MAIN SWITCH
D8
DOOR LOCK AND UNLOCK SWITCH
POWER WINDOW SUB-SWITCH
D38
DOOR LOCK AND UNLOCK SWITCH
D1
M5
D31
M124
M11
M95
DATA LINK CONNECTOR
M24
DATA LINE
DATA LINE
To CAN system
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
M117
B201
PASSENGER SIDE DOOR SWITCH
B216
DRIVER SIDE DOOR SWITCH
B16
M7
B1
B27
B301
TRUNK LID LOCK ASSEMBLY (TRUNK ROOM LAMP SWITCH)
B303
B301
B27
B61
PUSH-BUTTON IGNITION SWITCH
M50
PUSH SWITCH
ILLUMINATION
To illumination
M95
JRLWC1010GB

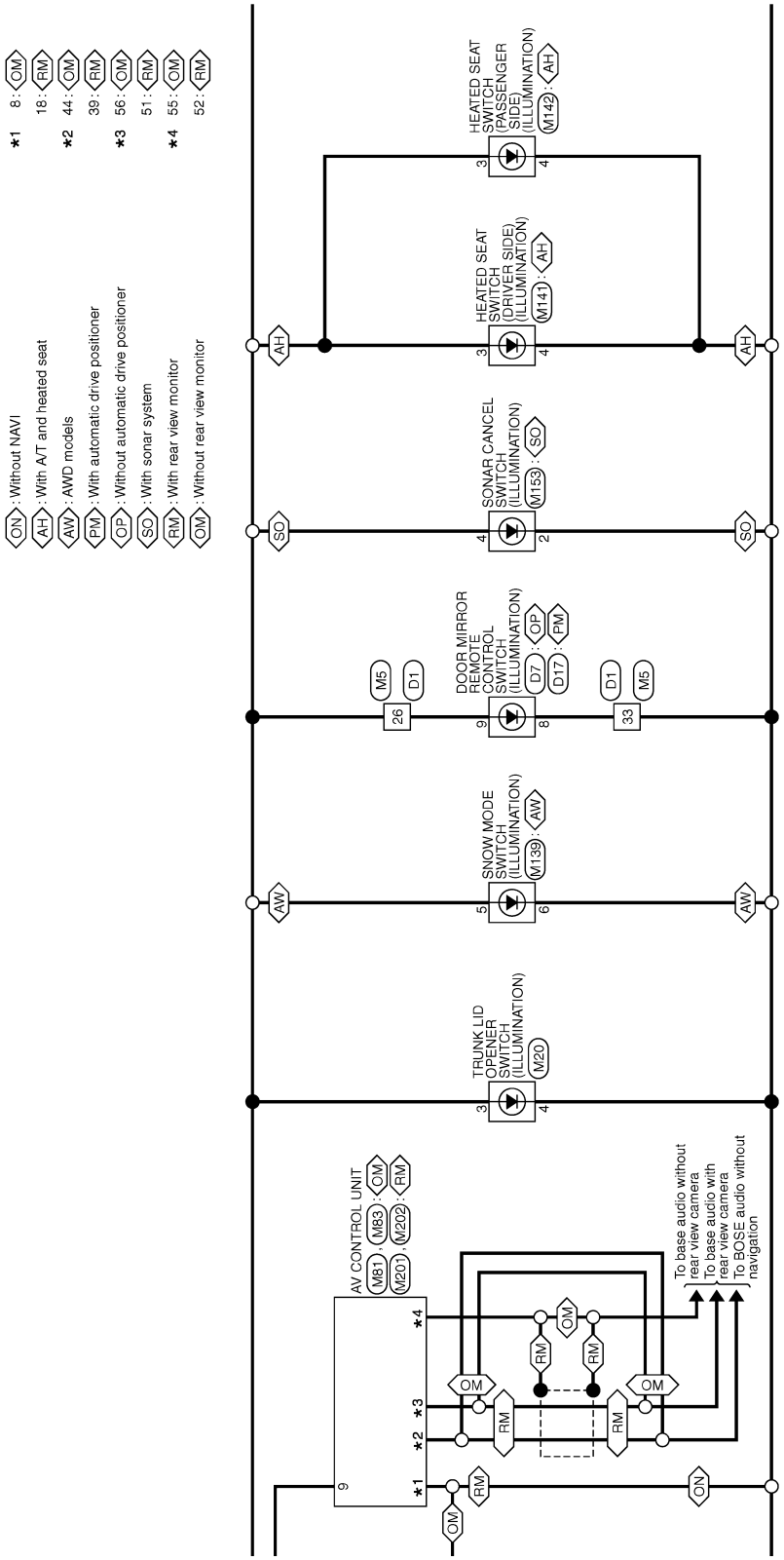
ILLUMINATION

Wiring Diagram - ILLUMINATION -

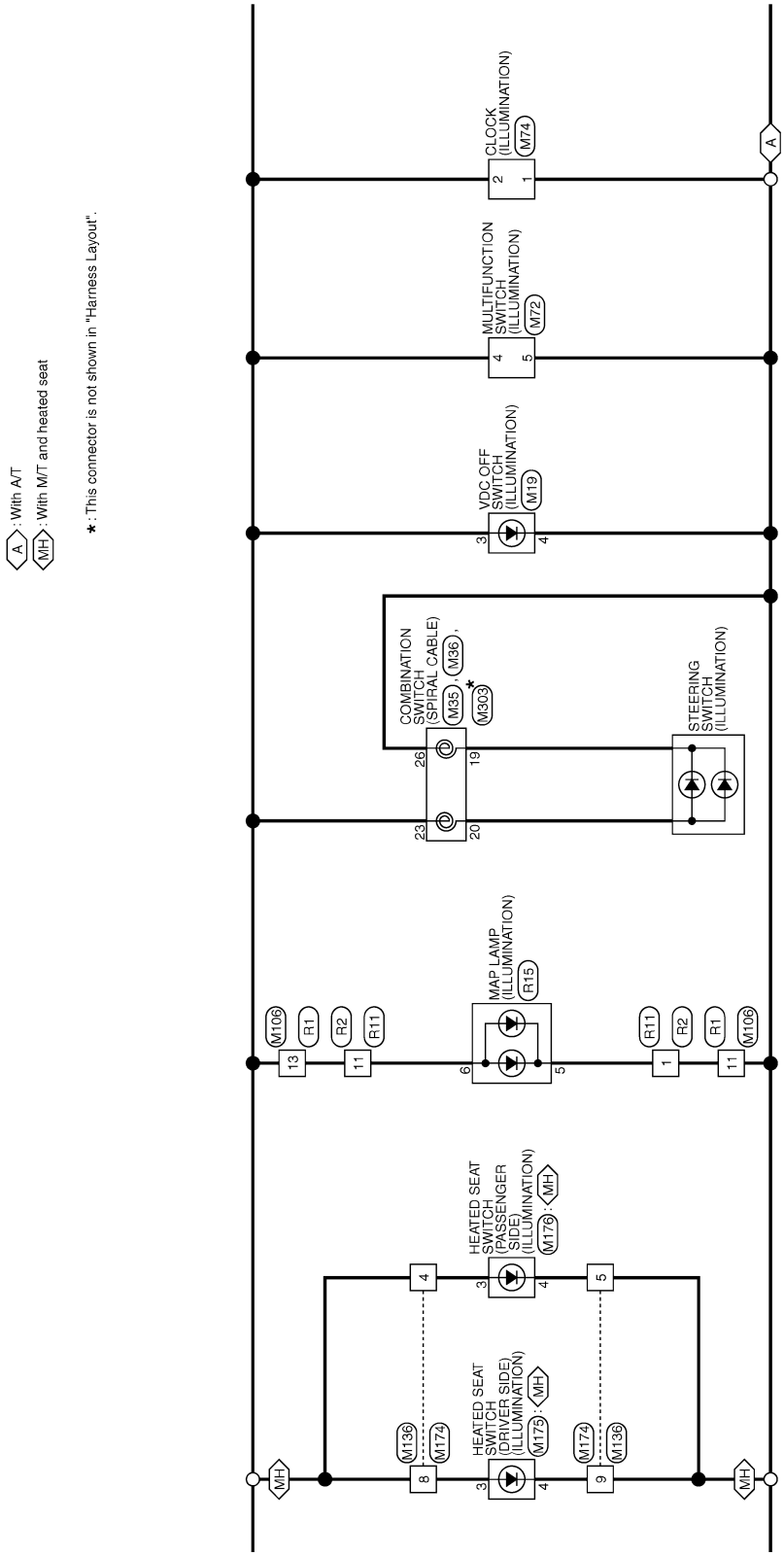
INFOID:0000000008160164

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

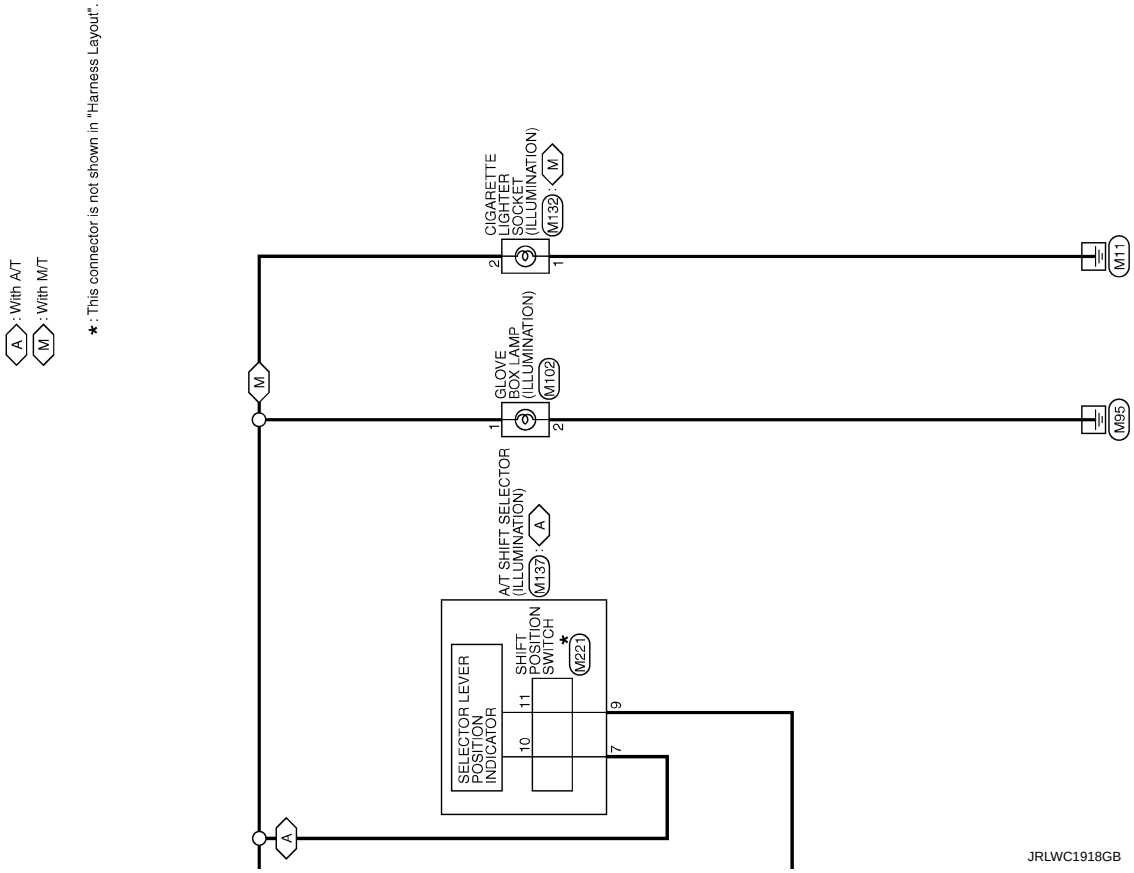




JRLWC1916GB



JRLWC1917GB


A : With A/T
M : With M/T
★ : This connector is not shown in "Harness Layout".
M
A
CIGARETTE LIGHTER SOCKET (ILLUMINATION)
M132 : M
GLOVE BOX LAMP (ILLUMINATION)
M102
A/T SHIFT SELECTOR (ILLUMINATION)
M137 : A
SELECTOR LEVER POSITION INDICATOR
SHIFT POSITION SWITCH
★
M221
M11
M95
JRLWC1918GB

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000008833036

VALUES ON THE DIAGNOSIS TOOL

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

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On

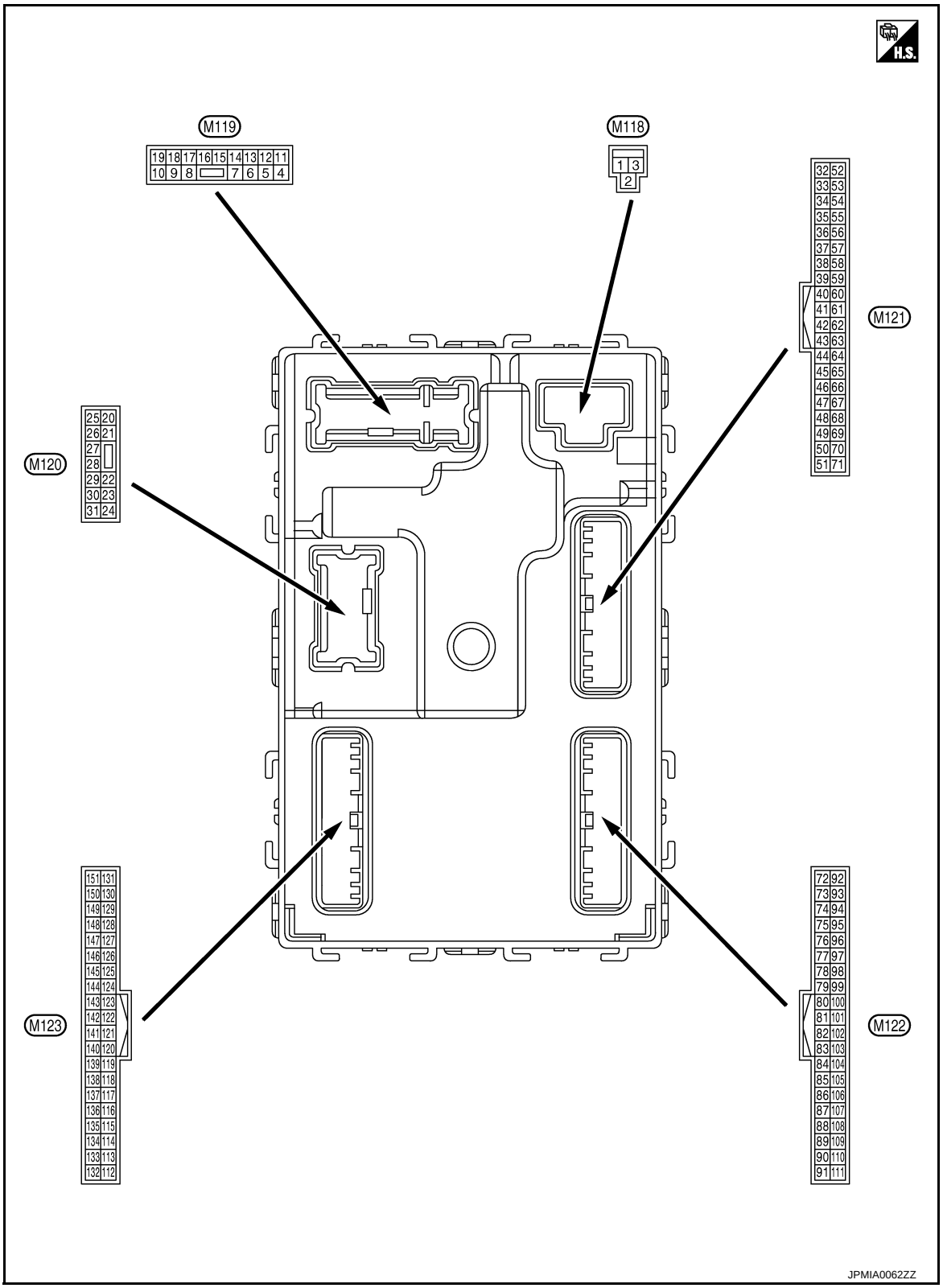
Monitor Item	Condition	Value/Status
DOOR SW-RR	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-RL	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-BK	**NOTE:** The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	**NOTE:** The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	**NOTE:** The item is indicated, but not monitored.	Off
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
	Trunk lid opener cancel switch ON	On
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
REVERSE SW	**NOTE:** The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On

Monitor Item	Condition	Value/Status
REQ SW -RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	**NOTE:** The item is indicated, but not monitored.	Off
ACC RLY -F/B	**NOTE:** The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW	• Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models)	Off
	• Selector lever in any position other than P (Except M/T models) • The clutch pedal is not depressed (M/T models)	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK	**NOTE:** The item is indicated, but not monitored.	Off
S/L -UNLOCK	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-F/B	**NOTE:** The item is indicated, but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	• Selector lever in any position other than P and N (Except M/T models) • The clutch pedal is not depressed (M/T models)	Off
	• Selector lever in P or N position • The clutch pedal is depressed	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On

