SECTION INTERIOR LIGHTING SYSTEM

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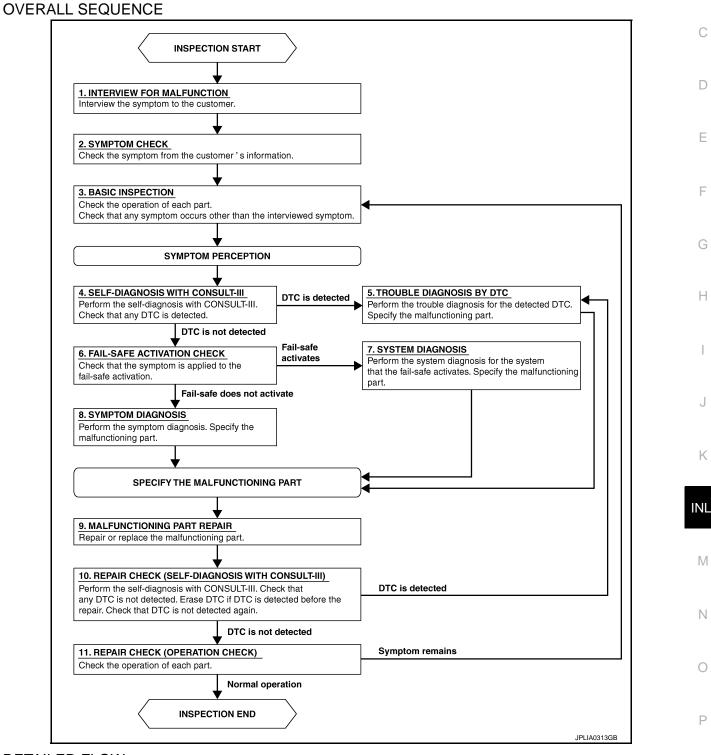
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SERVICE DATA AND SPECIFICATIONS (SDS)

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.

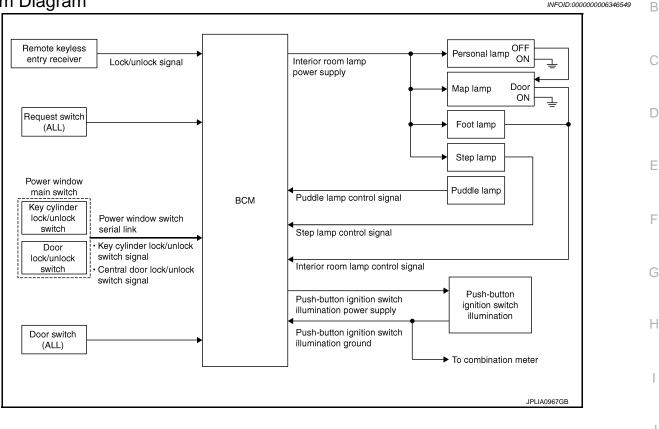
Does it operate normally?

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, foot lamp and personal lamp (when map lamp switch is in DOOR position). Step lamp is controlled by step lamp control function of BCM. Puddle lamp is controlled by puddle lamp timer control function of BCM. 	K
 Push-button ignition switch illumination is controlled by the push-button ignition switch illumination control function of BCM. Interior room lamps and puddle lamp are illuminated by welcome light function of Intelligent Key system. Refer to <u>DLK-33</u>, "WELCOME LIGHT FUNCTION : System Description". 	M
INTERIOR ROOM LAMP TIMER CONTROL	Ν

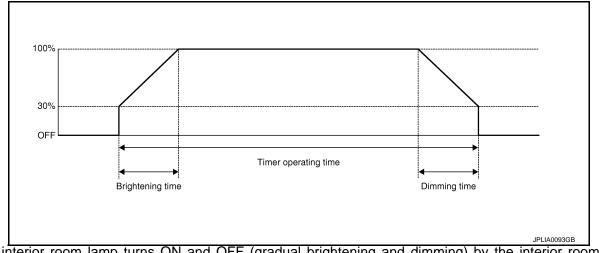
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< SYSTEM DESCRIPTION >

Interior Room Lamp Timer Basic Operation



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

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 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 interior room lamp 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.

STEP LAMP CONTROL

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

PUDDLE LAMP TIMER CONTROL

Puddle Lamp Timer Basic Operation

- BCM controls the ground to turn the puddle lamp ON.
- The puddle lamp turns ON and OFF by the puddle lamp timer.
- BCM judges the vehicle condition with the following items. It activates the puddle lamp timer.
- Ignition switch status
- Door switch signal (ALL)
- Door lock/unlock signal (Remote keyless entry receiver, each request switch, key cylinder lock/unlock switch, door lock/unlock switch)

Puddle Lamp ON Operation

BCM activates the puddle lamp timer in any of the following conditions to turn the puddle lamp ON for a period of time.

- Any door opens.
- Any door opens before all doors close.
- Ignition switch is turned $ON \rightarrow OFF$.

< SYSTEM DESCRIPTION >	
 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. 	А
 Puddle Lamp OFF Operation BCM stops the timer in any of the following conditions to turns the puddle lamp OFF. The puddle lamp timer operating time is expired. The interior room lamp OFF conditions. 	В
 The interior room lamp timer operating time is expired. PUSH-BUTTON IGNITION SWITCH ILLUMINATION CONTROL 	С
 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. 	D
 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. 	E
 Intelligent Key inserted into the key slot. Driver door is LOCK → UNLOCK. Driver door is open. 	G
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.	Η
 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. 	I
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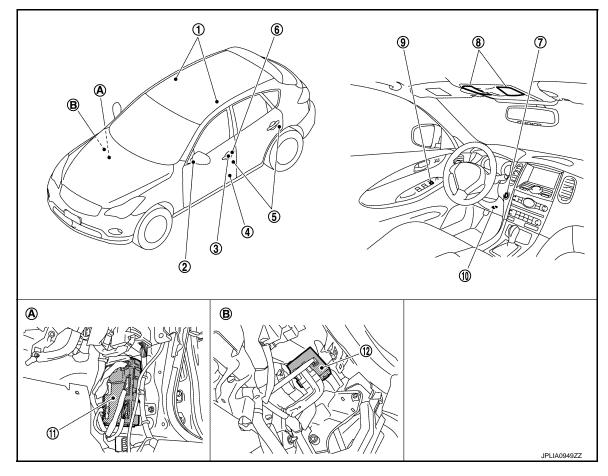
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< SYSTEM DESCRIPTION >

Component Parts Location

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- 1. Personal lamp
- 4. Step lamp
- 7. Push-button ignition switch illumination
- 10. Foot lamp
- A. Dash side lower (passenger side)

Component Description

- 2. Puddle lamp
- 5. Door switch
- 8. Map lamp
- 11. BCM
- B. Over the glove box
- 3. Request switch
- 6. Key cylinder lock/unlock switch
- 9. Door lock/unlock switch
- 12. Remote keyless entry receiver

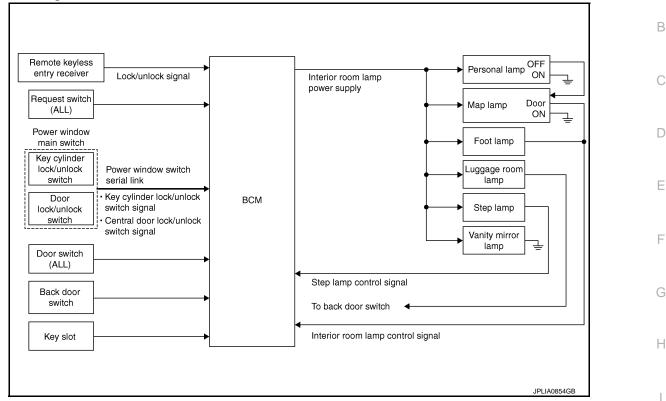
Part	Description
BCM	 Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamp ON/OFF. Activates the puddle lamp timer depending on the vehicle condition to turn the puddle lamp ON/OFF. Turns the step lamp ON/OFF according to any door switch status.
Remote keyless entry receiver	Receives the lock/unlock signal from keyfob.Transmits the lock/unlock signal to BCM.
 Request switch Key cylinder lock/unlock switch Door lock/unlock switch 	Inputs the lock/unlock signal to BCM.
Door switch	Inputs the door 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
- Foot lamp
- Personal lamp
- Step lamp
- Luggage 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
 N lamp power supply.
- BCM restart the timer when any of the following signals changes while operating the timer.
- Ignition switch status
- Door switch signal (ALL)
- Door lock/unlock signal (Remote keyless entry receiver, each request switch, key cylinder lock/unlock switch, door lock/unlock switch)
- Back door 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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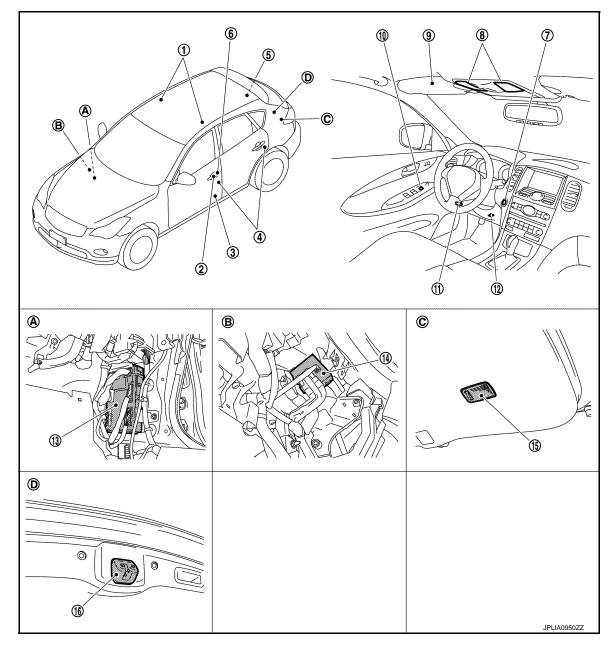
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INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location



- 1. Personal lamp
- 4. Door switch
- 7. Push-button ignition switch
- 10. Door lock/unlock switch
- 13. BCM
- 16. Back door switch
- A. Dash side lower (passenger side)
- D. Back door lock assembly

- 2. Request switch
- 5. Luggage room lamp (luggage side)
- 8. Map lamp
- 11. Foot lamp
- 14. Remote keyless entry receiver
- B. Over the glove box

- 3. Step lamp
- 6. Key cylinder lock/unlock switch
- 9. Vanity mirror lamp
- 12. Key slot
- 15. Luggage room lamp (back door side)
- C. Back door

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

Component Description

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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	Receives the lock/unlock signal from keyfob.Transmits the lock/unlock signal to BCM.
 Request switch Key cylinder lock/unlock switch Door lock/unlock switch 	Inputs the lock/unlock signal to BCM.
Door switchBack door switch	Inputs a switch signal to BCM.
Key slot	Inputs the key switch status to BCM.

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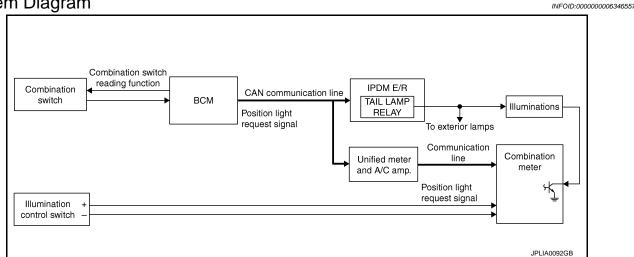


ILLUMINATION CONTROL SYSTEM

< 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-27, "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.

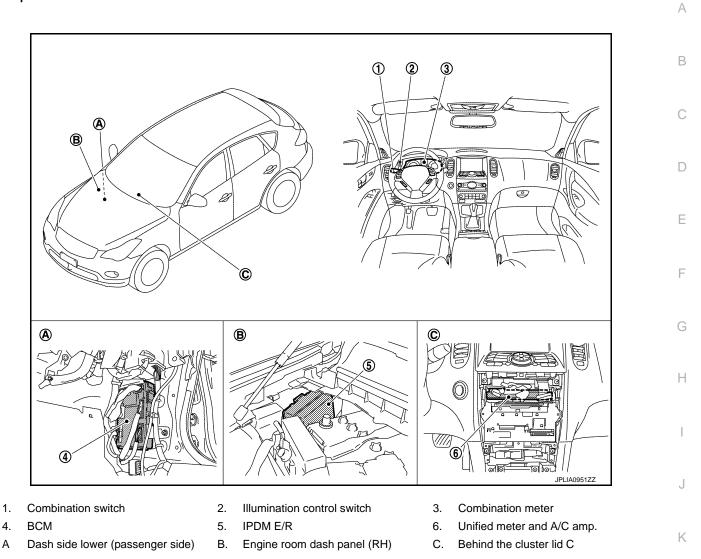
Tail lamp ON condition

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



Component Description

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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 communication).
Combination meter	 Enters in nighttime mode according to the request from BCM (with CAN communication). Controls the each illumination in the nighttime mode. Refer to <u>MWI-27, "METER ILLUMINATION CONTROL : System Diagram"</u>.
Combination switch (Lighting & turn signal switch)	Refer to <u>BCS-10, "System Diagram"</u> .

< SYSTEM DESCRIPTION >

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	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

Sustem	Sub avatam calcution 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	×	×	×
Back door open system	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 mo	ment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odomete	r 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	Power position status of the moment a particular DTC is detected	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		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>SLE	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 is 0 wher The number increases whenever ignition swit 	It ignition switch is turned ON after DTC is detected a malfunction is detected now. Is like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition inch OFF \rightarrow ON.	

INT LAMP

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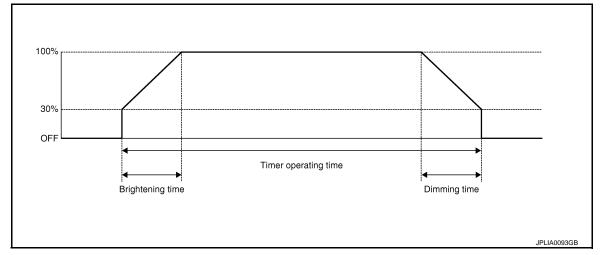
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< SYSTEM DESCRIPTION >

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 int	erior room lamp timer function	
SET I/L D-ONLOR 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.		
	MODE 2*	1 sec.		
ROOM LAMP ON TIME SET	MODE 3	2 sec.	Sets the interior room lamp gradual brightening time.	
	MODE 4	3 sec.		
	MODE 5	0 sec.		
	MODE 1	0.5 sec.		
	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.	1		
	MODE 5	0 sec.		
R LAMP TIMER LOGIC SET	MODE 1*	Interior roo	m lamp timer activates with synchronizing all doors.	
R LAWF HIVER LUGIU SET	MODE 2	Interior roo	m lamp timer activates with synchronizing the driver door only.	

*: Initial setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)
PUSH SW [On/Off]	The switch status input from push-button ignition switch
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 front door switch (driver side)			
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)			
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH			
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH			
DOOR SW-BK [On/Off]	The switch status input from back door switch			
CDL LOCK SW [On/Off]	Lock switch status received from central door lock switch by power window switch serial link			
CDL UNLOCK SW [On/Off]	Unlock switch status received from central door lock 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]	NOTE: The item is indicated, but not monitored.			
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver			
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver			

ACTIVE TEST

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

BATTERY SAVER

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

WORK SUPPORT

Service item	Setting item		Setting	0
BATTERY SAVER SET	On*	With the e	exterior lamp battery saver function	
DATTERT SAVER SET	Off	Without th	ne exterior lamp battery saver function	D
ROOM LAMP BAT SAV SET	On*	With the i	nterior room lamp battery saver function	P
ROOM LAMP DAT SAV SET	Off	Without th	ne interior room lamp battery saver function	
	MODE 1	30 min.		
ROOM LAMP TIMER SET	MODE 2	60 min.	Sets the interior room lamp battery saver timer operating time.	
	MODE 3*	15 min.		

*: Initial setting

N

< SYSTEM DESCRIPTION >

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)
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
KEY SW-SLOT [On/Off]	Key switch status input from key slot
UNLK SEN-DR [On/Off]	Driver door unlock status input from unlock sensor
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW-BK [On/Off]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status received from central door lock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from central door lock 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]	NOTE: The item is indicated, but not monitored.
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.	
BATTERT SAVER	On	Outputs the interior room lamp power supply to turn interior room lamp ON.*	

*: Each lamp switch is in ON position.

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

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

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	
Ballery power suppry	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.

(-	+)	(-)	Voltage	
BC	CM		(Approx.)	
Connector Terminal		Oracial		
M118	1	- Ground	Dettern veltere	
M119	11	1	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.

