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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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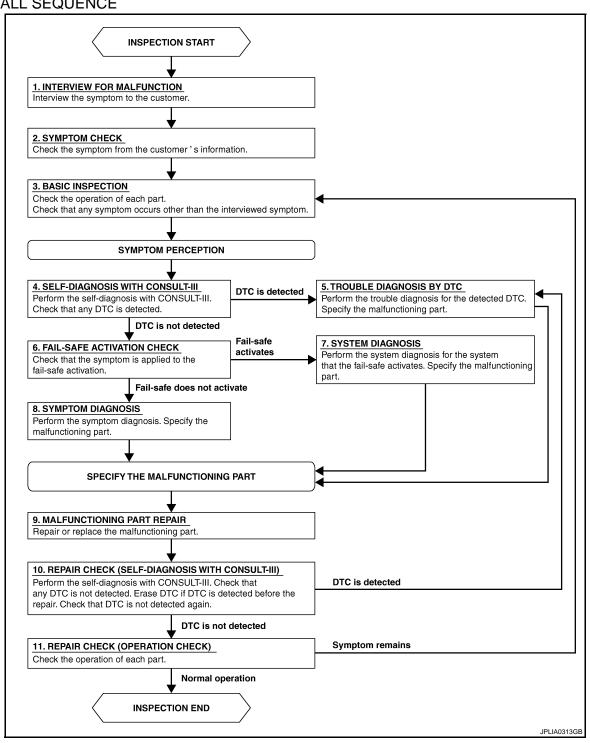
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OVERALL SEQUENCE



DETAILED FLOW

1.INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

>> GO TO 2.

2.SYMPTOM CHECK

Check the symptom from the customer's information.

>> GO TO 3.

3.BASIC INSPECTION

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

>> GO TO 4.

4.SELF-DIAGNOSIS WITH CONSULT-III

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

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 6.

5. TROUBLE DIAGNOSIS BY DTC

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

>> GO TO 9.

6. FAIL-SAFE ACTIVATION CHECK

Check that the symptom is applied to the fail-safe activation.

Does the fail-safe activate?

YES >> GO TO 7.

NO >> GO TO 8.

7. SYSTEM DIAGNOSIS

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

>> GO TO 9.

8.SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9.

9. MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10.

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

Perform the self-diagnosis with CONSULT-III. Check that any DTC is not detected. Erase DTC if DTC is detected before the repair. Check that DTC is not detected again.

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 11.

11. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

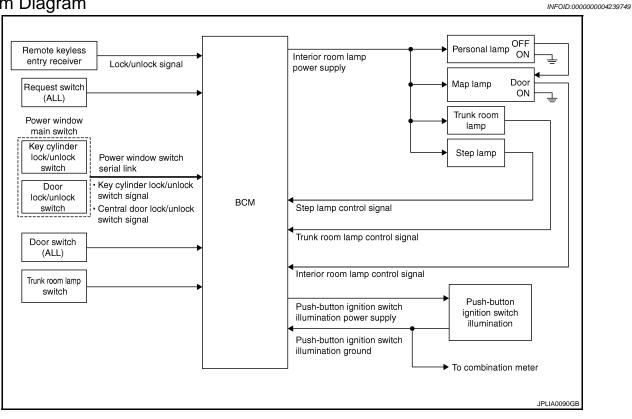
YES >> INSPECTION END

NO >> GO TO 3.

SYSTEM DESCRIPTION

INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



System Description

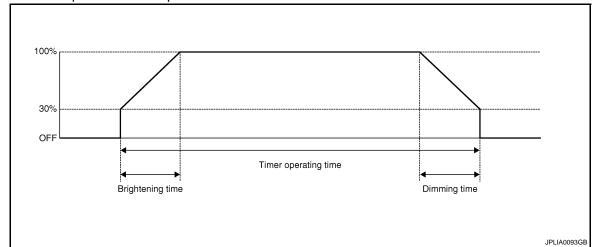
OUTLINE

 Interior room lamps* are controlled by interior room lamp timer control function of BCM. *: Map lamp and personal 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



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< SYSTEM DESCRIPTION >

- 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, door lock/unlock switch)

NOTF:

Each function of interior room lamp timer can be set by CONSULT-III. Refer to <u>INL-16, "INT LAMP : CONSULT-III Function (BCM - INT LAMP)"</u>.

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

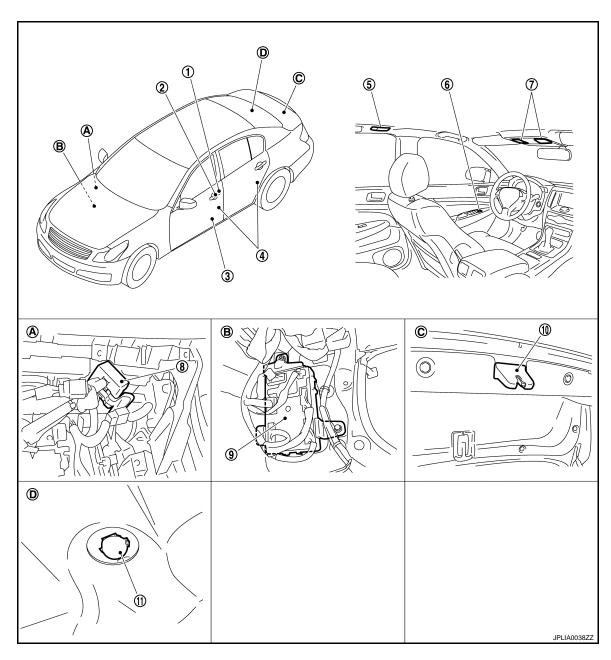
BCM turns the push-button ignition switch illumination OFF in any of the following conditions.

- 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 \rightarrow LOCK

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:0000000004239751



- 1. Key cylinder switch
- 4. Door switch
- 7. Map lamp
- 10. Trunk room lamp switch
- A. Behind the glove box
- D. Trunk room upward

- 2. Request switch
- 5. Personal lamp
- 8. Remote keyless entry receiver
- 11. Trunk room lamp
- B. Dash side lower (passenger side)
- 3. Step lamp
- 6. Door lock/unlock switch
- 9. BCM
- C. Trunk lid lock assembly

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< SYSTEM DESCRIPTION >

Component Description

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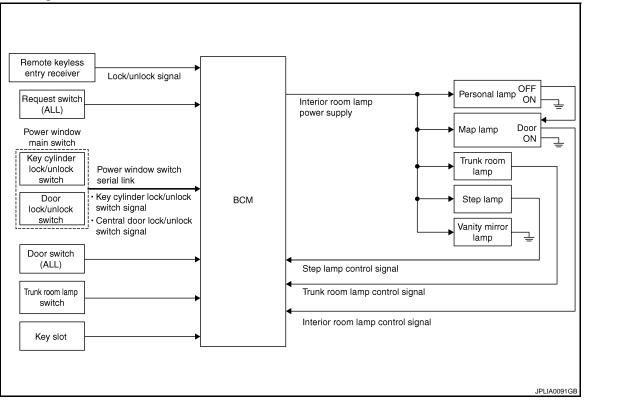
Part	Description			
BCM	 Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamp ON/OFF. Turns the trunk room lamp ON /OFF according to the trunk room lamp switch status. Turns the step lamp ON /OFF according to any door switch status. 			
Remote keyless entry receiver	Transmits the lock/unlock signal to BCM.			
Door lock/unlock switch Key cylinder lock/unlock 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 DESCRIPTION >

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

OUTLINE

Interior room lamp battery saver is controlled by BCM.

 BCM turns applicable lamps OFF depending on the vehicle condition. This function prevents the battery from over-discharging if the driver neglect turning OFF the any lamps.

Applicable lamps

- Map lamp
- Personal lamp
- 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, 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-III. Refer to INL-17, "BATTERY SAVER: CONSULT-III Function (BCM - BATTERY SAVER)".

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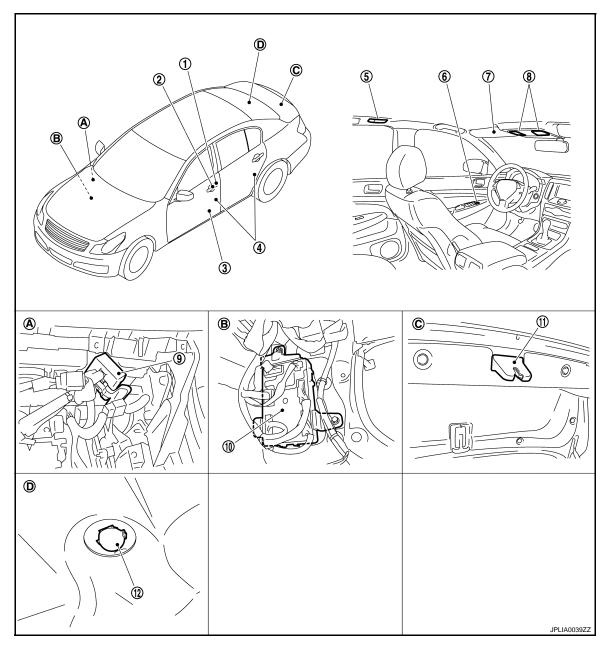
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Component Parts Location

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- 1. Key cylinder switch
- 4. Door switch
- 7. Vanity mirror lamp
- 10. BCM
- A. Behind the glove box
- D. Trunk room upward

- 2. Request switch
- 5. Personal lamp
- 8. Map lamp
- 11. Trunk room lamp switch
- B. Dash side lower (passenger side)
- 3. Step lamp
- 6. Door lock/unlock switch
- 9. Remote keyless entry receiver
- 12. Trunk room lamp
- C. Trunk lid lock assembly

Component Description

INFOID:0000000004239756

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.	

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

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

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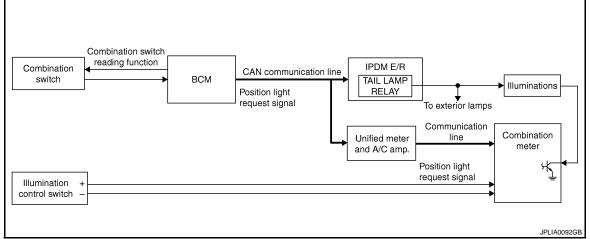
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ILLUMINATION CONTROL SYSTEM

System Diagram

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System Description

INFOID:0000000004239758

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 <u>MWI-25</u>, "<u>METER ILLUMINATION CONTROL</u>: <u>System Diagram"</u>.)

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

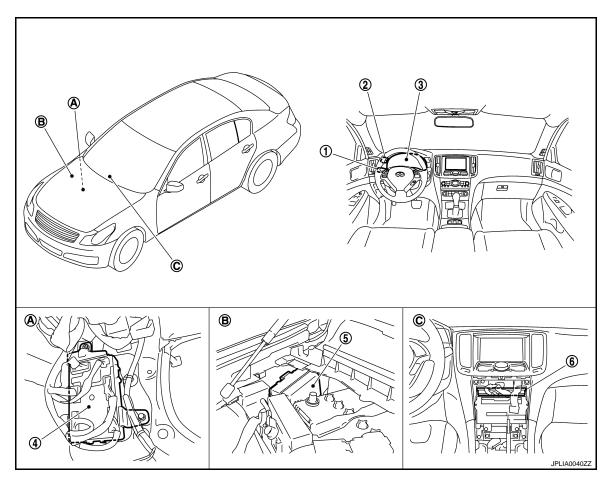
- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- IPDM E/R turns the integrated tail lamp relay ON according to position light request signal. It provides the power supply to each illumination lamp.
- Combination meter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

ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:0000000004239759



- 1. Combination switch
- 4. BCM
- A Dash side lower (passenger side)
- 2. Illumination control switch
- 5. IPDM E/R
- B. Engine room dash panel (RH)
- 3. Combination meter
- 6. Unified meter and A/C amp.
- C. Behind the cluster lid C

Component Description

INFOID:0000000004239760

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-6, "System Diagram".

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:0000000004678901

APPLICATION ITEM

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

Diagnosis mode	Function Description		
Work Support	Changes the setting for each system function.		
Self Diagnostic Result	Displays the diagnosis results judged by BCM.		
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.		
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.

x: Applicable item

System	Sub system selection item	Diagnosis mode		
System	Sub system selection item	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	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE

FREEZE FRAME DATA (FFD)

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

^{*:} This item is displayed, but is not used.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
s	SLEEP>LOCK		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" (Vehicle is stopping and selector lever is except P position.)	
	CRANK>RUN	Power position status of the moment a particular DTC is detected	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"	
Vehicle Condition	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" (Ignition switch OFF with steering is locked.)	
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	
	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 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON. 		

INT LAMP

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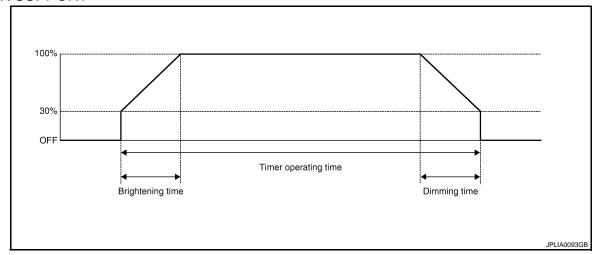
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INT LAMP : CONSULT-III Function (BCM - INT LAMP)

INFOID:0000000004239762

WORK SUPPORT



Service item	Setting item	Setting		
SET I/L D-UNLCK INTCON	ON*	With the interior room lamp timer function		
SET I/L D-UNLOK INTOON	OFF	Without the interior room lamp timer function		
	MODE 2	7.5 sec.		
ROOM LAMP TIMER SET	MODE 3*	15 sec.	Sets the interior room lamp ON time. (Timer operating time)	
	MODE 4	30 sec.		
	MODE 1	0.5 sec.		
	MODE 2*	1 sec.		
ROOM LAMP ON TIME SET	MODE 3	2 sec.	Sets the interior room lamp gradual brightening time.	
	MODE 4	3 sec.		
	MODE 5	0 sec.		
	MODE 1	0.5 sec.		
ROOM LAMP OFF TIME SET	MODE 2	1 sec.	Sets the interior room lamp gradual dimming time	
ROOM LAMP OFF TIME SET	MODE 3	2 sec.	Sets the interior room lamp gradual dimming time.	
	MODE 4*	3 sec.		
	MODE 1*	Interior room lamp timer activates with synchronizing all doors.		
R LAMP TIMER LOGIC SET MOD		Interior ro only.	om lamp timer activates with synchronizing the driver door	

^{*:} Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ACC RLY-F/B [On/Off]	NOTE: The item is indicated, but not monitored.
KEY SW-SLOT [On/Off]	Key switch status input from key slot

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW-BK [On/Off]	NOTE: The item is indicated, but not monitored.
CDL LOCK SW [On/Off]	Lock switch status received from door lock/unlock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from door lock/unlock switch by power window switch serial link
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder switch by power window switch serial link
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder switch by power window switch serial link
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description	
INT LAMP	On	Outputs the interior room lamp control signal to turn map lamp and personal lamp ON (Map lamp switch is in DOOR position).	
Off		Stops the interior room lamp control signal to turn map lamp and personal lamp OFF.	
STEP LAMP TEST On Off		Outputs the step lamp control signal to turn step lamp ON.	
		Stops the step lamp control signal to turn step lamp OFF.	
LUGGAGE LAMP TEST	On	Outputs the trunk room lamp control signal to turn trunk room lamp ON.	
LOGGAGE LAWIP TEST	Off	Stops the trunk room lamp control signal to turn trunk room lamp OFF.	

