SECTION INTERIOR LIGHTING SYSTEM

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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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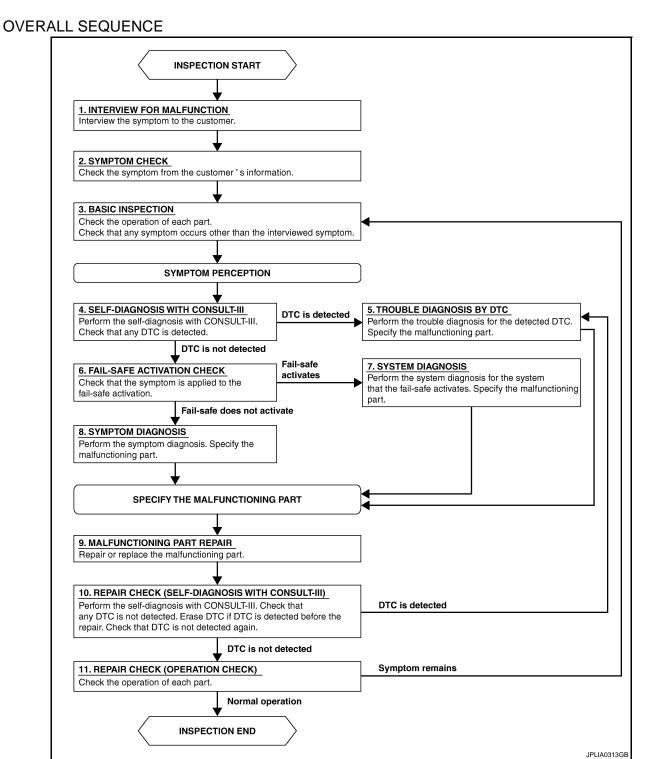
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DETAILED FLOW

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.

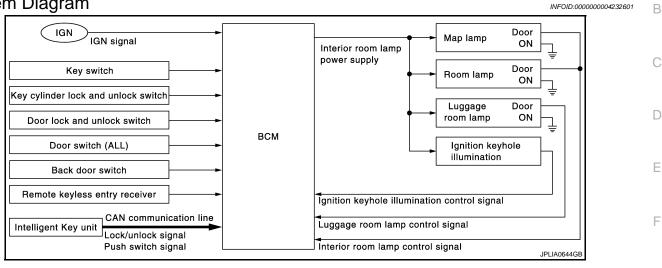
Does it operate normally?

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

< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



System Description

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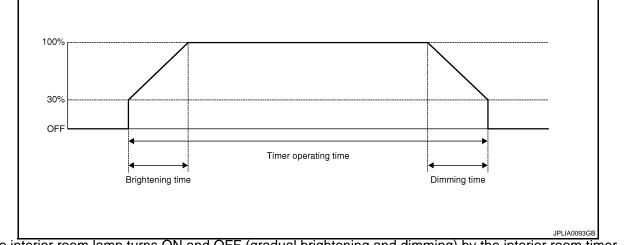
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OUTLINE

- Interior room lamps* are controlled by interior room lamp timer control function of BCM.
 *: Map lamp, room lamp and ignition keyhole illumination (when map lamp and room lamp switch is in DOOR position).
- Luggage room lamp is controlled by luggage room lamp control function of BCM.

INTERIOR ROOM LAMP TIMER CONTROL

Interior Room Lamp Timer Basic Operation



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

NOTE:

Each function of interior room lamp timer can be set by CONSULT-III. Refer to <u>INL-15, "INT LAMP : CON-</u> <u>SULT-III Function (BCM - INT LAMP)"</u>.

INL-5

< FUNCTION DIAGNOSIS >

Interior Room Lamp ON Operation

- BCM always turns the interior room lamp ON when any door opens.
- BCM activates the interior room lamp timer in any of the following conditions to turn the interior room lamp ON for a period of time.
- Any door opened and all doors closed.
- Key switch is turned $ON \rightarrow OFF$.
- All door unlock signal is detected when all doors close with ignition switch OFF.
- Push switch is turned ON \rightarrow OFF.

NOTE:

Restart the timer if new condition is input during the timer operating time.

Interior Room Lamp OFF Operation

- BCM stops the timer in any of the following conditions to turns the interior room lamp OFF.
- The timer operating time is expired.
- Ignition switch position is ON with all doors close.
- All door lock operation is detected with all doors close (when locked with the door lock and unlock switch, ignition keyhole illumination to be turned OFF when the time up).

LUGGAGE ROOM LAMP CONTROL

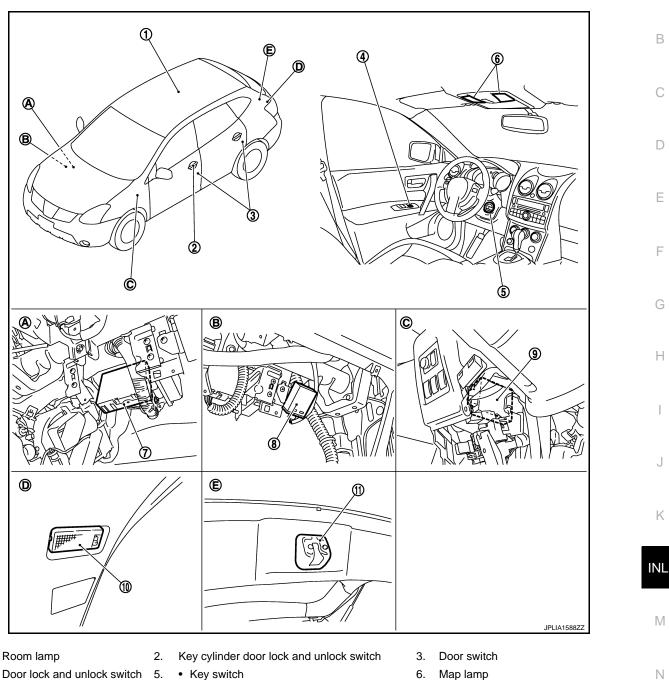
BCM controls the luggage room lamp (ground-side) to turn ON with the back door switch ON (when luggage room lamp switch is in DOOR position).

< FUNCTION DIAGNOSIS >

Component Parts Location

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7. BCM

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- 10. Luggage room lamp
- Over the glove box Α.
- Back door trim finisher lower E. D.

- - · Push switch (With Intelligent Key system) · Ignition keyhole illumination
- Remote keyless entry receiver (Without Intelligent Key system)
- 9. Back door switch

8.

- Β. Over the glove box
- Back door lock assembly

- 9. Intelligent Key unit (With Intelligent Key ststem)
- C. Over the instrument lower panel (driver side)

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< FUNCTION DIAGNOSIS >

Component Description

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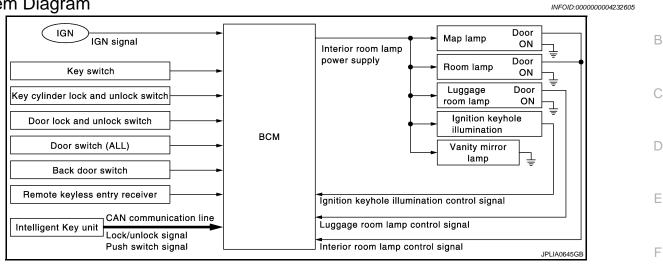
Part	Description
BCM	Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamps ON/OFF.
Remote keyless entry receiver	Receives the lock/unlock signal from Keyfob.Transmits the lock/unlock signal to BCM.
Intelligent Key unit	Transmits the lock/unlock signal and push switch signal to BCM with CAN communi- cation.
Door lock and unlock switchKey cylinder door lock and unlock switch	Inputs the lock/unlock signal to BCM.
Door switchBack door switch	Inputs the door switch signal to BCM.
Key switch	Inputs the key switch signal to BCM.

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

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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 H from over-discharging if the driver neglect turning OFF the any lamps.

Applicable lamps

- Map lamp
- Room lamp
- Ignition keyhole illumination
- 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 K 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, Intelligent Key unit, key cylinder door lock and unlock switch, door lock and unlock switch)
- Key switch signal
- Push switch signal
- BCM provides the interior room lamp power supply continuously when the ignition switch position is ON. **NOTE:**

Each function of interior room lamp battery saver can be set by CONSULT-III. Refer to <u>INL-16, "BATTERY</u> N SAVER : CONSULT-III Function (BCM - BATTERY SAVER)".

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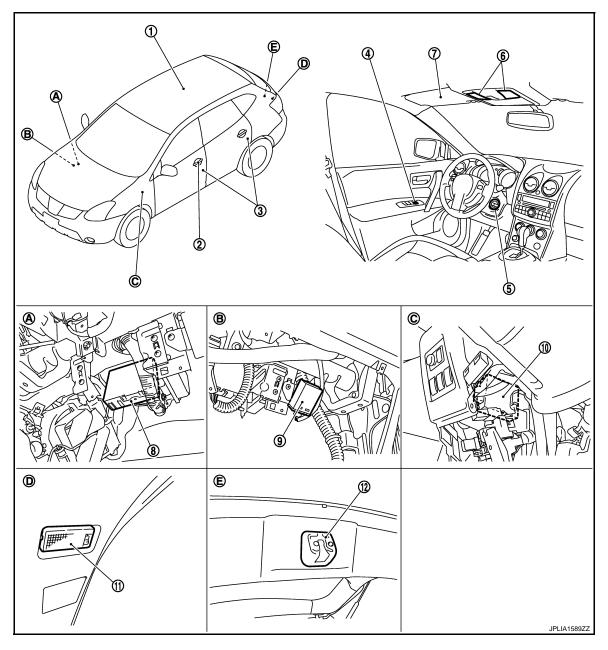
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INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

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- 1. Room lamp
- 4. Door lock and unlock switch
- 7. Vanity mirror lamp
- 10. Intelligent Key unit (With Intelligent Key system)
- Α. Over the glove box
- D. Back door trim finisher lower

- Key cylinder door lock and unlock switch
- · Key switch
- Push switch (With Intelligent Key system) · Ignition keyhole illumination
- BCM

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- Luggage room lamp
- Over the glove box

Back door lock assembly

- 3. Door switch
- 6. Map lamp
- 9. Remote keyless entry receiver (Without Intelligent Key system)
- 12. Back door switch
- C. Over the instrument lower panel (driver side)

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

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.
Intelligent Key unit	Transmits the lock/unlock signal and push switch signal to BCM with CAN communi- cation.
Door lock and unlock switchKey cylinder door lock and unlock switch	Inputs the lock/unlock signal to BCM.
Door switchBack door switch	Inputs the door switch signal to BCM.
Key switch	Inputs the key switch signal to BCM.