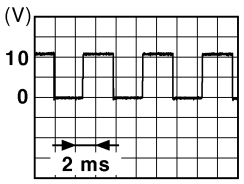
Monitor Item	Condition	Value/Status
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-REQ	**NOTE:** The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speed-ometer reading
VEH SPEED 2	While driving	Equivalent to speed-ometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position except for M/T models)	Reset
	Ignition switch is ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	**NOTE:** The item is indicated, but not monitored.	—
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID regis-tered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID regis-tered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg-istered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID regis-tered to BCM.	Done

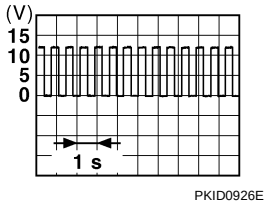
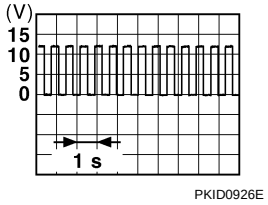
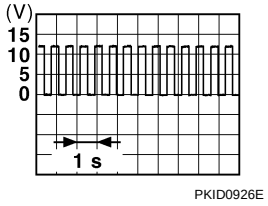
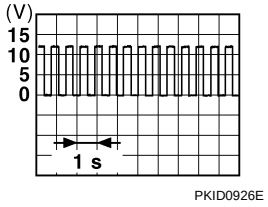
Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

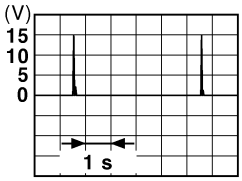
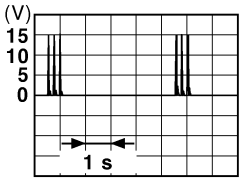
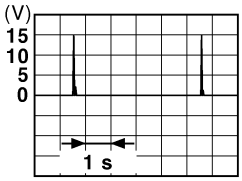
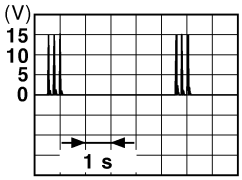
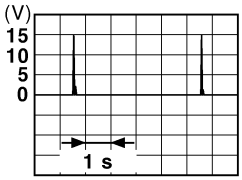
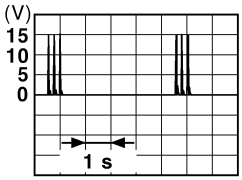
TERMINAL LAYOUT

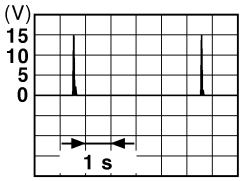
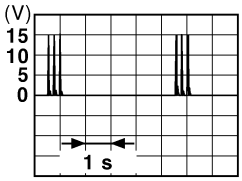
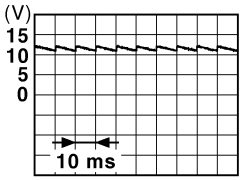
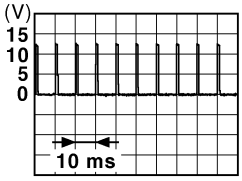


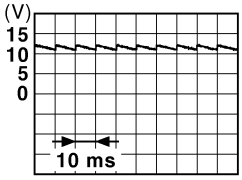
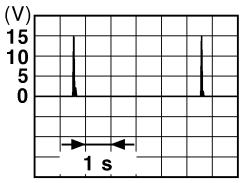
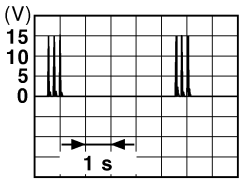
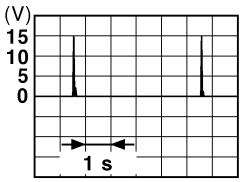
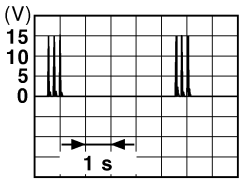
PHYSICAL VALUES

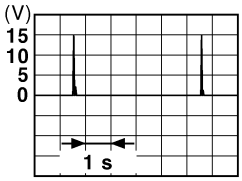
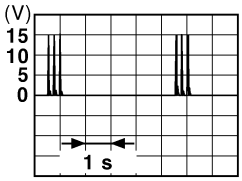
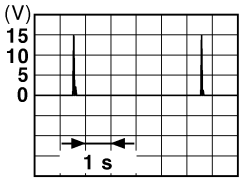
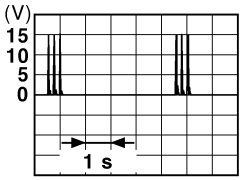
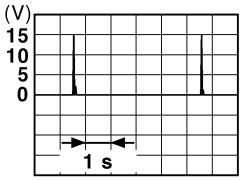
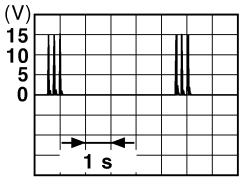
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5 (P)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
7 (SB)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	12 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	**NOTE:** When the illumination brightening/dimming level is in the neutral position.  JSNIA0010GB
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

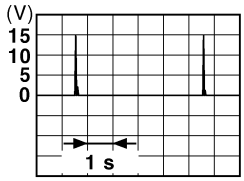
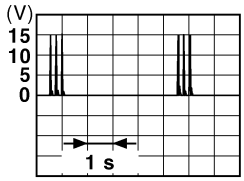
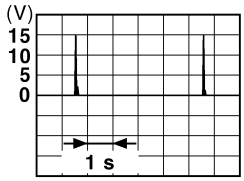
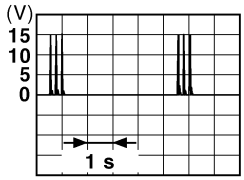
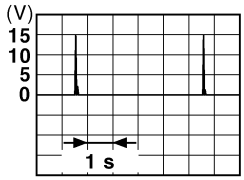
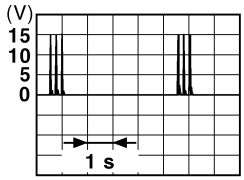
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.5 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
19 (V)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.5 V
23 (LG)	Ground	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	12 V
					Other than OPEN (Trunk lid opener actuator is not activated)	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
30 (P)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0 V
					OFF	12 V

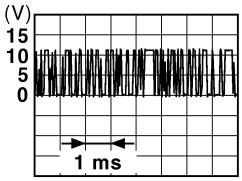
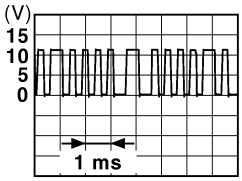
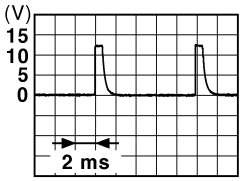
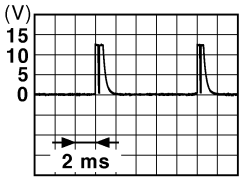
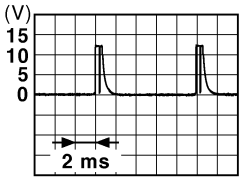
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (SB)	Ground	Trunk room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (V)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	Ground	Rear bumper antenna (–)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

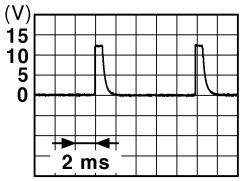
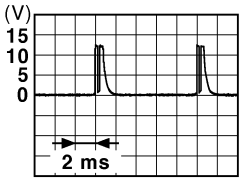
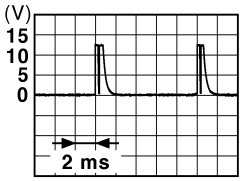
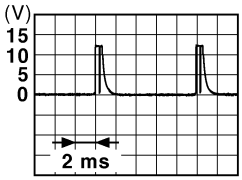
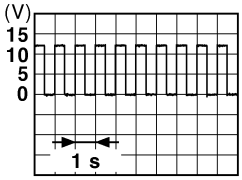
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
50 (BG)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	 JPMIA0011GB 11.8 V
					ON (Trunk lid is opened)	0 V
52 (R)	Ground	Starter relay control	Output	Ignition switch ON (A/T models)	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
				Ignition switch ON (M/T models)	When the clutch pedal is depressed	Battery voltage
					When the clutch pedal is not depressed	0 V
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (Push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (G)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	12 V

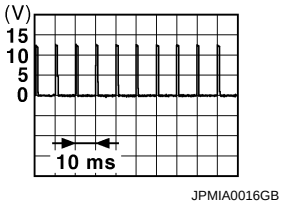
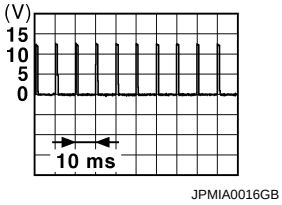
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
72 (R)	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