BATTERY SAVER

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

INFOID:0000000004239763

WORK SUPPORT

Service item	Setting item	Setting		
BATTERY SAVER SET	On*	With the e	exterior lamp battery saver function	
DATTERT SAVER SET	Off	Off Without the exterior lamp battery saver function		
ROOM LAMP BAT SAV SET	On*	With the interior room lamp battery saver function		
ROOM LAWF BAT SAV SET	Off	Without the interior room lamp battery saver function		
ROOM LAMP TIMER SET	MODE 1*	30 min. Sets the interior room lamp battery saver timer or		
ROOM LAWP TIMER SET	MODE 2	60 min.	time.	

^{*:} Factory setting

DATA MONITOR

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)
REQ SW-RR [On/Off]	NOTE:
REQ SW-RL [On/Off]	The item is indicated, but not monitored.
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ACC RLY-F/B [On/Off]	NOTE: The item is indicated, but not monitored.
KEY SW-SLOT [On/Off]	Key switch status input from key slot
UNLK SEN-DR [On/Off]	Driver door unlock status input from unlock sensor
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW-BK [On/Off]	NOTE: The item is indicated, but not monitored.
CDL LOCK SW [On/Off]	Lock switch status received from door lock/unlock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from door lock/unlock switch by power window switch serial link
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder switch by power window switch serial link
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder switch by power window switch serial link
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description	
BATTERY SAVER	Off	Cuts the interior room lamp power supply to turn interior room lamp OFF.	
	On	Outputs the interior room lamp power supply to turn interior room lamp ON.*	

^{*:} Each lamp switch is in ON position.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

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1. CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	
Pottony nower cumply	К	
Battery power supply	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.
- Check voltage between BCM harness connector and ground.

(Voltage		
BCM			(Approx.)
Connector Terminal		Ground	
M118	1	Glound	Battery voltage
M119	11		Dattery Voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M119	M119 13		Existed	

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

Description INFOID:000000004239765

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

Component Function Check

INFOID:0000000004239766

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY FUNCTION

PCONSULT-III ACTIVE TEST

- 1. Turn the ignition switch ON.
- 2. Turn each interior room lamp ON.
- Map lamp
- Personal lamp
- Step lamp
- Vanity mirror lamp
- Trunk room lamp
- 3. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- 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-20, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004239767

1. CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

(P)CONSULT-III 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	
(+)		(-)	iest itemi	Voltage (Approx.)
BCM			BATTERY	
Connector	Terminal		SAVER	
		Ground	Off	0 V
M119	4		On	Battery voltage

Is the measurement value normal?

YES >> GO TO 2.

NO >> Replace BCM.

2.CHECK INTERIOR ROOM LAMP POWER SUPPLY OPEN CIRCUIT

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

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INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

ВС	М	Each interior room lamp		np	Continuity
Connector	Terminal	Connecto	r	Terminal	Continuity
		Map lamp	R15	1	
		Personal lamp	R14	1	
		Vanity mirror lamp (LH)	R12	2	
M119	4	Vanity mirror lamp (RH)	R13	2	Existed
	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.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M119	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.

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INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description INFOID:000000004239768

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:0000000004239769

CAUTION:

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

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

${f 1}$.CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

(P)CONSULT-III ACTIVE TEST

- 1. Switch the map lamp switch to DOOR.
- Turn the ignition switch ON.
- Select "INT LAMP" of BCM (INT LAMP) active test item.
- 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-22, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004239770

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

(P)CONSULT-III ACTIVE TEST

- 1. Turn the ignition switch OFF.
- Remove all the bulbs of map lamp and personal 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			Test item	Continuity
Connector	Terminal	Ground	INT LAMP	Continuity
M119 19	10	Ground	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

- Turn the ignition switch OFF.
- Disconnect BCM connector, map lamp connector and personal lamp connector.
- 3. Check continuity between BCM harness connector, map lamp harness connector, and personal lamp harness connector.

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

ВС	M	Map lamp/personal lamp			Continuity
Connector	Terminal	Conr	nector	Terminal	Continuity
		Map lamp	R15	2	
M119	19	Personal lamp	R14	3	Existed

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Does continuity exist?

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

NO >> Repair the harnesses or connectors.

3.check interior room Lamp control short circuit

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

В	СМ		Continuity
Connector	Connector Terminal		Continuity
M119	19		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

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Revision: 2009 October INL-23 2009 G37 Sedan

STEP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

STEP LAMP CIRCUIT

Description INFOID:000000004239771

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

Component Function Check

INFOID:0000000004239772

CAUTION:

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

- Interior room lamp power supply
- Step lamp bulb
- 1. CHECK STEP LAMP OPERATION

(P)CONSULT-III ACTIVE TEST

- 1. Turn the ignition switch ON.
- 2. Select "STEP LAMP TEST" of BCM (INT LAMP) active test item.
- 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-24, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004239773

1. CHECK STEP LAMP OUTPUT

®CONSULT-III ACTIVE TEST

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

В	CM		Test item	
Connector	Terminal	Ground	STEP LAMP TEST	Continuity
M119	7		On	Existed
WITTS	,		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.
- Check continuity between BCM harness connector and step lamp harness connector.

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

STEP LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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.

В	СМ		Continuity
Connector	Connector Terminal		Continuity
M119	M119 7		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

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TRUNK ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

TRUNK ROOM LAMP CIRCUIT

Description INFOID:000000004239774

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

Component Function Check

INFOID:0000000004239775

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

(P)CONSULT-III 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-26, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004239776

1. CHECK TRUNK ROOM LAMP OUTPUT

(P)CONSULT-III ACTIVE TEST

- 1. Turn the ignition switch OFF.
- 2. Remove the trunk room lamp bulb.
- 3. Turn the ignition switch ON.
- 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.

В	CM		Test item	
Connector	Terminal	Ground	LUGGAGE LAMP TEST	Continuity
M120	30	_	On	Existed
IVITZO	30		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.
- Check continuity between BCM harness connector and trunk room lamp harness connector.

В	ВСМ		Trunk room lamp	
Connector	Terminal	Connector	Terminal	Continuity
M120	30	B47	2	Existed

Does continuity exist?

YES >> Replace trunk room lamp.

TRUNK ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair 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.

В	СМ		Continuity
Connector	Connector Terminal		Continuity
M120	30		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

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PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

Description INFOID:000000004239777

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

Component Function Check

INFOID:0000000004239778

1. CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION OPERATION

®CONSULT-III 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-28, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004239779

${f 1}.$ 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.

ВСМ		Push-button ignition sw		Continuity
Connector	Terminal	Connector Terminal		Continuity
M119	14	M50	2	Existed

Does the continuity exist?

YES >> Replace BCM.

NO >> Repair the harness or the connector.

${f 3.}$ CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY OUTPUT

©CONSULT-III ACTIVE TEST

- Turn the ignition switch ON.
- 2. Select "ENGINE SW ILLUMI" of BCM (INTELLIGENT KEY) active test item.
- With operating the test item, check voltage between BCM harness connector and the ground.

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Terminals			Test item	
(+)		(-)	iest item	Voltage
ВСМ		ENGINESW		(Approx.)
Connector	Terminal	Ground	ILLUMI	
M123	M123 133	Ground	ON	5 V
	133		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

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

ВСМ		Push-button	Continuity	
Connector	Terminal	Connector Terminal		Continuity
M123	133	M50	3	Existed

Does the continuity exist?

YES >> Replace the push-button ignition switch.

NO >> Repair the harness or the connector.

${f 5.}$ CHECK PUSH-BUTTON IGNITION SWITCH ILLUMINATION POWER SUPPLY SHORT CIRCUIT

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

BCM			Continuity
Connector	Terminal	Ground	Continuity
M123	133		Not existed

Does the continuity exist?

YES >> Repair the harness or the connector.

NO >> Replace BCM. INL

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INL-29 Revision: 2009 October 2009 G37 Sedan

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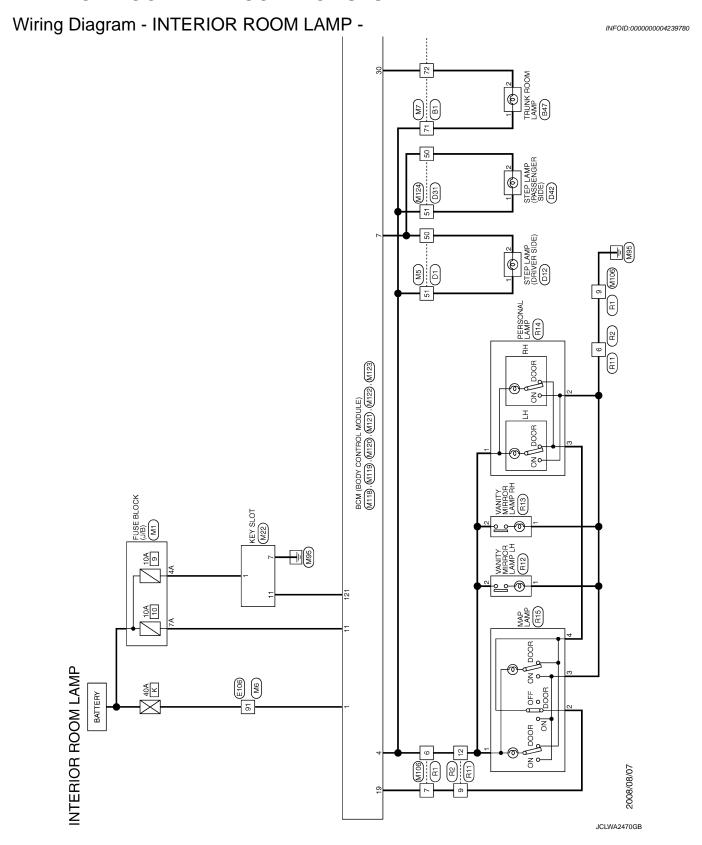
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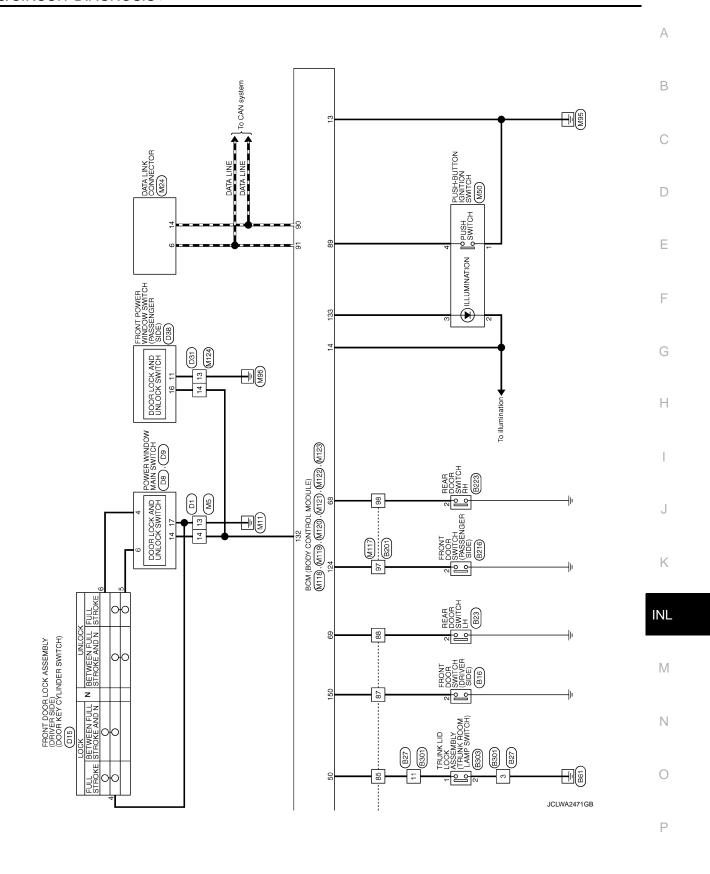
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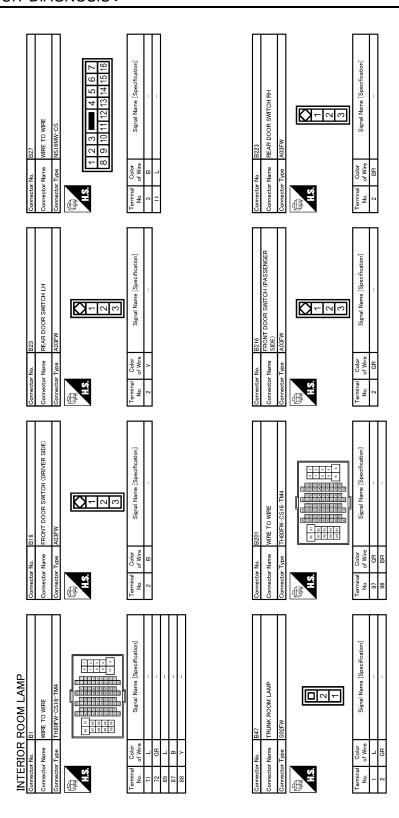
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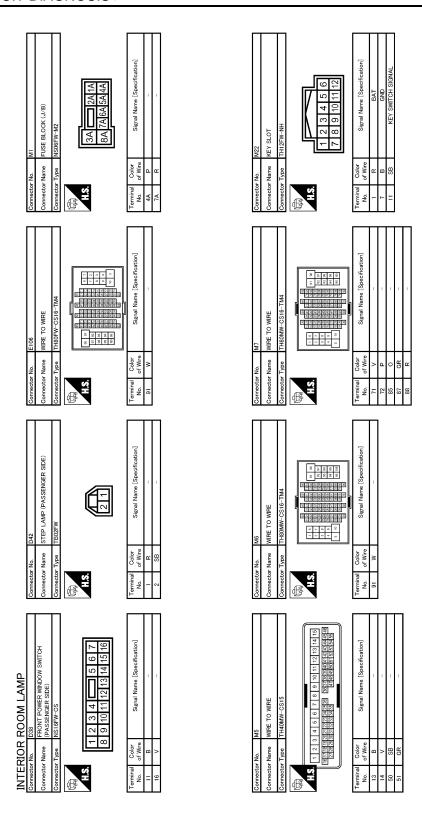