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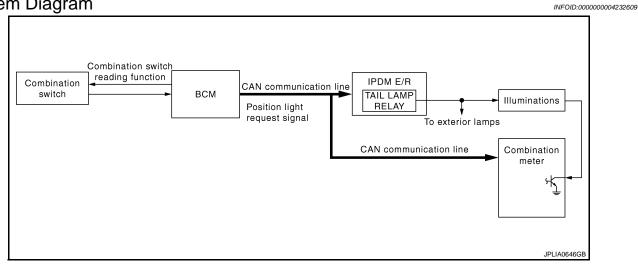
Revision: 2008 August

ILLUMINATION CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

ILLUMINATION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000004232610

OUTLINE

Each illumination lamp is controlled by each function of BCM and 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-24, "METER ILLUMINATION CONTROL : System Dia-</u> <u>gram"</u>)

ILLUMINATION CONTROL

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits position light request signal to IPDM E/R and combination meter according to tail lamp ON condition.

Tail lamp ON condition

- Lighting switch 1ST
- Lighting switch 2ND
- IPDM E/R turns the integrated tail lamp relay ON according to position light request signal. It provides the power supply to each illumination lamp.
- Combination meter enters in the nighttime mode according to position light request signal. Under the nighttime mode the combination meter controls the illuminance by controlling the each illumination lamp (groundside).

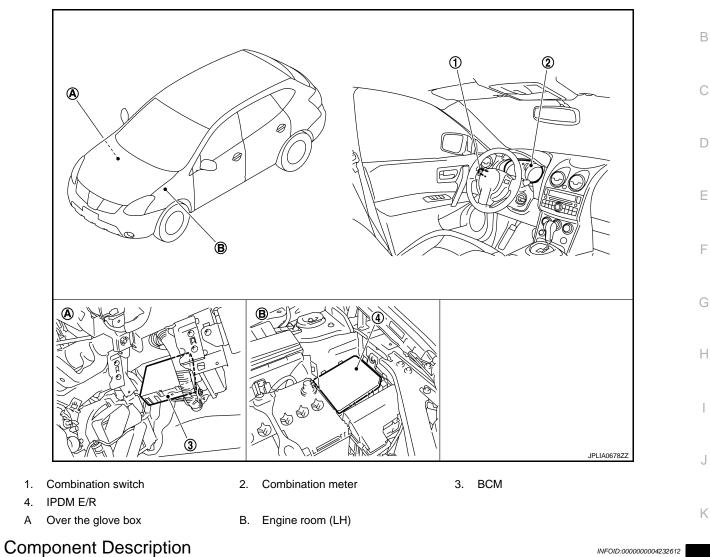
ILLUMINATION CONTROL SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

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INFOID:000000004232612 INL

Part	Description		
 BCM Judges each switch condition by the combination switch reading function Judges the illumination lamp ON/OFF status depending on the vehicle of And then it transmits position light request signal to IPDM E/R and comb meter (with CAN communication). 			
IPDM E/R	Controls the integrated relay according to the request signal from BCM (with CAN com- munication).		
Combination meter	 Enters in nighttime mode according to the request from BCM (with CAN communication). Controls each illumination in the nighttime mode. Refer to <u>MWI-24</u>, "<u>METER ILLUMINATION CONTROL</u>: <u>System Diagram</u>". 		
Combination switch (Lighting & turn signal switch)	Refer to <u>BCS-9, "System Diagram"</u> .		

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DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

INFOID:000000004539461

APPLICATION ITEM

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

Diagnosis mode	Function description	
ECU Identification	BCM part number is displayed.	
Self-Diagnostic Result	Displays the diagnosis results judged by BCM. Refer to INL-61, "DTC Index".	
Data Monitor	BCM input/output signals are displayed.	
Active Test	The signals used to activate each device are forcibly supplied from BCM.	
Work Support	Changes the setting for each system function.	
Configuration	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.	
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.	

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

Sustam	CONSULT-III		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 control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
_	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
_	FUEL LID [*]			
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×
Panic alarm system	PANIC ALARM			×

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

INT LAMP

DIAGNOSIS SYSTEM (BCM)

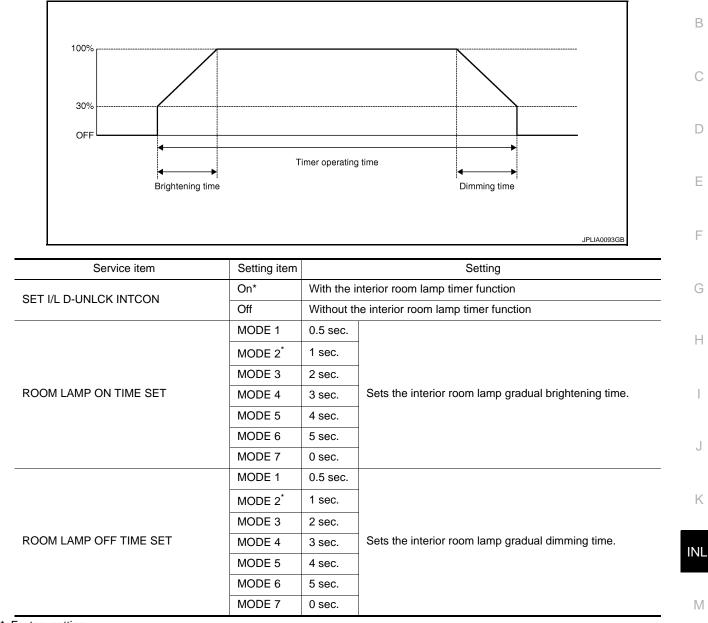
< FUNCTION DIAGNOSIS >

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

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WORK SUPPORT



*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description	
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)	_
KEY ON SW [On/Off]	The switch status input from key switch	
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	

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
BACK DOOR SW [On/Off]	The switch status input from back door switch
KEY CYL LK-SW [On/Off]	Lock switch status input from key cylinder switch
KEY CYL UN-SW [On/Off]	Unlock switch status input from key cylinder switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
I-KEY LOCK [On/Off]	Lock signal status received from Intelligent Key unit by CAN communication
I-KEY UNLOCK [On/Off]	Unlock signal status received from Intelligent Key unit by CAN communication
KEYLESS LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
KEYLESS 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 the interior room lamps ON. [Map lamp, room lamp (when applicable lamps switch is in DOOR position.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps OFF.
IGN ILLUM	On	Outputs the ignition keyhole illumination control signal to turn ignition keyhole illumi- nation ON.
	Off	Stops the ignition keyhole illumination control signal to turn ignition keyhole illumina- tion OFF.
STEP LAMP TEST	On	NOTE:
STEF LAWF TEST	Off	The item is indicated, but not operate.
LUGGAGE LAMP TEST	On	Outputs the luggage room lamp control signal to turn luggage room lamp ON.
LUGGAGE LAMP TEST	Off	Stops the luggage room lamp control signal to turn luggage room lamp OFF.

BATTERY SAVER

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

INFOID:000000004232615

WORK SUPPORT

Service item	Setting item	Setting		
ROOM LAMP TIMER SET	MODE 1*	30 min.	Sets the interior room lamp battery saver timer operating	
ROOM LAMP TIMER SET	MODE 2	60 min.	time.	

*: Factory setting

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
KEY ON SW [On/Off]	The switch status input from key switch
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
BACK DOOR SW [On/Off]	The switch status input from back door switch
KEY CYL LK-SW [On/Off]	Lock switch status input from key cylinder switch
KEY CYL UN-SW [On/Off]	Unlock switch status input from key cylinder switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
I-KEY LOCK [On/Off]	Lock signal status received from Intelligent Key unit by CAN communication
I-KEY UNLOCK [On/Off]	Unlock signal status received from Intelligent Key unit by CAN communication
KEYLESS LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
KEYLESS 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 lamps OFF.	_
DATTERT SAVER On		Outputs the interior room lamp power supply to turn interior room lamps ON.*	M

*: Each lamp switch is in ON position.

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000004539458

1. CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not fusing.

Signal name	Fuses and fusible link No.
Battery power supply	10
	J
ACC power supply	20
Ignition power supply	1

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

	Terminals		Ignition switch position			
(+)			ignition switch position			
BCM		(–)	OFF	ACC	ON	
Connector	Terminal		011	100		
M67	70		Battery	Battery	Battery	
	57		voltage	voltage	voltage	
M65	11	Ground	Approx. 0 V	Battery voltage	Battery voltage	
COINI	38		Approx. 0 V	Approx. 0 V	Battery voltage	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

 $\mathbf{3.}$ CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and the ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M67	67	Ť	Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< COMPONENT 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 ${}_{\sf B}$ saver activating.

Compone	nt Functio	on Check				INFOID:000000004232618	
1.снеск і	NTERIOR R		POWER SU		CTION		С
2. Turn ea	nition switch ch interior ro	ON.	١.				D
 Room la Ignition Vanity m 	amp keyhole illun hirror lamp						E
3. Select "		AVER" of BO			active test item. om lamp is turned ON/OFF.		F
Off On		or room lan or room lan	-				G
	Interior room	n lamp powe	<u>OFF?</u> r supply circ sis Procedu				Н
Diagnosis	Procedu	re				INFOID:000000004232619	
1.снеск і	NTERIOR R	OOM LAMP	POWER SU	JPPLY OUTI	PUT		
	ition switch	ON.		Y SAVER) a	active test item.		J
					1 harness connector and ground.		Κ
	Terminals		Test item				
	+)	(–)		Voltage (Ap-			INL
	CM		BATTERY	prox.)			
Connector	Terminal	Ground	SAVER	0.14			M
M67	56	Ground	Off	0 V			
			On	Battery volt- age			Ν

Is the measurement value normal?

 YES
 >> GO TO 2.

 NO
 >> Replace BCM. Refer to BCS-67. "Removal and Installation".

 2.CHECK INTERIOR ROOM LAMP POWER SUPPLY OPEN CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect the following connectors.
- Map lamp
- Room lamp
- Ignition keyhole illumination
- Vanity mirror lamp (driver side)
- Vanity mirror lamp (passenger side)
- Luggage room lamp
- 3. Check continuity between BCM harness connector and each interior room lamp harness connector.

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INFOID:000000004232617

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< COMPONENT DIAGNOSIS >

BCM		Each interio	Continu-		
Connec- tor	Terminal	Connector	Terminal	ity	
		Map lamp	R4	1	
		Room lamp	R15	2	
M67	56	Ignition keyhole illumination	M68	1	
		Vanity mirror lamp (driver side)	R14	1	Existed
		Vanity mirror lamp (passenger side)	R10	1	
	-	Luggage room lamp	D155	2	

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.CHECK INTERIOR ROOM LAMP POWER SUPPLY SHORT CIRCUIT

Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M67	56		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Check that each interior room lamp has no internal short circuit.

