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# **CONTENTS**

BASIC INSPECTION3
DIAGNOSIS AND REPAIR WORK FLOW 3 Work Flow
SYSTEM DESCRIPTION4
REAR WINDOW DEFOGGER SYSTEM         4           System Diagram         4           System Description         4           Component Parts Location         4           Component Description         5
DIAGNOSIS SYSTEM (BCM)6
COMMON ITEM
REAR WINDOW DEFOGGER
DTC/CIRCUIT DIAGNOSIS9
REAR WINDOW DEFOGGER SWITCH
REAR WINDOW DEFOGGER RELAY10Description10Component Function Check10Diagnosis Procedure10Component Inspection11
REAR WINDOW DEFOGGER12Description12Component Function Check12Diagnosis Procedure12Component Inspection14
DOOR MIRROR DEFOGGER 15

Description	F
DRIVER SIDE DOOR MIRROR DEFOGGER17 Description	G H
PASSENGER SIDE DOOR MIRROR DEFOG-	
GER         19           Description         19           Component Function Check         19           Diagnosis Procedure         19	J
REAR WINDOW DEFOGGER SYSTEM21 Wiring Diagram - DEFOGGER CONTROL SYS- TEM21	K
ECU DIAGNOSIS INFORMATION30	
BCM (BODY CONTROL MODULE)       30         Reference Value       30         Wiring Diagram - BCM -       54         Fail-safe       60         DTC Inspection Priority Chart       62         DTC Index       63	<b>DEF</b>
SYMPTOM DIAGNOSIS66	Ν
REAR WINDOW DEFOGGER DOES NOT OPERATE66 Diagnosis Procedure66	0
REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGER DO NOT OPERATE67 Diagnosis Procedure67	Р
MIRROR DEFOGGER DO NOT OPERATE67	Р

DOOR MIRROR DEFOGGER DOES NOT OP-	Diagnosis Procedure	71
ERATE69	PRECAUTION	72
BOTH SIDES 69 BOTH SIDES : Diagnosis Procedure	PRECAUTIONS	
DRIVER SIDE	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN-SIONER"	72
PASSENGER SIDE	REMOVAL AND INSTALLATION	
ON IS NOT DISPLAYED WHEN PRESSING REAR WINDOW DEFOGGER SWITCH BUT	Inspection and Repair	
IT IS OPERATED70	CONDENSER	75
Diagnosis Procedure70	Exploded ViewRemoval and Installation	
REAR WINDOW DEFOGGER INDICATOR	Nomoval and installation	73
DOES NOT ILLUMINATE71		

### **DIAGNOSIS AND REPAIR WORK FLOW**

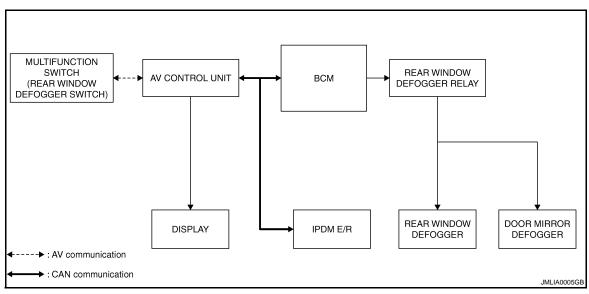
#### < BASIC INSPECTION >

### **BASIC INSPECTION** Α DIAGNOSIS AND REPAIR WORK FLOW Work Flow INFOID:0000000005621100 **DETAILED FLOW** 1. OBTAIN INFORMATION ABOUT SYMPTOM Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred) as much as possible when the customer brings the vehicle in. D >> GO TO 2. 2. CHECK DTC Е Perform self diagnosis with CONSULT-III Is any DTC detected? F YES >> Refer to BCS-75, "DTC Index" NO >> GO TO 3. $3.\mathsf{REPRODUCE}$ THE MALFUNCTION INFORMATION Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur. Н >> GO TO 4. f 4. IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS" Use "Symptom diagnosis" from the symptom inspection result in step 3. Then identify where to start performing the diagnosis based on possible causes and symptoms. >> GO TO 5. ${f 5}.$ IDENTIFY MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS" Perform the diagnosis with "Component diagnosis" of the applicable system. >> GO TO 6. DEF 6.REPAIR OR REPLACE THE MALFUNCTIONING PARTS Repair or replace the specified malfunctioning parts. M >> GO TO 7. 7. FINAL CHECK Ν Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 3. Are all malfunctions corrected? YES >> INSPECTION END NO >> GO TO 4. Р

# SYSTEM DESCRIPTION

### REAR WINDOW DEFOGGER SYSTEM

System Diagram



## System Description

INFOID:0000000005621102

#### Operation Description

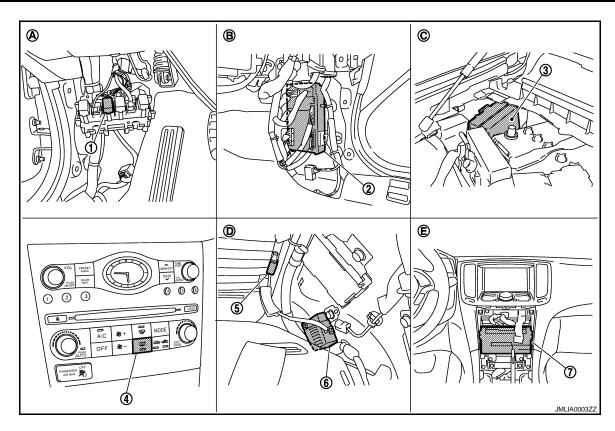
- Turn rear window defogger switch ON when the ignition switch is turned ON. Then multifunction switch (rear window defogger switch) transmits rear window defogger switch signal to AV control unit via AV communication. AV control unit transmits rear window defogger switch signal to BCM via CAN communication.
- BCM turns rear window defogger relay ON and transmit rear window defogger ON signal to IPDM E/R via CAN communication when rear window defogger switch signal is received.
- Rear window defogger and door mirror defogger (with mirror defogger) are supplied with power and operate when rear window defogger relay turns ON.
- AV control unit transmit rear window defogger control signal to multifunction switch (rear window defogger switch) via AV communication.
- IPDM E/R transmits rear window defogger control signal to AV control unit via CAN communication.

#### Timer function

- BCM turns rear window defogger relay ON for approximately 15 minutes when rear window defogger switch is turned ON. It makes rear window defogger and door mirror defogger (with mirror defogger) operate.
- Timer is canceled after pressing rear window defogger switch again during timer operation. Then BCM turns rear window defogger relay OFF. The same reaction also occurs during timer operation, if the ignition switch is turned OFF.

# Component Parts Location

INFOID:0000000005621103



- 1. Rear window defogger relay
- 4. Rear window defogger switch (built-in 5. multifunction switch)
- 7. AV control unit
- A. Dash side lower (driver side)
- D. Behind rear pillar finisher (LH)
- 2. BCM
- 5. Rear window defogger connector
- 3. IPDM E/R
- 6. Condenser
- B. Dash side lower (passenger side)
- E. Behind cluster lid C

C. Engine room dash panel (RH)

# Component Description

INFOID:0000000005621104

BCM	Operates the rear window defogger with the operation of rear window defogger switch     Performs the timer control of rear window defogger
Rear window defogger relay	Operates the rear window defogger and the door mirror defogger with the control signal from BCM
IPDM E/R	Transmit rear window defogger ON signal to AV control unit via CAN communication
Multifunction switch (Rear window defogger switch)	The rear window defogger switch is installed Turns the indicator lamp ON when detecting the operation of rear window defogger
AV control unit	Displays the rear window defogger ON to the display when detecting the operation of rear window defogger
Rear window defogger	Heats the heating wire with the power supply from the rear window defogger relay to prevent the rear window from fogging up
Door mirror defogger*	Heats the heating wire with the power supply from the rear window defogger relay to prevent the door mirror from fogging up

<sup>\*:</sup> With mirror defogger

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Revision: 2009 November DEF-5 2010 G37 Sedan

### **DIAGNOSIS SYSTEM (BCM)**

### < SYSTEM DESCRIPTION >

## **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

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

INFOID:0000000005621105

#### APPLICATION ITEM

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

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	This function is not used even though it is displayed.

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

x: Applicable item

System	Sub system selection item	Diagnosis mode		
System	Sub system selection item	Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
_	AIR CONDITONER*			
Intelligent Key system     Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

#### NOTE

### FREEZE FRAME DATA (FFD)

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

<sup>\*:</sup> This item is displayed, but is not used.

## **DIAGNOSIS SYSTEM (BCM)**

### < SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")	
	SLEEP>OFF			While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)	
	ACC>OFF	Power position status of the moment a particular DTC is detected	While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"	
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"	
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)	
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	<ul><li>The number is 0 wher</li><li>The number increases whenever ignition swit</li></ul>	at ignition switch is turned ON after DTC is detected a malfunction is detected now. It is like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition to the OFF $\rightarrow$ ON. If $39$ until the self-diagnosis results are erased if it is over 39.	

### REAR WINDOW DEFOGGER

# REAR WINDOW DEFOGGER: CONSULT-III Function (BCM - REAR DEFOGGER)

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### Data monitor

Monitor Item	Description		
REAR DEF SW	This is displayed even when it is not equipped.		
PUSH SW	Indicates [ON/OFF] condition of push switch.		

### **ACTIVE TEST**

# **DIAGNOSIS SYSTEM (BCM)**

### < SYSTEM DESCRIPTION >

Test Item	Description
REAR DEFOGGER	This test is able to check rear window defogger operation. Rear window defogger operates when "ON" on CONSULT-III screen is touched.

### REAR WINDOW DEFOGGER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### REAR WINDOW DEFOGGER SWITCH

Description INFOID:000000005621108

- The rear window defogger is operated by turning the rear window defogger switch ON.
- The indicator lamp in the rear window defogger illuminates when the rear window defogger is operating.

### Component Function Check

## 1. CHECK REAR WINDOW DEFOGGER SWITCH FUNCTION

Check that the indicator lamp of rear window defogger illuminates when rear window defogger switch ON. <u>Is the inspection result normal?</u>

YES >> Rear window defogger switch function is OK.

NO >> Refer to <u>DEF-9</u>, "<u>Diagnosis Procedure</u>"

### Diagnosis Procedure

# 1. CHECK MULTIFUNCTION SWITCH (REAR WINDOW DEFOGGER SWITCH)

Does multifunction switch operate normally?

- Base audio without rear view camera. Refer to <u>AV-20, "Diagnosis Description"</u>
- Base audio with rear view camera. Refer to AV-112, "On Board Diagnosis Function"
- BOSE audio without navigation. Refer to <u>AV-230, "On Board Diagnosis Function"</u>
- BOSE audio with navigation. Refer to AV-364, "On Board Diagnosis Function"

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace multifunction switch (rear window defogger switch). Refer to <u>AV-98, "Removal and Installation"</u>

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Revision: 2009 November

### **REAR WINDOW DEFOGGER RELAY**

#### < DTC/CIRCUIT DIAGNOSIS >

### REAR WINDOW DEFOGGER RELAY

Description INFOID:00000000056211111

Power is supplied to the rear window defogger with BCM control.

### Component Function Check

#### INFOID:0000000005621112

# 1. CHECK REAR WINDOW DEFOGGER RELAY POWER SUPPLY CIRCUIT

- Perform Active Test ("REAR DEFOGGER") with CONSULT-III.
- Touch "ON".
- 3. Check that the rear window heating wire is getting warmer.