BC	CM		Continuity
Connector	Terminal	Ground	Continuity
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 ignition switch ON.
- 2. Turn each interior room lamp ON.
- Map lamp
- Personal lamp
- Foot lamp
- Step lamp
- Vanity mirror lamp
- Luggage room lamp
- 3. Select "BATTERY SAVER" of BCM (BATTERY SAVER) active test item.
- 4. With operating the test items, check that each interior room lamp turns ON/OFF.

Off : Interior room lamp OFF

On : Interior room lamp ON

Does 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

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

	Terminals			
(+)		(–)	Test item	Voltage (Approx.)
BCM			BATTERY	
Connector	Terminal	Ground	SAVER	
M119	4	Ground	Off	0 V
101119	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 ignition switch OFF.
- 2. Disconnect the following connectors.
- Roof module (map lamp and personal lamp)
- Foot lamp (driver side)
- Foot lamp (passenger side)
- Vanity mirror lamp (LH)
- Vanity mirror lamp (RH)
- Luggage room lamp (luggage side)
- Luggage room lamp (back door side)

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INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- Step lamp (driver side) -
- Step lamp (passenger side)Check continuity between BCM harness connector and each interior room lamp harness connector.

nnector	BCM Each interior room lamp		η	Continuity	
	Terminal	Connector		Terminal	Continuity
		Roof module	R11	12	
		Foot lamp (driver side)	M27	1	
		Foot lamp (passenger side)	M113	1	
		Vanity mirror lamp (LH)	R12	2	
M119	4	Vanity mirror lamp (RH)	R13	2	Existed
		Luggage room lamp (luggage side)	B229	2	
		Luggage room lamp (back door side)	D110	2	
		Step lamp (driver side)	D12	1	
		Step lamp (passenger side)	D42	1	
s conti	<u>nuity exis</u>	. <u>t?</u>			
	GO TO				
) >>	kepair	he harnesses or c	unnecto	IS.	
	INITEDIC				
HECK		DR ROOM LAMP F	POWER	SUPPLY	
HECK		DR ROOM LAMP F tween BCM harnes	POWER	SUPPLY	
HECK			POWER	SUPPLY ector and	ground.
HECK	inuity be BCM	tween BCM harnes	POWER	SUPPLY	ground.
CHECK	inuity be BCM	tween BCM harnes	POWER	SUPPLY ector and Contine	ground.
CHECK ck cont Connecto M119 s contin	BCM or nuity exis	tween BCM harnes	POWER ss conno und	SUPPLY ector and Contine Not exis	ground.
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CHECK ck cont Connecto M119 s contin S >>	BCM BCM or nuity exist	tween BCM harnes	POWER ss conno und	SUPPLY ector and Continu Not exis	ground. uity sted
CHECK ck cont Connecto M119 s contin S >>	BCM BCM or nuity exist	tween BCM harnes	POWER ss conno und	SUPPLY ector and Continu Not exis	ground. uity sted
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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
- Personal lamp bulb
- Foot lamp bulb
- **1.**CHECK INTERIOR ROOM LAMP CONTROL FUNCTION

ONSULT-III ACTIVE TEST

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

On : Interior room lamp gradual brightening

Off : Interior room lamp gradual dimming

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

- YES >> Interior room lamp control circuit is normal.
- NO >> Refer to <u>INL-22</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK INTERIOR ROOM LAMP CONTROL OUTPUT

CONSULT-III ACTIVE TEST

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

BC	BCM		Test item	Continuity
Connector	Terminal	Ground	INT LAMP	Continuity
M119	10	19	On	Existed
101113	15		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 ignition switch OFF.

- 2. Disconnect BCM connector, roof module connector and foot lamp connector.
- 3. Check continuity between BCM harness connector, roof module harness connector, and foot lamp harness connector.

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INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

BC	M	Roof modu	le/foot la	amp	Continuity
Connector	Terminal	Connector	• 	Terminal	Continuity
		Roof module	R11	9	
M119	19	Foot lamp (driver side)	M27	2	Existed
		Foot lamp (passenger side)	M113	2	
Does conti	•			6 (1	
		e the roof modul the harnesses o			np.
		OR ROOM LAM			HORT CIR
1. Turn ig	nition sw	itch OFF.			
2. Discor 3. Check	nect BCN	I connector, roo y between BCN	of mod I harne	ule conne ss conne	ector and fe
	oontinuut	,	- name		otor and g
	BCM			C	ontinuity
Connecto	or		Ground		
M119		19		No	ot existed
Does conti	•			o oto	
	> Repair t > Replace	the harnesses on BCM.	or conn	ectors.	
110 22	ropidot				

< 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

- 1. Turn 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 ignition switch OFF.
- 2. Remove the step lamp bulbs (driver side and passenger side).
- 3. Turn 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 ground.

BC	М		Test item	Continuity
Connector	Terminal	Ground	STEP LAMP TEST	Continuity
M119	M110 7	Giodila	On	Existed
WITT9	r		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 ignition switch OFF.
- 2. Disconnect BCM connector, and step lamp connector.
- 3. Check continuity between BCM harness connector and step lamp harness connector.

BC	М	Step lamp					Continuity
Connector	Terminal	Connector		Terminal	Continuity		
M119	7	Driver side	D12	2	Existed		
101113	1	Passenger side	D42	2	LAISIEU		

Does continuity exist?

YES >> Replace step lamp.

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STEP LAMP CIRCUIT

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	oair harnesses				-
3.CHECK STE		RT CIRCUIT			А
 Turn ignitio Check cont 	n switch OFF.	BCM harness c	opportor and	around	
2. Check cont	indity between	Dem namess c		ground.	В
BC	CM		Orationity	_	
Connector	Terminal	Ground	Continuity		С
M119	7		Not existed		
Does continuity					D
YES >> Rej NO >> Rej	pair the harness place BCM.	ses or connecto	rs.		D
					Е
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PUDDLE LAMP CIRCUIT

Description

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

Diagnosis Procedure

1.CHECK PUDDLE LAMP FUSE

1. Turn ignition switch OFF.

2. Check that the following fuse is not fusing.

Unit	Location	Fuse No.	Capacity
Puddle lamp	Fuse block (J/B)	#10	10 A

Is the fuse fusing?

YES >> Replace the fuse.

NO >> GO TO 2.

2.CHECK PUDDLE LAMP INPUT VOLTAGE

1. Turn ignition switch OFF.

2. When any door opened and closed, check voltage between BCM harness connector and ground.

B	BCM		Condition	Voltage
Connector	Terminal	Ground	Condition	voltage
M122	94	Ground	Door open	0 V
101122	54		Door close	Battery voltage

Is the measurement value normal?

YES >> Replace door mirror assembly (driver side).

NO >> GO TO 3.

3.CHECK PUDDLE LAMP OPEN CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect BCM connector, and door mirror (driver side) connector.
- 3. Check continuity between BCM harness connector and door mirror (driver side) harness connector.

B	BCM		door mirror (driver side)		
Connector	Terminal	Connector Terminal		Continuity	
M122	94	D3	14	Existed	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair harnesses or connectors.

4.CHECK PUDDLE LAMP SHORT CIRCUIT

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

B	CM		Continuity	
Connector	Terminal	Ground	Continuity	
M122	94	-	Not existed	

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

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PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGN			MINATION CIRCUIT			
Description					А	
-				NFOID:000000006346576		
		trol the push	n-button ignition switch illumination.		В	
Component Function	on Check		1	NFOID:000000006346577		
1.CHECK PUSH-BUTT	ON IGNITION SWITCH	ILLUMINATI	ON OPERATION		С	
	tch ON. / ILLUMI" of BCM (INTEL		Y) active test item. ignition switch illumination turns O	√OFF.	D	
On : Push-l	button ignition switch i	llumination	ON		Е	
Off : Push-	button ignition switch i	llumination	OFF			
	hition switch illumination ignition switch illumination -27, "Diagnosis Procedu	on circuit is i			F	
Diagnosis Procedu	re		1	NFOID:000000006346578	G	
1.CHECK ILLUMINATIO	ON CONTROL SWITCHI	NG OPERA	TION			
	CHECK ILLUMINATION CONTROL SWITCHING OPERATION Turn the ignition switch ON. H					
		the push-bu	itton ignition switch illumination turn	s ON/OFF.		
Condition	Push-button ignition switch	illumination				
 Ignition switch ON Lighting switch 1ST	ON					
 Ignition switch OFF Lighting switch OFF Driver door LOCK 	OFF				J	
Does the push-button igr	nition switch illumination	turn ON/OF	<u>=?</u>		Κ	
YES >> GO TO 2. NO >> GO TO 3.				1		
2.CHECK PUSH-BUTT	ON IGNITION SWITCH	ILLUMINATI	ON GROUND CIRCUIT		INL	
 Turn the ignition swit Disconnect BCM corr 	tch OFF. nnector and the push-but	tton ignition		ss connector.	Μ	
BCM	Push-button ignition switch				Ν	
Connector Terminal	Connector Terminal	Continuity			IN	
M119 14	M50 2	Existed				
Does the continuity exist					0	
YES >> Replace BCl NO >> Repair the h	M. arness or the connector.					
•		ILLUMINATI	ON POWER SUPPLY OUTPUT		Ρ	
CONSULT-III ACTIVE 1. Turn the ignition swit 2. Select "ENGINE SW		LIGENT KF	Y) active test item			

3. With operating the test item, check voltage between BCM harness connector and ground.

PUSH-BUTTON IGNITION SWITCH ILLUMINATION CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

Is the measurement value normal?

YES >> GO TO 4.

NO >> GO TO 5.

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

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

B	BCM Push-buttor		ignition switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M123	133	M50	3	Existed

Does the continuity exist?

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

5.check push-button ignition switch illumination power supply short circuit

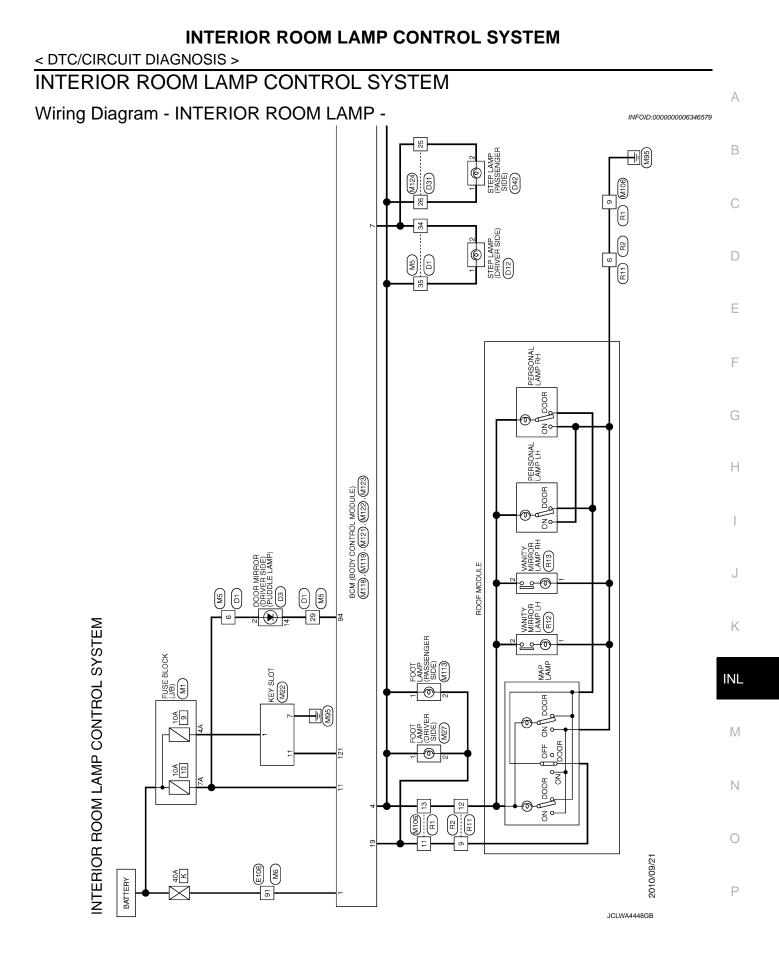
- 1. Turn the ignition switch OFF.
- 2. Disconnect BCM connector and the push-button ignition switch connector.
- 3. Check continuity between BCM harness connector and the push-button ignition switch harness connector.

BCM			Continuity	
Connector	Terminal	Ground	Continuity	
M123	133	*	Not existed	

Does the continuity exist?

YES >> Repair the harness or the connector.

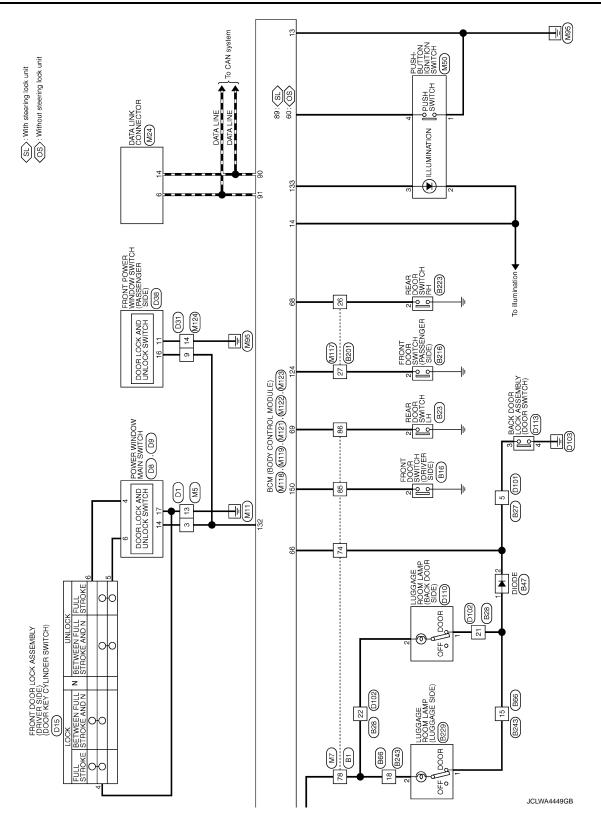
NO >> Replace BCM.