. AIR A. - -_ _ _ . _

		INTERIC	OR ROOM	LAMP CO	ONTROL CIRCUIT	
< COMPO						
INTERIO	OR ROO	OM LAMF	CONTR	OL CIRC	UIT	А
Descripti	on					INFOID:000000004232620
NOTE:			round side) b ximately 250		al. adual brightening/dimming).	В
-	•	tion Check	-	(o g	addar onginterning, annining,	INFOID:000000004232621
•			·			INFOID.00000004232021
 Interior r Map lam Room lan 	oom lamp p bulb mp bulb	power supp	t he followin ly P CONTROL	-	normal.	D
			PCONTROL	FUNCTION		
 Turn ig Select 	the map la nition switc "INT LAMP	mp switch to ch ON. P" of BCM (IN	T LAMP) activ		om lamp turns ON/OFF (gradua	F
ming).		e test items, o				G
On		erior room la htening	mp gradual			н
Off	: Inte ming		mp gradual o	dim-		
YES >>	Interior ro	om lamp cont	<u>DN/OFF (grad</u> rol circuit is n losis Procedu	ormal.	ng/dimming)?	
Diagnosi	s Procec	lure				J INFOID:000000004232622
1. CHECK	INTERIOR	ROOM LAM	P CONTROL	OUTPUT		К
CONSUL 1. Turn ig	_T-III ACTIN					
	e all the bu	ulbs of following	ng lamps.			INL
- Room l	lamp					
			T LAMP) activ neck continuit		CM harness connector and gro	ound.
BC	CM		Test item			5. T
Connector	Terminal	Ground	INT LAMP	Continuity		Ν
M67	63	Giouna	On	Existed		
le the mose		alue normal?	Off	Not existed		0
YES >> Fixed ON: Fixed OFF	• GO TO 2. >>GO TO 3 =>>Replace	3. e BCM. Refer			l Installation".	Ρ
1. Turn ig	nition switc nect the fol mp		P CONTROL			

INTERIOR ROOM LAMP CONTROL CIRCUIT

< COMPONENT DIAGNOSIS >

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

BCM		Мар			
Connec- tor	Terminal	Conne	ector	Terminal	Continuity
M67	M67 62		R4	2	Existed
M67 63		Room lamp	R15	1	LAISLEU

Does continuity exist?

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

NO >> Repair the harnesses or connectors.

3. check interior room lamp control short circuit

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

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M67	63		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM. Refer to <u>BCS-67, "Removal and Installation"</u>.

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

< COMPO		GNOSIS >	YHOLE ILL	LUMINATION CONTROL CIRCUIT		
IGNITIC	ON KEY	HOLE IL	LUMINAT	ION CONTROL CIRCUIT	A	
Descript	Description INFOID:000000004232623					
Controls th	Controls the ignition keyhole illumination (ground side) by PWM signal.				В	
-	al control p	eriod is appre	oximately 250	Hz (in the gradual brightening/dimming).		
Compon	Component Function Check					
Interior iIgnition	erforming t room lamp keyhole ill	power sup umination b	ply	the following is normal.	D	
					E	
1. Turn ig 2. Select	gnition swite "IGN ILLU	ch ON. M" of BCM (I	NT LAMP) act check that ign	tive test item. ition keyhole illumination turns ON/OFF.	F	
On	-	-	le illuminatio		G	
Off Dece the i	-		le illumination			
YES >:						
Diagnos	_		110313 1 100000	INFOID:0000000	004232625	
4			LLUMINATION		I	
2. Removed 3. Turn ig 4. Select	gnition swite ve ignition l gnition swite "IGN ILLU	ch OFF. keyhole illum ch ON. M" of BCM (I	NT LAMP) act	tive test item. y between BCM harness connector and ground.	K	
BC	СМ		Test item		INL	
Connector	Terminal	Ground	IGN ILLUM TEST	Continuity		
M65	1		On	Existed	Μ	
ls the mea	surement	value normal	Off	Not existed		
YES >: Fixed ON Fixed OF	> GO TO 2 >>GO TO 3 F>>Replac	3. æ BCM.		N OPEN CIRCUIT	N	
1. Turn iç 2. Discor	nition swite	ch OFF. connector ar	nd ignition keyl	hole illumination connector. nnector and ignition keyhole illumination harness connec	P tor.	

BCM		Ignition keyhole illumination		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M65	1	M68	2	Existed	

Does continuity exist?

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

< COMPONENT DIAGNOSIS >

- YES >> Replace ignition keyhole illumination.
- NO >> Repair harnesses or connectors.

3. CHECK IGNITION KEYHOLE ILLUMINATION SHORT CIRCUIT

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

B	СМ		Continuity	
Connector	Terminal	Ground	Continuity	
M65	1	*	Not existed	

Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> Replace BCM.

LUGGAGE ROOM LAMP CIRCUIT

< COMPON	IENT DIA		GGAGE R			
			⁻ CIRCUI	Т		
Description				INF0ID:00000004232626	A	
Controls the luggage room lamp (ground side) to turn the luggage room lamp ON and OFF.					В	
Compone	Component Function Check					D
CAUTION:						С
Before per • Interior ro			s, check that lv	the followin	g is normal.	-
• Luggage	room lam	bulb	-			D
<u> </u>			IP OPRATION	N		
CONSUL 1. Turn igr	T-III ACTI∖ nition switc					Е
2. Select "	LUGGAGE	ELAMP TES			tive test item. Imp turns ON/OFF.	
	U					F
On Off	-	gage room gage room				
		n lamp turn (G
YES >>	Luggage r	oom lamp ci	cuit is normal			
		-	nosis Procedu	<u>re"</u> .		Н
Diagnosis					INFOID:000000004232628	
	1.CHECK LUGGAGE ROOM LAMP OUTPUT					
CONSULT-III ACTIVE TEST 1. Turn ignition switch OFF.						
 Remove luggage room lamp bulb. Turn ignition switch ON. 					J	
4. Select "	LUGGAGE	ELAMP TES	T" of BCM (IN			
5. With op	erating the	test item, cr	ieck continuity	/ between B	CM harness connector and ground.	Κ
BCI	N		Test item			
Connector	Terminal	Ground	LUGGAGE LAMP TEST	Continuity		INL
M66	49		On	Existed		
	_		Off	Not existed		M
	urement va GO TO 2.	llue normal?				
Fixed ON>	Fixed ON>>GO TO 3. Fixed OFF>>Replace BCM.					Ν
~	•		1P OPEN CIR	CUIT		
1. Turn igr	nition switc	n OFF.				0
2. Disconr	nect BCM o	connector an	d luggage roo 1 harness con		nector. Jggage room lamp harness connector.	
						Ρ
	CM		e room lamp	Continuity		
Connector M66	Terminal 49	Connector D155	Terminal 4	Existed		
5		0100	т Т			

Does continuity exist?

YES >> Replace luggage room lamp.

LUGGAGE ROOM LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

NO >> Repair harnesses or connectors.

3. CHECK LUGGAGE ROOM LAMP SHORT CIRCUIT

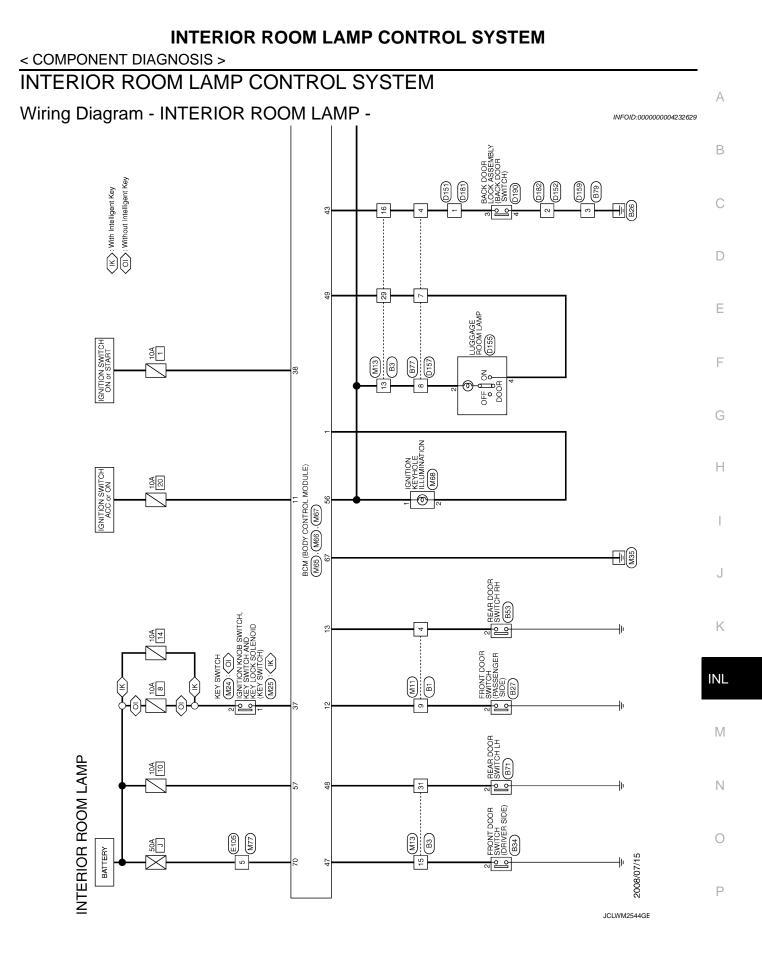
- 1. Turn ignition switch OFF.
- Disconnect BCM connector and luggage room lamp connector.
- 3. Check continuity between BCM harness connector and ground.

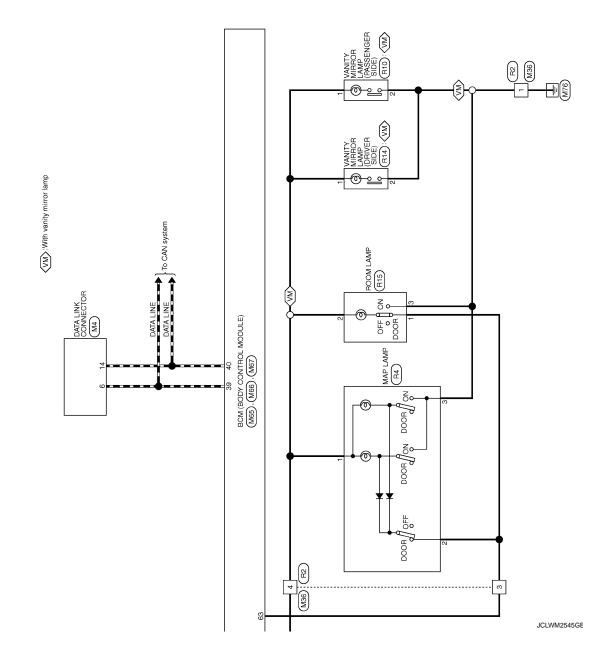
B	CM		Continuity
Connector	Terminal	Ground	Continuity
M66	49	† 	Not existed

Does continuity exist?