#### Is the inspection result normal?

YES >> Rear window defogger relay power supply circuit is OK.

NO >> Refer to <u>DEF-10</u>, "<u>Diagnosis Procedure</u>"

### Diagnosis Procedure

#### INFOID:0000000005621113

### 1. CHECK FUSE

- 1. Turn ignition switch off.
- 2. Check the following.
- 10A fuse [No.3, located in fuse block (J/B)]

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

## 2.check rear window defogger circuit 1 $\,$

- 1. Turn ignition switch ON.
- Check voltage between BCM harness connector and ground.

	(+) BCM		Condition		Voltage (V) (Approx.)	
Connector	Terminal				( 11 )	
M123	151	Ground	Rear window defogger	ON	0	
IVI 123			switch	OFF	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 3.

# 3.check rear window defogger circuit $\scriptscriptstyle 2$

- Turn ignition switch OFF.
- 2. Disconnect BCM connector and rear window defogger relay.
- Check continuity between BCM harness connector and fuse block (J/B) harness connector.

ВСМ		Fuse block (J/B)		Continuity
Connector	Terminal	Connector Terminal		Continuity
M123	151	M2	4B	Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay.

Refer to DEF-11, "Component Inspection"

Is the inspection result normal?

### **REAR WINDOW DEFOGGER RELAY**

#### < DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 5.

NO >> Replace rear window defogger relay.

# 5. CHECK FUSE BLOCK (J/B)

- 1. Install the rear window defogger relay.
- 2. Turn ignition switch ON.
- 3. Check voltage between fuse block (J/B) (fuse block side) and ground.

(+) Fuse block (J/B)		(-)	Voltage (V) (Approx.)
Connector	Terminal		(11 - 7
M2	4B	Ground	Battery voltage

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace fuse block (J/B).

### 6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident"

#### >> INSPECTION END

## Component Inspection

1. CHECK REAR WINDOW DEFOGGER RELAY

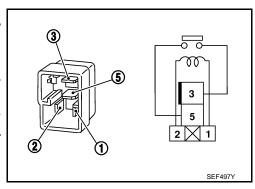
- 1. Turn ignition switch OFF.
- 2. Disconnect rear window defogger relay.
- Check rear window defogger relay.

Teri	minal			
Rear window defogger relay		Condition	Continuity	
3	5	12 V direct current supply between terminals 1 and 2.	Existed	
		No current supply	Not existed	

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace rear window defogger relay.



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### **REAR WINDOW DEFOGGER**

#### < DTC/CIRCUIT DIAGNOSIS >

### REAR WINDOW DEFOGGER

Description INFOID:0000000005621115

Heats the heating wire with the power supply from the rear window defogger relay to prevent the rear window from fogging up.

### Component Function Check

INFOID:0000000005621116

## 1. CHECK REAR WINDOW DEFOGGER

- Perform Active Test ("REAR DEFOGGER") with CONSULT-III.
- Touch "ON".
- Check that the rear window heating wire is getting warmer.

#### Is the inspection result normal?

YES >> Rear window defogger is OK.

NO >> Refer to DEF-12, "Diagnosis Procedure"

### Diagnosis Procedure

INFOID:0000000005621117

### 1.CHECK FUSE

- Turn ignition switch OFF.
- Check the following.
- 20A fuse [No.14, located in fuse block (J/B)]
- 20A fuse [No.15, located in fuse block (J/B)]

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 2.CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch ON.
- Check voltage between rear window defogger connector and ground.

(+) Rear window defogger		(–)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(	
B401	1	Ground Rear window defogge		ON	Battery voltage	
D401 1	1	Ground	switch	OFF	0	

#### Is the inspection result normal?

YES >> GO TO 3. NO

>> GO TO 4.

# 3.CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect rear window defogger connector.
- Check continuity between rear window defogger harness connector and ground.

Rear windo	ow defogger		Continuity	
Connector	Connector Terminal		Continuity	
B402	2		Existed	

#### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

f 4.CHECK REAR WINDOW DEFOGGER CIRCUIT 1

#### REAR WINDOW DEFOGGER

### < DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect condenser connector and rear window defogger connector.
- Check continuity between condenser (condenser side) and rear window defogger harness connector.

Cond	Condenser		Rear window defogger		
Connector	Terminal	Connector Terminal		Continuity	
B26	1	B401	1	Existed	

4. Check continuity between condenser (condenser side) connector and ground.

Cond	lenser		Continuity	
Connector Terminal		Ground	Continuity	
B26	1		Not existed	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace condenser. Refer to <a href="DEF-75">DEF-75</a>, "Removal and Installation"

### ${f 5.}$ CHECK REAR WINDOW DEFOGGER CIRCUIT 2

- Disconnect fuse block (J/B) connector.
- 2. Check continuity between fuse block (J/B) harness connector and condenser harness connector.

Fuse block (J/B)		Cond	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
B6	10G	B26	1	Existed
ь	11G	D20	ı	LXISIEU

3. Check continuity between fuse block (J/B) harness connector and ground.

Fuse bl	ock (J/B)		Continuity
Connector	Terminal	Cround	Continuity
В6	10G	Ground	Not eviated
DO	11G		Not existed

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

## 6. CHECK FUSE BLOCK (J/B)

- 1. Turn ignition switch ON.
- 2. Check voltage between fuse block (J/B) (fuse block side) and ground.

(+) Fuse block (J/B)		(–) Condition		n	Voltage (V) (Approx.)
Connector Terminal					(* (* (* (* (* (* (* (* (* (* (* (* (* (
	10G		Rear window defogger  OFF	ON	Battery voltage
В6	100	Ground		OFF	0
ьо -	11G	Ground		Battery voltage	
	116			OFF	0

#### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace fuse block (J/B).

### 7. CHECK FILAMENT

Check filament.

Refer to DEF-14, "Component Inspection"

Revision: 2009 November DEF-13 2010 G37 Sedan

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### **REAR WINDOW DEFOGGER**

### < DTC/CIRCUIT DIAGNOSIS >

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair filament.

# 8.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident"

#### >> INSPECTION END

## Component Inspection

INFOID:0000000005621118

# 1. CHECK FILAMENT

Check the filament for damage or blown. Refer to DEF-73, "Inspection and Repair"

### Is the inspection result normal?

YES >> INSPECTION END NO >> Repair filament.

### DOOR MIRROR DEFOGGER

#### < DTC/CIRCUIT DIAGNOSIS >

### DOOR MIRROR DEFOGGER

Description INFOID:000000005621119

Power is supplied to the door mirror defogger with BCM control.

### Component Function Check

# 1. CHECK DOOR MIRROR DEFOGGER

- 1. Perform Active Test ("REAR DEFOGGER") with CONSULT-III.
- Touch "ON".
- 3. Check that both side door mirror glass is getting warmer.

#### Is the inspection result normal?

YES >> Door mirror defogger is OK.

NO >> Refer to DEF-15, "Diagnosis Procedure"

## Diagnosis Procedure

### 1. CHECK FUSE

Turn ignition switch OFF.

2. Check 10A fuse [No.13, located in fuse block (J/B)].

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

### 2. CHECK POWER SUPPLY CIRCUIT

- 1. Disconnect door mirror (driver side) connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between door mirror (driver side) harness connector and ground.

(+) Door mirror (driver side)		(–)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(11 - 7	
D3	4	Ground	Rear window defogger		Battery voltage	
D3	D3 4	switch	OFF	0		

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

# 3.check driver side door mirror defogger circuit

- Turn ignition switch OFF.
- Disconnect fuse block (J/B) connector.
- Check continuity between fuse block (J/B) harness connector and door mirror (driver side) harness connector.

Fuse block (J/B)		Door mirror	Continuity		
Connector	Terminal	Connector Terminal		Continuity	
M3	10C	D3	4	Existed	

Check continuity between fuse block (J/B) harness connector and ground.

Fuse bl	ock (J/B)		Continuity	
Connector Terminal		Ground	Continuity	
M3	10C		Not existed	

#### Is the inspection result normal?

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### **DOOR MIRROR DEFOGGER**

### < DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK FUSE BLOCK (J/B)

- 1. Turn ignition switch ON.
- 2. Check voltage between fuse block (J/B) (fuse block side) and ground.

(+) Fuse block (J/B)		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				(11 - 7
M3	10C	Ground	Rear window defogger	ON	Battery voltage
IVIS	100	Ground	switch	OFF	0

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace fuse block (J/B).

# 5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident".

>> INSPECTION END

### DRIVER SIDE DOOR MIRROR DEFOGGER

#### < DTC/CIRCUIT DIAGNOSIS >

### DRIVER SIDE DOOR MIRROR DEFOGGER

Description INFOID:0000000005621122

Heats the heating wire with the power supply from the rear window defogger relay to prevent the door mirror from fogging up.

### Component Function Check

#### INFOID:0000000005621123

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# 1. CHECK DRIVER SIDE DOOR MIRROR DEFOGGER

- 1. Perform Active Test ("REAR DEFOGGER") with CONSULT-III.
- 2. Touch "ON".
- 3. Check that the driver side door mirror glass is getting warmer.

#### Is the inspection result normal?

YES >> Driver side door mirror defogger is OK.

NO >> Refer to <u>DEF-17</u>, "<u>Diagnosis Procedure</u>"

### Diagnosis Procedure

#### INFOID:0000000005621124

## 1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror (driver side) connector.
- Turn ignition switch ON.
- 4. Check voltage between door mirror (driver side) harness connector and ground.

	+) (driver side)	(-)	Condition	١	Voltage (V) (Approx.)
Connector	Terminal				(11 /
D3	4	Ground	Rear window defogger	ON	Battery voltage
DЗ	4	Giouria	switch	OFF	0

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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# 2.CHECK DRIVER SIDE DOOR MIRROR DEFOGGER CIRCUIT

- 1. Turn ignition switch OFF.
- Check continuity between fuse block (J/B) harness connector and door mirror (driver side) harness connector.

Fuse bl	ock (J/B)	Door mirror	(driver side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M3	10C	D3	4	Existed

Check continuity between fuse block (J/B) harness connector and ground.

Fuse bl	ock (J/B)		Continuity
Connector	Terminal	Ground	Continuity
M3	10C		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 3. CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Check continuity between door mirror (driver side) harness connector and ground.

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Revision: 2009 November DEF-17 2010 G37 Sedan

### DRIVER SIDE DOOR MIRROR DEFOGGER

### < DTC/CIRCUIT DIAGNOSIS >

Door mirror	(driver side)		Continuity
Connector	Terminal	Ground	Continuity
D3	8		Existed

#### Is the inspection result normal?

YES >> Replace door mirror glass (driver side). Refer to MIR-19, "GLASS MIRROR: Disassembly and Assembly"

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident"

Is the inspection result normal?

>> INSPECTION END

#### PASSENGER SIDE DOOR MIRROR DEFOGGER

#### < DTC/CIRCUIT DIAGNOSIS >

### PASSENGER SIDE DOOR MIRROR DEFOGGER

Description INFOID:0000000005621125

Heats the heating wire with the power supply from the rear window defogger relay to prevent the door mirror from fogging up.

