SECTION DEF
DEFOGGER

CONTENTS

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000008155792

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.

>> GO TO 2.

2.CHECK DTC

Perform self diagnosis with CONSULT.

Is any DTC detected?

YES >> Refer to BCS-73, "DTC Index".
NO >> GO TO 3.

3.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.

>> GO TO 4.

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.

5.IDENTIFY MALFUNCTIONING PARTS WITH “COMPONENT DIAGNOSIS”

Perform the diagnosis with “Component diagnosis” of the applicable system.

>> GO TO 6.

6.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 7.

7.FINAL CHECK

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?

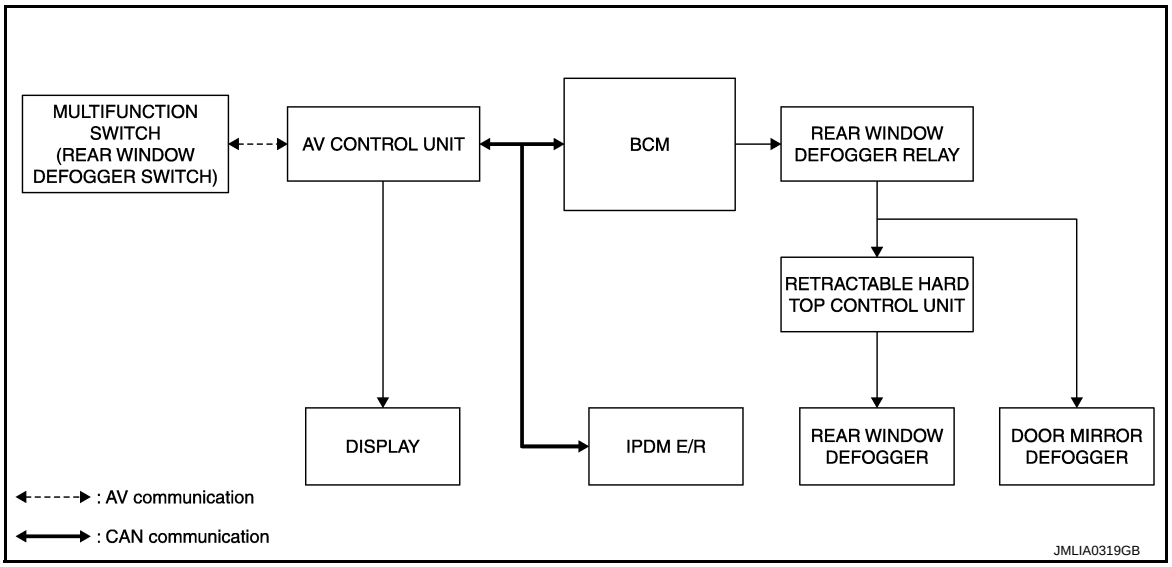
YES >> INSPECTION END
NO >> GO TO 4.

SYSTEM DESCRIPTION

REAR WINDOW DEFOGGER SYSTEM

System Diagram

INFOID:0000000008155793



System Description

INFOID:0000000008155794

Operation Description

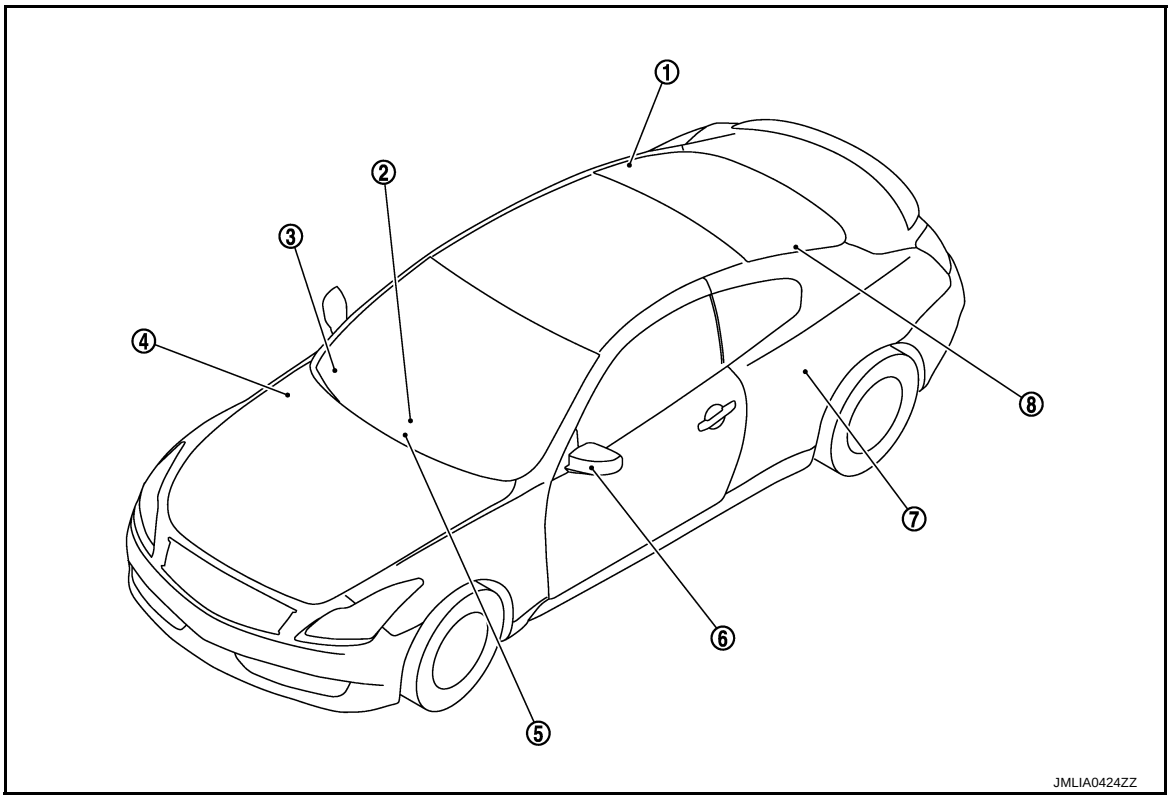
- Turn rear window defogger switch ON when the ignition switch is turned ON. Then multifunction switch (rear window defogger switch) transmits rear window defogger switch signal to AV control unit via AV communication. AV control unit transmits rear window defogger switch signal to BCM via CAN communication.
- 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.
- Door mirror defogger (with mirror defogger) are supplied with power and operate when rear window defogger relay turns ON.
- Rear window defogger relay sends power supply to retractable hard top control unit.
- Retractable hard top control unit detects roof state and controls rear window defogger operate.
- 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:0000000008155795



1.	Rear window defogger connector	2.	Rear window defogger switch (built-in multifunction switch)	3.	BCM Refer to BCS-6, "Component Parts Location"
4.	IPDM E/R Refer to PCS-4, "Component Parts Location"	5.	AV control unit	6.	Door mirror (driver side) (door mirror defogger)
7.	Retractable hard top control unit Refer to RF-15, "Component Parts Location"	8.	Rear window defogger connector		

Component Description

INFOID:0000000008155796

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

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000008815321

APPLICATION ITEM
CONSULT 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.
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.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
—	MULTI REMOTE ENT*1			
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×*2	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*1			
• 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	AIR PRESSURE MONITOR	×	×	×

NOTE:
- *1: This item is displayed, but is not used.
- *2: At models with rain sensor this mode is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

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	
Vehicle Condition	SLEEP>LOCK	Power supply position status of the moment a particular DTC is detected.	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” (Except emergency stop operation)
	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		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	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”*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:

*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position (A/T models), and any of the following conditions are met.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to “ACC” when the push-button ignition switch (push switch) is pushed at “LOCK”.

REAR WINDOW DEFOGGER

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

INFOID:0000000008155798

Data monitor

NOTE:
The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

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

Test Item	Description
REAR DEFOGGER	Rear window defogger operates when “ON” on CONSULT screen is touched.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:0000000008155799

1.CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	I(40A)
11		10(10A)

Is the inspection result normal?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

(+)		(–)	Voltage (Approx.)
BCM			
Connector	Terminal		
M118	1	Ground	Battery voltage
M119	11		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair harness or connector.

REAR WINDOW DEFOGGER SWITCH

Description

INFOID:0000000008155800

- 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

INFOID:0000000008155801

1.CHECK REAR WINDOW DEFOGGER SWITCH FUNCTION

Check that the indicator lamp of rear window defogger illuminates when rear window defogger switch ON.

Is the inspection result normal?

YES >> Rear window defogger switch function is OK.
NO >> Refer to DEF-10, "Diagnosis Procedure"

Diagnosis Procedure

INFOID:0000000008155802

1.CHECK MULTIFUNCTION SWITCH (REAR WINDOW DEFOGGER SWITCH)

Does multifunction switch operate normally?
Base audio without navigation. Refer to AV-18, "On Board Diagnosis Function".
Bose audio without navigation. Refer to AV-127, "On Board Diagnosis Function".
Bose audio with navigation. Refer to AV-262, "On Board Diagnosis Function".

Is the inspection result normal?

YES >> INSPECTION END.
NO >> Replace multifunction switch (rear window defogger switch). Refer to AV-107, "Removal and Installation"

REAR WINDOW DEFOGGER RELAY

Description

INFOID:0000000008155803

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

Component Function Check

INFOID:0000000008155804

1.CHECK REAR WINDOW DEFOGGER RELAY POWER SUPPLY CIRCUIT

1. Perform Active Test (“REAR DEFOGGER”) with CONSULT.
2. 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 DEF-11, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008155805

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.
2. Check voltage between BCM harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 3.

3.CHECK REAR WINDOW DEFOGGER CIRCUIT 2

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

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

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	151		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-12, "Component Inspection"

Is the inspection result normal?

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)		Ground	Voltage (V) (Approx.)
Connector	Terminal		
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-42, "Intermittent Incident"

>> INSPECTION END.

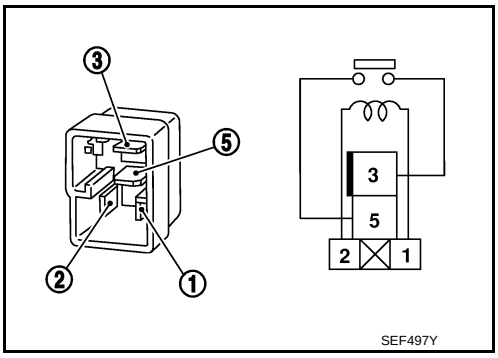
Component Inspection

INFOID:0000000008155806

1.CHECK REAR WINDOW DEFOGGER RELAY

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

Terminal		Condition	Continuity
Rear window defogger relay			
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.

RETRACTABLE HARD TOP CONTROL UNIT

Description

INFOID:0000000008155807

Retractable hard top control unit detects roof state and controls rear defogger.

Component Function Check

INFOID:0000000008155808

1.CHECK REAR WINDOW DEFOGGER

1. Perform Active Test (“REAR DEFOGGER”) with CONSULT.
2. Touch “ON”.
3. Check that the rear window heating wire is getting warmer.

Is the inspection result normal?

YES >> Retractable hard top control unit is OK.
NO >> Refer to DEF-13, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008155809

1.CHECK FUSE

1. Turn ignition switch OFF.
2. 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 RETRACTABLE HARD TOP CONTROL UNIT CIRCUIT

1. Disconnect retractable hard top control unit connector and fuse block (J/B) connector.
2. Check continuity between retractable hard top control unit and fuse block (J/B) harness connector.

Fuse block (J/B)		Retractable hard top control unit		Continuity
Connector	Terminal	Connector	Terminal	
B6	10G	B84	70	Existed
	11G		69	

3. Check continuity between retractable hard top control unit and ground.

Fuse block (J/B)		Ground	Continuity
Connector	Terminal		
B6	10G		Existed
	11G		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness and ground.

3.CHECK FUSE BLOCK (J/B)

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
B6	10G	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0
	11G			ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace fuse block (J/B).

4.CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-42, "Intermittent Incident"

>> INSPECTION END.