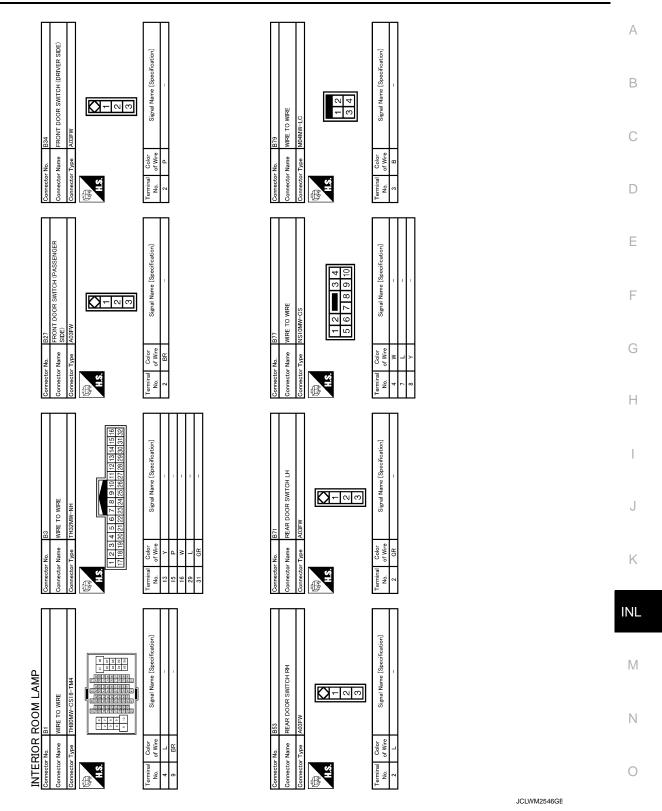
YES >> Repair harnesses or connectors.

NO >> Replace BCM.





< COMPONENT DIAGNOSIS >



Р

Signal Name [Specification]

Color of Wire

erminal No.

Signal Name [Specification]

Color of Wire

Terminal No.

Signal Name [Specification]

Color Mire

erminal No.

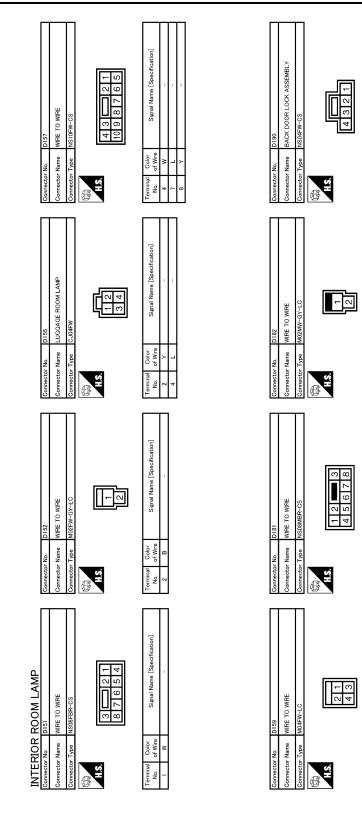
Signal Name [Specification]

Color of Wire

Terminal No.

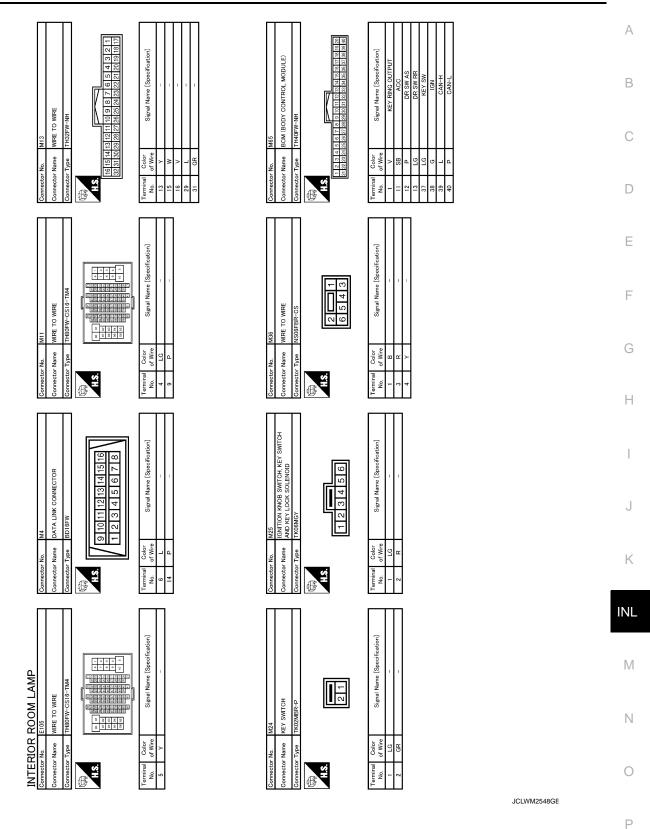
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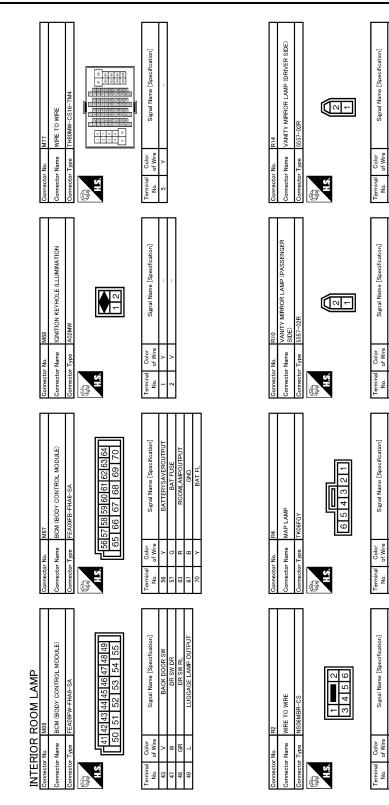


JCLWM2547GE

< COMPONENT DIAGNOSIS >



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JCLWM2549GE

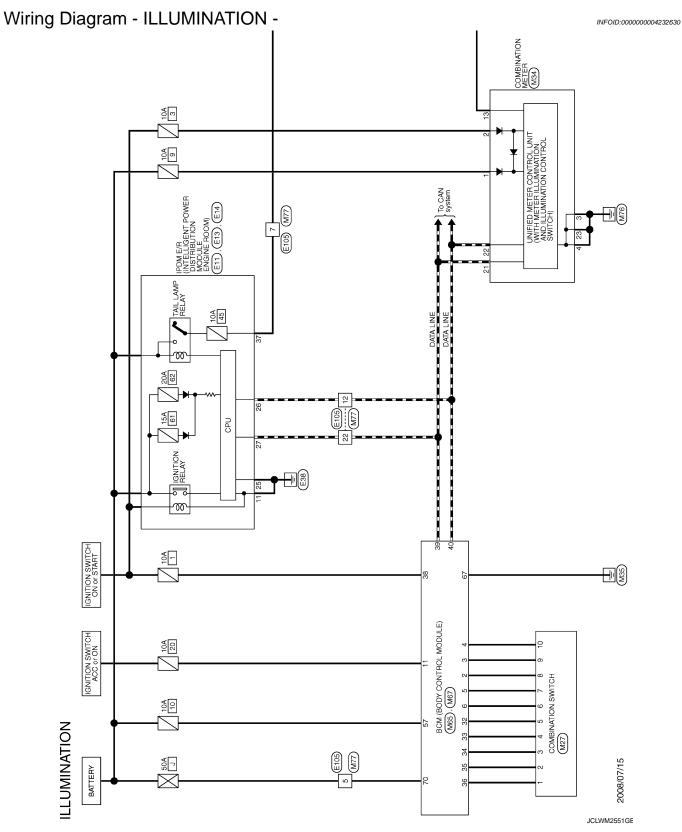
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< COMPONENT DIAGNOSIS >

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		В
		С
		D
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		K
	11	۱L
		Μ
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INTERIOR Connector Name Dometror Type I. Terminal Color H.S. B. B. B. B. B. B. B. B. B. B	JCLWM2550GE	0
		P

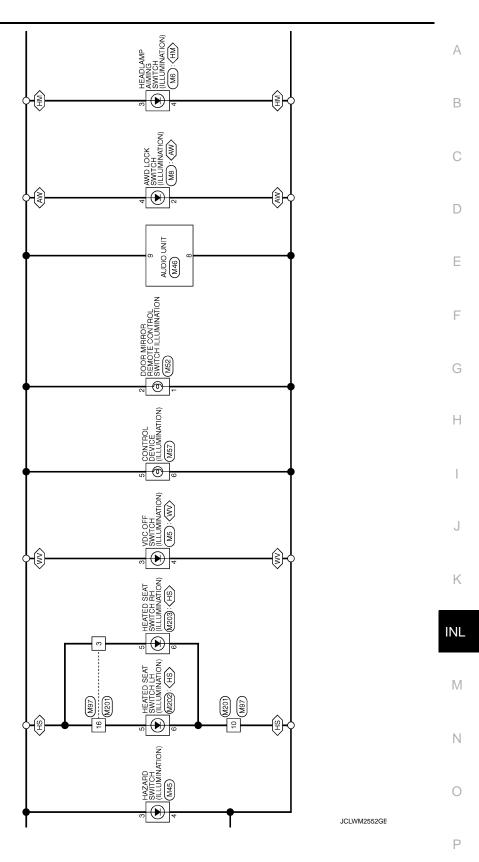
ILLUMINATION



ILLUMINATION

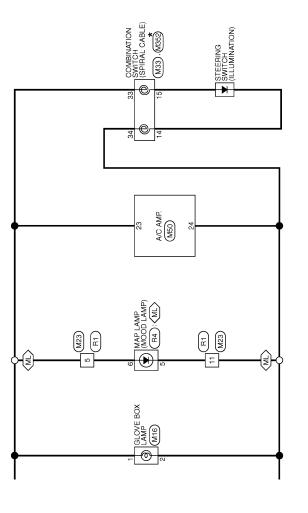
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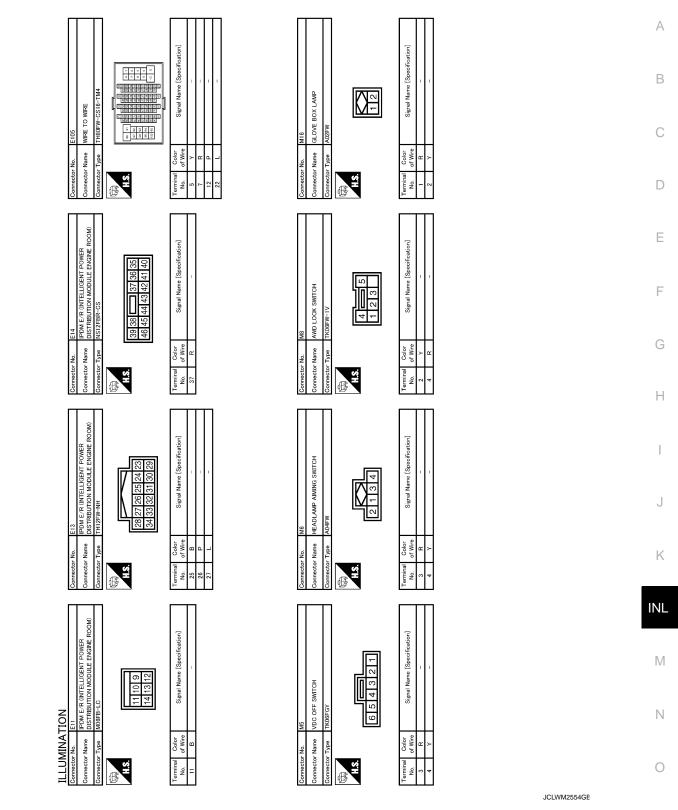




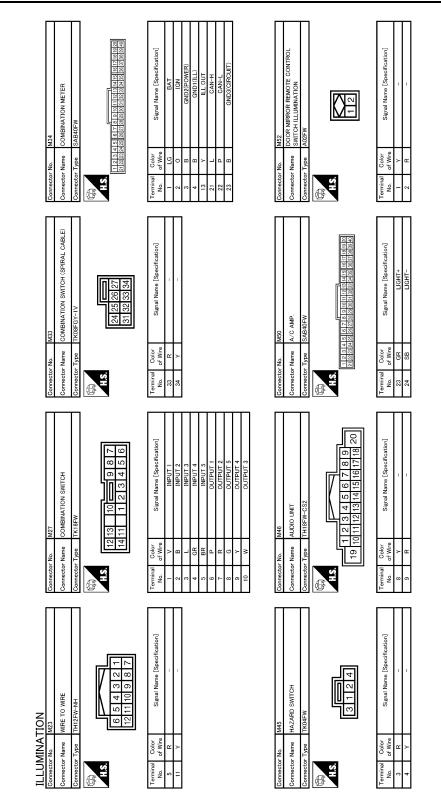
*: This connector is not shown in "Harness Layout".