### Component Function Check

#### INFOID:0000000005621126

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# 1. CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER

- 1. Perform Active Test ("REAR DEFOGGER") with CONSULT-III.
- 2. Touch "ON".
- 3. Check that the passenger side door mirror glass is getting warmer.

#### Is the inspection result normal?

YES >> Passenger side door mirror defogger is OK.

NO >> Refer to <u>DEF-19</u>, "<u>Diagnosis Procedure</u>"

### Diagnosis Procedure

#### INFOID:0000000005621127

# 1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror (passenger side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror (passenger side) harness connector and ground.

Door mirror (p	+) assenger side)	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				( 44)
D33	4	Ground	Rear window defogger ON		Battery voltage
	4	Glound	switch	OFF	0

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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# 2.check passenger side door mirror defogger circuit

- 1. Turn ignition switch OFF.
- Check continuity between fuse block (J/B) harness connector and door mirror (passenger side) harness connector.

Fuse bl	ock (J/B)	Door mirror (p	assenger side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M3	9C	D33	4	Existed

Check continuity between fuse block (J/B) harness connector and ground.

Fuse bl	ock (J/B)		Continuity
Connector	Terminal	Ground	Continuity
M3	9C		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 3. CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Check continuity between door mirror (passenger side) harness connector and ground.

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Revision: 2009 November DEF-19 2010 G37 Sedan

### PASSENGER SIDE DOOR MIRROR DEFOGGER

### < DTC/CIRCUIT DIAGNOSIS >

Door mirror (p	assenger side)		Continuity
Connector	Terminal	Ground	Continuity
D33	8		Existed

### Is the inspection result normal?

>> Replace door mirror glass (passenger side). Refer to MIR-19, "GLASS MIRROR: Disassembly YES and Assembly"
>> Repair or replace harness.

NO

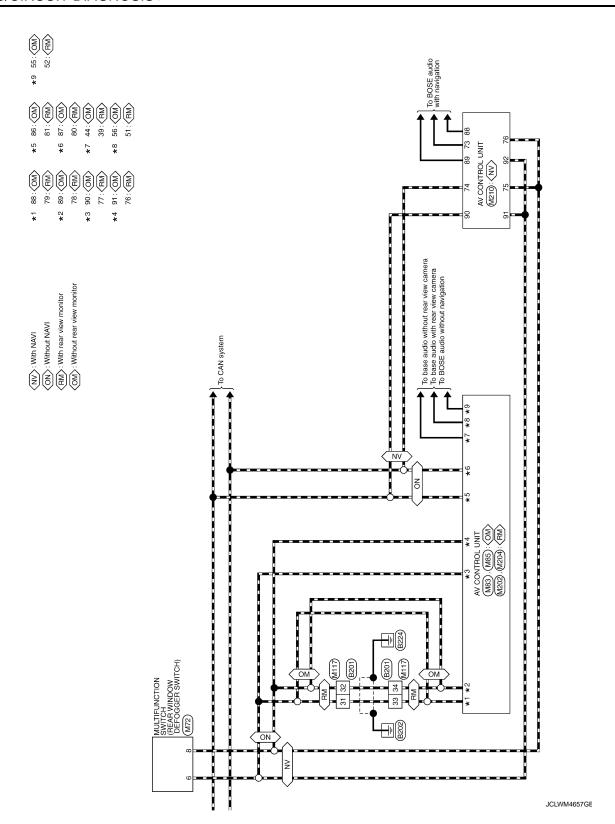
4. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to GI-38, "Intermittent Incident"

>> INSPECTION END

### REAR WINDOW DEFOGGER SYSTEM Α Wiring Diagram - DEFOGGER CONTROL SYSTEM -INFOID:0000000005621128 В ⟨MD⟩: With mirror defogger ⟨PA⟩: With automatic drive positioner or 4WAS ⟨AP⟩: Without automatic drive positioner and 4WAS C IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) D OPO Е \*: This connector is not shown in "Harness Layout". F DATA LINE G DATA LINK CONNECTOR (M24) (E100) (M6) 404 ĀĀ Н FUSE BLOCK (J/B) (MZ), (M3), (B6) BCM (BODY CONTROL MODULE) (M118) (M119) (M122) (M123) J DEFOGGER (B401), (B402) GNITION SWITCH ON or START 10A Κ CONDENSER (B26) ₽ 10 10 DEF 20A M DOOR MIRROR (RSSENGER SIDE) (DOOR MIRROR DEFOGGER) 20A M124 M124 D31 D31 Ν REAR WINDOW DEFORGER RELAY - M95 0 DEFOGGER 47 M5 MS O1 10A 2009/10/30 BATTERY Р



### < DTC/CIRCUIT DIAGNOSIS >

	А
8401 REAR WINDOW DEFOGGER POIFE-A Signal Name [Specification]	В
B401	С
No   No   No   No   No   No   No   No	D
ification]	Е
Signal Name (Specification) Signal Name (Specification) Signal Name (Specification)	F
NOTE	G
Connector No.   Connector Name   Conne	Н
OCK (J/B)  COK (J/B)  Signal Name [Specification]  Signal Name [Specification]	I
B8 NSIZEBR-CS Signal Nan Signal Nan	J
S   S   S   S   S   S   S   S   S   S	K
100   100	DEF
Signal Name (Specification)	M
0 D	N
Connector Nume   Elifornector Nume   Elifornector Nume   Elifornector Nume   Elifornector Type   Terminal   Color	0
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Revision: 2009 November DEF-23 2010 G37 Sedan

DEFOGGER	>		Connector No	Dat	Connector No 1733
	+		ON INCOME	Т	
Connector Name REAR WINDOW DEFOGGER	31 16		Connector Name	WIRE TO WIRE	Connector Name DOOR MIRROR (PASSENGER SIDE)
Connector Type P01FB-A	Н	1	Connector Type	TH40FW-CS15	Connector Type TH12MW-NH
	33 B	1 1	<b>€</b>		Œ
	┝	1			
e e	Н	-	151	14 13 12 11 10 9 8 7 6 5 4 3 2 1	
2	$\exists$	-	4645	46 45 44 43 42 41 40 39 39 37 36 26 25 24 29 22 21 20 19 18 17 16	7
	+	-	189	35343333	12 11 10 9 3 8
	43 GR	Î	)		
	+	1	-		- Н
Terminal Color Signal Name [Specification]	+	1	Terminal Color	Signal Name [Specification]	Terminal Color Signal Name [Specification]
or wire	# \$ \$	1	No. of Wil		or wire
	+	i I	+		7
	M G	i I	7 0		2 Pgc
Connector No. D1	+	1	+		<u> </u>
П			80	-	- B
Connector Name   WIRE   U WIRE			10 L	-	п п
Connector Type TH40FW-CS15	Connector No. D3		11 W	-	10 BR -
	Gonnector Name DOOB N	DOOR MIRROR (DRIVER SIDE)	$\dashv$	1	$\dashv$
唐	_	ì	+	1	12 V –
\$	Connector Type TH12MW-NH	HN	+	'	
	₫.		+	-	
4645444342414039383738 28625242327212019181716	4		28		
	ES		39 BK	1	Connector Name   PPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE   ENGINE ROOM)
	2	6 7 2 1 4	42 L		Connector Type TH08FW-NH
	10	٣	╁		1
No. of Wire Signal Name [Specification]	<u> </u>	0 0 0	H	1	E
l			47 R	_	
2 B	nal	Simal Name [Specification]	48 SB	-	
	No. of Wire			1	42 41 40 39
- · · · · ·	>	1	50 P	1	46 45 44 43
- T 8	5 BG	1	$\dashv$	1	
4	6 GR	1	52 GR	1	L
- LG -	$\dashv$	İ	$\dashv$	1	ā
	_	T.	54 G	1	of Wire
13 W -	$\dashv$	İ			39 P –
4	+	1			┨
$\dashv$	4	1			-
6 GR –	12 V	•			42 GR –
Н					43 G –
H					F
Н					Н
20 P -					
21 R –					
25 V –					
4					
4					
28 W –					

