SECTION INTERIOR LIGHTING SYSTEM

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< BASIC INSPECTION >

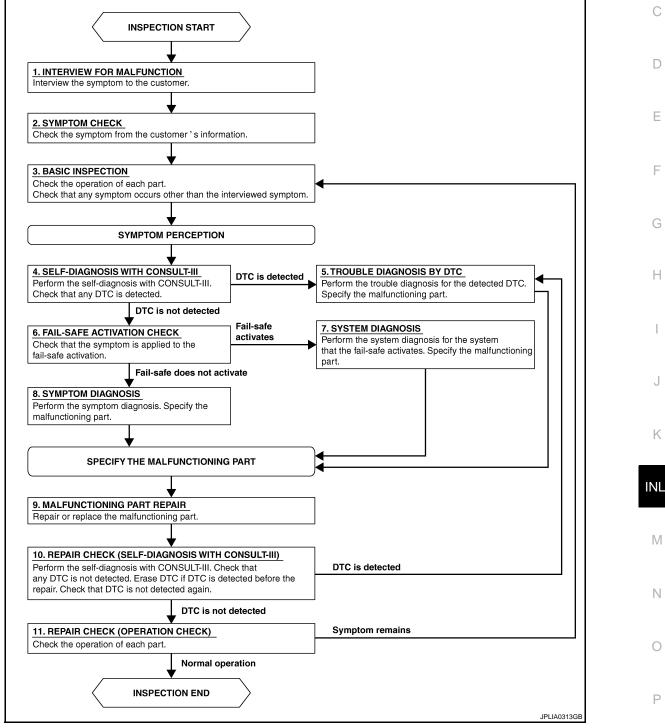
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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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.

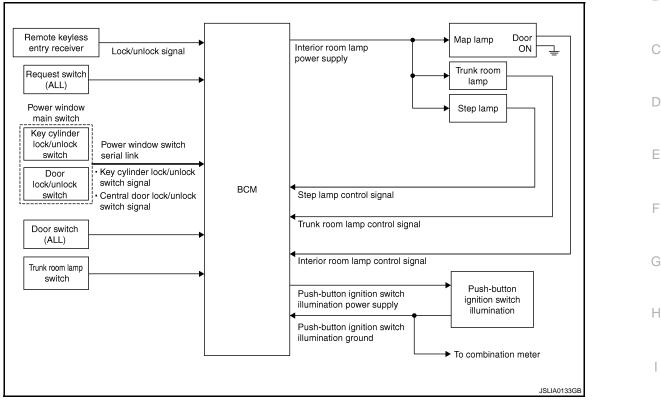
Does it operate normally?

YES >> INSPECTION END NO >> GO TO 3.

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



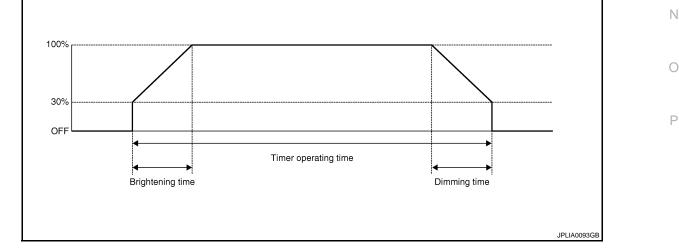
System Description

OUTLINE

- Interior room lamps* are controlled by interior room lamp timer control function of BCM.
 *: Map lamp (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, central door lock/unlock switch)

NOTE:

Each function of interior room lamp timer can be set by CONSULT-III. Refer to <u>INL-16, "INT LAMP : CON-</u> <u>SULT-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 $ON \rightarrow OFF$.
- 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 \rightarrow UNLOCK.
- Driver door is open.

Push-button Ignition Switch Illumination OFF Operation

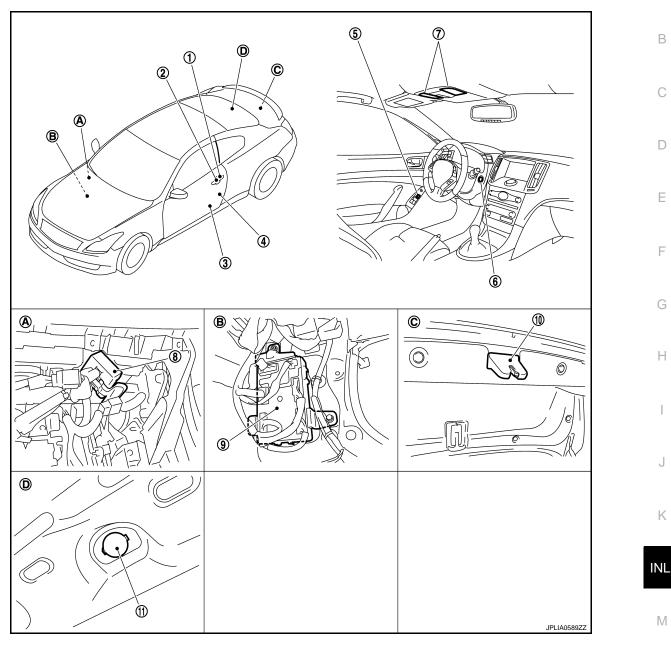
BCM turns the push-button ignition switch illumination OFF in any of the following conditions.

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

< SYSTEM DESCRIPTION >

Component Parts Location

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- 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. Door lock and unlock switch
- 8. Remote keyless entry receiver
- 11. Trunk room lamp
- B. Dash side lower (passenger side)
- 3. Step lamp
- Push-button ignition switch (Push-button ignition switch illumination)
- 9. BCM
- C. Trunk lid lock assembly

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< SYSTEM DESCRIPTION >

Component Description

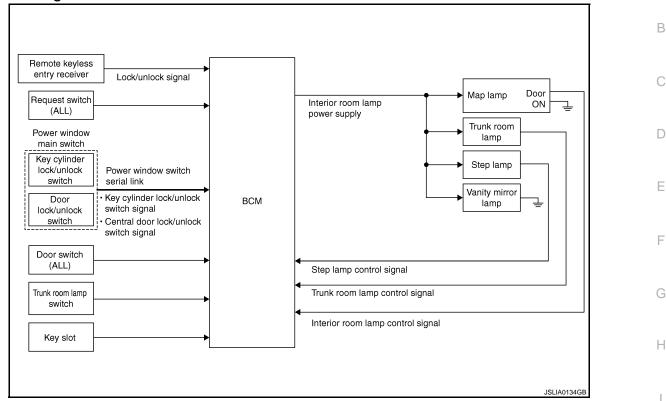
Part	Description
BCM	 Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamp ON/OFF. Turns the trunk room lamp ON /OFF according to the trunk room lamp switch status. Turns the step lamp ON /OFF according to any door switch status.
Remote keyless entry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

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM 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
- Step lamp
- Trunk room lamp
- Vanity mirror lamp

INTERIOR ROOM LAMP BATTERY SAVER FUNCTION

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

NOTE:

Each function of interior room lamp battery saver can be set by CONSULT-III. Refer to <u>INL-17, "BATTERY</u> <u>SAVER : CONSULT-III Function (BCM - BATTERY SAVER)"</u>.

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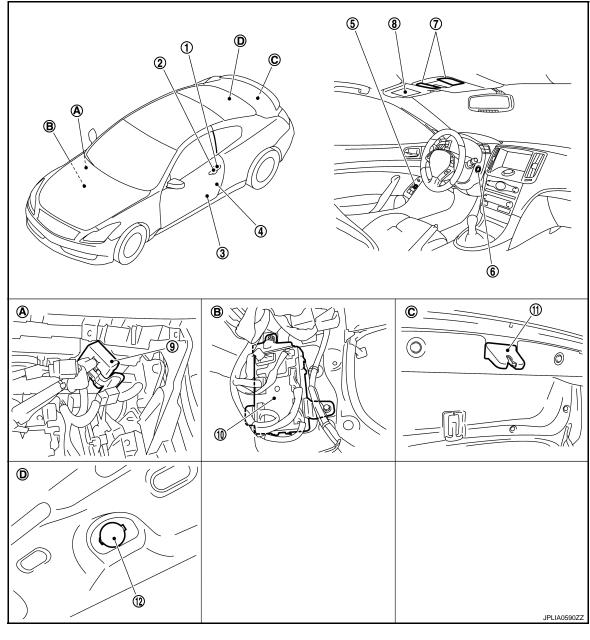
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INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

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

Component Description

- 2. Request switch
- 5. Door lock and unlock switch
- 8. Vanity mirror lamp
- 11. Trunk room lamp switch
- B. Dash side lower (passenger side)
- 3. Step lamp
- 6. Push-button ignition switch
- 9. Remote keyless entry receiver
- 12. Trunk room lamp
- C. Trunk lid lock assembly

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 and unlock switchKey cylinder switch	Transmits a switch signal by power window switch serial link.	A
Request switchDoor switchTrunk room lamp switch	Inputs a switch signal to BCM.	В
Key slot	Inputs the key switch status to BCM.	
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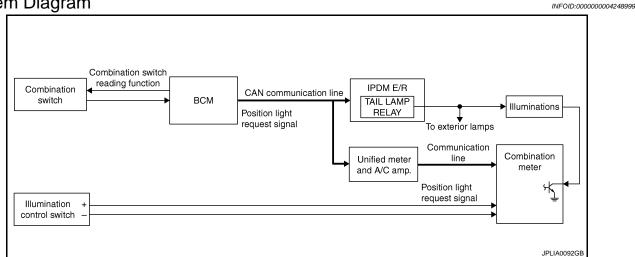
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ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

ILLUMINATION CONTROL SYSTEM

System Diagram



System Description

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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, "METER ILLUMINATION CONTROL : System Dia-</u> gram".)

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).

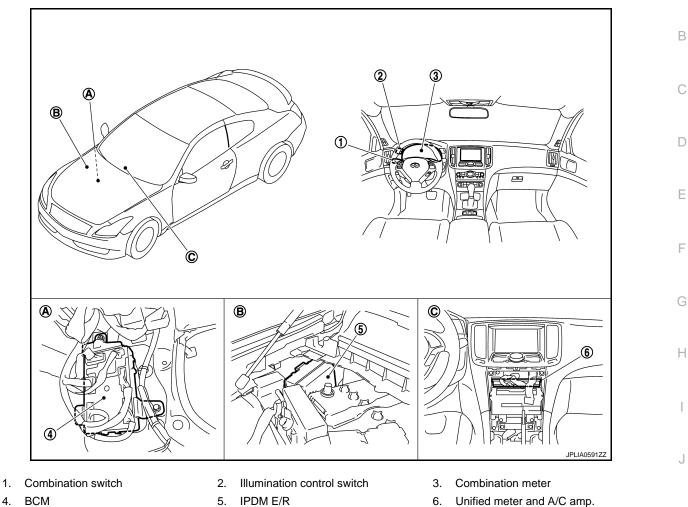
ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

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- 4. BCM
- Dash side lower (passenger side) А

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Behind the cluster lid C

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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 con cation).			
Combination meter	 Enters in nighttime mode according to the request from BCM (with CAN comm cation). Controls the each illumination in the nighttime mode. Refer to <u>MWI-25</u>, "METER ILLUMINATION CONTROL : System Diagram". 			
Combination switch (Lighting & turn signal switch)	Refer to BCS-6, "System Diagram".			

B. Engine room dash panel (RH)

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

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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 opera- tion 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.

System	Sub system coloction 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 systemEngine 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:

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

FREEZE FRAME DATA (FFD)

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

< 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		
	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		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" (Emer- gency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK	Power position status of the moment a particular DTC is detected	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 posi- tion is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply posi- tion is "LOCK".) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steer- ing 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. The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 		

INT LAMP

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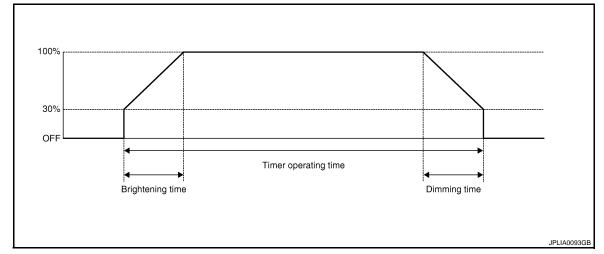
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< SYSTEM DESCRIPTION >

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

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WORK SUPPORT



Service item	Setting item	Setting		
SET I/L D-UNLCK INTCON	ON*	With the interior room lamp timer function		
SET I/E D-ONECK INTCOM	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.		
ROOM LAMP ON TIME SET	MODE 2*	1 sec.		
	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.		
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	MODE 2	Interior ro only.	oom 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 front 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

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description		
DOOR SW-DR [On/Off]	The switch status input from driver side door switch		
DOOR SW-AS [On/Off]	The switch status input from passenger side door switch		
DOOR SW-RR [On/Off]			
DOOR SW- RL [On/Off]	NOTE: The item is indicated, but not monitored.		
DOOR SW-BK [On/Off]			
CDL LOCK SW [On/Off]	Lock switch status received from the door lock and unlock switch by power window switch serial link		
CDL UNLOCK SW [On/Off]	Unlock switch status received from the door lock and 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 ON (Map lamp switch is in DOOR position).		
	Off	Stops the interior room lamp control signal to turn map lamp OFF.		
STEP LAMP TEST	On	Outputs the step lamp control signal to turn step lamp ON.		
STEP LAWP TEST	Off	Stops the step lamp control signal to turn step lamp OFF.		
	On	Outputs the trunk room lamp control signal to turn the trunk room lamp ON.		
LUGGAGE LAMP TEST	Off	Stops the trunk room lamp control signal to turn the trunk room lamp OFF.		

BATTERY SAVER

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

WORK SUPPORT

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

*: Factory setting

DATA MONITOR

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< 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 front 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 driver side front door switch			
DOOR SW-AS [On/Off]	The switch status input from passenger side door switch			
DOOR SW-RR [On/Off]				
DOOR SW- RL [On/Off]	NOTE: The item is indicated, but not monitored.			
DOOR SW-BK [On/Off]				
CDL LOCK SW [On/Off]	Lock switch status received from the door lock and unlock switch by power window switch serial link			
CDL UNLOCK SW [On/Off]	Unlock switch status received from the door lock and 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.

< DTC/CIRCUIT DIAGNOSIS >
DTC/CIRCUIT DIAGNOSIS
POWER SUPPLY AND GROUND CIRCUIT BCM

POWER SUPPLY AND GROUND CIRCUIT

BCM : Diagnosis Procedure

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.	D
Battery power supply	К	
Battery power supply	10	Е

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals				
(+) (-)			Voltage (Approx.)	
BCM			(Approx.)	
Connector Terminal		Ground		
M118	1	Giouna	Pottony voltage	
M119 11			Battery voltage	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

B	СМ		Continuity
Connector	Terminal	Ground	
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

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

Component Function Check

1.CHECK INTERIOR ROOM LAMP POWER SUPPLY FUNCTION

CONSULT-III ACTIVE TEST

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

Off : Interior room lamp OFF

On : Interior room lamp ON

Does the interior room lamp turn ON/OFF?

