SECTION INTERIOR LIGHTING SYSTEM

А

В

С

D

Е

CONTENTS

BASIC INSPECTION3
DIAGNOSIS AND REPAIR WORKFLOW
SYSTEM DESCRIPTION5
INTERIOR ROOM LAMP CONTROL SYSTEM
5 System Diagram
INTERIOR ROOM LAMP BATTERY SAVER
SYSTEM9System Diagram9System Description9Component Parts Location10Component Description11
ILLUMINATION CONTROL SYSTEM12
System Diagram12 System Description12
Component Parts Location13 Component Description13
DIAGNOSIS SYSTEM (BCM)14
COMMON ITEM
INT LAMP
BATTERY SAVER
DTC/CIRCUIT DIAGNOSIS18

POWER SUPPLY AND GROUND CIRCUIT 18	F
BCM (BODY CONTROL MODULE)	G
INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT19	Н
Description	I
INTERIOR ROOM LAMP CONTROL CIRCUIT	
21 Description	J
IGNITION KEYHOLE ILLUMINATION CON- TROL CIRCUIT	Κ
Description	INL
LUGGAGE ROOM LAMP CIRCUIT	Μ
Diagnosis Procedure25	Ν
INTERIOR ROOM LAMP CONTROL SYSTEM	
27 Wiring Diagram - INTERIOR ROOM LAMP27	0
ILLUMINATION	Ρ
ECU DIAGNOSIS INFORMATION43	
BCM (BODY CONTROL MODULE)43 Reference Value43 Wiring Diagram - BCM58 Fail-safe62	

DTC Inspection Priority Chart63	
DTC Index 6	3
SYMPTOM DIAGNOSIS64	4
INTERIOR LIGHTING SYSTEM SYMPTOMS 64	4
Symptom Table 64	4
PRECAUTION6	5
PRECAUTIONS6	5
FOR USA AND CANADA	
FOR MEXICO	
REMOVAL AND INSTALLATION6	7
MAP LAMP 6 Exploded View 6	
Removal and Installation	
Replacement6	

	_
VANITY MIRROR LAMP	
Replacement68	3
GLOVE BOX LAMP 69 Exploded View	
Replacement	
ROOM LAMP70	
Exploded View	
Removal and Installation70 Replacement70	
IGNITION KEYHOLE ILLUMINATION71	
Exploded View	
Replacement71	
LUGGAGE ROOM LAMP72	
Exploded View72	
Removal and Installation72 Replacement	
SERVICE DATA AND SPECIFICATIONS	
(SDS)	\$
SERVICE DATA AND SPECIFICATIONS	
(SDS)	5

(SDS)		73
Bulb	Specifications	73

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

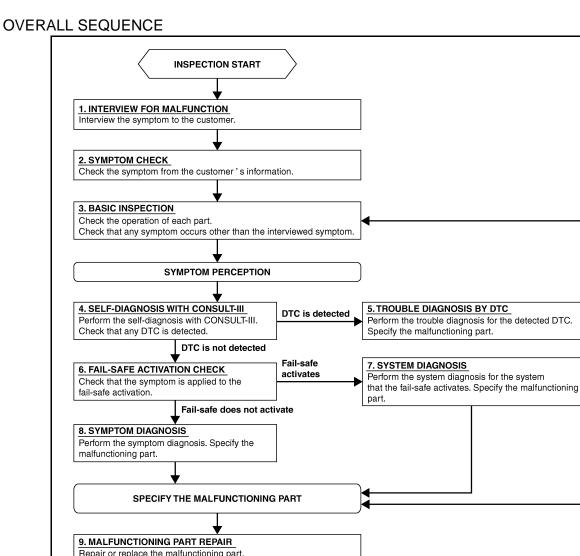
Work Flow

INFOID:000000006204530

А

D

Н





DETAILED FLOW **1.**INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III) Perform the self-diagnosis with CONSULT-III. Check that

repair. Check that DTC is not detected again.

11. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

any DTC is not detected. Erase DTC if DTC is detected before the

INSPECTION END

DTC is not detected

Normal operation

DTC is detected

Symptom remains

JPLIA0313GB

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.

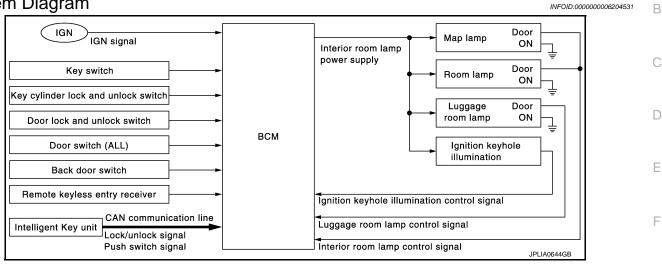
Does it operate normally?

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

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION INTERIOR ROOM LAMP CONTROL SYSTEM

System Diagram



System Description

INFOID:000000006204532

Н

Κ

INL

M

Ν

Ρ

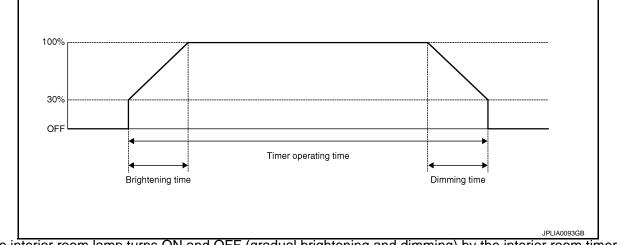
А

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

< SYSTEM DESCRIPTION >

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

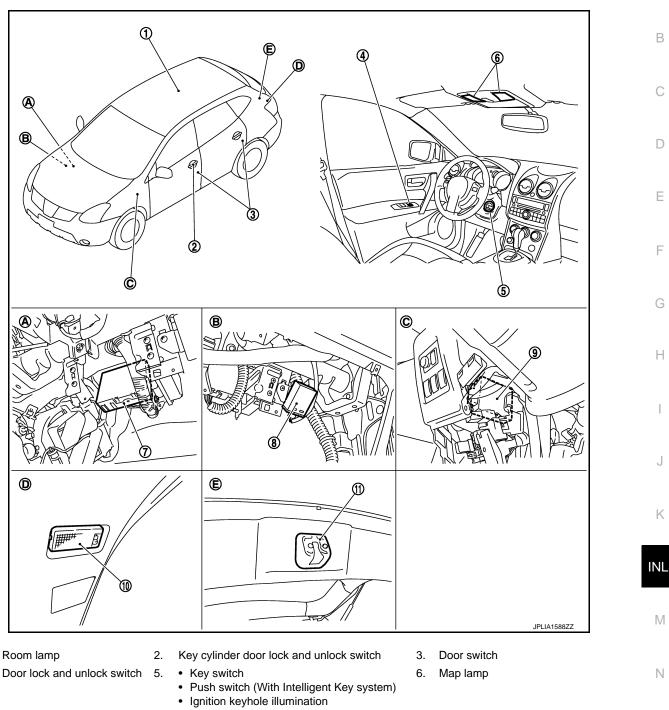
BCM controls the luggage room lamp (ground-side) to turn ON with the back door switch ON (when luggage room lamp switch is in DOOR position).

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000006204533

А



7. BCM

1.

4.

- 10. Luggage room lamp
- A. Over the glove box
- D. Back door trim finisher lower E.
- Remote keyless entry receiver (Without Intelligent Key system)
- 9. Back door switch
- B. Over the glove box
 - sher lower E. Back door lock assembly

8.

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

0

Ρ

< SYSTEM DESCRIPTION >

Component Description

INFOID:000000006204534

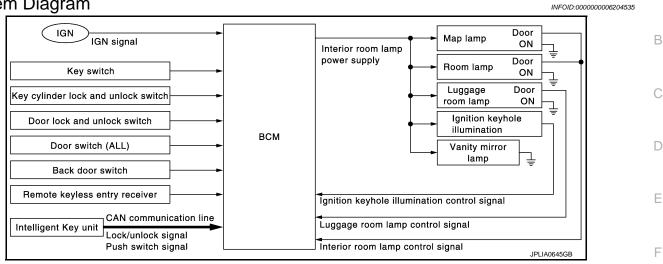
Part	Description
BCM	Activates the interior room lamp timer depending on the vehicle condition to turn the interior room lamps ON/OFF.
Remote keyless entry receiver	Receives the lock/unlock signal from Keyfob.Transmits the lock/unlock signal to BCM.
Intelligent Key unit	Transmits the lock/unlock signal 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

< 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 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)".

0

Ρ

INL

Μ

INFOID:000000006204536

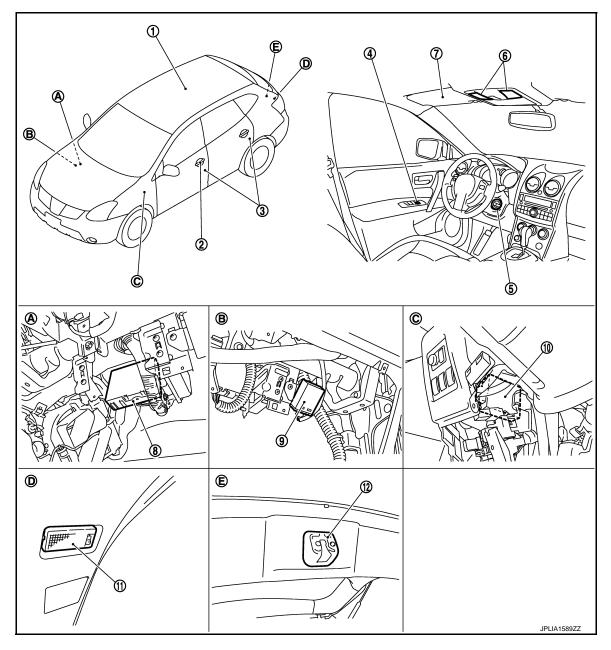
А

INTERIOR ROOM LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000006204537



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

- Key cylinder door lock and unlock switch
- Key switch

2.