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Convector Name   Appendix   Convector Name   Appendix	DEF	DEFOGGER	R						
Signal Name   Signal Name	Connect	or No.	M5	51	ΓG	_	20	ш	_
Fig. 10	Connect		WIRE TO WIRE	52	>	-	51	~	1
Connector Name   Conn	1	- 1	THE PROPERTY OF THE PROPERTY O				52	≱ (	1
Control of the cont	Connect	or Iype	LH40MW-CS15		I		53	5	1
Connector Name   Conn	Q.			Connecto			54	В	1
Time   Signar Name   Specification   Signar Name   Signar Name   Specification   Signar Name   Signar	季			Connecto		RE TO WIRE	57	в 3	1
The state of the	HS	E	8 9 10 11 12 13 14	Connecto	Т	ISOMW-CS16-TM4	80 88	3 8	1 1
Color   Signal Name   Specification    Color	16171819	222323242526 363738394041142434444		1		8 18	8	1	
Manual Capacitication   Manu		272828	32 33 34 35  47 48 49 50 51 52 53	修			82	>	-
Color				HS.			88	м.	1
Color   Signati Name (Specification)   Color   Termine	┕					85 25	ے او	i ı	
Y   Y   Y	S					8 5 8 8 5 8	8 8	<u></u>	1
BC         Terminal         Color         Signal name (Specification)         68         G           S S         No.         of Wire         Signal name (Specification)         69         G           S S         No.         of Wire         Signal name (Specification)         92         B           V V         No.         S         R         No.         C         R           W W         No.	-	٨	-		<u></u>		87	5	1
BG         —         Torninal of Color         Signal Name (Specification]         819         R           V         V         V         V         V         V           0         V         V         V         V         V           V         V         V         CR         —         PG         V           V         V         —         96         V         C         PG         V           V         W         —         0         PG         V         PG         <	2	В	-		ī		88	5	1
No.         offwise         No.         offwise <th< td=""><td>က</td><td>BG</td><td>1</td><td>Terminal</td><td>Color</td><td>Signal Name [Specification]</td><td>88</td><td>ď</td><td>ı</td></th<>	က	BG	1	Terminal	Color	Signal Name [Specification]	88	ď	ı
SB         -         N         -         N         -         N	4	>	1	No.	of Wire	7	91	м	ı
C         C	80	SB	1	-	м	1	92	¥	ı
V         N	6	5	1	2	GR	1	93	BG	-
L         L         S         W         -         G         N         -         G         N         A         C         N         A         C         N         A         C         N	10	>	1	3	œ	1	94	٦	1
W         -         6         P         -         9         R           W         W         -         11         V         -         99         1.G           B         R         -         11         V         -         99         SHELD           B         R         -         12         P         -         99         SHELD           V         -         13         R         -         99         SHELD           B         -         14         W         -         100         SB         Inc           V         -         -         17         B         -         -         100         SB         -           I         I         W         -	12	٦	1	5	W	1	95	<b>&gt;</b>	1
B         I         L         —         10         ILG           BR         —         11         V         —         99         SHELD           BR         —         13         R         —         99         SHELD           V         —         13         L         —         99         SHELD           BC         —         14         M         —         99         SHELD           V         —         14         M         —         99         SHELD           V         —         16         L         —         99         SHELD           V         —         17         BR         —         —         99         SHELD           V         —         —         14         BR         —         —         100         SR         —         100         SR         —         100         SR         I         I         —         —         99         SHELD         —         —         99         SHELD         —         —         90         SHELD         —         —         100         SHELD         —         —         100         SHELD         — <t< td=""><td>13</td><td>W</td><td>1</td><td>9</td><td>Д</td><td>-</td><td>96</td><td>ш</td><td>_</td></t<>	13	W	1	9	Д	-	96	ш	_
W         -         11         V         -         98         SHELD           BR         -         12         P         -         99         V           V         -         12         R         -         100         SB           BC         -         15         L         -         100         SB           W         -         17         BR         -         -         -         100         SB           L         C         -         18         L         - <td>14</td> <td>В</td> <td>1</td> <td>7</td> <td>٦</td> <td>1</td> <td>97</td> <td>PT</td> <td>1</td>	14	В	1	7	٦	1	97	PT	1
RR         -         112         P         -         99         V           V         V         -         114         W         -         190         V           V         -         -         114         W         -         -         190         V           P         -         <	15	М	1	=	>	1	98	SHIELD	1
V C         -         13         R         -         100           BG         - </td <td>16</td> <td>œ</td> <td>1</td> <td>12</td> <td>Ь</td> <td>1</td> <td>66</td> <td>&gt;</td> <td>1</td>	16	œ	1	12	Ь	1	66	>	1
FG   FG   FG   FG   FG   FG   FG   FG	17	BR	1	13	œ	1	100	SB	Table 1
BG	18	>	1	14	Μ	1			
P         -         GR           Y         -         17         BR           Y         -         -         19         L           C         -         -         13         L           Y         -         -         31         L           C         -         -         32         Y           C         -         -         33         BC           B         -         -         40         V           W         -         -         40         V           W         -         -         41         LG           C         -         -         42         G           L         -         -         -         44         G           L         -         -         -         -         -         -           G         -	19	BG	1	15	٦	1			
W         -         17         BR           C         -         -         19         L           L         -         -         29         C           S         -         -         32         Y           C         -         32         F         F           S         -         32         BC         F           W         -         35         B         F           W         -         41         L         C           B         -         41         L         C           Y         -         42         R         C           L         -         L         44         G         C           L         -         -         44         G         C           L         -         -         44         G         B           C         -         -         W         C         B         C           L         -         -         -         44         G         B         C         B         C         B         C         B         C         C         C         C         C	70	۵	1	16	GR	1			
Υ         -         18         L           C         -         29         G           Y         -         31         L           Y         -         32         Y           G         -         33         BG           LG         -         38         BR           W         -         40         V           V         -         40         V           V         -         42         R           B         -         44         G           L         -         Whout automatic drive positioner]         45         R           L         -         Whout automatic drive positioner]         46         B           GR         -         -         47         SB           SB         -         43         Y           P         -         -         B         C           CR         -         -         43         Y	21	Μ	1	17	BR	1			
C	22	≻	1	18	٦	1			
L	56	ŋ	1	29	g	1			
G         C         −         32         Y           SB         −         34         W           LG         −         34         W           B         −         36         BR           W         −         36         P           QR         −         40         V           Y         −         42         G           L         −         14         L           L         −         14         G	27	٦	1	31	٦	1			
SB   SB   SB	28	Υ	-	32	<b>&gt;</b>	ı			
LG	29	ŋ	-	33	BG	ı			
LG	30	SB	-	34	W				
W	31	ยา	-	35	BR	1			
B	32	W	-	36	Д	-			
W	33	В	-	37	۵	1			
Y	36	М	-	38	g	-			
Y   C   C     B   C   C     Y   C   C     Y   C   C     Y   C   C     Y   C   C     G   C   C     L   C   With automatic drive positioner]   45   B     L   C   C   C     L   C   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C     G   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C     G   C   C	37	GR	-	40	>	1			
B	38	λ	-	41	PΓC	1			
Y	39	В	1	45	œ	1			
L - [With automatic drive positioner]	45	>	1	43	ŋ	ı			
C   -[Without automatic drive positioner]   45   B	43	-	-	44	5				
L - [Without automatic drive positioner]   45 R   R     L   46 BG   BG     GR   -   47 SB     SB   -   48 Y     P   -   49 L	44	g	- [With automatic drive positioner]	45	В	- [With A/T]			
L - 46 BG SG	44	٦	- [Without automatic drive positioner]	45	ď	- [With M/T]			
GR         -         47         SB           SB         -         49         Y           P         -         49         Y	47	7	1	46	BG	1			
SB - 48 Y	48	GR		47	SB	1			
– 49 L	49	SB	-	48	٨	1			
	20	۵	1	49	٦	1			

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### < DTC/CIRCUIT DIAGNOSIS >

Cold   Cold	Α
SIGNAL CAND SIGNAL LOC COMP SYNC COMP SYNC SHIELD SHIELD SHIELD SHIELD SHIELD SHIELD SHIELD SHIELD SHIELD SHIELD SHIELD SHIELD COMM (CONT DISP) VP NPERTER GND INVERTER YCC INVERTER CONT AN COMM (H) AN COMM (	В
N C C C C C C C C C C C C C C C C C C C	С
109   109	D
14 16 13 15 13 15 13 15 15 15 15 15 15 15 15 15 15 15 15 15	Е
Signal Name [S Signal	F
16   R   R	G
16   16   17   16   17   17   17   17	Н
If 12 13 14 15 16 7 8 P P P P P P P P P P P P P P P P P P	I
M24 DATA LINK CONNECTOR BD16FW-P  Signal Name [Sp	J
	K
5.6   6.6	
NW-CSIG-TM  We CSIG-TM  Signal Name [Specification]  Signal Name [Specification]	M
	Ν
Connector Name   W   W   Color   W   W   Color   W   W   Color   W   W   Color   W   W   W   W   W   W   W   W   W	0
	Р

### < DTC/CIRCUIT DIAGNOSIS >

111 Y S/L UNIT COMM	-	Connector No. M123	Connector Name BCM (BODY CONTROL MODULE)	Connector Type TH40FG-NH	修	HS.	131 (320 122) 123 122 123 123 123 123 123 123 123 123	- 1	Terminal Color Signal Name [Specification] No. of Wire	t	113 BG OPTICAL SENSOR	R CLI	116 SB STOP LAMP SW 1	SB	SB	>	œ	139 V BOWED WINDOW SW COMM	- PUSH-	ΓC	137 BG RECEIVER / SENSOR GND	\ \ -	m	141 W SECURITY INDICATOR LAMP	BR	143 P	144 G	145 L COMBI SW OUTPUT 3	W	GR	.] 151 G REAR WING				<u> </u>			
ROOM LAMP TIMER CONTROL		M122	BCM (BODY CONTROL MODULE)	TH40FB-NH			39 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 72 09 108 107 108 105 104 103 102 101 100 89 88 87 85 85 85 84 83 82		Signal Name [Specification]	ROOM ANT 2-	ROOM ANT 2+		PASSENGER DOOR ANT+					ION DELAY (E/B) CONT	KEYLE		COMBI SW INPUT 3		CAN-H	KE			A/T SHIFT	S/L CONDITION 1	SHIFT P [With A/T]	ICC CLU	ASCD CLUTCH SW [With M/T without ICC	PASSENGER DOOR REQUEST SW	DRIVER DOOR REQUEST SW	BLOWER FAN MOTOR RELAY CONT	ΚĒ	1/S	COMBI SW INPUT 1	COMBI SW INPUT 4
V 91		Connector No.	Connector Name	Connector Type	Œ	HS.	11111101		Terminal Color No. of Wire	72 R	73 G	Н	75 BR	277	$\vdash$	Н	+	W 82	+	Н	88 88	+	╀	92 LG	Н	$\dashv$	96 GR	97 1	╀	F	99 BR	100 Y	101 P	102 BG	H	106 SB	107 LG	108 R
				Γ	T	Τ	l						Т	Te	<u>a</u>	l	Γ	T		П							Γ		  -	Ī,	Γ		5	П	Γ		Q	٦
5	H	Н	7	ctor No Milis		ctor Type M03FB-LC		7		]		_	of Wire	POWFR WINDO	BG POWER WINDOW POWER SUPPLY (RAP)			Т	ctor Name BCM (BODY CONTROL MODULE)	ctor Type NS16FW-CS			45671718910	10 10 11 15 15 17 10	01 /1 01 01 +1 01		Ŀ	nal Color Signal Name [Specification]	57	P PASSENGER DOOR UNLOCK OUTPUT	SB STEP LAMP OUTPUT	V ALL DOOR, FUEL LID LOCK OUTPUT	G DRIVER DOOR, FUEL LID UNLOCK OUTPU	P REAR DO	œ	B GND	W PUSH-BUTTON IGNITION SWILL GND	BG ACC IND
5 96	H	Н	100 L	Connector No M118	Je.	Connector Type M03FB-LC		1 3		]		nal Color		+	BG			Т	Connector Name BCM (BODY CONTROL MODULE)	Connector Type NS16FW-CS	Œ	AHT	5 6 7 1 8 9	12 12 14 15 16 17 18	01 /1 01 01 +1 01		Ŀ		57	H	H	8 V ALL DOOR, FUEL LID LOCK OUTPUT	H				Н	