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< DTC/CIRCUIT DIAGNOSIS >

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DOWER WINDOW MAIN SWINSIGFW-CS. 1 2 3 4	Signal Name (Specification)	Name MME TO WRE TH40FW-CS15 TH40FW-CS15 TH41FW-CS15 TH41FW-C	Signal Name [Specification]		В
Connector No. Connector Type Connector Type H.S.	New Color New Ne	Connector No. Connector Name Connector Type HS 1514	Color Color Color O Wire O Wi		D
3 2 1	[oation]	SLY (DRIVER	ontonj		Е
NRE	Signal Name [Specification]	DIS FRONT DOOR LOCK ASSEMBLY (DRIVER BOBFGY-RS	Signal Name [Specification]		F
-No. D1 -Name WIRE TO WIRE -Type TH40FW-CS15 -Tse 12 12 1	Octor of Wire SB X X		O Wire		G
Connector No Connector Name Connector Type 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.	Terminal No. 113 134 550 551 51	Connector No. Connector Name Connector Type	No. No. P. C.		Н
ASSEMBLY	Signal Name (Specification)	(FR SIDE)	Signal Name [Specification]		I
B300 TRUNK LID LOOK ASSENBLY TB03FW	Signal N	D12 STEP LAMP (DRIVER SIDE) TBOZFW	Signal Na		J
Connector No.	Terminal Color	Connector No.	Terminal Color No. of Wire 2 SB		K
	[voj		[loo]		INL
0 0 2	Signal Name [Specification]	DB POWER WINDOW MAIN SWITCH NSDBFW-CS	Signal Name [Specification]		M
RE301 WIRE TO					Ν
INTERIOR Connector No. Connector Name Connector Type H.S.	Color No. Of Wire No.	Connector No. Connector Name Connector Type	Color Color No. Of Wire Of Wire		0
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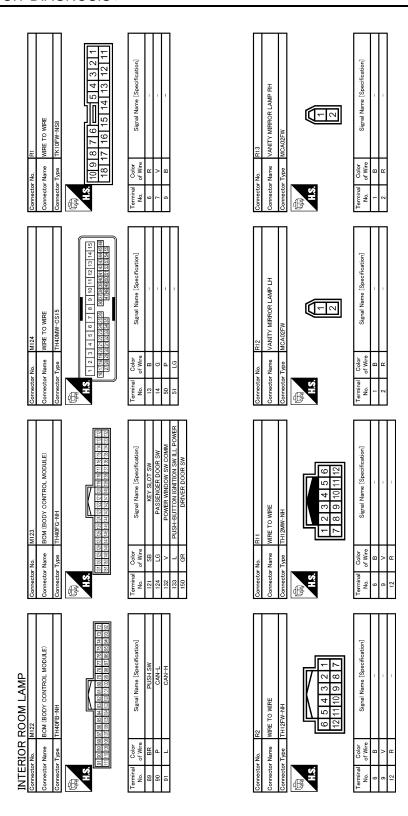


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< DTC/CIRCUIT DIAGNOSIS >

Connector No. MI17 Connector Name WIRE TO WIRE Connector Type TH80MW-CS16-TM4 Line The Lin	Connector No. M12		A B C
MIDG Connector Name WIRE TO WIRE	M120 Connector Name BOM (BODY CONTROL MODULE) Connector Type NS12PW-CS MS12PW-CS MS12PW-		E F G
MSO MSO Connector Name PUSH-BUTTON IGNITION SWITCH	Connector No. MI19		J K
INTERIOR ROOM LAMP Connector Name DATA LINK CONNECTOR	Connector No. Connector Type MASFB-LC Connector Type MASFB-LC Connector Type MASFB-LC Terminal Color No. of Wire T W BAT (F/L)	JCLWA2475GB	M N
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INTERIOR ROOM LAMP CONTROL SYSTEM

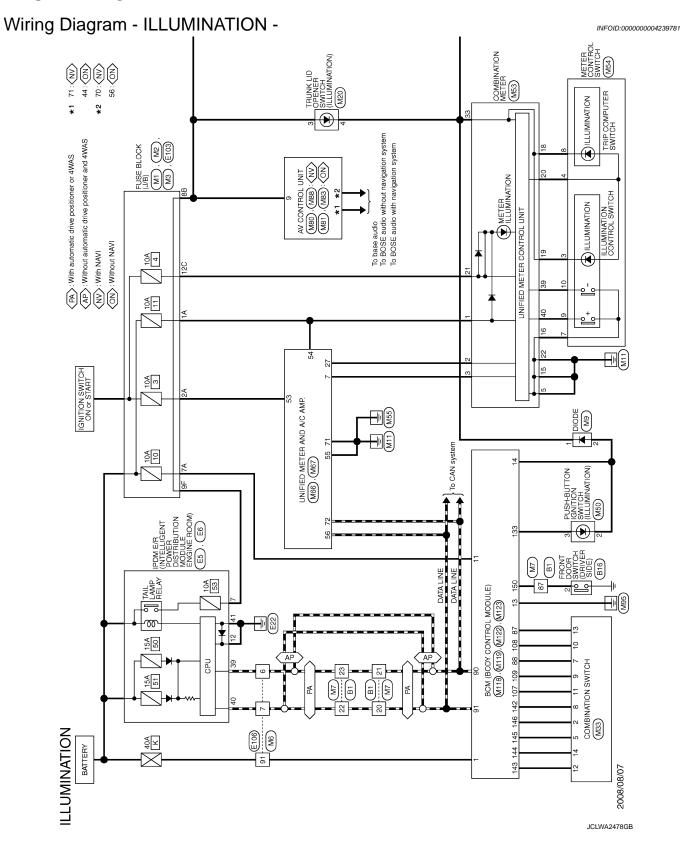
Connector No B15	ı	Connector Name MAP LAMP	Connector Type TK08FGY	HS 87654321	Terminal Color Signal Name [Specification] No.	1 R -	2 V	3 B -	- 4
INTERIOR ROOM LAMP	ı	Connector Name PERSONAL LAMP	Connector Type TH04FW-NH	#8 13 13 13 13 13 13 13 13 13 13 13 13 13	Terminal Color Signal Name [Specification]	1 R -	2 B -	3 \	

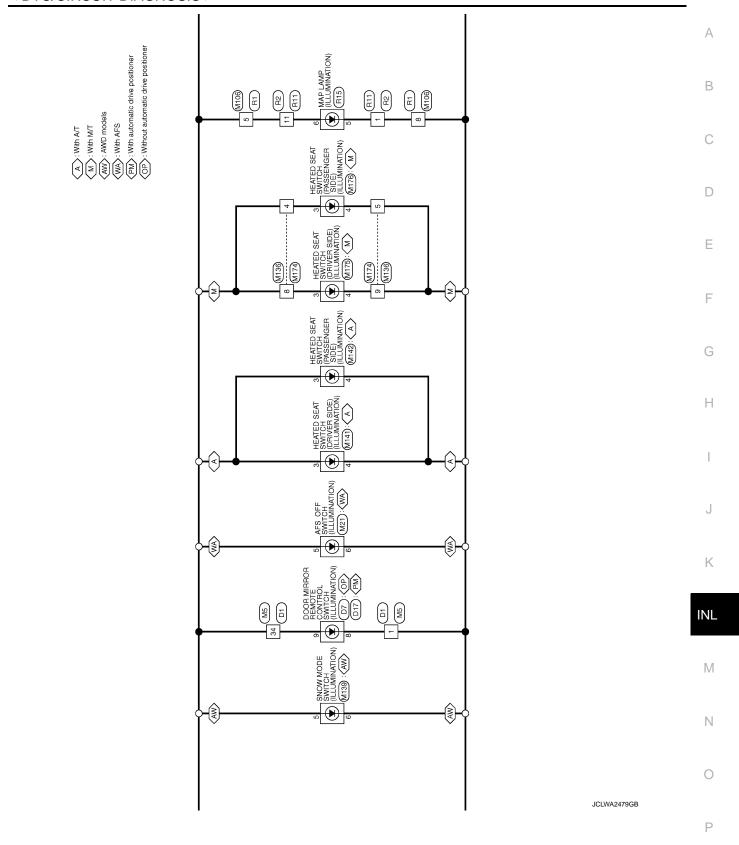
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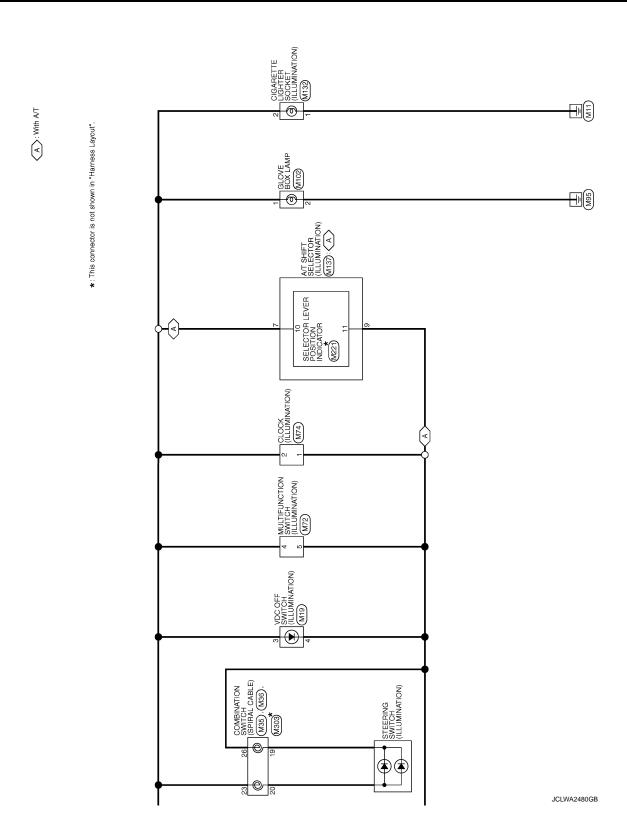
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ILLUMINATION