REAR WINDOW DEFOGGER

Description

INFOID:0000000008155810

Heats the heating wire with the power supply from the retractable hard top control unit to prevent the rear window from fogging up.

Component Function Check

INFOID:0000000008155811

1.CHECK REAR WINDOW DEFOGGER

1. Perform Active Test (“REAR DEFOGGER”) with CONSULT.
2. Touch “ON”.
3. 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-15, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008155812

1.CHECK POWER SUPPLY CIRCUIT

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Rear window defogger					
Connector	Terminal				
B658	1	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal

YES >> GO TO 2.
NO >> GO TO 3.

2.CHECK GROUND CIRCUIT

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

Rear window defogger		Ground	Continuity
Connector	Terminal		
B659	2		Existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness and ground.

3.CHECK REAR WINDOW DEFOGGER CIRCUIT 1

1. Turn ignition switch OFF.
2. Disconnect retractable hard top control unit connector and rear window defogger connector.
3. Check continuity between retractable hard top control unit and rear window defogger harness connector.

Retractable hard top control unit		Rear window defogger		Continuity
Connector	Terminal	Connector	Terminal	
B84	71	B658	1	Existed
	72	B659		

4. Check continuity between retractable hard top control unit and ground.

Retractable hard top control unit		Ground	Continuity
Connector	Terminal		
B84	71		Existed
	72		

Is the inspection result normal?

YES >> Replace retractable hard top control unit. Refer to RF-297, "Removal and Installation".
NO >> Repair or replace harness and ground.

4.CHECK FILAMENT

Check filament.
Refer to DEF-16, "Component Inspection"

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair filament.

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-42, "Intermittent Incident"

>> INSPECTION END.

Component Inspection

INFOID:0000000008155813

1.CHECK FILAMENT

Check the filament for damage or blown.
Refer to DEF-77, "Inspection and Repair"

Is the inspection result normal?

YES >> INSPECTION END.
NO >> Repair filament.

DOOR MIRROR DEFOGGER

Description

INFOID:0000000008155814

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

Component Function Check

INFOID:0000000008155815

1.CHECK DOOR MIRROR DEFOGGER

1. Perform Active Test (“REAR DEFOGGER”) with CONSULT.
2. 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-17, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008155816

1.CHECK FUSE

1. Turn ignition switch OFF.
2. Check the following.

- 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 FUSE BLOCK (J/B)

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M3	9C	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0
	10C			ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> INSPECTION END.
NO >> Replace fuse block (J/B).

DRIVER SIDE DOOR MIRROR DEFOGGER

Description

INFOID:0000000008155817

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:0000000008155818

1.CHECK DRIVER SIDE DOOR MIRROR DEFOGGER

1. Perform Active Test (“REAR DEFOGGER”) with CONSULT.
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 DEF-18, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008155819

1.CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 2.

2.CHECK FUSE BLOCK (J/B) OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect fuse block (J/B) connector.
3. Turn ignition switch ON.
4. Check voltage between fuse block (J/B) harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace fuse block (J/B).

3.CHECK DRIVER SIDE DOOR MIRROR DEFOGGER CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

4.CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5.CHECK DRIVER SIDE DOOR MIRROR DEFOGGER

Check driver side door mirror defogger.
Refer to DEF-19, "Component Inspection"

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace door mirror (driver side). Refer to MIR-44, "DOOR MIRROR ASSEMBLY : Removal and Installation"

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-42, "Intermittent Incident"

Is the inspection result normal?

>> INSPECTION END.

Component Inspection

INFOID:0000000008155820

1.CHECK DRIVER SIDE DOOR MIRROR DEFOGGER

1. Turn ignition switch OFF.
2. Disconnect door mirror (driver side) connector.
3. Check continuity between door mirror terminals.

Door mirror (driver side)			Continuity
Connector	Terminal		
D3	4	8	Existed

Is the inspection result normal?

YES >> INSPECTION END.
NO >> Replace door mirror (driver side). Refer to MIR-44, "DOOR MIRROR ASSEMBLY : Removal and Installation"

PASSENGER SIDE DOOR MIRROR DEFOGGER

Description

INFOID:0000000008155821

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:0000000008155822

1.CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER

1. Perform Active Test (“REAR DEFOGGER”) with CONSULT.
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 DEF-20, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008155823

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.

(+)		(-)	Condition		Voltage (V) (Approx.)
Door mirror (Passenger side)					
Connector	Terminal				
D33	4	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 2.

2.CHECK FUSE BLOCK (J/B) OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect fuse block (J/B) connector.
3. Turn ignition switch ON.
4. Check voltage between fuse block (J/B) harness connector and ground.

(+)		(-)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M3	9C	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace fuse block (J/B).

3.CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER

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

Fuse block (J/B)		Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M3	9C	D33	4	Existed

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5. CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER

Check passenger side door mirror defogger.
Refer to DEF-21, "Component Inspection"

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace door mirror (passenger side).Refer to MIR-44, "DOOR MIRROR ASSEMBLY : Removal and Installation"

6. CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-42, "Intermittent Incident"

>> INSPECTION END.

Component Inspection

INFOID:0000000008155824

1. CHECK PASSENGER DOOR MIRROR DEFOGGER

1. Turn ignition switch OFF.
2. Disconnect door mirror (passenger side) connector.
3. Check continuity between door mirror terminals.

Door mirror (passenger side)			Continuity
Connector	Terminal		
D33	4	8	Existed

Is the inspection result normal?

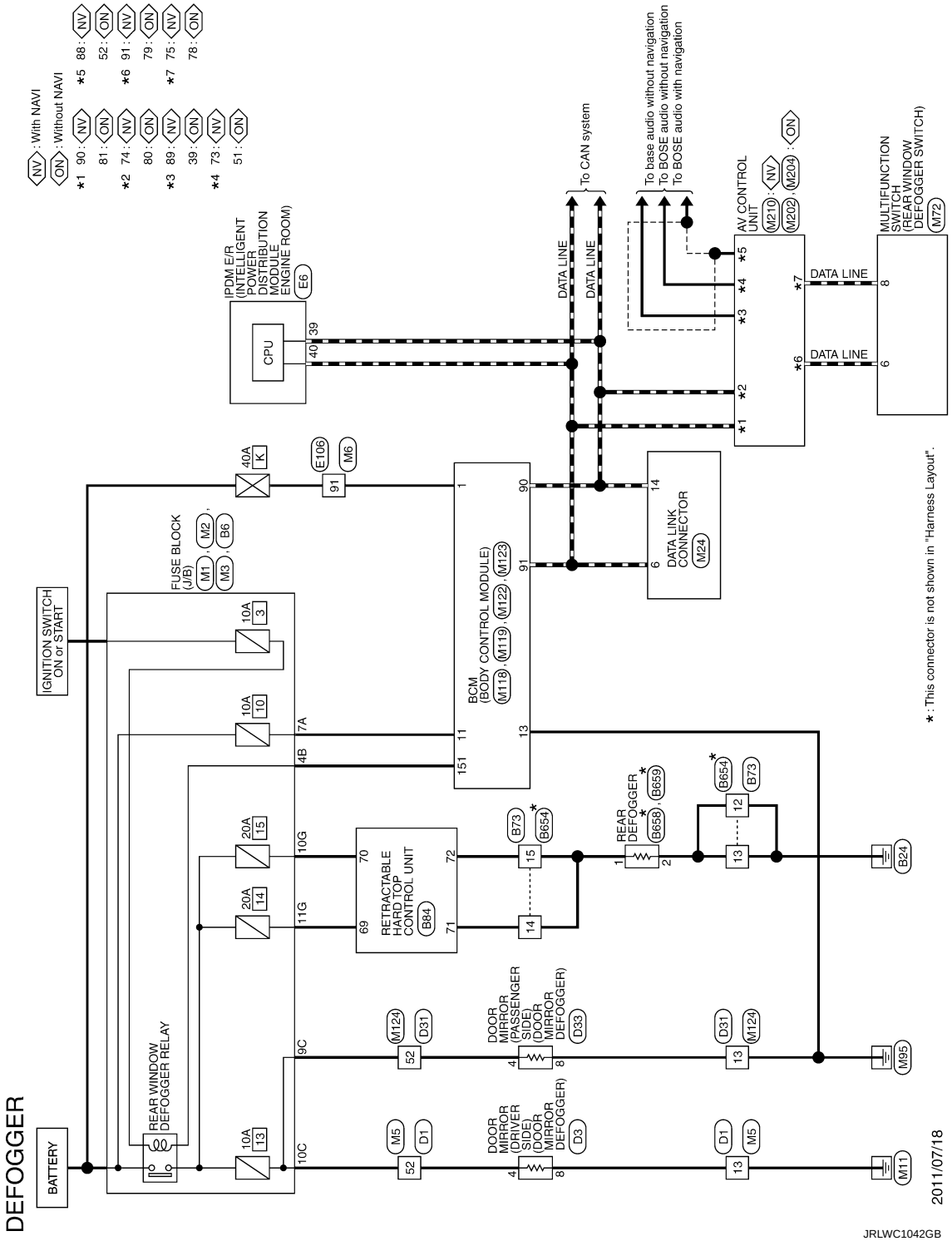
YES >> INSPECTION END.
NO >> Replace door mirror (passenger side). Refer to MIR-44, "DOOR MIRROR ASSEMBLY : Removal and Installation".

REAR WINDOW DEFOGGER SYSTEM

Wiring Diagram - DEFOGGER -

INFOID:0000000008155825

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".



ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000008815301

VALUES ON THE DIAGNOSIS TOOL

NOTE:
The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On

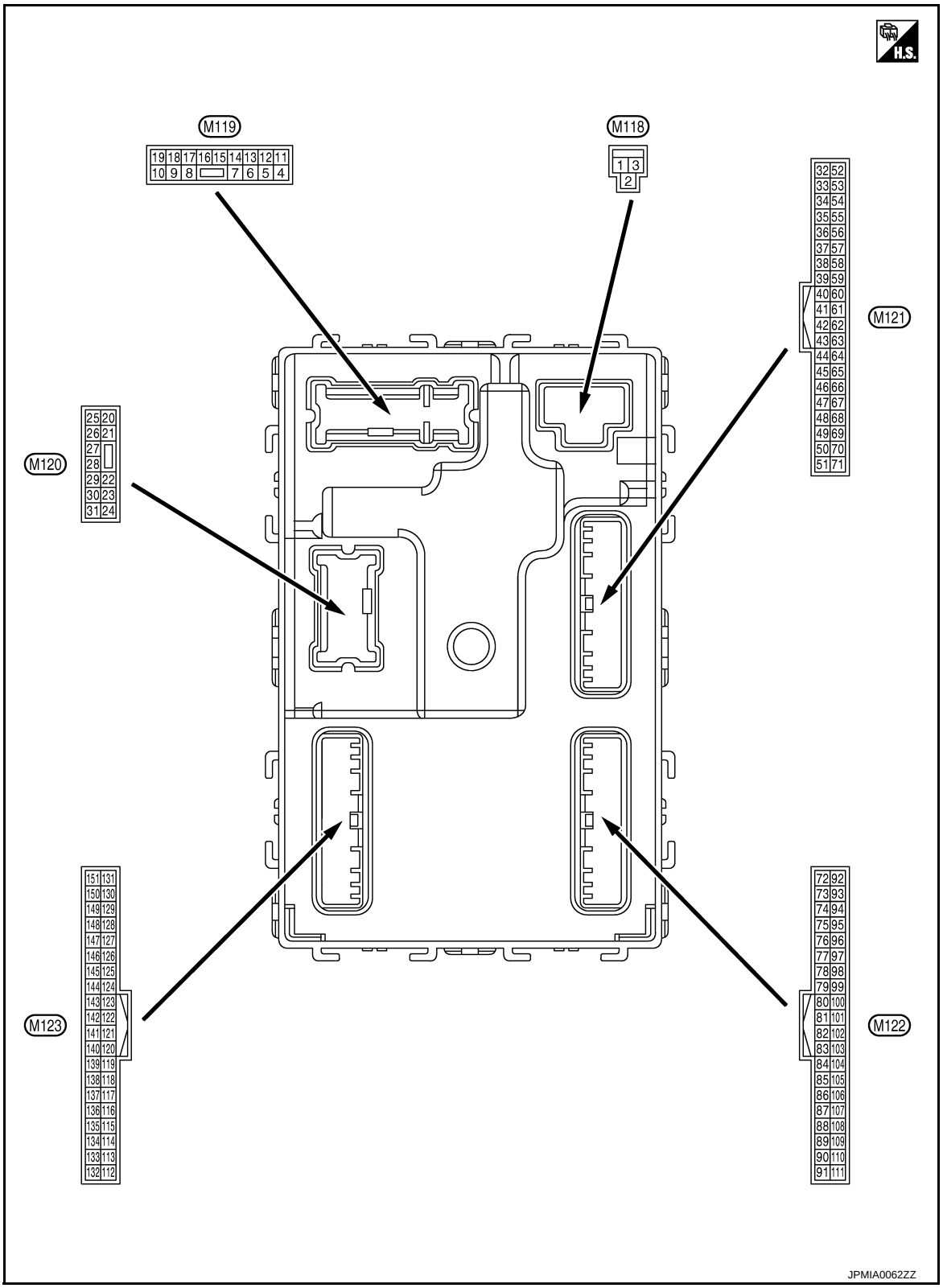
Monitor Item	Condition	Value/Status
DOOR SW-RR	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-RL	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-BK	**NOTE:** The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door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