5.

8.

11.

В.

- Push switch (With Intelligent Key system)Ignition keyhole illumination
- BCM
- 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

< SYSTEM DESCRIPTION >

Component Description

INFOID:000000006204538

А

F

G

Н

J

Κ

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.		

Μ

Ν

Ο

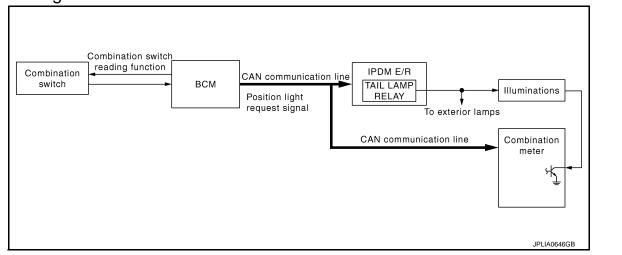
Ρ

ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

ILLUMINATION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000006204540

INFOID:00000006204539

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-8, "METER SYSTEM : System Description"</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).

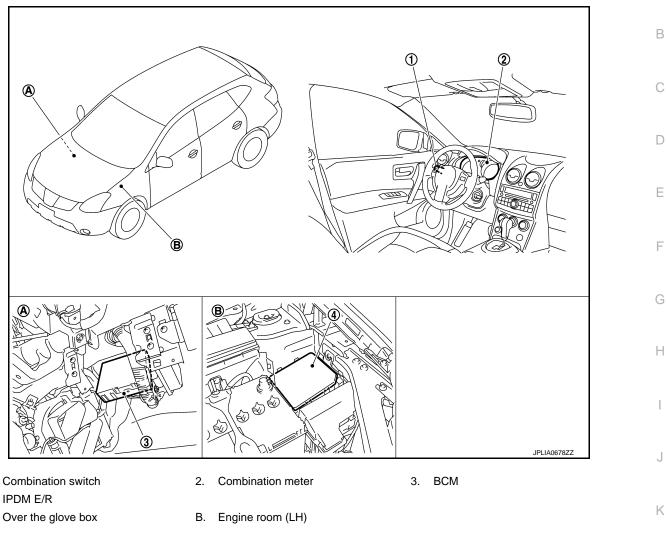
ILLUMINATION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000006204541

А



Component Description

1. 4.

А

INFOID:000000006204542

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 condition. And then it transmits position light request signal to IPDM E/R and combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay according to the request signal from BCM (with CAN communication).
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-8, "METER SYSTEM : System Description"</u>.
Combination switch (Lighting & turn signal switch)	Refer to <u>BCS-9, "System Diagram"</u> .

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

INFOID:000000006204543

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-63, "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

C: interm	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.

DIAGNOSIS SYSTEM (BCM)

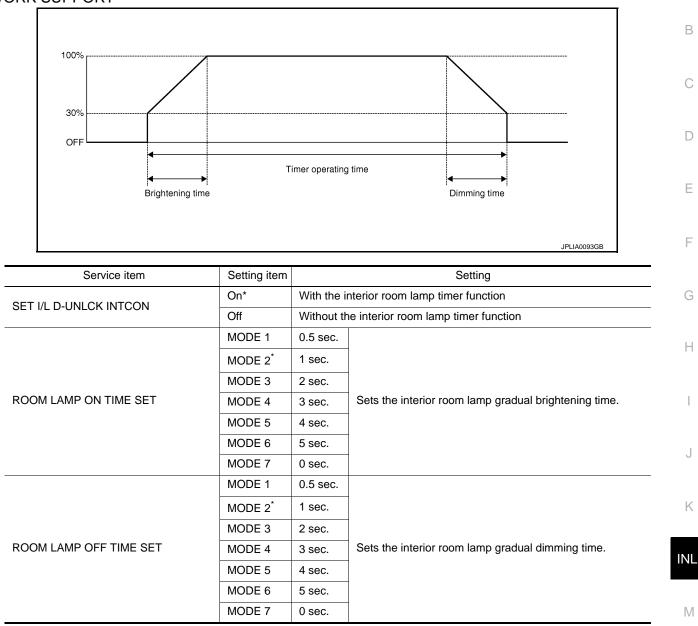
< SYSTEM DESCRIPTION >

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

INFOID:000000006204544

А





*: 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	

Ν

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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:000000006204545

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)

< SYSTEM DESCRIPTION >

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
-KEY LOCK [On/Off]	Lock signal status received from Intelligent Key unit by CAN communication
-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.

0

Ρ

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000006204546

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
Dattery power suppry	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		OIT	700	
M67	70	Ground	Battery	Battery	Battery
IVIO7	57		voltage	voltage	voltage
M65	11		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.

BCM			Continuity	
Connector	Connector Terminal		Continuity	
M67	67	Ť	Existed	

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

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

Component Function	on Check			INFOID:00000006204548	_
1.CHECK INTERIOR R	OOM LAMP	POWER SU	IPPLY FUNCTION		С
CONSULT-III ACTIVE 1. Turn ignition switch 2. Turn each interior ro	ON.	I.			D
 Map lamp Room lamp Ignition keyhole illun Vanity mirror lamp 					Е
	AVER" of BC		Y SAVER) active test item. h interior room lamp is turned C	N/OFF.	F
	or room lan				G
	or room lan	•			
Is the interior room lamp			uit is use was al		Н
YES >> Interior room NO >> Refer to INL					
Diagnosis Procedu	re			INFOID:00000006204549	I
1.CHECK INTERIOR R	OOM LAMP	POWER SI	IPPLY OUTPUT		
CONSULT-III ACTIVE 1. Turn ignition switch	ON.				J
			Y SAVER) active test item. etween BCM harness connector	and ground.	К
Terminals		Test item			
(+)	(-)		Voltage (Ap-		INL
BCM		BATTERY	prox.)		

(+)		(+) (-)		Voltage (Ap-
B	СМ		BATTERY	prox.)
Connector	Terminal		SAVER	
		Ground	Off	0 V
M67	56		On	Battery volt- age

Is the measurement value normal?

YES	>> GO TO 2.	
NO	>> Replace BCM. Refer to <u>BCS-66, "Removal and Installation"</u> .	0
2.сне	ECK 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.

INL-19

Μ

Ν

Ρ

А

INFOID:000000006204547

INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT

< DTC/CIRCUIT 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	
M67		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.

INTERIOR ROOM LAMP CONTROL CIRCUIT

		-	R ROOM	LAMP CON	ITROL CIRCUIT		
< DTC/CIR				OL CIRCU	ПТ		
			oonin				А
Descriptio		. ,				INFOID:000000006204550	
Controls ea NOTE:	ch interior	room lamp (g	round side) b	y PWM signal.			В
-			-	Hz (in the grad	ual brightening/dimming).		
Compone	ent Func	tion Check	ζ.			INFOID:00000006204551	С
 Interior ro Map lamp Room lamp 	oom lamp o bulb np bulb	power supp	y	g items are no	ormal.		D
1.СНЕСК	INTERIOR	ROOM LAM	P CONTROL	FUNCTION			E
2. Turn igr	the map la nition switc	mp switch to		le test item			F
					lamp turns ON/OFF (grac	lual brightening/dim-	G
On		erior room la ntening	mp gradual				Н
Off							
Dese the int	ming			und haink taain			
		om lamp cont		ual brightening ormal.	<u>/aimming) </u>		
		NL-21, "Diagn	osis Procedu	<u>ire"</u> .			J
Diagnosis	s Proced	lure				INFOID:00000006204552	
1.снеск	INTERIOR	ROOM LAM	P CONTROL	OUTPUT			Κ
CONSUL	T-III ACTI					ſ	_
2. Remove	e all the bu	lbs of followir	ng lamps.				INL
- Map lar - Room la	amp						
		" of BCM (IN ⁻ e test item, cł			A harness connector and	ground.	\mathbb{M}
			T				
BC Connector	Terminal		Test item	Continuity			Ν
M67	63	Ground	On	Existed			
			Off	Not existed			0
YES >> Fixed ON> Fixed OFF	GO TO 2. >GO TO 3 >>Replace	8. e BCM. Refer		Removal and In OPEN CIRCU			Ρ
1. Turn igr	nition switc nect the fol mp						

INTERIOR ROOM LAMP CONTROL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

B	СМ	Map lamp/room lamp			Map lamp/room lamp		
Connec- tor	Terminal	Connector		Terminal	Continuity		
M67	63	Map lamp	R4	2	Existed		
10107	M67 63		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-66, "Removal and Installation"</u>.

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

DTC/CIRCUIT DIAG	NOSIS >					
GNITION KEYH	OLE IL	LUMINATI	ON CONT	ROL CIRC	UIT	
Description						INFOID:000000006204553
controls the ignition key	hole illumi	nation (ground	side) by PWM	l signal.		
IOTE: WM signal control perio	od is appre	oximately 250	Hz (in the grac	ual brightening/c	dimming).	
Component Function	on Chec	k				INFOID:000000006204554
CAUTION: Before performing the Interior room lamp per Ignition keyhole illun	ower sup nination b	oly oulb	-	is normal.		
		LLUMINATION	OPRATION			
CONSULT-III ACTIVE Turn ignition switch Select "IGN ILLUM" With operating the t	ON. of BCM (I			umination turns (ON/OFF.	
	-	le illuminatior				
-		le illumination				
<u>Does the ignition keyhol</u> YES >> Ignition keyl NO >> Refer to <u>INL</u>	hole illumii	nation circuit is	normal.			
Diagnosis Procedu		100101-100000	<u>.</u> .			INFOID:000000006204555
CONSULT-III ACTIVE Turn ignition switch Remove ignition key Turn ignition switch Select "IGN ILLUM" With operating the t	OFF. yhole illum ON. of BCM (I	NT LAMP) acti	ive test item. / between BCN	/ harness conne	ector and gro	und.
BCM		Test item				
Connector Terminal	Ground	IGN ILLUM TEST	Continuity			
MGE 1	Cicalia	On	Existed			
M65 1		Off	Not existed			
s the measurement valu	ue normal	2				
YES >> GO TO 2. Fixed ON>>GO TO 3. Fixed OFF>>Replace B				ШТ		
		LEOWINATION				
2.CHECK IGNITION KI						
2.CHECK IGNITION KI 1. Turn ignition switch 2. Disconnect BCM co 3. Check continuity be	OFF. nnector ar			n connector.	mination harr	ness connector.