JCLWM2553GE

< COMPONENT DIAGNOSIS >

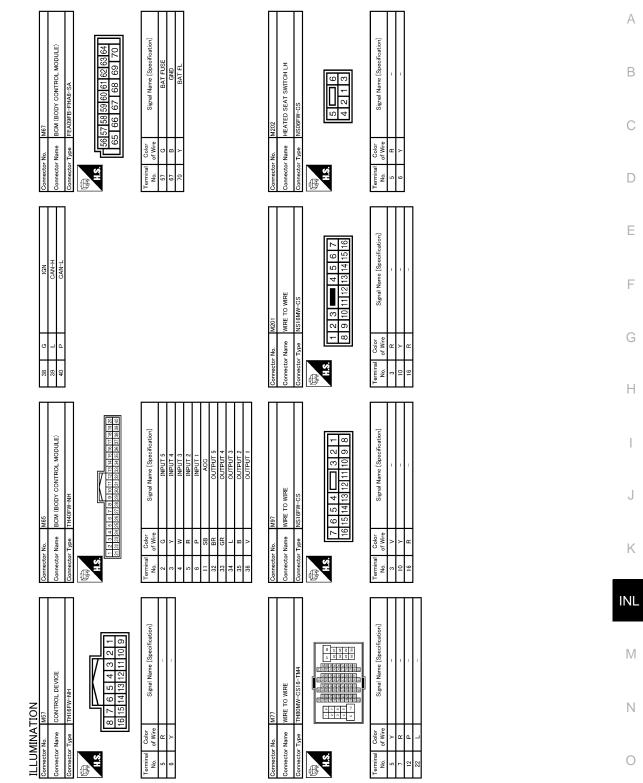


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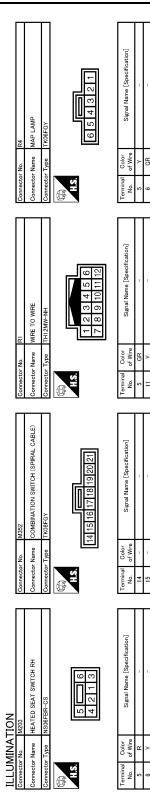
JCLWM2555GE

< COMPONENT DIAGNOSIS >



JCLWM2556GE

< COMPONENT DIAGNOSIS >



JCLWM2557GE

< ECU DIAGNOSIS >

ECU DIAGNOSIS BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
IGN ON SW	Ignition switch OFF or ACC	Off	
IGN ON SW	Ignition switch ON	On	[
KEY ON SW	Mechanical key is removed from key cylinder	Off	
KET ON SW	Mechanical key is inserted to key cylinder	On	E
	Door lock/unlock switch does not operate	Off	
CDL LOCK SW	Press door lock/unlock switch to the lock side	On	
	Door lock/unlock switch does not operate	Off	F
CDL UNLOCK SW	Press door lock/unlock switch to the unlock side	On	
	Driver's door closed	Off	
DOOR SW-DR	Driver's door opened	On	(
	Passenger door closed	Off	
DOOR SW-AS	Passenger door opened	On	ŀ
	Rear RH door closed	Off	
DOOR SW-RR	Rear RH door opened	On	
	Rear LH door closed	Off	
DOOR SW-RL	Rear LH door opened	On	
	Back door closed	Off	
BACK DOOR SW	Back door opened	On	
	Other than driver door key cylinder LOCK position	Off	
KEY CYL LK-SW	Driver door key cylinder LOCK position	On	ŀ
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off	
KET GTL UN-SW	Driver door key cylinder UNLOCK position	On	IN
	"LOCK" button of key fob is not pressed	Off	
KEYLESS LOCK	"LOCK" button of key fob is pressed	On	
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	Off	Ν
KETLESS UNLOCK	"UNLOCK" button of key fob is pressed	On	
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off	ľ
	"LOCK" button of Intelligent Key or door request switch are pressed	On	
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off	C
FRET UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are pressed	On	
ACC ON SW	Ignition switch OFF	Off	F
	Ignition switch ACC or ON	On	
REAR DEF SW	Rear window defogger switch OFF	Off	<u></u>
NLAR DEF OW	Rear window defogger switch ON	On	<u></u>
	Lighting switch OFF	Off	
LIGHT SW 1ST	Lighting switch 1ST	On	

А

В

INFOID:000000004539453

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< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) OFF]	Off
BUCKLE SW	The seat belt (driver side) is fastened. [Seat belt switch (driver side) ON]	On
	PANIC button of key fob is not pressed	Off
KEYLESS PANIC	PANIC button of key fob is pressed	On
KEYLESS TRUNK	NOTE: The item is indicated, but not monitored.	Off
TRNK OPN MNTR	NOTE: The item is indicated, but not monitored.	Off
	LOCK/UNLOCK button of key fob is not pressed and held simulta- neously	Off
RKE LCK-UNLCK	LOCK/UNLOCK button of key fob is pressed and held simulta- neously	On
	UNLOCK button of key fob is not pressed	Off
RKE KEEP UNLK	UNLOCK button of key fob is pressed and held	On
	Lighting switch OFF	Off
HI BEAM SW	Lighting switch HI	On
	Lighting switch OFF	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
HEAD LAMP SW 2	Lighting switch OFF	Off
HEAD LAIVIP SVV 2	Lighting switch 2ND	On
AUTO LIGHT SW	NOTE: The item is indicated, but not monitored.	Off
PASSING SW	Other than lighting switch PASS	Off
FASSING SW	Lighting switch PASS	On
FR FOG SW	Front fog lamp switch OFF	Off
FK FOG 3W	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
TURN SIGNAL R	Turn signal switch OFF	Off
I OKN SIGNAL K	Turn signal switch RH	On
TURN SIGNAL L	Turn signal switch OFF	Off
I OININ OIONAL L	Turn signal switch LH	On
ENGINE RUN	Engine stopped	Off
	Engine running	On
PKB SW	Parking brake switch is OFF	Off
	Parking brake switch is ON	On
CARGO LAMP SW	NOTE: The item is indicated, but not monitored.	Off
OPTICAL SENSOR	NOTE: The item is indicated, but not monitored.	0 V
IGN SW CAN	Ignition switch OFF or ACC	Off
UAN 3W CAN	Ignition switch ON	On
	Front wiper switch OFF	Off
FR WIPER HI	Front wiper switch HI	On
	Front wiper switch OFF	Off
FR WIPER LOW	Front wiper switch LO	On

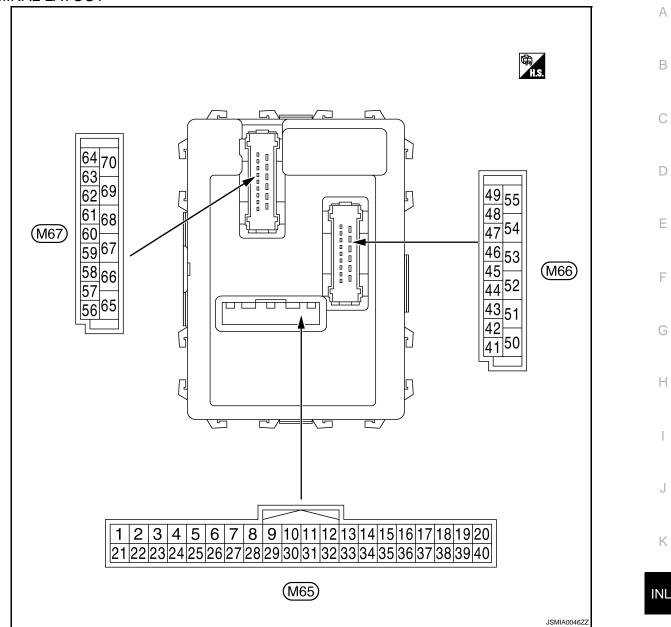
Revision: 2008 August

Monitor Item	Condition	Value/Status
R WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
	Any position other than front wiper stop position	Off
FR WIPER STOP	Front wiper stop position	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
	Rear wiper switch OFF	Off
RR WIPER ON	Rear wiper switch ON	On
	Rear wiper switch OFF	Off
RR WIPER INT	Rear wiper switch INT	On
	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
	Rear wiper stop position	Off
RR WIPER STOP	Other than rear wiper stop position	On
RR WIPER STP2	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch OFF	Off
	Hazard switch ON	On
	Brake pedal is not depressed	Off
BRAKE SW	Brake pedal is depressed	On
	Blower fan motor switch OFF	Off
FAN ON SIG	Blower fan motor switch ON (other than OFF)	On
	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	Off
AIR COND SW	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On
I-KEY TRUNK	NOTE: The item is indicated, but not monitored.	Off
	UNLOCK button of Intelligent Key is not pressed	Off
-KEY PW DWN	UNLOCK button of Intelligent Key is pressed and held	On
	PANIC button of Intelligent Key is not pressed	Off
-KEY PANIC	PANIC button of Intelligent Key is pressed	On
	Return to ignition switch to "LOCK" position	Off
PUSH SW	Press ignition switch	On
	When back door opener switch is not pressed	Off
TRNK OPNR SW	When back door opener switch is pressed	On
TRUNK CYL SW	NOTE: The item is indicated, but not monitored.	Off
HOOD SW	Close the hood NOTE: Vehicles of except for Mexico are OFF-fixed	Off
	Open the hood	On

Monitor Item	Condition	Value/Status
OIL PRESS SW	Ignition switch OFF or ACCEngine running	Off
	Ignition switch ON	On
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is re- ceived)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGST FRT	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGOLARI	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

< ECU DIAGNOSIS >

TERMINAL LAYOUT



PHYSICAL VALUES

CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to BCS-27, "COMB SW : CONSULT-III Function (BCM COMB SW)".
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to <u>BCS-9, "System</u> O <u>Diagram"</u>.