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
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	**NOTE:** The item is indicated, but not monitored.	Off
ACC RLY -F/B	**NOTE:** The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW	• Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models)	Off
	• Selector lever in any position other than P (Except M/T models) • The clutch pedal is not depressed (M/T models)	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK	**NOTE:** The item is indicated, but not monitored.	Off
S/L -UNLOCK	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-F/B	**NOTE:** The item is indicated, but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	• Selector lever in any position other than P and N (Except M/T models) • The clutch pedal is not depressed (M/T models)	Off
	• Selector lever in P or N position • The clutch pedal is depressed	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On

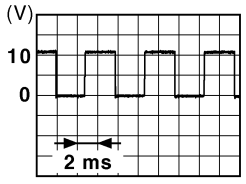
Monitor Item	Condition	Value/Status
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-REQ	**NOTE:** The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speed-ometer reading
VEH SPEED 2	While driving	Equivalent to speed-ometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position except for M/T models)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	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
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

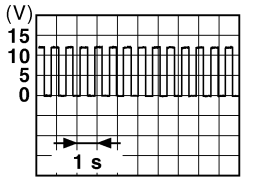
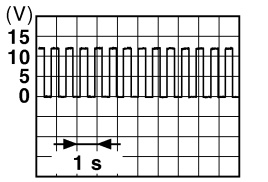
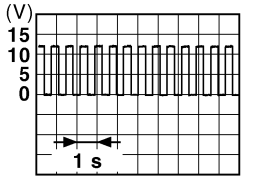
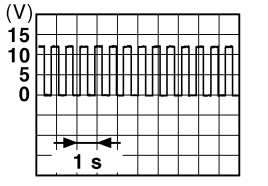
Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
	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 of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

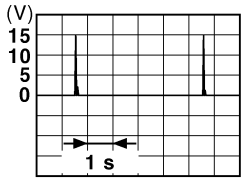
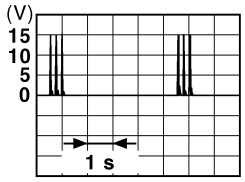
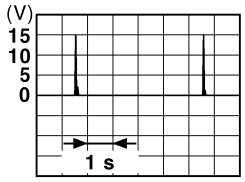
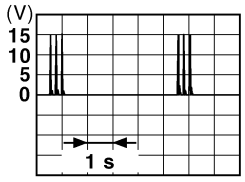
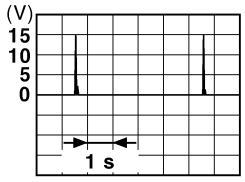
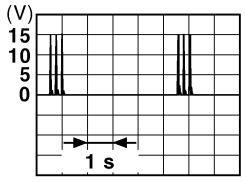
TERMINAL LAYOUT

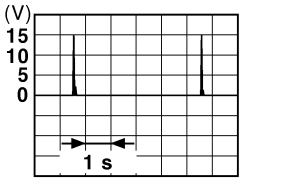
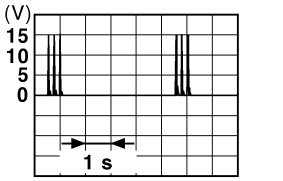
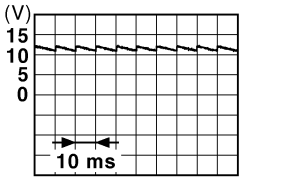
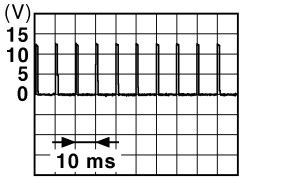


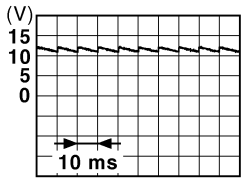
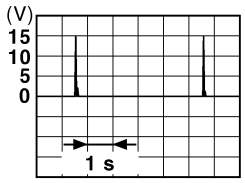
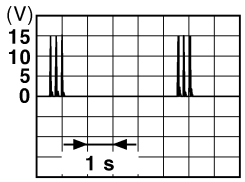
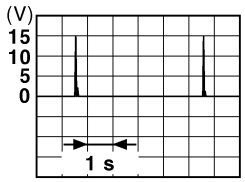
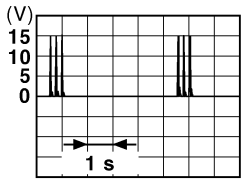
PHYSICAL VALUES

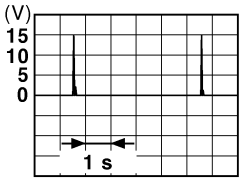
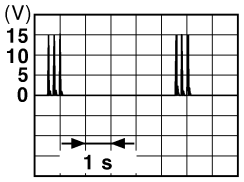
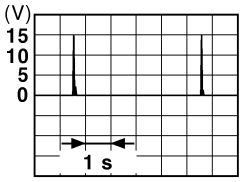
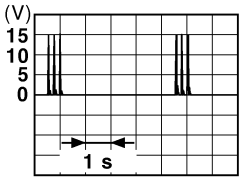
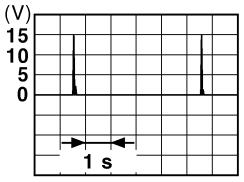
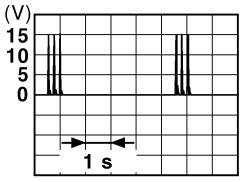
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5 (P)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
7 (SB)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	12 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (GR)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	**NOTE:** When the illumination brightening/dimming level is in the neutral position.  JSNIA0010GB
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

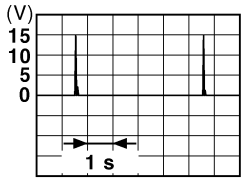
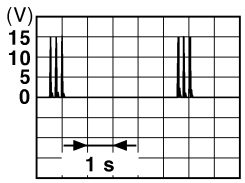
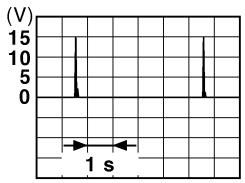
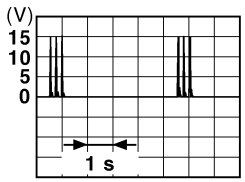
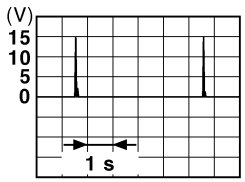
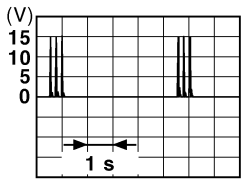
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (BR)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (V)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (Y)	Ground	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	12 V
					Other than OPEN (Trunk lid opener actuator is not activated)	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
30 (P)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0 V
					OFF	12 V

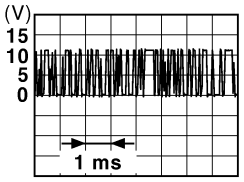
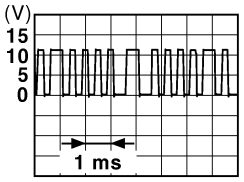
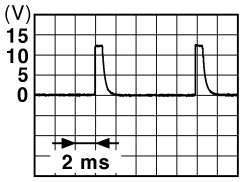
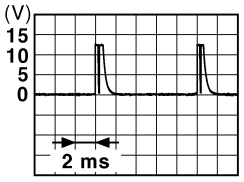
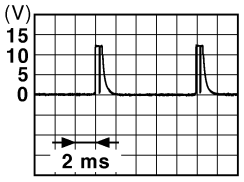
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (SB)	Ground	Trunk room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (V)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	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	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

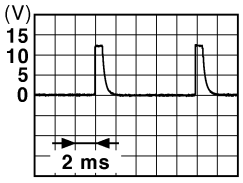
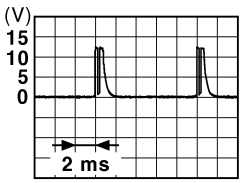
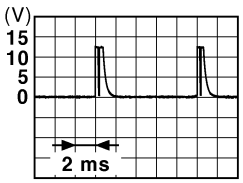
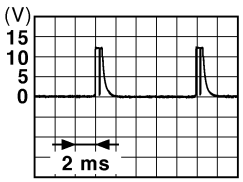
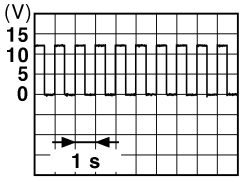
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
50 (G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	 JPMIA0011GB 11.8 V
					ON (Trunk lid is opened)	0 V
52 (BR)	Ground	Starter relay control	Output	Ignition switch ON (A/T models)	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
				Ignition switch ON (M/T models)	When the clutch pedal is depressed	Battery voltage
					When the clutch pedal is not depressed	0 V
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (G)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	12 V

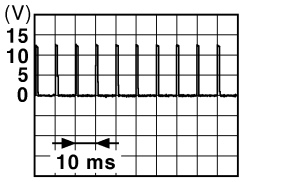
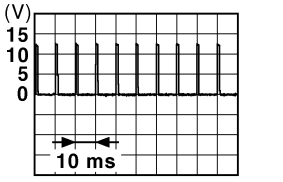
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
72 (R)	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

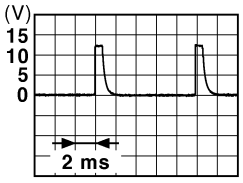
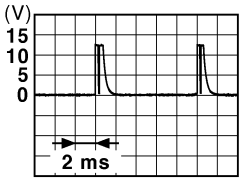
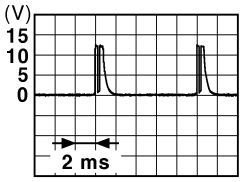
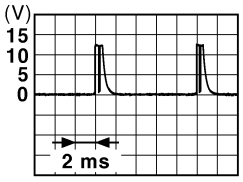
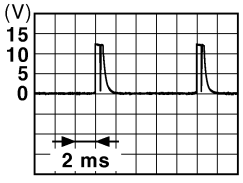
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
75 (BR)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
76 (V)	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	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

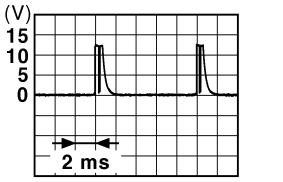
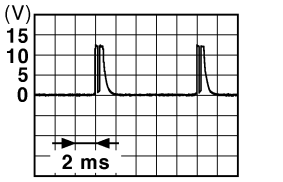
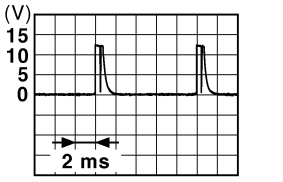
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78 (Y)	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