- YES >> Interior room lamp power supply circuit is normal.
- NO >> Refer to INL-20, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK INTERIOR ROOM LAMP POWER SUPPLY OUTPUT

CONSULT-III ACTIVE TEST

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

	Terminals	Test item		
(+)	(-)		Voltage
BCM			BATTERY	(Approx.)
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

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

INL-20

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INFOID:000000004249008

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

onnector Terminal Terminal Map lamp R15 1 Wanity mirror lamp R12 2 Vanity mirror lamp R13 2 Trunk room lamp B47 1 Step lamp (passenger side) D12 1 Ves continuity exist? Step lamp (passenger side) D42 1 Ves continuity exist? Es >> GO TO 3. Step lamp (passenger side) D42 1 Ves continuity between BCM harnesses or connectors. CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT Step lamp (passenger side) Continuity ves continuity between BCM harness connector and the ground. Continuity Not existed Value State Ground Continuity Not existed Ves continuity exist? Not existed Not existed Es >> Repair the harnesses or connectors. Not existed	Connector Terminal Connector Terminal M119 A A A A Vanity mirror lamp R12 2 2 Vanity mirror lamp R13 2 2 Trunk room lamp B47 1 5 Step lamp (driver side) D12 1 2 Oess continuity exist? Step lamp (passenger side) D42 1 Oess continuity exist? Step lamp (passenger side) D42 1 Oess continuity exist? Step lamp (passenger side) D42 1 Oess continuity exist? Continuity Step lamp (passenger side) D42 1 Oess continuity between BCM harness connectors. Continuity Continuity Not existed Oess continuity exist? Not existed Not existed Not existed Oese continuity exist? KS Sepair the	BC	М	Each in	terior room lar	mp	Continuity	
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M1194 (RH) R132Image: RH intermed and intermediate and i	M1194 (RH) RTS 2Trunk room lampB471Step lamp (driver side)D121Step lamp (passenger side)D421Oes continuity exist? (TS >> GO TO 3. 				np R12	2		
$\frac{\left \begin{array}{c c c c c c }\hline Trunk room lamp & B47 & 1 \\\hline Step lamp & D12 & 1 \\\hline Step lamp & D42 & 1 \\\hline Step lamp & D42 & 1 \\\hline Step lamp & D42 & 1 \\\hline ess continuity exist?\\ES >> GO TO 3.\\O >> Repair the harnesses or connectors.\\CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT\\\hline eck continuity between BCM harness connector and the ground.\\\hline \hline \hline Connector & Terminal & Ground & Continuity \\\hline M119 & 4 & & & \\\hline ess continuity exist?\\ES >> Repair the harnesses or connectors.\\\hline ES >> Repair the harnesses or connectors.\\\hline \hline ess continuity exist?\\\hline ES >> Repair the harnesses or connectors.\\\hline \hline ES >> Repair the harnesses or connectors.\\\hline \hline H119 & 4 & & & \\\hline H119 & $	Trunk room lampB471Step lamp (driver side)D121Step lamp (passenger side)D421Dees continuity exist? YES>> GO TO 3. NONO>> Repair the harnesses or connectors. •CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT heck continuity between BCM harness connector and the ground. $\overline{Connector}$ Terminal GroundContinuity Not existed $\overline{M119}$ 4Not existed $\overline{Oes continuity exist?}$ YES>> Repair the harnesses or connectors.	M110	4		^{np} R13	2	Eviated	
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Connector Terminal Ground M119 4 Not existed ves continuity exist? ES >> Repair the harnesses or connectors.	Connector Terminal Ground M119 4 Not existed oes continuity exist? YES >> Repair the harnesses or connectors.	heck con	tinuity be	etween BCM ha	arness conr	nector and	the ground.	
Connector Terminal Ground M119 4 Not existed ves continuity exist? ES >> Repair the harnesses or connectors.	Connector Terminal Ground M119 4 Not existed oes continuity exist? YES >> Repair the harnesses or connectors.							
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es continuity exist? ES >> Repair the harnesses or connectors.	oes continuity exist? /ES >> Repair the harnesses or connectors.	Connect	or	Terminal	Ground	Contai	uny	
ES >> Repair the harnesses or connectors.	YES >> Repair the harnesses or connectors.	1440						
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		oes cont YES >	> Repair	<u>st?</u> the harnesses		ors.		
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		oes cont (ES >	> Repair	<u>st?</u> the harnesses		ors.		
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		oes cont YES >	> Repair	<u>st?</u> the harnesses		ors.		
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INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

INTERIOR ROOM LAMP CONTROL CIRCUIT

Description

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

CAUTION:

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

- Interior room lamp power supply
- Map lamp bulb

1. CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

CONSULT-III ACTIVE TEST

1. Switch the map lamp switch to DOOR.

- 2. Turn the ignition switch ON.
- 3. Select "INT LAMP" of BCM (INT LAMP) active test item.
- 4. With operating the test items, check that each interior room lamp turns ON/OFF (gradual brightening/dimming).

On : Interior room lamp gradual brightening

Off : Interior room lamp gradual dimming

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

YES >> Interior room lamp control circuit is normal.

NO >> Refer to INL-22, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

CONSULT-III ACTIVE TEST

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

BC	BCM		Test item	Continuity
Connector	Terminal	Ground	INT LAMP	Continuity
M119	19	Ground	On	Existed
101119	19		Off	Not existed

Is the measurement value normal?

YES >> GO TO 2. Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM.

2. CHECK INTERIOR ROOM LAMP CONTROL OPEN CIRCUIT

1. Turn the ignition switch OFF.

2. Disconnect BCM connector and map lamp connector.

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

B	CM	Мар	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M119	19	R15	2	Existed

Does continuity exist?

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INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT	DIAGNOSIS >
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- YES >> Replace the map lamp.
- NO >> Repair the harnesses or connectors.

3. CHECK INTERIOR ROOM LAMP CONTROL SHORT CIRCUIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect BCM connector and map lamp connector.

3. Check continuity between BCM harness connector and the ground.

BCM			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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< DTC/CIRCUIT DIAGNOSIS >

STEP LAMP CIRCUIT

Description

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

Component Function Check

CAUTION:

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

- Interior room lamp power supply
- Step lamp bulb

1.CHECK STEP LAMP OPERATION

CONSULT-III ACTIVE TEST

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

On : Step lamp ON

Off : Step lamp OFF

Does the step lamp turn ON/OFF?

YES >> Step lamp circuit is normal. NO >> Refer to INL-24, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK STEP LAMP OUTPUT

CONSULT-III ACTIVE TEST

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

BC	CM		Test item	
Connector	Terminal	Ground	STEP LAMP TEST	Continuity
M119	7		On	Existed
101113	7		Off	Not existed

Is the measurement value normal?

YES >> GO TO 2. Fixed ON>>GO TO 3.

Fixed OFF>>Replace BCM.

2. CHECK STEP LAMP OPEN CIRCUIT

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

BCM			Continuity		
Connector	Terminal	Connector		Terminal	Continuity
M119	7	Driver side	D12	2	Existed
10113		Passen- ger side	D42	2	LAISIEU

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STEP LAMP CIRCUIT

< DTC/CIRCU	IT DIAGNOSIS				
Does continuity					
YES >> Re	place the step la	amp.			A
NO >> Re	pair the harness	ses or connecto	ors.		
3.CHECK STE					В
 Turn the ig Check cont 	nition switch OF tinuity between	F. BCM harness o	connector and	the ground.	
B	СМ			-	С
Connector	Terminal	Ground	Continuity		
M119	7	Cround	Not existed	_	D
Does continuity				-	
YES >> Re	pair the harness	ses or connecto	vrs.		E
NO >> Re	place BCM.				
					_
					F
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< DTC/CIRCUIT DIAGNOSIS >

TRUNK ROOM LAMP CIRCUIT

Description

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

Component Function Check

CAUTION:

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

- Interior room lamp power supply
- Trunk room lamp bulb

1.CHECK TRUNK ROOM LAMP OPERATION

CONSULT-III ACTIVE TEST

- T. 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-24, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK TRUNK ROOM LAMP OUTPUT

CONSULT-III ACTIVE TEST

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

BC	BCM		Test item	
Connector	Terminal	Ground	LUGGAGE LAMP TEST	Continuity
M120	30		On	Existed
101120	50		Off	Not existed

Is the measurement value normal?

YES >> GO TO 2.

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

2. CHECK TRUNK ROOM LAMP OPEN CIRCUIT

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

BC	CM	Trunk ro	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M120	30	B47	2	Existed

Does continuity exist?

YES >> Replace the trunk room lamp.

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TRUNK ROOM LAMP CIRCUIT

< DTC/CIRCU	IT DIAGNOSIS	>			•	
	pair the harness					
3.CHECK TRU	JNK ROOM LA	MP SHORT CIF	RCUIT			А
2. Disconnect	nition switch OF BCM connecto tinuity between	or and trunk room				В
В	СМ		Continuity	_		С
Connector	Terminal	Ground	Continuity			C
M120	30		Not existed			
Does continuity	<u>vexist?</u>					D
YES >> Re NO >> Re	pair the harness place BCM.	ses or connecto	rs.			E
						F
						G
						Н
						I
						J
						K
						INL
						Μ
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PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

Description

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

Component Function Check

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

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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

Ignition switch ON			
 Lighting switch 1ST 	ON		
Ignition switch OFF Lighting switch OFF OFF Driver door LOCK			

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.

B	CM	Push-button	ignition switch	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.

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

CONSULT-III ACTIVE TEST

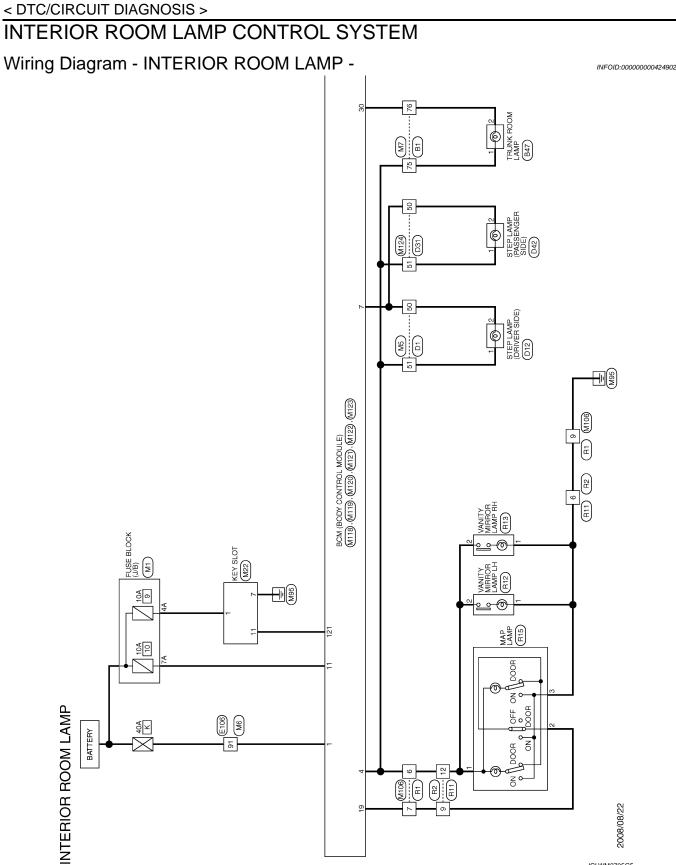
- 1. Turn the ignition switch ON.
- 2. Select "ENGINE SW ILLUMI" of BCM (INTELLIGENT KEY) active test item.
- 3. With operating the test item, check voltage between BCM harness connector and the ground.

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PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

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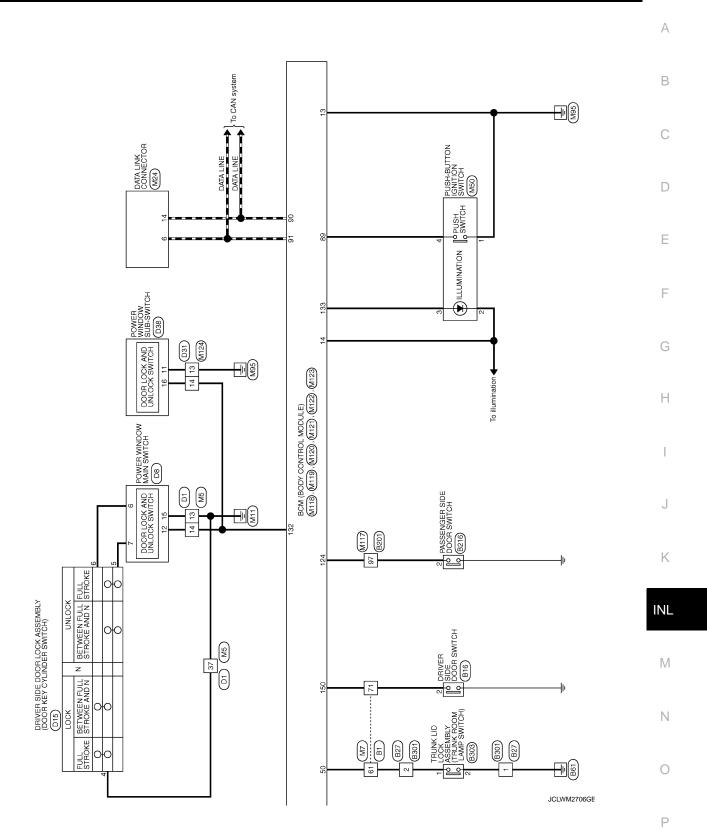
	1 Terminal 133	(-)	Test item		
M123 the measure YES >> G0			ENGINESW	Voltage (Approx.)	
the measure YES >> G	133	Ground	ILLUMI	C \ (-
YES >> G			ON OFF	5 V 0 V	-
	ement valu	e normal?			-
	O TO 4. O TO 5.				
			N SWITCH	ILLUMINAT	ION POWER SUPPLY OPEN CIRCUIT
Turn the ig					
					switch connector. ne push-button ignition switch harness connector.
BCM			ignition switch	Continuity	-
Connector M123	Terminal 133	Connector M50	Terminal 3	Existed	-
bes the conti			3	Existed	-
10 >> Re	epair the h	arness or th	n ignition swit e connector. NN SWITCH		ION POWER SUPPLY SHORT CIRCUIT
Turn the ic					
Disconnec Check cor	ntinuity bet	nnector and	the push-but harness con	tton ignition nector and t	switch connector. he ground.
Disconnec Check cor	ct BCM con ntinuity bet	nnector and ween BCM	the push-but harness con	tton ignition nector and t Continuity	switch connector. he ground.
Disconnec Check cor	ct BCM con ntinuity bet	nnector and ween BCM	harness coni	nector and t	switch connector. he ground.
Disconnec Check cor E Connector M123 Oes the conti YES >> Re	Ct BCM continuity before a second sec	nnector and ween BCM	harness coni	nector and t	switch connector. he ground.
Disconnec Check cor E Connector M123 Oes the conti (ES >> Re	Ct BCM continuity before a second sec	nnector and ween BCM	harness coni	nector and t	switch connector. he ground.
Disconnec Check cor E Connector M123 Des the conti (ES >> Re	Ct BCM continuity before a second sec	nnector and ween BCM	harness coni	nector and t	switch connector. he ground.
Disconnec Check cor E Connector M123 Oes the conti YES >> Re	Ct BCM continuity before a second sec	nnector and ween BCM	harness coni	nector and t	switch connector. he ground.