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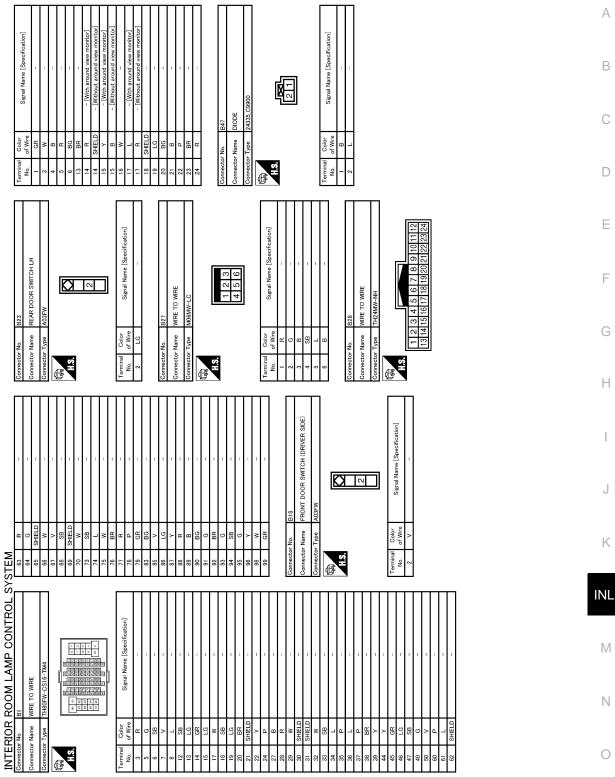
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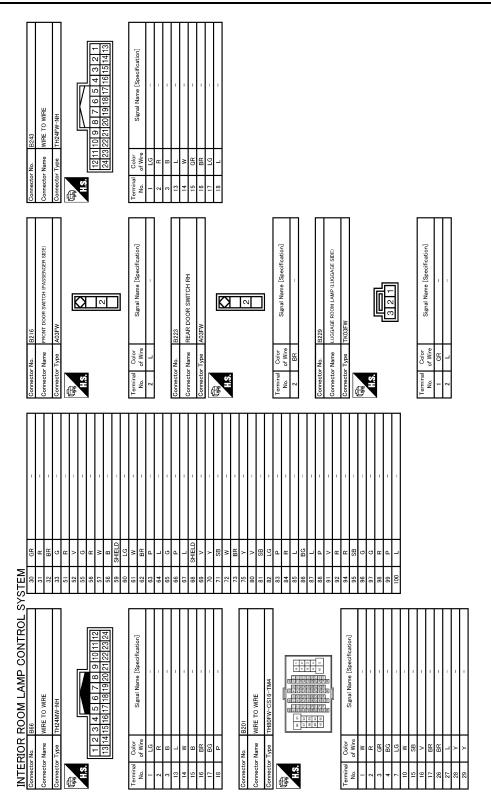
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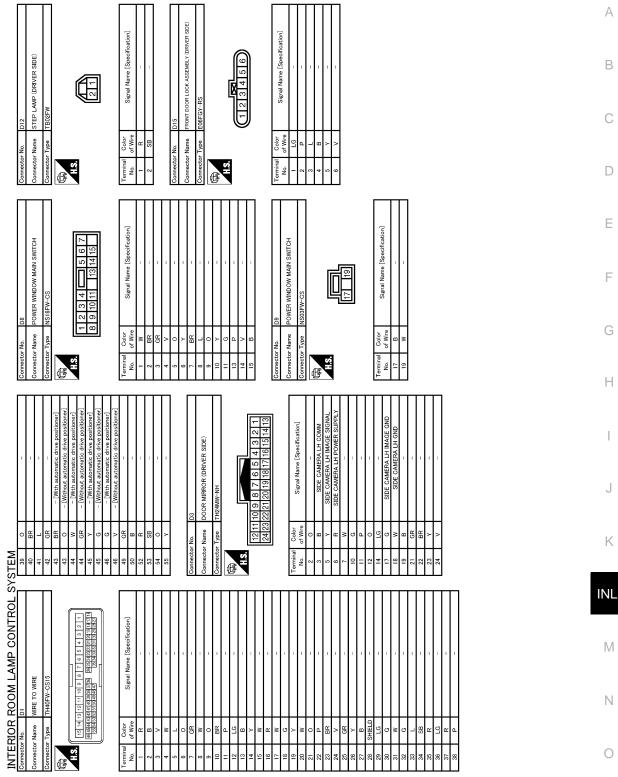
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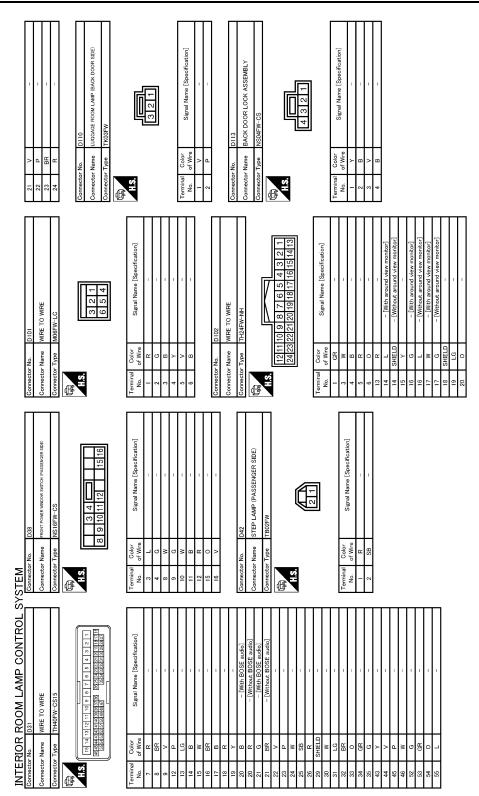
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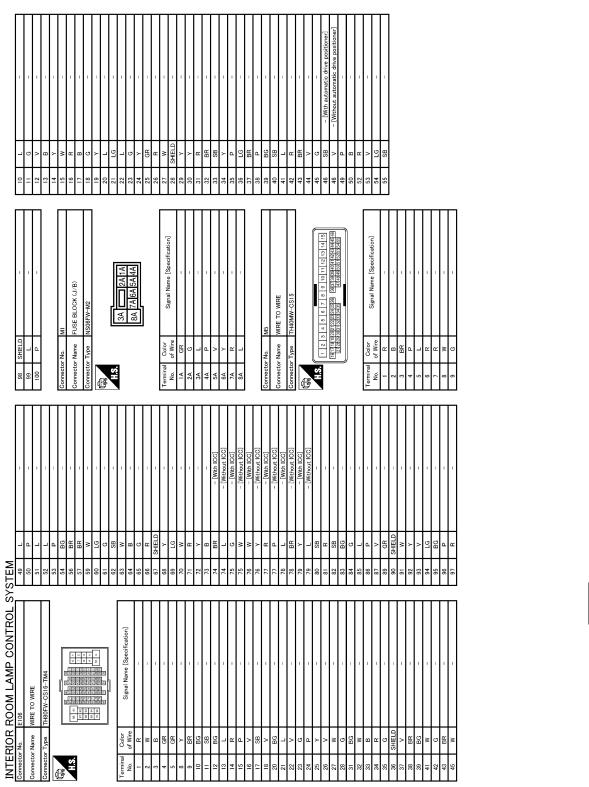
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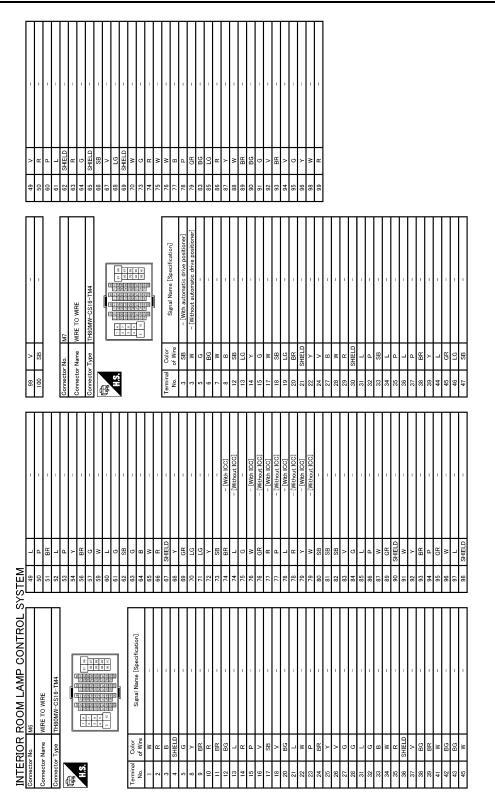
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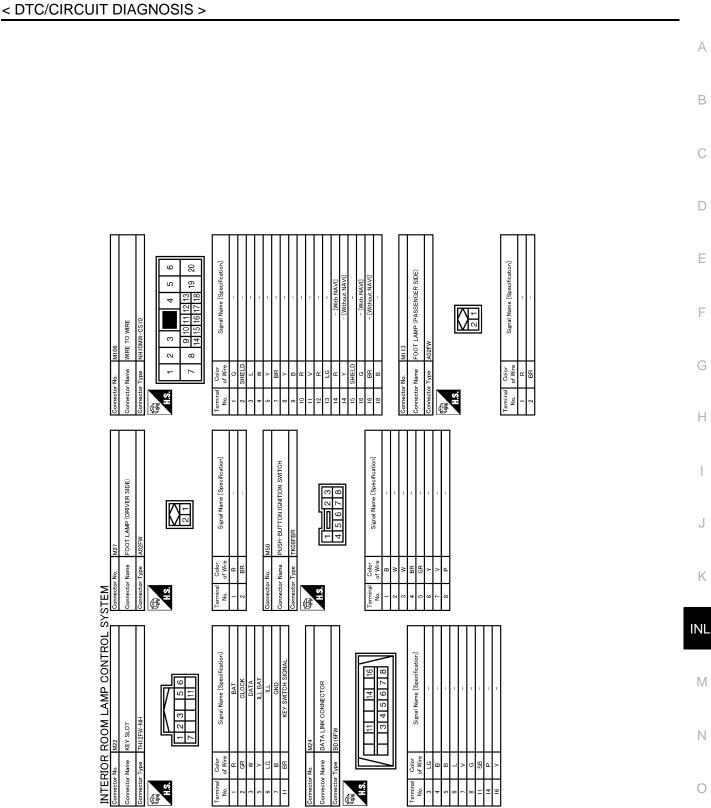
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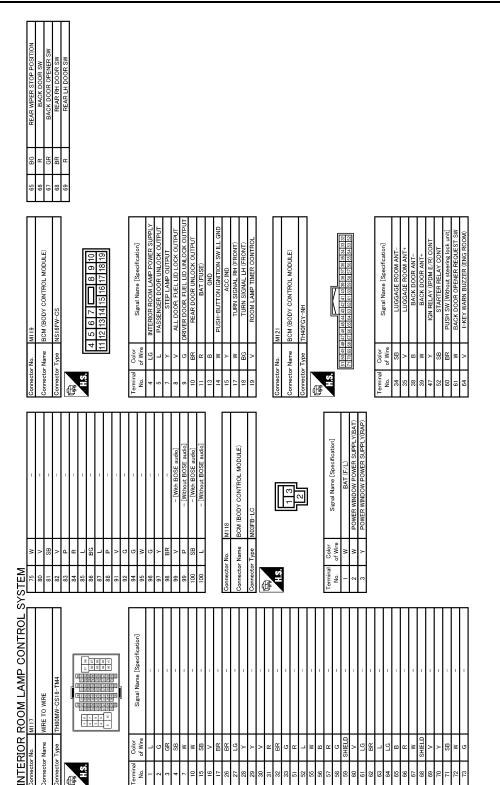


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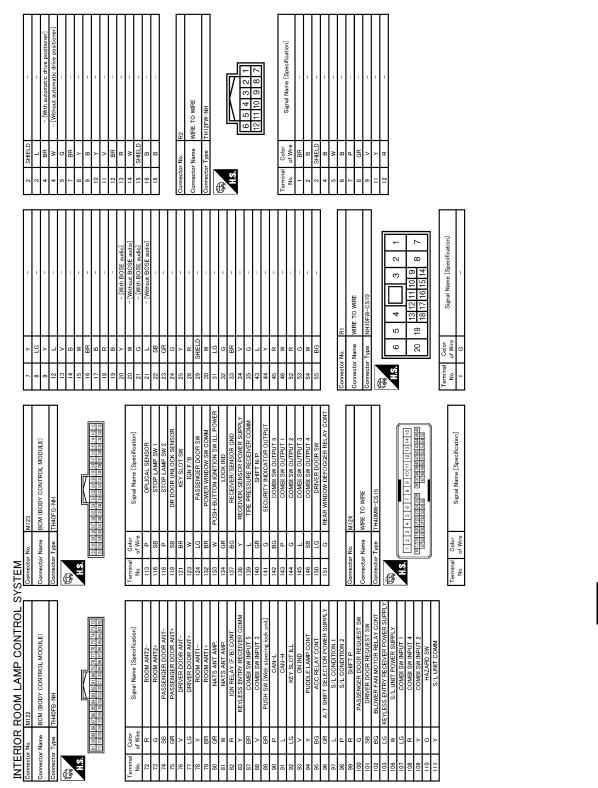
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INTERIOR ROOM LAMP CONTROL SYSTEM

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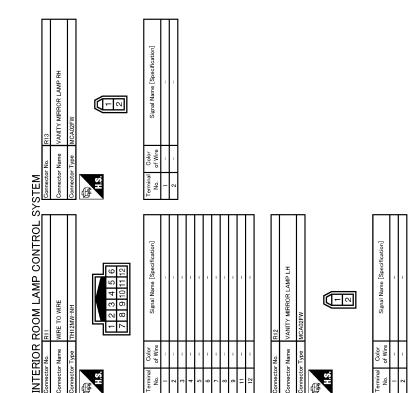
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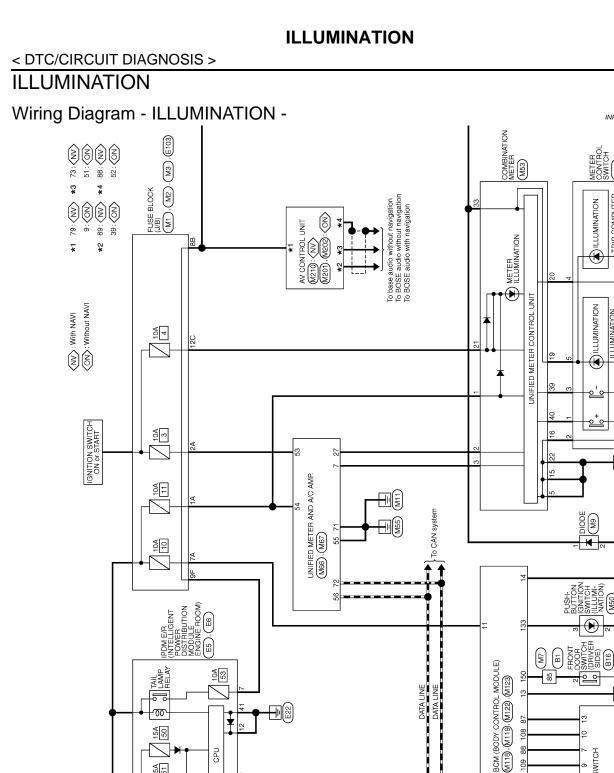
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METER CONTROL SWITCH M54

TRIP COMPUTER SWITCH

ILLUMINATION CONTROL SWITCH

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PUSH-BUTTON IGNITION SWITCH (ILLUMI-NATION)

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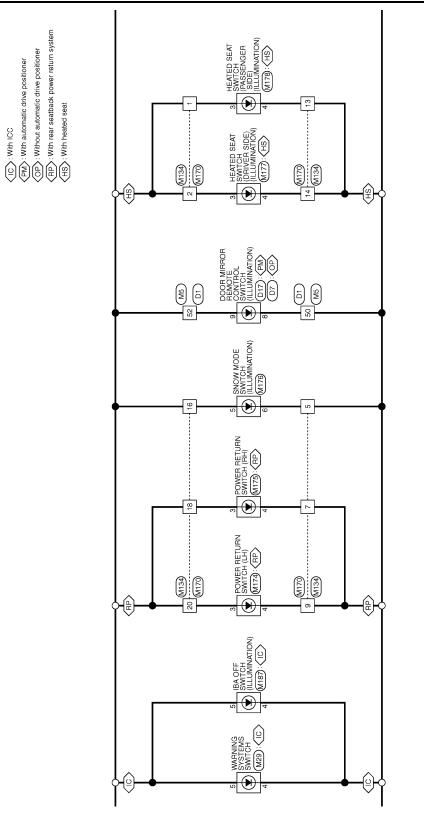
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ILLUMINATION