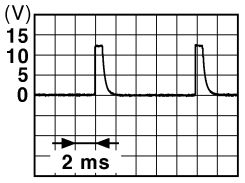
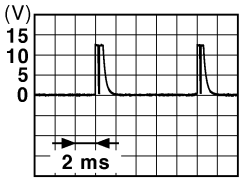
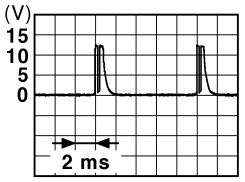
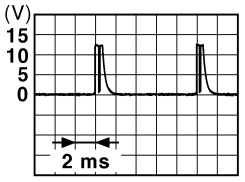
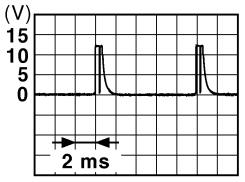
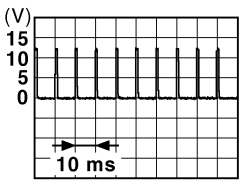
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester 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 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the Intelligent Key		 JMKIA0065GB
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Front fog lamp switch ON (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					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	 JPMIA0040GB 1.3 V

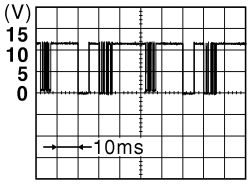
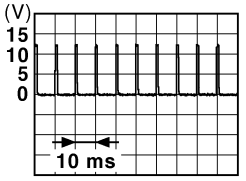
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (BG)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper volume dial 4)	 JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3	 JPMIA0040GB 1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—		—
91 (L)	Ground	CAN-H	Input/ Output	—		—
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	12 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V

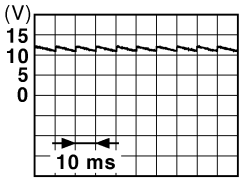
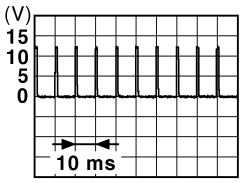
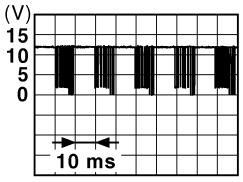
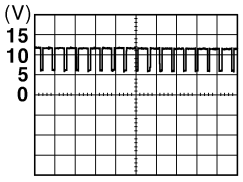
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		12 V
99 (R)	Ground	Selector lever P position switch (A/T models)	Input	Selector lever	P position	0 V
					Any position other than P	12 V
		ASCD clutch switch (M/T models)		ASCD clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		12 V

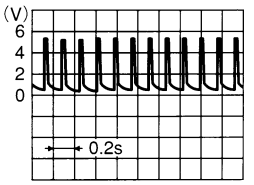
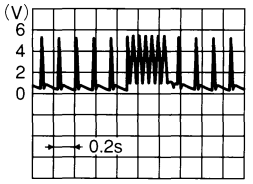
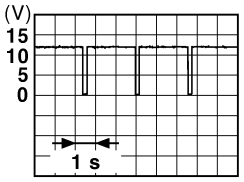
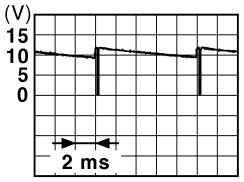
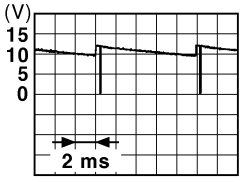
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch RH	 JPMIA0036GB 1.3 V
					Front wiper switch LO	 JPMIA0038GB 1.3 V
					Front washer switch ON	 JPMIA0039GB 1.3 V

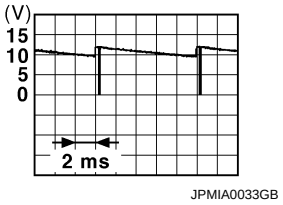
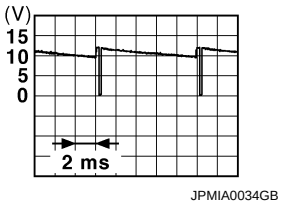
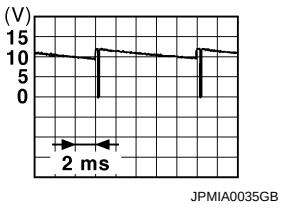
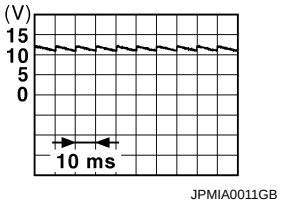
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper volume dial 4)	 JPMIA0038GB 1.3 V
					Lighting switch 1ST (Wiper volume dial 4)	 JPMIA0036GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	 JPMIA0039GB 1.3 V

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

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
112 (BR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		 JPMIA0156GB 8.7 V
113 (G)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
114 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (BR)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		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 (GR)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (SB)	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
				When the Intelligent Key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
124 (BG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
129 (BG)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1 V
					ON	0 V
132 (LG)	Ground	Power window switch and R.H.T. control unit communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
133 (Y)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

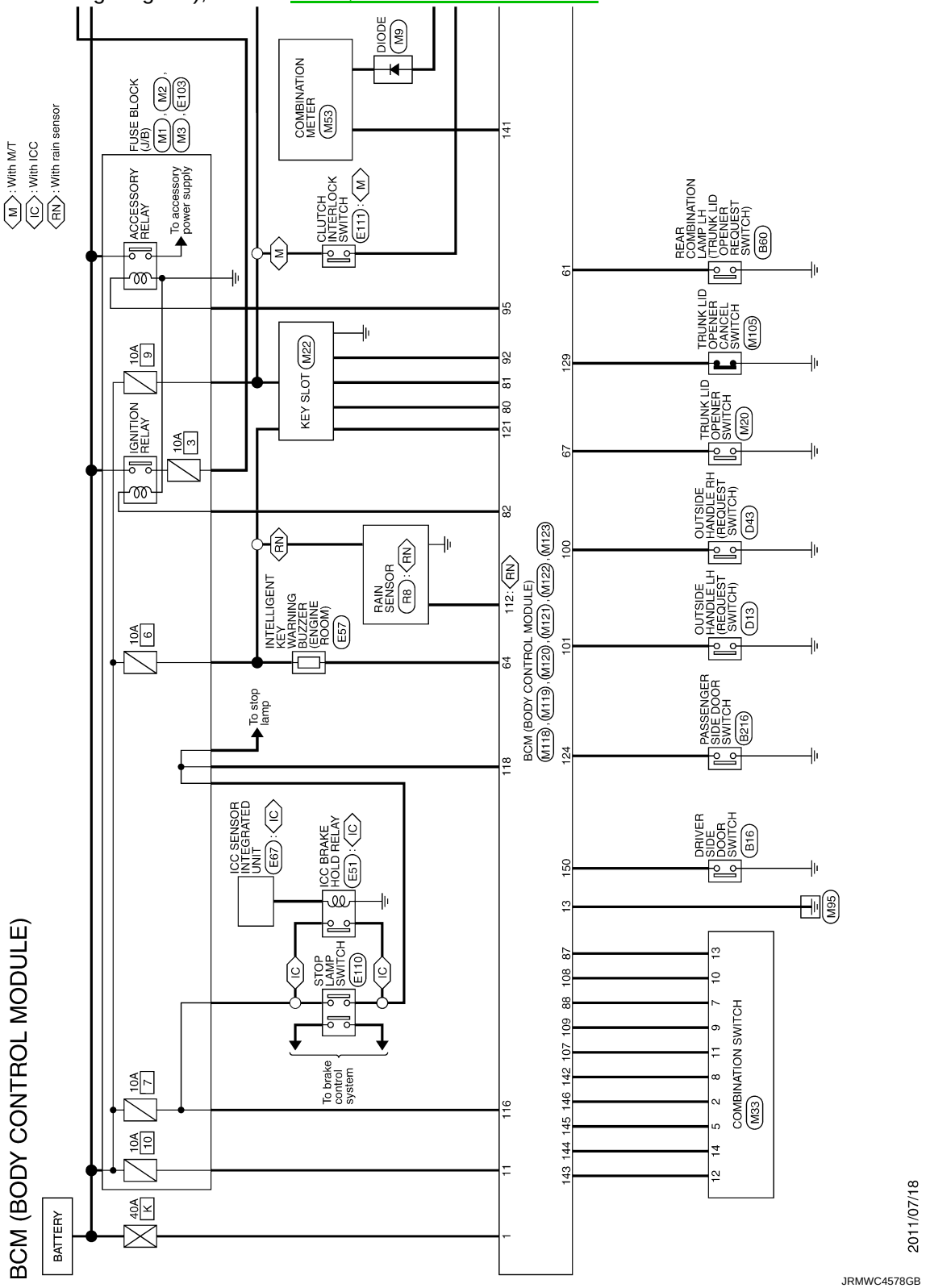
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
141 (R)	Ground	Security indicator lamp	Output	Security indicator lamp	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	12 V
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	
143 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	 JPMIA0032GB 10.7 V
					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	

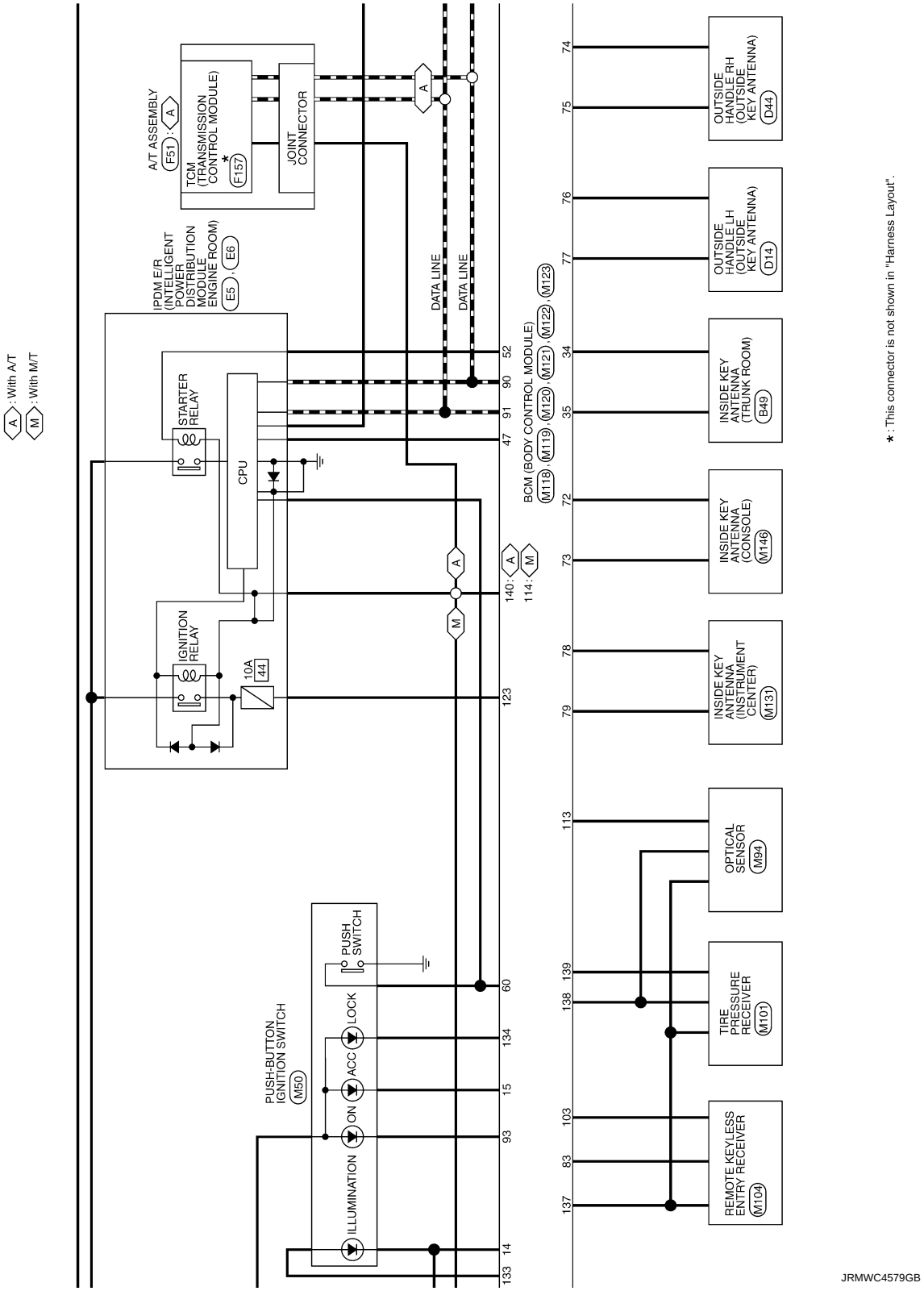
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	 JPMIA0033GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front wiper switch INT/ AUTO	 JPMIA0034GB 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	 JPMIA0035GB 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