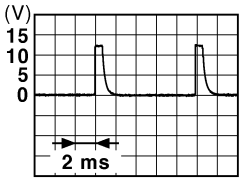
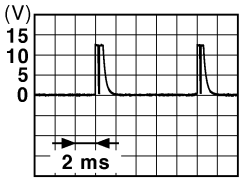
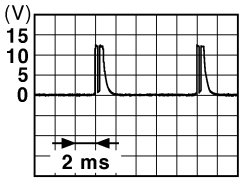
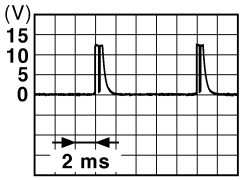
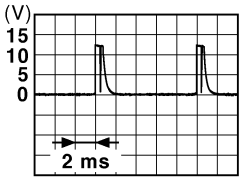
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
75 (BR)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
76 (V)	Ground	Driver door antenna (–)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

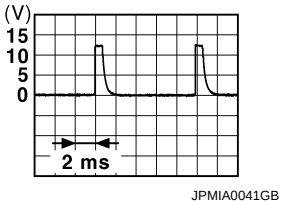
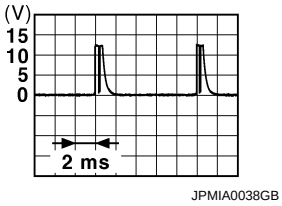
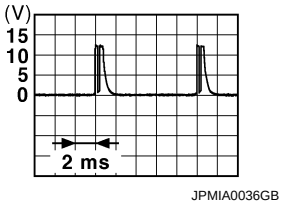
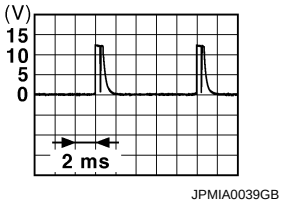
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78 (Y)	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

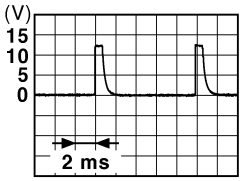
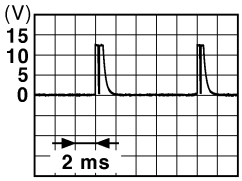
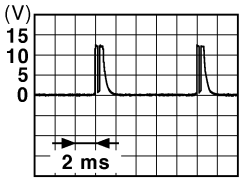
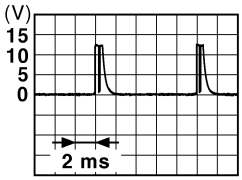
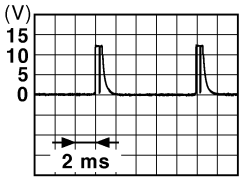
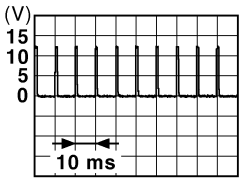
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (SB)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the Intelligent Key		 JMKIA0065GB
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Front fog lamp switch ON (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	 JPMIA0040GB 1.3 V

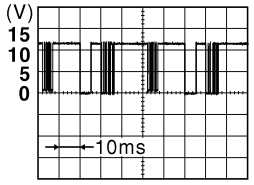
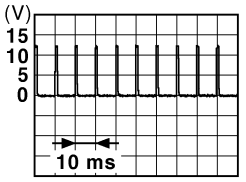
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (BG)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper volume dial 4)	 JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3	 JPMIA0040GB 1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—		—
91 (L)	Ground	CAN-H	Input/ Output	—		—
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	12 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	0 V
93 (GR)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V

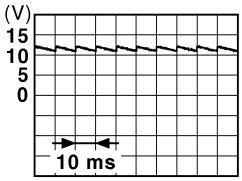
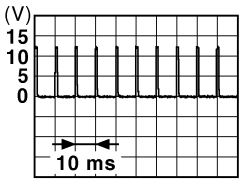
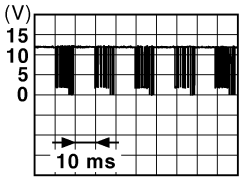
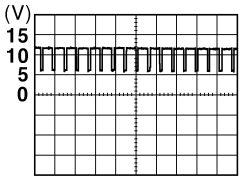
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		12 V
99 (R)*1 (BR)*2	Ground	Selector lever P position switch (A/T models)	Input	Selector lever	P position	0 V
					Any position other than P	12 V
		ASCD clutch switch (M/T models)		ASCD clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 1.0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 1.0 V
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (P)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		12 V

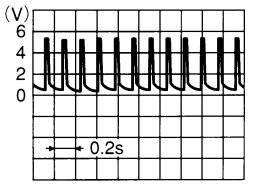
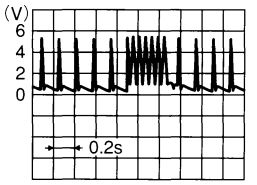
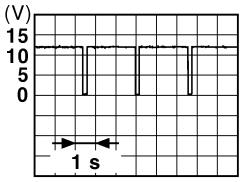
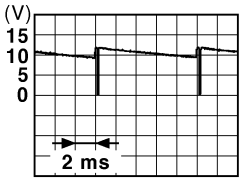
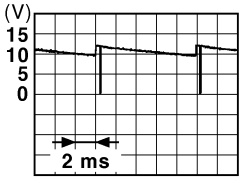
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch RH	 JPMIA0036GB 1.3 V
					Front wiper switch LO	 JPMIA0038GB 1.3 V
					Front washer switch ON	 JPMIA0039GB 1.3 V

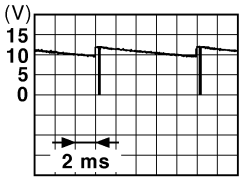
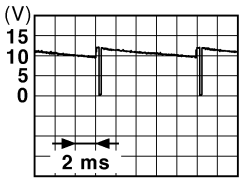
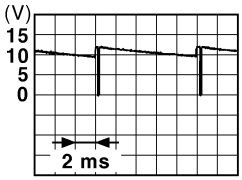
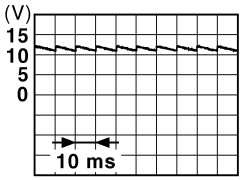
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 1.4 V
					Lighting switch AUTO (Wiper volume dial 4)	 1.3 V
					Lighting switch 1ST (Wiper volume dial 4)	 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	 1.3 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Lighting switch PASS	 JPMIA0037GB 1.3 V
					Lighting switch 2ND	 JPMIA0036GB 1.3 V
					Front wiper switch INT/ AUTO	 JPMIA0038GB 1.3 V
					Front wiper switch HI	 JPMIA0040GB 1.3 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON	0 V
					OFF	 JPMIA0012GB 1.1 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
112 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		 JPMIA0156GB 8.7 V
113 (BG)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
114 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is de-pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (BR)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de-pressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is de-pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (SB)	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
				When the Intelligent Key is not inserted into key slot		0 V
123 (V)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
129 (BG)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1 V
					ON	0 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
140*1 (B)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
141 (W)	Ground	Security indicator lamp	Output	Security indicator lamp	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	12 V
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	 JPMIA0032GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	