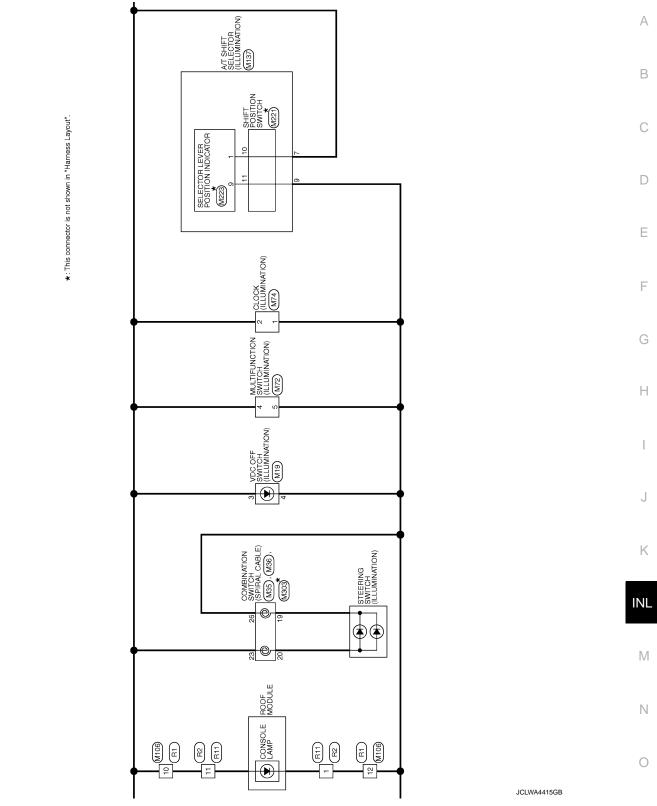
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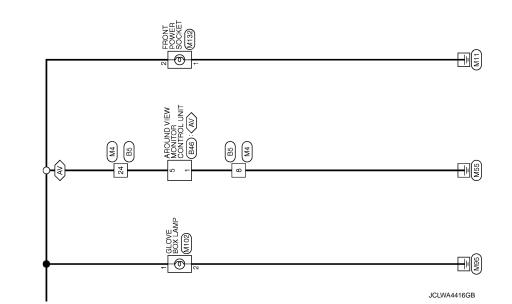
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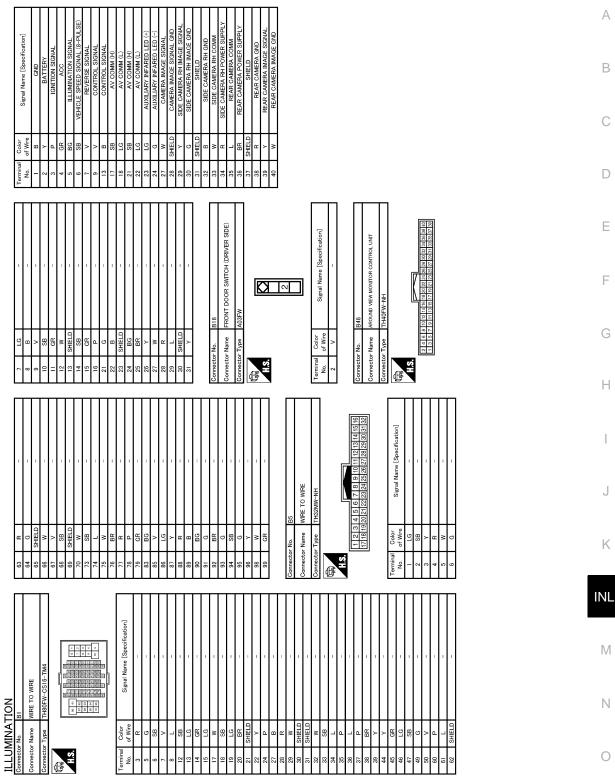
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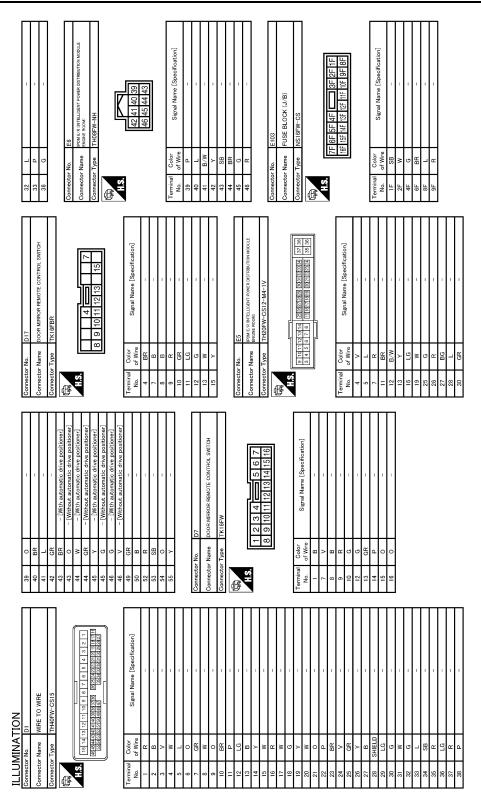
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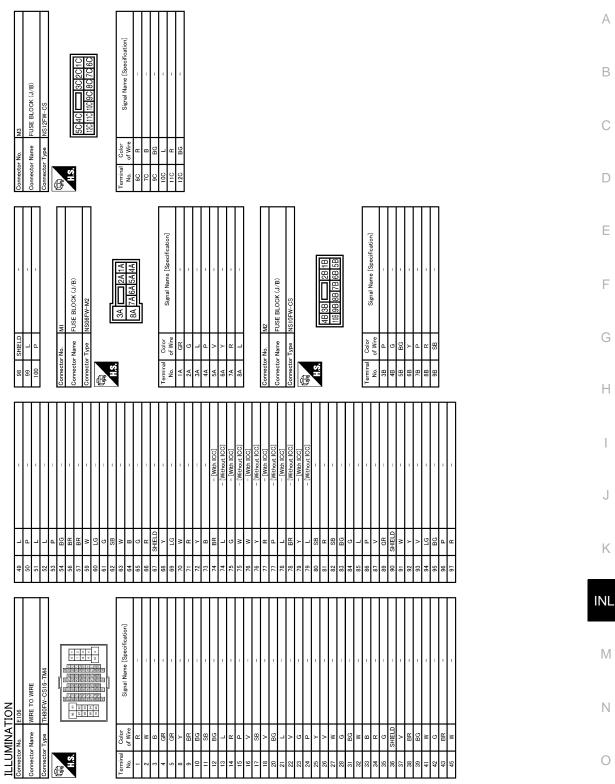
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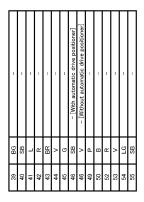
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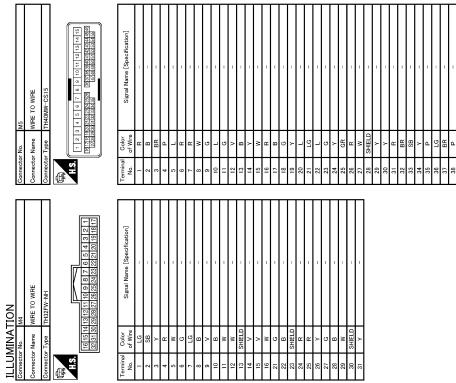
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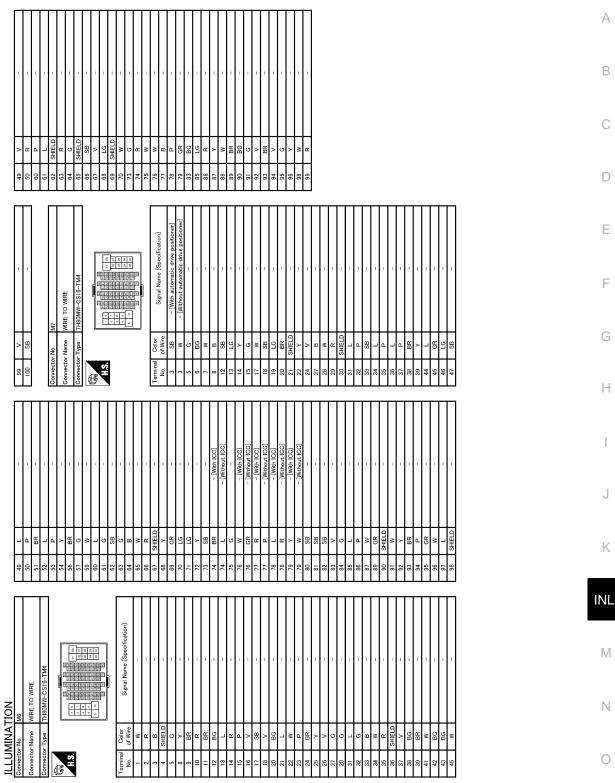
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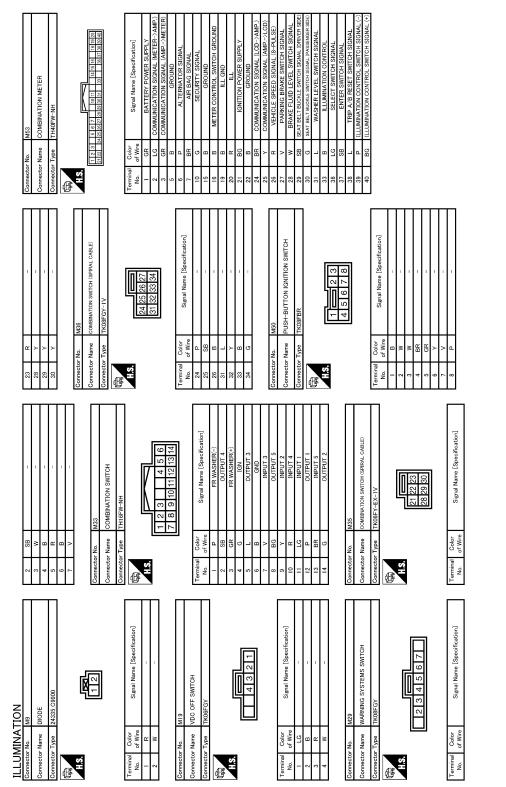
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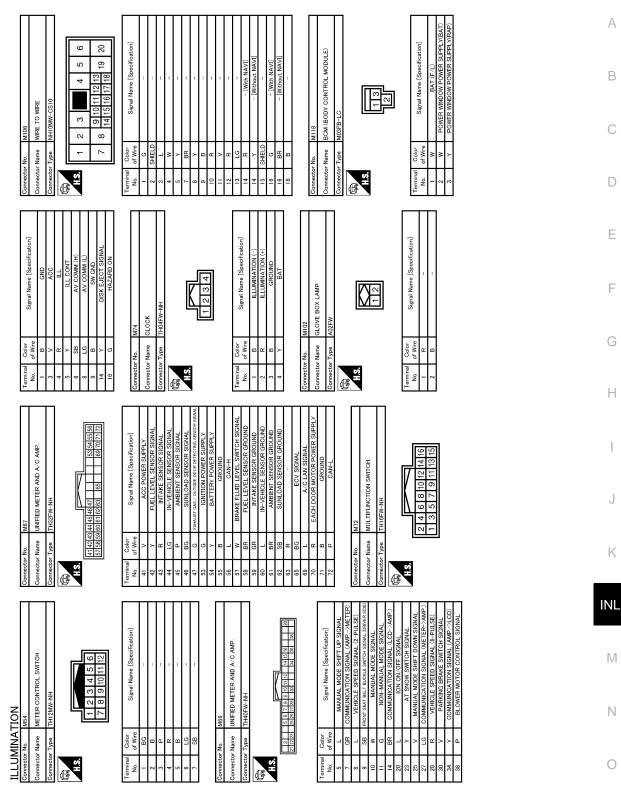
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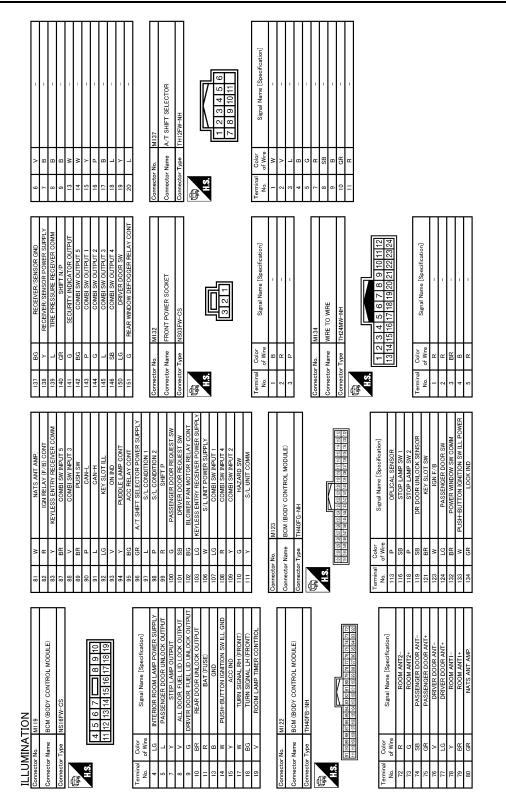
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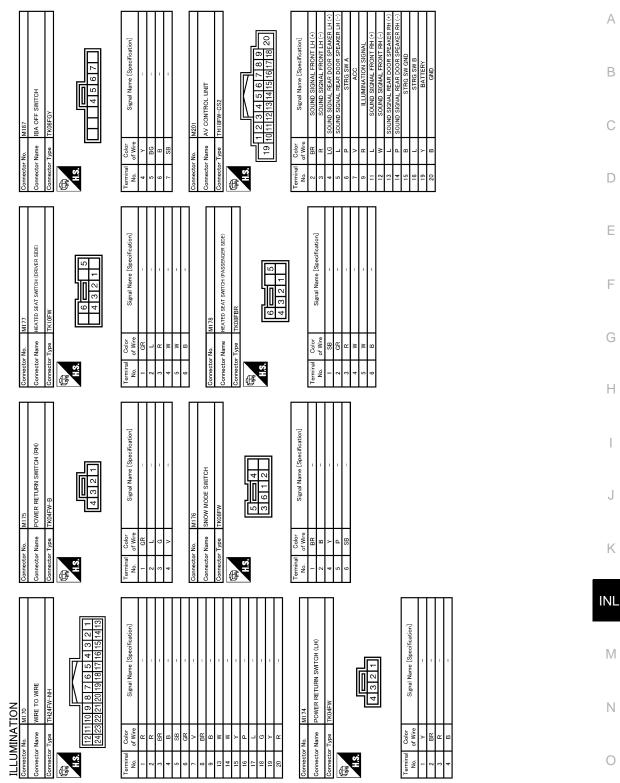
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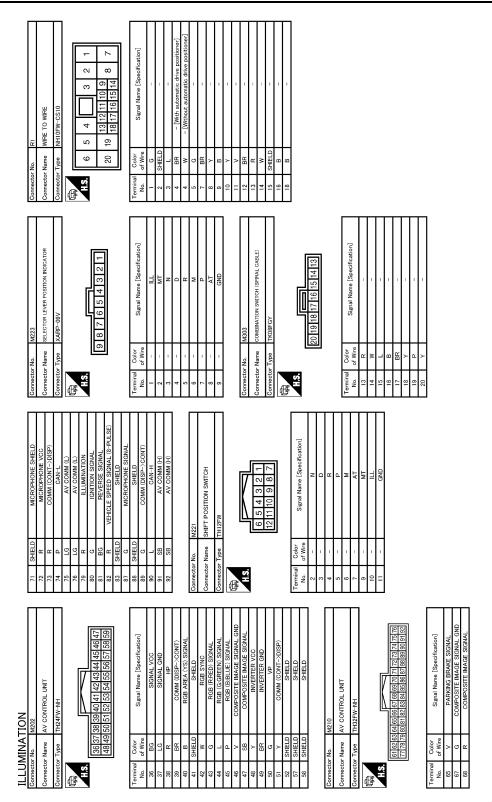
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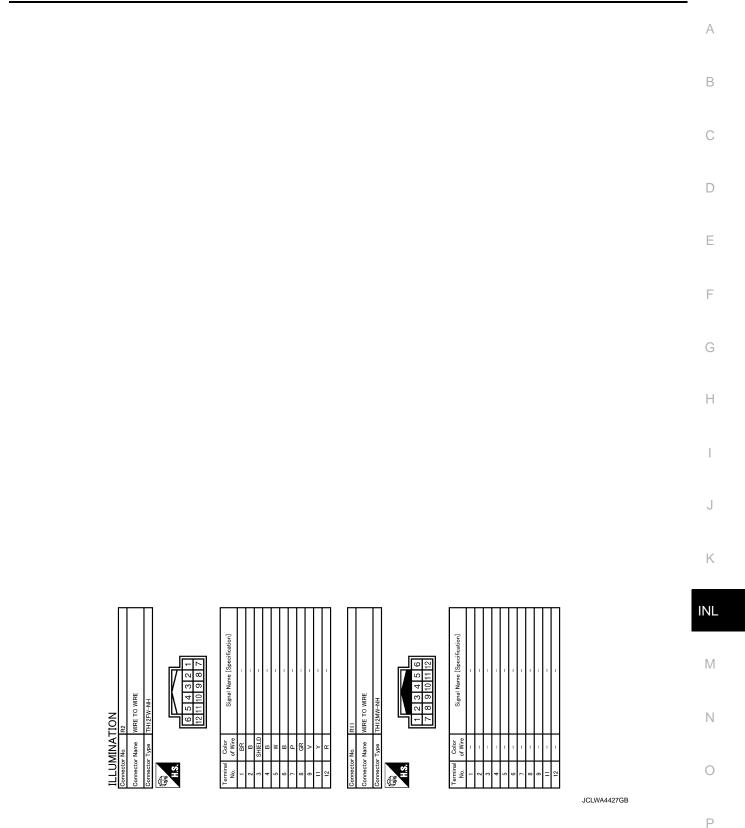
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ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000006935267

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
	Other than front wiper switch INT	Off
FR WIPER INT	Front wiper switch INT	On
FR 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
RR WIPER ON	Other than rear wiper switch ON	Off
	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
KK WASHER SW	Rear washer switch ON	On
RR WIPER STOP	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
TURN SIGNAL R	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TORN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
TIEAD EAWF SW T	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On