ILLUMINATION

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DOTOM MIRROR FEMORE CONTROL TALISPW 2 3 4	FW-CS FW-CS FW-CS FW-TCS FW-TC	В
Connector No. D7	Connector No. E 103 Connector Name FUSE BL Connector Type INSIGN MSI Color No. of Wive SF R	D
	WER ROOM) State ROOM) State Rooting	Е
No. DI Type TTH40FW-CS15 Type TTH40FW-CS16 TS A 13 2 TS A 13 2 11 10 9 8 7 6 5 4 3 2 TS A 25 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	E6 IPOM E/R (INTELLIGENT POWER THOBEW-NH THOBEW-NH 42 41 40 30 46 45 44 43 Signal Name [Specification]	F
Connector No. DI Connector Name WIRE TO WIRE Connector Type TH40FW-CS15 Connector Type TH40FW-CS15 Connector Type TH40FW-CS15 Connector Type TEST TS TS TS TS TS TS	Commetter No. E6 Commetter Name DISTM Commetter Type TH/08I No. of Wire A1 B./W	G
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BI 6 A03FW Signal Name [Specification]	ES IPOM E./R (INTELLIGENT POWER IPOM E./R (INTELLIGENT POWER TH20FW-CS12-M4-IV TH20F	I
Signal Nam	No. E5	J
Connector No. B16 Connector Name FRONT Connector Type A03FW Terminal Color No. of Wire 2 B	Connector No E3	К
		INL
N-CSIG-TM4 W-CSIG-TM4 Signal Name [Specification]	D17 DOOR MERCR FEMOTE CONTROL TKIEFER 2 3 4 5 5 6 7 9 10 11 12 13 14 15 16 Signal Name [Specification]	M
		N
ILLUMINATION Connector No. B1 Connector Name WIRE TO Connector Type TH80FW Connector Typ	Commetter No. Commetter Name Commetter Type Terminal Coolor No. of Wire 9 R R R R R R R R R R R R	0
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Connector No. E106	Connector No. M1	Connector No.	M2	Connector No. M3
Connector Name WIRE TO WIRE	Connector Name FUSE BLOCK (J/B)	Connector Name	e FUSE BLOCK (J/B)	Connector Name FUSE BLOCK (J/B)
Connector Type TH80FW-CS16-TM4	Connector Type NS06FW-M2	Connector Type	NS10FW-CS	Connector Type NS12FW-CS
**************************************	1.5. 3.4 2.4.1.4 8.4.7.4.6.4.4.4.4	H.S.	4E 3B 7E 6E 5E 10 108 9B 8B 7E 6E 5E	H.S. 5040 3020 10 120110100000000000000
Terminal Color Signal Name [Specification]	Terminal Color Signal Name [Specification]	Terminal Color No. of Wire	or Signal Name [Specification]	Terminal Color Signal Name [Specification]
7 L =	2A G 7A R R	-		ZO R =
Connector No. M5	Connector No. M6	Connector No.	M7	Connector No. M9
	Connector Name WIRE TO WIRE	Connector Name		Connector Name DIODE
Connector Type TH40MW-CS15	Connector Type TH80MW-CS16-TM4	Connector Type	TH80MW-CS16-TM4	Connector Type 24335_C9900
	S 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2	H.S.		HS HS HS HS HS HS HS HS HS HS HS HS HS H
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	- W 16	22 6		
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митсн 11 12 13 14	Signal Name [Specification] OUTPUT 4 OUTPUT 3 OUTPUT 5 INPUT 3 OUTPUT 4 INPUT 1 INPUT 5 OUTPUT 1			В
M33 COMBINATION SWITCH THIGFW-NH 1 2 3 4 4 7 8 9 10 11 12				С
Connector No. Connector Name Connector Type	Color			D
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V V V	Signal Name [Specification]	MSO TKOSFBR 1		F
No. MZ1 Name AFS OFF SWITCH Type TKG6FW-1V 5 6 7	Octor	M50 PUSH-BIL TXG0FER		G
Connector No Connector Name Connector Type H.S.	Terminal No.	Connector Name Connector Name Connector Name Terminal Color No. of Wir. 3 W		Н
нот	peofication]	(SPIRAL OABLE)		I
M20 TRUNK LID OPENER SWITCH TKO4FW	Signal Name [Specification]	M36 COMBINATION SWITCH (SPIRAL CABLE) TK08FGY-1V 24 25 26 27 31 32 33 34 Signal Name [Specification]		J
ector No. ector Name ector Type	inal Color of Wire LG	ector No. ector Name ector Type cotor Type c		K
Oom Oom	Terminal No. 10 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4			INL
	Signal Name (Specification)	TTON SWITCH (SPIRAL CABL) EX-1V 21 22 23 20 28 29 30 Signal Name [Specification]	'	M
TION MIS VDC OFF SWITCH TKORFGY	Signal Nam	M35 COMBINATION SWITCH (SPIRAL CABLE) TK06FY-EX-1V 21 22 23 28 29 30 Signal Name [Specification]		N
ector No.	Color Colo	ector No. ector Name ector Type ector Type Color o of Wire B		0
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Most	Terminal Color Signal Name [Specification] Of Wire Specification Of Wire Specification Of Wire Of Wire Of Wall Nicotation Signal (AMPTER->AMP.) 27 LG COMMUNICATION SIGNAL (METER->AMP.)	Connector Name AV CONTROL UNIT (WITH NAVI) Connector Type THIBFW-CS2 12 3 4 5 6 7 8 9 19 10 11 12 13 14 15 16 17 18 20	Terminal Color Of Wire Signal Name [Specification] No. of Wire ILLUMINATION
Connector No. M64 Connector Name METER CONTROL SWITCH Connector Type THI2PW-NH M.S. 1 2 3 4 5 6 7 8 9 10 11 12	Terminal Color Signal Name (Specification) 3 8 -	Connector No. M74 Connector Name CLCCK Connector Type THO4FW-NH M.S.	Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] 1 B ILLUMINATION (+) 2 L ILLUMINATION (+)
33 R ILLUMINATION CONTROL SIGNAL 39 P ILLUMINATION CONTROL SWITCH SIGNAL (*) 40 O ILLUMINATION CONTROL SWITCH SIGNAL (*)		Connector No. M72 Connector Name MULTICUNCTION SWITCH Connector Type THISFW-NH H.S. 2 4 6 8 10 12 14 16 1 3 5 7 9 11 13 15	Terminal Color Signal Name [Specification] A
Commercior No. M83 Commercior No. M83 Commercior No. M83 Commercior Name Combathanton METER Connector Type SAB40FW Connector Type SAB40FW SA	Terminal Color Signal Name [Specification] 1 V Wre Signal Name [Specification] 1 V BATTERY POWER SUPPLY 2 LG COMMUNICATION SIGNAL (MATER->AMP.) S B CHOMINICATION SIGNAL (MATER->AMP.) S B CHOMINICATION SIGNAL (MATER->AMP.) S B CHOMINICATION SIGNAL (MATER-COLIND IS B MATER CONTROL SWITCH GROUND IS GR ILL GND IL	Connector No. M67	No. Color Signal Name [Spendination]

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ILLUMINATION

No. M102 Type A02FW Color	No. of Wire Signal Name (Specification) 1 R	Connector No. M122 Connector Name BCM (BODY CONTROL MODULE) Connector Type ITH40FB-NH H.S. IS NOT SEED TO BE THE THE THE THE THE THE THE THE THE TH	Terminal Color Signal Name [Specification] No Wire Signal Name [Specification] No Wire Signal Name [Specification] No Wire No COMBI SW INPUT No Wire Wir	A B C
No. M88 Type THIEPW 100 60 60 60 60 60 60 60 60 60 60 60 60 6	No. of Wire Signal Name Specification No. of Wire Signal Name Specification	Connector No. M119 Connector Name BCM (BODY CONTROL MODULE) Connector Type NS16FW-CS 1.1.1.2.1.3.14.15.16.17.18.19	Terminal Color Signal Name Specification Name Specification Name Specification Name Specification Name Specification Name	E F G
No. M83 Type TH24FW Type T4746 45 4414 59 58 57 56 55 60 oder	No. of Wre Signal Name [Specification] 44 BR COMM (DISE>-CONT) 56 Y COMM (CONTY-)DISP)	Connector No. MITS Connector Name BCM (BODY CONTROL MODULE) Connector Type MOSFB-LC T 1 3 H.\$	Tarminal Color Signal Name (Specification) No. W BAT (F/L)	J K
Name AV CONT AV CONT	No. of Wre Sigral Nane (Specification) 9 L. ILLMINATION	Connector No. M106 Connector Type TK10MW-NS8	Terminal Color of Wire Signal Name [Specification] 5 of Wire 5 8 B	INL M N O JCLWA2485GB
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Connector No. M136 Connector No. M137	Connector Name WIRE TO WIRE Connector Type THIEPW-NH	HS 6 5 4 3 2 1 1 2 3 4 5 6 1 2 11 10 9 8 7 7 8 9 10 11 12	Terminal Color Signal Name [Specification] No. of Wire No. of Wi	Connector No. MI42 Connector No. MI42 Connector No. MI74	Terminal Color Signal Name Specification No. of Wire No. of Wire
Connector No. M132	e e	HS HS	Terminal Color Signal Name Specification Color B	Connector No. M141 Connector Name (WITH A.71) Connector Type TK (0FW H. K	Terminal Color Signal Name [Specification] No. of Wire Signal Name Color
ILLUMINATION Connector No. M123	e e	11.5 国际政治的 医阿拉克氏 医阿克克氏 医克克氏 医	Terminal Color Signal Name [Specification] No. of Wire No. of Wire 133	Connector No. MI39 Connector Name SNOW WODE SWITCH Connector Type TK08FW TK1S Em 4 S 6 1 2	Color Signal Name [Specification] Color Signal Name [Specification] Color Color

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ILLUMINATION

Connector No. M303	Connector No. R15 Connector Name MAP LAMP Connector Type TX08FGY ALS Terminal Color No. of Wire Signal Name [Specification] 5 B B 6 Y	A B C
		E
MAZ1 THIZPW THIZPW Signal Name [Specification] ILL GND	NINE TO WIRE THIZAWN-NH 1 2 3 4 5 6 7 8 9 10 11 12 Signal Name [Specification]	F
Cornector No. MZ2I Connector Name SELE Connector Types 1412 1.1	Connector No. R11 Connector Name WIR Connector Type THI Connector Type Of Wire No. of Wire I B B B B B B B B B B B B B B B B B B B	G
		Н
MI76 HEA/IDD SEAT SWITCH (PASSENGER SIDE) WITH M/T) TYGGF BR Signal Name [Specification]	NTRE TO WIRE THIZEW-NH 6 5 4 3 2 1 121110 9 8 7 Signal Name [Specification]	J
Connector No. M176 Connector Name (HEAT Connector Type TK08 Connector Type (TK08) Connector Type (TK08) Connector Type (TK08) Color (TW16) 3 R R 3 4 W 4	Connector No. R2 Connector Name Wiff Connector Type TTH Connector Type TTH No. of Wire I B B I B B	К
SIDE)		INL
TION MITS FEATED SEAT SWITCH (DRIVER SIDE) WITH MAT) TKIGFW Signal Name [Specification]	14 13 12 12 12 12 13 12 13 12 13 13	М
	MIRE TO WIRE TO 17 16 17 16 18 7 10 18 7 10 18 1 10 18	N
ILLUMINATION M175	Connector No. Connector Name Connector Type 10 9 Terminal No. of Wire 5 B B B	0
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< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FR WIFER HI	Front wiper switch HI	On
ED WIDED I OW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
FR WIFER IN	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
TR WIFER STOF	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dia position
TUDNI CICNIAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TORN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
TAIL LAIVIP SVV	Lighting switch 1ST or 2ND	On
LI DEAM CW	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
HEAD LAMB SW 4	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
HEAD LAMB SW 2	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
ED EOC SW	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOD CW DD	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
DOOD CVA AC	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOD 6111 DE	Rear RH door closed	Off
DOOR SW-RR	Rear LH door opened	On

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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-RL	Rear LH door closed	Off
DOOK SW-KL	Rear LH door opened	On
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
DL LOCK 3W	Power door lock switch LOCK	On
CDL LINII OCK SW	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
CEV CVI LIC CVI	Other than driver door key cylinder LOCK	Off
(EY CYL LK-SW	Driver door key cylinder LOCK	On
CEV CVI LINI CW	Other than driver door key cylinder UNLOCK	Off
(EY CYL UN-SW	Driver door key cylinder LOCK	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
1474DD 8\4/	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
D CANCEL SW	Trunk lid opener cancel switch OFF	Off
R CANCEL SW	Trunk lid opener cancel switch ON	On
D/DD ODEN CW	Trunk lid opener switch OFF	Off
R/BD OPEN SW	While the trunk lid opener switch is turned ON	On
DAUZ/LIAT MANTO	Trunk lid closed	Off
RNK/HAT MNTR	Trunk lid opened	On
OKE LOOK	LOCK button of the Intelligent Key is not pressed	Off
RKE-LOCK	LOCK button of the Intelligent Key is pressed	On
NKE LINII OOK	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
NE TD/PD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On
OKE DANIO	PANIC button of the Intelligent Key is not pressed	Off
RKE-PANIC	PANIC button of the Intelligent Key is pressed	On
DIVE DAM ODEN	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-P/W OPEN	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
ODTICAL OFFICES	Bright outside of the vehicle	Close to 5 V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V
250 014/ 25	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On

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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
DEO SW. DD/TD	Trunk lid opener request switch is not pressed	Off
REQ SW -BD/TR	Trunk lid opener request switch is pressed	On
DUCH OW	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
IGN KL12 -F/B	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCII CW	The clutch pedal is not depressed	Off
CLUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	 Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models) 	Off
DETE/CANCL SW	 Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) 	On
OFT DN/N OW	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
C/L LOCK	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
3/L -UNLOCK	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
S/L RELAT-F/D	Ignition switch in ON position	On
UNLK SEN -DR	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
FOSITOW -IFDIVI	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
IGN KLI I -F/B	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
DETE SW -IF DIVI	Selector lever in P position	On
CET DN IDDM	 Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models) 	Off
SFT PN -IPDM	 Selector lever in P or N position (Except M/T models) The clutch pedal is depressed (M/T models) 	On
OFT D 1457	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK IDDM	Steering is unlocked	Off
S/L LOCK-IPDM	Steering is locked	On
2/L LINII IZ IDDM	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
5/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
OOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
D OK FLAG	Steering is locked	Reset
D OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
- KWII LNG STKI	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
NET 300 -SLOT	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
OON NWID ALL	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 registered to BCM.	Yet
OONFINIVI ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONEIDM ID2	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

Monitor Item	Condition	Value/Status			
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet			
COM IKW ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done			
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet			
CONFIRMIDI	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			
1P 4	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			
173	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			
IP 2	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			
IFI	The ID of first Intelligent Key is registered to BCM				
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 REGST FLT	ID of front LH tire transmitter is not registered	Yet			
ID REGST FR1	ID of front RH tire transmitter is registered	Done			
ID REGST FRT	ID of front RH tire transmitter is not registered	Yet			
ID REGST RR1	ID of rear RH tire transmitter is registered	Done			
ID REGST RRT	ID of rear RH tire transmitter is not registered	Yet			
ID DECCE DI 4	ID of rear LH tire transmitter is registered	Done			
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet			
MADNING LAND	Tire pressure indicator OFF	Off			
WARNING LAMP	Tire pressure indicator ON	On			
DUZZED	Tire pressure warning alarm is not sounding	Off			
BUZZER	Tire pressure warning alarm is sounding	On			

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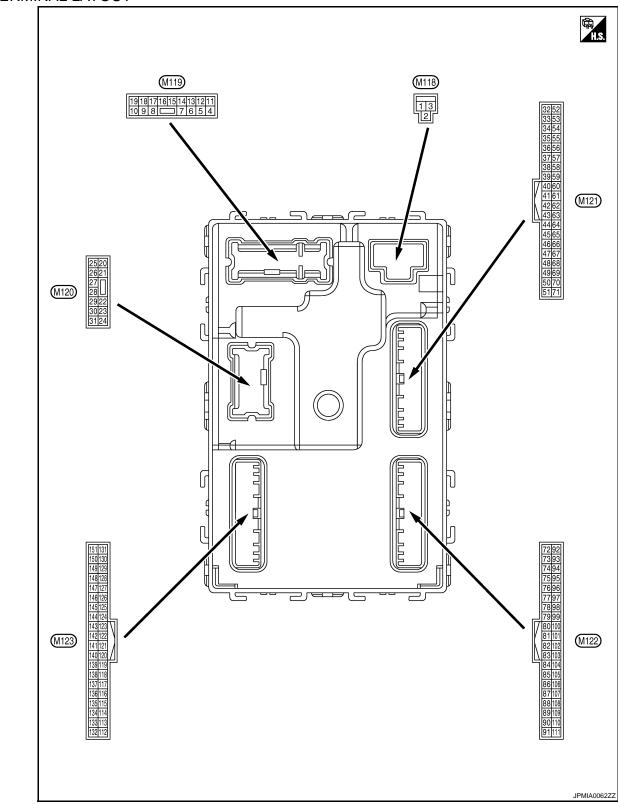
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TERMINAL LAYOUT