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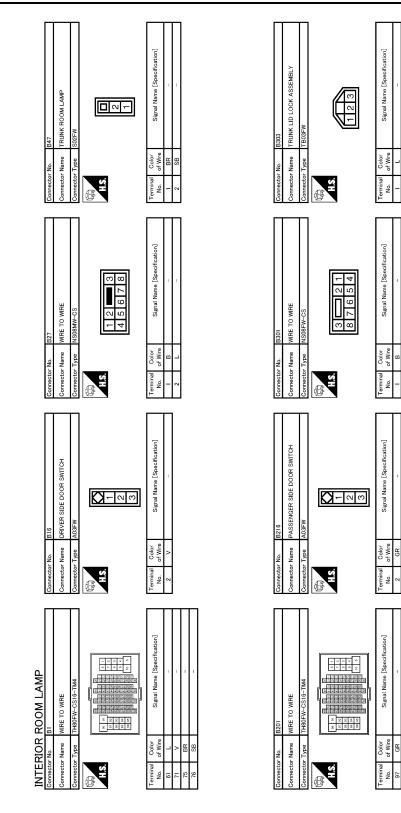
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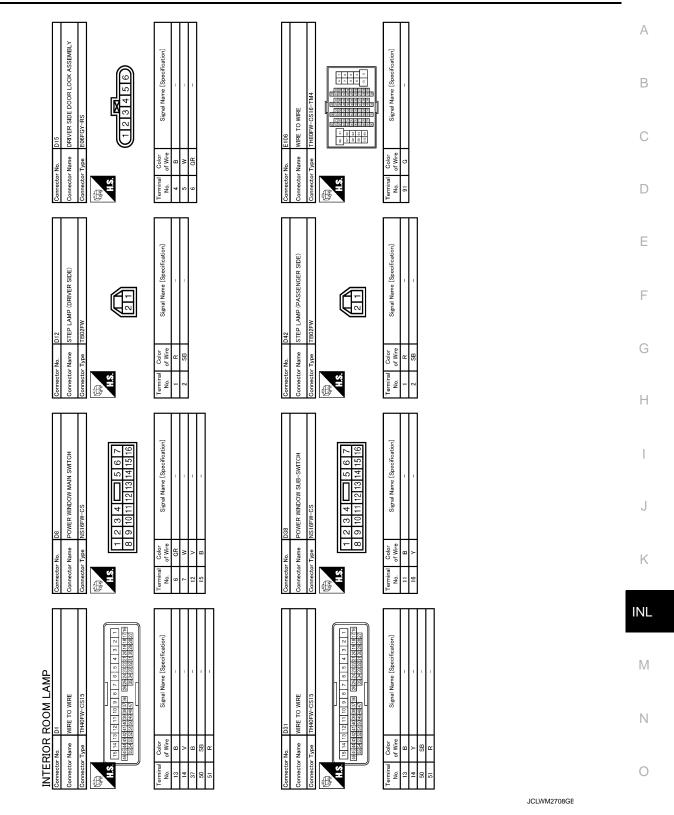
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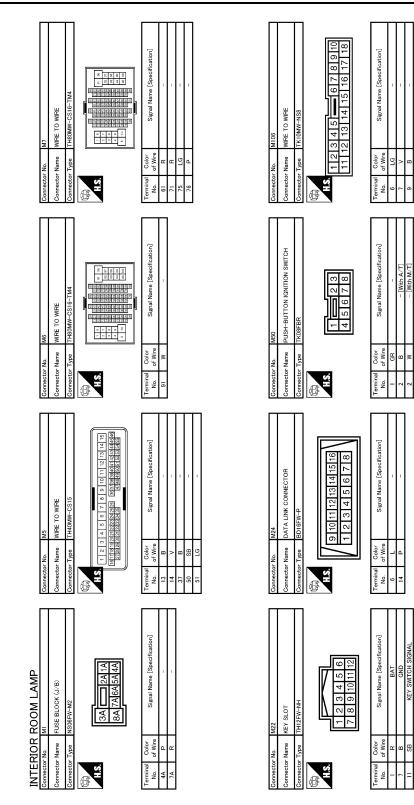
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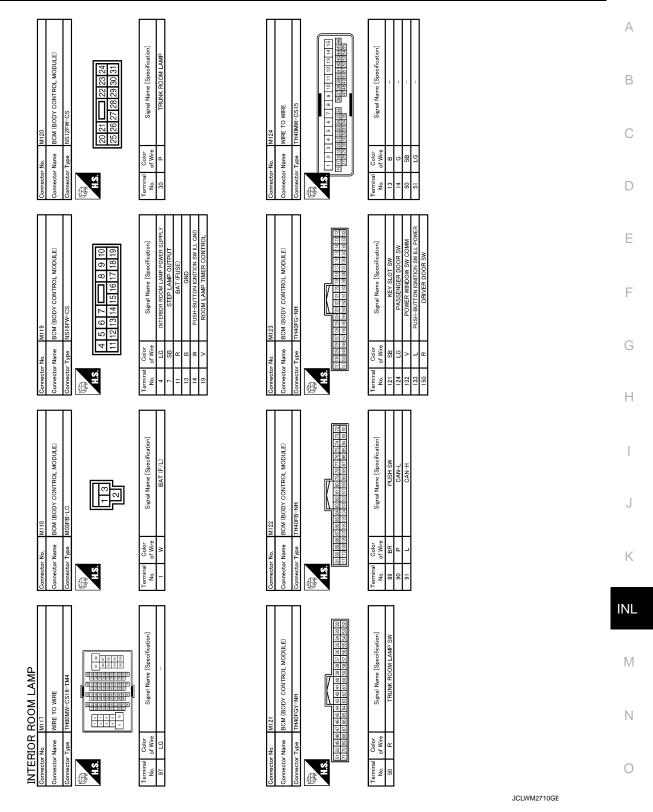
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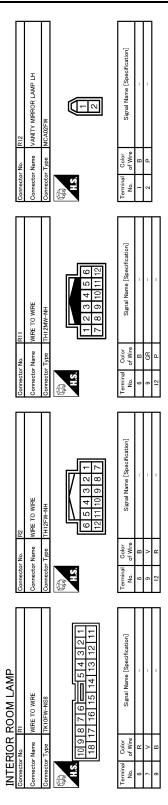
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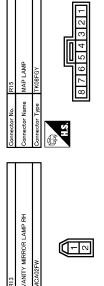
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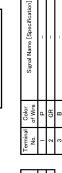


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Signal Name [Specification]

Color of Wire

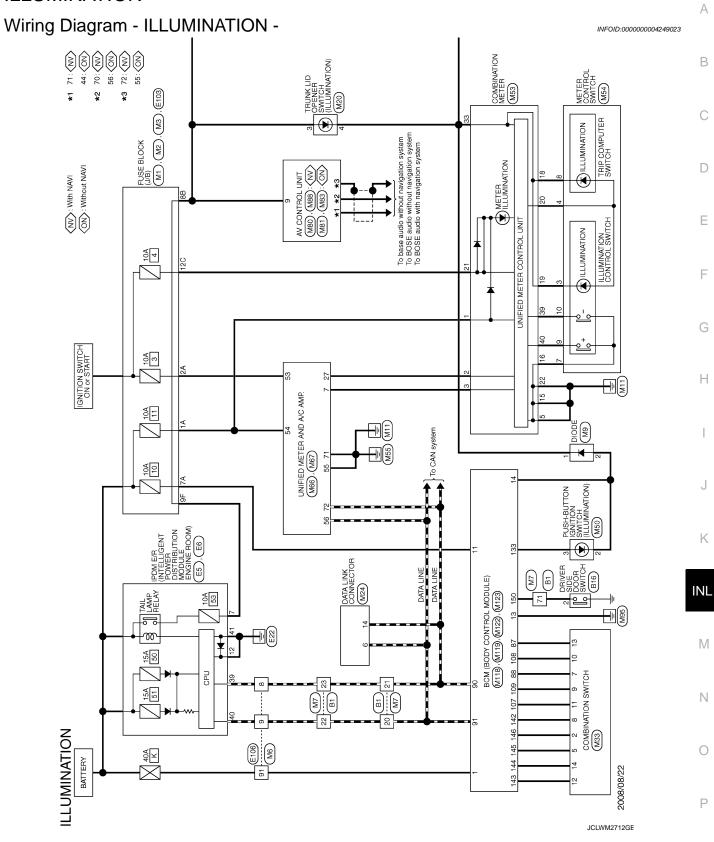
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Name

H.S.

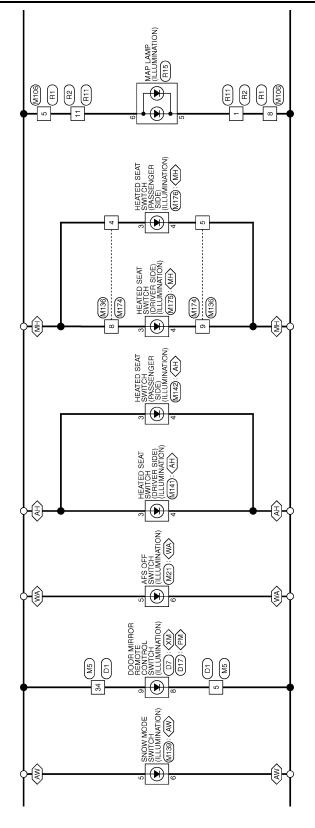
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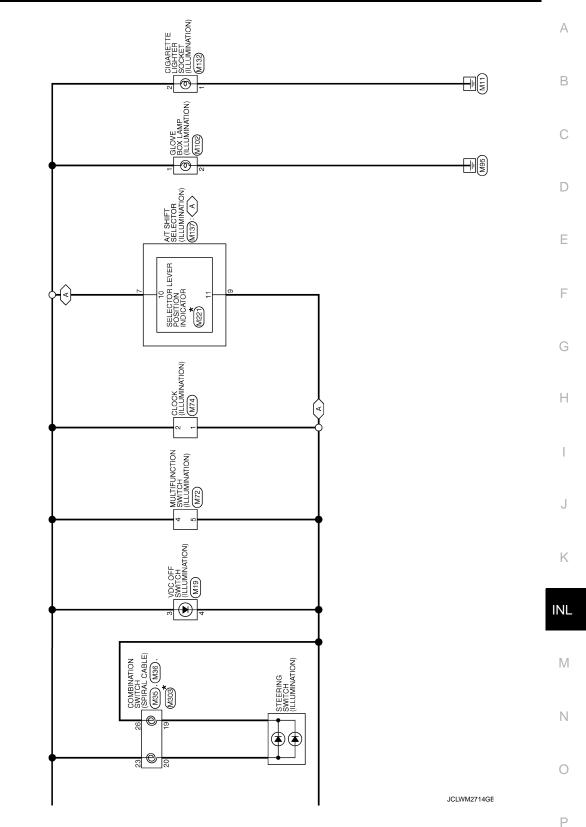
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JCLWM2713GE

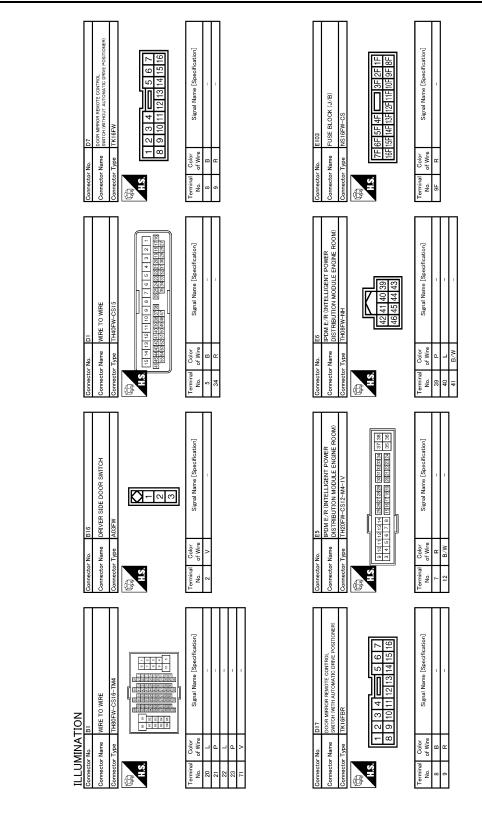
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With A/T
 This connector is not shown in "Harness Layout".