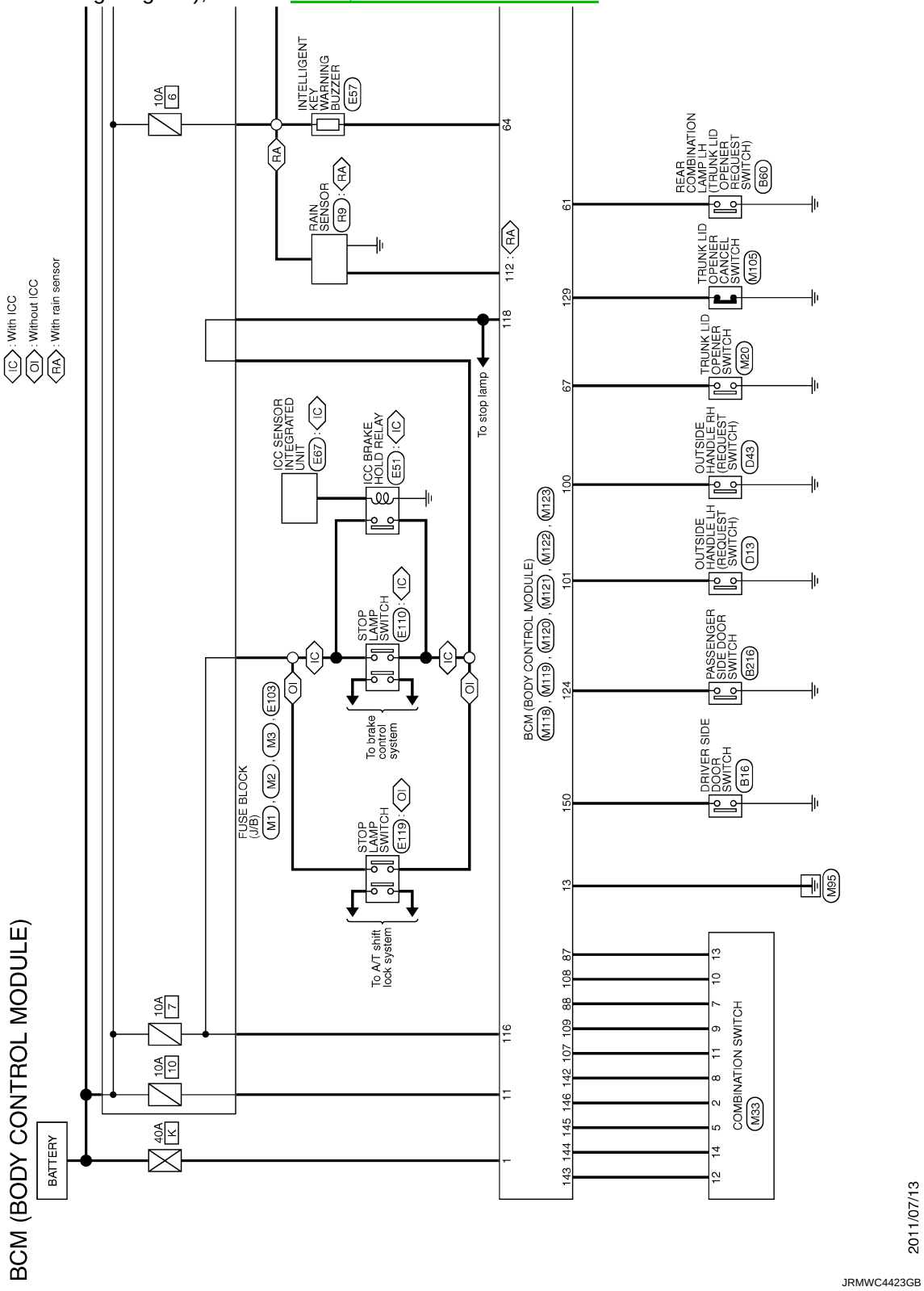
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	 JPMIA0033GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front wiper switch INT/ AUTO	 JPMIA0034GB 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	 JPMIA0035GB 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