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Monitor Item	Condition	Value/Status	
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off	
OOR SW-DR	Driver door closed	Off	
	Driver door opened	On	
DOOR SW-AS	Passenger door closed	Off	
JOOR SW-AS	Passenger door opened	On	
DOOR SW-RR	Rear RH door closed	Off	
	Rear RH door opened	On	
DOOR SW-RL	Rear LH door closed	Off	
JOOK SW-KL	Rear LH door opened	On	
DOOR SW-BK	Back door closed	Off	
JOOK SW-BR	Back door opened	On	
CDL LOCK SW	Other than power door lock switch LOCK	Off	
JDE LOOK SW	Power door lock switch LOCK	On	
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off	
UDE UNLOCK SW	Power door lock switch UNLOCK	On	
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off	
AET GTLLK-SW	Driver door key cylinder LOCK position	On	
	Other than driver door key cylinder UNLOCK position	Off	
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On	
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	
HAZARD SW	Hazard switch is OFF	Off	
	Hazard switch is ON	On	
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off	
TR/BD OPEN SW	Back door opener switch OFF	Off	_ 1
	While the back door opener switch is turned ON	On	
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off	
RKE-LOCK	LOCK button of the key is not pressed	Off	
	LOCK button of the key is pressed	On	
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off	
ARE-ONEOGR	UNLOCK button of the key is pressed	On	
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off	
	PANIC button of the key is not pressed	Off	
RKE-PANIC	PANIC button of the key is pressed	On	
	UNLOCK button of the key is not pressed	Off	
RKE-P/W OPEN	UNLOCK button of the key is pressed and held	On	
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneous- ly	Off	
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On	
	Bright outside of the vehicle	Close to 5 V	
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	

Revision: 2011 October

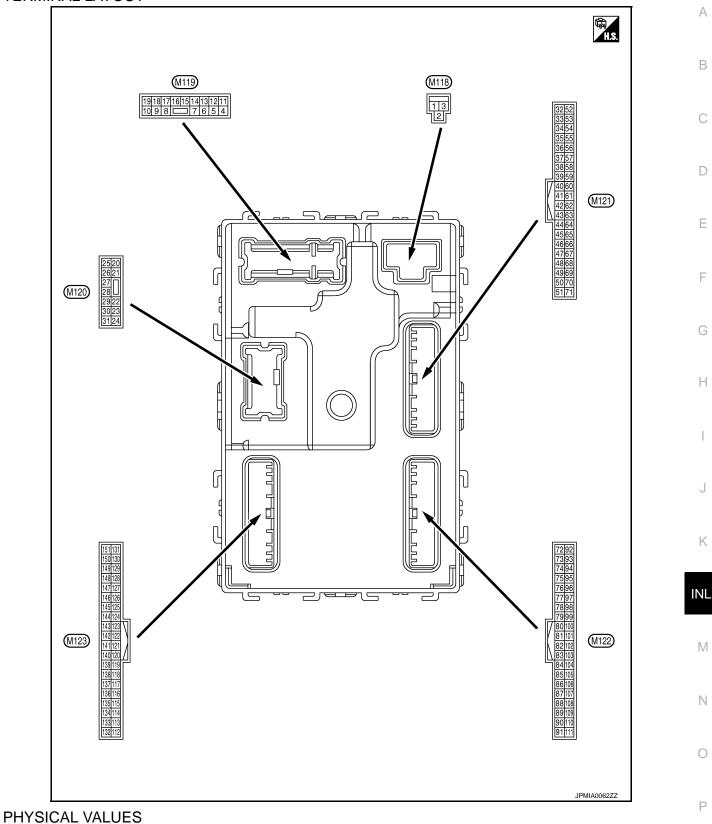
Monitor Item	Condition	Value/Status
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
(EQ 5W -A5	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
LEQ 3W -DD/TR	Back door request switch is pressed	On
	Push-button ignition switch (push switch) is not pressed	Off
USH SW	Push-button ignition switch (push switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
GN RLY2 -F/B	Ignition switch in ON position	On
CC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	Selector lever in P position	Off
DETE/CANCL SW	Selector lever in any position other than P	On
	Selector lever in any position other than P and N	Off
FT PN/N SW	Selector lever in P or N position	On
S/L -LOCK	Steering is unlocked	Off
IOTE: For models without steering lock Init, this item is not monitored.	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
IOTE: For models without steering lock Init, this item is not monitored.	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
For models without steering lock init, this item is not monitored.	Ignition switch in ON position	On
	Driver door is unlocked	Off
JNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
USH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
GN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	Selector lever in any position other than P and N	Off
SFT PN -IPDM	Selector lever in P or N position	On

Monitor Item	Condition	Value/Status
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
NOTE: For models without steering lock unit, this item is not monitored.	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
NOTE: For models without steering lock unit, this item is not monitored.	Steering is unlocked	On
S/L RELAY-REQ NOTE:	Steering lock system is not the LOCK condition and the changing condi- tion from LOCK to UNLOCK.	Off
For models without steering lock unit, this item is not monitored.	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK.	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
	Steering is locked	Reset
D OK FLAG	Steering is unlocked	Set
	The engine start is prohibited	Reset
PRMT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The key is not inserted into key slot	Off
	The key is inserted into key slot	On
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the fourth key ID reg-	Done

Monitor Item	Condition	Value/Status
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet
CONFIRMIDS	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
CONFIRMINDZ	The key ID that the key slot receives accords with the second key ID reg- istered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
CONFIRMIDI	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
TP 4	The ID of fourth key is not registered to BCM	Yet
1 - 4	The ID of fourth key is registered to BCM	Done
TP 3	The ID of third key is not registered to BCM	Yet
IP 3	The ID of third key is registered to BCM	Done
	The ID of second key is not registered to BCM	Yet
TP 2	The ID of second key is registered to BCM	Done
	The ID of first key is not registered to BCM	Yet
TP 1	The ID of first 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 L 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 R tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LI tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
ID REGGI FLI	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING 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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TERMINAL LAYOUT



Terminal No. (Wire color)		Description			0	Value											
+	-	Signal name	Input/ Output	Condition		(Approx.)											
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage											
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	Battery voltage											
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage											
					battery saver is activated. oom lamp power supply)	0 V											
4 (LG)	Ground	Interior room lamp power supply	Output	ed.	battery saver is not activat- or room lamp power supply)	Battery voltage											
5	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage											
(L)	Ground	LOCK	Output	r assenger door	Other than UNLOCK (Actuator is not activated)	0 V											
7 (Y)	Ground	Step lamp	Output	Step lamp	ON OFF	0 V Battery voltage											
8		All doors, fuel lid LOCK								All deore fuel lid	All doors fuel lid	All doors fuel lid	All doors fuel lid			LOCK (Actuator is activated)	Battery voltage
(V)			Output	All doors	Other than LOCK (Actuator is not activated)	0 V											
9	9	Driver door, fuel lid	.	out Driver door	UNLOCK (Actuator is activated)	Battery voltage											
(G)	Ground	UNLOCK	Output		Other than UNLOCK (Actuator is not activated)	0 V											
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	Battery voltage											
(BR)	Ground	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V											
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage											
13 (B)	Ground	Ground	_	Ignition switch ON		0 V											
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V NOTE: When the illumination brighten ing/dimming level is in the neutra position (V) 10 0 2 ms JSNIA0010GB											
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF or ON	Battery voltage											
(Y)		· · · · · · · · · · · · · · · · · · ·		0	ACC	0 V											

Terminal No. (Wire color) + –		Description Signal name Input/ Output		Condition		Value (Approx.)	
17 (W)	Ground Turn signal RH Output Ignition switch (Front) ON	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 FKID0926E 6.5 V			
					Turn signal switch OFF	0 V	
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 10 0 1 s 10 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10	
19	Ground	Room lamp timer	Output	Interior room	OFF	Battery voltage	
(V)	0.54114	control	- ciput	lamp	ON Turn signal switch OFF	0 V 0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 10 0 1 s 0 FKID0926E 6.5 V	
23	Orregard	Pooly door on the	Back door open	Outrust	Deck de ce	OPEN (Back door opener actuator is activated)	Battery voltage
(G)	Ground	васк цоог open	Output	Back door	Other than OPEN (Back door opener actuator is not activated)	0 V	
					Turn signal switch OFF	0 V	
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 15 10 15 10 15 15 15 15 15 15 15 15 15 15	
26	0	Boorwiner	0	Deerwiner	OFF (Stopped)	0 V	
(G)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	Battery voltage	

	ninal No.	Description				Value	
+	e color)	Signal name	Input/ Output	Condition		(Approx.)	
34	Ground	Luggage room anten-	Output	Output Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
(SB)	Sidund	na (-)	Output		When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 1 1 1 1 1 1 1 1 1 1 1 1 1	
35	Ground	und Luggage room anten- na (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0062GB	
(V)	Ground				When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	
38	Ground	ound Back door antenna (– C	Output	When the back door opener re- quest switch is operated with ig- nition 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	
(B)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0063GB	

Terminal No.		Description				Value	
(Wire +	e color) -	Signal name	Input/ Output	Condition		(Approx.)	
39		Back door antenna		When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 50 1 s JMKIA0062GB	
(VV)	Ground	(+)	Output	door opener re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage	
()		. ,			When selector lever is in P	Battery voltage	
52 (SB)	Ground	Starter relay control	Output	Ignition switch ON	or N position When selector lever is not in P or N position	0 V	
60* ¹	Crownel	Push-button ignition	1000	Push-button igni-	Pressed	0 V	
(BR)	Ground	switch (Push switch)	Input	tion switch (push switch)	Not pressed	Battery voltage	
61 (W)	Ground	Back door opener re- quest switch	Input	Back door opener request switch	ON (Pressed) OFF (Not pressed)	0 V	
64	Crossed	Intelligent Key warn-	0	Intelligent Key	Sounding	0 V	
(V)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	Battery voltage	
65 (BG)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	(V) 15 10 5 10 10 ms JPMIA0016GB	
						1.0 V	

Terminal No. (Wire color)		Description				Value
+	-	Signal name	Input/ Output	Condition		(Approx.)
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
					Pressed	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V

Terminal No.		Description					
(Wire +	e color) _	Signal name	Input/ Output		Condition	Value (Approx.)	A
		Room antenna 2 (–)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0062GB	B C D
(R)	Ground	(Center console)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	E
73	0	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0062GB	G H
(G)	Ground				When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	J K
74	Ground	Passenger door an-	Output	When the pas- senger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(SB)	Ground	tenna (–)		quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O P

	inal No.	Description				Value
(vvire +	e color)	Signal name	Input/ Output	Condition		(Approx.)
75	Ground	Passenger door an-		Dutput Output When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 50 1 1 5 JMKIA0062GB
(GR)	Ground	tenna (+)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
76	Ground	nd Driver door antenna (–)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(V)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 1 1 5 0 1 1 5 0 1 1 5 0 1 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
77	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(LG)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

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Terminal No. (Wire color) + –		Description Signal name Input/ Output		Condition		Value (Approx.)	
When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB						
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
					When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the 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	0 V	
				<u> </u>	ON	Battery voltage	

Ρ

Terminal No. (Wire color) + –		Description				Value	
		Signal name	Input/ Output	Condition		(Approx.)	
83 (Y)	Ground	Remote keyless entry receiver communica- tion	Input/ Output	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB	
				When operating either button on the key		(V) 15 10 5 0 1 ms JMKIA0065GB	
	Ground	Combination switch INPUT 5	Input		All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	
87				Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V	
(BR)					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0039GB 1.3 V	
						Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 0 2 ms JPMIA0040GB 1.3 V

Terminal No.		Description				Value							
(Wire +	e color) –	Signal name Inp Out		Condition		(Approx.)							
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	B C D						
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	E						
88 (V)	Ground	Combination switch INPUT 3	Innut	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	G						
											Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	J K
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	M						
89* ² (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button igni- tion switch (push switch)	Pressed Not pressed	0 V Battery voltage	0						
90 (P)	Ground	CAN-L	Input/ Output	_	· · · · · · · · · · · · · · · · · · ·	_	Ρ						
91 (L)	Ground	CAN-H	Input/ Output	_		_							

Terminal No.		Description				Value	
(Wire +	e color) -	Signal name	Input/ Output	Condition		(Approx.)	
92 (LG)	Ground	Key slot illumination	Output		OFF	Battery voltage	
				Key slot illumina- tion	Blinking		
					ON	6.5 V	
93					OFF or ACC	Battery voltage	
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	ON	0 V	
94			+		OFF	Battery voltage	
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	ON	0 V	
95					OFF	0 V	
(BG)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	Battery voltage	
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output	_		Battery voltage	
97* ²	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V	
(L)	Giouna	tion No. 1	mpat	Oleening look	UNLOCK status	Battery voltage	
98* ²	Ground Ground	Steering lock condi- tion No. 2 Selector lever P posi- tion switch	Input Input	Steering lock Selector lever	LOCK status	Battery voltage	
(P)					UNLOCK status	0 V	
99					P position	0 V	
(R)					Any position other than P	Battery voltage	
					ON (Pressed)	0 V	
100 (G)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 ms JPMIA0016GB 1.0 V	
					ON (Pressed)	0 V	
101 (SB)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 10 50 10 ms JPMIA0016GB 1.0 V	
400					OFF or ACC	0 V	
102 (BG)	Ground	Blower fan motor re- lay control	Output	Ignition switch	ON	Battery voltage	

	inal No.	Description				Value
(vvir +	e color) –	Signal name	Input/ Output		Condition	(Approx.)
103 (LG)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OF	F	Battery voltage
106* ² (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC ON	Battery voltage 0 V
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Turn signal switch LH	(V) 15 10 5 0 2
107 (LG) Gr	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 0 2 ms JPMIA0039GB 1.3 V

	inal No. e color)	Description		0		Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0040GB 1.3 V	
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 0 2 ms JPMIA0039GB 1.3 V	

	inal No.	Description				Value	
(Wire +	e color) -	Signal name	Input/ Output		Condition	Value (Approx.)	А
					All switches OFF	(V) 15 10 5 0 2 ms	B
					Lighting switch PASS	JPMIA0041GB 1.4 V	D F
						1.3 V	G
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 0 2 ms JPMIA0036GB	Н
						1.3 V	
					Front wiper switch INT	(V) 10 0 2 ms JPMIA0038GB 1.3 V	J K INL
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	M
					ON	0 V	0
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 10 10 ms JPMIA0012GB 1.1 V	Ρ

	rminal No. Description			Value		
(VVire +	e color)	Signal name	Input/ Output	Condition		(Approx.)
			• • • • • •		LOCK status	Battery voltage
111* ² (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(P)	Cround	Optical sensor	mput	ON	When dark outside of the vehicle	Close to 0 V
116 (SB)	Ground	Stop lamp switch 1	Input	_		Battery voltage
		Stop lamp switch 2		Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
118	Ground	(Without ICC)	Input		ON (Brake pedal is de- pressed)	Battery voltage
(P)	Cround	Stop lamp switch 2		Stop lamp switch OFF (Brake pedal is not de- pressed) and ICC brake hold relay OFF		0 V
		(With ICC)		Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 10 ms JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Key slot switch	Input	When the key is inserted into key slot		Battery voltage
(BR)				When the key is no	ot inserted into key slot	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(W)					ON	Battery voltage

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	inal No.	Description				Value	Δ
(VVire +	e color) -	Signal name	Input/ Output	Condition		(Approx.)	A
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	B C D
					ON (Door open)	0 V	
132 (BR)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0	E
							G
				Ignition switch OF		Battery voltage	
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button igni- tion switch illumi- nation	ON (Tail lamps OFF) ON (Tail lamps ON)	9.5 V NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level. (V) 15 10 5 0	H I J
					OFF	JPMIA0159GB	K
134				LOCK indicator	OFF	Battery voltage	INU
(GR)	Ground	LOCK indicator lamp	Output	lamp	ON	0 V	INL
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON	I	0 V	M
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V	
(Y)	Ground	power supply	Juiput	ignition switch	ACC or ON	5.0 V	

0

	inal No.	Description				Value
(VVire +	e color) -	Signal name	Input/ Output	Condition		(Approx.)
139	Ground	, Tire pressure receiv-	Input/	/ Ignition switch	Standby state	(V) 4 0 • • 0.2s DCC3881D
(L)	Giouna	er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 2 0 + 0.2s DCC3880D
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	Battery voltage
(GR)		position			Except P and N positions ON	0 V 0 V
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 0 1 s JPMIA0014GB 11.3 V
					OFF	Battery voltage
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	0 V
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4) Front wiper switch HI (Wiper intermittent dial 4) Rear wiper switch INT (Wiper intermittent dial 4) Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	0 V