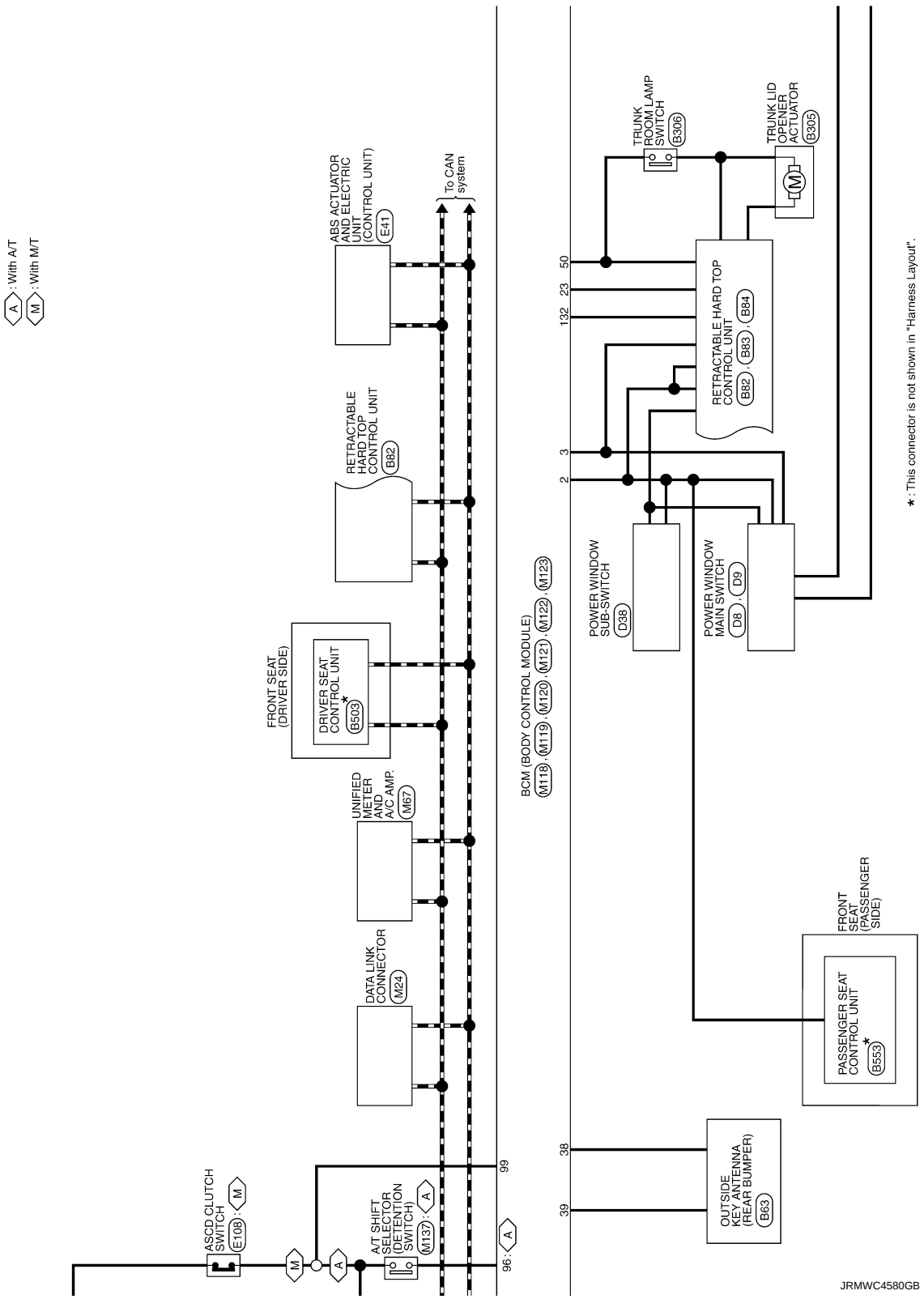
Wiring Diagram - BCM -

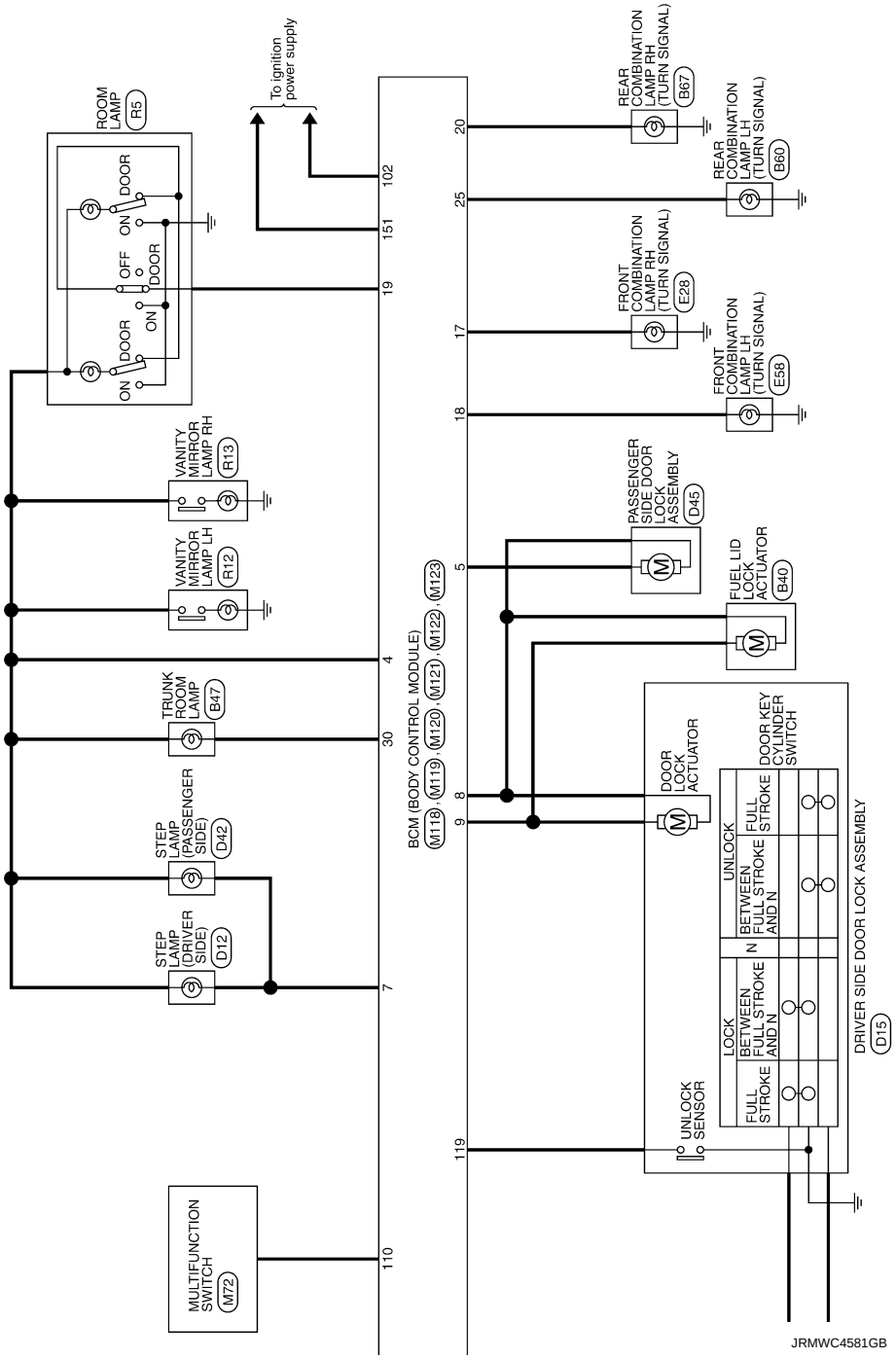
INFOID:0000000008815302

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".




A : With A/T
M : With M/T
A/T ASSEMBLY
F51 : A
TCM (TRANSMISSION CONTROL MODULE)
F157
JOINT CONNECTOR
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E5 , E6
STARTER RELAY
CPU
IGNITION RELAY
10A 44
DATA LINE
DATA LINE
PUSH-BUTTON IGNITION SWITCH
M50
ILLUMINATION
ON
ACC
LOCK
PUSH SWITCH
BCM (BODY CONTROL MODULE)
M118 , M119 , M120 , M121 , M122 , M123
OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
D44
OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA)
D14
INSIDE KEY ANTENNA (TRUNK ROOM)
B49
INSIDE KEY ANTENNA (CONSOLE)
M146
INSIDE KEY ANTENNA (INSTRUMENT CENTER)
M131
OPTICAL SENSOR
M94
TIRE PRESSURE RECEIVER
M101
REMOTE KEYLESS ENTRY RECEIVER
M104
* : This connector is not shown in "Harness Layout".
JRMWC4579GB


A : With A/T
M : With M/T
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E41
To CAN system
RETRACTABLE HARD TOP CONTROL UNIT B82
FRONT SEAT (DRIVER SIDE)
DRIVER SEAT CONTROL UNIT B503*
UNIFIED METER AND A/C AMP. M67
DATA LINK CONNECTOR M24
ASCD CLUTCH SWITCH E108
A/T SHIFT SELECTOR (DETENTION SWITCH) M137
BCM (BODY CONTROL MODULE) M118, M119, M120, M121, M122, M123
99
96
TRUNK ROOM LAMP SWITCH B306
TRUNK LID OPENER ACTUATOR B305
RETRACTABLE HARD TOP CONTROL UNIT B82, B83, B84
50
23
132
3
2
POWER WINDOW SUB-SWITCH D38
POWER WINDOW MAIN SWITCH D8, D9
FRONT SEAT (PASSENGER SIDE)
PASSENGER SEAT CONTROL UNIT B553*
38
39
OUTSIDE KEY ANTENNA (REAR BUMPER) B63
*: This connector is not shown in "Harness Layout".
JRMWC4580GB



Fail-safe

INFOID:0000000008815303

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
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 → OFF
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
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)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (12 V) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
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
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)

DTC Inspection Priority Chart

INFOID:0000000008815304

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	• B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI-SCANNING

Priority	DTC
4	• B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP/CLUTCH SW • B2605: PNP/CLUTCH SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E8: CLUTCH SW • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED
5	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT
6	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000008815305

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-16, "COMMON ITEM : CONSULT 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	Reference page
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM	—	—	—	—	BCS-36
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-37
U0415: VEHICLE SPEED	—	—	—	—	BCS-38
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-40