B	CM	Ignition keyhole illumination		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M65	1	M68	2	Existed	

Does continuity exist?

IGNITION KEYHOLE ILLUMINATION CONTROL CIRCUIT

< DTC/CIRCUIT 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

			GGAGE R			
<pre>< DTC/CIRG LUGGAG</pre>			⁻ CIRCUI	Т		
Descriptio	on				INFOID:00000006204556	А
Controls the	e luqqaqe ro	om lamp (d	round side) to	turn the lua	gage room lamp ON and OFF.	
Compone					INFOID:000000006204557	В
CAUTION:						
	oom lamp p	ower supp	s, check that ly	the followin	g is normal.	C
1.CHECK	LUGGAGE I	ROOM LAN	IP OPRATION	N		D
2. Select "	nition switch	ON. LAMP TES			ctive test item. Imp turns ON/OFF.	Е
On	: Lugg	jage room	lamp ON			F
Off	: Lugg	<mark>jage roo</mark> m	lamp OFF			
Does the lug		•				G
			cuit is normal			
Diagnosis	s Procedu	ire			INFCID:00000006204558	Н
1. CHECK	LUGGAGE I		IP OUTPUT			
						I
	nition switch e luggage ro		ılb			
3. Turn igr	nition switch	ON.	T" of BCM (IN		tive test item	J
					CM harness connector and ground.	LZ.
BCI			Test item			K
Connector	Terminal	Ground	LUGGAGE LAMP TEST	Continuity		INL
M66	49		On	Existed		
Wido	43		Off	Not existed		M
Is the meas		ue normal?				
Fixed ON>	GO TO 2. >GO TO 3. >>Replace	BCM.				Ν
2.CHECK	LUGGAGE I	ROOM LAN	IP OPEN CIR	CUIT		
2. Disconr		nnector an	d luggage roo 1 harness con		nector. uggage room lamp harness connector.	0
						Ρ
Connector	CM Terminal	Luggag Connector	e room lamp Terminal	Continuity		
M66	49	D155	4	Existed		
	•		•	•	·	

Does continuity exist?

YES >> Replace luggage room lamp.

LUGGAGE ROOM LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair harnesses or connectors.

3. CHECK LUGGAGE ROOM LAMP SHORT CIRCUIT

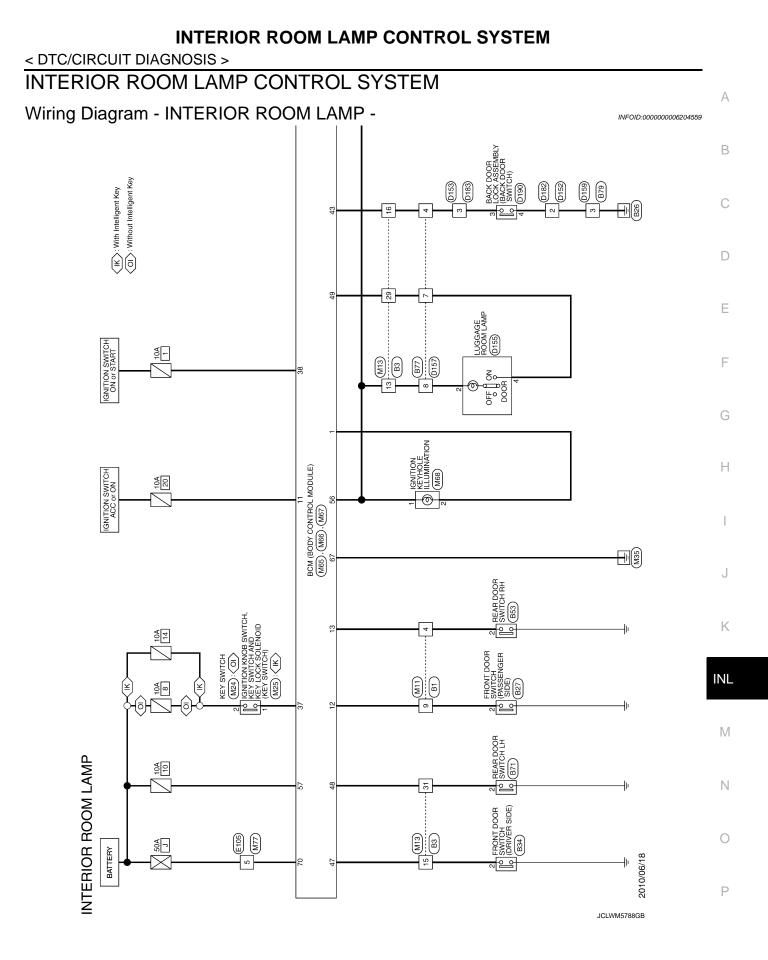
- 1. Turn ignition switch OFF.
- Disconnect BCM connector and luggage room lamp connector.
- 3. Check continuity between BCM harness connector and ground.

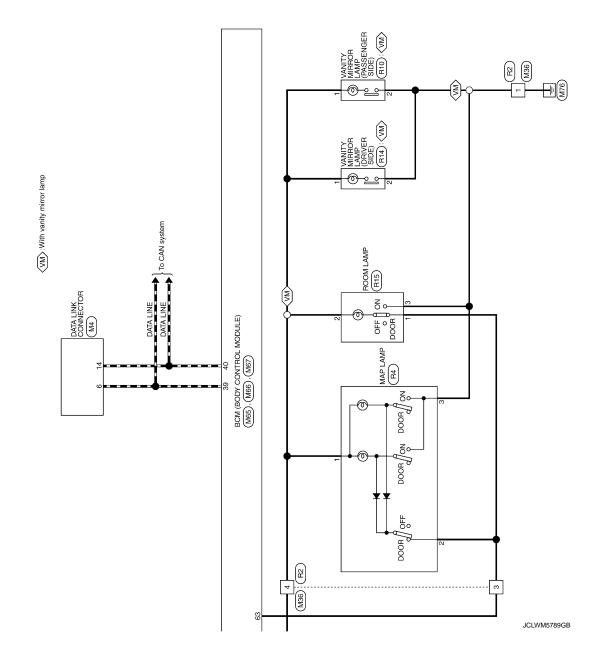
B	CM		Continuity
Connector	Terminal	Ground	Continuity
M66	49	† 	Not existed

Does continuity exist?

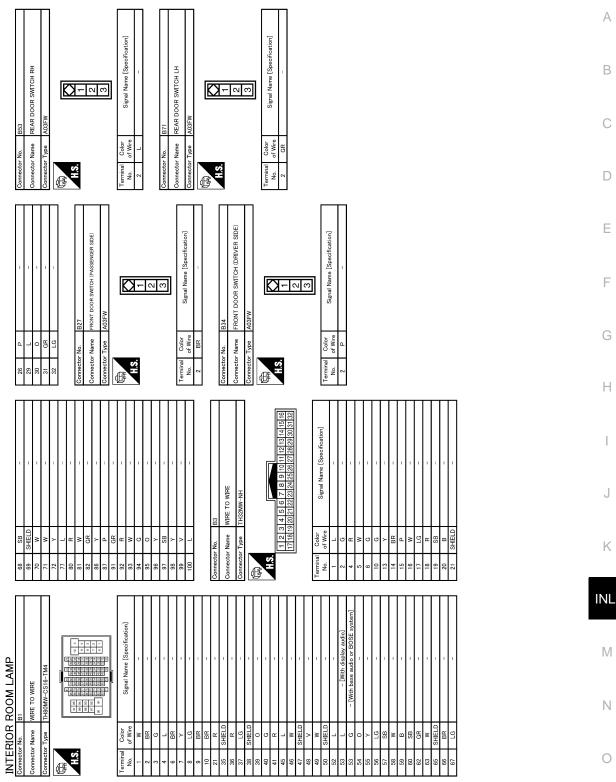
YES >> Repair harnesses or connectors.

NO >> Replace BCM.