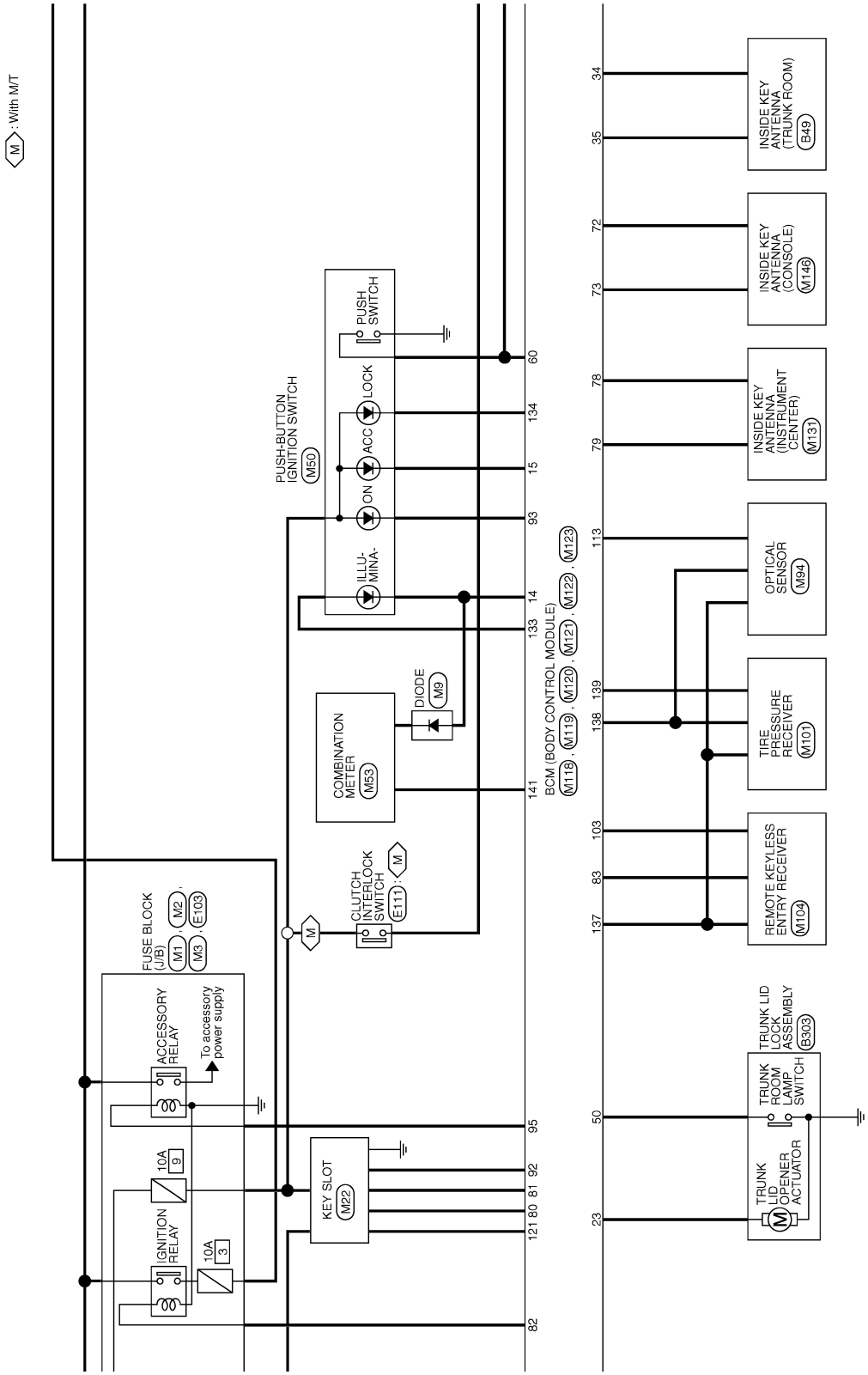
- *1: A/T models
- *2: M/T models

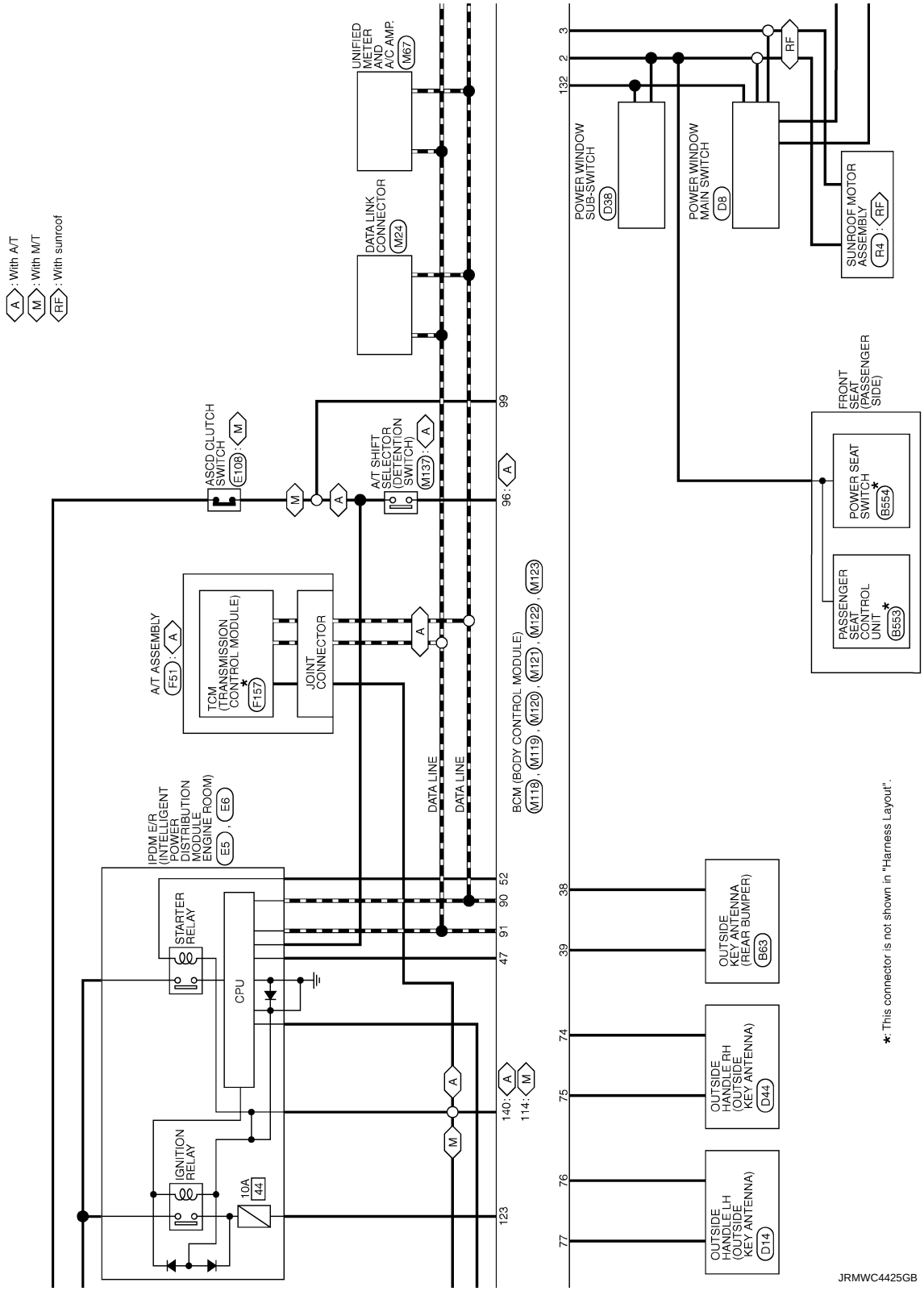
Wiring Diagram - BCM -

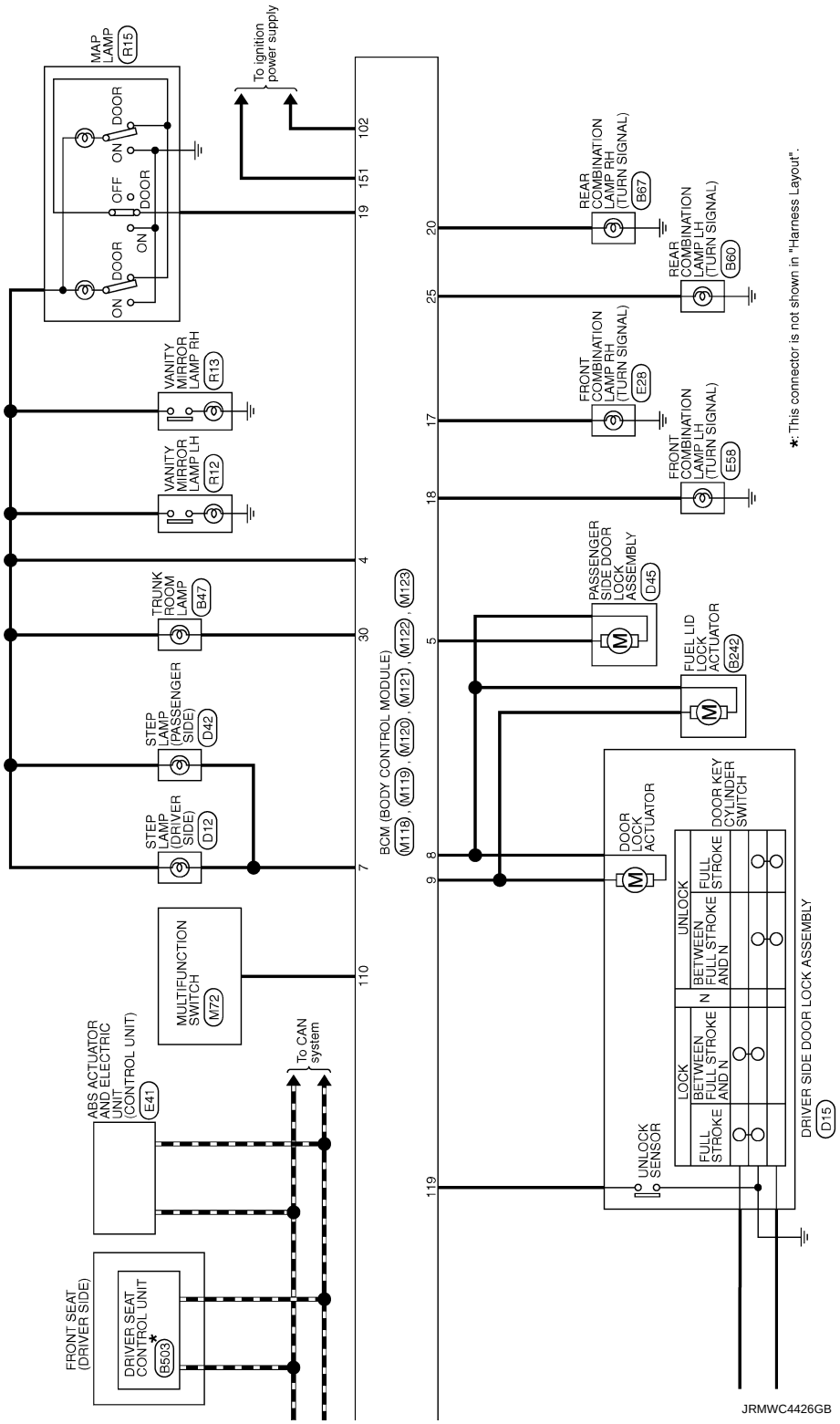
INFOID:0000000008833037

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




M : With M/T
FUSE BLOCK (J/B)
M1 , M2 , M3 , E103
ACCESSORY RELAY
To accessory power supply
IGNITION RELAY
10A 9
10A 3
KEY SLOT M22
CLUTCH INTERLOCK SWITCH E111 : M
COMBINATION METER M53
DIODE M9
PUSH-BUTTON IGNITION SWITCH M50
ILLU-MINA-
ON
ACC
LOCK
PUSH SWITCH
BCM (BODY CONTROL MODULE) M118 , M119 , M120 , M121 , M122 , M123
TRUNK LID OPENER ACTUATOR
TRUNK ROOM LAMP SWITCH
TRUNK LID LOCK ASSEMBLY B303
REMOTE KEYLESS ENTRY RECEIVER M104
TIRE PRESSURE RECEIVER M101
OPTICAL SENSOR M94
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M131
INSIDE KEY ANTENNA (CONSOLE) M146
INSIDE KEY ANTENNA (TRUNK ROOM) B49
JRMWC4424GB


A : With A/T
M : With M/T
RF : With sunroof
UNIFIED METER AND A/C AMP. (M67)
DATA LINK CONNECTOR (M24)
ASCD CLUTCH SWITCH (E108) : M
A/T SHIFT SELECTOR (DETENTION SWITCH) (M137) : A
A/T ASSEMBLY (F51) : A
TCM (TRANSMISSION CONTROL MODULE)* (F157)
JOINT CONNECTOR
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E5), (E6)
STARTER RELAY
CPU
IGNITION RELAY
10A 44
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) (M118), (M119), (M120), (M121), (M122), (M123)
99
96 : A
52
90
91
47
140 : A
114 : M
123
POWER WINDOW SUB-SWITCH (D38)
POWER WINDOW MAIN SWITCH (D8)
SUNROOF MOTOR ASSEMBLY (R4) : RF
RF
3
2
132
FRONT SEAT (PASSENGER SIDE)
POWER SEAT SWITCH* (B554)
PASSENGER SEAT CONTROL UNIT* (B553)
OUTSIDE KEY ANTENNA (REAR BUMPER) (B63)
OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA) (D44)
OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA) (D14)
38
39
74
75
76
77
*: This connector is not shown in "Harness Layout".
JRMWC4425GB



Fail-safe

INFOID:0000000008833038

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (12 V) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: ON (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000008833039

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	• U1000: CAN COMM • U1010: CONTROL UNIT(CAN)
3	• B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI-SCANNING

Priority	DTC
4	• B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP/CLUTCH SW • B2605: PNP/CLUTCH SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E8: CLUTCH SW • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED
5	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT
6	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000008833040

NOTE:
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to INL-15, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM	—	—	—	—	BCS-36
U1010: CONTROL UNIT(CAN)	—	—	—	—	BCS-37
U0415: VEHICLE SPEED	—	—	—	—	BCS-38
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-51

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer-ence page
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-54
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-55
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-57
B2195: ANTI-SCANNING	×	—	—	—	SEC-58
B2553: IGNITION RELAY	—	×	—	—	PCS-48
B2555: STOP LAMP	—	×	—	—	SEC-59
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-61
B2557: VEHICLE SPEED	×	×	×	—	SEC-63
B2560: STARTER CONT RELAY	×	×	×	—	SEC-64
B2562: LOW VOLTAGE	—	×	—	—	BCS-39
B2601: SHIFT POSITION	×	×	×	—	SEC-65
B2602: SHIFT POSITION	×	×	×	—	SEC-68
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-70
B2604: PNP/CLUTCH SW	×	×	×	—	SEC-73
B2605: PNP/CLUTCH SW	×	×	×	—	SEC-75
B2608: STARTER RELAY	×	×	×	—	SEC-77
B260A: IGNITION RELAY	×	×	×	—	PCS-50
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-79
B2614: BCM	—	×	×	—	PCS-52
B2615: BCM	—	×	×	—	PCS-54
B2616: BCM	—	×	×	—	PCS-56
B2617: BCM	×	×	×	—	SEC-83
B2618: BCM	×	×	×	—	PCS-58
B261A: PUSH-BTN IGN SW	—	×	×	—	PCS-59
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-85
B2621: INSIDE ANTENNA	—	×	—	—	DLK-55
B2622: INSIDE ANTENNA	—	×	—	—	DLK-57
B2623: INSIDE ANTENNA	—	×	—	—	DLK-59
B26E8: CLUTCH SW	×	×	×	—	SEC-80
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-82
C1704: LOW PRESSURE FL	—	—	—	×	WT-19
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	WT-21
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer-ence page
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-24
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-25
C1734: CONTROL UNIT	—	—	—	×	WT-26