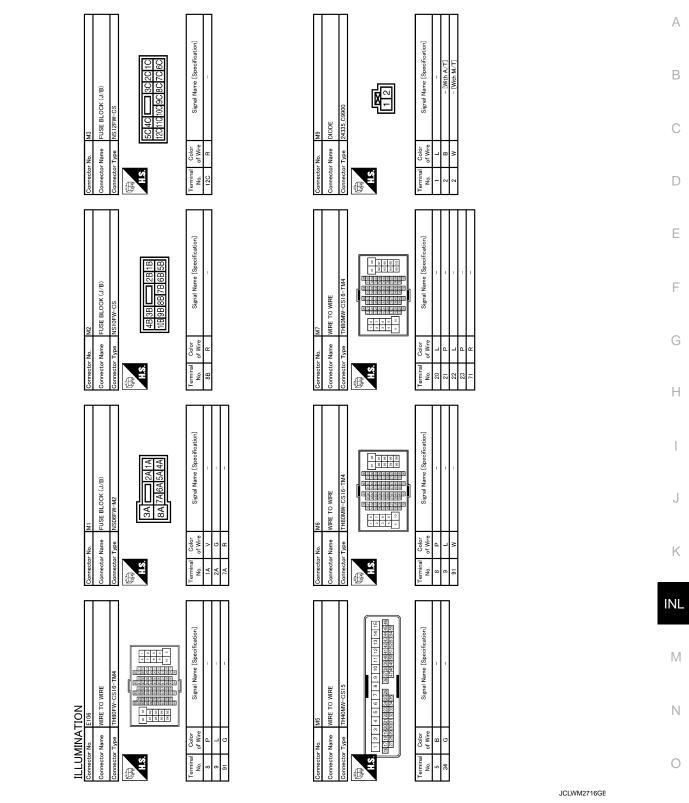
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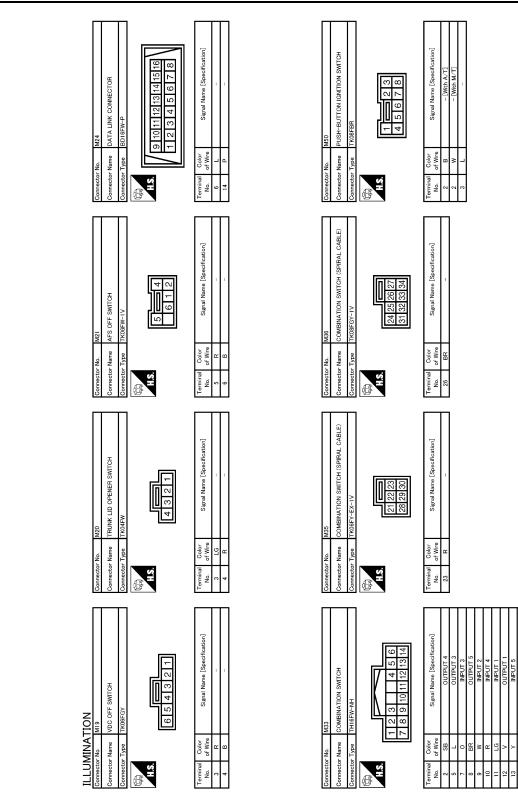


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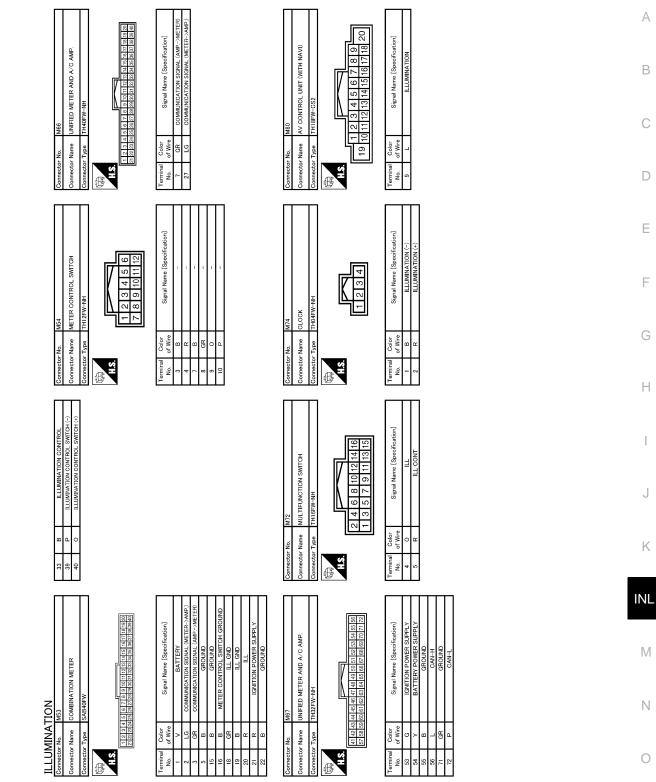


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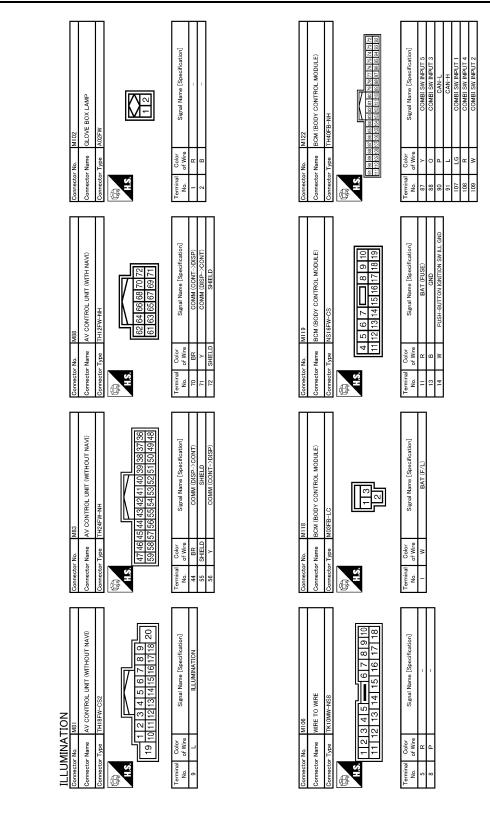
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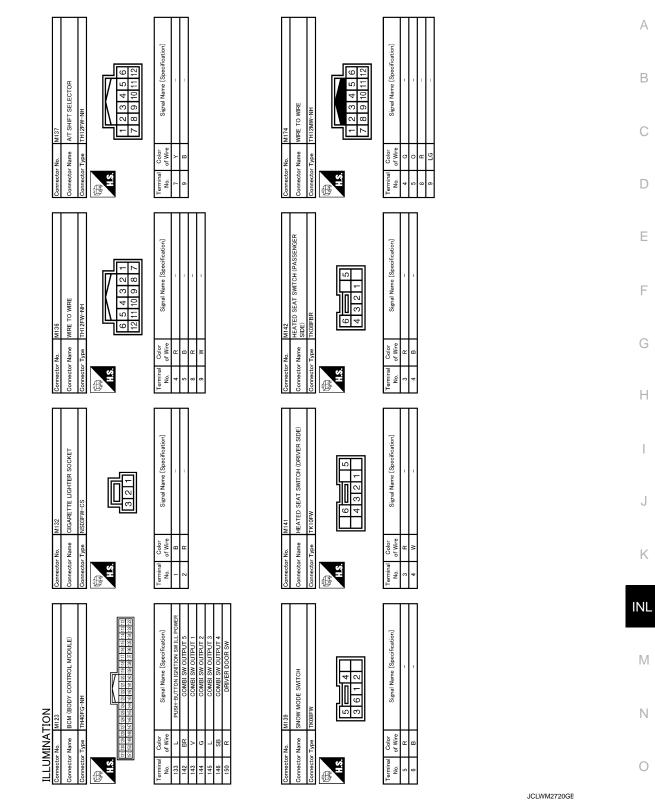
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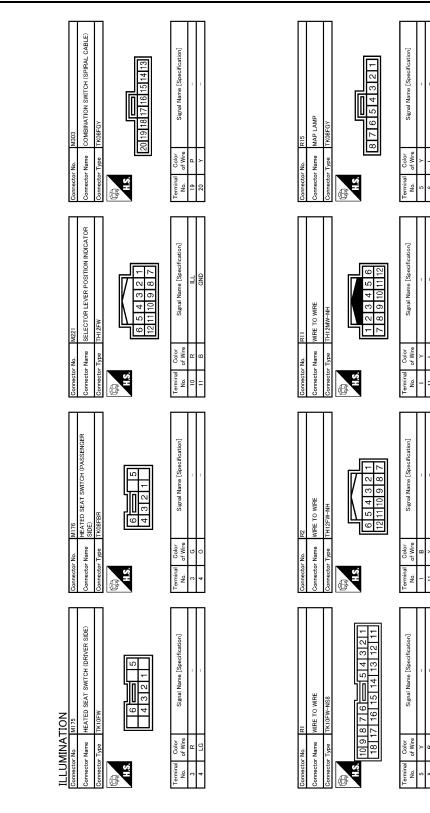
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< DTC/CIRCUIT DIAGNOSIS >



JCLWM2721GE

ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
	Other than front wiper switch HI	Off
FR WIPER HI	Front wiper switch HI	On
	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
	ont wiper switch HIOnther than front wiper switch LOOffont wiper switch LOOnont washer switch OFFOffont washer switch ONOnther than front wiper switch INTOffont wiper switch INTOffont wiper switch INTOnont wiper is not in STOP positionOffont wiper is in STOP positionOniper intermitten dial is in a dial position 1 - 7Wiper intermitter positioniper intermitten that urn signal switch RHOffurn signal switch LHOffurn signal switch LHOffiper than lighting switch 1ST and 2NDOffghting switch 1ST or 2NDOnther than lighting switch 2NDOffghting switch PASSOffghting switch PASSOff	
FR WASHER SW	Front washer switch ON	On
	Other than front wiper switch INT	Off
	WIPER INT Front wiper switch INT WIPER STOP Front wiper is not in STOP position VOLUME Wiper intermittent dial is in a dial position 1 - 7 CN SIGNAL R Other than turn signal switch RH Turn signal switch RH Other than turn signal switch LH	On
R WIPER STOP	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
	Other than turn signal switch RH	Off
FURN SIGNAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
I UKN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
II BEAM SW IEAD LAMP SW 1	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	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
DOOR SW-DR	Driver door closed	Off
DOOK 200-DK	Driver door opened	On
	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW-RR	NOTE: The item is indicated, but not monitored.	Off

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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
CET OTE ER-SW	Other than driver door key cylinder LOCK position Driver door key cylinder LOCK position Other than driver door key cylinder UNLOCK position Driver door key cylinder UNLOCK position NOTE: The item is indicated, but not monitored. Hazard switch is ON NOTE: The item is indicated, but not monitored. NOTE: NOTE:	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	NOTE: The item is indicated, but not monitored. NOTE: The item is indicated, but not monitored. V Other than power door lock switch LOCK SW Other than power door lock switch UNLOCK SW Other than power door lock switch UNLOCK SW Other than driver door key cylinder LOCK position Driver door key cylinder LOCK position Driver door key cylinder UNLOCK position SW Other than driver door key cylinder UNLOCK position Driver door key cylinder UNLOCK position Driver door key cylinder UNLOCK position SW Driver door key cylinder UNLOCK position TR NOTE: The item is indicated, but not monitored. Hazard switch is OFF Hazard switch is OFF Hazard switch is OFF Trunk lid opener cancel switch OFF Trunk lid opener cancel switch OFF Trunk lid opener cancel switch OFF W Trunk lid opener switch OFF While the trunk lid opener switch OFF Trunk lid opener Trunk lid opener Itelligent Key is not pressed LOCK button of the Intelligent Key is not pressed UNLOCK button of the Intelligent Key is not pressed UNLOCK button of the Intelligent Key is not pressed PANIC button of the Intelligent Key is not	On
KEY CYL SW-TR		Off
IAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW		Off
H/L WASH SW		Off
	Trunk lid opener cancel switch OFF	Off
FR CANCEL SW	Trunk lid opener cancel switch ON	On
FR/BD OPEN SW	Trunk lid opener switch OFF	Off
IR/BD OPEN SW	While the trunk lid opener switch is turned ON	On
	Trunk lid closed	Off
	Trunk lid opened	On
	LOCK button of the Intelligent Key is not pressed	Off
	LOCK button of the Intelligent Key is pressed	On
	UNLOCK button of the Intelligent Key is not pressed	Off
KE-LOCK	UNLOCK button of the Intelligent Key is pressed	On
	TRUNK OPEN button of the Intelligent Key is not pressed	Off
	4L The item is indicated, but not monitored. 3K NOTE: The item is indicated, but not monitored. 3W Other than power door lock switch LOCK Power door lock switch LOCK Power door lock switch UNLOCK CK SW Other than power door lock switch UNLOCK Power door lock switch UNLOCK Power door lock switch UNLOCK position CW Driver door key cylinder LOCK position Driver door key cylinder UNLOCK position Driver door key cylinder UNLOCK position V Hazard switch is OFF Hazard switch is OFF Hazard switch is OFF Hazard switch is ON NOTE: The item is indicated, but not monitored. SW NOTE: The item is indicated, but not monitored. SW Thruk lid opener cancel switch OFF Trunk lid opener cancel switch OFF Trunk lid opener cancel switch ON MITR Trunk lid opener switch St turned ON MITR Trunk lid opener switch St turned ON MITR Trunk lid opener switch is turned ON MITR Trunk lid opener switch St turned St	On
	PANIC button of the Intelligent Key is not pressed	Off
TRNK/HAT MNTR RKE-LOCK RKE-UNLOCK RKE-TR/BD RKE-PANIC RKE-P/W OPEN	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG		Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR		Off