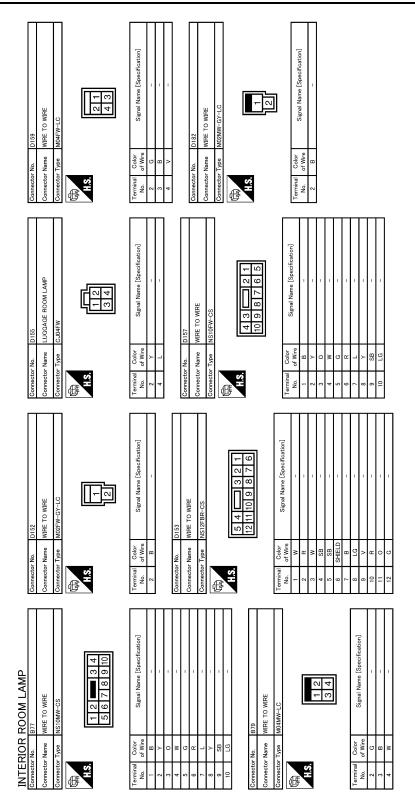
< DTC/CIRCUIT DIAGNOSIS >



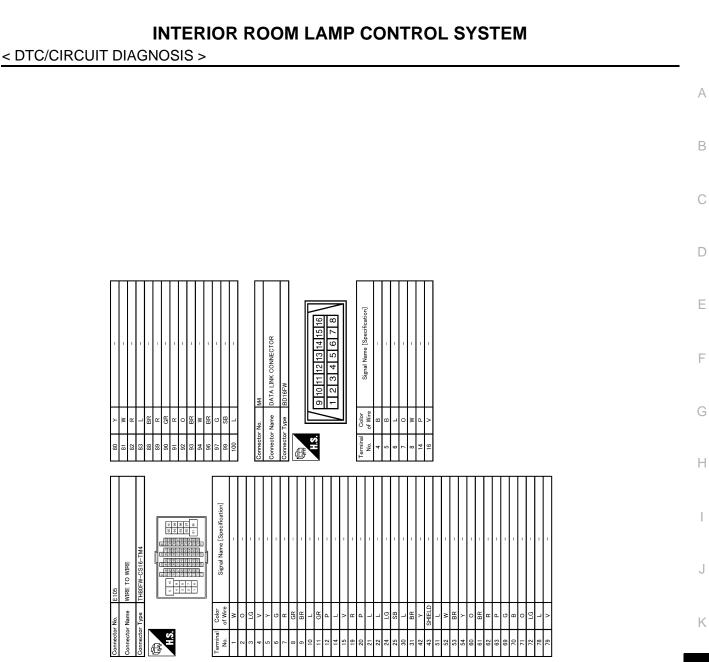
JCLWM5790GB

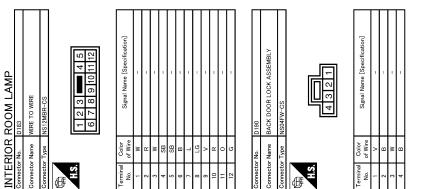
Ρ

< DTC/CIRCUIT DIAGNOSIS >



JCLWM5791GB





JCLWM5792GB

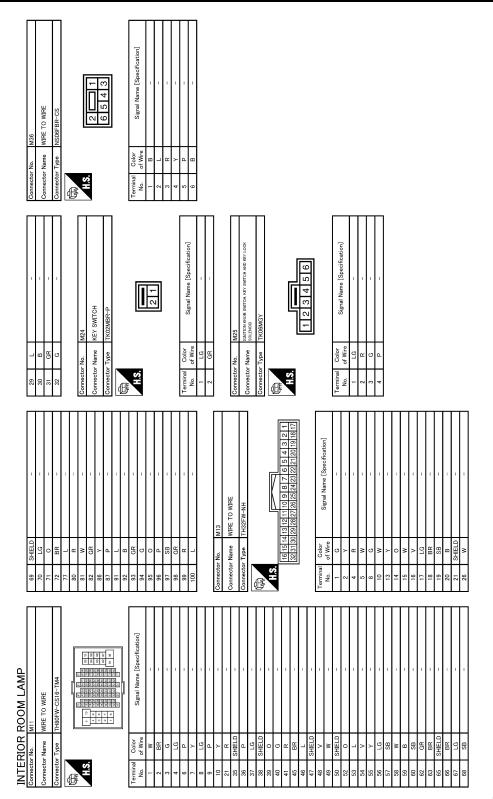
INL

Μ

Ν

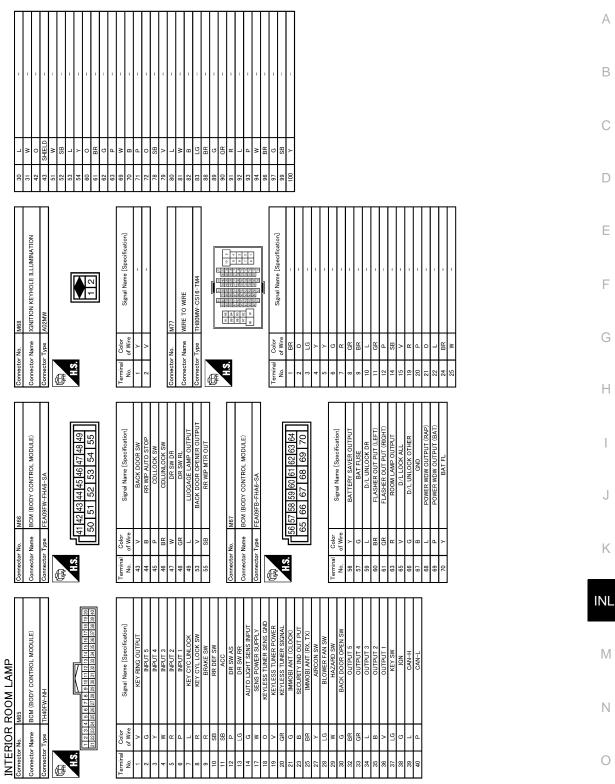
Ο

< DTC/CIRCUIT DIAGNOSIS >



JCLWM5793GB

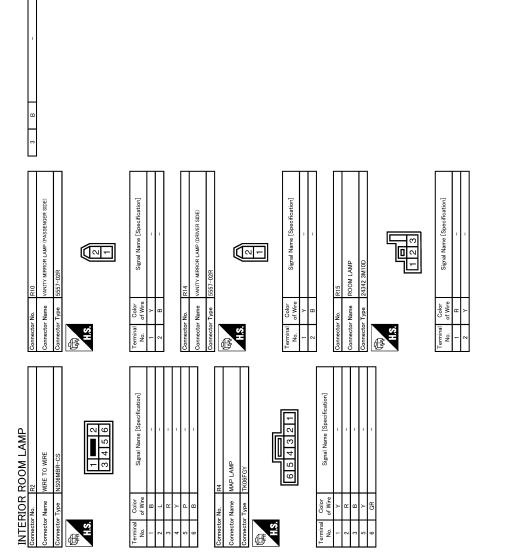
< DTC/CIRCUIT DIAGNOSIS >



JCLWM5794GB

Ρ

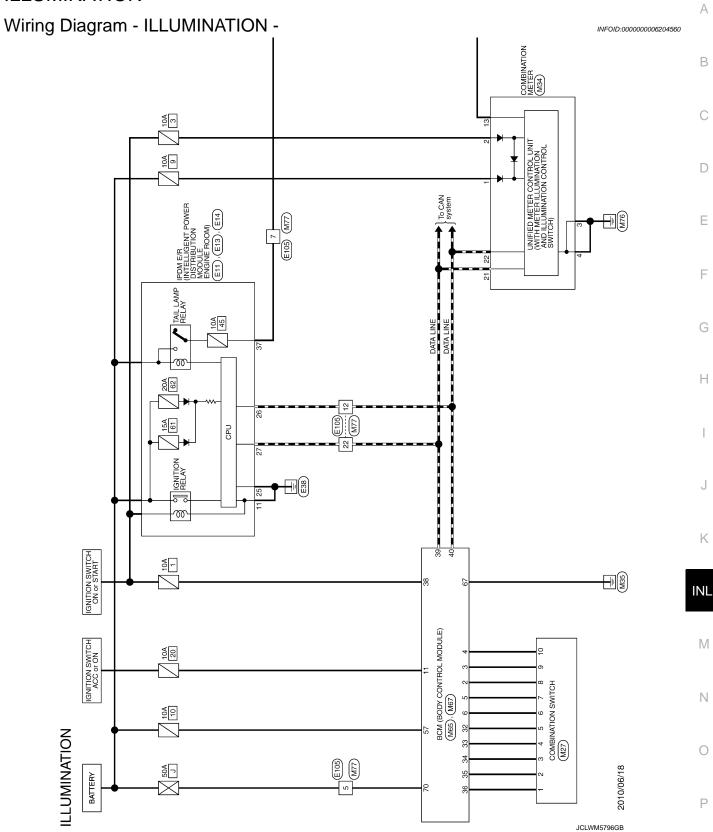
< DTC/CIRCUIT DIAGNOSIS >



JCLWM5795GB



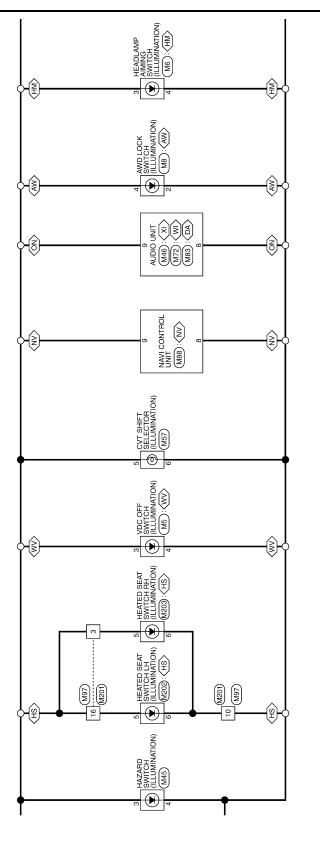
ILLUMINATION



ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

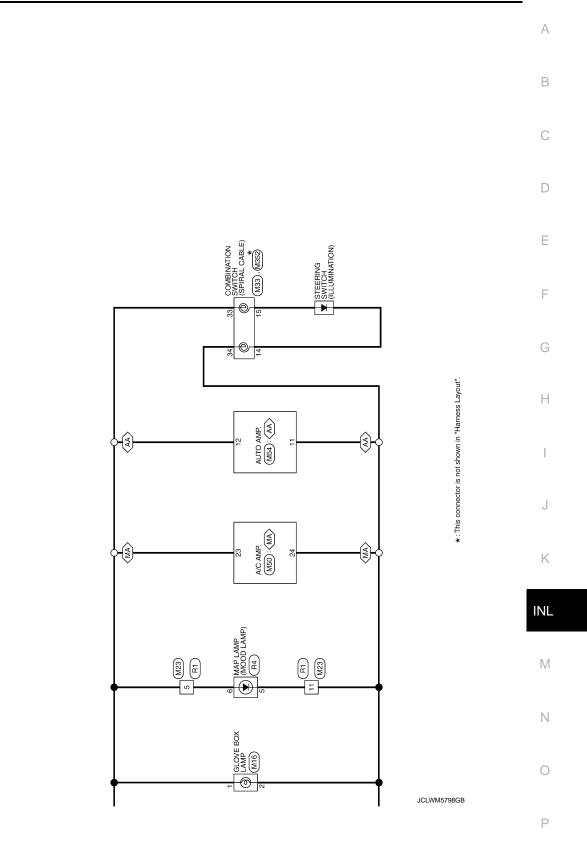




JCLWM5797GB

ILLUMINATION

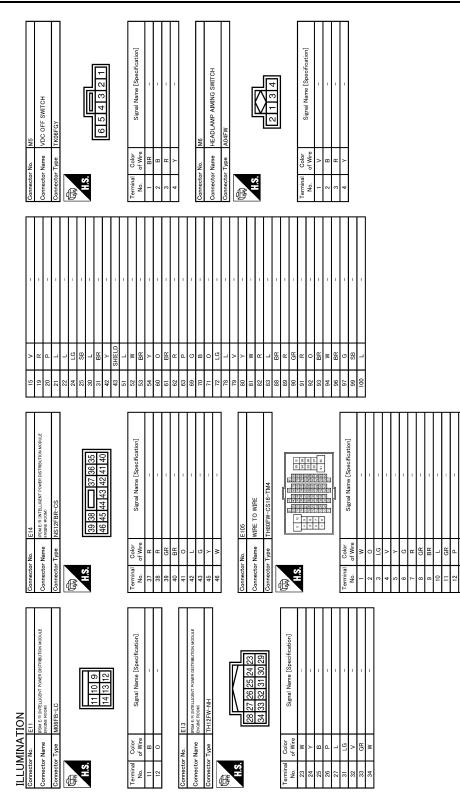
< DTC/CIRCUIT DIAGNOSIS >



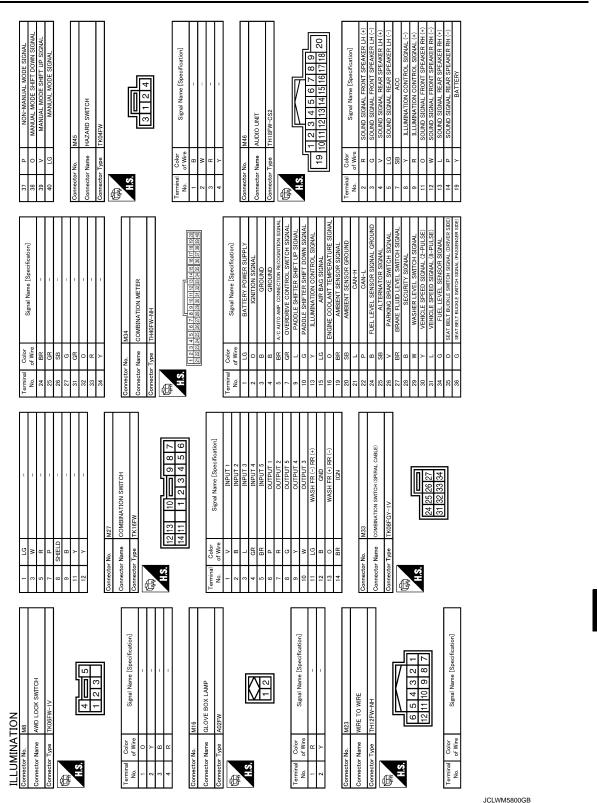
〈AA〉: With auto A/C
〈MA〉: With manual A/C

ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >



JCLWM5799GB



< DTC/CIRCUIT DIAGNOSIS >

Revision: 2010 July

А

В

С

D

Ε

F

G

Н

J

Κ

INL

Μ

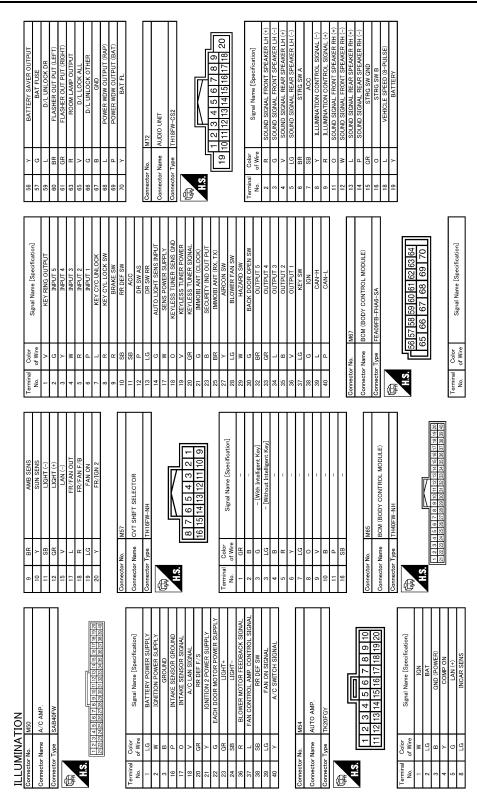
Ν

Ο

Ρ

ILLUMINATION

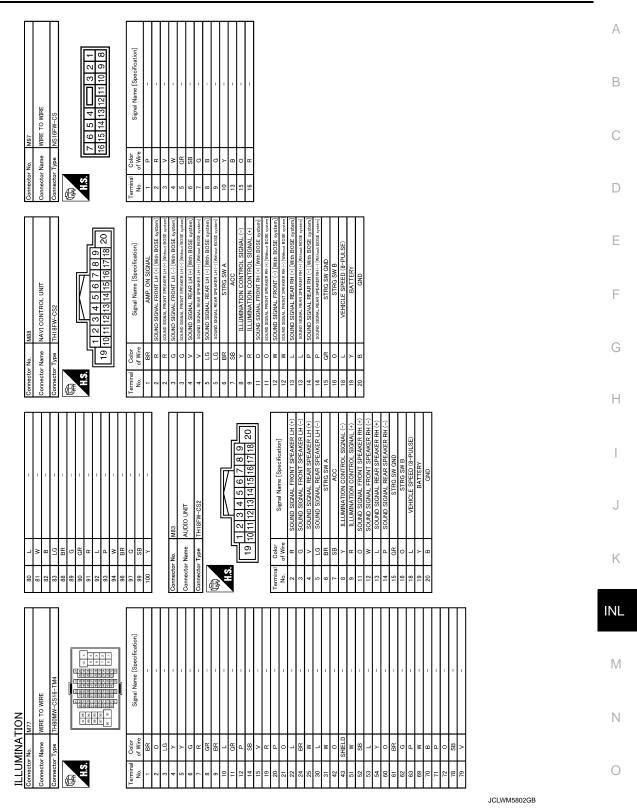
< DTC/CIRCUIT DIAGNOSIS >



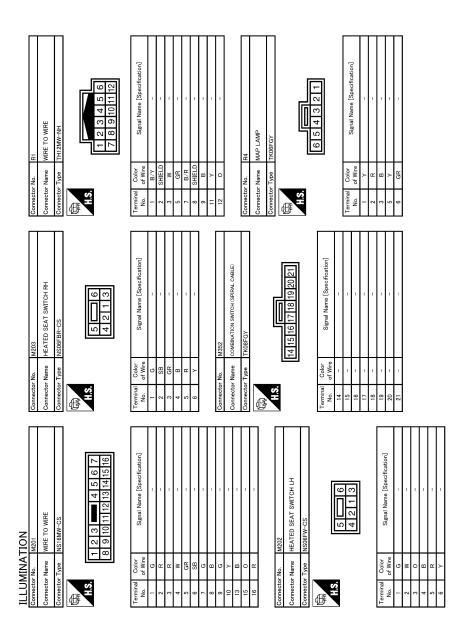
JCLWM5801GB

ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >