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000008160174

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

Symptom	Possible cause	Inspection item
All the following lamps do not turn ON. • Map lamp • Trunk room lamp • Step lamp • Vanity mirror lamp	• Harness between BCM and each interior room lamp • BCM	Interior room lamp power supply circuit Refer to INL-21.
• 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.	• Harness between BCM and each door switch • Harness between BCM and each interior room lamp • BCM	Door switch circuit Refer to DLK-62.
		Interior room lamp control circuit Refer to INL-23.
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	—	Check the interior room lamp setting. Refer to INL-17.
Step lamps (driver side and passenger side) do not turn ON. (Map lamp is turned ON.)	• Harness between BCM and each step lamp • BCM	Step lamp circuit Refer to INL-25.
Step lamps (driver side and passenger side) do not turn OFF. (Map lamp is turned OFF.)		
• Trunk room lamp does not turn ON. (Bulb is normal.) • Trunk room lamp does not turn OFF.	• Harness between BCM and trunk room lamp switch • Harness between BCM and trunk room lamp • BCM	Trunk room lamp switch circuit Refer to DLK-71.
		Trunk room lamp circuit Refer to INL-27.
Push-button ignition switch illumination does not illuminate.	• Harness between BCM and push-button ignition switch • BCM	Push-button ignition switch illumination circuit Refer to INL-29.
Interior room lamp battery saver does not activate.	—	Check the interior room lamp battery saver setting. Refer to INL-18.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000008160175

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.**

Precaution for Battery Service

INFOID:0000000008160176

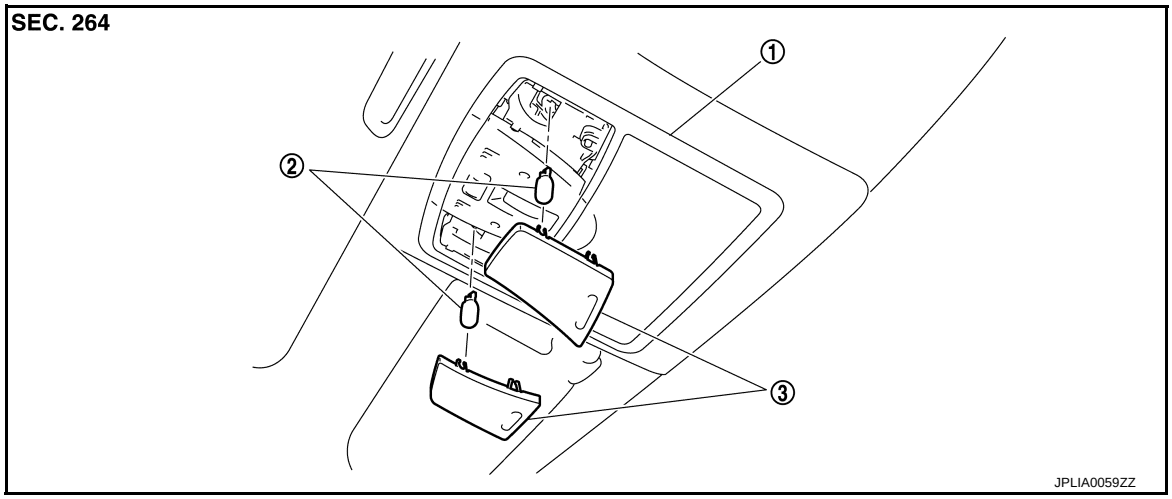
Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

REMOVAL AND INSTALLATION

MAP LAMP

Exploded View

INFOID:0000000008160177



1. Map lamp assembly
2. Bulb
3. Lens

Removal and Installation

INFOID:0000000008160178

Refer to INL-70, "Exploded View" for the map lamp assembly installation/removal.