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Manage									
Signal Name [Specification]   Signal Name [Specification]   Colorector Name   Connector N	Connecto	ır No.	M124	Connect	or No.	M202	79	SB	AV COMM (H)
TH40MW-CS15   TH40MW-CS15	Connecto	r Name	WIRE TO WIRE	Connect	ar Name	AV CONTROL LINIT	80	а	CAN-L
A	COLLIGOR	Malic	אוויב וס אוויב		o Maille		81	٦	CAN-H
A	Connecto	r Type	TH40MW-CS15	Connect	or Type	TH24FW-NH	82	BR	
A	9			d			98	SHIELC	
To 2   2   2   2   2   3   4   2   4   4   5   4   4   5   4   4   5   4   4	事			手			87	ا ر	TEL VOICE SIGNAL (+)
Signal Name [Specification]   Sign	H.S.	1 2		HS	Ŀ	7	8 8	1 0	VEHICLE SPEED (8-DILLSE)
Color   Signal Name (Specification)   No. of Wire   Signal Name (Specification)   Off Wire   Off Wire   Signal Name (Specification)   Off Wire	16171815	120/21/22/23/24/25/26 36/37/38/39/40/41/42/43/44/45/46		36 37	38 39 40 41 42 43 44 45 46 47	93	SB	PARKING BRAKE	
Color   Signal Name [Specification]   No.   Of Wise   Signal Name [Specification]   No.   Of Wise   Signal Name [Specification]   No.   Of Wise   Signal Name [Specification]   Of Wise	272825	330331323333435 [47148[49]50[51]52[53]54[55]		48 4	50 51 52 53 54 55 56 57 58 59	94	BG	REVERSE	
Color							98	ت >	IGNITION DISK EJECT SIGNAL
W   Commetter Name   Signal London   Signal	Terminal No.	Color of Wire	Signal Name [Specification]	Termina No.	_				
CR	-	М	1	36	BG		Connecto	or No.	M210
B	2	GR	1	37	ΓC	SIGNAL GND	Connect	Nama	TINITIONED
P	3	В	ľ	38	۳	HP			
F	7	>	t	39	_	COMM (DISP->CONT)	Connect	or Type	TH32FW-NH
Registry   Registry	8	۵	1	40	<u>_</u>	RGB AREA (YS) SIGNAL	q	_	
Connector Name   Colome   Co	ا =	æ l	1	4	SHELD	SHIELD	手		
Connector No.   Connector No		× C	1	45	≥ 0	RGB SYNC	SH.		
Connector No.   Connector	12	ם	1	43	- او	RGB (R:RED) SIGNAL		61	67 68 69 70 71 72 73
R	20	r		# 4	ء ر	RGB (G:GREEN) SIGNAL			980 81 82 83 84 85 86 87 88 89 90 91 92
Connector No.   Connector No	32	٥		7 8	۰ >	COMPOSITE IMAGE GND			
Lange	38	S. S.	1	74	- 8	COMPOSITE IMAGE SIGNAL			
BG	39	_	ī	48	>	INVERTER VCC	Terminal	┕	
BG	42	BG	1	49	BR	INVERTER GND	No.		
Name	43	BG	1	20	5	ΛÞ	65	SB	PARKING BRAKE
SB	44	W	1	51	D7	COMM (CONT->DISP)	67	Ь	COMPOSITE IMAGE GND
LG	45	SB	-	52	В	SHIELD	89	٦	COMPOSITE IMAGE SIGNAL
P   P   P   P   P   P   P   P   P   P	47	PΠ	1	57	SHIELD		7.1	SHIELD	
Y   7   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.0   1.	48	a.		58	SHIELD		72	g	MICROPHONE VCC
BR	49	Υ	-				73	PΠ	COMM (CONT->DISP)
SB	50	BR					74	Д	CAN-L
L	51	SB	-	Connect	or No.	M204	75	ΓG	AV COMM (L)
1   1   1   1   1   1   1   1   1   1	52	٦	1	Tourse	ameN ac	AV CONTROL LINIT	76	ΓC	AV COMM (L)
Y   Connector Type   TH32FW-NH   SB   C	53	٦	1				79	٦	ILLUMINATION
S	54	>	t	Connect	or Type	TH32FW-NH	80	ŋ	IGNITION
S				q			81	BG	REVERSE
To   Try				季			82	œ	
							83	SHIELE	
10   17   17   17   19   10   11   12   13   19   10   10   10   10   10   10   10					Ŀ	/	87	۵	MICROPHONE SIGNAL
					76 77 7.	84 85 86 87 88 89 90	88	В.	SHIELD
Color   Signal Name [Specification]   92   SB					32 30 3	100 101 105 103	68	-	COMM (DISP->CONT)
Color   Signal Name [Seedification]   92   SB   Old							90	- B	CAN-H AV COMM (H)
of Wire LG SB				Termina	_	Signal Name [Specification]	95	SB	AV COMM (H)
SB				o No	of Wire				
99				9/ 5	2 6	AV COMM (L)			
				-	9 :	(H) MIMO AY			

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< ECU DIAGNOSIS INFORMATION >

# **ECU DIAGNOSIS INFORMATION**

# BCM (BODY CONTROL MODULE)

Reference Value

### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FK WIPEK III	Front wiper switch HI	On
ED WIDER LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
FR WIFER IN	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
TR WIFER STOF	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial pos tion
TURN SIGNAL R	Other than turn signal switch RH	Off
TORN SIGNAL IX	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TORN SIGNAL L	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
TAIL LAWIF 3W	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
TII BEAIN OW	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
TILAD LAWII OW I	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
TILAD LAMI OW Z	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
1 7001110 011	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
AOTO LIGITI OV	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
11(100 SW	Front fog lamp switch ON	On
RR FOG SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
DOOK GVV-DK	Driver door opened	On
DOOD SWAS	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOR SW PP	Rear RH door closed	Off
DOOR SW-RR	Rear LH door opened	On

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### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
OOD SW DI	Rear LH door closed	Off
OOOR SW-RL	Rear LH door opened	On
OOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
DL LOCK SW	Other than power door lock switch LOCK	Off
DL LOCK SW	Power door lock switch LOCK	On
DL UNLOCK SW	Other than power door lock switch UNLOCK	Off
DE UNLOCK SW	Power door lock switch UNLOCK	On
EY CYL LK-SW	Other than driver door key cylinder LOCK	Off
ET CTL LK-SW	Driver door key cylinder LOCK	On
(EY CYL UN-SW	Other than driver door key cylinder UNLOCK	Off
ET CTL UN-SW	Driver door key cylinder LOCK	On
EY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
1474DD 6W	Hazard switch is OFF	Off
IAZARD SW	Hazard switch is ON	On
EAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
I/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
D CANCEL SW	Trunk lid opener cancel switch OFF	Off
R CANCEL SW	Trunk lid opener cancel switch ON	On
D/DD ODEN CW	Trunk lid opener switch OFF	Off
R/BD OPEN SW	While the trunk lid opener switch is turned ON	On
DNIZ/LIAT MAITO	Trunk lid closed	Off
RNK/HAT MNTR	Trunk lid opened	On
NAE I OOK	LOCK button of the Intelligent Key is not pressed	Off
KE-LOCK	LOCK button of the Intelligent Key is pressed	On
WE LINII OOK	UNLOCK button of the Intelligent Key is not pressed	Off
KE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
WE TD/DD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
KE-TR/BD	TRUNK OPEN button of the Intelligent Key is pressed	On
WE DANIO	PANIC button of the Intelligent Key is not pressed	Off
KE-PANIC	PANIC button of the Intelligent Key is pressed	On
WE DAM ODEN	UNLOCK button of the Intelligent Key is not pressed	Off
KE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On
KE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
ADTICAL OFNICOS	Bright outside of the vehicle	Close to 5 V
PTICAL SENSOR	Dark outside of the vehicle	Close to 0 V
	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On

Revision: 2009 November DEF-31 2010 G37 Sedan

# < ECU DIAGNOSIS INFORMATION >

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

### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
LIVOINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
3/L LOCK-IPDIVI	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
S/L UNLK-IPDIVI	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
5/L RELAY-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
ID ON I LAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
I MINI LING STAT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW SLOT	The Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
CONFRIVI ID ALL	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIDM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIDM ID2	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

Revision: 2009 November DEF-33 2010 G37 Sedan

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFIRMIDI	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TD 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
TP 4	The ID of fourth Intelligent Key is registered to BCM	Done
TD 0	The ID of third Intelligent Key is not registered to BCM	Yet
TP 3	The ID of third Intelligent Key is registered to BCM	Done
TD 0	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
IPI	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
ID REGST FLT	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGST FRI	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGST KKT	ID of rear RH tire transmitter is not registered	Yet
ID DECCT DL4	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
WARNING LAMP	Tire pressure indicator ON	On
DUZZED	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

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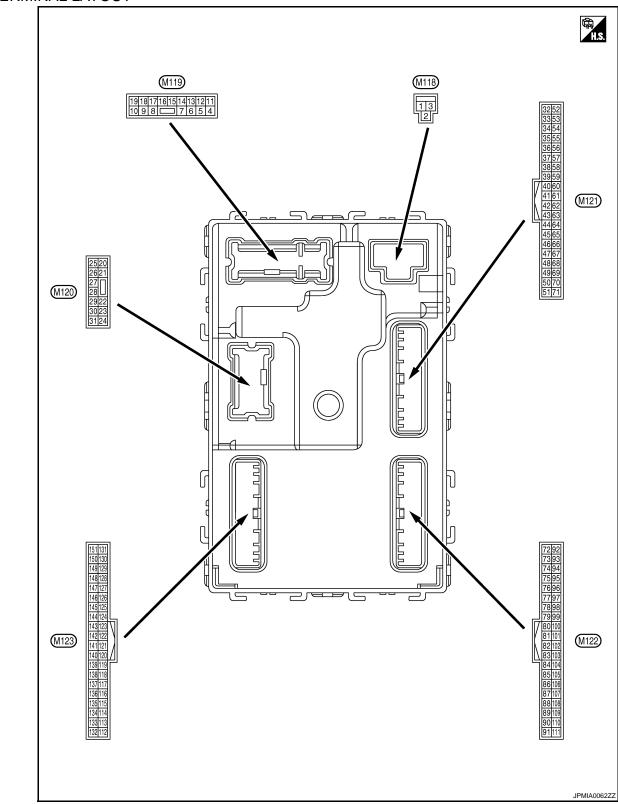
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### TERMINAL LAYOUT



PHYSICAL VALUES

Revision: 2009 November DEF-35 2010 G37 Sedan

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				
(Wire	color)	Signal name	Input/ Output		Condition	Value (Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (	OFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (	OFF	12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	Ground	Passenger door UN-	Output	Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Ground	LOCK	Output	door	Other than UNLOCK) Actuator is not activated	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(SB)	Giodila	этер таптр	Output	эсер таптр	OFF	12 V
8	Ground	All doors, fuel lid	Output	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Ground	LOCK	Output	lid	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door,	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door and rear LH	UNLOCK (Actuator is activated)	12 V
(P)	Giodila	LOCK	Output	door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (	DFF	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch (	ON	0 V
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	When the illumination brightening/dimming level is in the neutral position  (V)  10  0  JSNIA0010GB
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(50)					ACC	0 V

Signal name		nal No.	Description				Value
17 (W)   Ground   Front   Ground   Ground   Front   Ground   G			Signal name			Condition	
18 (BG)   Ground   Turn signal LH (Front)   Output   Ignition switch   ON   Turn signal switch LH   Ignition switch   ON   ON   ON   ON   ON   ON   ON   O		Ground		Output			(V) 15 10 5 0
18 (BG)   Ground   Turn signal LH (Front)   Output   Ignition switch ON   Turn signal switch LH   15   16   16   18   18   18   18   18   18						Turn signal switch OFF	6.5 V
19		Ground	Turn signal LH (Front)	Output		Turn signal switch LH	15 10 5 0 1 s PKID0926E
20 (V) Ground Turn signal RH (Rear) Output Ignition switch ON Turn signal switch RH  23 (LG) Ground Trunk lid open Output Trunk lid  25 (Y) Ground Turn signal LH (Rear) Output Ignition switch ON Turn signal switch DN  26 (V) Ignition switch ON Turn signal switch DN  27 (V) Ignition switch ON Turn signal switch LH  28 (V) Interpretation of the composition	Ground		Output			12 V	
23 (LG) Ground Trunk lid open Output Trunk lid (Trunk lid opener actuator is activated)  Other than OPEN (Trunk lid opener actuator is not activated)  Other than OPEN (Trunk lid opener actuator is not activated)  Turn signal switch OFF  Ov  12 V  Other than OPEN (Trunk lid opener actuator is not activated)  Turn signal switch OFF  Ov  Turn signal switch LH  Turn signal switch LH  ON  Turn signal switch LH		Ground	Turn signal RH (Rear)	Output	Ignition switch ON		(V) 15 10 5 0 1 s
Turn signal switch OFF  O V  Ground Turn signal LH (Rear) Output ON  Turn signal switch OFF  Turn signal switch OFF  O V  OV  Turn signal switch LH  ON  Turn signal switch LH  ON  OV  OV		Ground	Trunk lid open	Output	Trunk lid	(Trunk lid opener actuator is activated)  Other than OPEN (Trunk lid opener actuator	
25 (Y) Ground Turn signal LH (Rear) Output Ignition switch ON Turn signal switch LH  Turn signal switch LH  ON Turn signal switch LH  ON ON OV							0 V
6.5 V		Ground	Turn signal LH (Rear)	Output			(V) 15 10 5 0
(P) Ground Trunk room lamp Output lamp OFF 12 V	30 (D)	Ground	Trunk room lamp	Output	Trunk room	ON	6.5 V 0 V

	nal No.	Description	ı		0 111	Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)	Ground (–) Output OFF	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s  JMKIA0063GB		
35	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(V)	Ciodila				When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s  JMKIA0063GB
38	Ground	Rear bumper antenna (–)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(B)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

	nal No.	Description	1			Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
39	Cround	Rear bumper anten-	Outout	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(W)	Ground	na (+)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V 0 V
( ' )		2/14/ 00/11/01			ON	
50 (BG)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 10 5 0 10 ms  JPMIA0011GB
					ON (T. L. IIII III III III III III III III II	11.8 V
					ON (Trunk lid is opened)	0 V
				Ignition switch	When selector lever is in P or N position	12 V
52	Ground	Startor roley control	Output	ON (A/T mod- els)	When selector lever is not in P or N position	0 V
(R)	Ground	Starter relay control	Output	Ignition switch ON (M/T mod-	When the clutch pedal is depressed	Battery voltage
				els)	When the clutch pedal is not depressed	0 V
					ON (Pressed)	0 V
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 10 ms JPMIA0016GB
		Intelligent Key warn-		Intelligent Key	Sounding	0 V
64		ing buzzer (Engine	Output	warning buzzer	-	