Р



JCLWM5803GB

ECU DIAGNOSIS INFORMATION 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
PRETONLOCK	"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:000000006751866

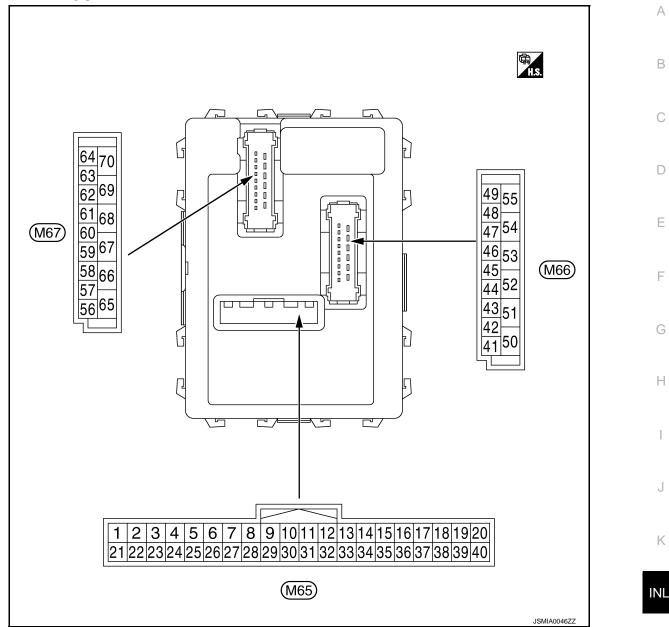
Monitor Item	Condition	Value/Status
BUCKLE SW	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) OFF]	Off
BUCKLE SW	The seat belt (driver side) is fastened. [Seat belt switch (driver side) ON]	On
	PANIC button of key fob is not pressed	Off
EYLESS PANIC	PANIC button of key fob is pressed	On
KEYLESS TRUNK	NOTE: The item is indicated, but not monitored.	Off
FRNK 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
	Lighting switch OFF	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
	Turn signal switch OFF	Off
FURN SIGNAL R	Turn signal switch RH	On
	Turn signal switch OFF	Off
FURN SIGNAL L	Turn signal switch LH	On
	Engine stopped	Off
ENGINE RUN	Engine running	On
	Parking brake switch is OFF	Off
PKB SW	Parking brake switch is ON	On
CARGO LAMP SW	NOTE: The item is indicated, but not monitored.	Off
	Bright outside of the vehicle	Close to 5 V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V
	Ignition switch OFF or ACC	Off
GN SW CAN	Ignition switch ON	On
	Front wiper switch OFF	Off
FR WIPER HI	Front wiper switch HI	On