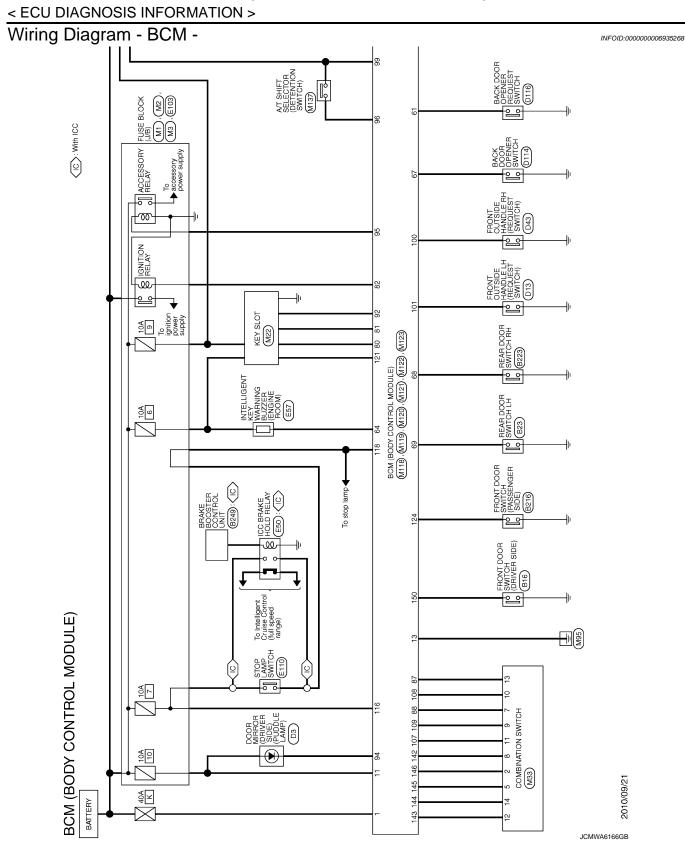
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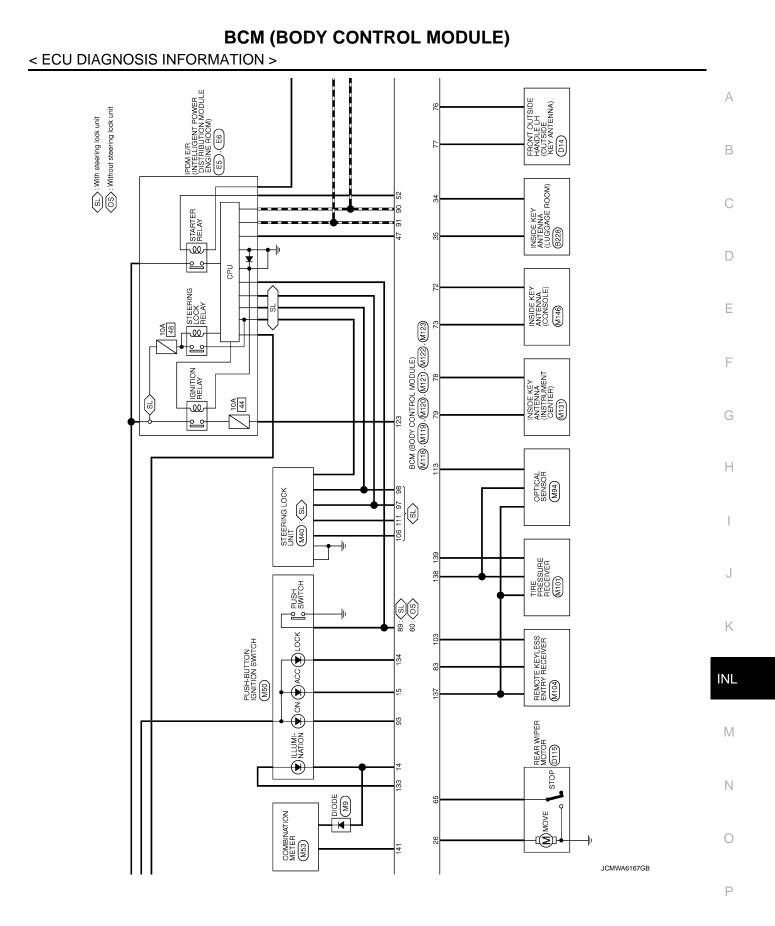
	inal No.	Description				Value
(Wire +	e color) –	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	
144		Combination switch		Combination	Rear wiper switch ON (Wiper intermittent dial 4)	
(G)	Ground	OUTPUT 2	Output	switch	Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	2 ms JPMIA0033GB
					All switches OFF	0 V
					Front wiper switch INT	
				Output Combination switch (Wiper intermit- tent dial 4)	Front wiper switch LO	(V) 15
145 (L)	Ground	Combination switch OUTPUT 3	witch Output		Lighting switch AUTO	10 0 2.ms JPMIA0034GB 10.7 V
					All switches OFF	0 V
		round Combination switch OUTPUT 4		Combination switch (Wiper intermit- tent dial 4)	Front fog lamp switch ON	
					Lighting switch 2ND	(V) 15
146 (SB)	Ground		Output		Lighting switch PASS Turn signal switch LH	10 5 0 2 ms JPMIA0035GB
						10.7 V
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 10 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151	Ground	Rear window defog-	Output	Rear window de-	Active	0 V
(G)	Cround	ger relay control	Carpar	fogger	Not activated	Battery voltage

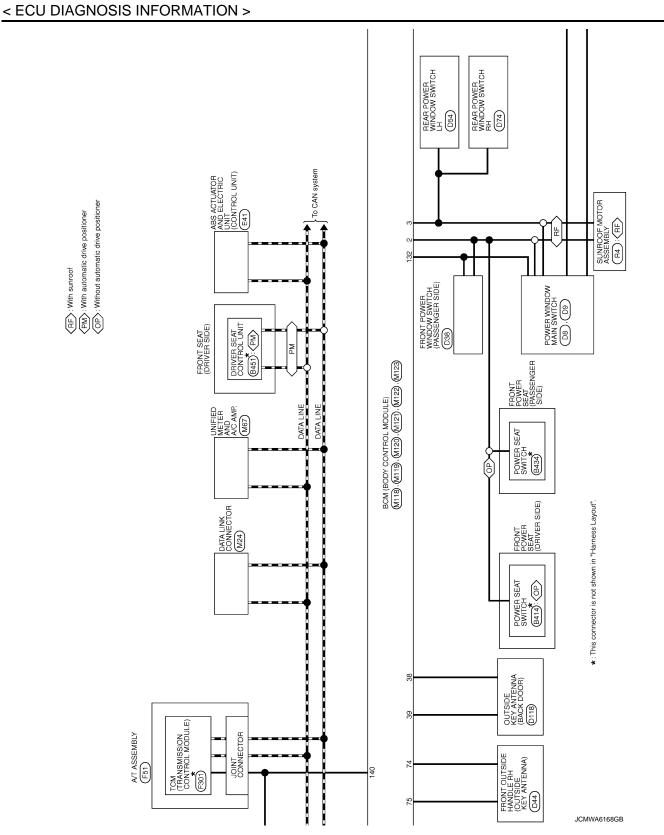
NOTE:

• *1: Without steering lock unit

• *2: With steering lock unit



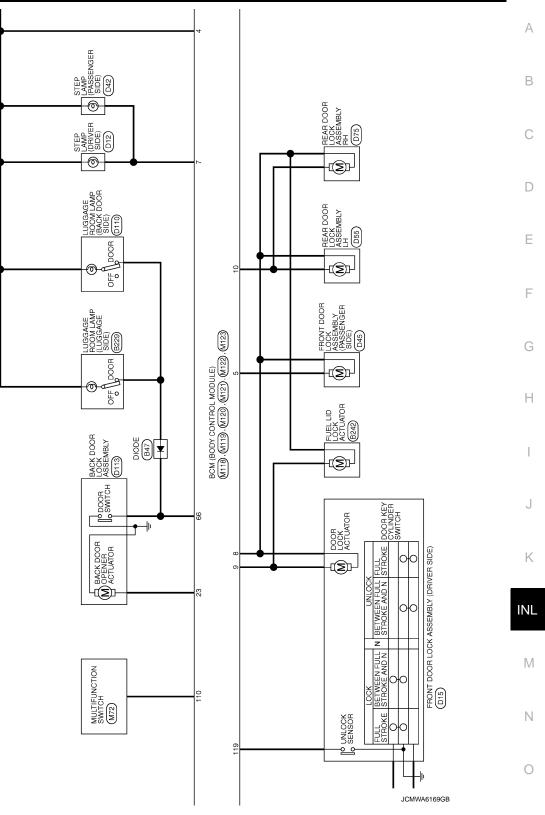


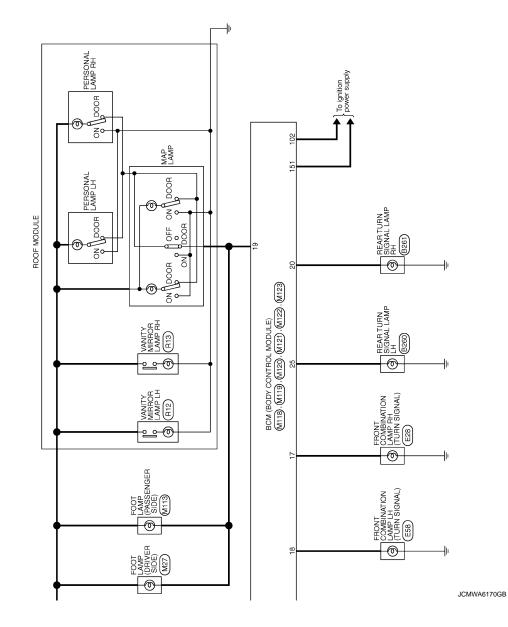


Revision: 2011 October

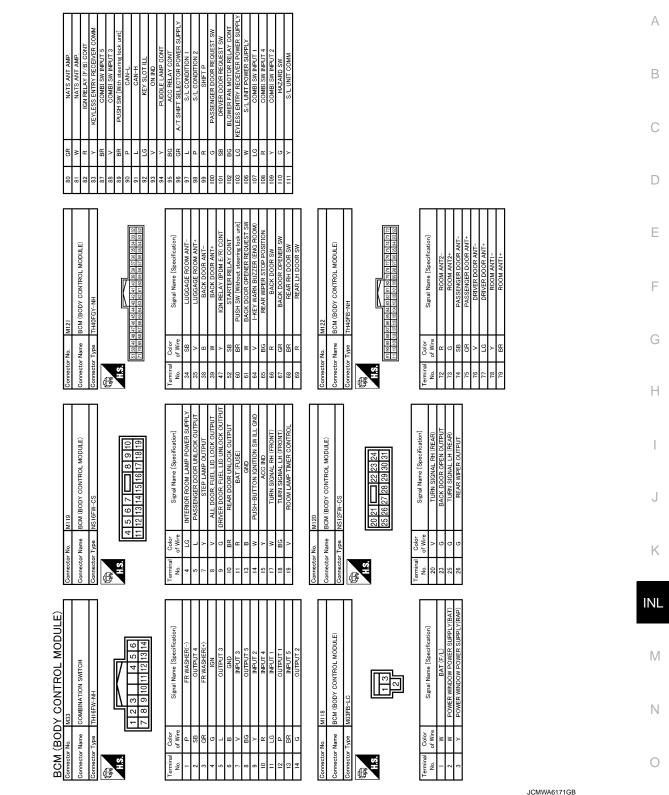
2011 EX

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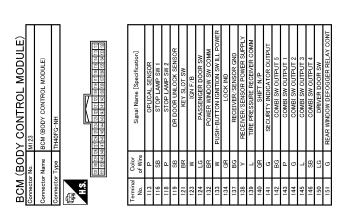


< ECU DIAGNOSIS INFORMATION >



VA6171GB

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JCMWA6172GB

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Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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 Ignition switch is in the ON position Power position: IGN 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 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 cranking Inhibit steering lock 	 When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM 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
B26E9: S/L STATUS	Inhibit engine crankingInhibit 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)

REAR WIPER MOTOR PROTECTION

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

Condition of cancellation

- 1. More than 1 minute is passed after the rear wiper stops.
- 2. Turn rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)

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Priority	DTC	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	
	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY 	
	 B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW B2606: S/L RELAY 	
	 B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS 	
4	 B260A: IGNITION RELAY B260B: STEERING LOCK UNIT B260C: STEERING LOCK UNIT B260D: STEERING LOCK UNIT B260F: ENG STATE SIG LOST 	
	 B2612: S/L STATUS B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM B2614: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E9: S/L STATUS B26EA: KEY REGISTRATION 	
	C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG C1704: LOW PRESSURE FL	
5	 C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL 	
	 C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1734: CONTROL UNIT 	
6	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

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IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-18, "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_	
U1000: CAN COMM CIRCUIT	—	—	—	—	<u>BCS-38</u>
U1010: CONTROL UNIT (CAN)	—	—			BCS-39
U0415: VEHICLE SPEED SIG	—	—	—	—	<u>BCS-40</u>
B2013: ID DISCORD BCM-S/L*	×	×	—	—	<u>SEC-49</u>
B2014: CHAIN OF S/L-BCM*	×	×	—	—	<u>SEC-50</u>
B2190: NATS ANTENNA AMP	×	—	_	—	<u>SEC-42</u>
B2191: DIFFERENCE OF KEY	×	—	_	—	<u>SEC-45</u>
B2192: ID DISCORD BCM-ECM	×	—	_	—	<u>SEC-46</u>
B2193: CHAIN OF BCM-ECM	×	—	_	—	<u>SEC-47</u>
B2195: ANTI SCANNING	×	—	_	—	<u>SEC-48</u>
B2553: IGNITION RELAY	—	×			PCS-50
B2555: STOP LAMP	—	×	_		<u>SEC-53</u>
B2556: PUSH-BTN IGN SW	—	×	×	_	<u>SEC-55</u>
B2557: VEHICLE SPEED	×	×	×		<u>SEC-57</u>
B2560: STARTER CONT RELAY	×	×	×		<u>SEC-58</u>
B2562: LOW VOLTAGE	—	×			BCS-41
B2601: SHIFT POSITION	×	×	×		<u>SEC-59</u>
B2602: SHIFT POSITION	×	×	×		<u>SEC-62</u>
B2603: SHIFT POSI STATUS	×	×	×		<u>SEC-64</u>
B2604: PNP SW	×	×	×		<u>SEC-67</u>
B2605: PNP SW	×	×	×		<u>SEC-69</u>
B2606: S/L RELAY*	×	×	×		<u>SEC-71</u>
B2607: S/L RELAY*	×	×	×		<u>SEC-72</u>
B2608: STARTER RELAY	×	×	×		<u>SEC-74</u>
B2609: S/L STATUS*	×	×	×		<u>SEC-76</u>
B260A: IGNITION RELAY	×	×	×		PCS-52
B260B: STEERING LOCK UNIT*	—	×	×		<u>SEC-80</u>
B260C: STEERING LOCK UNIT*	—	×	×		<u>SEC-81</u>
B260D: STEERING LOCK UNIT*	—	×	×		<u>SEC-82</u>
B260F: ENG STATE SIG LOST	×	×	×	—	<u>SEC-83</u>
B2612: S/L STATUS*	×	×	×	—	<u>SEC-87</u>
B2614: ACC RELAY CIRC	_	×	×	—	PCS-54
B2615: BLOWER RELAY CIRC	—	×	×		PCS-57
B2616: IGN RELAY CIRC	—	×	×	—	PCS-60
B2617: STARTER RELAY CIRC	×	×	×		<u>SEC-91</u>
B2618: BCM	×	×	×	—	PCS-63

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM*	×	×	×	_	<u>SEC-93</u>
B261A: PUSH-BTN IGN SW	_	×	×	—	<u>SEC-94</u>
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-97</u>
B2621: INSIDE ANTENNA	_	×			DLK-59
B2622: INSIDE ANTENNA	_	×	—	—	DLK-61
B2623: INSIDE ANTENNA		×		—	DLK-63
B26E1: ENG STATE NO RES	×	×	×	—	<u>SEC-84</u>
B26E9: S/L STATUS*	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-85</u>
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-86</u>
C1704: LOW PRESSURE FL	_	_	—	×	
C1705: LOW PRESSURE FR	_	_		×	
C1706: LOW PRESSURE RR	_	_		×	<u>WT-23</u>
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	
C1709: [NO DATA] FR	—	—	—	×	WT-25
C1710: [NO DATA] RR	—	—	—	×	<u>vv1-20</u>
C1711: [NO DATA] RL	_	—	_	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	
C1717: [PRESSDATA ERR] FR	_	—	_	×	WT-28
C1718: [PRESSDATA ERR] RR	—	—	—	×	<u>vv1-20</u>
C1719: [PRESSDATA ERR] RL		_		×	
C1729: VHCL SPEED SIG ERR				×	<u>WT-30</u>
C1734: CONTROL UNIT	—	—	_	×	<u>WT-32</u>

*: For models without steering lock unit, this DTC is not applied.