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Pressed  Not pressed	0 V  (V) 15 10 5 0 JPMIA0011GB 11.8 V
68 (BG)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)  ON (When rear RH door	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
69 (L)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)  ON (When rear LH door opens)	(V) 15 10 5 0 10 ms 10 ms 11.8 V
72 (B)	Ground	Room antenna 2 (–)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(R)		(Center console)	•	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s  JMKIA0063GB

	nal No. color)	Description			Condition	Value	А
+	- COIOI)	Signal name	Input/ Output		Condition	(Approx.)	<i>[</i> _\
73		Room antenna 2 (+)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	B C
(G)	Ground	(Center console)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	E
74		Passenger door an-		When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(SB)	Ground	tenna (–)	Output	quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 1	J K
				When the pas-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
75 (BR)	Ground	Passenger door antenna (+)	Output	senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O

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

#### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	
79 Groun	Consti	Room antenna 1 (+)		lgnition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 JMKIA0062GB	
(BR)	Ground	(Instrument panel)	Output	ŎFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
82 (SB)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V 12 V	
83	Ground	Remote keyless entry receiver communication	Input/	During waiting		(V) 15 10 1 ms  JMKIA0064GB	
(Y)	Ground		Output	When operating gent Key	geither button on the Intelli-	(V) 15 10 5 0 1 ms	

Revision: 2009 November DEF-43 2010 G37 Sedan

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

	nal No.	Description	Tr.			Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
88	Cround	Combination switch	Input	Combination	Lighting switch HI (Wiper volume dial 4)	(V) 15 10 2 ms JPMIA0036GB 1.3 V
(BG)	Ground	INPUT 3	при	switch	Lighting switch 2ND (Wiper volume dial 4)	(V) 15 10 2 ms JPMIA0037GB
					Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 2  Wiper volume dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB
00		Durch huston inviting		Push-button ig-	Pressed	0 V
89 (BR)	Ground	Push-button ignition switch (Push switch)	Input	nition switch (push switch)	Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output		<del>_</del>	
91 (L)	Ground	CAN-H	Input/ Output		_	_
					OFF	0 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	Blinking	(V) 15 10 1 s JPMIA0015GB
					ON	6.5 V
					ON	12 V

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
93 (GR)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(OIV)					ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(BG)	Ground	ACC relay control	Output	ignition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	Ground	tion No. 1	прис	Oleching lock	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)	Ground	tion No. 2	прис	Steering lock	UNLOCK status	0 V
		Selector lever P posi-			P position	0 V
		tion switch (A/T mod- els)		Selector lever	Any position other than P	12 V
99 (R)* <sup>1</sup> Ground (BR)* <sup>2</sup>		ASCD clutch switch (M/T models without ICC)		ASCD clutch switch	OFF (Clutch pedal is depressed)	0 V
	Ground		Input		ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is depressed)	0 V
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V
					ON (Pressed)	0 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(BG)	Cround	lay control	Carput	- ignition switch	ON	12 V
103 (P)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch (	DFF	12 V
106	Ground	Steering lock unit	Output	Ignition quitab	OFF or ACC	12 V
(SB) Ground Steeling lock unit power supply Output		Ignition switch ON		0 V		

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

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

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB
109 (W)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT/ AUTO	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V

	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
111	Ground	Steering lock unit	Input/	Steering lock	LOCK status  LOCK or UNLOCK	12 V
(Y)		communication	Output	g	For 15 seconds after UN-LOCK  15 seconds or later after	12 V
112 (R)	Ground	Light and rain sensor serial link	Input/ Output	Ignition switch C	UNLOCK	(V) 15 10 5 0 JPMIA0156GB 8.7 V
113 (BG)	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle  When dark outside of the	Close to 5 V
114	Ground	Clutch interlock	Input	Clutchinterlock	vehicle  OFF (Clutch pedal is not depressed)	Close to 0 V
(R)		switch	'	switch	ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118	Ground	(Without ICC)	lanut	switch	ON (Brake pedal is depressed)	Battery voltage
(BR)			Input	Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB
					UNLOCK status (Unlock switch sensor ON)	0 V

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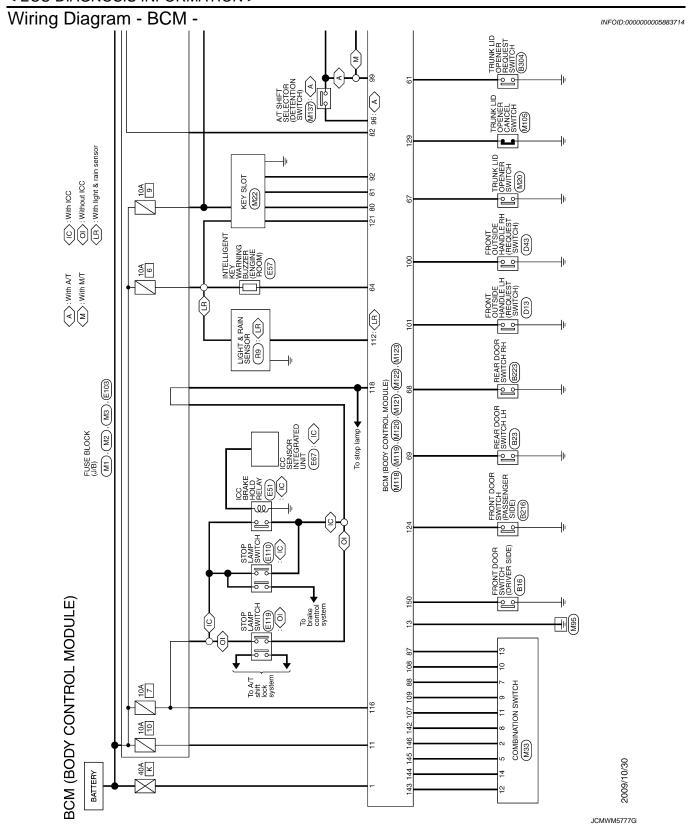
	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
121	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
(SB)	Ground	noy oler emion	mpar	When the Intelliq	gent Key is not inserted into	0 V
123 (V)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
124 (R)	Ground	Passenger door switch	Input	Passenger door switch	ON  OFF (Door close)  ON (Door open)	Battery voltage  (V) 15 10 5 0 JPMIA0011GB 11.8 V 0 V
					UN (Door open)	0 V
129 (BG)	Ground	Trunk lid opener cancel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V
					ON	0 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB
				Ignition switch C	OFF or ACC	12 V
				.g	ON (Tail lamps OFF)	9.5 V
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.  (V) 15 10 5 0  JPMIA0159GB
					OFF OFF	0 V
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage  0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch C	DN	0 V

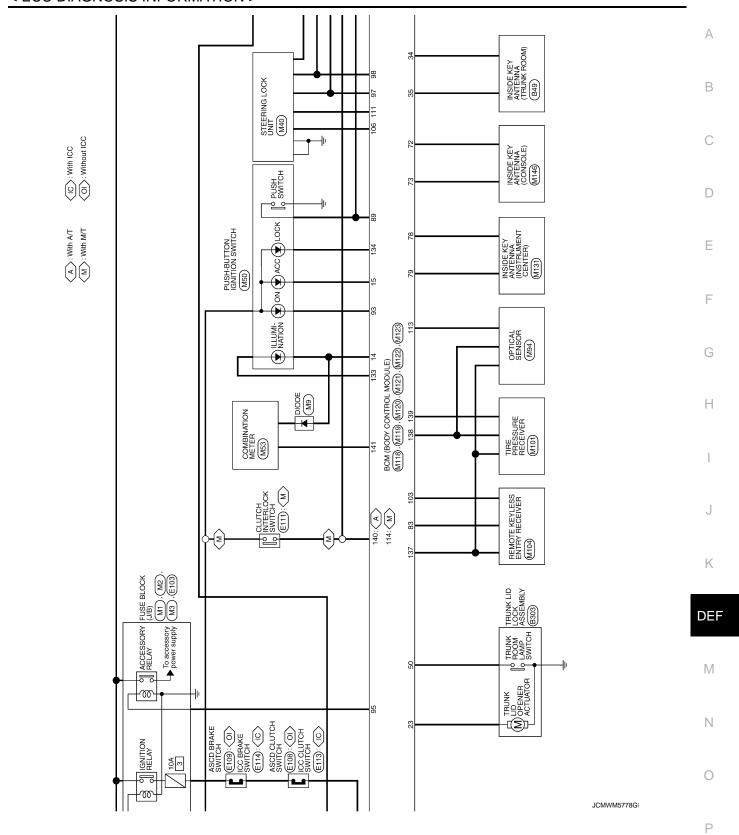
	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(V)	Orouna	power supply	Output	igilia ori o viitori	ACC or ON	5.0 V
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s
(L)		er communication	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V
(B)	Oround	position	IIIput	Colodiol level	Except P and N positions	0 V
					ON	0 V
141 (W)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB
					OFF	12 V
					All switches OFF	0 V
					Lighting switch 1ST	
	(DD) Cround	Combination switch	ombination switch UTPUT 5  Output	Combination switch (Wiper volume dial 4)	Lighting switch HI	(V)
					Lighting switch 2ND	10 5
(=: 1)		OUTPUT 5			Turn signal switch RH	0
					All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	(V)
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions below with all switches OFF  Wiper volume dial 1  Wiper volume dial 2  Wiper volume dial 3  Wiper volume dial 6  Wiper volume dial 7	15 10 5 0 2 ms JPMIA0032GB