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Monitor Item	Condition	Value/Status
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
	NOTE: Off	Off
REQ SW -BD/TR		On
	NOTE: The item is indicated, but not monitored. Trunk lid opener request switch is not pressed Push-button ignition switch (push switch) is not pressed Push-button ignition switch (push switch) is pressed Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position Ignition switch in ON position NOTE:: The item is indicated, but not monitored. The clutch pedal is depressed The clutch pedal is depressed when No. 7 fuse is blown The brake pedal is depressed when No. 7 fuse is blown, or No. 7 fuse is nor mal The brake pedal is depressed when No. 7 fuse is blown, or No. 7 fuse is nor mal The brake pedal is depressed (M/T models) • The clutch pedal is depressed (M/T models) • The clutch pedal is depressed (M/T models) • The clutch pedal is depressed (M/T models) • Selector lever in any position other than P (Except M/T models) • Selector lever in any position other than P and N Selector lever in P or N position Steering is unlocked Steering is locked Steering is locked Steering is unlocked Ignition switch in OF or ACC position Ignition switch in OF por ACC po	Off
PUSH 3W	Push-button ignition switch (push switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
GN KLIZ -F/B	Ignition switch in ON position	On
ACC RLY -F/B		Off
EQ SW -BD/TR USH SW GN RLY2 -F/B CC RLY -F/B LUCH SW RAKE SW 1 RAKE SW 2 ETE/CANCL SW	The clutch pedal is not depressed	Off
CLUCH SVV	NOTE: The item is indicated, but not monitored. Trunk lid opener request switch is not pressed Trunk lid opener request switch is pressed Push-button ignition switch (push switch) is not pressed Ignition switch in OFF or ACC position Ignition switch in ON position NOTE: The item is indicated, but not monitored. The clutch pedal is not depressed The lutch pedal is depressed The brake pedal is depressed when No. 7 fuse is blown The brake pedal is depressed when No. 7 fuse is blown, or No. 7 fuse is normal The brake pedal is depressed (M/T models) • Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models) • The clutch pedal is not depressed (M/T models) • The clutch pedal is not depressed (M/T models) • The clutch pedal is not depressed (M/T models) • Selector lever in any position other than P and N Selector lever in not position Steering is unlocked Steering is unlocked Ignition switch in OFF or ACC position Ignition switch in ON position Driver door is unlocked Driver door is unlocked Driver door is unlocked	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	Q SW -RL NOTE: The item is indicated, but not monitored. Q SW -BD/TR Trunk lid opener request switch is pressed SH SW Push-button ignition switch (push switch) is not pressed Push-button ignition switch (push switch) is not pressed Push-button ignition switch (push switch) is not pressed I RLY2 -F/B Ignition switch in OFF or ACC position Ignition I RLY2 -F/B Ignition switch in ON position To clutch pedal is not depressed C RLY -F/B NOTE: The item is indicated, but not monitored. The clutch pedal is not depressed UCH SW The clutch pedal is not depressed The brake pedal is not depressed AKE SW 1 The brake pedal is not depressed when No. 7 fuse is blown AKE SW 2 The brake pedal is not depressed (MT models) T brake pedal is not depressed (MT models) • The clutch pedal is depressed (MT models) * The clutch pedal is not depressed (MT models) • The clutch pedal is not depressed (MT models) * The clutch pedal is not depressed (MT models) • The clutch pedal is not depressed (MT models) * The clutch pedal is not depressed (MT models) • The clutch pedal is not depressed * Selector lever in any position other than P and N Selector lever in any position other than P and N	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
		Off
DETE/CANCL SW		On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
	Steering is unlocked	Off
S/L -LOCK	 Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models) Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) Selector lever in any position other than P and N Selector lever in P or N position Steering is unlocked Steering is locked Steering is unlocked Ignition switch in OFF or ACC position 	On
	Steering is locked	Off
S/L -UNLOCK	 E/CANCL SW Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models) Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) The clutch pedal is not depressed (M/T models) Selector lever in any position other than P and N Selector lever in P or N position Steering is unlocked Steering is locked Steering is locked Steering is unlocked Steering is unlocked Ignition switch in OFF or ACC position Ignition switch in ON position 	On
	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Trunk lid opener request switch is not pressed Trunk lid opener request switch is pressed Push-button ignition switch (push switch) is not pressed Push-button ignition switch (push switch) is pressed Ignition switch in OFF or ACC position Ignition switch in ON position NOTE: The item is indicated, but not monitored. The clutch pedal is not depressed The clutch pedal is depressed The brake pedal is depressed when No. 7 fuse is blown. The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal The brake pedal is not depressed The brake pedal is depressed Selector lever in a position (Except W/T models) • The clutch pedal is depressed (M/T models) • The clutch pedal is depressed (M/T models) • The clutch pedal is not depressed (M/T models) • Selector lever in any position other than P (Except M/T models) • The clutch pedal is not depressed (M/T models) • Selector lever in any position other than P and N Selector lever in any position other than P and N Selector lever in Or N position Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position	On
	Driver door is unlocked	Off
UNLK SEN -DR	NOTE: The item is indicated, but not monitored. Trunk lid opener request switch is not pressed Trunk lid opener request switch is pressed Push-button ignition switch (push switch) is not pressed Ignition switch in OFF or ACC position Ignition switch in ON position NOTE: The item is indicated, but not monitored. The clutch pedal is not depressed The clutch pedal is depressed The brake pedal is depressed when No. 7 fuse is blown The brake pedal is not depressed Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models) • Selector lever in any position other than P (Except M/T models) • Selector lever in any position other than P and N Selector lever in any position other than P and N Selector lever in P on N position Steering is unlocked Steering is unlocked Ignition switch in OFF or ACC position Ignition switch in OFF or ACC	On
	Push-button ignition switch (push-switch) is not pressed	Off
202H 211 - ILDIN	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
IGIN KLI I -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
	Selector lever in P position	On
		Off
SF I FIN -IFUIVI	· · · · · · · · · · · · · · · · · · ·	On
	Selector lever in any position other than P	Off
OFI M-IVIEI	Selector lever in P position	On
OFT N MET	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
	Steering is unlocked	Off
S/L LOCK-IPDM	Steering is locked	On
	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
S/L RELAT-REQ	Steering lock system are not 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
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
ID OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
KET SW -SLUT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency o the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

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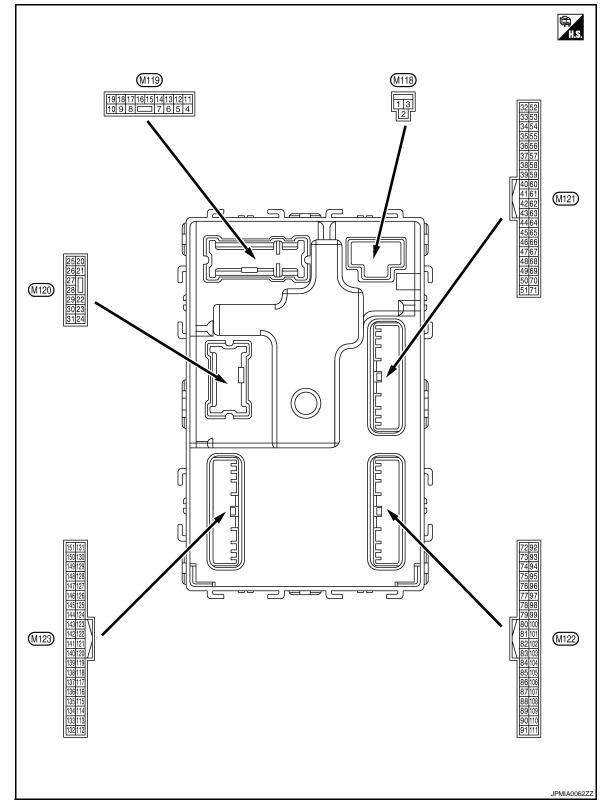
< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the first key ID regis- tered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
	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
IP 3 IP 2 IP 1 IR PRESS FL IR PRESS FR IR PRESS RR IR PRESS RL D REGST FL1 D REGST FR1 D REGST RR1 D REGST RL1	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	The ID of second Intelligent Key is registered to BCM	Done
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
	ID of front LH tire transmitter is registered	Done
D REGST FL1	ID of front LH tire transmitter is not registered	Yet
	ID of front RH tire transmitter is registered	Done
U REGOI FRI	ID of front RH tire transmitter is not registered	Yet
	ID of rear RH tire transmitter is registered	Done
U KEGOT KKI	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
D REGOT RL1	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
VARNING LAMP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

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< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description	1			Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (DFF	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 (NC	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	Cround	Passenger door UN-		Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Ground	LOCK	Output	door	Other than UNLOCK (Ac- tuator is not activated)	0 V
7	Ground	Stop Jama	0	Stop Jame	ON	0 V
(SB)	Ground	Step lamp	amp Output Step lamp OFF	OFF	12 V	
8	Ground	All doors, fuel lid	Quitout	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)		LOCK	Output	lid	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	r, fuel lid Output	Driver door,	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (DFF	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 brighten- ing/dimming level is in the neutral position.
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	JSNIA0010GB
(U)					ACC	0 V

Terminal No. Description						
(Wire +	color) –	Signal name	Input/ Output		Condition	Value (Approx.)
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
					Turn signal switch OFF	0 V
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 15 15 15 15 15 15 15 15
19	Ground	Room lamp timer	Output	Interior room	OFF	12 V
(V)	Ground	control	Output	lamp	ON	0 V
					Turn signal switch OFF	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 0 10 10 10 10 10 10 10 10 10
23	One of the	Tauluidanan	Outrut	ut Trunk lid	OPEN (Trunk lid opener actuator is activated)	12 V
(L)	Ground	Trunk lid open	Output		Other than OPEN (Trunk lid opener actuator is not activated)	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 1 s 1 s 1 s 1 s 1 s 1 s 1 s
30	Ground	Trunk room lamp	Output	Trunk room	ON	0 V
(P)	Cround		Supul	lamp	OFF	12 V

	Terminal No. Description (Wire color)				Value	Λ	
(vvire +		Signal name	Input/ Output	Condition		(Approx.)	A
34	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(SB)	(SB) Ground	(-)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB	E
35	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(V)	Ground	(+)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	J K
38	Ground	Ground Rear bumper anten- na (-)		When the trunk lid opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(B)	Ground		Output	quest 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	P

Terminal No.		Description				Value										
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)										
39	Ground	Rear bumper anten-	Output	When the trunk lid opener re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1										
(W)	Giound	na (+)	Guiput		When Intelligent Key is not in the antenna detection area	(V) 15 0 1 s JMKIA0063GB										
47		Ignition relay (IPDM	.		OFF or ACC	12 V										
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V										
50 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 10 ms JPMIA0011GB 11.8 V										
					ON (Trunk lid is opened)	0 V										
			Output											Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V
52	Ground	round Starter relay control		els)	When selector lever is not in P or N position	0 V										
(SB)		,,		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 re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 10 10 ms JPMIA0016GB										
		latelline at 12		Intelline of K	O a vera dia a	1.0 V										
64 (L)	Ground	Intelligent Key warn- ing buzzer (Engine	Output	Intelligent Key warning buzzer	Sounding	0 V										
(⊏)		room)		(Engine room)	Not sounding	12 V										

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	nal No. color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					Pressed	0 V
67 (GR) Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	
						(V) 15
			When Intelligent Key is in the passenger compart- ment			
72	Ground	Room antenna 2 (–)	Output	Ignition switch OFF		JMKIA0062GB
(R) Grour		(Center console)	Cupu		When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0
						JMKIA0063GB
						(<u>N</u>)
		round Room antenna 2 (+) (Center console)			When Intelligent Key is in the passenger compart-	(V) 15 10 5 0
73				Ignition switch	ment	1 s JMKIA0062GB
(G)	Ground		Output	OFF		(V)
					When Intelligent Key is not in the passenger compart- ment	
					JMKIA0063GB	

	nal No.	Description	Volue			Value				
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)				
74	4 Ground Passenger door an- When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB							
(SB)	Ground	tenna (-)	Output	quest switch is – operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1				
75	Ground	Passenger door an-	Output			S	When the pas- senger door re-	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s JMKIA0062GB
(BR)		tenna (+)		operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1				
76	Ground	Driver door antenna (–)		When the driv- er door request switch is oper- ated with igni- tion switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB				
(V)	Ground		Cutput		When Intelligent Key is not in the antenna detection area	(V) 15 0 5 0 1 s 1 s JMKIA0063GB				

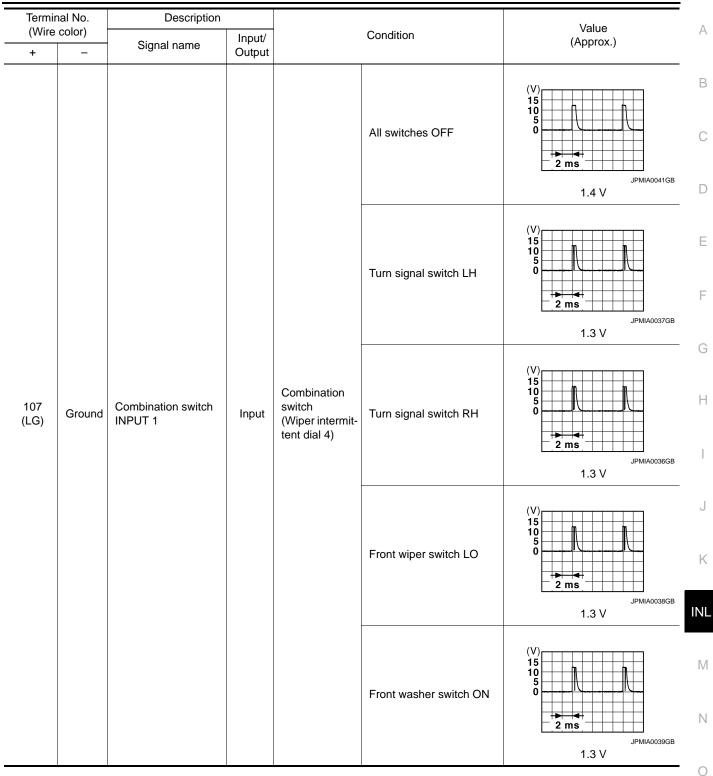
	nal No.	Description				Value	А
+	color)	Signal name	Input/ Output		Condition	(Approx.)	\cap
77	77 Ground Drive (LG) (+)	Driver door antenna	Output	When the driv- er door request switch is oper- ated with igni- tion switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(LG)		(+)			When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
78		Room antenna 1 (–)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(Y)	Ground	(Instrument panel)	Output	ŎFF .	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	J K
79	Ground	Room antenna 1 (+)		Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 10 50 1 s JMKIA0062GB	M
(BR)	Ground	(Instrument panel)			When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	P

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V
83	Ground	Remote keyless entry receiver communica-	Input/	During waiting		(V) 15 10 50 1 ms JMKIA0064GB
(Y)	Ground	tion	Output	When operating gent Key	nen operating either button on the Intelli- nt Key	(V) 15 10 5 0 1 ms JMKIA0065GB
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms 1.4 V
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 0 2 ms JPMIA0040GB 1.3 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 All switches OFF (Wiper intermittent dial 4) 2 ms JPMIA0041GB D 1.4 V $(\setminus$ 15 10 Ε Lighting switch HI n (Wiper intermittent dial 4) F 2 ms JPMIA0036GB 1.3 V 88 Combination switch Combination Ground Input (O) **INPUT 3** switch 15 10 Н Lighting switch 2ND ٢ (Wiper intermittent dial 4) 2 ms JPMIA0037GB 1.3 V 15 Any of the conditions be-10 low with all switches OFF 0 · Wiper intermittent dial 1 Κ · Wiper intermittent dial 2 · Wiper intermittent dial 3 2 ms JPMIA0040GB 1.3 V INL Push-button ig-0 V Pressed 89 Push-button ignition Ground Input nition switch (BR) switch (Push switch) Not pressed Battery voltage (push switch) Μ 90 Input/ Ground CAN-L (P) Output 91 Input/ Ν CAN-H Ground (L) Output OFF 0 V (V 15 10 Ρ 92 Key slot illumi-Ground Key slot illumination Output Blinking (LG) nation 1 s JPMIA0015GB 6.5 V ON 12 V

BCM (BODY CONTROL MODULE)

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
93 (Y)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(1)					ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	Ciouna	Acc relay control	Output	Ignition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)		tion No. 1	p at		UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)	Croana	tion No. 2	mpar	Clocking look	UNLOCK status	0 V
		Selector lever P posi-		Selector lever	P position	0 V
		tion switch			Any position other than P	12 V
		ASCD clutch switch (M/T models without		ASCD clutch	OFF (Clutch pedal is de- pressed)	0 V
99 (R)	Ground	ICC)	Input	switch	ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is de- pressed)	0 V
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V
					ON (Pressed)	0 V
100 (Y)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(O)		lay control		5	ON	12 V
103 (LG)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch C	DFF	12 V
106	Ground	Steering lock unit	Output	Ignition switch	OFF or ACC	12 V
(W)	Ground	power supply			ON	0 V



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Terminal No. Description (Wire color)				Value		
(vvire +		Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0038GB 1.3 V
(R)		INPUT 4		switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 2 ms JPMIA0039GB 1.3 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 ٢ All switches OFF С 2 m s JPMIA0041GB D 1.4 V (V) 15 10 Е C Lighting switch PASS F 2 ms JPMIA0037GB 1.3 V (V 15 10 Combination Н 109 switch Combination switch n Ground Input Lighting switch 2ND **INPUT 2** (W) (Wiper intermittent dial 4) 2 ms JPMIA0036GB 1.3 V J (V 15 10 0 Front wiper switch INT Κ 2 ms JPMIA0038GB INL 1.3 V (V 15 Μ 10 5 Front wiper switch HI 0 Ν 2 ms JPMIA0040GB 1.3 V Ο ON 0 V Ρ 10 110 Ground Hazard switch Input Hazard switch 5 (G) ò OFF 10 ms JPMIA0012GB 1.1 V