			Description			Value	Ρ
(Wire	color)	Signal name	Input/	Condition		(Approx.)	
+	-	Signal name	Output			()	
1	Ground	Ignition key hole illu-	Output	Ignition key hole	OFF	Battery voltage	
(V)	Giouna	mination control	Output	illumination	ON	0 V	

Μ

(Wire +	color)					Value
	_	Signal name	Input/ Output		Condition	(Approx.)
2	Ground	Combination switch	Input	Combination switch	All switch OFF Turn signal switch RH Lighting switch HI Lighting switch 1ST	0 V (V) 15 0 5 0 +10ms 1.0 V PKiB4959J 1.0 V
(G)		INPUT 5		(Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 + 10ms - + + 10ms - + + 10ms - + + 10ms - + + + + + + + + + + + + + + + + + + +
					All switch OFF	0 V
					Turn signal switch LH	
		Ground Combination switch Inp	Combination switch		Lighting switch PASS	(V) 15
3 (Y)	Ground				Lighting switch 2ND	10 5 0 ++10ms 1.0 V
					Front fog lamp switch ON	(V) 15 10 5 0 ••••10ms ••••10ms ••••••10ms ••••••10ms ••••••••••••••••••••••••••••••••••••
					All switch OFF	0.8 V
					Front wiper switch LO	0 V
					Front wiper switch MIST	(V)
4 (W)	Ground	round Combination switch Input INPUT 3	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	(V) 15 10 5 0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	

Terminal No. (Wire color)		Description				Value	Л
(VVire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
					All switch OFF (Wiper intermittent dial 4) Front washer switch	0 V	B
					(Wiper intermittent dial 4) Rear washer ON (Wiper intermittent dial 4)	(V) 15 15 15 15	С
Ę					Any of the condition below with all switch OFF • Wiper intermittent dial 1	0 tendendendenden in Berlendendenden + +10ms	C
5 (R)	Ground	Combination switch INPUT 2	Input	Combination switch	Wiper intermittent dial 5Wiper intermittent dial 6	рків4959J 1.0 V	E
					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 ++10ms	F
						рків4955J 0.8 V	(
					All switch OFF (Wiper intermittent dial 4)	0 V	ŀ
					Front wiper switch HI (Wiper intermittent dial 4)	(V) 15	
					Rear wiper switch INT (Wiper intermittent dial 4)		
					Wiper intermittent dial 3 (All switch OFF)		,
						1.0 V	ŀ
6 (P)	Ground	Combination switch INPUT 1	Input	Combination switch	Any of the condition below with all switch OFF • Wiper intermittent dial 1	(V) 15 10 5 0	IN
					Wiper intermittent dial 2	++10ms ++10ms PKIB4952J 1.7 V	N
						(V) 15	١
					Any of the condition below with all switch OFFWiper intermittent dial 6Wiper intermittent dial 7	10 0 0 ++10ms	(
						PKIB4955J 0.8 V	F

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
7 (L)	Ground	Door key cylinder switch UNLOCK sig- nal	Input	Door key cylin- der switch	NEUTRAL position	(V) ₁₅ 10 5 0 •••10ms JPMIA0587GB 8.0 - 8.5 V
					UNLOCK position	0 V
8 (R)	Ground	Door key cylinder switch LOCK signal	Input	Door key cylin- der switch	NEUTRAL position	(V) ₁₅ 10 5 0 •••10ms JPMIA0587GB 8.0 - 8.5 V
					LOCK position	0 V
9		0	1	Stop lamp	OFF (Brake pedal is not depressed)	0 V
(R)	Ground	Stop lamp switch	Input	switch	ON (Brake pedal is de- pressed)	Battery voltage
10	Ground	Rear window defog-	Input	Rear window	Not pressed	Battery voltage
(SB)	Cround	ger switch	mput	defogger switch	Pressed	0 V
11 (SB)	Ground	Ignition switch ACC	Input	Ignition switch O		0 V
12 (P)	Ground	Passenger door switch	Input	Ignition switch A	OFF (When passenger door closed)	Battery voltage
					ON (When passenger door opened)	0 V
13 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	(V) ₁₅ 10 5 0 + 10ms JPMIA0587GB 8.0 - 8.5 V
					ON (When rear door RH opened)	0 V

< ECU DIAGNOSIS >

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
15 [*] (O)	Ground	Tire pressure warn- ing check switch	Input	Ignition switch OFF		(V) ₁₅ 10 5 0 •••10ms JPMIA0588GB 1.5 V
18 [*] (O)	Ground	Remote keyless en- try receiver ground	Input	Ignition switch O	N	0 V
				Without Intelli- gent Key sys- tem	At any condition	5 V
19 [*] (V)	Ground	Remote keyless en- try receiver power supply	Input	With Intelligent	 Ignition switch OFF For 3 seconds after ignition switch OFF to ON 	0 V
				Key system	3 seconds or later after ig- nition switch OFF to ON	5 V
				Without Intelli- gent Key sys- tem	At any condition	(V) 15 10 5 0 <i>w</i> - 2ms <i>w</i>
20 [*] (GR)	Ground	Remote keyless en- try receiver signal	Input		 Ignition switch OFF For 3 seconds after ignition switch OFF to ON 	ing to signal-receiving condition.
				With Intelligent Key system	3 seconds or later after ig- nition switch OFF to ON	(V) ₁₅ 10 5 0 ↓ + 2ms JPMIA0589GB MOTE: The wave form changes accord- ing to signal-receiving condition.
21 (G)	Ground	Immobilizer anten- na signal (Clock)	Input/ Output	Ignition switch O	FF	Battery voltage

	nal No.	Description				Value
(vvire	e color) —	Signal name	Input/ Output		Condition	(Approx.)
					ON	0 V
23 (B)	Ground	Security indicator signal	Input	Security indica- tor	Blinking (Ignition switch OFF)	(V) 15 10 5 0 + 15 JPMIA0590GB
						12.0 V
					OFF	Battery voltage
25 (BR)	Ground	Immobilizer anten- na signal (Rx, Tx)	Input/ Output	Ignition switch O	FF	Battery voltage
				Ignition switch O	FF	
27 (Y)	Ground	A/C switch	Input	Ignition switch ON	A/C switch OFF	(V) 15 10 5 0 + 10ms JPMIA0591GB 1.6 V
					A/C switch ON	0 V
				Ignition switch O	FF	
28 (LG)	Ground	Blower fan switch	Input	Ignition switch ON	Blower fan switch OFF	(V) 15 10 5 0 + 10ms JPMIA0592GB 7.0 - 7.5 V
					Blower fan switch ON	0 V
29					OFF	Battery voltage
(W)	Ground	Hazard switch	Input	Hazard switch	ON	0 V
30	Ground	Back door opener	Input	Back door	Not pressed	Battery voltage
(G)	Ground	switch	Input	opener switch	Pressed	0 V

< ECU DIAGNOSIS >

	inal No.	Description				Value	А						
+	e color) –	Signal name	Input/ Output		Condition	(Approx.)	~						
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 + 10ms PKIB4960J 7.2 V	B C D						
32 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)								
					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5	E						
											Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2	0	F
				 Wiper intermittent dial 6 Wiper intermittent dial 7 	^{рків4956J} 1.0 V	G							
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 + 10ms	H						
33		Combination switch		Combination		PKIB4960J 7.2 V							
(GR)	Ground	OUTPUT 4	Output	switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V)	J						
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5	K						
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	0	IN						

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	nal No.	Description				Value							
(VVire	color)	Signal name	Input/ Output		Condition	(Approx.)							
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 + 10ms PKIB4960J 7.2 V							
34 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)								
(-)					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10							
					Rear washer switch ON (Wiper intermittent dial 4)								
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	• +10ms PKiB4958J 1.2 V							
35		Combination switch		Combination	All switch OFF	(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							
(B)	Ground	OUTPUT 2	2 (Wiper intermit- tent dial 4)	OUTPUT 2 (Wiper intermit- tent dial 4)	Output	Output	Output	Output	Output	Output	(Wiper intermit-	Lighting switch 2ND	
					Lighting switch PASS								
									1		Front wiper switch INT		
					Front wiper switch HI	+ 10ms → +10ms РКIВ4958J 1.2 V							
36		Combination switch		Combination	All switch OFF	(V) 10 50 ••••10ms ••••10ms •••••10ms ••••• РКІВ4960J 7.2 V							
(V)	Ground	OUTPUT 1	Output	Wiper intermit- tent dial 4) Turn signal switch RH Turn signal switch LH Front wiper switch LO (Front wiper switch MIST) Front washer switch ON									
									Front washer switch ON	+10ms PKIB4958J			
						1.2 V							

< ECU DIAGNOSIS >

	nal No. color)	Description		4	Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
37	Ground	Key switch	loput	Insert mechanical key into ignition key cylin- der		Battery voltage
(LG)	Ground	Ney Switch	Input	Remove mechan cylinder	nical key from ignition key	0 V
38	Ground	Ignition switch ON	Input	Ignition switch C		0 V
(G)	0.00.00	.g	•	Ignition switch C	ON or START	Battery voltage
39 (L)	Ground	CAN-H	Input/ Output		—	—
40 (P)	Ground	CAN-L	Input/ Output		_	_
43 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	(V) 10 5 0 * 10ms JPMIA0593GB 9.5 - 10.0 V
					ON (When back door opened)	0 V
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position Any position other than rear wiper stop position	0 V Battery voltage
45 (P)	Ground	Door lock and unlock switch LOCK signal	Input	Door lock and unlock switch	NEUTRAL position	(V) 10 5 0 ••10ms ••10ms JPMIA0591GB
					LOCK position	1.6 V 0 V
46 (BR)	Ground	Door lock and unlock switch UNLOCK sig- nal	Input	Door lock and unlock switch	NEUTRAL position	(V) 15 0 5 0 ••10ms JPMIA0591GB
						1.6 V
					UNLOCK position	0 V

	nal No.	Description				Value									
(Wire +	e color) _	Signal name	Input/ Output		Condition	(Approx.)									
47 (W)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 + 10ms JPMIA0587GB 8.0 - 8.5 V									
					ON (When driver door opened)	0 V									
48 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	(V) ₁₅ 10 5 0 + 10ms JPMIA0594GB 8.5 - 9.0 V									
					ON (When rear door LH opened)	0 V									
49		Back door lamp	Back door is closed (Back door lamp turns OFF)	Battery voltage											
(L)	Ground	trol	Carpor	Output	Output	Culput	Juiput	Juiput	Output	Output	Output	- acput	switch DOOR position	Back door is opened (Back door lamp turns ON)	0 V
53	Ground	Back door open	Output	Back door	Not pressed (Back door actuator is ac- tivated)	0 V									
(V)	Ground				opener switch	Pressed (Back door actuator is ac- tivated)	Battery voltage								
55	Ground	Rear wiper motor	Output	Ignition switch	Rear wiper switch OFF	0 V									
(SB)	Cibund		Output	ON	Rear wiper switch ON	Battery voltage									
56	Ground	Interior room lamp	Output	After passing the saver operation ti		0 V									
(Y)		power supply		Any other time after passing the interior room lamp battery saver operation time		Battery voltage									
57 (G)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage									
59	Ground	Ground Driver door UN- UOCIC	Driver door	UNLOCK (Actuator is activated)	Battery voltage										
(L)	Croand	LOCK	Calput		Other then UNLOCK (Ac- tuator is not activated)	0 V									