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COMBINATION METER

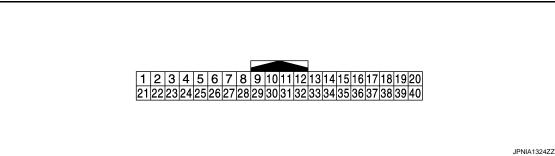
Reference Value

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VALUES ON THE DIAGNOSIS TOOL

Refer to MWI-88, "Reference Value".

TERMINAL LAYOUT

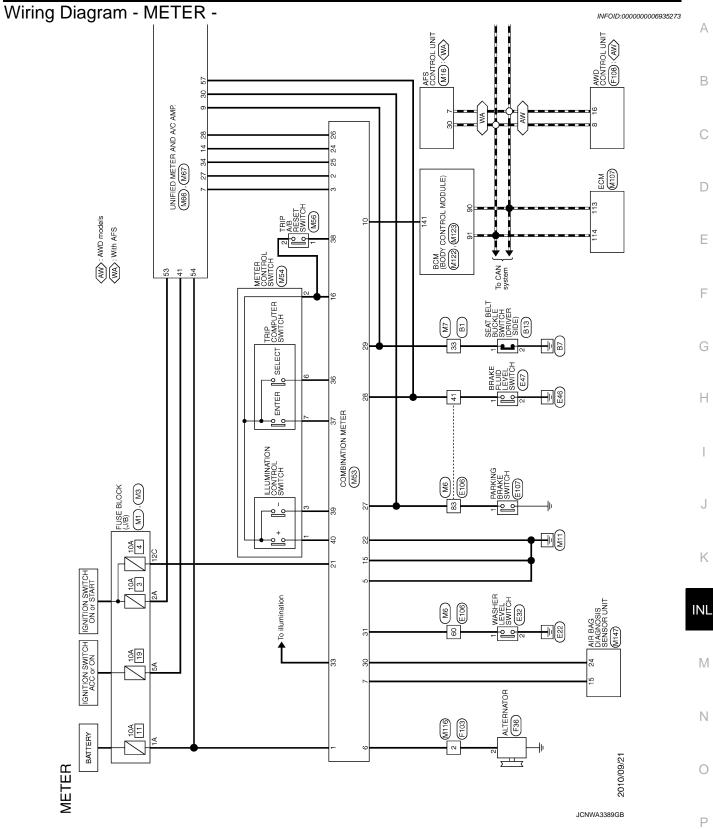


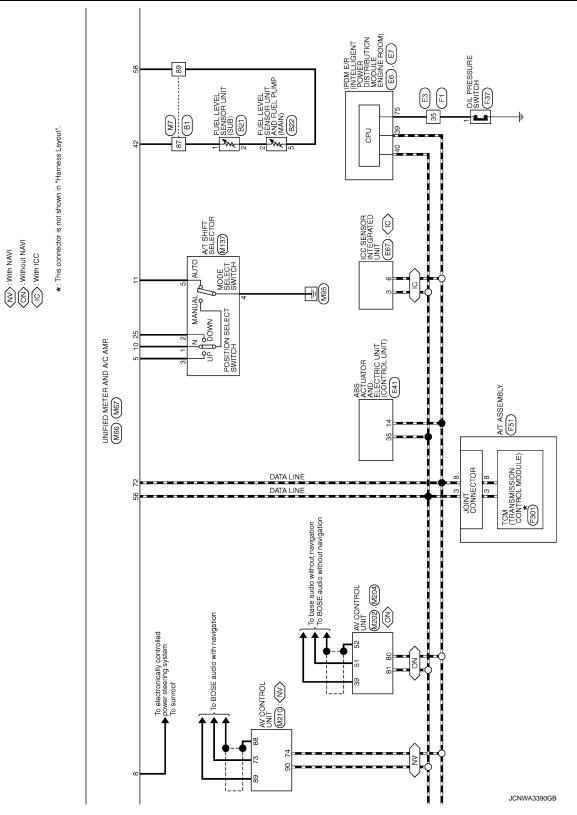
PHYSICAL VALUES

	nal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
1 (GR)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage
2 (LG)	Ground	Communication signal (METER→ AMP.)	Output	Ignition switch ON	_	(V) 6 2 0 2 2 0 2 2 0 2 0 2 0 0 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
3 (GR)	Ground	Communication signal (AMP.→ METER)	Input	Ignition switch ON	_	(V) 6 4 2 0 ★ 200 µs JSNIA0027GB
5 (B)	Ground	Ground	_	Ignition switch ON	_	0 V
6				Ignition	Charge warning lamp ON	0 V
(P)	Ground	Alternator signal	Input	switch ON	Charge warning lamp OFF	Battery voltage
7	<u> </u>	A*-1		Ignition	Air bag warning lamp ON	4 V
(BR)	Ground	Air bag signal	Input	switch ON	Air bag warning lamp OFF	0 V
10	0			Ignition	Security warning lamp ON	0 V
(G)	Ground	Security signal	Input	switch OFF	Security warning lamp OFF	12 V
15 (B)	Ground	Ground	_	Ignition switch ON	_	0 V

	nal No. e color)	Description		Condition		Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
16 (B)	Ground	Meter control switch ground		Ignition switch ON	_	0 V	
21 (BG)	Ground	Ignition signal	Input	Ignition switch ON		Battery voltage	
22 (B)	Ground	Ground	_	Ignition switch ON	_	0 V	
24 (BR)	Ground	Communication signal (LCD→ AMP.)	Output	Ignition switch ON		(V) 15 10 5 0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	
25 (Y)	Ground	Communication signal (AMP. \rightarrow LCD)	Input	Ignition switch ON		(V) 6 4 2 0 ★ 200 <i>µ</i> s 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 depending on the specification (destination unit).	
27 (V)	Ground	Parking brake switch signal	Input	Ignition switch ON	Parking brake is applied Parking brake is released	UV UV (V) 8 4 0 10 ms JSNIA0007GB	
28 (W)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal. The brake fluid level is low- er than the low level	5 V 0 V	
29	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When driver seat belt is fas- tened	12 V	
(SB)	Ground	nal (driver side)	Input	ON	When driver seat belt is un- fastened	0 V	

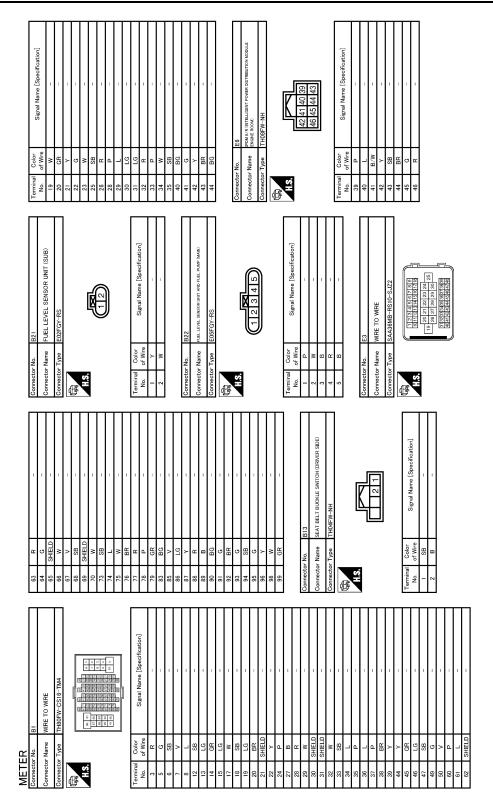
	nal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
30	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When getting in the passenger seatWhen passenger seat belt is fastened	12 V
(G)	Cround	nal (passenger side)	input	ON	When getting in the passenger seatWhen passenger seat belt is unfastened	0 V
31	Ground	Washer level switch signal	Input	Ignition switch	Washer level switch ON	0 V
(L)	Ground	Washer level switch signal	mput	ON	Washer level switch OFF	5 V
33 (B)	Ground	Illumination control signal	Output	Ignition switch ON	Lighting switch ON, then operate the illumination control switch.	NOTE: When brightness level is midway
36 (LG)	16 (B)	Select switch signal	Input	Ignition switch	When is pressed	0 V
(LG)	(Б)		-	ON	Other than the above	5 V
37	16 (D)	Enter switch signal	Input	Ignition switch	When 🖵 is pressed	0 V
(SB)	(B)	_	-	ON	Other than the above	5 V
38 (L)	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
\` /	(- /			ON	Other than the above	5 V
40 (BG)	16 (B)	Illumination control switch signal (+)	Input	Ignition switch	When 💏 + switch is pressed	0 V
- /		U U U		ON	Other than the above	5 V



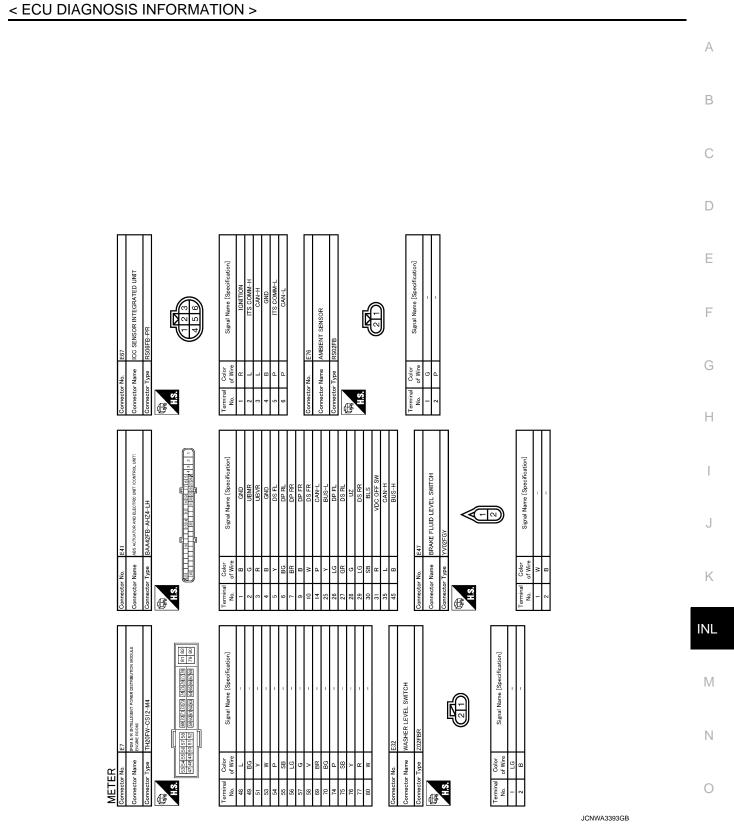


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Gon Field Meter AND AC AMP		Μ
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< ECU DIAGNOSIS INFORMATION >

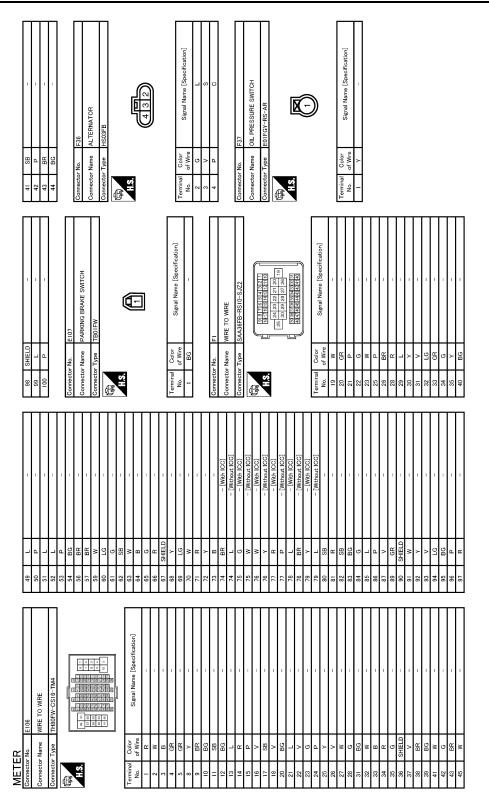


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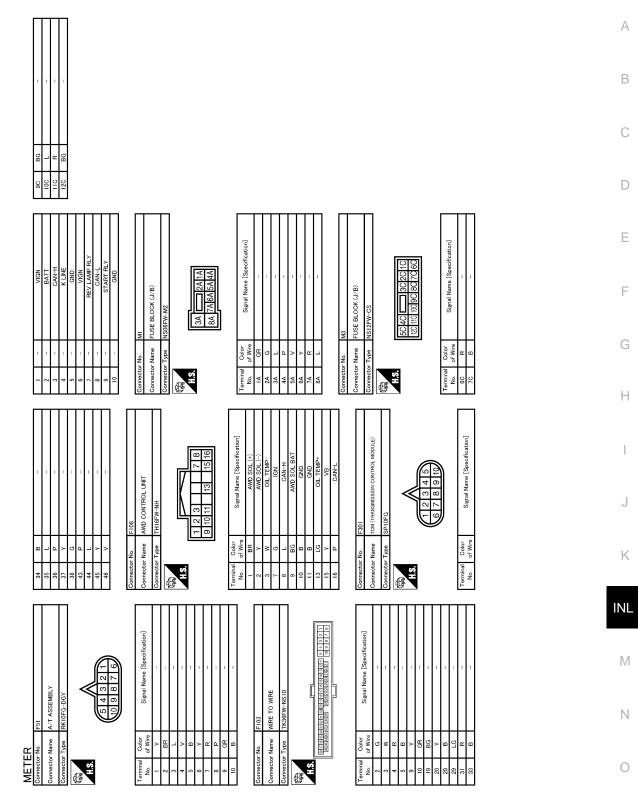
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< ECU DIAGNOSIS INFORMATION >



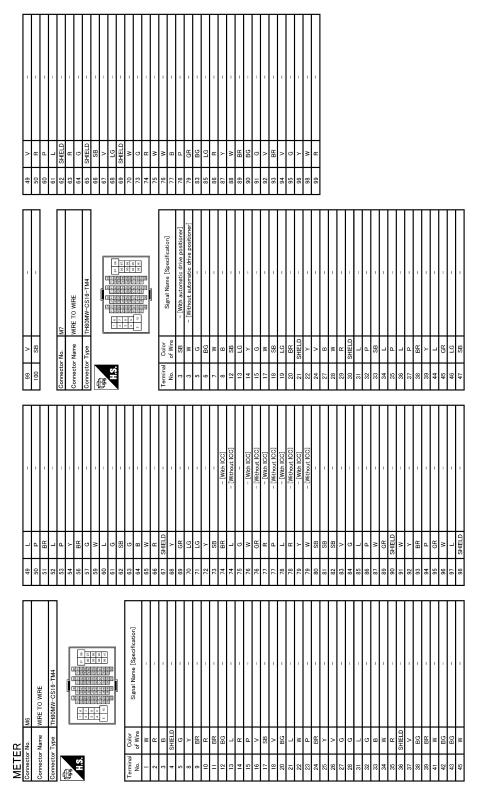
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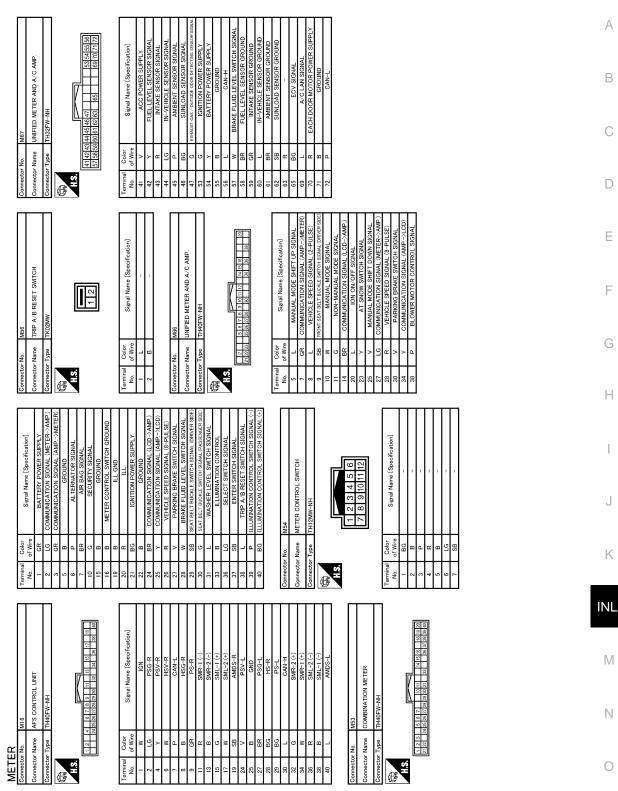
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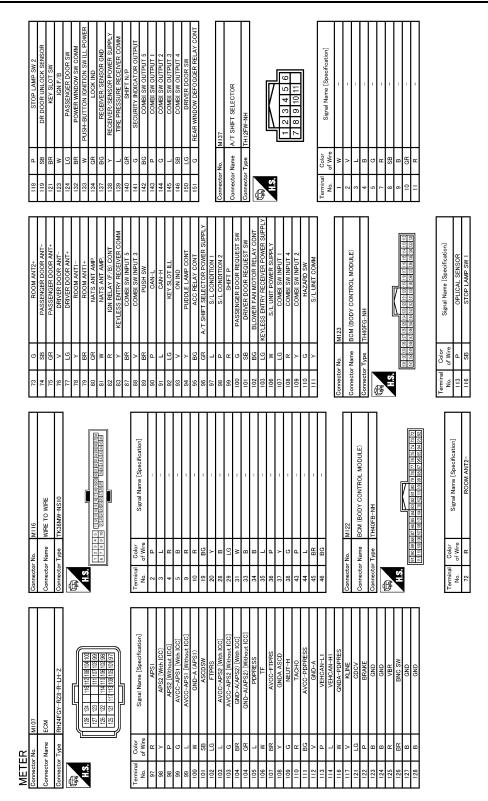
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< ECU DIAGNOSIS INFORMATION >



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< ECU DIAGNOSIS INFORMATION >

А В С D Ε [Specification] Signal Name F LIND CONTROL 2 G Name BG HS. Ø Н Signal Name [Specification] 82 83 84 85 1 08 00 1// 1/1 AV CONTROL UNIT J 76 77 78 79 80 8 92 93 94 95 96 9 Name Κ ector H.S. INL AIR BAG DIAGNOSIS SENSOR UNIT Signal Name [Specification] Signal Name [Specification Μ GN AV CONTROL UNIT 45 48 Ν 9 Color f Wire Name Name 36 48 METER Ο E S SH JCNWA3399GB Ρ Fail-Safe INFOID:000000006935274

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.