PHYSICAL VALUES

Revision: 2009 October INL-53 2009 G37 Sedan

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (OFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (DFF	12 V
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch (ON	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	0	Passenger door UN-	Outrout	Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Ground	LOCK	Output	door	Other than UNLOCK) Actuator is not activated	0 V
7	O	Otan Inna	0	Otan Ianan	ON	0 V
(BR)	Ground	Step lamp	Output	Step lamp	OFF	12 V
8	Ground	All doors, fuel lid	Output	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Ground	LOCK	Output	lid	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output D	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output		Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and	Output	Rear RH door and rear LH	UNLOCK (Actuator is activated)	12 V
(BR)	Ordana	rear LH UNLOCK	Odiput	door	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 (NC	0 V
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(0)					ACC	0 V

	nal No. color)	Description			Caradisia n	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH	0 V
					Turn signal switch OFF	PKID0926E 6.5 V 0 V
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	15 10 5 0 1 s PKID0926E 6.5 V
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF ON	12 V 0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH	0 V (V) 15 10 1 FKID0926E 6.5 V
23 (L)	Ground	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated) Other than OPEN (Trunk lid opener actuator is not activated)	12 V 0 V
					Turn signal switch OFF	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s
30				Trunk room	ON	6.5 V 0 V
	Ground	Trunk room lamp	Output	lamp	OFF	12 V

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
34		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 S S S S S S S S S
(SB)	Ground	(–)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 1
35	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(V)	Glodina	(+)	Сири	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
38	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	Giodila	na (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

	nal No.	Description			_	Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
39	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(W)	Cround	na (+)	Сири	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
47		Ignition relay (IPDM			OFF or ACC	12 V
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V
50 (O)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (Trunk lid is opened)	0 V
				Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V
52	Ground	Starter relay control	Output	els)	When selector lever is not in P or N position	0 V
(SB)	Ground	Clarici Telay Control	Output	Ignition switch ON (M/T mod-	When the clutch pedal is depressed	Battery voltage
				els)	When the clutch pedal is not depressed	0 V
					ON (Pressed)	0 V
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 10 ms JPMIA0016GB
	1					1.U V
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Pressed Not pressed	0 V (V) 15 10 5 0 JPMIA0011GB 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes) ON (When rear RH door	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					opens)	
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (When rear LH door opens)	11.8 V
72		Room antenna 2 (–)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(R)	Ground	(Center console)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

	nal No. color)	Description			Constitue	Value	_
+	-	Signal name	Input/ Output		Condition	(Approx.)	,
73		Room antenna 2 (+)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	C
(G)	Ground	(Center console)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	F
74		Passenger door an-		When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	F
(SB)	Ground	tenna (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	IN
				When the pas-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	N
75 (BR)	Ground	Passenger door antenna (+)	Output	senger door request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	F

	nal No. color)	Description			0 177	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
76	When the driver door antenna		When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB			
(V)	Ground	(-)	Output	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
77	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(LG)	Glound	(+)	Сири	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
78	Ground	Room antenna 1 (–)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(Y)	Giouria	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	

color)	İ			O 11.1	Value	
_	Signal name	Input/ Output		Condition	(Approx.)	
Cround	Room antenna 1 (+)	Output	lgnition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 JMKIA0062GB	
Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	
Ground	NATS antenna amp (Built in key slot)	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.	
Ground	NATS antenna amp (Built in key slot)	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.	
Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V 12 V	
Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB	
Ground	receiver communica- tion	Output	When operating gent Key	geither button on the Intelli-	(V) 15 0 1 ms JMKIA0065GB	
	Ground	Ground (Instrument panel) Ground NATS antenna amp (Built in key slot) Ground Ignition relay [Fuse block (J/B)] control Ground Remote keyless entry receiver communica-	Ground (Instrument panel) Ground NATS antenna amp (Built in key slot) Ground NATS antenna amp (Built in key slot) Ground Ignition relay [Fuse block (J/B)] control Output Ground Remote keyless entry receiver communica-	Ground NATS antenna amp (Built in key slot) Ground NATS antenna amp (Built in key slot) Ground NATS antenna amp (Built in key slot) Ground Ignition relay [Fuse block (J/B)] control Output Ignition switch During waiting During waiting During waiting During waiting	Ground Room antenna 1 (+) (Instrument panel) Output Ignition switch OFF	

	nal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA00410
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037G
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA00400

Signal name Output Output Public Condition (Approx.) All switches OFF (Wiper intermittent dial 4) Lighting switch HI (Wiper intermittent dial 4) Lighting switch HI (Wiper intermittent dial 4) Lighting switch Public	nal No.	Description				Value	٨	
All switches OFF (Wiper intermittent dial 4) Lighting switch HI (Wiper intermittent dial 4) Lighting switch Public	 	Signal name	Input/ Output		Condition		А	
Base of Combination switch Input Combination switch (Niper intermittent dial 4) Lighting switch HI (Wiper intermittent dial 4) Lighting switch PND (Wiper intermittent dial 4) Any of the conditions below with all switches OFF 100 (Wiper intermittent dial 4) Any of the conditions below with all switches OFF 100 (Wiper intermittent dial 2) Wiper intermittent dial 1 (Wiper intermittent dial 2) Wiper intermittent dial 2) Wiper intermittent dial 3 Pressed 0 V Not pressed 0 V Not pressed 0 V Battery voltage M OFF 0 OV Push-button ignition switch (push switch) Not pressed 0 V Battery voltage M OFF 0 OV Push-button ignition switch (push switch) Not pressed 0 V Battery voltage M Pressed 0 V Not pressed 0 V Battery voltage M Pressed 0 V Battery voltage M Pressed 0 V R					10 5 0 2 ms	С		
Any of the conditions below with all switchs OFF Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper	Ground		loout				10 5 0 2 ms	F
Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 3 • Volume intermittent dial 3 • Wiper intermittent dial 3 • Wiper intermittent dial 3 • Volume intermittent dial 2 • Wiper intermittent dial 3 • Volume intermittent dial 2 • Wiper intermittent dial 3 • Volume intermittent dial 2 • Wiper intermittent dial 2 • Wiper intermittent dial 2 • Volume int	Ground	INPUT 3	Input			10 5 0 2 ms JPMIA0037GB	G H	
Section Ground Push-button ignition Switch (Push switch) Input Input Not pressed Battery voltage Mot pressed Mot pre					low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2	10 5 0 2 ms	J K	
90 Ground CAN-L Input/ Output — — — — — — — — — — — — — — — — — — —	Ground	Push-button ignition switch (Push switch)	Input	nition switch		0 V	M	
(L) Ground CAN-H Output OFF 0 V Ground Key slot illumination Output Key slot illumination P Solution CAN-H Output OFF OV	Ground	CAN-L			_	_		
92 (LG) Ground Key slot illumination Output Key slot illumination Blinking Blinking Output Fey Slot illumination Output Sey Slot illumination Output Fey	Ground	CAN-H			_	_	Ν	
92 (LG) Ground Key slot illumination Output Key slot illumination Blinking Blinking Output Rey slot illumination					OFF	0 V	0	
	Ground	Key slot illumination	Output		Blinking	10 5 0 1 s JPMIA0015GB		
					ON			

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(-)					ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	Cround	7100 Tolay oomiloi	Output	ignition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	Ground	tion No. 1	iliput	Steering lock	UNLOCK status	12 V
98	Ground	Steering lock condi-	Innut	Steering lock	LOCK status	12 V
(P)	Giodila	tion No. 2	Input	Steering lock	UNLOCK status	0 V
		Selector lever P posi-			P position	0 V
		tion switch (A/T models)		Selector lever	Any position other than P	12 V
99		ASCD clutch switch (M/T models without	ASCD clutc	ASCD clutch	OFF (Clutch pedal is depressed)	0 V
(R)* ¹ (BR)* ²	Ground	ICC)	Input	out switch	ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is depressed)	0 V
	T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V	
					ON (Pressed)	0 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA001 1.0 V
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA001
102 (O)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC	0 V 12 V
103 (L)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch (DFF	12 V
106		Steering lock unit			OFF or ACC	12 V
(W)	Ground	power supply	Output	Ignition switch	ON	0 V

< ECU DIAGNOSIS INFORMATION >

Terminal No. Description (Wire color)		Cons		• ""	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms

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	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
108	Ground	cround Combination switch INPUT 4	Input Combination switch	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB
(R)	(R) Ground			switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	(V) 15 10 5 2 ms JPMIA0039GB

Terminal No. Description (Wire color)					Value	А	
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	В
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB	E F
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	G H
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB	J K
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB	M
					ON	0 V	0
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 10 ms JPMIA0012GB 1.1 V	Ρ

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
			Input/ Output	Steering lock	LOCK status LOCK or UNLOCK	12 V
111 (Y)	Ground	Steering lock unit communication				0 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(O)			•	ON	When dark outside of the vehicle	Close to 0 V
114	Ground	Clutch interlock switch	Input	Clutchinterlock switch	OFF (Clutch pedal is not depressed)	0 V
(R)		Switch	•	SWIICH	ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
	Ground	Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118			Input	switch	ON (Brake pedal is de- pressed)	Battery voltage
(BR)			mp switch 2	Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
		(With ICC)			h ON (Brake pedal is de- brake hold relay ON	Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	und Key slot switch Input	Innut	When the Intelligent Key is inserted into key slot		12 V
(SB)	3.34.14		When the Intelligent Key is not inserted into key slot		0 V	
123	Ground	IGN feedback	Input	out Ignition switch	OFF or ACC	0 V
(W)					ON	Battery voltage

	nal No. color)	Description			O PRO	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
124 (LG) Ground		Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 JPMIA0011GB
					ON (Door open)	11.8 V 0 V
					- C. (200. opo)	(V)
129 (O) Ground	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	15 10 5 0
						JPMIA0012GB 1.1 V
					ON	0 V
400		Power window switch communication		Ignition switch ON Ignition switch OFF or ACC		15 10 5
132 (V)	Ground		Input/ Output			→ d 10 ms JPMIA0013GB
						10.2 V 12 V
				ignition switch C	ON (Tail lamps OFF)	9.5 V
					3	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.
133 (L) Ground	Ground	Push-button ignition switch illumination		Push-button ig- Output nition switch il- lumination	ON (Tail lamps ON)	15 10 5 0
						JPMIA0159GB
					OFF	0 V
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage 0 V
137	Ground	Receiver and sensor	Input	Ignition switch C	ON	0 V
(O)		ground		go 5 milon 6	OFF	0 V
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	ACC or ON	5.0 V

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
139		Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state	(V) 6 4 2 0 * + 0.2s
(L)					When receiving the signal from the transmitter	(V) 6 4 2 0
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V
(GR)		position	•		Except P and N positions ON	0 V 0 V
141 (R)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 1 1 s JPMIA0014GB
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	OFF All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	12 V 0 V (V) 15 10 5 0 2 ms JPMIA0031GB
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4) Front wiper switch HI (Wiper intermittent dial 4) Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 6 Wiper intermittent dial 7	0 V (V) 15 10 2 ms JPMIA0032GB 10.7 V

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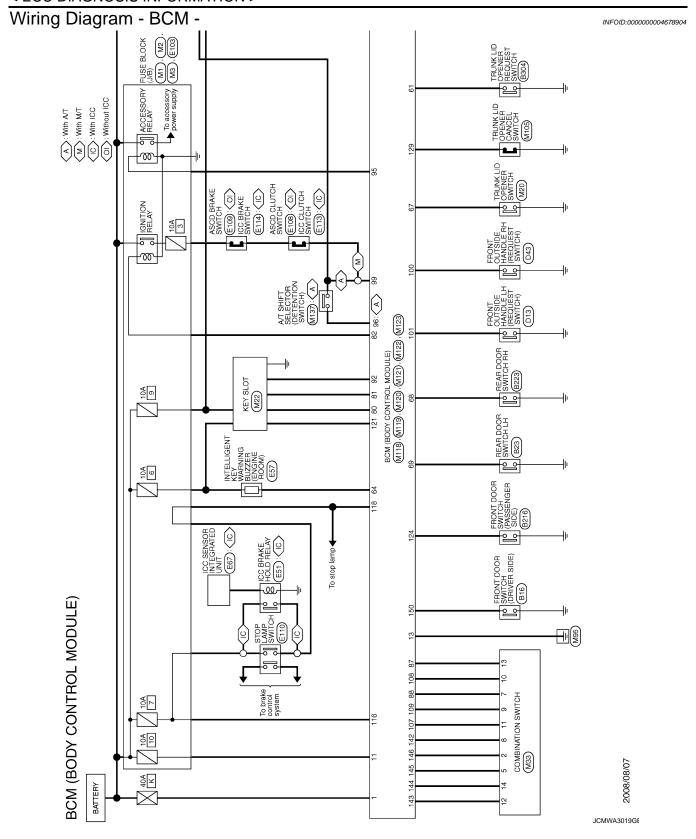
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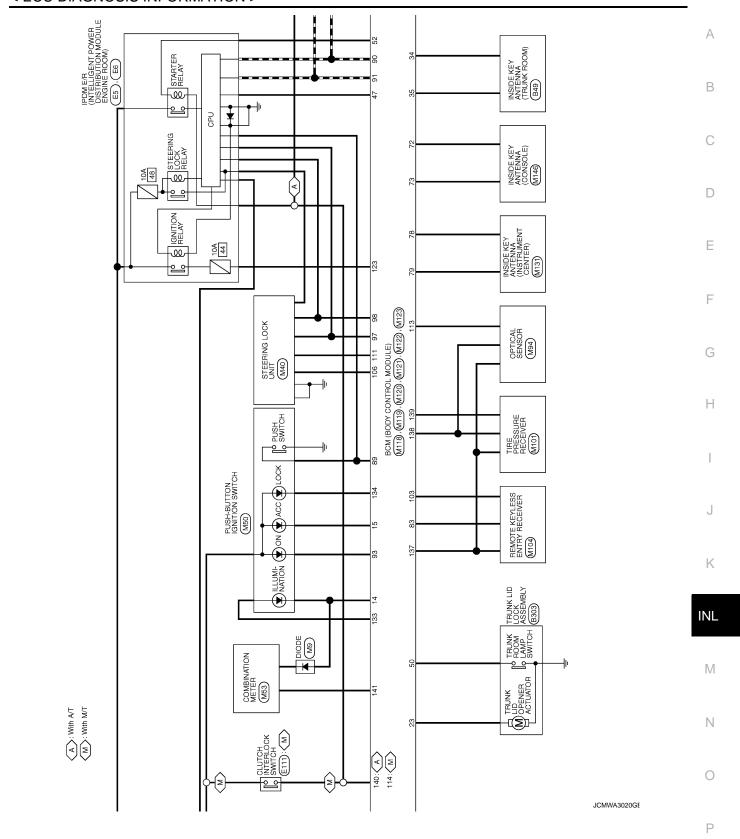
	nal No. color)	Description			O an alitica	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch ON (Wiper intermittent dial 4)	(V) 15	
144 (G) Ground	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	15 10 5 0 2 ms JPMIA0033GB	
					All switches OFF	0 V	
					Front wiper switch INT		
				Combination	Front wiper switch LO	(V) 15	
145 (L)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB	
					All switches OFF	0 V	
					Front fog lamp switch ON		
				Combination	Lighting switch 2ND	(V) 15	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	switch (Wiper intermit- tent dial 4)	Lighting switch PASS Turn signal switch LH	10 5 0 2 ms	
						JРМIA0035GE 10.7 V	
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V	
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB	
					ON (Door open)	0 V	
151	Ground	Rear window defog-	Output	Rear window	Active	0 V	
(G)	O. Suria	ger relay control	Calput	defogger	Not activated	Battery voltage	