Monitor Item	Condition	Value/Status			
	Front wiper switch OFF	Off	•		
FR WIPER LOW	Front wiper switch LO	On			
	Front wiper switch OFF	Off			
FR WIPER INT	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			
	NOTE:	Gii			
RR WIPER STP2	The item is indicated, but not monitored.	Off			
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off			
	Hazard switch OFF	Off			
HAZARD SW	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			
	 A/C conditioner OFF (A/C switch indicator OFF) (Automatic air conditioner) A/C switch OFF (Manual air conditioner) 	Off			
AIR COND SW	 A/C conditioner ON (A/C switch indicator ON) (Automatic air conditioner) A/C switch ON (Manual air conditioner) 	On			
I-KEY TRUNK	NOTE: The item is indicated, but not monitored.	Off			
I-KEY PW DWN	UNLOCK button of Intelligent Key is not pressed	Off			
I-KET PVV DVVN	UNLOCK button of Intelligent Key is pressed and held	On			
	PANIC button of Intelligent Key is not pressed	Off			
I-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			

Monitor Item	Condition	Value/Status			
HOOD SW	Close the hood NOTE: Vehicles of except for Mexico are OFF-fixed	Off			
	Open the hood	On			
OIL PRESS SW	Ignition switch OFF or ACC Engine 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	IR PRESS RR Ignition switch ON (Only when the signal from the transmitter is received)				
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire			
ID REGST FL1	ID of front LH tire transmitter is registered	Done			
ID REGST FLT	ID of front LH tire transmitter is not registered	Yet			
ID REGST FR1	ID of front RH tire transmitter is registered	Done			
ID REGGI FRI	ID of front RH tire transmitter is not registered	Yet			
ID REGST RR1	ID of rear RH tire transmitter is registered	Done			
	ID of rear RH tire transmitter is not registered	Yet			
ID REGST RL1	ID of rear LH tire transmitter is registered	Done			
	ID of rear LH tire transmitter is not registered	Yet			
WARNING LAMP	Tire pressure indicator OFF	Off			
	Tire pressure indicator ON	On			
BUZZER	Tire pressure warning alarm is not sounding	Off			
DULLER	Tire pressure warning alarm is sounding	On			

< ECU DIAGNOSIS INFORMATION >

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>.

	nal No.	Description	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

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
+ 2 (G)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Turn signal switch RH Lighting switch HI Lighting switch 1ST	0 V (V) 15 10 0 ++10ms 1.0 V (V) 15 0 ++10ms 0 0 0 0 0 0 0 0 0 0 0 0 0
		Ground Combination switch INPUT 4	switch Input	Input Combination switch (Wiper intermit- tent dial 4)	All switch OFF Turn signal switch LH Lighting switch PASS	V) (V) 15 10 0 V 15 10 0 V 15 10 0 V
3 (Y)	Ground				Lighting switch 2ND	5 0 • • • 10ms • • • 10ms
					Front fog lamp switch ON	(V) 15 10 5 0 • +10ms PKiB4955J
						0.8 V
				All switch OFF Lighting switch AUTO	0 V	
					Front wiper switch LO	(V) 15
4 (W) Gro		Combination switch		Combination switch	Front wiper switch MIST	
	Ground	ound INPUT 3 Input	(Wiper intermit- tent dial 4)	Front wiper switch INT	0 0 ++10ms РКIВ4959J 1.0 V	
						1.0 V

Terminal No. (Wire color)		Description				Value					
(Wire +	e color) 	Signal name	Input/ Output		Condition	(Approx.)					
					All switch OFF (Wiper intermittent dial 4)	0 V					
					Front washer switch (Wiper intermittent dial 4) Rear washer ON	(V) 15					
					(Wiper intermittent dial 4)						
5	Ground	Combination switch	Input	Combination	Any of the condition below with all switch OFFWiper intermittent dial 1Wiper intermittent dial 5	+ +10ms PKiB4959J					
(R)		INPUT 2		switch	Wiper intermittent dial 6	1.0 V					
										Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 ++10ms
						рків4955J 0.8 V					
					All switch OFF (Wiper intermittent dial 4)	0 V					
						Front wiper switch HI (Wiper intermittent dial 4) Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5				
					Wiper intermittent dial 3 (All switch OFF)	0 ++10ms ++10ms PKIB4959J 1.0 V					
						(11)					
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					
					Wiper intermittent dial 2	++10ms PKIB4952J 1.7 V					
						(V) 15					
			Any of the condition below with all switch OFFWiper intermittent dial 6Wiper intermittent dial 7	10 5 0 ++10ms							
						PKIB4955J 0.8 V					

	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) 10 5 0 + 10ms JPMIA0587GB 8.0 - 8.5 V					
					LOCK position	0 V					
9	Ground	Stop lamp switch	Input	Innut	Input	Input	Innut	Innut	Stop lamp	OFF (Brake pedal is not depressed)	0 V
(R)	Cround			switch	ON (Brake pedal is de- pressed)	Battery voltage					
10	Ground	Rear window defog-	Input	Rear window	Not pressed	Battery voltage					
(SB)		ger switch	•	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 Passenger door switch	OFF (When passenger door closed) ON (When passenger door opened)	Battery voltage					
13 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed) ON (When rear door RH opened)	(V) ₁₅ 10 5 0 ★ 10ms JPMIA0587GB 8.0 - 8.5 V 0 V					

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
14	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(G)	Ground	Optical school	mput	ON	When dark outside of the vehicle	Close to 0 V
17 (W)	Ground	Optical sensor pow- er supply	Output	Ignition switch	OFF, ACC	0 V
(11) 18 [*] (O)	Ground	Remote keyless en- try receiver ground	Input	Ignition switch O	ON N	5 V 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 Key system	 Ignition switch OFF For 3 seconds after ignition switch OFF to ON 	0 V
					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 ↓ • • 2ms JPMIA0589GB MOTE: The wave form changes accord- ing to signal-receiving condition.
20 [*] (GR)	Ground	Remote keyless en- try receiver signal	Input		 Ignition switch OFF For 3 seconds after ignition switch OFF to ON 	0 V
				With Intelligent Key system	3 seconds or later after ig- nition switch OFF to ON	(V) ₁₅ 10 5 10 5 10 10 10 10 10 10 10 10 10 10
21 (G)	Ground	NATS antenna amp.	Input/ Output	Just after insertin	g ignition key in key cylinder	Pointer of tester should move
					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

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output	Condition		(Approx.)
25 (BR)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder		Pointer of tester should move
				Ignition switch O	FF	
27 (Y)	Ground	A/C switch	Input	Ignition switch ON	A/C switch OFF	(V) ₁₅ 10 50 ••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 50 •••10ms JPMIA0592GB 7.0 - 7.5 V
					Blower fan switch ON	0 V
29	Ground	Hazard switch	Input	Hazard switch	OFF	Battery voltage
(W)					ON	0 V
30 (G)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed Pressed	Battery voltage
					All switch OFF (Wiper intermittent dial 4)	(V) 15 0 •••10ms PKIB4960J 7.2 V
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) Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 •••10ms PKIB4956J 1.0 V

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(vvire +	e color) _	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 + 10ms PKIB4960J 7.2 V	B C D
33 (GR)	Ground	Combination switch OUTPUT 4	Output	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)		
					Lighting switch AUTO (Wiper intermittent dial 4)		E
					Rear wiper switch INT (Wiper intermittent dial 4)	50	F
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	иникалыкана каланананананананананананананананананана	G
					All switch OFF (Wiper intermittent dial 4)	(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	H
34	Ground	Combination switch	Output	Combination	Lighting switch 2ND (Wiper intermittent dial 4)	7.2 V	
(L)		OUTPUT 3		switch	Lighting switch HI (Wiper intermittent dial 4)	(V) 15	Κ
					Rear washer switch ON (Wiper intermittent dial 4)		INL
				Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	PKIB4958J 1.2 V	Μ	

Ν

Р

Ο

	nal No.	Description				Value			
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)			
35	Combination switch		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	Output	(Wiper intermit-	Lighting switch 2ND				
				tent dial 4)	Lighting switch PASS	(V) 15			
					Front wiper switch INT				
					Front wiper switch HI	0 + 10ms + KIB4958J 1.2 V			
36	Ground	. Combination switch	Outout	Output Combination switch (Wiper intermittent dial 4) All switch OFF Turn signal switch RH Turn signal switch LH	All switch OFF	(V) 10 0 • • 10ms PKIB4960J 7.2 V			
(V)	Croana	OUTPUT 1	(wiper internit-		(Wiper Internit ² Jurn signal switch RH				
					(V) 15				
								Front wiper switch LO	
					(Front wiper switch MIST) Front washer switch ON	0 +10ms PKIB4958J 1.2 V			
37	Ground	Key switch	Input	der	al key into ignition key cylin-	Battery voltage			
(LG)				Remove mechar cylinder	ical key from ignition key	0 V			
38	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC Ignition switch ON or START		0 V			
(G)	Croand	-g.mon ownon or	mput			Battery voltage			
39 (L)	Ground	CAN-H	Input/ Output	—		_			
40 (P)	Ground	CAN-L	Input/ Output		_	_			