BCM (BODY CONTROL MODULE)

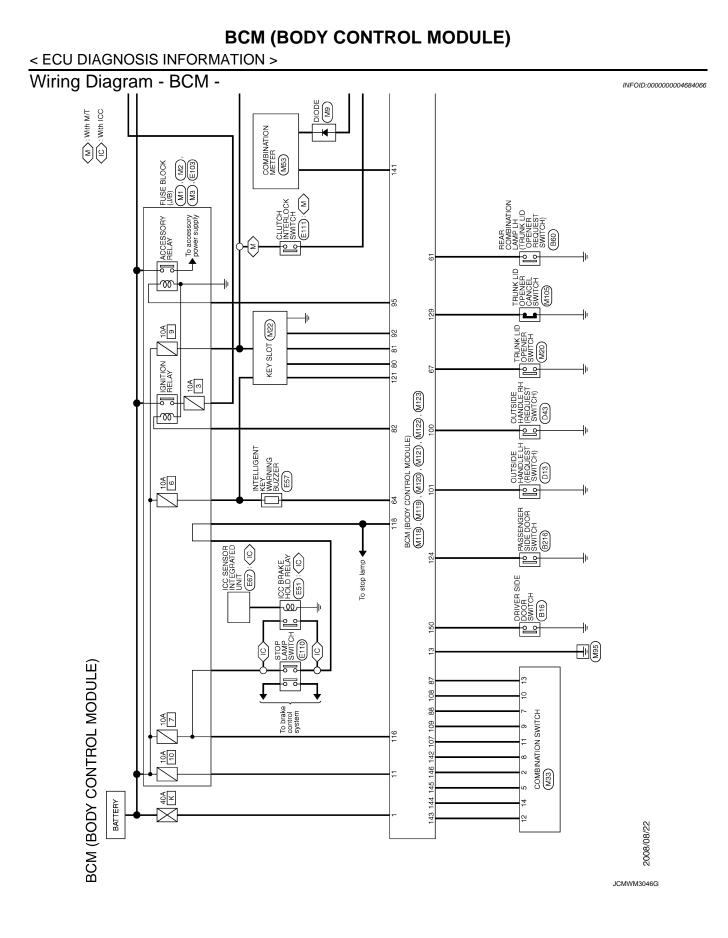
	nal No.	Description				Value
(Wire	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)
					LOCK status	12 V
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock Ignition switch ON Clutch interlock switch	LOCK or UNLOCK	(V) 15 10 50 50 MKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical sensor	Input	Image: steering lock LOCK or Lock For 15 sec EOCK Image: steering lock For 15 sec Image: steering lock For 15 sec Image: steering lock Image: steering lock Image: steering lock OFF (Image: steering lock Image: steering lock OFF (Image: steering lock Image: steering lock OFF (Image: steering lock Stop lamp OFF (Image: steering lock Stop lamp switch ON (Image: steering lock Stop lamp switch ON (Image: steering lock Stop lamp switch ON (Image: steering lock Driver door LOCK stat Unlock stat Unlock steering lock Unlock stat Unlock steering lock	When bright outside of the vehicle	Close to 5 V
(O)	Croana		mput	ON	When dark outside of the vehicle	Close to 0 V
114	Ground	Clutch interlock	Input	t Vhen the Intellig	OFF (Clutch pedal is not depressed)	0 V
(R)	Ground	switch	input		ON (Clutch pedal is de- pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118	Ground	(Without ICC)	Input	switch	ON (Brake pedal is de- pressed)	Battery voltage
(BR)	Ground	Stop lamp switch 2	input			0 V
		(With ICC)				Battery voltage
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 0 10 10 10 10 11 11 11 11 11
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Key slot switch	Input		gent Key is inserted into key	12 V
(SB)	Ground	NEY SIDE SWILLI	input		gent Key is not inserted into	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(W)	Cround		mput	.grinteri ownor	ON	Battery voltage

Terminal No. (Wire color)		Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms J JPMIA0011GB 11.8 V
					ON (Door open)	0 V
129 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB
					ON	1.1 V 0 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch C	DN	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10
						JPMIA0013GB 10.2 V
				Ignition switch C	1	12 V
					ON (Tail lamps OFF)	9.5 V
133		Push-button ignition		Push-button ig-		NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.
(L)	Ground	switch illumination	Output	nition switch il- lumination	ON (Tail lamps ON)	19 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
					OFF	0 V
134	Ground	LOCK indicator lamp	Output	LOCK indicator	OFF	Battery voltage
(LG) 137	Ground	Receiver and sensor	Input	lamp Ignition switch C		0 V 0 V
(O) 138		ground	F ***		OFF	0 V
1.70	Ground	Receiver and sensor	Output	Ignition switch		υv

	nal No.	Description				Value
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s ••• 0.2s
(L)	Glound	er communication	Output	ON	When receiving the signal from the transmitter	(V) 4 2 0 • • 0.2s OCC3880D
140	Crownd	Selector lever P/N	lanut		P or N position	12 V
(GR)	Ground	position (A/T models)	Input	Selector lever	Except P and N positions	0 V
					ON	0 V
141 (R)	Ground	Security indicator	Output	Security indica- tor	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB 11.3 V
					OFF	12 V
					All switches OFF	0 V
					Lighting switch 1ST	
				Combination	Lighting switch HI	(V) 15
142	Ground	Combination switch	Output	switch	Lighting switch 2ND	
(BR)	Ground	OUTPUT 5	Output	(Wiper intermit- tent dial 4)	Turn signal switch RH	0 2 ms JPMIA0031GB
						10.7 V
					All switches OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	(V) 15
143 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	15 0 2 ms JPMIA0032GB 10.7 V

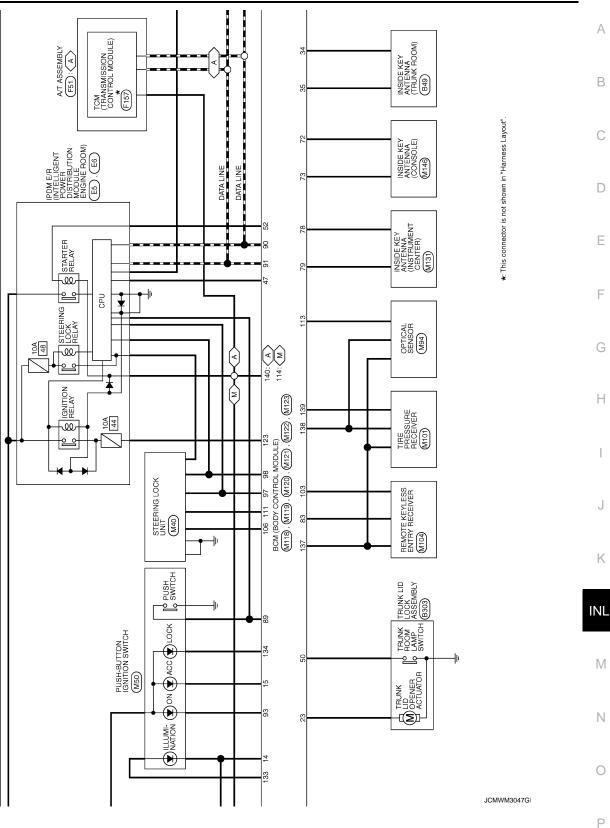
< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	0 V	
					Front washer switch ON (Wiper intermittent dial 4)		
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	15 10 5 0 2 ms JPMIA0033GB 10.7 V	
					All switches OFF	0 V	
					Front wiper switch INT		
				Combination	Front wiper switch LO	(V) 15	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms 10.7 V	
					All switches OFF	0 V	
		Combination switch		Combination switch (Wiper intermit- tent dial 4)	Front fog lamp switch ON		
					Lighting switch 2ND	(V) 15	
146					Lighting switch PASS		
(SB)	Ground	OUTPUT 4	Output		Turn signal switch LH	0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V	
150 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 10 ms 11.8 V	
					ON (Door open)	0 V	
151	Ground	Rear window defog-	Output	Rear window	Active	0 V	
(G)	Cround	ger relay control	Culput	defogger	Not activated	Battery voltage	

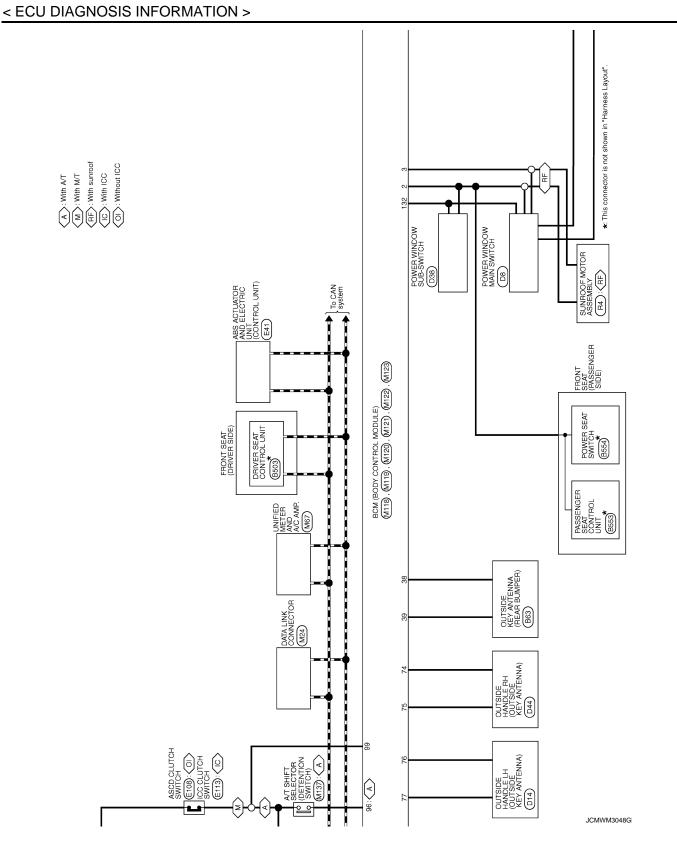


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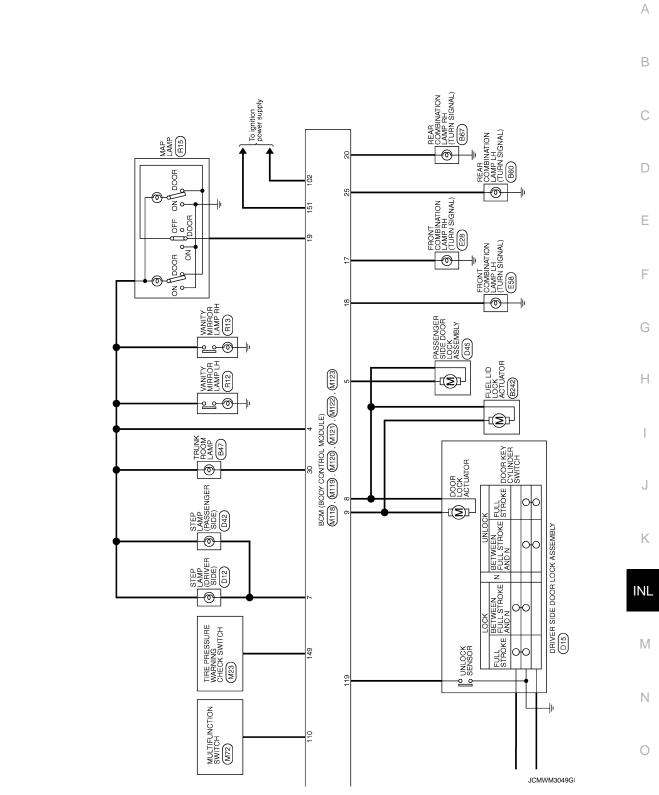


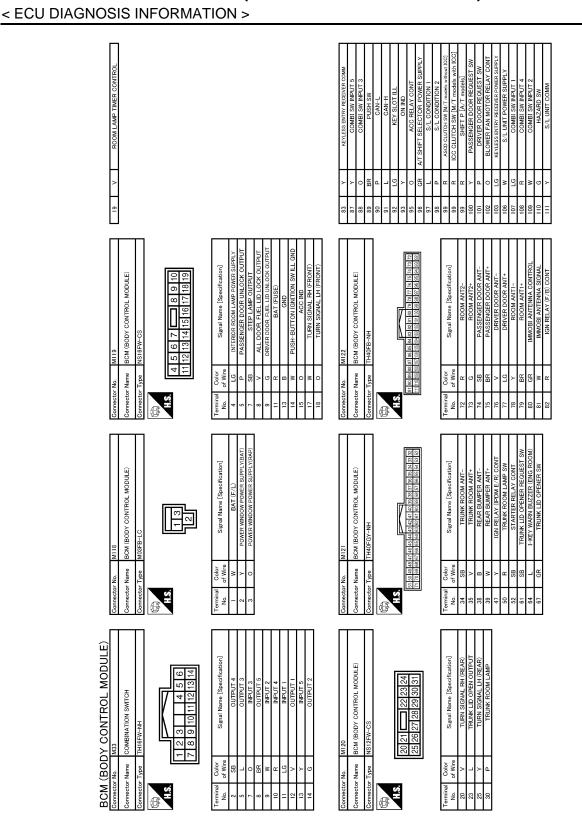
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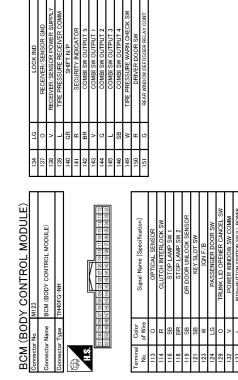
2009 G37 Coupe





JCMWM3050G

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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 actua- tor and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status be- comes 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)

< 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 crankingInhibit 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 fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine crankingInhibit 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 be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side 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)

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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Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM U1010: CONTROL UNIT(CAN)
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING
4	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: FUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2606: PNP SW B2606: S/L RELAY B2607: S/L RELAY B2609: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: S/L STATUS B26009: STEERING LOCK UNIT B26001: STEERING LOCK UNIT B26010: STEERING LOCK UNIT B26010: STEERING LOCK UNIT B26011: SATUS B2611: S/L STATUS B2612: S/L STATUS B2613: BCM B2614: ACC RELAY CIRC B2615: BCM B2614: PUSHER RELAY CIRC B2615: BCM B2615: BCM B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM B2619: BCM B2614: PUSH-BTN IGN SW B2615: VEHICLE TYPE B2668: CLUTCH SW B2664: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR	
	 C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL 	
	 C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL 	
5	 C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FL 	
0	 C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1720: [CODE ERR] FL 	
	 C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL 	
	 C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1734: CONTROL UNIT 	
6	B2621: INSIDE ANTENNA 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 <u>INL-14, "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