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
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-43
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-44
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-46
B2195: ANTI-SCANNING	×	—	—	—	SEC-47
B2553: IGNITION RELAY	—	×	—	—	PCS-47
B2555: STOP LAMP	—	×	—	—	SEC-48
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-50
B2557: VEHICLE SPEED	×	×	×	—	SEC-52
B2560: STARTER CONT RELAY	×	×	×	—	SEC-53
B2562: LOW VOLTAGE	—	×	—	—	BCS-39
B2601: SHIFT POSITION	×	×	×	—	SEC-54
B2602: SHIFT POSITION	×	×	×	—	SEC-57
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-59
B2604: PNP/CLUTCH SW	×	×	×	—	SEC-62
B2605: PNP/CLUTCH SW	×	×	×	—	SEC-64
B2608: STARTER RELAY	×	×	×	—	SEC-66
B260A: IGNITION RELAY	×	×	×	—	PCS-49
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-68
B2614: BCM	—	×	×	—	PCS-51
B2615: BCM	—	×	×	—	PCS-54
B2616: BCM	—	×	×	—	PCS-57
B2617: BCM	×	×	×	—	SEC-72
B2618: BCM	×	×	×	—	PCS-60
B261A: PUSH-BTN IGN SW	—	×	×	—	PCS-61
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-74
B2621: INSIDE ANTENNA	—	×	—	—	DLK-61
B2622: INSIDE ANTENNA	—	×	—	—	DLK-63
B2623: INSIDE ANTENNA	—	×	—	—	DLK-65
B26E8: CLUTCH SW	×	×	×	—	SEC-69
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-71
C1704: LOW PRESSURE FL	—	—	—	×	WT-21
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	WT-23
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	

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
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-26
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-27
C1734: CONTROL UNIT	—	—	—	×	WT-28

RETRACTABLE HARD TOP CONTROL UNIT

Reference Value

INFOID:0000000008815329

VALUES ON THE DIAGNOSIS TOOL

NOTE:
The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition		Status/Value
LATCH LOCK SEN	State of roof latch	Lock	ON
		Other than above	OFF
		Roof latch lock sensor circuit is short	NG
LATCH STATE SEN	State of roof latch motor	Operate	ON ⇔ OFF
		Stop	ON or OFF
		Roof latch lock sensor circuit is short	NG
LATCH OUT(ULK)	Operation of roof latch motor	Unlock is in operation	ON
		Other than above	OFF
		Roof latch motor (UNLOCK) circuit is short	NG
LATCH OUT(LCK)	Operation of roof latch motor	Lock is in operation	ON
		Other than above	OFF
		Roof latch motor (LOCK) circuit is short	NG
LATCH VALUE	State of roof latch	Lock	0
		Halfway position	1-77
		Unlock	78 or more
LATCH LIMIT SW	State of roof latch	Roof is fully close and roof latch is in LOCK	CLOSE
		Other than above	OPEN
LATCH STATE	State of roof latch	Initialization is not complete	NG
		LOCK	CLOSE
		Halfway position	MID
		UNLOCK	OPEN
PS VALUE(DRAW)	State of parcel shelf	Top	Retractable hard top fully open state: 2246 Retractable hard top fully closed state: 2220
		Bottom	1000
PS VALUE(ROTA)	State of parcel shelf	Vertical	3190
		Horizontal	Retractable hard top fully open state: 1340 Retractable hard top fully closed state: 1000
PS OUT(UP)	Operation of parcel shelf	Up operation is in operation	ON
		Other than above	OFF
		Parcel shelf (UP) circuit is short	NG
PS OUT(DOWN)	Operation of parcel shelf	DOWN operation is in operation	ON
		Other than above	OFF
		Parcel shelf (DOWN) circuit is short	NG

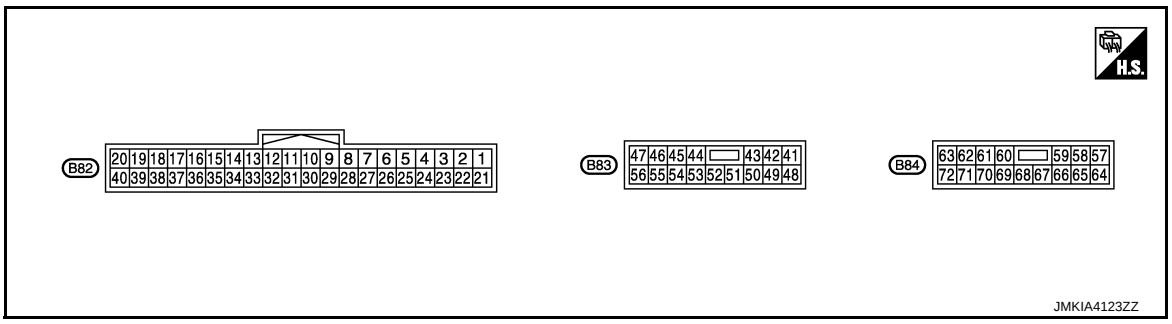
Monitor Item	Condition		Status/Value
PS OUT(VERT)	Operation of parcel shelf	Vertical operation is in operation	ON
		Other than above	OFF
		Parcel shelf (VERTICAL) circuit is short	NG
PS OUT(HORI)	Operation of parcel shelf	Horizontal operation is in operation	ON
		Other than above	OFF
		Parcel shelf (HORIZONTAL) circuit is short	NG
PS STATE(DRAW)	State of parcel shelf	For the details, refer to RF-37, "PARCEL SHELF FUNCTION : System Description"	1-6
		State of parcel shelf status sensor (DRAW) is not recognized	NG
PS STATE(ROTA)	State of parcel shelf	For the details, refer to RF-37, "PARCEL SHELF FUNCTION : System Description"	1-4
		State of parcel shelf status sensor (ROTATE) is not recognized	NG
ROOF VALUE	Roof status sensor signal		0-1023
PUMP OUT(RH)	Operation of hydraulic pump motor	Turning clockwise	ON
		Other than above	OFF
		Hydraulic pump motor (RH) circuit is short	NG
PUMP OUT(LH)	Operation of hydraulic pump motor	Turning counterclockwise	ON
		Other than above	OFF
		Hydraulic pump motor (LH) circuit is short	NG
SWITCH VLV 1 OUT	Operation of switching valve 1	Operate	ON
		Stop	OFF
		Switching valve 1 circuit is short	NG
SWITCH VLV 2 OUT	Operation of switching valve 2	Operate	ON
		Stop	OFF
		Switching valve 2 circuit is short	NG
ROOF STATE	State of roof	For the details, refer to RF-20, "RETRACTABLE HARD TOP SYSTEM : System Description"	1-42
		State of roof is not recognized	NG
HYDRAULIC STATE	State of hydraulic system	For the details, refer to RF-31, "HYDRAULIC SYSTEM CONTROL FUNCTION : System Description"	1-22
		State of hydraulic system is not recognized	NG
ROOF SW(OPEN)	State of roof open/close switch	OPEN operation is in operation	ON
		Other than above	OFF
ROOF SW(CLOSE)	State of roof open/close switch	CLOSE operation is in operation	ON
		Other than above	OFF
ROOF LINK STATE	State of roof link	For the details, refer to RF-31, "HYDRAULIC SYSTEM CONTROL FUNCTION : System Description"	1-8
		State of roof is not recognized	NG
TRUNK LINK SEN(RH)	State of trunk link lock (RH)	LOCK	ON
		Other than above	OFF
		Trunk link lock (RH) circuit is short or open	NG

Monitor Item	Condition		Status/Value
TRUNK LINK SEN(LH)	State of trunk link lock (LH)	LOCK	ON
		Other than above	OFF
		Trunk link lock (LH) circuit is short or open	NG
TR ROOM LAMP SW	State of trunk lid (trunk room lamp switch)	Open	ON
		Other than above	OFF
TRUNK STATUS SEN	State of trunk lid	Fully OPEN	ON
		Other than above	OFF
		Trunk status sensor circuit is short or open	NG
TRUNK OPEN OUT	Operation of trunk lid opener actuator	OPEN operation is in operation	ON
		Other than above	OFF
		Trunk lid opener actuator circuit is short	NG
FLPD LIMIT SW(DWN)	State of flipper door	Both of flipper door (LH/RH) are in DOWN position	ON
		Other than above	OFF
FLPD LIMIT SW(UP)	State of flipper door	Both of flipper door (LH/RH) are in UP position	ON
		Other than above	OFF
FLPD OUT(UP)	Operation of flipper door	UP operation is in operation	ON
		Other than above	OFF
		Flipper door motor (UP) circuit is short	NG
FLPD OUT(DWN)	Operation of flipper door	DOWN operation is in operation	ON
		Other than above	OFF
		Flipper door motor (DOWN) circuit is short	NG
FLPD STATE	State of flipper door	For the details, refer to RF-39, "FLIPPER DOOR FUNCTION : System Description"	1, 2, 4
		State of flipper door is not recognized	NG
R WIN LH OUT(UP)	Operation of rear power window (LH)	UP operation is in operation	ON
		Other than above	OFF
		Rear power window LH (UP) circuit is short	NG
R WIN LH OUT(DWN)	Operation of rear power window (LH)	DOWN operation is in operation	ON
		Other than above	OFF
		Rear power window LH (DOWN) circuit is short	NG
R WIN RH OUT(UP)	Operation of rear power window (RH)	UP operation is in operation	ON
		Other than above	OFF
		Rear power window RH (UP) circuit is short	NG
R WIN RH OUT(DWN)	Operation of rear power window (RH)	DOWN operation is in operation	ON
		Other than above	OFF
		Rear power window RH (DOWN) circuit is short	NG
REAR DEF ON SIG	State of rear window defogger switch	While operating	ON
		Stop	OFF
REAR DEF OUT	State of rear window defogger system	Operate	ON
		Stop	OFF
		Rear window defogger circuit is short	NG
R WIN CURENT(LH)	Current value to rear power window motor (LH)		0-25.5 (A)

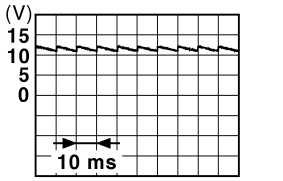
Monitor Item	Condition		Status/Value
R WIN CURENT(RH)	Current value to rear power window motor (RH)		0-25.5 (A)
RR WIN STATE(LH)	State of rear power window (LH)	Upper	UP
		Halfway	MID
		Lower end	DOWN
RR WIN STATE(RH)	State of rear power window (RH)	Upper	UP
		Halfway	MID
		Lower end	DOWN
RAP SIGNAL	State of RAP	Operate	ON
		Stop	OFF
TR MODE SIGNAL	State of trunk mode signal	Output	ON
		Stop	OFF
ROOF STATE(AUDIO)	State of roof	State of fully open	ON
		Other than above	OFF
		Roof state signal (audio) circuit is short	NG
ROOF BUZZER OUT	State of roof warning buzzer	Operate	ON
		Stop	OFF
		Roof warning buzzer circuit is short	NG
LOCAL COMM 1	State of local communication 1	Normal	OK
		It is in sleep mode	SLEEP
		Communication error	NG
LOCAL COMM 2	State of local communication 2	Normal	OK
		It is in sleep mode	SLEEP
		Communication error	NG
ROOF MODE	Roof operation mode	Normal	OK
		Only close operation is possible	CLOSE
		Operation is stop	STOP
		Operation is inhibited	NG
POP-UP BAR DPLOY	State of pop-up bar	Normal	OK
		State of deployment	NG
POP-UP BAR DIAG	Self-diagnosis result of pop-up bar	Normal	OK
		Malfunctioning is detected	NG
SWITCH VLV COND	Diagnosis result of retractable hard top control unit	Diagnosis result of retractable hard top control unit	OK
		Switching valve (1/2) system is malfunctioning	NG
PWR SOURCE COND	Power supply voltage state of retractable hard top control unit	Normal	OK
		Malfunction	NG
CPU COND	Diagnosis result of retractable hard top control unit	CPU is normal	OK
		CPU is not normal	NG
ROOF COND	Diagnosis result of retractable hard top control unit	Roof position is normal	OK
		Roof position is not normal	NG
SENSOR COND	Diagnosis result of retractable hard top control unit	Hole sensor system is normal	OK
		Hole sensor system is not normal	NG
IGN ON SIG(BCM)	Power position signal (via CAN from BCM)	ON	OK
		Other than above	NG