Replacement

INFOID:0000000008160179

CAUTION:
- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

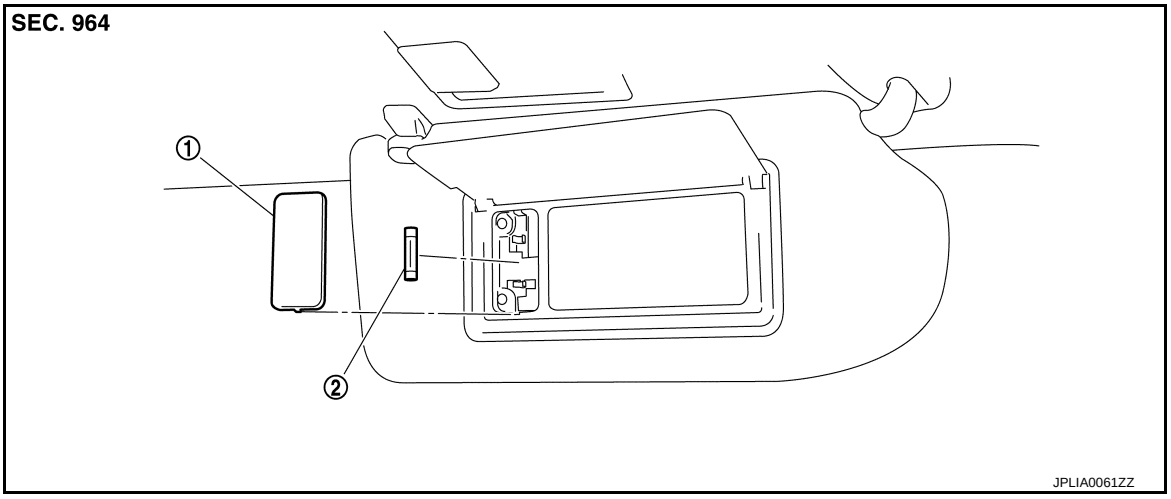
MAP LAMP BULB

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

VANITY MIRROR LAMP

Exploded View

INFOID:0000000008160180



1. Lens
2. Bulb

Replacement

INFOID:0000000008160181

CAUTION:
- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

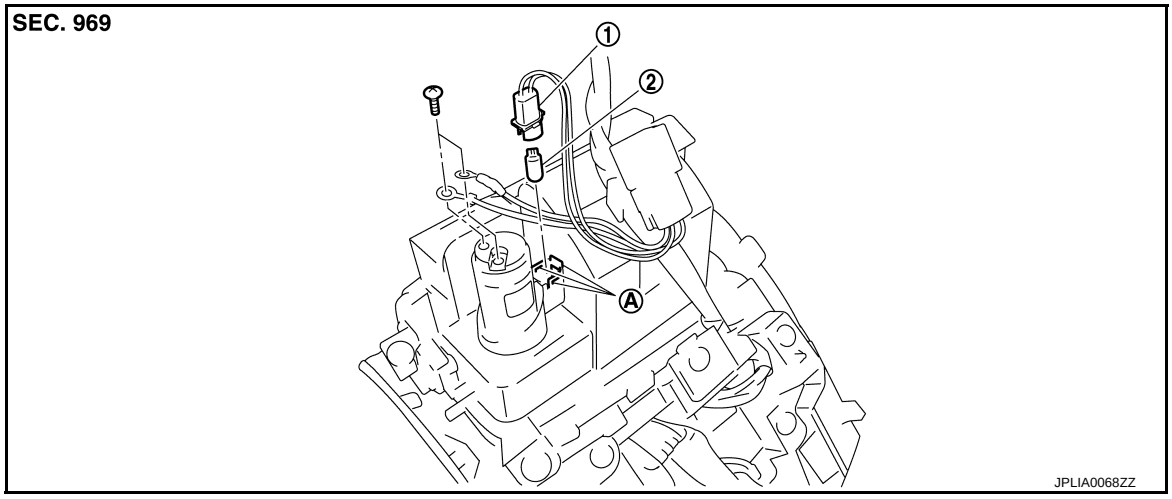
VANITY MIRROR LAMP BULB

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

CIGARETTE LIGHTER ILLUMINATION

Exploded View

INFOID:0000000008160182



1. Bulb socket
2. Bulb
   (Share with the ashtray illumination)

A Hook

Replacement

INFOID:0000000008160183

CAUTION:
- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

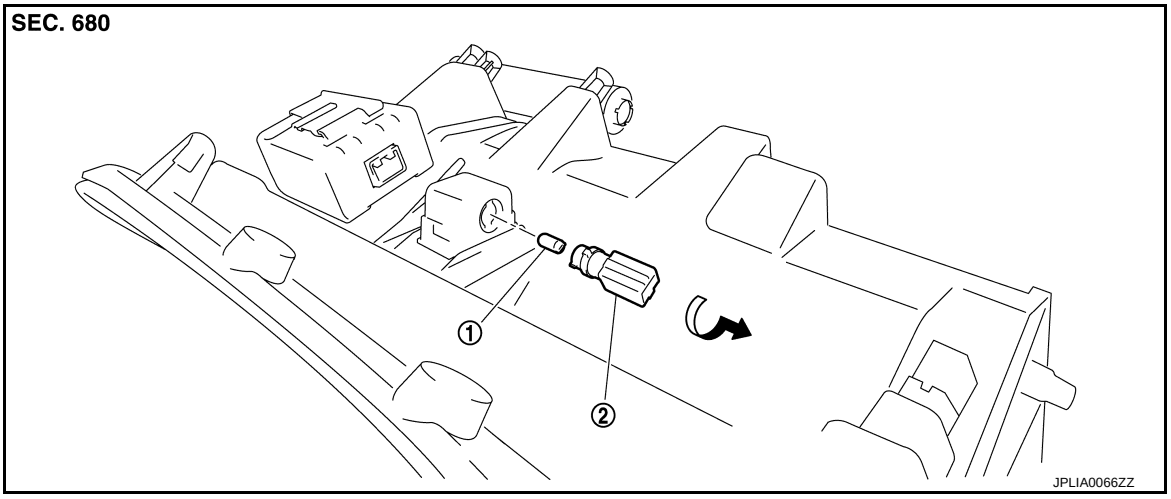
CIGARETTE LIGHTER ILLUMINATION BULB

1. Remove the console finisher.
   Refer to IP-35, "A/T MODELS : Exploded View" (A/T models).
   Refer to IP-40, "M/T MODELS : Exploded View" (M/T models).
2. Insert any appropriate tool into the gap of the bulb socket. Widen the hook and remove the bulb socket.
3. Remove the bulb.

GLOVE BOX LAMP

Exploded View

INFOID:0000000008160184



1. Bulb
2. Bulb socket

Replacement

INFOID:0000000008160185

CAUTION:
- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

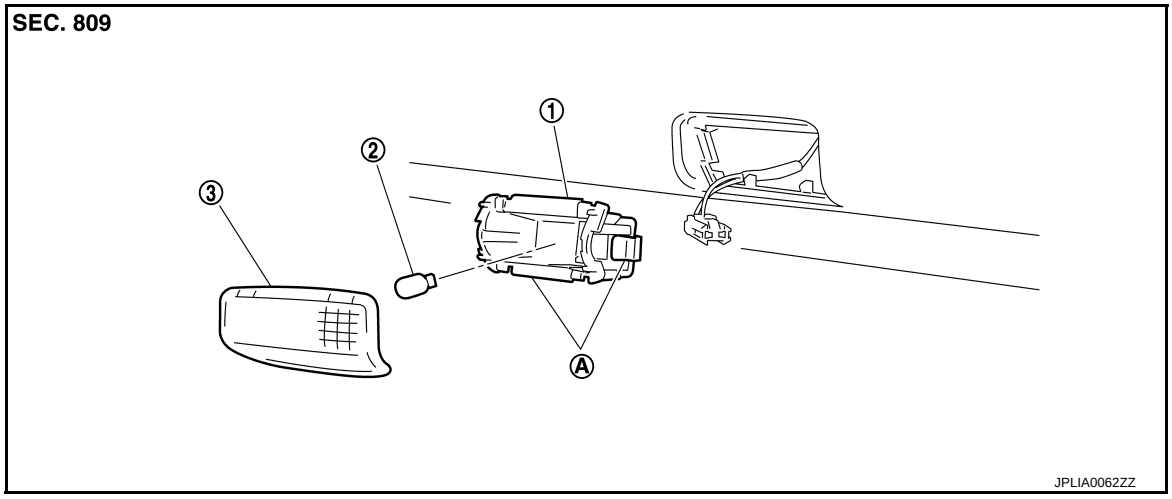
GLOVE BOX LAMP BULB

1. Remove the instrument assist lower panel.
   Refer to IP-35, "A/T MODELS : Exploded View" (A/T models).
   Refer to IP-40, "M/T MODELS : Exploded View" (M/T models).
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb.

STEP LAMP

Exploded View

INFOID:0000000008160186



1. Step lamp case
2. Bulb
3. Lens

A Metal clip

Removal and Installation

INFOID:0000000008160187

CAUTION:
Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the step lamp and the door trim. Remove the step lamp.
2. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:0000000008160188

CAUTION:
- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

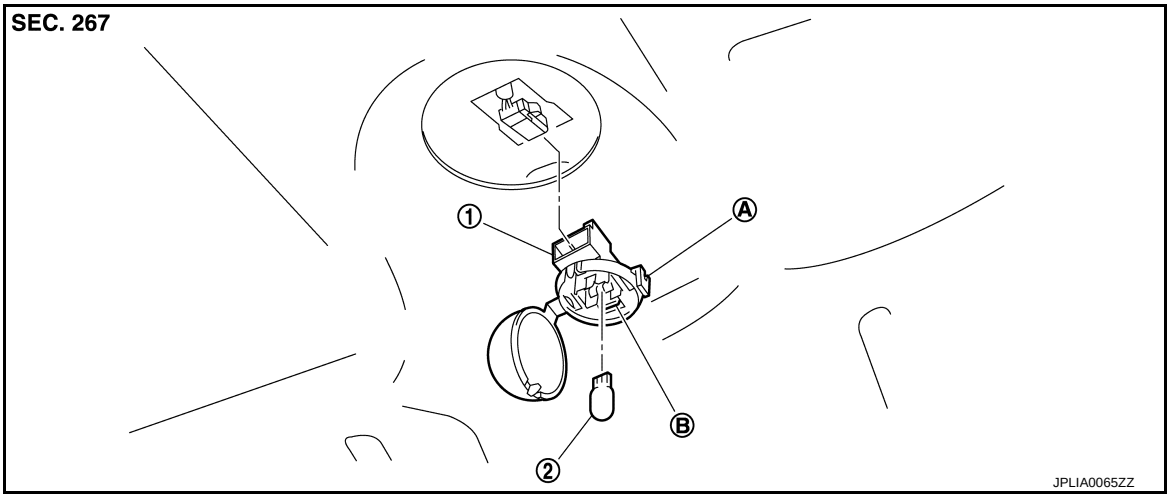
STEP LAMP BULB

1. Remove the step lamp. Refer to INL-74, "Exploded View".
2. Remove the lens.
3. Remove the bulb.

TRUNK ROOM LAMP

Exploded View

INFOID:0000000008160189



1.	Trunk room lamp	2.	Bulb
A	Pawl (for lens fixing)	B.	Pawl (for case installation)

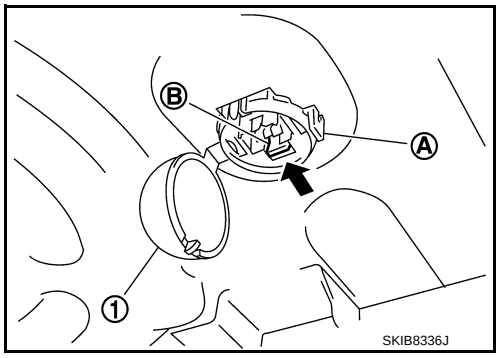
Removal and Installation

INFOID:0000000008160190

CAUTION:
Disconnect the battery negative terminal or remove the fuse.

REMOVAL

1. Widen the pawl (A). Open the lens (1).
2. Remove the bulb.
3. Pressing the pawl (B) to the arrow direction (⬅). Pull out the trunk room lamp.
4. Disconnect the connector.
5. Remove the trunk room lamp.



INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:0000000008160191

CAUTION:
- **Disconnect the battery negative terminal or remove the fuse.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand while it is lit or right after being turned off.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

TRUNK ROOM LAMP BULB

1. Widen the lens pawl. Open the lens.
2. Remove the bulb.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:0000000008160192

Item	Type	Wattage (W)
Push-button ignition switch illumination	LED	—
Map lamp	Wedge	8
Center console indirect illumination (Integrated into the map lamp assembly)	LED	—
Vanity mirror lamp	—	2
Glove box lamp	—	1.4
Cigarette lighter illumination (Shared with ash tray illumination)	—	1.4
Step lamp	Wedge	8
Trunk room lamp	Wedge	3.4