Freeze Frame Data Tire pressure •Vehicle Speed Intelligent Key Refer-INL CONSULT display Fail-safe monitor warning •Odo/Trip Meter warning lamp ON ence page lamp ON Vehicle condition No DTC is detected. Μ further testing ____ ____ may be required. U1000: CAN COMM ____ **BCS-35** _ ___ ____ Ν U1010: CONTROL UNIT(CAN) **BCS-36** ____ ___ ____ ___ U0415: VEHICLE SPEED SIG **BCS-37** _ _ _ _ B2013: ID DISCORD BCM-S/L **SEC-55** \times \times _____ ____ B2014: CHAIN OF S/L-BCM SEC-56 \times \times ____ _ B2190: NATS ANTENNA AMP SEC-47 × _ ____ Ρ B2191: DIFFERENCE OF KEY × **SEC-50** ___ ___ _ B2192: ID DISCORD BCM-ECM **SEC-51** \times B2193: CHAIN OF BCM-ECM \times _ ____ **SEC-53 B2195: ANTI SCANNING SEC-54** \times _ ____ ____ **B2553: IGNITION RELAY PCS-48** ____ × ____ _ B2555: STOP LAMP **SEC-59** ___ ____ \times _

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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	_	×	×	_	<u>SEC-61</u>
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-63</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-64</u>
B2562: LOW VOLTAGE	—	×	—	—	BCS-38
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-65</u>
B2602: SHIFT POSITION	×	×	×	—	<u>SEC-68</u>
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-70</u>
B2604: PNP SW	×	×	×	_	<u>SEC-73</u>
B2605: PNP SW	×	×	×	_	<u>SEC-75</u>
B2606: S/L RELAY	×	×	×	_	<u>SEC-77</u>
B2607: S/L RELAY	×	×	×	_	<u>SEC-78</u>
B2608: STARTER RELAY	×	×	×	_	<u>SEC-80</u>
B2609: S/L STATUS	×	×	×		<u>SEC-82</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-50
B260B: STEERING LOCK UNIT	_	×	×		<u>SEC-86</u>
B260C: STEERING LOCK UNIT		×	×		<u>SEC-87</u>
B260D: STEERING LOCK UNIT	_	×	×		<u>SEC-88</u>
B260F: ENG STATE SIG LOST	×	×	×		<u>SEC-89</u>
B2612: S/L STATUS	×	×	×		<u>SEC-94</u>
B2614: ACC RELAY CIRC	_	×	×	_	PCS-52
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-54
B2616: IGN RELAY CIRC		×	×		PCS-56
B2617: STARTER RELAY CIRC	×	×	×		<u>SEC-98</u>
B2618: BCM	×	×	×		PCS-58
B2619: BCM	×	×	×		<u>SEC-100</u>
B261A: PUSH-BTN IGN SW		×	×		PCS-59
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-101</u>
B2621: INSIDE ANTENNA	_	×	—	_	DLK-55
B2622: INSIDE ANTENNA	_	×			DLK-57
B2623: INSIDE ANTENNA	_	×	_	_	DLK-59
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-90</u>
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-92</u>
B26EA: KEY REGISTRATION	_	×	imes (Turn ON for 15 seconds)	_	<u>SEC-93</u>
C1704: LOW PRESSURE FL	—	_		×	
C1705: LOW PRESSURE FR	—	—	—	×	
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	A
C1708: [NO DATA] FL	—	—	—	×		В
C1709: [NO DATA] FR	—	—	—	×	WT-19	
C1710: [NO DATA] RR	—	—	—	×	<u>vvi-i9</u>	
C1711: [NO DATA] RL	—	—	—	×		С
C1712: [CHECKSUM ERR] FL	—	—		×		
C1713: [CHECKSUM ERR] FR	—	—	—	×	WT-21	D
C1714: [CHECKSUM ERR] RR	—	—	—	×	<u>vv1-21</u>	
C1715: [CHECKSUM ERR] RL	—	—		×	-	
C1716: [PRESSDATA ERR] FL	—	—		×		E
C1717: [PRESSDATA ERR] FR	—	—	—	×		
C1718: [PRESSDATA ERR] RR	—	—		×	<u>WT-24</u>	F
C1719: [PRESSDATA ERR] RL	—	—		×	-	1
C1720: [CODE ERR] FL	—	—	—	×		
C1721: [CODE ERR] FR	—	—	—	×		G
C1722: [CODE ERR] RR	—	—		×	<u>WT-26</u>	
C1723: [CODE ERR] RL	—	_		×	-	
C1724: [BATT VOLT LOW] FL	—	_		×		Н
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>	J

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< ECU DIAGNOSIS INFORMATION >

COMBINATION METER

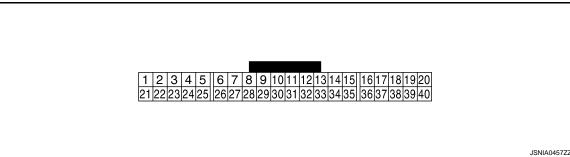
Reference Value

INFOID:000000004684070

VALUES ON THE DIAGNOSIS TOOL

Refer to MWI-82, "Reference Value".

TERMINAL LAYOUT



PHYSICAL VALUES

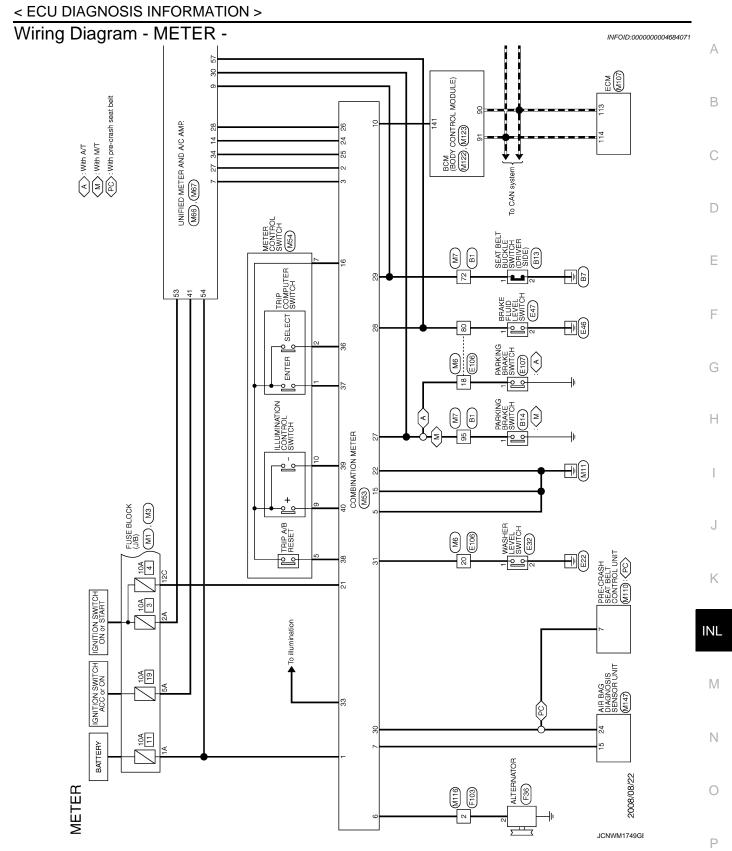
	nal No. e color)	Description			Condition	Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
1 (V)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage	
2 (LG)	Ground	Communication signal (METER \rightarrow AMP.)	Output	Ignition switch ON		(V) 6 4 2 0 • • • • • • • • • • • • • • • • • • •	
3 (GR)	Ground	Communication signal (AMP. \rightarrow METER)	Input	Ignition switch ON		(V) 4 2 0 4 2 0 4 2 0 4 2 0 4 2 0 5 5 5 5 5 5 5 5 5 5 5 5 5	
5 (B)	Ground	Ground	_	Ignition switch ON	_	0 V	
6				Ignition	Charge warning lamp ON	0 V	
(W)	Ground	Alternator signal	Input	switch ON	Charge warning lamp OFF	12 V	
7		A. 1 . 1		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		la i f	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 >

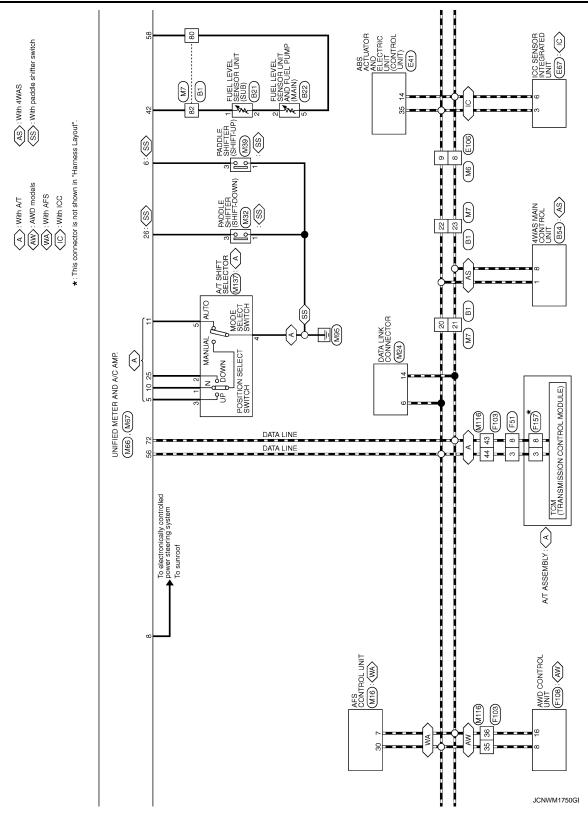
	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Conalion	(Approx.)
16 (B)	Ground	Meter control switch ground	_	Ignition switch ON	_	0 V
21 (R)	Ground	Ignition signal	Input	Ignition switch ON	_	12 V
22 (B)	Ground	Ground	_	Ignition switch ON	_	0 V
24 (BR)	Ground	Communication signal (LCD \rightarrow AMP.)	Output	Ignition switch ON		(V) 15 10 5 0 400 µs JSNIA0028GB
25 (Y)	Ground	Communication signal (AMP.→ LCD)	Input	Ignition switch ON		(V) 6 4 2 0 ► 200 µs JSNIA0027GB
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 de- pending on the specification (destination unit).
					Parking brake applied	0 V
27 (O)	Ground	Parking brake switch signal	Input	Ignition switch ON	Parking brake released	(V) 8 4 0 10 ms JSNIA0007GB
28 (LG)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal.	(V) 10 0 10 ms JSNIA0008GB
					The brake fluid level is low- er than the low level	0 V

< ECU DIAGNOSIS INFORMATION >

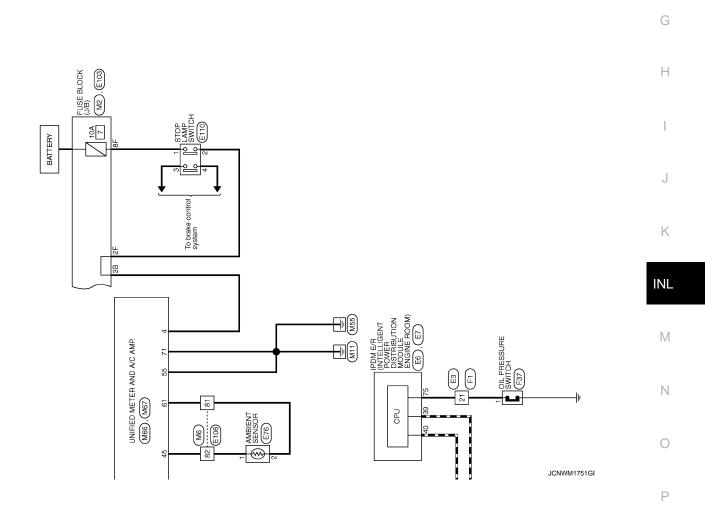
	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
29	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When driver seat belt is fas- tened	12 V
(LG)	Ground	nal (driver side)	mput	ON	When driver seat belt is un- fastened	0 V
30	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When getting in the passenger seatWhen passenger seat belt is fastened	12 V
(G)	Cround	nal (passenger side)	input	ON	When getting in the passenger seatWhen passenger seat belt is unfastened	0 V
31	Cround	Weeher level switch signal	loout	Ignition switch	Washer level switch ON	0 V
(L)	Ground	Washer level switch signal	Input	ON	Washer level switch OFF	5 V
33 (R)	Ground	Illumination control signal	Output	lgnition switch ON	Lighting switch ON, then operate the illumination control switch.	NOTE: When brightness level is midway
36	16	Select switch signal	Input	Ignition switch	When 🛑 is pressed	0 V
(LG)	(B)			ON	Other than the above	5 V
37	16	Enter switch signal	Input	Ignition switch	When 🖵 is pressed	0 V
(SB)	(B)	5	•	ON	Other than the above	5 V
38	16 (B)	Trip A/B reset switch signal	Input	Ignition switch	When trip A/B reset switch is pressed	0 V
(L)	(В)			ON	Other than the above	5 V
39 (P)	16 (B)	Illumination control switch signal (-)	Input	Ignition switch	When 💏 switch is pressed	0 V
(*)	(2)			ON	Other than the above	5 V
40 (O)	16 (B)	Illumination control switch signal (+)	Input	Ignition switch	When 🔗 + switch is pressed	0 V
(-)	(-)			ON	Other than the above	5 V