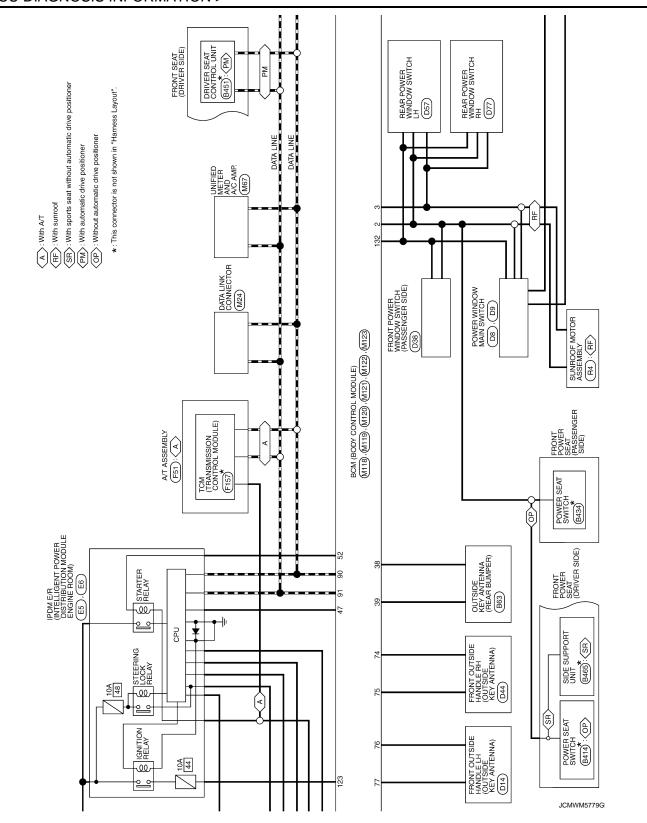
	nal No. color)	Description			On a disting	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	(V)
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with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

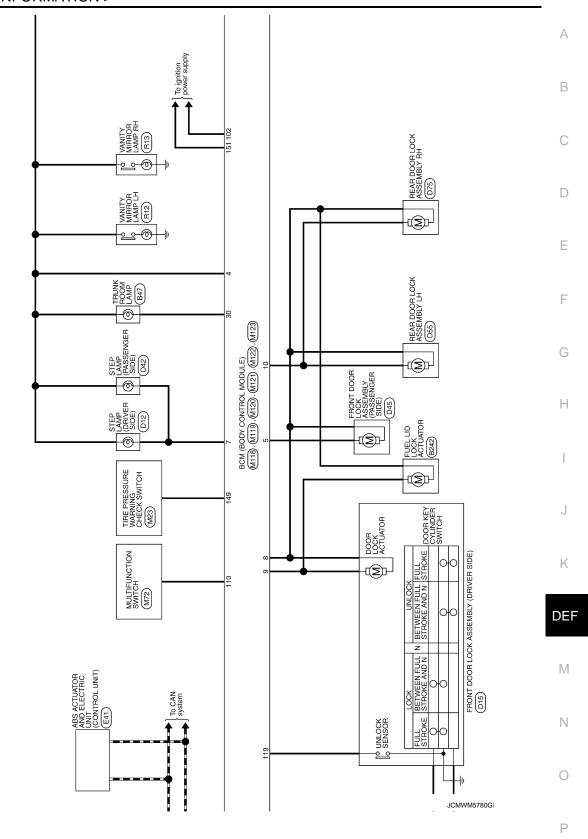
<sup>• \*1:</sup> A/T models

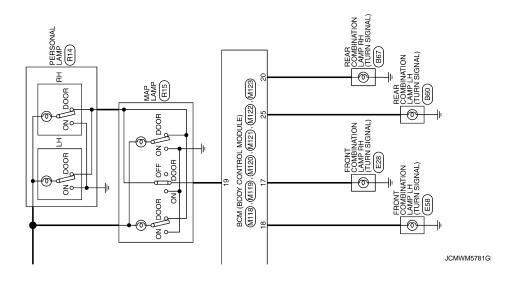
<sup>• \*2:</sup> M/T models Ρ







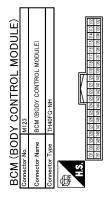




#### < ECU DIAGNOSIS INFORMATION >

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IGN RELAY (F/8) COMT  COMBI SW INPUT 3  COMBI SW INPUT 3  COMBI SW INPUT 3  CANH I CAN	В
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Name	F
	G
	Н
Signal Name [Specification]   Signal Name [Specification]   Signal Name [Specification]   Signal Name [Specification]   Signal Name [Specification]   Signal Name [Specification]   Signal Name [Specification]   ALL DOOR FUEL UD LOCK OUTPUT   DRAYER DOOR UNLOCK OUTPUT   Signal Name [Specification]   Signal Name [Specification]   Signal Name [Specification]   TURN SIGNAL H (FRONT)   TURN	I
12   14   15   16   17   18   19   11   12   13   14   15   16   17   18   19   11   12   13   14   15   15   17   18   19   11   18   19   11   18   19   11   18   19   19	J
Commetter No.   Marcetter No	K
	DEF
Signal Name (Specification)  Signal Name (Specification)  Signal Name (Specification)  Signal Name (Specification)  NAMER (OUTPOUT 5  NINPUT 4  NINPUT 1  OUTPOUT 2  NINPUT 4  NINPUT 1  OUTPOUT 5  NINPUT 1  OUTPOUT 2  NINPUT 1  OUTPOUT 2  NINPUT 1  OUTPOUT 1  OUTPOUT 2  NINPUT 1  NINPUT 1  OUTPOUT 2  NINPUT 1  NINPUT 2  NINPUT 1  NINPUT 1  NINPUT 3  OUTPUT 2  NINPUT 1  NINPUT 2  NINPUT 3  OUTPUT 2  NINPUT 3  OUTPUT 3  OUTPUT 3  NINPUT 3  OUTPUT 3  OUTPUT 3  NINPUT 4  NINPUT 7  NINPUT 7  NINPUT 7  NINPUT 8  NINPUT 1  NINPU	M
	Ν
Connector Name   Conn	0
JCMWM5782GI	Р

Revision: 2009 November DEF-59 2010 G37 Sedan



No. 112 No. 113 No. 114 No. 115 No. 116 No. 11	Of Oolor of Wire P R R R R R R R R R R R R R R R R R R	Signal Name [Specification]  RAIN SENSOR SERAL LINK DITICAL SENSOR CLUTCH INTERLOSKS STOP LAMP SW 1  STOP LAMP SW 1  STOP LAMP SW 1  STOP LAMP SW 1  FOR SENSOR  REY SLOT SW 1  REY SLOT SW 1  REY SLOT SW 1  IN F /B 1  POWER WINDOW SW COMM PUSH-BUTTON IGNITION SW ILL POWER TECEVER / SENSOR GND RECEIVER / SENSOR GND RECEIVER / SENSOR GND SHET NU P  SECURITY INDICATOR LAMP SECURITY NUICKTOR LAMP SECURITY NUICKTOR LAMP COMBI SW OUTPUT 3  COMBI SW OUTPUT 3  COMBI SW OUTPUT 3  COMBI SW OUTPUT 3
149	> 0	TIRE PRESSURE WARN CHECK SW
150	SP.	DRIVER DOOR SW
151	ď	FINOU XX 130 03000300 WOUNDING VIOL

JCMWM5783G

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Fail-safe

FAIL-SAFE CONTROL BY DTC BCM performs fail-safe control when any DTC are detected.

#### < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  • Starter control relay signal  • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent  • Selector lever P position switch signal  • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are ful- filled • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (12 V) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (12 V)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Status 1  - Ignition switch is in the ON position  - Selector lever P/N position signal: P and N position (12 V)  - P range signal or N range signal (CAN): ON  • Status 2  - Ignition switch is in the ON position  - Selector lever P/N position signal: Except P and N positions (0 V)  - P range signal and N range signal (CAN): OFF
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Status 1  - Ignition switch is in the ON position  - Selector lever P/N position signal: Except P and N positions (0 V)  - Interlock/PNP switch signal (CAN): OFF  • Status 2  - Ignition switch is in the ON position  - Selector lever P/N position signal: P or N position (12 V)  - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  • Steering lock relay signal (Request signal)  • Steering lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has becomes consistent  • Steering lock relay signal (Request signal)  • Steering lock relay signal (Condition signal)

Revision: 2009 November DEF-61 2010 G37 Sedan

## < ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent  Starter motor relay control signal  Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When the following steering lock conditions agree  BCM steering lock control status  Steering lock condition No. 1 signal status  Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (12 V)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled  • Power position changes to ACC  • Receives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When any of the following conditions are fulfilled  Steering lock unit status signal (CAN) is received normally  The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: BCM	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled  • Status 1  - Clutch switch signal (CAN from ECM): ON  - Clutch interlock switch signal: OFF (0 V)  • Status 2  - Clutch switch signal (CAN from ECM): OFF  - Clutch interlock switch signal: ON (Battery voltage)
B26E9: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled  • Steering condition No. 1 signal: LOCK (0 V)  • Steering condition No. 2 signal: LOCK (12 V)

# DTC Inspection Priority Chart

INFOID:0000000005883716

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM U1010: CONTROL UNIT(CAN)
3	<ul> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2195: ANTI-SCANNING</li> </ul>

#### < ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	B2013: ID DISCORD BCM-S/L     B2014: CHAIN OF S/L-BCM     B2553: IGNITION RELAY     B2555: STOP LAMP	
	<ul> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> <li>B2560: STARTER CONT RELAY</li> <li>B2601: SHIFT POSITION</li> <li>B2602: SHIFT POSITION</li> <li>B2603: SHIFT POSI STATUS</li> </ul>	
	<ul> <li>B2604: PNP/CLUTCH SW</li> <li>B2605: PNP/CLUTCH SW</li> <li>B2606: S/L RELAY</li> <li>B2607: S/L RELAY</li> </ul>	
4	B2608: STARTER RELAY     B2609: S/L STATUS     B260A: IGNITION RELAY     B260B: STEERING LOCK UNIT	
4	B260C: STEERING LOCK UNIT     B260C: STEERING LOCK UNIT     B260D: STEERING LOCK UNIT     B260F: ENG STATE SIG LOST     B2612: S/L STATUS	
	<ul><li>B2614: BCM</li><li>B2615: BCM</li><li>B2616: BCM</li><li>B2617: BCM</li></ul>	
	<ul> <li>B2618: BCM</li> <li>B2619: BCM</li> <li>B261A: PUSH-BTN IGN SW</li> <li>B261E: VEHICLE TYPE</li> <li>B26E8: CLUTCH SW</li> <li>B26E9: S/L STATUS</li> <li>B26EA: KEY REGISTRATION</li> <li>C1729: VHCL SPEED SIG ERR</li> <li>U0415: VEHICLE SPEED</li> </ul>	
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL	
5	<ul> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RL</li> <li>C1716: [PRESSDATA ERR] FL</li> <li>C1717: [PRESSDATA ERR] FR</li> <li>C1718: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RL</li> <li>C1734: CONTROL UNIT</li> </ul>	
6	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA     B2623: INSIDE ANTENNA	

#### NOTE:

The details of time display are as follows.