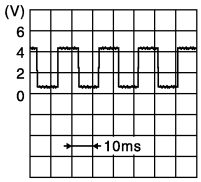
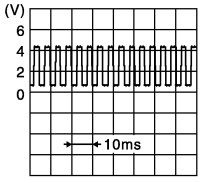
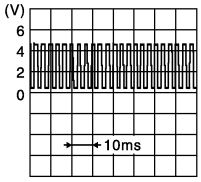
Monitor Item	Condition		Status/Value
VHCL STOP-METER	Vehicle speed signal (via CAN from meter and A/C amp.)	0km/h	OK
		Other than above	NG
CIRCUIT COND	Diagnosis result of retractable hard top control unit	Circuit system is normal	OK
		Circuit system is not normal	NG
ROOF TIMEOUT	State of roof operation	Normal	OK
		Malfunction	NG
CAN COMM	CAN communication status	Normal	OK
		Malfunction	NG
THERMO PROTECT 1	Thermo protection (Stage1)	In non-operation	OK
		In operation	NG
SHIFT R SIG	Shift position	Other than R position	OK
		R position	NG
PRMIT ENG ST(BCM)	Permit engine start signal	Signal is not received	OK
		Signal is in receiving	NG
THERMO PROTECT-2	Thermo protection (Stage2)	In non-operation	OK
		In operation	NG
TONNEAU SW	Tonneau board	Set	OK
		Other than above	NG
BRK LAMP SW(BCM)	Brake lamp switch signal (via CAN from BCM)	Brake is depressed	OK
		Brake is released	NG
THERMO VALUE	Conversion value of thermo protection		0-65535
PWR SOURCE VALUE	Power supply voltage value of retractable hard top control unit		0-20 (V)
ROOF INITIAL(OPEN)	State of performing roof position initialization	Registration of full open position is complete	OK
		Registration of full open position is not complete	NG
ROOF INITIAL(CLOSE)	State of performing roof position initialization	Registration of full closed position is complete	OK
		Registration of full closed position is not complete	NG
PSHELF INITIAL(ROTA)	State of performing parcel shelf position initialization	Registration of rotation position is complete	OK
		Registration of rotation position is not complete	NG
PSHELF INITIAL(DRAW)	State of performing parcel shelf position initialization	Registration of draw position is complete	OK
		Registration of draw position is not complete	NG

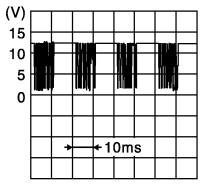
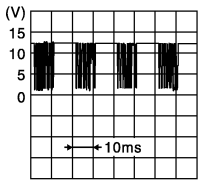
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
1 (G)	Ground	Roof open/close switch (OPEN)	Input	Ignition switch ON	Roof open/close switch (OPEN)	Pressed	0 V
						Released	Battery voltage
2 (BR)	Ground	Roof open/close switch (CLOSE)	Input	Ignition switch ON	Roof open/close switch (CLOSE)	Pressed	0 V
						Released	Battery voltage
3 (B)	Ground	Flipper door limit switch ground	—	Ignition switch ON	—		0 V
4 (L)	Ground	Tonneau board switch	Input	Ignition switch ON	Tonneau board	Hooked	Battery voltage
						Released	0 V
5 (SB)	Ground	Trunk room lamp switch	Input	Ignition switch ON	Trunk lid	Locked	 JPMIA0011GB
						Other than above	0 V
6 (L)	Ground	Roof latch limit switch	Input	Ignition switch ON	Roof	Close	0 V
						Other than above	Battery voltage
7 (W)	Ground	Flipper door limit switch (UP)	Input	Ignition switch ON	Flipper door LH and RH	Top	0 V
						Other than above	Battery voltage
8 (G)	Ground	Flipper door limit switch (DOWN)	Input	Ignition switch ON	Flipper door LH and RH	Bottom	0 V
						Other than above	Battery voltage
11 (W)	Ground	RAP signal	Input	Ignition switch ON	RAP function	Active	Battery voltage
						Inactive	0 V
12 (Y)	Ground	Back up lamp signal	Input	Ignition switch ON	Shift position	R position	Battery voltage
						Other than above	0 V
13 (BG)	Ground	Sensor power supply	Output	Ignition switch OFF	—		5 V
14 (P)	Ground	Trunk link sensor (LH)	Input	Ignition switch ON	Trunk link lock (LH)	LOCK	0.3 V
						Other than above	1.5 V
15 (SB)	Ground	Trunk link sensor (RH)	Input	Ignition switch ON	Trunk link lock (RH)	LOCK	0.3 V
						Other than above	1.5 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
16 (GR)	Ground	Roof latch status sensor	Input	Ignition switch ON	Roof latch	Operate	 JMKIA4021GB
						Stop	0.5 or 4.5 V
17 (G)	Ground	Roof latch lock sensor	Input	Ignition switch ON	Roof latch	LOCK	1.0 V
						Other than above	3.8 V
18 (LG)	Ground	Trunk status sensor	Input	Ignition switch ON	Trunk lid (front)	Fully open	1.0 V
						Other than above	3.8 V
22 (V)	Ground	Roof status sensor power supply	Output	Ignition switch ON	—		5 V
23 (B)	Ground	Roof status sensor ground	—	Ignition switch ON	—		0 V
24 (GR)	Ground	Parcel shelf status sensor (DRAW)	Input	Ignition switch ON	Parcel shelf motor (DRAW)	Active	 JMKIA4022GB
						Inactive	0.5 V or 5 V
25 (R)	Ground	Parcel shelf status sensor (ROTATION)	Input	Ignition switch ON	Parcel shelf motor (ROTATE)	Active	 JMKIA4023GB
						Inactive	0.5 V or 5 V
26 (P)	Ground	Roof status sensor signal	Input	Ignition switch ON	Roof	Fully close→Fully open	0.5 V→5 V
27 (Y)	Ground	Trunk lid open request signal (BCM)	Output	—	Trunk opener	Operate	0 V →Battery voltage →0 V
						Other than above	0 V
28 (BG)	Ground	Flipper door motor ground	—	Ignition switch ON	—		0 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
29 (V)	Ground	Local communication (BCM)	Input/ Output	Ignition switch ON	—		 JMKIA4024GB
30 (GR)	Ground	Local communication (POWER WINDOW)	Input/ Output	Ignition switch ON	—		 JMKIA4024GB
31 (L)	Ground	CAN-H	Input/ Output	—	—		—
32 (P)	Ground	CAN-L	Input/ Output	—	—		—
33 (V)	Ground	Roof status siganal (AUDIO)	Output	Ignition switch ON	Retractable hard top	Fully open	Battery voltage
						Other than above	0 V
35 (B)	Ground	Roof warning buzzer	Output	Ignition switch ON	Roof warning buzzer	Sounds	0 V
						Not sounds	Battery voltage
36 (Y)	Ground	Hydraulic pump relay (RH)	—	Ignition switch ON	Hydraulic pump motor (RH)	Active	0 V
						Inactive	Battery voltage
37 (W)	Ground	Hydraulic pump relay (LH)	—	Ignition switch ON	Hydraulic pump motor (LH)	Active	0 V
						Inactive	Battery voltage
38 (BR)	Ground	Hydraulic pump relay ground	—	Ignition switch ON	—		0 V
41 (SB)	Ground	Parcel shelf motor (UP)	Output	Ignition switch ON	Parcel shelf motor (DRAW-UP)	Active	Battery voltage
						Inactive	0 V
42 (W)	Ground	Parcel shelf motor (DOWN)	Output	Ignition switch ON	Parcel shelf motor (DRAW-DOWN)	Active	Battery voltage
						Inactive	0 V
43 (BR)	Ground	Hydraulic pump power supply relay	Output	Ignition switch ON	Retractable hard top system	Active	Battery voltage
						Inactive	0 V
44 (R)	Ground	Parcel shelf motor (HORIZONTAL)	Output	Ignition switch ON	Parcel shelf motor (ROTATION-HORIZONTAL)	Active	Battery voltage
						Inactive	0 V
45 (BR)	Ground	Parcel shelf motor (VERTICAL)	Output	Ignition switch ON	Parcel shelf motor (ROTATION-VERTICAL)	Active	Battery voltage
						Inactive	0 V
46 (G)	Ground	Flipper door motor (UP)	Output	Ignition switch ON	Flipper door motor (UP)	Active	Battery voltage
						Inactive	0 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
47 (L)	Ground	Flipper door motor (DOWN)	Output	Ignition switch ON	Flipper door motor (DOWN)	Active	Battery voltage
						Inactive	0 V
48 (R)	Ground	Roof latch motor (OPEN)	Output	Ignition switch ON	Roof latch motor (OPEN)	Active	Battery voltage
						Inactive	0 V
49 (Y)	Ground	Roof latch motor (CLOSE)	Output	Ignition switch ON	Roof latch motor (CLOSE)	Active	Battery voltage
						Inactive	0 V
51 (SB)	Ground	Trunk lid opener actuator	Output	—	Trunk lid opener	Operate	0 V → Battery voltage → 0 V
						Stop	0 V
52 (V)	Ground	Trunk lid opener actuator ground	—	Ignition switch ON	—		0 V
53 (BG)	Ground	Rear power window motor LH (UP)	Output	Ignition switch ON	Rear power window motor LH (UP)	Active	Battery voltage
						Inactive	0 V
54 (LG)	Ground	Rear power window motor LH (DOWN)	Output	Ignition switch ON	Rear power window motor LH (DOWN)	Active	Battery voltage
						Inactive	0 V
55 (GR)	Ground	Rear power window motor RH (UP)	Output	Ignition switch ON	Rear power window motor RH (UP)	Active	Battery voltage
						Inactive	0 V
56 (P)	Ground	Rear power window motor RH (DOWN)	Output	Ignition switch ON	Rear power window motor RH (DOWN)	Active	Battery voltage
						Inactive	0 V
57 (Y)	Ground	Power source (ROOF)	Input	—	—		Battery voltage
58 (Y)	Ground	Power source (ROOF)	Input	—	—		Battery voltage
59 (Y)	Ground	Power source (ROOF)	Input	—	—		Battery voltage
60 (B)	Ground	Ground (ROOF)	—	Ignition switch ON	—		0 V
61 (B)	Ground	Ground (ROOF)	—	Ignition switch ON	—		0 V
62 (GR)	Ground	Power source (POWER WINDOW)	Input	—	—		Battery voltage
63 (Y)	Ground	Power source (POWER WINDOW)	Input	—	—		Battery voltage
64 (B)	Ground	Ground (POWER WINDOW)	—	Ignition switch ON	—		0 V
65 (B)	Ground	Ground (POWER WINDOW)	—	Ignition switch ON	—		0 V
66 (P)	Ground	Switching valve 1	Output	Ignition switch ON	Switching valve 1	Active	Battery voltage
						Inactive	0 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
67 (SB)	Ground	Switching valve 2	Output	Ignition switch ON	Switching valve 2	Active	Battery voltage
						Inactive	0 V
68 (L)	Ground	Switching valve ground	—	Ignition switch ON	—		0 V
69 (G)	Ground	Power source (REAR WINDOW DEFOGGER)	Input	—	—		Battery voltage
70 (P)	Ground	Power source (REAR WINDOW DEFOGGER)	Input	—	—		Battery voltage
71 (BR)	Ground	Rear window defogger power supply	Output	Ignition switch ON	Rear defogger switch ON and roof is fully closed		Battery voltage
72 (W)	Ground	Rear window defogger power supply	Output	Ignition switch ON	Rear defogger switch ON and roof is fully closed		Battery voltage

Fail-safe

INFOID:0000000008815330

FAIL-SAFE CONTROL BY DTC

Retractable hard top control unit performs fail-safe control when any DTC are detected.