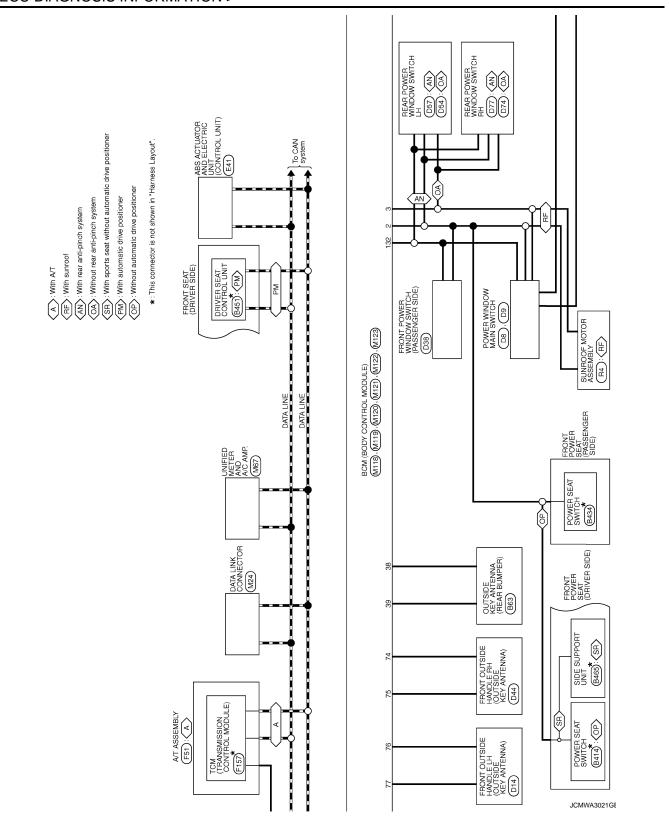
^{• *1:} A/T models

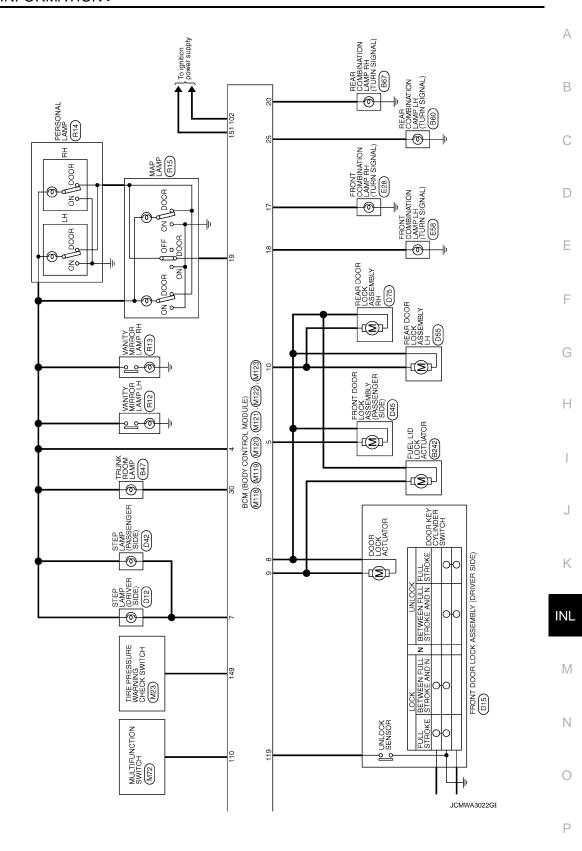
^{• *2:} M/T models



< ECU DIAGNOSIS INFORMATION >







BCM (BODY CONTROL MODULE) Connector No. M33	Connector No. M118	Connector No. M119	18 O TURN SIGNAL LH (FRONT)
Connector Name COMBINATION SWITCH	Connector Name BCM (BODY CONTROL MODULE)	Connector Name BCM (BODY CONTROL MODULE)	>
Connector Type THI6FW-NH	Connector Type M03FB-LC	Connector Type NS16FW-CS	
H.S. 1 2 3 1 4 5 6 7 8 9 101/11/12/13/14	1.S.	H.S. (4 5 6 7 () 8 9 10 112 13 14 15 16 17 18 19	
Color Signal Name [Specif Specif Specif	Terminal Color Signal Name Specification No. or Wife Signal Name Specification 1 or Wife BAT (F./L) 2 Y POWER WINDOW POWER SUPPLY(RAP) 3 O POWER WINDOW POWER SUPPLY(RAP)	Color	
11 LG INPUT I 12 P OUTPUT I 13 Y INPUT I 14 G OUTPUT 2		11 R BAT (FICSE)	
Connector No. Connector Name BOM (BODY CONTROL MODULE) Connector Type NS15PW-CS	Connector No. M121 Connector Name BCM (BODY CONTROL MODULE) Connector Type TH40FGY-NH	69 R REAR LH DOOR SW	
HS 2021 222324 25262728293031	1.5 1.5 1.5 1.7 1.6 1.6 1.7 1.4 1.6 1.7 1.4 1.6 1.7 1.5 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7		
of Wire	of Wire Sig		
23 L TRUNK LID OPEN OUTPUT 25 Y TURN SIGNAL LH (REAR) 30 P TRUNK ROOM LAMP	35 V TRUNK ROOM ANT+ 38 B REAR BUMPER ANT- 39 W REAR BUMPER ANT+		
) O		
	S SB		
	64 G I-KEY WARN BUZZER (ENG ROOM) 67 GR TRUNK LID OPENER SW 68 BR REAR RH DOOR SW		

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< ECU DIAGNOSIS INFORMATION >

I SW CONT	А
RECEIVER, SENSOR ROWE RECEIVER, SENSOR POWER SUPPLY THE PRESSURE RECEIVER COMM SHITT IN IN P SECURITY INDICATOR COMBIS SW OUTPUT 3 COMBIS SW	В
 	С
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OLE) SEGRETATION SERVICES V 7 V 1 V 1 V 1 V 1 V 1 V 1 V 1 V 1 V 1	Е
No. MIZ3	F
of Wine Sign Color National Both (BODY National Both (BODY National Both (BODY National Both (Both National Both (Both National Both National Both (Both National Both (Both (Both National Both (Both (G
Ocumentary Commentary Terminal 116 118 119 119 119 119 113 123 133	Н
HEYLESS ENTRY RECEIVER COMM COMEIS WIN INPUT 3 PUSH SW COMPL COMPL COMPL COMPL CONTRIBUTE CONDITION ACC RELAY CONT ACC RELAY CONT S./L CONDITION 1 S./L CONDITION 2 S./L CONDITION 2 BLUTCH SW (With A.T) PASSENGER DOOR REQUEST SW BLUMER PAIN MOTOR RELAY CONT REVIESS ENTRY RECEIVER SUPPLY COMBLSW INPUT 1 COMBLSW INPUT 1 COMBLSW INPUT 1 COMBLSW INPUT 2 COMBLSW INPUT 2 HAZARD SW S./L UNIT COMM S./L UNIT COM	I
COMBI COMB	J
100 100	К
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BCM (BODY CONTROL MODULE) Connector No. MI22 Connector No. MI22 Connector Type TH40FB-NH	М
M122 BCM (BODY C TH40FB-NH TH40FB-NH DAS BCM (BODY C BCM (N
Connector No.	0
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Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
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 $ON \rightarrow OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
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
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)

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< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition 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)
B2609: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) 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)
B2612: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	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
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output 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)
B26E9: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

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

NOTE:

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

DTC Inspection Priority Chart

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

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< ECU DIAGNOSIS INFORMATION >

1 B2562: LOW VOLTAGE 2 • U1000: CAN COMM • U1010: CONTROL UNIT(CAN) • B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY 3 • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI SCANNING • B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • 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 POSITION • B2604: PNP SW • B2605: PNP SW • B2605: PNP SW • B2606: S/L RELAY • B2606: S/L RELAY • B2606: S/L RELAY • B2606: S/L STATUS • B2606: S/L	Priority	DTC
2		
## U1010: CONTROL UNIT(CAN) ## B2190: NATS ANTENNA AMP ## B2191: DIFFERENCE OF KEY ## B2192: ID DISCORD BCM-ECM ## B2193: CHAIN OF BCM-ECM ## B2195: ANTI SCANNING ## B2013: ID DISCORD BCM-S/L ## B2014: CHAIN OF S/L-BCM ## B2553: IGNTION RELAY ## B2553: IGNTION RELAY ## B2555: STOP LAMP ## B2556: PUSH-BTN IGN SW ## B2557: VEHICLE SPEED ## B2560: STARTER CONT RELAY ## B2601: SHIFT POSITION ## B2601: SHIFT POSITION ## B2603: SHIFT POSITION ## B2603: SHIFT POSITION ## B2603: SHIFT POSITION ## B2604: PNP SW ## B2605: PNP SW ## B2606: S/L RELAY ## B2606: S/L RELAY ## B2608: STARTER RELAY ## B2609: S/L STATUS ## B2609: STEERING LOCK UNIT ## B2600: STEERING LOCK UNIT ## B2600: ENG STATE SIG LOCK UNIT ## B2600: STEERING LOCK UNIT ## B2600: ST	-	
B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW B2606: S/L RELAY B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2607: ENG STATE SIG LOST	2	
 B2014: CHAIN OF S/L-BCM 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 SW B2605: PNP SW B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: S/L STATUS B26009: S/L STATUS B26001: STEERING LOCK UNIT B26001: STEERING LOCK UNIT B26061: ENG STATE SIG LOST 	3	 B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM
 B2612: S/L STATUS B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM B2614: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E8: CLUTCH SW B26E9: S/L STATUS B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG 	4	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2556: PUSH-BTN IGN SW B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2604: PNP SW B2604: PNP SW B2606: S/L RELAY B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: S/L STATUS B2609: S/L STATUS B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: ENG STATE SIG LOST B2612: S/L STATUS B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: BCM B2619: BCM B2619: BCM B2619: CHICH SW B2628: CLUTCH SW B2682: CLUTCH SW B2682: S/L STATUS B2682: S/L STATUS B2682: S/L STATUS B2682: CLUTCH SW B2682: S/L STATUS B2682: KEY REGISTRATION C1729: VHCL SPEED SIG ERR

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	C1704: LOW PRESSURE FL	
	C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	E
	C1708: [NO DATA] FL	
	C1709: [NO DATA] FR	
	C1710: [NO DATA] RR	
	C1711: [NO DATA] RL	(
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
	C1715: [CHECKSUM ERR] RL	
5	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	I
	C1719: [PRESSDATA ERR] RL	'
	C1720: [CODE ERR] FL	
	C1721: [CODE ERR] FR	
	C1722: [CODE ERR] RR	
	C1723: [CODE ERR] RL	
	C1724: [BATT VOLT LOW] FL	
	C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] RR	(
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT	
	B2621: INSIDE ANTENNA	
6	B2622: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

DTC Index

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-14, "COM-MON ITEM: CONSULT-III 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	Refer- ence page
No DTC is detected. further testing may be required.	_	_	-	_	_
U1000: CAN COMM	_	_	_	_	BCS-35
U1010: CONTROL UNIT(CAN)	_	_	_	_	BCS-36
U0415: VEHICLE SPEED SIG	_	_	_	_	BCS-37
B2013: ID DISCORD BCM-S/L	×	×	_	_	<u>SEC-55</u>
B2014: CHAIN OF S/L-BCM	×	×	_	_	<u>SEC-56</u>
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-47
B2191: DIFFERENCE OF KEY	×	_	_	_	<u>SEC-50</u>
B2192: ID DISCORD BCM-ECM	×	_	_	_	<u>SEC-51</u>
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-53
B2195: ANTI SCANNING	×	_	_	_	<u>SEC-54</u>
B2553: IGNITION RELAY	_	×	_	_	PCS-49
B2555: STOP LAMP	_	×	_	_	SEC-59

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< ECU DIAGNOSIS INFORMATION >