INL-105

< ECU DIAGNOSIS INFORMATION >

	Function	Specifications	
Speedometer			
Tachometer		Beast to zero by supporting 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		
	SLIP indicator lamp		
	Brake warning lamp		
	CRUISE warning lamp	— The lamp turns on by suspending communication.	
	IBA OFF indicator lamp		
	Malfunction indicator lamp		
	High beam indicator		
	Turn signal indicator lamp		
	Tail lamp indicator lamp		
Warning lamp/indicator	Oil pressure warning lamp		
lamp	A/T CHECK warning lamp		
	AWD warning lamp		
	Low tire pressure warning lamp	 The lamp turns off by suspending communication. 	
	Key warning lamp		
	VDC OFF indicator lamp		
	BSW warning lamp		
	AFS OFF indicator lamp		
	Lane departure warning lamp		
	LDP ON indicator lamp		
	Master warning lamp		

DTC Index

Refer to <u>MWI-106, "DTC Index"</u>.

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INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

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INFOID:000000006346590

CAUTION:

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

Symptom	Possible cause	Inspection item
All the following lamps do not turn ON. • Map lamp • Personal lamp • Foot lamp • Luggage room lamp • Step lamp • Vanity mirror lamp	 Harness between BCM and each interior room lamp BCM 	Interior room lamp power supply cir- cuit Refer to <u>INL-20</u> .
 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-66</u> . Interior room lamp control circuit Refer to <u>INL-22</u> .
 Puddle lamp does not turn ON even though the door is open. Puddle lamp does not turn OFF even though the door is closed. 	 Harness between BCM and each door switch Harness between BCM and puddle lamp BCM 	Door switch circuit Refer to <u>DLK-66</u> . Puddle lamp 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 <u>INL-16</u> .
Step lamps (driver side and passenger side) do not turn ON. (The map lamp and the personal lamp turn ON.) Step lamps (driver side and passenger side) do not turn OFF. (The map lamp and the personal lamp turn OFF.)	 Harness between BCM and each step lamp BCM 	Step lamp circuit Refer to <u>INL-24</u> .
Push-button ignition switch illumination does not illuminate.	 Harness between BCM and push- button ignition switch BCM 	Push-button ignition switch illumina- tion circuit Refer to INL-27.
Interior room lamp battery saver does not activate.	_	Check the interior room lamp battery saver setting. Refer to <u>INL-17</u> .

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< 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:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

< REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION MAP LAMP

Exploded View

INFOID:00000006346592 B

INFOID:00000006346593

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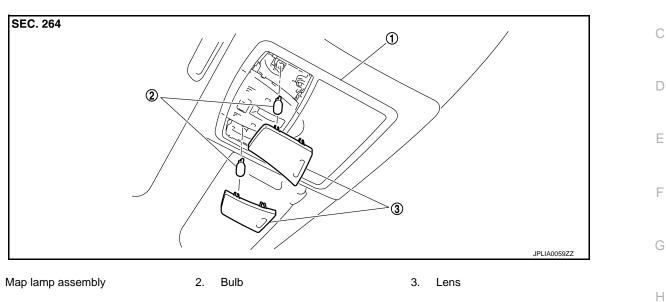
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Removal and Installation

Refer to INT-29, "NORMAL ROOF : Exploded View" for the map lamp assembly installation/removal.

Replacement

CAUTION:

1.

- 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.

INL-109

Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect
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 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.

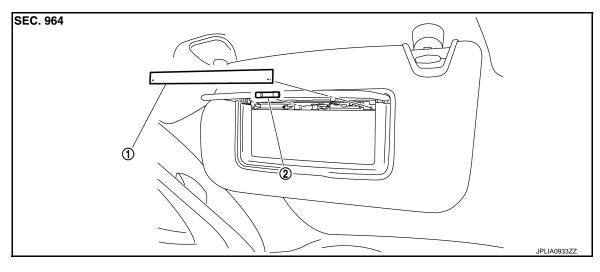
VANITY MIRROR LAMP

< REMOVAL AND INSTALLATION >

VANITY MIRROR LAMP

Exploded View

INFOID:000000006346595



1. Lens

Bulb

2.

Replacement

INFOID:000000006346596

CAUTION:

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

VANITY MIRROR LAMP BULB

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

CIGARETTE LIGHTER ILLUMINATION

< REMOVAL AND INSTALLATION >

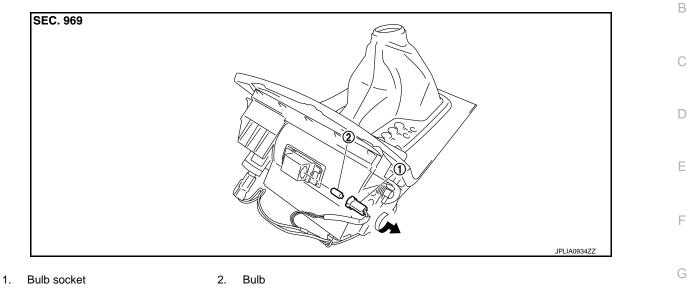
CIGARETTE LIGHTER ILLUMINATION

Exploded View

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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 assembly. Refer to IP-23, "Removal and Installation".
- 2. Rotate the bulb socket counterclockwise and unlock it.
- 3. Remove the bulb.

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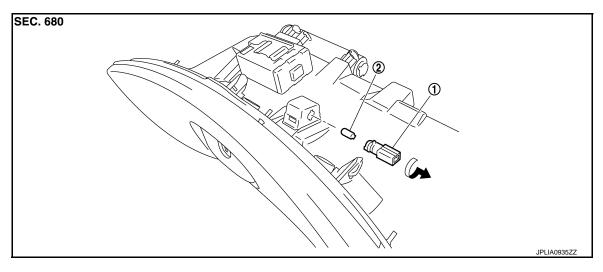
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GLOVE BOX LAMP

Exploded View

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1. Bulb socket

2. Bulb

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.

GLOVE BOX LAMP BULB

- 1. Remove the glove box assembly. Refer to <u>IP-12, "Exploded View"</u>.
- 2. Remove the instrument lower panel RH. Refer to IP-12, "Exploded View".
- 3. Rotate the bulb socket counterclockwise and unlock it.
- 4. Remove the bulb.

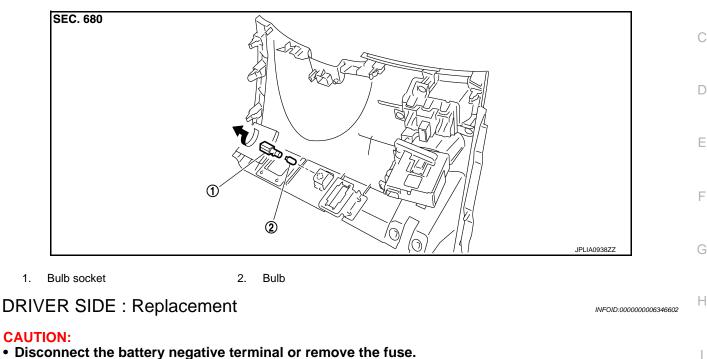
FOOT LAMP DRIVER SIDE

DRIVER SIDE : Exploded View

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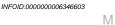
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
 Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp.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

FOOT LAMP BULB (DRIVER SIDE)

- 1. Remove the instrument lower panel LH. Refer to IP-12, "Exploded View".
- 2. Rotate the bulb socket counterclockwise and unlock it.
- 3. Remove the bulb.

PASSENGER SIDE

PASSENGER SIDE : Exploded View



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1. Bulb socket 2. Bulb

PASSENGER SIDE : 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.

FOOT LAMP BULB (PASSENGER SIDE)

- 1. Remove the instrument lower cover. Refer to IP-12, "Exploded View".
- 2. Rotate the bulb socket counterclockwise and unlock it.
- 3. Remove the bulb.

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STEP LAMP

Exploded View

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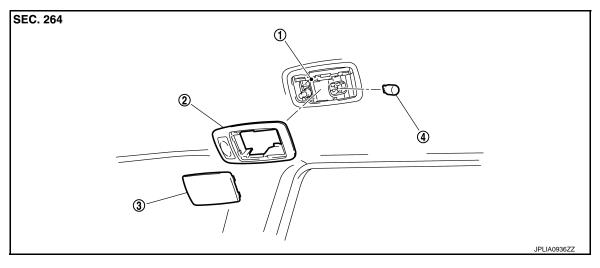
3			
		JPLIA1058ZZ	
1. Step lamp case A Metal clip	2. Bulb	3. Lens	
Removal and Installati	on	INFOID:00000000	06346606
CAUTION: Disconnect the battery neg	gative terminal or remove the	fuse.	
REMOVAL 1. Insert any appropriate to 2. Disconnect the step lam INSTALLATION Install in the reverse order of	p connector.	ep lamp and the door trim. Remove the step la	
Replacement		INFOID:00000000	06346607
• Disconnect the battery no	egative terminal or remove t		II
		n arease and other oily matters away from	
 Never touch the glass of Never touch bulb by hand Never leave bulb out of la 	d while it is lit or right after b amp reflector for a long time		
 Never touch the glass of Never touch bulb by hand Never leave bulb out of la 	d while it is lit or right after b amp reflector for a long time	eing turned off. because dust, moisture smoke, etc. may at	fect
 Never touch the glass or Never touch bulb by hand Never leave bulb out of la the performance of lamp. STEP LAMP BULB Remove the step lamp. 	d while it is lit or right after b amp reflector for a long time	eing turned off. because dust, moisture smoke, etc. may at	
 Never touch the glass of Never touch bulb by hand Never leave bulb out of la the performance of lamp. STEP LAMP BULB 	d while it is lit or right after b amp reflector for a long time	eing turned off. because dust, moisture smoke, etc. may at	fect

PERSONAL LAMP

Exploded View

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- 1. Personal lamp case
- 2. Personal lamp finisher

4. Bulb

NOTE:

Replace the personal lamp case as a set (right and left). After removing the headlining assembly, remove the personal lamp case. Refer to <u>INT-29</u>, "NORMAL ROOF : Exploded View".

3. Lens

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- 1. Remove the headlining assembly. Refer to INT-29, "NORMAL ROOF : Exploded View".
- 2. Insert any appropriate tool into the gap between the lens. Remove the lens.
- 3. Press the both side pawls (A) to the arrow direction (+). Remove the personal lamp finisher.
- 4. Remove the personal lamp case from the headlining assembly.

NOTE:

Replace the personal lamp case as a set (right and left).

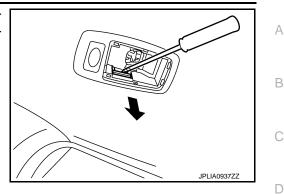


INSTALLATION Install in the reverse order of removal. **NOTE:** The following is easier to install the personal lamp finisher.

PERSONAL LAMP

< REMOVAL AND INSTALLATION >

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



Replacement

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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.

PERSONAL LAMP BULB

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

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PUDDLE LAMP

Exploded View

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Puddle lamp is integrated into the door mirror assembly (driver side).

- With ADP. Refer to <u>MIR-116</u>, "Exploded View".
 Without ADP. Refer to <u>MIR-136</u>, "Exploded View".

LUGGAGE ROOM LAMP LUGGAGE SIDE

LUGGAGE SIDE : Exploded View

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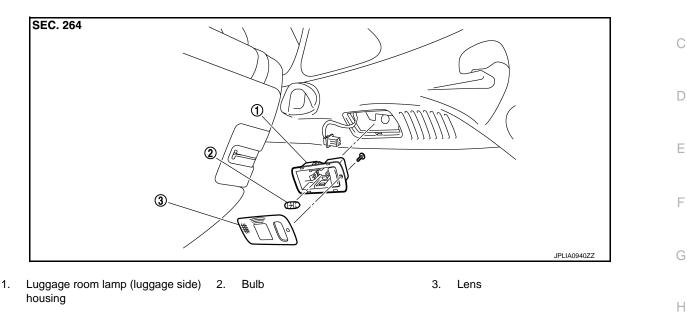
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LUGGAGE SIDE : Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

- Insert any appropriate tool into the gap between the luggage room lamp (luggage side) and luggage side finisher upper. And then remove the luggage room lamp (luggage side).
- 2. Disconnect the luggage room lamp (luggage side) connector.

INSTALLATION

Install in the reverse order of removal.

LUGGAGE SIDE : 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.
 Mever 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.

LUGGAGE ROOM LAMP (LUGGAGE SIDE) BULB

- 1. Remove the luggage room lamp (luggage side). Refer to INL-119, "LUGGAGE SIDE : Exploded View".
- 2. Remove the screw. And then remove the lens.
- 3. Remove the bulb.

BACK DOOR SIDE

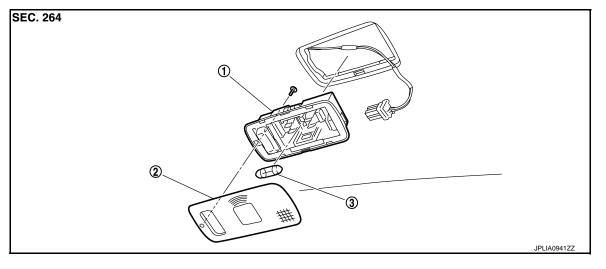
Revision: 2011 October

LUGGAGE ROOM LAMP

< REMOVAL AND INSTALLATION >

BACK DOOR SIDE : Exploded View

INFOID:000000006346615



3.

Bulb

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

BACK DOOR SIDE : Removal and Installation

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

BACK DOOR SIDE : 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.

LUGGAGE ROOM LAMP BULB

- 1. Remove the luggage room lamp (back door side). Refer to <u>INL-120, "BACK DOOR SIDE : Exploded</u> <u>View"</u>.
- 2. Remove the screw. And then remove the lens.
- 3. Remove the bulb.

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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

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

Bulb Specifications

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Item	Туре	Wattage (W)	
Push-button ignition switch illumination	LED	_	_ (
Map lamp	Wedge	8	
Console lamp (integrated into the map lamp assembly)	LED	_	[
Puddle lamp	LED	—	
Vanity mirror lamp		2	E
Cigarette lighter illumination	Wedge	1.4	
Glove box lamp	Wedge	1.4	
Foot lamp	Wedge	1.4	- i
Step lamp	Wedge	8	
Personal lamp	Wedge	8	(
Luggage room lamp	_	8	

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