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-14, "COM-MON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data  •Vehicle Speed  •Odo/Trip Meter  •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	_	_	_	BCS-33
U1010: CONTROL UNIT(CAN)	_	_	_	_	BCS-34
U0415: VEHICLE SPEED	_	_	_	_	BCS-35
B2013: ID DISCORD BCM-S/L	×	×	_	_	SEC-55
B2014: CHAIN OF S/L-BCM	×	×	_	_	SEC-56
B2190: NATS ANTENNA AMP	×	_	_	_	SEC-47
B2191: DIFFERENCE OF KEY	×	_	_	_	<u>SEC-50</u>
B2192: ID DISCORD BCM-ECM	×	_	_	_	<u>SEC-51</u>
B2193: CHAIN OF BCM-ECM	×	_	_	_	SEC-53
B2195: ANTI-SCANNING	×	_	_	_	<u>SEC-54</u>
B2553: IGNITION RELAY	_	×	_	_	PCS-49
B2555: STOP LAMP	_	×	_	_	SEC-59
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-61
B2557: VEHICLE SPEED	×	×	×	_	SEC-63
B2560: STARTER CONT RELAY	×	×	×	_	SEC-64
B2562: LOW VOLTAGE	_	×	_	_	BCS-36
B2601: SHIFT POSITION	×	×	×	_	SEC-65
B2602: SHIFT POSITION	×	×	×	_	SEC-68
B2603: SHIFT POSI STATUS	×	×	×	_	SEC-70
B2604: PNP/CLUTCH SW	×	×	×	_	SEC-73
B2605: PNP/CLUTCH SW	×	×	×	_	SEC-75
B2606: S/L RELAY	×	×	×	_	SEC-77
B2607: S/L RELAY	×	×	×	_	SEC-78
B2608: STARTER RELAY	×	×	×	_	SEC-80
B2609: S/L STATUS	×	×	×	_	SEC-82
B260A: IGNITION RELAY	×	×	×	_	PCS-51
B260B: STEERING LOCK UNIT	_	×	×	_	SEC-86
B260C: STEERING LOCK UNIT	_	×	×	_	SEC-87
B260D: STEERING LOCK UNIT	_	×	×	_	SEC-88
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-89
B2612: S/L STATUS	×	×	×	_	SEC-94
B2614: BCM	_	×	×	_	PCS-53
B2615: BCM	_	×	×	_	PCS-55
B2616: BCM	_	×	×	_	PCS-57
B2617: BCM	×	×	×	_	SEC-98
B2618: BCM	×	×	×	_	PCS-59
B2619: BCM	×	×	×	_	SEC-100
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-60
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-101

#### < ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data  •Vehicle Speed  •Odo/Trip Meter  •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	Α
B2621: INSIDE ANTENNA	_	×	_	_	DLK-59	В
B2622: INSIDE ANTENNA	_	×	_	_	DLK-61	
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63	
B26E8: CLUTCH SW	×	×	×	_	SEC-90	С
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-92</u>	_
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	SEC-93	D
C1704: LOW PRESSURE FL	_	_	_	×	WT-26	Е
C1705: LOW PRESSURE FR	_	_	_	×		
C1706: LOW PRESSURE RR	_	_	_	×		
C1707: LOW PRESSURE RL	_	_	_	×		F
C1708: [NO DATA] FL	_	_	_	×	- <u>WT-28</u>	G
C1709: [NO DATA] FR	_	_	_	×		
C1710: [NO DATA] RR	_	_	_	×		
C1711: [NO DATA] RL	_	_	_	×		
C1716: [PRESSDATA ERR] FL	_	_	_	×	- <u>WT-31</u>	Н
C1717: [PRESSDATA ERR] FR	_	_	_	×		
C1718: [PRESSDATA ERR] RR	_	_	_	×		
C1719: [PRESSDATA ERR] RL	_	_	_	×		
C1729: VHCL SPEED SIG ERR	_	_	_	×	WT-33	
C1734: CONTROL UNIT	_	_	_	×	<u>WT-35</u>	, I

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#### REAR WINDOW DEFOGGER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

## SYMPTOM DIAGNOSIS

#### REAR WINDOW DEFOGGER DOES NOT OPERATE

#### Diagnosis Procedure

INFOID:0000000005621134

## 1. CHECK REAR WINDOW DEFOGGER SWITCH

Check rear window defogger switch.

Refer to DEF-9, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2. CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay.

Refer to DEF-10, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CHECK REAR WINDOW DEFOGGER

Check rear window defogger.

Refer to DEF-12, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> GO TO 1.

# REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGER DO NOT OPERATE.

< SYMPTOM DIAGNOSIS >	
REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGE	ER DO NOT
OPERATE.	Α
Diagnosis Procedure	INFOID:0000000005621135
1. CHECK REAR WINDOW DEFOGGER SWITCH	
Check rear window defogger switch.  Refer to DEF-9, "Component Function Check".	С
Is the inspection result normal?	
YES >> GO TO 2.  NO >> Repair or replace the malfunctioning parts.	D
2.CHECK REAR WINDOW DEFOGGER RELAY	
Check rear window defogger relay.  Refer to DEF-10, "Component Function Check".	E
Is the inspection result normal?	_
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.	F
3.CONFIRM THE OPERATION	_
Confirm the operation again.	G
Is the inspection result normal?	
YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".  NO >> GO TO 1.	Н
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**DEF-67** 2010 G37 Sedan Revision: 2009 November

# REAR WINDOW DEFOGGER DOES NOT OPERATE BUT BOTH DOOR MIRROR DEFOGGERS OPERATE.

#### < SYMPTOM DIAGNOSIS >

# REAR WINDOW DEFOGGER DOES NOT OPERATE BUT BOTH DOOR MIRROR DEFOGGERS OPERATE.

#### **Diagnosis Procedure**

INFOID:0000000005621136

## 1. CHECK REAR WINDOW DEFOGGER

Check rear window defogger.

Refer to DEF-12, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2.CONFIRM THE OPERATION

Confirm the operation again

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> GO TO 1.

Revision: 2009 November DEF-68 2010 G37 Sedan

DOOR MIRROR DEFOGGER DOES NOT OPERATE < SYMPTOM DIAGNOSIS > DOOR MIRROR DEFOGGER DOES NOT OPERATE Α **BOTH SIDES BOTH SIDES**: Diagnosis Procedure INFOID:0000000005621137 В 1. CHECK DOOR MIRROR DEFOGGER Check door mirror defogger. Refer to DEF-15, "Component Function Check". Is the inspection result normal? YES >> GO TO 2. D NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. Е Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". NO >> GO TO 1. DRIVER SIDE DRIVER SIDE: Diagnosis Procedure INFOID:0000000005621138 1. CHECK DRIVER SIDE DOOR MIRROR DEFOGGER Check driver side door mirror defogger. Н Refer to DEF-17, "Component Function Check". Is the inspection result normal? >> GO TO 2. YES NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident". K NO >> GO TO 1. PASSENGER SIDE DEF PASSENGER SIDE: Diagnosis Procedure INFOID:0000000005621139 1.CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER. Check passenger side door mirror defogger. Refer to DEF-19, "Component Function Check".

# Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

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Confirm the operation again. Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> GO TO 1.

#### ON IS NOT DISPLAYED WHEN PRESSING REAR WINDOW DEFOGGER **SWITCH BUT IT IS OPERATED**

#### < SYMPTOM DIAGNOSIS >

## ON IS NOT DISPLAYED WHEN PRESSING REAR WINDOW DEFOGGER SWITCH BUT IT IS OPERATED

#### Diagnosis Procedure

INFOID:0000000005621140

#### 1. CHECK AV CONTROL UNIT FUNCTION

Check that the AV control unit is operating normally.

Base audio without rear view camera refer to AV-11, "Work Flow".

Base audio with rear view camera refer to AV-157, "Work Flow".

BOSE audio without navigation refer to AV-281, "Work Flow".

BOSE audio with navigation refer to AV-409, "Work Flow".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-38, "Intermittent Incident".

NO >> GO TO 1.

#### REAR WINDOW DEFOGGER INDICATOR DOES NOT ILLUMINATE

# < SYMPTOM DIAGNOSIS > REAR WINDOW DEFOGGER INDICATOR DOES NOT ILLUMINATE Α Diagnosis Procedure INFOID:0000000005621141 1. CHECK MULTIFUNCTION SWITCH (REAR WINDOW DEFOGGER SWITCH) В Check rear window defogger operate. YES >> Replace multifunction switch (rear window defogger switch). Refer to AV-98, "Removal and Installation" NO >> Check rear window defogger system. Refer to <a href="DEF-3">DEF-3</a>, "Work Flow" D Е F Н J Κ DEF M Ν 0

Revision: 2009 November DEF-71 2010 G37 Sedan

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#### **PRECAUTIONS**

#### < PRECAUTION >

## **PRECAUTION**

#### **PRECAUTIONS**

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

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

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

#### **WARNING:**

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

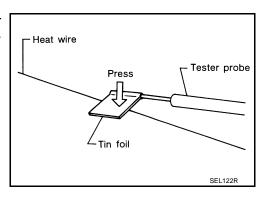
# REMOVAL AND INSTALLATION

#### **FILAMENT**

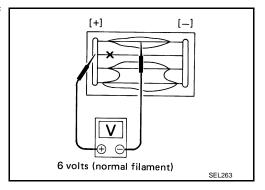
#### Inspection and Repair

#### **INSPECTION**

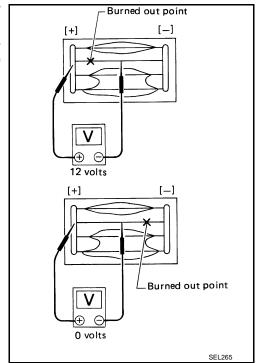
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



Attach probe circuit tester (in Volt range) to middle portion of each filament.



- 3. If a filament is burned out, circuit tester registers 0 or battery voltage.
- To locate burned out point, move probe to left and right along filament. Test needle will swing abruptly when probe passes the point.



#### **REPAIR**

#### REPAIR EQUIPMENT

• Conductive silver composition (Dupont No. 4817 or equivalent)

Revision: 2009 November DEF-73 2010 G37 Sedan

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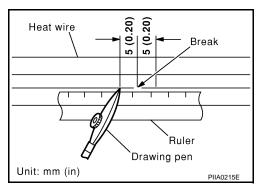
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#### < REMOVAL AND INSTALLATION >

- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

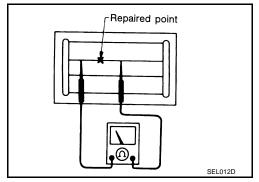
#### REPAIRING PROCEDURE

- 1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
- 2. Apply a small amount of conductive silver composition to tip of drawing pen.
  - Shake silver composition container before use.
- 3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.



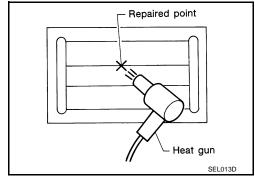
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited.

Do not touch repaired area while test is being conducted.



 Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet.

If a heat gun is not available, let the repaired area dry for 24 hours.



#### **CONDENSER**

#### < REMOVAL AND INSTALLATION >

# CONDENSER

Exploded View

Refer to INT-15, "Exploded View"

Removal and Installation

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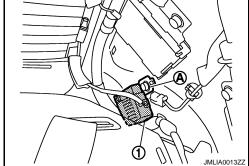
#### **REMOVAL**

1. Remove the rear seat cushion and the rear seatback. Refer to <u>SE-138</u>, "Removal and Installation"

2. Remove the rear kicking plate, rear wheel well garnish and the rear pillar finisher.

Refer to INT-15, "Removal and Installation"

3. Remove bolt (A), and then remove condenser (1) from the vehicle body.



#### **INSTALLATION**

Install in the reverse order of removal.

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