< ECU DIAGNOSIS >

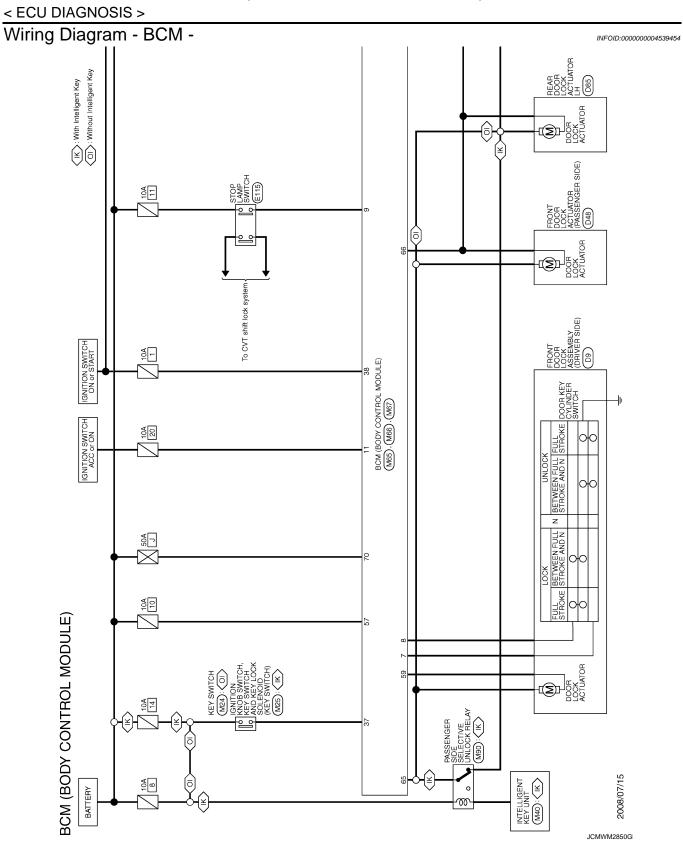
	nal No. color)	Description		-		Value			
+	-	Signal name	Input/ Output		Condition	(Approx.)			
					Turn signal switch OFF	0 V			
60 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 5 0 + 15 - - - - - - - - - - - - -			
					Turn signal switch OFF	6.0 V 0 V			
61 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 5 0 18 18 18 18 18 18 18 18 18 18			
63		Interior room lamp		Interior room	OFF	Battery voltage			
(R)	Ground	timer control	Output	lamp	ON	0 V			
65	Ground	All doors LOCK	Output		LOCK (Actuator is activat- ed)	Battery voltage			
(V)	Giouna		Output All doo	Calput	All doors	Other then LOCK (Actua- tor is not activated)	0 V		
66	Oneveral	Passenger door and rear door UNLOCK		Passenger door	UNLOCK (Actuator is activated)	Battery voltage			
(G)	Ground		rear door UNLOCK and re	rear door UNLOCK and rear door Other then UNLOCK (/ tuator is not activated)	and r	Ουιραί	Calput	and rear door	Other then UNLOCK (Ac- tuator is not activated)
67 (B)	Ground	Ground	Output	Ignition switch O	N	0 V			
68 (L)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage			
69 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage			
70 (Y)	Ground	Battery power sup- ply	Input	Ignition switch O	FF	Battery voltage			

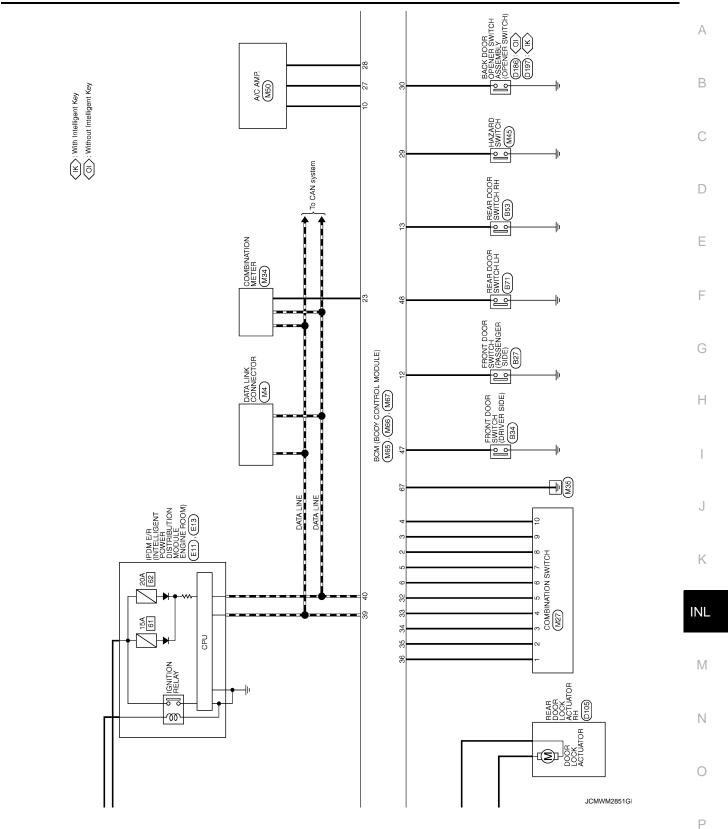
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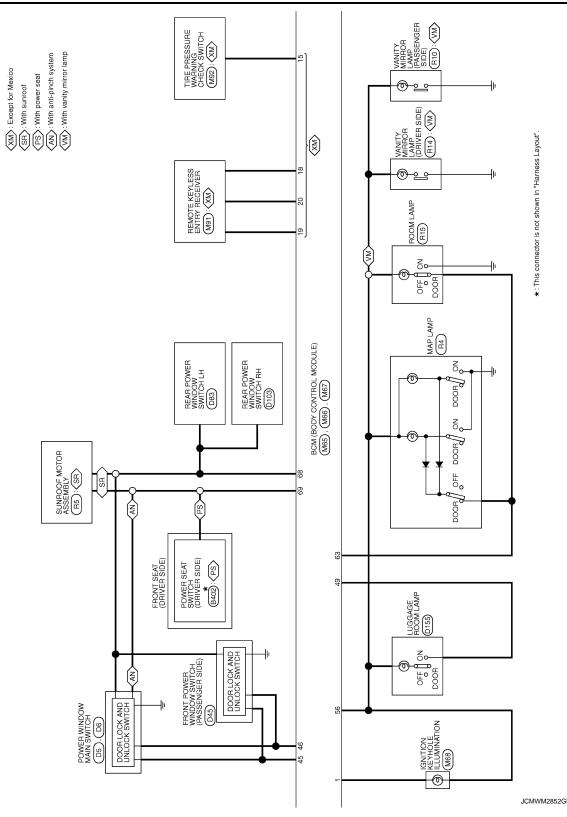
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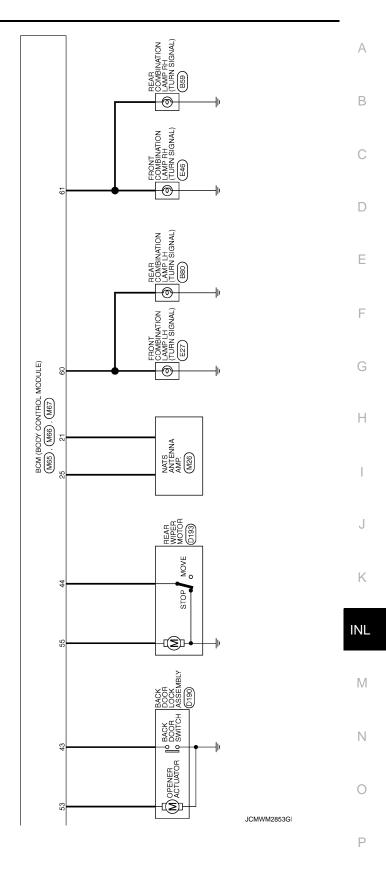
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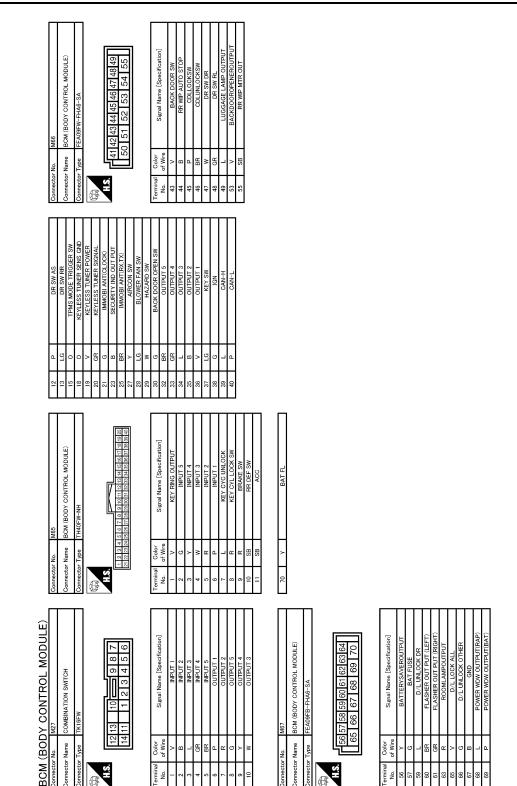
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JCMWM2854G

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Fail-safe

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 more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

< ECU DIAGNOSIS >

- 1. Pass more than 1 minute after the rear wiper stop.
- 2. Turn the rear wiper switch OFF.
- 3. Operate the rear wiper switch or rear washer switch.