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	
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-61	
B2557: VEHICLE SPEED	×	×	×	_	SEC-63	
B2560: STARTER CONT RELAY	×	×	×	_	SEC-64	
B2562: LOW VOLTAGE	_	×	_	_	BCS-38	
B2601: SHIFT POSITION	×	×	×	_	SEC-65	
B2602: SHIFT POSITION	×	×	×	_	SEC-68	
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-70</u>	
B2604: PNP SW	×	×	×	_	SEC-73	
B2605: PNP SW	×	×	×	_	<u>SEC-75</u>	
B2606: S/L RELAY	×	×	×	_	SEC-77	
B2607: S/L RELAY	×	×	×	_	SEC-78	
B2608: STARTER RELAY	×	×	×	_	SEC-80	
B2609: S/L STATUS	×	×	×	_	SEC-82	
B260A: IGNITION RELAY	×	×	×	_	PCS-51	
B260B: STEERING LOCK UNIT	_	×	×	_	SEC-86	
B260C: STEERING LOCK UNIT	_	×	×	_	SEC-87	
B260D: STEERING LOCK UNIT	_	×	×	_	SEC-88	
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-89	
B2612: S/L STATUS	×	×	×	_	SEC-94	
B2614: ACC RELAY CIRC	_	×	×	_	PCS-53	
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-55	
B2616: IGN RELAY CIRC	_	×	×	_	PCS-57	
B2617: STARTER RELAY CIRC	×	×	×	_	SEC-98	
B2618: BCM	×	×	×	_	PCS-59	
B2619: BCM	×	×	×	_	SEC-100	
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-60	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-101	
B2621: INSIDE ANTENNA	_	×	_	_	DLK-59	
B2622: INSIDE ANTENNA	_	×	_	_	DLK-61	
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63	
B26E8: CLUTCH SW	×	×	×	_	SEC-90	
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	SEC-92	
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	SEC-93	
C1704: LOW PRESSURE FL	_	_	_	×		
C1705: LOW PRESSURE FR	_	_	_	×	\//T_17	
C1706: LOW PRESSURE RR	_	_	_	×	<u>WT-17</u>	
C1707: LOW PRESSURE RL	_	_	_	×	1	

< ECU DIAGNOSIS INFORMATION >

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
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	WT-19
C1710: [NO DATA] RR	_	_	_	×	<u>W1-19</u>
C1711: [NO DATA] RL	_	_	_	×	
C1712: [CHECKSUM ERR] FL	_	_	_	×	
C1713: [CHECKSUM ERR] FR	_	_	_	×	WT 21
C1714: [CHECKSUM ERR] RR	_	_	_	×	<u>WT-21</u>
C1715: [CHECKSUM ERR] RL	_	_	_	×	
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	MT 24
C1718: [PRESSDATA ERR] RR	_	_	_	×	<u>WT-24</u>
C1719: [PRESSDATA ERR] RL	_	_	_	×	
C1720: [CODE ERR] FL	_	_	_	×	
C1721: [CODE ERR] FR	_	_	_	×	MT 26
C1722: [CODE ERR] RR	_	_	_	×	<u>WT-26</u>
C1723: [CODE ERR] RL	_	_	_	×	
C1724: [BATT VOLT LOW] FL	_	_	_	×	
C1725: [BATT VOLT LOW] FR	_	_	_	×	WT 20
C1726: [BATT VOLT LOW] RR	_	_	_	×	<u>WT-29</u>
C1727: [BATT VOLT LOW] RL	_	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-32</u>
C1734: CONTROL UNIT	_	_	_	×	<u>WT-33</u>

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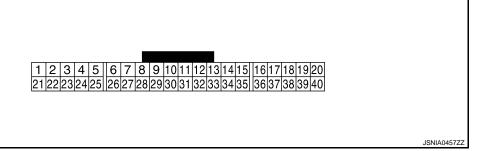
< ECU DIAGNOSIS INFORMATION >

COMBINATION METER

Reference Value

VALUES ON THE DIAGNOSIS TOOL Refer to MWI-83, "Reference Value".

TERMINAL LAYOUT



PHYSICAL VALUES

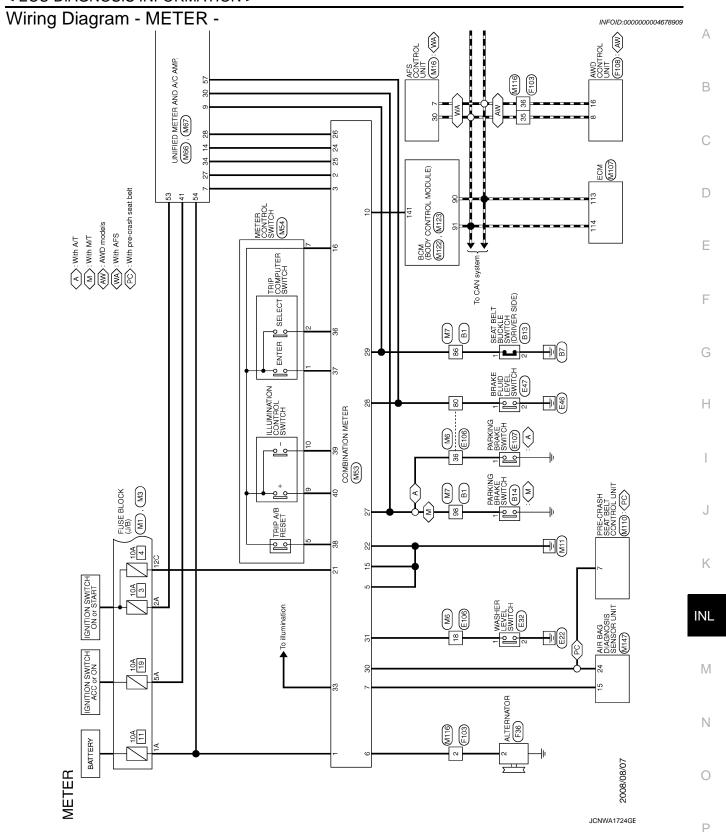
	nal No. color)	Description			Condition	Value
+	_	Signal name	Input/ Output		Condition	(Approx.)
1 (V)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage
2 (LG)	Ground	Communication signal (METER→ AMP.)	Output	Ignition switch ON	_	(V) 6 4 2 0 ■ 200 µs JSNIA0027GB
3 (GR)	Ground	Communication signal (AMP.→ METER)	Input	Ignition switch ON	_	(V) 6 4 2 0 200 µs JSNIA0027GB
5 (B)	Ground	Ground	_	Ignition switch ON	_	0 V
6		Ale e e		Ignition	Charge warning lamp ON	0 V
(W)	Ground	Alternator signal	Input	switch ON	Charge warning lamp OFF	12 V
7		A		Ignition	Air bag warning lamp ON	4 V
(LG)	Ground	Air bag signal	Input	switch ON	Air bag warning lamp OFF	0 V
10	0	On accept to a large of	la : 1	Ignition	Security warning lamp ON	0 V
(R)	Ground	Security signal	Input	switch OFF	Security warning lamp OFF	12 V
15 (B)	Ground	Ground		Ignition switch ON	_	0 V

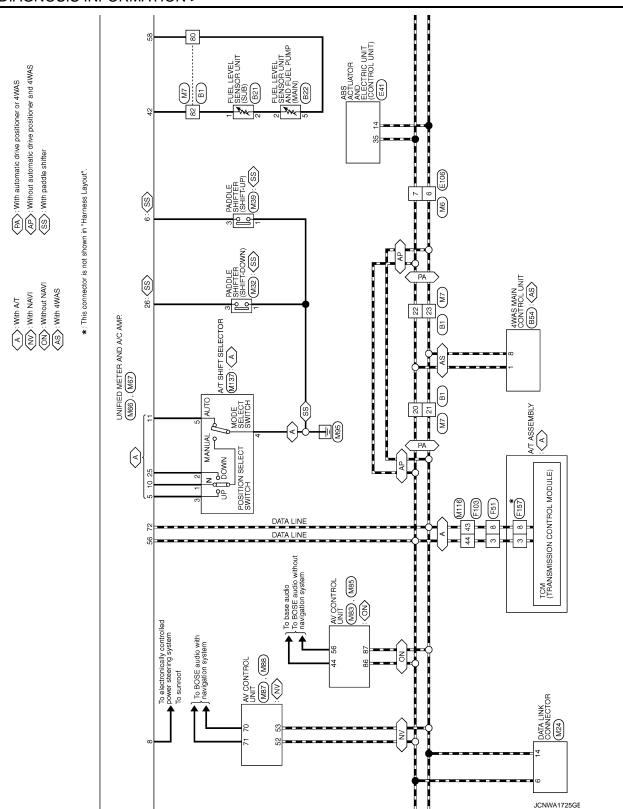
< ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description			Condition	Value	А
+	_	Signal name	Input/ Output		Condition	(Approx.)	
16 (BR)	Ground	Meter control switch ground	_	Ignition switch ON	_	0 V	В
21 (R)	Ground	Ignition signal	Input	Ignition switch ON	_	12 V	С
22 (B)	Ground	Ground	_	Ignition switch ON	_	0 V	D
24 (BR)	Ground	Communication signal (LCD→ AMP.)	Output	Ignition switch ON	_	(V) 15 10 5 0 400 µs JSNIA0028GB	E F G
25 (Y)	Ground	Communication signal (AMP.→ LCD)	Input	Ignition switch ON	_	(V) 6 4 2 0 200 µs JSNIA0027GB	Н
26 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies depending on the specification (destination unit).	J K
					Parking brake ON	JSNIA0012GB	M
27 (O)	Ground	Parking brake switch signal	Input	Ignition switch ON	Parking brake OFF	(V) 8 4 0 10 ms JSNIA0007GB	N
28 (SB)	Ground	Brake fluid level switch signal	Input	Ignition switch ON	Brake fluid level is normal.	(V) 10 0 10 ms JSNIA0008GB	Ρ
					The brake fluid level is low- er than the low level	0 V	

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description			Condition	Value
+	_	Signal name	Input/ Output		Condition	(Approx.)
29	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When driver seat belt is fastened	12 V
(L)	Ground	nal (driver side)	при	ON	When driver seat belt is un- fastened	0 V
30	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When getting in the passenger seat When passenger seat belt is fastened	12 V
(G)	Giodila	nal (passenger side)	три	ON	When getting in the passenger seat When passenger seat belt is unfastened	0 V
31	0	Maria de la compania del compania del compania de la compania del compania del compania de la compania de la compania del	1	Ignition	Washer level switch ON	0 V
(L)	Ground	Washer level switch signal	Input	switch ON	Washer level switch OFF	5 V
33 (R)	Ground	Illumination control signal	Output	Ignition switch ON	Lighting switch ON, then operate the illumination control switch.	When brightness level is midway (V) 10 0 JSNIA0010GB
36	16	Select switch signal	Input	Ignition switch	When is pressed	0 V
(LG)	(BR)	3	'	ON	Other than the above	5 V
37 (SB)	16 (BR)	Enter switch signal	Input	Ignition switch	When 🖬 is pressed	0 V
(36)	(DIV)			ON	Other than the above	5 V
38	16 (BR)	Trip A/B reset switch signal	Input	Ignition switch	When trip A/B reset switch is pressed	0 V
(L)	(DIV)			ON	Other than the above	5 V
39 (P)	16 (BR)	Illumination control switch signal (–)	Input	Ignition switch	When 📆 switch is pressed	0 V
				ON	Other than the above	5 V
40 (O)	16 (BR)	Illumination control switch signal (+)	Input	Ignition switch	When 🔥 + switch is pressed	0 V
(-)	(,			ON	Other than the above	5 V





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В С D Е CIC): With ICC F G FUSE BLOCK (J/B) (M2), (£103) Н BATTERY To brake control system Κ M55 INL CPU UNIFIED METER AND A/C AMP. (M66), (M67) \mathbb{N} Ν 0 JCNWA1726GE Р

Connector No. 821 Connector Name FUEL LEVEL SENSOR UNIT (SUB) Connector Type EUZFGV-RS H.S.	Terminal Color Signal Name [Specification] 1 B	Connector No. E7 Connector Name IDAM ER (INTELLIGENT POWER DOM) Connector Type TH20PW-CS12-M4 L12 Explicit September 1120PW CS12-M4 Terminal Color Signal Name [Specification] No. of Wire 75 SB -	
Connector No. B14 Connector Name PARKING BRAKE SWITCH (WITH M/T) Connector Type PDIFB-A H.S.	Terminal Color No. of Wire 1 V	Connector No. E6 Connector Name DISTRIBUTION MODULE ENGINE ROOM) Connector Type TH08FW-NH H.S. 42 41 40 39 46 45 444 43	Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] 39 P -
Connector No. B13 Connector Name SEAT BELT BUCKLE SWITCH (DRIVER SIDE) Connector Type AU3FW	Terminal Color Signal Name [Specification]	Connector No. B64	Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification]
METER Connector No. Connector Nype Connector Type THSOFW-CS16-TM4 THSOFW-CS16-TM4	Terminal Color No. of Wire 20 L 21 L 22 L 22 L 80 Y 82 B 82 BR - (With A/T) 86 SB 96 Y 97 - (With A/T) 87 SB 98 Y 99 Y 90 C	Connector No. 622 Connector Name Pulle LEVEL SENSOR UNIT AND FUEL Connector Type EUSFGY-RS TAS TAS TAS TAS TAS TAS TAS T	Terminal Golor Signal Name [Specification]

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UID LEVEL SWITCH	CS CS AF	АВ
or No. E47 or Name BRAKE FI or Type YV02FGY of Wire R B B	ector No. E103 ector Type NS16FW 16 15 14 15 14 15 14 14 14	C
		Е
The BANGER - LATE - LAT	Professional Name [Specification] Name Signal Name [Specification] Name Signal Name [Specification]	F
Connector No Connector Name Connector Type Terminal Color No. of Wire 14 35 L	Connector N. Connector N. Connector I. H.S. H.S. L.	Н
E40 WIRE TO WIRE SAA36MB-RSS-SHZS 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ICC SENSOR INTEGRATED UNIT RS06FB-PR \$\frac{1}{4} \frac{5}{6} \frac{6}{6} \$\frac{1}{6} \frac{1}{6} \	J
Connector None E40 Connector Name WIRE TO Connector Type SAA36ME 1	Connector No. E67 Connector Name 10C S Connector Type RS08 Terminal Color No. SB 2 SB 2 SB 3 L 6 P 6 P	K
LEVEL SWITCH 211 Signal Name [Spacification]	MZ MZ Signal Name [Specification]	INL M
HAO E32 Name WASHER Type ZODEBN LG LG B B	No. E51 Name IOC BRA Type MS02FL B B B Color L L W	N
METER Commetter No. of I.S. Terminal Commetter Thy	Commercial Commercial Commercial No.	O JCNWA1728GE