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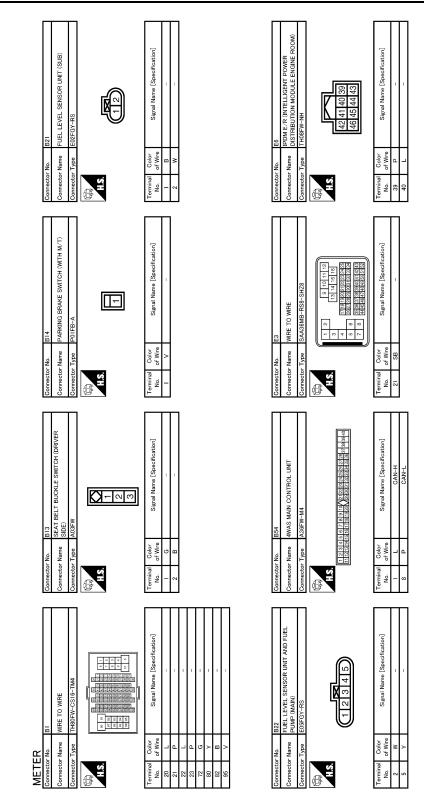
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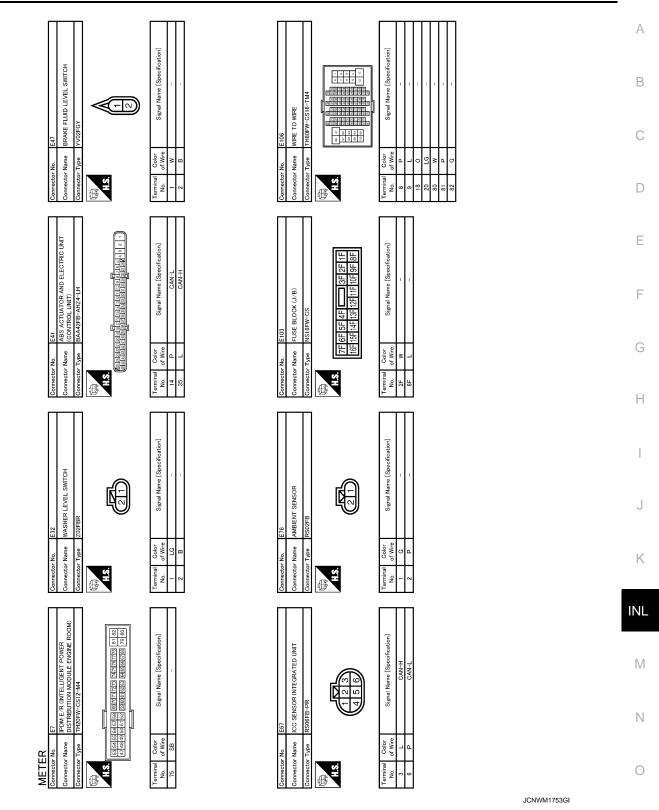
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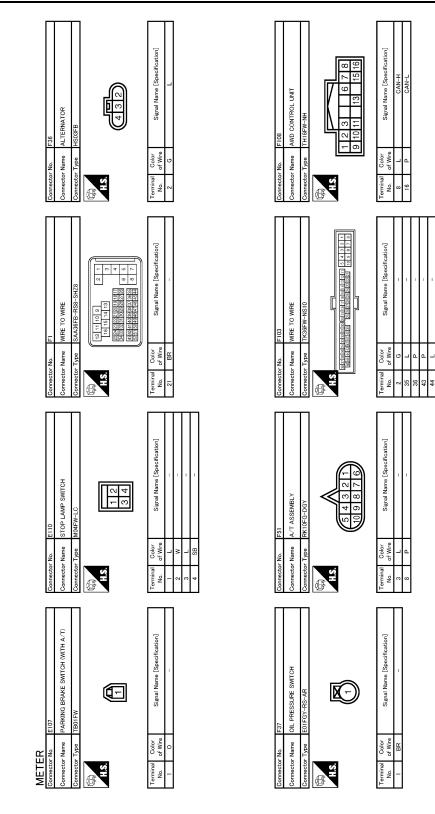
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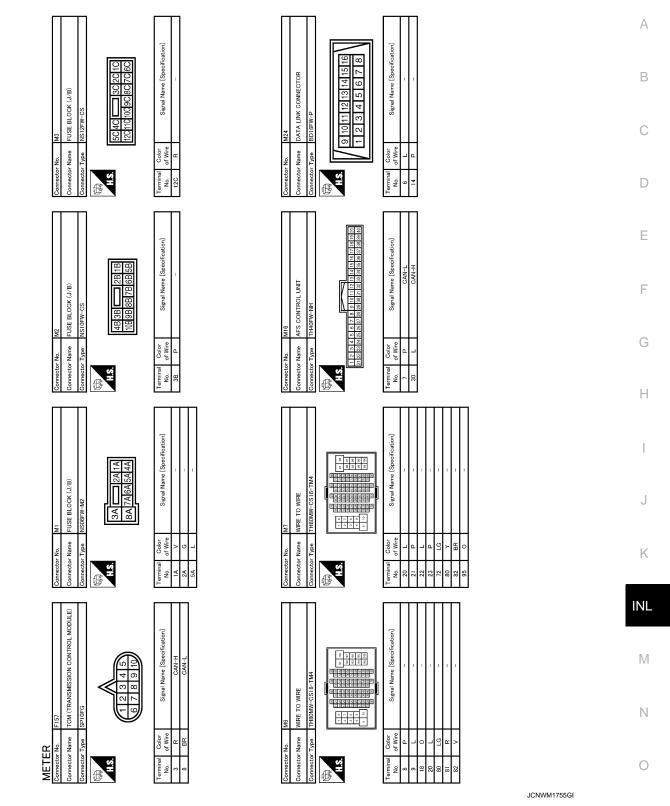
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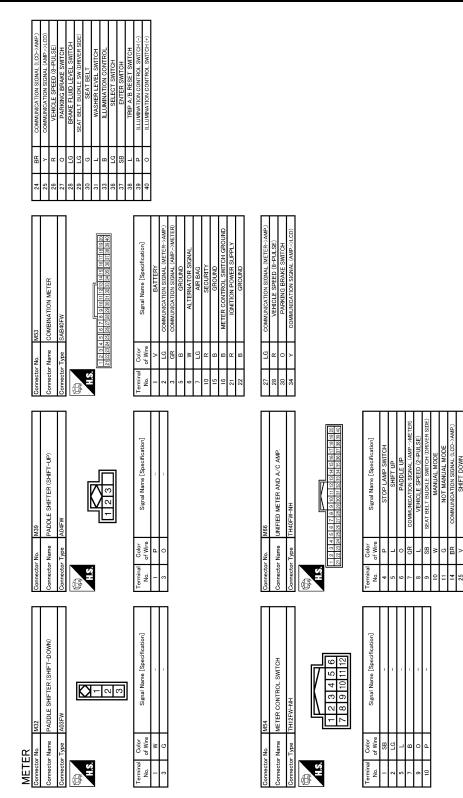
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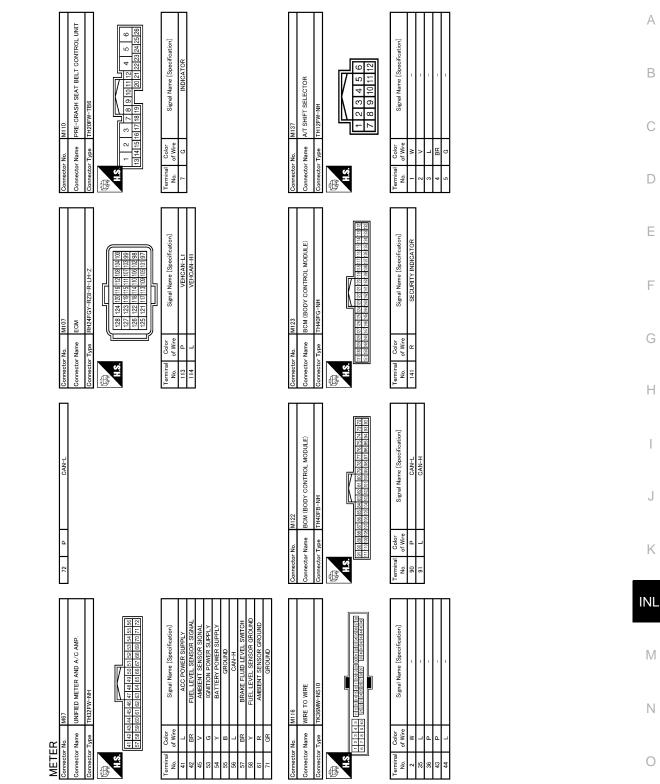
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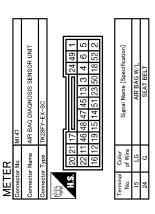
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Fail-safe

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		Beast to zero by suspending communication	
Fuel gauge		 Reset to zero by suspending communication. 	
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		
	SLIP indicator lamp	The lamp turns on by suspending communication.	
	Brake warning lamp	_	
	CRUISE warning lamp	_	
	High beam indicator		
	Turn signal indicator lamp		
Warning lamp/indicator	Oil pressure warning lamp		
lamp	Malfunction indicator lamp		
	A/T CHECK warning lamp		
	Low tire pressure warning lamp	The lamp turns off by suspending communication.	
	Key warning lamp		
	AFS OFF indicator lamp		
	4WAS warning lamp		
	Master warning lamp		
	AWD warning lamp		

DTC Index

Refer to MWI-99, "DTC Index".

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SYMPTOM DIAGNOSIS INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000004249033

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 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 <u>DLK-62</u> . Interior room lamp control circuit Refer to <u>INL-22</u> .
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 is turned ON.) Step lamps (driver side and passenger side) do	 Harness between BCM and each step lamp BCM 	Step lamp circuit Refer to <u>INL-24</u> .
not turn OFF. (Map lamp is turned OFF.)		
Trunk room lamp does not turn ON.	Harness between BCM and trunk room lamp switch	Trunk room lamp switch circuit Refer to <u>DLK-71</u> .
(Bulb is normal.)Trunk room lamp does not turn OFF.	Harness between BCM and trunk room lampBCM	Trunk room lamp circuit Refer to <u>INL-26</u> .
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.

< PRECAUTION > PRECAUTION PRECAUTIONS

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.

Precaution for Battery Service

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

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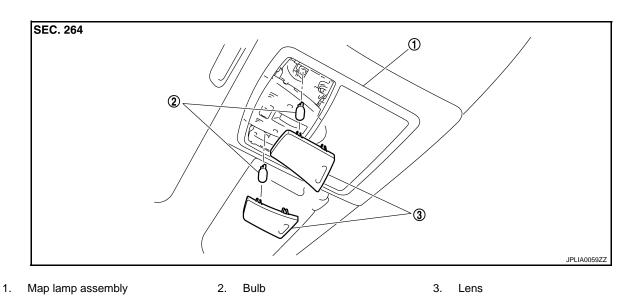
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< REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION MAP LAMP

Exploded View

INFOID:000000004249036



Removal and Installation

Refer to <u>INL-98, "Exploded View"</u> for the map lamp assembly installation/removal.

Replacement

INFOID:000000004249038

INFOID:000000004249037

CAUTION:

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

MAP LAMP BULB

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

VANITY MIRROR LAMP

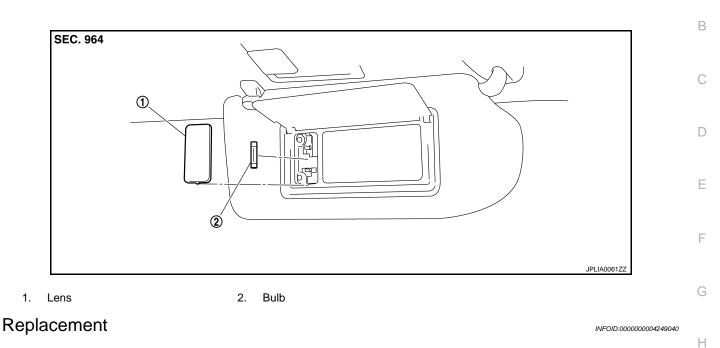
< REMOVAL AND INSTALLATION >

VANITY MIRROR LAMP

Exploded View

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CAUTION:

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

VANITY MIRROR LAMP BULB

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

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CIGARETTE LIGHTER ILLUMINATION

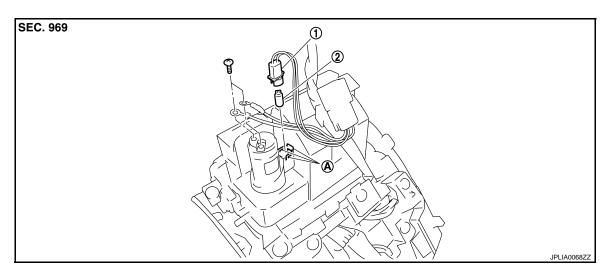
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CIGARETTE LIGHTER ILLUMINATION

Exploded View

INFOID:000000004249041

INFOID:000000004249042



1. Bulb socket

2. Bulb (Share with the ashtray illumination)

A Hook

Replacement

CAUTION:

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

CIGARETTE LIGHTER ILLUMINATION BULB

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

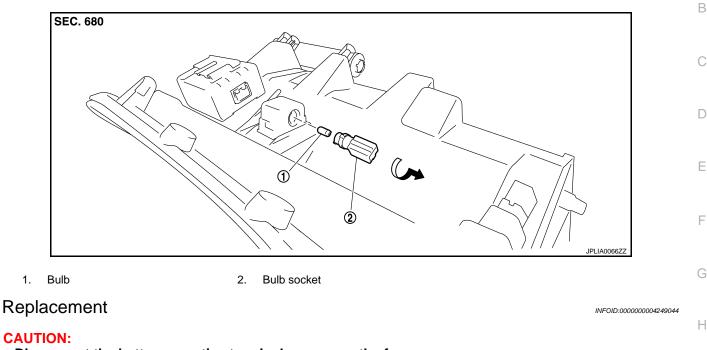
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GLOVE BOX LAMP

Exploded View

INFOID:000000004249043

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

GLOVE BOX LAMP BULB

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

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< REMOVAL AND INSTALLATION >

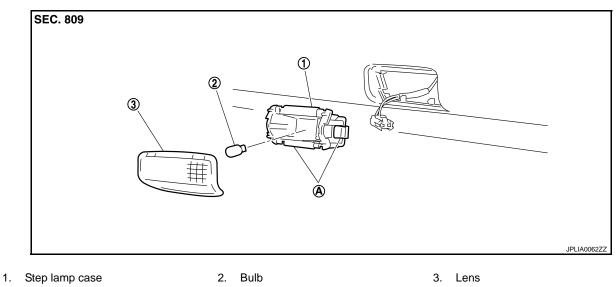
STEP LAMP

Exploded View

INFOID:000000004249045

INFOID:000000004249046

INFOID:000000004249047



A Metal clip

Removal and Installation

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

STEP LAMP BULB

- 1. Remove the step lamp. Refer to <u>INL-102, "Exploded View"</u>.
- 2. Remove the lens.
- 3. Remove the bulb.

Revision: 2009 October

TRUNK ROOM LAMP

< REMOVAL AND INSTALLATION >

TRUNK ROOM LAMP

Exploded View

INFOID:000000004249048

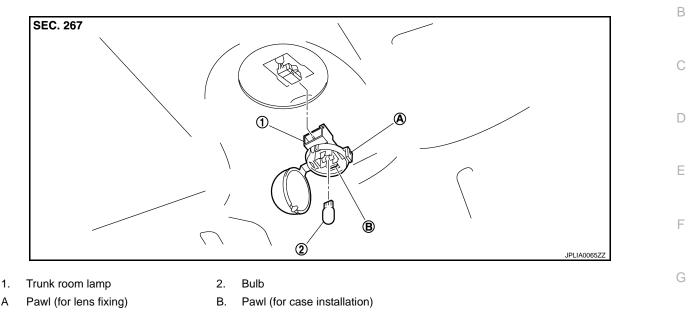
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Removal and Installation

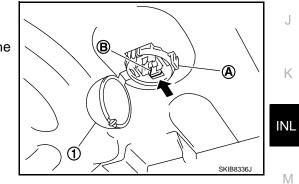
CAUTION:

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Disconnect the battery negative terminal or remove the fuse.

REMOVAL

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



INSTALLATION

Install in the reverse order of removal.

Replacement

CAUTION:

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

TRUNK ROOM LAMP BULB

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

INFOID:000000004249050

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS) SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:000000004249051

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
Trunk room lamp	Wedge	3.4