< ECU DIAGNOSIS INFORMATION >

Terminal No. Descripti (Wire color)		Description				Value	
(vvire +		Signal name	Input/ Output		Condition	(Approx.)	
43 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	(V) ₁₅ 10 5 0 + 10ms JPMIA0593GB 9.5 - 10.0 V	
					ON (When back door opened)	0 V	
4.4				lensitien erritek	Rear wiper stop position	0 V	
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Any position other than rear wiper stop position	Battery voltage	
45 (P)	Ground	Door lock and unlock switch LOCK signal	Input	Door lock and unlock switch	NEUTRAL position	(V) ₁₅ 10 5 0 ++10ms JPMIA0591GB 1.6 V	
					LOCK position	0 V	
46 (BR)	Ground	Door lock and unlock switch UNLOCK sig- nal	Input	Door lock and unlock switch	NEUTRAL position	(V) ₁₅ 10 5 0 ++10ms JPMIA0591GB 1.6 V	
					UNLOCK position	0 V	
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	

Ρ

nal No.	Description				Value	
color)	Signal name	Input/ Output		Condition	(Approx.)	
Ground	d 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	
	bund Luggage room lamp control	Output	Luggage room lamp switch DOOR position	Back door is closed (Luggage room lamp turns OFF)	Battery voltage	
Ground				Back door is opened (Luggage room lamp turns ON)	0 V	
Ground	Back door open	Output	Dutput Back door opener switch	Not pressed (Back door actuator is ac- tivated)	0 V	
				Pressed (Back door actuator is ac- tivated)	Battery voltage	
Ground	Poar wipor motor	Output	, Ignition switch	Rear wiper switch OFF	0 V	
Gibunu	Real wiper motor	Output	ON	Rear wiper switch ON	Battery voltage	
Ground	Interior room lamp	Output			0 V	
Croana	power supply	Guiput			Battery voltage	
Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage	
Ground	Driver door UN- LOCK	Output	ut Driver door	UNLOCK (Actuator is activated)	Battery voltage	
				Other then UNLOCK (Ac- tuator is not activated)	0 V	
				Turn signal switch OFF	0 V	
Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 5 0 15 15 15 15 15 15 15 15 15 15	
	color) Ground Ground Ground Ground Ground	color) Signal name Ground Rear door switch LH Ground Luggage room lamp Ground Back door open Ground Rear wiper motor Ground Interior room lamp Ground Driver door UN- Ground Driver door UN- Ground Driver door UN- LOCK Driver door UN-	Input/ Output-Signal nameInput/ OutputGroundRear door switch LHInputGroundLuggage room lamp controlOutputGroundBack door openOutputGroundRear wiper motorOutputGroundInterior room lamp power supplyOutputGroundDriver door UN- LOCKInput	color) Input/Output - Signal name Input/Output Ground Rear door switch LH Input Rear door switch LH Ground Luggage room lamp control Output Luggage room lamp switch DOOR position Ground Back door open Output Back door open switch DOOR position Ground Rear wiper motor Output Back door open switch ON Ground Rear wiper motor Output After passing the saver operation to Any other time af lamp battery save operation to Ply Ground Battery power sup-Ply Input Ignition switch ON Ground Driver door UN-LOCK Output Ignition switch ON Ground Driver door UN-LOCK Output Ignition switch ON	color) Signal name Input/ Output Condition Ground Rear door switch LH Input/ Input Rear door switch LH Input Rear door switch LH Input Input Input (When rear door LH closed) Input (Seed) Input (Seed)	

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value
(Wire +		Signal name	Input/ Output	Condition		(Approx.)
					Turn signal switch OFF	0 V
61 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 5 0 18 18 19 19 19 19 19 19 19 19 19 19
63		Interior room lamp	Interior room	OFF	Battery voltage	
(R)	Ground	timer control	Output	lamp	ON	0 V
65	Crownd	All doors LOCK	Output	Output All doors	LOCK (Actuator is activat- ed)	Battery voltage
(V)	Ground				Other then LOCK (Actua- tor is not activated)	0 V
66 (G)	Ground	Passenger door and rear door UNLOCK	Output	Passenger door and rear door	UNLOCK (Actuator is activated)	Battery voltage
					Other then UNLOCK (Ac- tuator is not activated)	0 V
67 (B)	Ground	Ground	Output	Ignition switch ON		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 OFF		Battery voltage