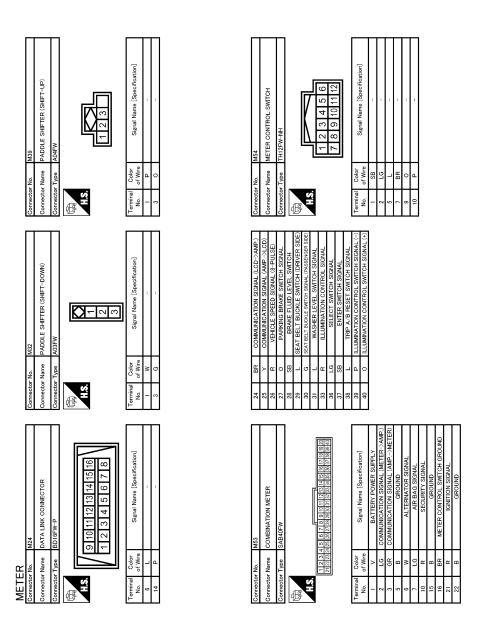
Revision: 2009 October INL-91 2009 G37 Sedan

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< ECU DIAGNOSIS INFORMATION >

18 58 peerfication]	eoffication]	АВ
M2 FUSE BLOCK (J/B) NS10FW-CS 4B 3B	M16 M16 AFS CONTROL UNIT	С
Connector No. Connector Name Connector Type H.S. H.S. Terminal Color No. 3B P P	Commector No. Commector Name Commector Type H.S. H.S. I Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	D
ation	etion]	E
NSOFFW-M2 NSOFFW-M2 Signal Name [Specification]	WIRE TO WIRE THEOMW-CSIG-TM4 THEOMW-CSIG-TM4 Signal Name [Specification]	F
I S I I I I I I I I I I I I I I I I I I	1 H80h WIRE 1 H80h G	
Connector Na. Connector Typ. Connector Na. Connecto	Connector Non Connector Name Connector Type Connect	Н
FI67 TOM (TRANSMISSION CONTROL MODULE) SPI0FG	WRE CSIG-TMA CSIG-TMA IN I	I
167 SEP10FG 6 7 8 Signal Nar	T W NOO	J
Connector No. F157 Connector Name TCM Connector Type SP10 Connector Type SP10 Color No. of Wire 3 R R 8 BR	Connector No. M6 Connector Name Wife Connector Type Title No. of Wire No. of W	K
		INL
NH NH NH 12 13 14 16 7 8 112 13 14 15 16 CAN-H CAN-L	OOK (J/B) CS (Sgral Name [Specification]	M
AWD COT 1 H 16FW 9 1 1 2 2 1	MS 1274-7-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	N
METER Connector No. Connector Type Connector Type Connector Type No. No. of Wire 16 P	Connector No. Connector Name Connector Type No. No. Of Wire 120 R	0
<u> </u>	<u> </u>	JCNWA1730GE
		F

Revision: 2009 October INL-93 2009 G37 Sedan

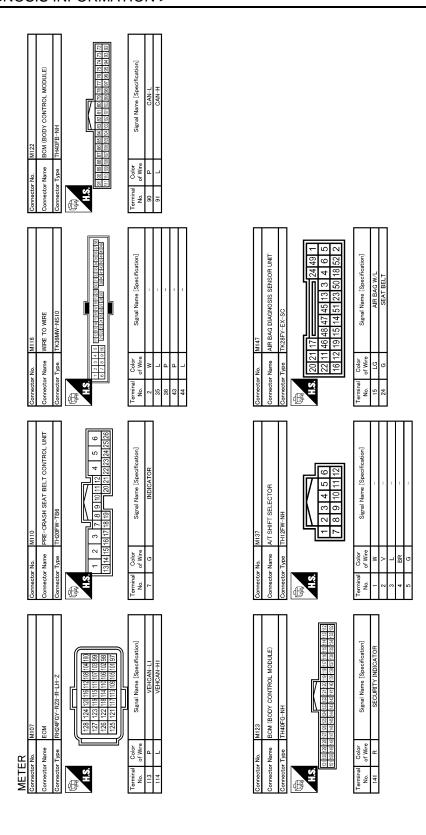


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< ECU DIAGNOSIS INFORMATION >

72 P GROUND 72 P CANI-L CANI-L Connector No. M88	
Connector No. M67 Connector No. M67	
27	Signal (1971) 1971
METER Commetter No. M66 Commetter Name Commette	Terminal Color No. Color Col
	JCNWA1/32GE

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JCNWA1733GE

INFOID:0000000004678910

Fail-safe

FAIL-SAFE

Combination meter performs fail-safe operation when unified meter and A/C amp. communication is malfunction

Solution for communication error between the unified meter and A/C amp. and combination meter.

< ECU DIAGNOSIS INFORMATION >

Function		Specifications	
Speedometer Tachometer			
Water temperature gauge			
Illumination control		When suspending communication, change to nighttime mode	
Information display		The display turns off by suspending communication.	
Buzzer		The buzzer turns off by suspending communication.	
	ABS warning lamp		
	VDC OFF indicator lamp	The lamp turns on by suspending communication.	
	SLIP indicator lamp		
	Brake warning lamp		
	CRUISE warning lamp	-	
	High beam indicator		
	Turn signal indicator lamp		
Warning lamp/indicator	Oil pressure warning lamp		
lamp	Malfunction indicator lamp	The lamp turns off by suspending communication.	
	A/T CHECK warning lamp		
	AWD warning lamp		
	Low tire pressure warning lamp		
	Key warning lamp		
	AFS OFF indicator lamp		
	4WAS warning lamp		
	Master warning lamp		

DTC Index

Refer to MWI-101, "DTC Index".

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INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

CAUTION:

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

Symptom	Possible cause	Inspection item
All the following lamps do not turn ON. Map lamp Personal 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-20.
 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-66. Interior room lamp control circuit Refer to INL-22.
Interior room lamp timer does not activate. (It turns ON/ OFF when the door opens/closes.)	_	Check the interior room lamp setting. Refer to INL-16.
Step lamps (driver side and passenger side) do not turn ON. (Map lamp and personal lamp turn ON.)	Harness between BCM and each step lamp	Step lamp circuit Refer to INL-24.
Step lamps (driver side and passenger side) do not turn OFF. (Map lamp and personal lamp turn OFF.)	• BCM	
 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	Trunk room lamp switch circuit Refer to DLK-78.
	 Harness between BCM and trunk room lamp BCM 	Trunk room lamp circuit Refer to INL-26.
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-28.
Interior room lamp battery saver does not activate.	_	Check the interior room lamp battery saver setting. Refer to INL-17.

PRECAUTIONS

< PRECAUTION >

PRECAUTION

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

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:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
 ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s)
 with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly
 causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

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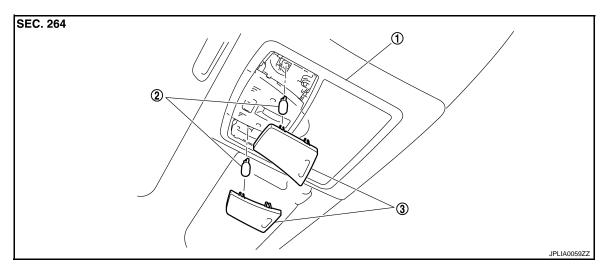
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Revision: 2009 October INL-99 2009 G37 Sedan

REMOVAL AND INSTALLATION

MAP LAMP

Exploded View



1. Map lamp assembly

2. Bulb

3. Lens

INFOID:0000000004239794

Removal and Installation

Refer to INL-100, "Exploded View" for the map lamp assembly installation/removal.

Replacement INFOID:000000004239795

CAUTION:

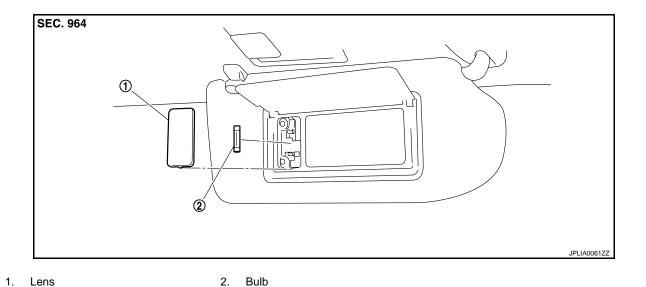
- Disconnect negative battery terminal or remove the fuse.
- · Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- · Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because 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.
- Remove the bulb.

VANITY MIRROR LAMP

Exploded View



Replacement

CAUTION:

Disconnect negative battery 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.

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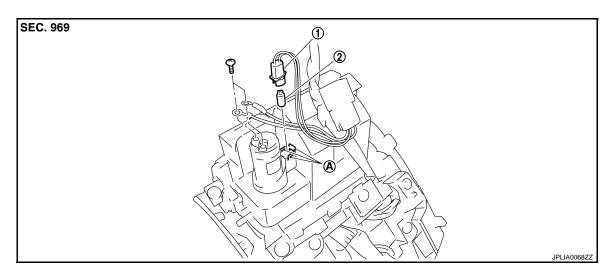
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Revision: 2009 October INL-101 2009 G37 Sedan

CIGARETTE LIGHTER ILLUMINATION

CIGARETTE LIGHTER ILLUMINATION

Exploded View



1. Bulb socket

Bulb (Share with the ashtray illumination)

A Hooks

Replacement INFOID:000000004239799

CAUTION:

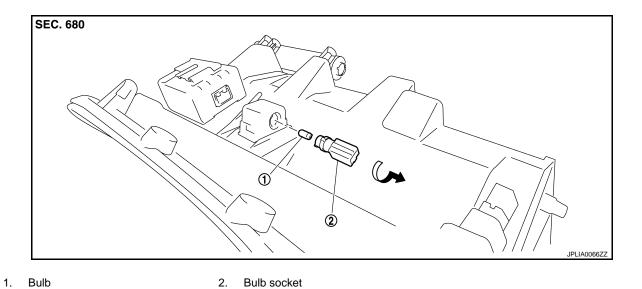
- Disconnect negative battery terminal or remove the fuse.
- · Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- · Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because 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

- Remove the console finisher. Refer to <u>IP-23, "Exploded View"</u>.
- 2. Insert any appropriate tool into the gap of the bulb socket. Widen the hooks and remove the bulb socket.
- 3. Remove the bulb.

GLOVE BOX LAMP

Exploded View



Replacement

CAUTION:

• Disconnect negative battery 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

- Remove the instrument assist lower panel. Refer to <u>IP-11, "Exploded View"</u>.
- 2. Rotate the bulb socket counterclockwise and unlock it.
- Remove the bulb.

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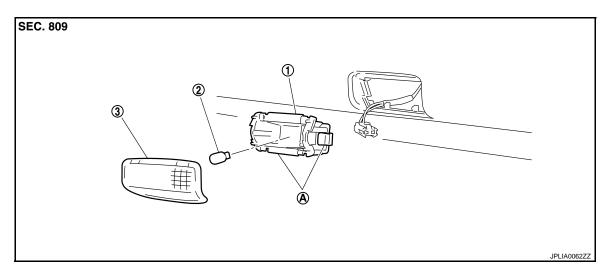
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STEP LAMP

Exploded View



Step lamp case

Bulb

3. Lens

A Metal clip

Removal and Installation

INFOID:0000000004239803

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

CAUTION:

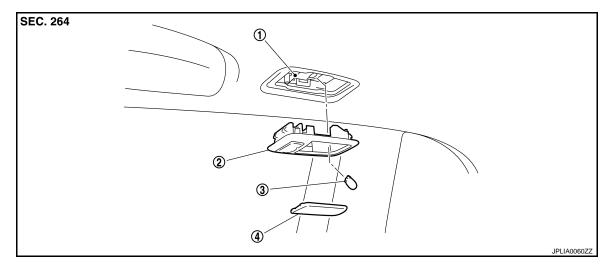
- Disconnect negative battery terminal or remove the fuse.
- . Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because 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-104, "Exploded View".
- Remove the lens.
- 3. Remove the bulb.

PERSONAL LAMP

Exploded View INFOID:0000000004239805



- Personal lamp case
- 2. Personal lamp finisher
- 3. Bulb

4. Lens

NOTE:

Replace the personal lamp case as a set (right and left). Before installing the headlining assembly, remove the personal lamp case. Refer to INL-105, "Removal and Installation".

Removal and Installation

INFOID:0000000004239806

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Insert any appropriate tool into the gap between the lens. Remove the lens.
- Press the both side pawls (A) to the arrow direction (\(\bigsim)\). Remove the personal lamp finisher.

NOTE:

Replace the personal lamp case as a set (right and left). Remove the personal lamp case after installing the headlining assembly. Refer to INT-22, "NORMAL ROOF: Exploded View" (normal roof), INT-25, "SUNROOF: Exploded View" (sun roof).



INSTALLATION

Install in the reverse order of removal.

NOTE:

The following is easier to install the personal lamp finisher with the headlining installed.

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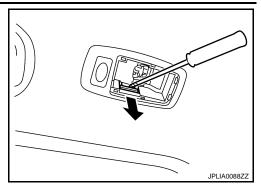
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PERSONAL LAMP

< REMOVAL AND INSTALLATION >

Press the personal lamp finisher to the headlining. Pull the personal lamp case pawl to the arrow direction (with any appropriate tool.



Replacement

CAUTION:

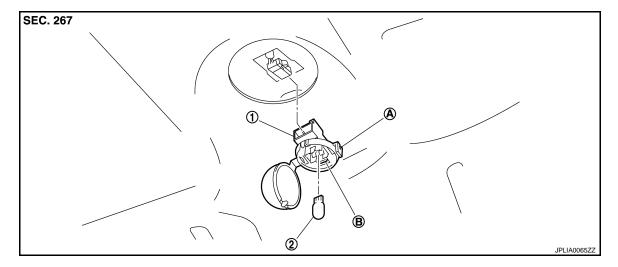
- Disconnect negative battery terminal or remove the fuse.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust,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

PERSONAL LAMP BULB

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

TRUNK ROOM LAMP

Exploded View



- Trunk room lamp
- Pawl (for lens fixing)
- 2.
- Pawl (for case installation)

Removal and Installation

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.
- Remove the trunk room lamp.

(1)

INSTALLATION

Install in the reverse order of removal.

Replacement INFOID:0000000004239810

CAUTION:

- Disconnect negative battery 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.
- Remove the bulb.

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SERVICE DATA AND SPECIFICATIONS (SDS)

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

Item	Туре	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
Personal lamp	Wedge	8
Trunk room lamp	Wedge	3.4