HIGH FLASHER OPERATION

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

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

NOTE:

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

DTC Inspection Priority Chart

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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	U1000: CAN COMM CIRCUIT	
2	C1735: IGN CIRCUIT OPEN	
	C1704: LOW PRESSURE FL	
	C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
	C1715: [CHECKSUM ERR] RL	
3	C1716: [PRESS DATA ERR] FL	
	C1717: [PRESS DATA ERR] FR	
	C1718: [PRESS DATA ERR] RR	
	C1719: [PRESS DATA ERR] RL	
	C1720: [CODE ERR] FL	
	C1721: [CODE ERR] FR	
	C1722: [CODE ERR] RR	
	 C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL 	
	C1724. [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR	
	C1725: [BATT VOLT LOW] PR C1726: [BATT VOLT LOW] RR	
	 C1720: [BATT VOLT LOW] RK C1727: [BATT VOLT LOW] RL 	
	C1729: VHCL SPEED SIG ERR	

DTC Index

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NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Tire pressure monitor warning lamp ON	Reference
U1000: CAN COMM CIRCUIT	_	<u>BCS-35</u>

CONSULT display	Tire pressure monitor warning lamp ON	Reference	
C1704: LOW PRESSURE FL	×		
C1705: LOW PRESSURE FR	×		
C1706: LOW PRESSURE RR	×	<u>WT-15</u>	
C1707: LOW PRESSURE RL	×		
C1708: [NO DATA] FL	×		
C1709: [NO DATA] FR	×		
C1710: [NO DATA] RR	×	<u>WT-17</u>	
C1711: [NO DATA] RL	×		
C1712: [CHECKSUM ERR] FL	×		
C1713: [CHECKSUM ERR] FR	×	WT 20	
C1714: [CHECKSUM ERR] RR	×	<u>WT-20</u>	
C1715: [CHECKSUM ERR] RL	×		
C1716: [PRESS DATA ERR] FL	×		
C1717: [PRESS DATA ERR] FR	×	WT 22	
C1718: [PRESS DATA ERR] RR	×	<u>WT-23</u>	
C1719: [PRESS DATA ERR] RL	×		
C1720: [CODE ERR] FL	×		
C1721: [CODE ERR] FR	×	W/T 25	
C1722: [CODE ERR] RR	×	<u>WT-25</u>	
C1723: [CODE ERR] RL	×		
C1724: [BATT VOLT LOW] FL			
C1725: [BATT VOLT LOW] FR	_	WT 20	
C1726: [BATT VOLT LOW] RR	—	<u>WT-28</u>	
C1727: [BATT VOLT LOW] RL	—		
C1729: VHCL SPEED SIG ERR	×	<u>WT-31</u>	
C1735: IGN CIRCUIT OPEN	—	BCS-36	

INTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

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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 • Room lamp • Ignition keyhole illumination • Vanity mirror lamp • Luggage room lamp	 Harness between BCM and each interior room lamp BCM 	Interior room lamp power supply cir- cuit Refer to <u>INL-19</u> .
 Interior room lamp does not turn ON even though the door is open. 	Harness between BCM and each door switch	Each door switch circuit Refer to <u>DLK-299</u> .
(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 interior room lamp BCM 	Interior room lamp control circuit Refer to INL-21.
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-15</u> .
Luggage room lamp does not turn ON.	Harness between BCM and back door switch	Back door switch circuit Refer to <u>DLK-299</u>
(The bulb is normal.)Luggage room lamp does not turn OFF.	 Harness between BCM and lug- gage room lamp BCM 	Luggage room lamp circuit Refer to <u>INL-25</u>
Ignition keyhole illumination does not illuminate.	 Harness between BCM and ignition keyhole illumination BCM 	Ignition keyhole illumination circuit Refer to INL-23
Interior room lamp battery saver does not activate.	_	Check the interior room lamp battery saver setting. Refer to <u>INL-16</u> .

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< PRECAUTION >

PRECAUTION PRECAUTIONS FOR USA AND CANADA

FOR USA AND CANADA : 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 AIRBAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIRBAG".
- 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.

FOR MEXICO

FOR MEXICO : 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. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" of this Service Manual.

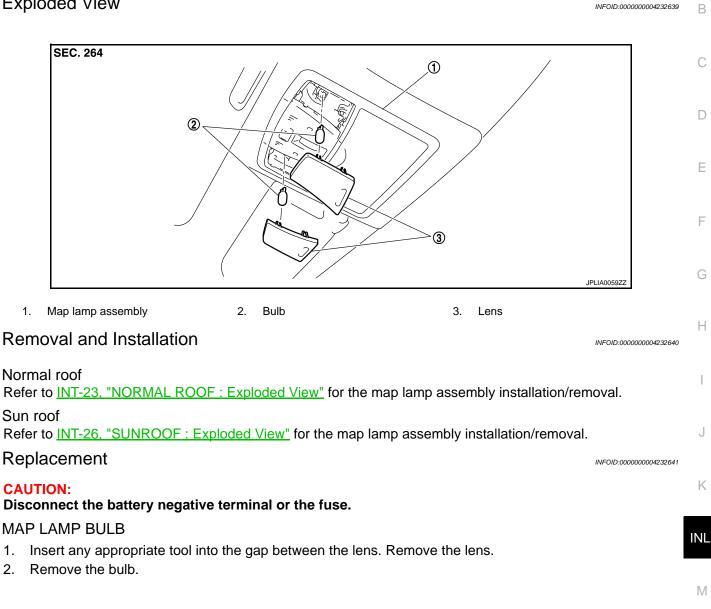
WARNING:

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

MAP LAMP

< ON-VEHICLE REPAIR > **ON-VEHICLE REPAIR** MAP LAMP

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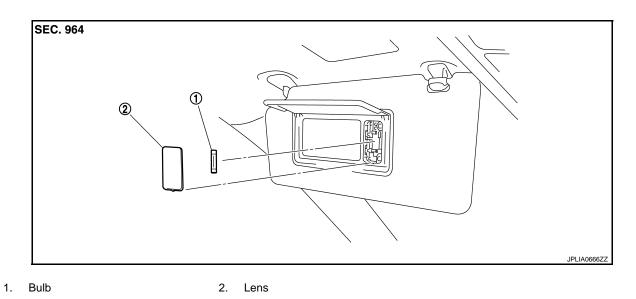
VANITY MIRROR LAMP

< ON-VEHICLE REPAIR >

VANITY MIRROR LAMP

Exploded View

INFOID:000000004232642



Replacement

INFOID:000000004232643

CAUTION:

Disconnect the battery negative terminal or the fuse.

VANITY MIRROR LAMP BULB

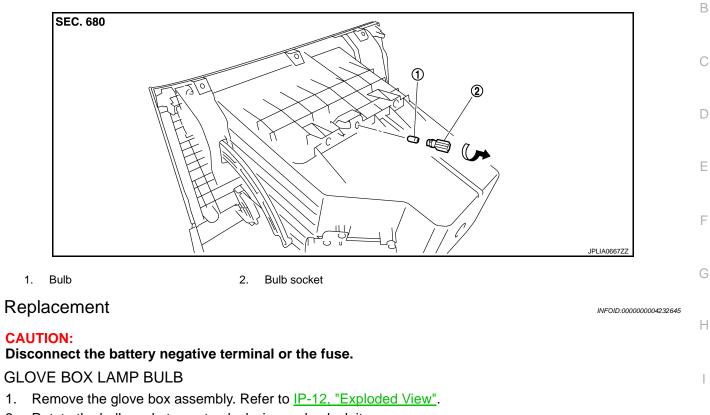
- 1. Insert any appropriate tool into the gap between the lens. Remove the lens.
- 2. Remove the bulb.

< ON-VEHICLE REPAIR > **GLOVE BOX LAMP**

Exploded View

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- 2. Rotate the bulb socket counterclockwise and unlock it.
- 3. Remove the bulb.

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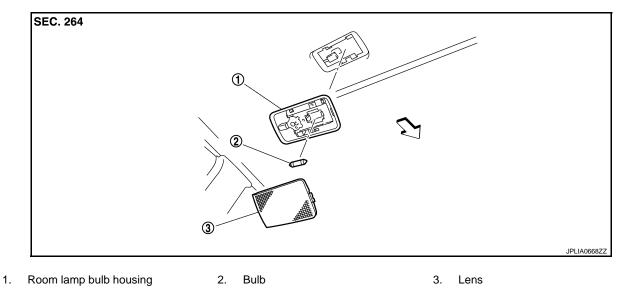
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< ON-VEHICLE REPAIR > ROOM LAMP

Exploded View

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Removal and Installation

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

- 1. Insert any appropriate tool into the gap between the lens. And then remove the lens.
- 2. Insert any appropriate tool into the gap between the room lamp bulb housing and headlining. And then remove the room lamp bulb housing.
- 3. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

CAUTION:

INFOID:000000004232648

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Disconnect the battery negative terminal or the fuse.

ROOM LAMP BULB

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

IGNITION KEYHOLE ILLUMINATION

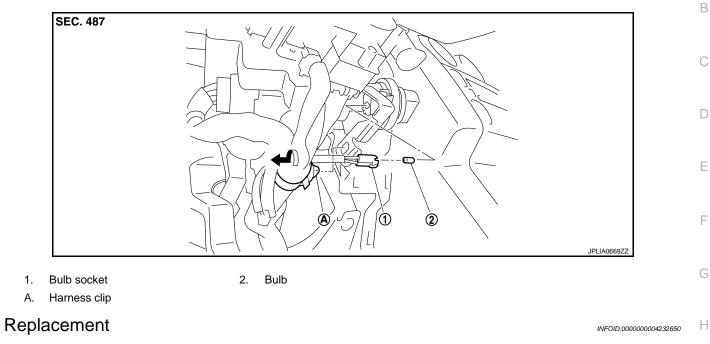
< ON-VEHICLE REPAIR >

IGNITION KEYHOLE ILLUMINATION

Exploded View

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	UTION: connect the battery negative terminal or the fuse.	I
IGN	NITION KEYHOLE ILLUMINATION BULB	-
1.	Remove steering column cover. Refer to IP-12, "Exploded View".	
2.	Remove the harness clip.	J
3.	Rotate the bulb socket counterclockwise and unlock it.	
4.	Remove the bulb.	K

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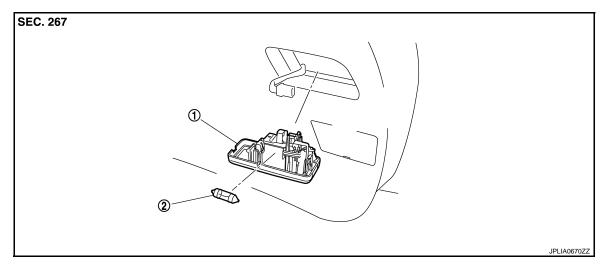
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< ON-VEHICLE REPAIR >

LUGGAGE ROOM LAMP

Exploded View

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1. Luggage room lamp assembly 2. Bulb

Removal and Installation

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

- 1. Insert any appropriate tool into the gap between the luggage room lamp assembly and back door trim finisher lower. Remove the luggage room lamp assembly.
- 2. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

CAUTION:

Disconnect the battery negative terminal or the fuse.

LUGGAGE ROOM LAMP BULB

- 1. Remove the luggage room lamp assembly.
- 2. 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)	
Map lamp	Wedge	8	
Room lamp		8	
Ignition keyhole illumination	_	1.4	
Vanity mirror lamp		2	
Grove box lamp		1.4	
Luggage room lamp		8	

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