*: Except for Mexico with Intelligent Key

INL

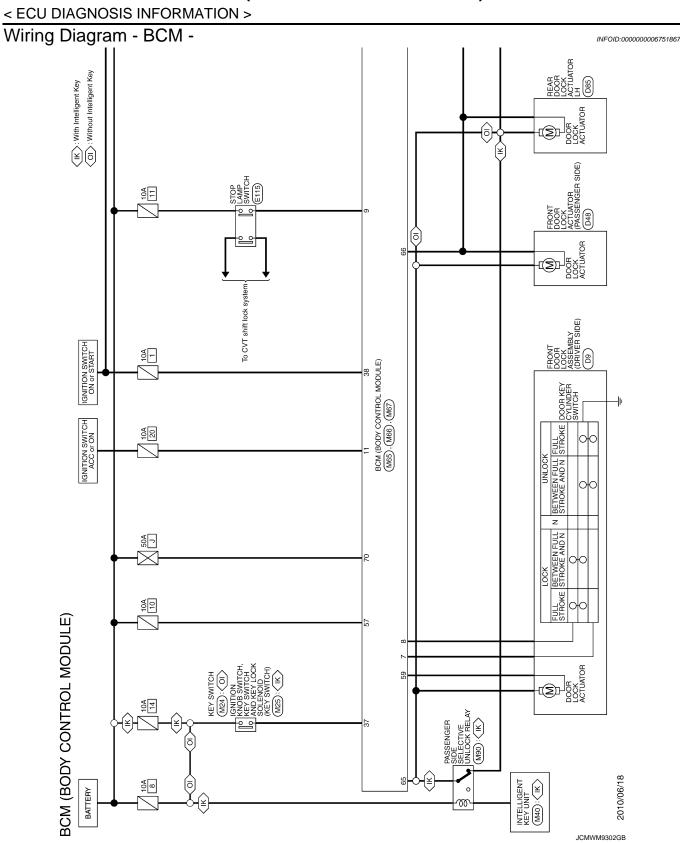
Μ

Ν

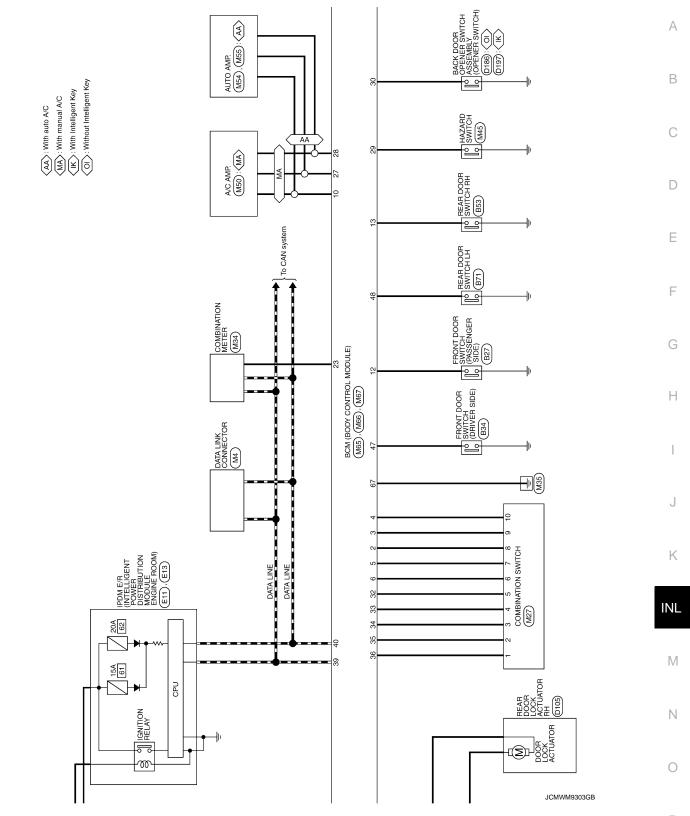
Ο

Ρ

Κ

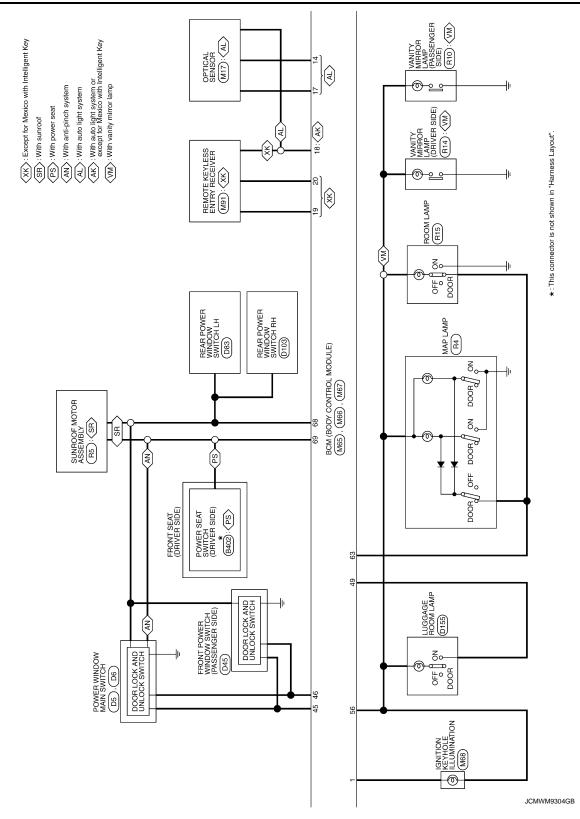


< ECU DIAGNOSIS INFORMATION >

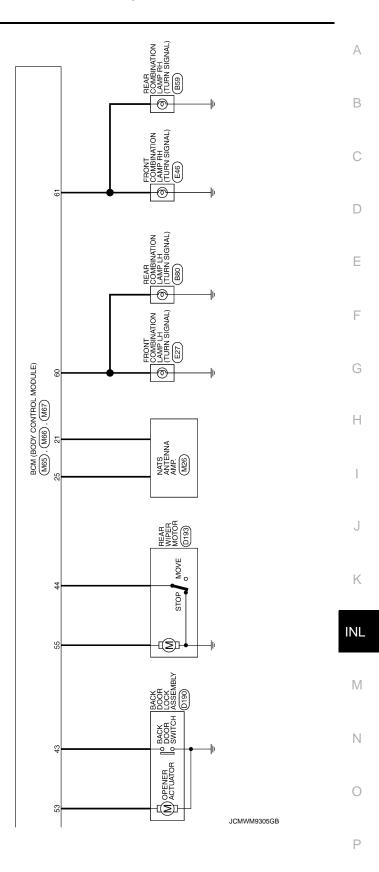


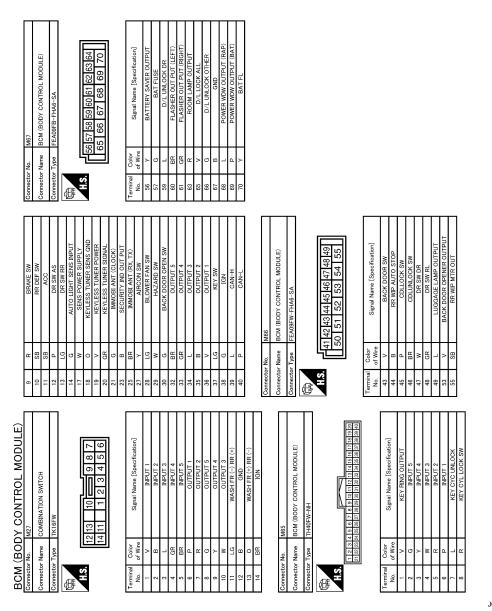
Ρ

< ECU DIAGNOSIS INFORMATION >



Revision: 2010 July





JCMWM9306GB

INFOID:000000006751868

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

Fail-safe

< ECU DIAGNOSIS INFORMATION >

- 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.

DTC Inspection Priority Chart

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	
3	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1716: [PRESS DATA ERR] FL C1717: [PRESS DATA ERR] FR C1718: [PRESS DATA ERR] RR C1719: [PRESS DATA ERR] RR C1719: [PRESS DATA ERR] RL C1729: VHCL SPEED SIG ERR 	

DTC Index

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	_	BCS-34	INL
C1704: LOW PRESSURE FL	×		
C1705: LOW PRESSURE FR	×		р. д.
C1706: LOW PRESSURE RR	×	<u>WT-13</u>	Μ
C1707: LOW PRESSURE RL	×		
C1708: [NO DATA] FL	×		N
C1709: [NO DATA] FR	×		
C1710: [NO DATA] RR	×	<u>WT-15</u>	_
C1711: [NO DATA] RL	×		0
C1716: [PRESS DATA ERR] FL	×		
C1717: [PRESS DATA ERR] FR	×		Р
C1718: [PRESS DATA ERR] RR	×	<u>WT-18</u>	
C1719: [PRESS DATA ERR] RL	×		
C1729: VHCL SPEED SIG ERR	×	<u>WT-20</u>	
C1735: IGN CIRCUIT OPEN	_	BCS-35	

А

В

Н

Κ

INFOID:00000006751870

INFOID:000000006751869

SYMPTOM DIAGNOSIS INTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000006204566

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. (It turns ON when turning the interior room 	Harness between BCM and each door switch	Each door switch circuit Refer to <u>DLK-301</u> .
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-301</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 igni- tion 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> .

< 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 AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision 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:

- 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.
 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 AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

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

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

WARNING:

• When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with

INL-65

J

А

В

D

Е

F

Н

Κ

INL

PRECAUTIONS

< PRECAUTION >

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:000000006204569 B

А

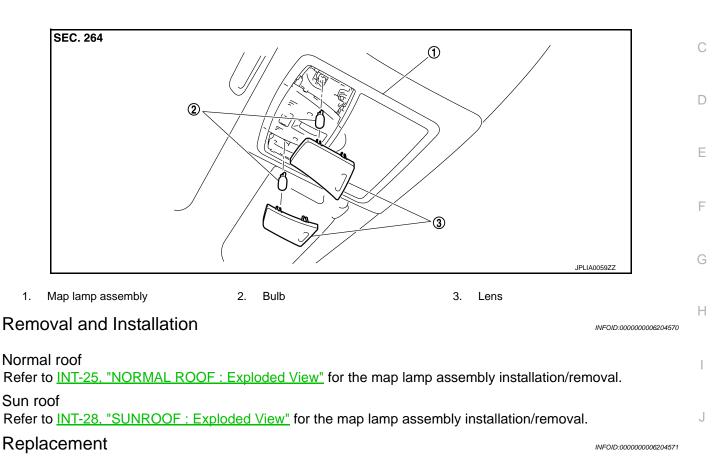
Κ

INL

Μ

Ν

Ρ



CAUTION:

Disconnect the battery negative terminal or the fuse.

MAP LAMP BULB

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

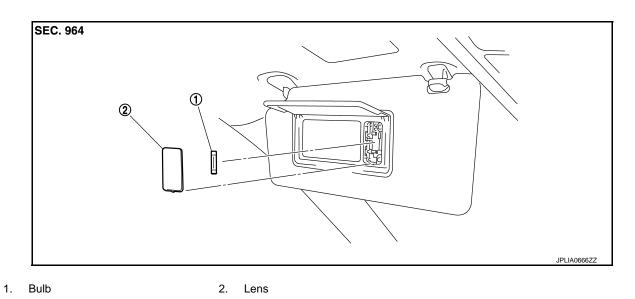
VANITY MIRROR LAMP

< REMOVAL AND INSTALLATION >

VANITY MIRROR LAMP

Exploded View

INFOID:000000006204572



Replacement

INFOID:000000006204573

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.

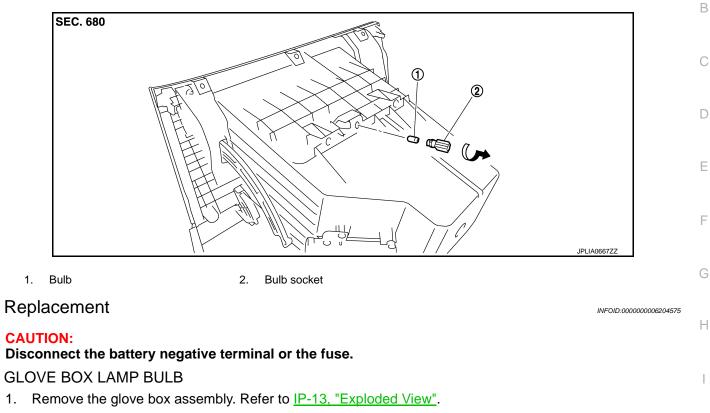
< REMOVAL AND INSTALLATION >

GLOVE BOX LAMP

Exploded View

INFOID:000000006204574

А



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

1.

INL

Μ

Ν

Ο

Ρ

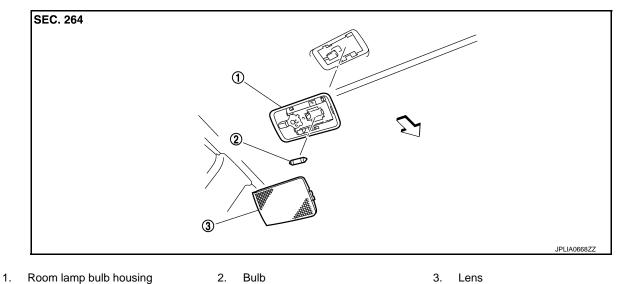
Κ

J

< REMOVAL AND INSTALLATION > ROOM LAMP

Exploded View

INFOID:000000006204576



<□ : Vehicle front

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:000000006204578

INFOID:000000006204577

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

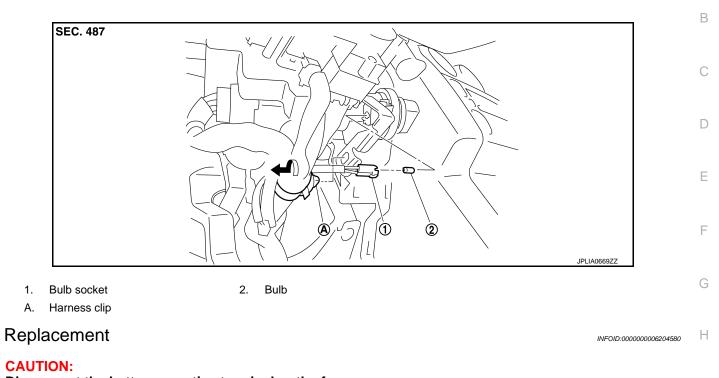
< REMOVAL AND INSTALLATION >

IGNITION KEYHOLE ILLUMINATION

Exploded View

INFOID:000000006204579

А



Disconnect the battery negative terminal or the fuse.

IGNITION KEYHOLE ILLUMINATION BULB

1. Remove steering column cover. Refer to IP-13, "Exploded View".

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

Μ

Ν

Ο

Ρ

Κ

J

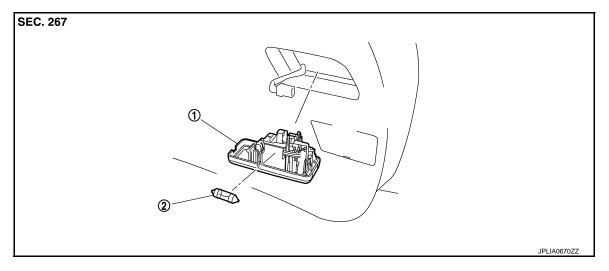
LUGGAGE ROOM LAMP

< REMOVAL AND INSTALLATION >

LUGGAGE ROOM LAMP

Exploded View

INFOID:000000006204581



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.

INFOID:000000006204583

INEOID-000000006204582

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

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

Bulb Specifications

INFOID:00000006204584

А

F

G

Н

J

Κ

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	

INL

Μ

Ν

Ο

Ρ

Revision: 2010 July