Display contents of CONSULT		Fail-safe	Cancellation
U1000	CAN COMM CIRCUIT	Inhibit retractable hard top operation.	Communication is normal
U1010	CONTROL UNIT (CAN)	Inhibit retractable hard top operation.	Communication is normal
U0140	LOCAL COMM-1	Inhibit retractable hard top operation.	Communication is normal
U0215	LOCAL COMM-1	Inhibit retractable hard top operation.	Communication is normal
B1701	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Replace retractable hard top control unit.
B1702	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Replace retractable hard top control unit.
B1709	ROOF SWITCH(OPEN)	Inhibit retractable hard top operation.	Detects roof open/close switch (OPEN) is OFF
B170A	ROOF SWITCH(CLOSE)	Inhibit retractable hard top operation.	Detects roof open/close switch (CLOSE) is OFF
B170B	ROOF SWITCH	Inhibit retractable hard top operation.	Detects roof open/close switch (OPEN/CLOSE) is OFF
B170C	TRUNK LINK SENSOR(LH)	Inhibit retractable hard top operation.	Detects normal value
B170D	TRUNK LINK SENSOR(RH)	Inhibit retractable hard top operation.	Detects normal value
B170F	SENSOR POWER SUPPLY	Inhibit retractable hard top operation.	Detects normal value
B1710	LATCH STATUS SENSOR	Inhibit retractable hard top operation.	Detects normal value
B1711	LATCH LOCK SENSOR	Inhibit retractable hard top operation.	Detects normal value
B1712	TRUNK STATUS SENSOR	Inhibit retractable hard top operation.	Detects normal value
B1715	ROOF STATUS SEN PWR	Inhibit retractable hard top operation.	Detects normal value
B1716	PS STATUS SEN(DRAW)	Inhibit retractable hard top operation.	Detects normal value
B1718	PS STATUS SEN(ROTA)	Inhibit retractable hard top operation.	Detects normal value
B1719	ROOF STATUS SEN	Inhibit retractable hard top operation.	Detects normal value

Display contents of CONSULT		Fail-safe	Cancellation
B171A	HYDRAULIC PMP(LH)	Inhibit retractable hard top operation.	Detects normal value
B171B	HYDRAULIC PMP(RH)	Inhibit retractable hard top operation.	Detects normal value
B171C	SWITCHING VALVE 1	Inhibit retractable hard top operation.	Detects normal value
B171D	SWITCHING VALVE 2	Inhibit retractable hard top operation.	Detects normal value
B171E	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B171F	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1720	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1721	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1722	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1723	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1724	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1725	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1726	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1728	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1729	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B172A	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B172B	ROOF STATE SIG(AUDIO)	Inhibit retractable hard top operation.	Detects normal value
B172D	ROOF WARNING BUZZ-ER	Inhibit retractable hard top operation.	Detects normal value
B172E	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B172F	REAR PWR WINDOW(LH)	Inhibit retractable hard top operation.	Detects normal value
B1730	REAR PWR WIN-DOW(RH)	Inhibit retractable hard top operation.	Detects normal value
B1731	HYDRAULIC STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1732	HYDRAULIC STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1733	HYDRAULIC STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1734	HYDRAULIC STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1735	HYDRAULIC STATE 5	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1736	HYDRAULIC STATE 6	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1737	HYDRAULIC STATE 7	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1738	HYDRAULIC STATE 8	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1739	HYDRAULIC STATE 9	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173A	HYDRAULIC STATE 10	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173B	HYDRAULIC STATE 11	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173C	HYDRAULIC STATE 12	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173D	HYDRAULIC STATE 13	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173E	HYDRAULIC STATE 14	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173F	HYDRAULIC STATE 15	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1740	HYDRAULIC STATE 16	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1741	HYDRAULIC STATE 17	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1742	HYDRAULIC STATE 18	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1743	HYDRAULIC STATE 19	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1744	HYDRAULIC STATE 20	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1745	HYDRAULIC STATE 21	Inhibit retractable hard top operation.	Turn ignition switch OFF

Display contents of CONSULT		Fail-safe	Cancellation
B1746	HYDRAULIC STATE 22	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1747	P SHELF (DRAW) STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1748	P SHELF (DRAW) STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1749	P SHELF (DRAW) STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174A	P SHELF (DRAW) STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174B	P SHELF (DRAW) STATE 5	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174C	P SHELF (DRAW) STATE 6	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174D	P SHELF (ROT) STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174E	P SHELF (ROT) STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174F	P SHELF (ROT) STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1750	P SHELF (ROT) STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1751	ROOF LATCH STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1752	ROOF LATCH STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1753	ROOF LATCH STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1754	FLIPPER DOOR STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1755	FLIPPER DOOR STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1756	FLIPPER DOOR STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1757	FLIPPER DOOR STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1758	THERMO PROTECTION	Inhibit retractable hard top operation.	It is not in thermo protection area (Refer to RF-20, "RETRACTABLE HARD TOP SYSTEM : System Description")
B175C	PWR SOURCE(ROOF)	Inhibit retractable hard top operation.	Power source is 11.4 (V) or more for 0.5 second
B175D	PWR SOURCE(ROOF)	Inhibit retractable hard top operation.	Power source is14.5 (V) or more for 4 seconds
B175E	PWR SOURCE(WINDOW)	Inhibit retractable hard top operation and rear power window operation.	Power source (power window) is 9.5 (V) or less
B175F	PWR SOURCE(WINDOW)	Inhibit retractable hard top operation and rear power window operation.	Power source (power window) is 15.5 (V) or more
B1760	ROOF CONTROL UNIT	Inhibit rear window defogger operation.	Detects normal value
B1761	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1762	ROOF STATE	Inhibit retractable hard top operation.	Detects normal value
B1763	HYDRAULIC STATE	Inhibit retractable hard top operation.	Detects normal value
B1764	ROOF LATCH STATE	Inhibit retractable hard top operation.	Detects normal value
B1765	FLIPPER DOOR STATE	Inhibit retractable hard top operation.	Detects normal value

DTC Inspection Priority Chart

INFOID:0000000008815331

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

Priority	Display contents of CONSULT	
1	U1000	CAN COMM CIRCUIT
	U1010	CONTROL UNIT (CAN)

Priority	Display contents of CONSULT	
2	B175C	PWR SOURCE(ROOF)
	B175D	PWR SOURCE(ROOF)
	B175E	PWR SOURCE(WINDOW)
	B175F	PWR SOURCE(WINDOW)
3	B1701	ROOF CONTROL UNIT
	B1702	ROOF CONTROL UNIT
	B171E	ROOF CONTROL UNIT
	B171F	ROOF CONTROL UNIT
	B1720	ROOF CONTROL UNIT
	B1721	ROOF CONTROL UNIT
	B1722	ROOF CONTROL UNIT
	B1723	ROOF CONTROL UNIT
	B1724	ROOF CONTROL UNIT
	B1725	ROOF CONTROL UNIT
	B1726	ROOF CONTROL UNIT
	B1728	ROOF CONTROL UNIT
	B1729	ROOF CONTROL UNIT
	B172A	ROOF CONTROL UNIT
	B172E	ROOF CONTROL UNIT
	B1760	ROOF CONTROL UNIT
	B1761	ROOF CONTROL UNIT
4	B170F	SENSOR POWER SUPPLY
5	U0140	LOCAL COMM-1
	U0215	LOCAL COMM-1
	B1709	ROOF SWITCH(OPEN)
	B170A	ROOF SWITCH(CLOSE)
	B170B	ROOF SWITCH
	B1758	THERMO PROTECTION
	B171A	HYDRAULIC PMP(LH)
	B171B	HYDRAULIC PMP(RH)
	B171C	SWITCHING VALVE 1
	B171D	SWITCHING VALVE 2
	B172F	REAR PWR WINDOW(LH)
	B1730	REAR PWR WINDOW(RH)
	B1715	ROOF STATE SEN PWR
	B170C	TRUNK LINK SENSOR(LH)
	B170D	TRUNK LINK SENSOR(RH)
	B1710	LATCH STATUS SENSOR
	B1711	LATCH LOCK SENSOR
	B1712	TRUNK STATUS SENSOR
	B1716	PS STATUS SEN(ROTA)
	B1718	PS STATUS SEN(DRAW)
	B1719	ROOF STATUS SEN
6	B172D	ROOF WARNING BUZZER

Priority	Display contents of CONSULT	
7	B1731	HYDRAULIC STATE 1
	B1732	HYDRAULIC STATE 2
	B1733	HYDRAULIC STATE 3
	B1734	HYDRAULIC STATE 4
	B1735	HYDRAULIC STATE 5
	B1736	HYDRAULIC STATE 6
	B1737	HYDRAULIC STATE 7
	B1738	HYDRAULIC STATE 8
	B1739	HYDRAULIC STATE 9
	B173A	HYDRAULIC STATE 10
	B173B	HYDRAULIC STATE 11
	B173C	HYDRAULIC STATE 12
	B173D	HYDRAULIC STATE 13
	B173E	HYDRAULIC STATE 14
	B173F	HYDRAULIC STATE 15
	B1740	HYDRAULIC STATE 16
	B1741	HYDRAULIC STATE 17
	B1742	HYDRAULIC STATE 18
	B1743	HYDRAULIC STATE 19
	B1744	HYDRAULIC STATE 20
	B1745	HYDRAULIC STATE 21
	B1746	HYDRAULIC STATE 22
	B1747	P SHELF (DRAW) STATE 1
	B1748	P SHELF (DRAW) STATE 2
	B1749	P SHELF (DRAW) STATE 3
	B174A	P SHELF (DRAW) STATE 4
	B174B	P SHELF (DRAW) STATE 5
	B174C	P SHELF (DRAW) STATE 6
	B174D	P SHELF (ROT) STATE 1
	B174E	P SHELF (ROT) STATE 2
	B174F	P SHELF (ROT) STATE 3
	B1750	P SHELF (ROT) STATE 4
	B1751	ROOF LATCH STATE 1
	B1752	ROOF LATCH STATE 2
	B1753	ROOF LATCH STATE 3
	B1754	FLIPPER DOOR STATE 1
	B1755	FLIPPER DOOR STATE 2
	B1756	FLIPPER DOOR STATE 3
	B1757	FLIPPER DOOR STATE 4
8	B1707	ROOF OPEN STATE
	B1708	ROOF CLOSE STATE
9	B1764	ROOF LATCH STATE
	B1765	FLIPPER DOOR STATE
10	B1762	ROOF STATE

Priority	Display contents of CONSULT	
11	B1763	HYDRAULIC STATE
12	B172B	ROOF STATE SIG(AUDIO)

DTC Index

INFOID:0000000008815332

NOTE:
For details of Freeze Frame Data, refer to RF-45, "CONSULT Function".

Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
No DTC is detected. Further testing may be required.		—	—	—
U1000	CAN COMM CIRCUIT	×	×	RF-78
U1010	CONTROL UNIT (CAN)	×	×	RF-79
U0140	LOCAL COMM-1	×	×	RF-80
U0215	LOCAL COMM-2	×	×	RF-81
B1701	ROOF CONTROL UNIT	×	×	RF-83
B1702	ROOF CONTROL UNIT	×	×	RF-84
B1707	ROOF OPEN STATE	—	×	RF-85
B1708	ROOF CLOSE STATE	—	×	RF-87
B1709	ROOF SWITCH(OPEN)	×	×	RF-89
B170A	ROOF SWITCH(CLOSE)	×	×	RF-91
B170B	ROOF SWITCH	×	×	RF-93
B170C	TRUNK LINK SENSOR(LH)	×	×	RF-95
B170D	TRUNK LINK SENSOR(RH)	×	×	RF-97
B170F	SENSOR POWER SUPPLY	×	×	RF-99
B1710	LATCH STATUS SENSOR	×	×	RF-102
B1711	LATCH LOCK SENSOR	×	×	RF-104
B1712	TRUNK STATUS SENSOR	×	×	RF-106
B1715	ROOF STATUS SEN PWR	×	×	RF-108
B1716	PS STATUS SEN(DRAW)	×	×	RF-110
B1718	PS STATUS SEN(ROTA)	×	×	RF-112
B1719	ROOF STATUS SEN	×	×	RF-114
B171A	HYDRAULIC PMP(LH)	×	×	RF-116
B171B	HYDRAULIC PMP(RH)	×	×	RF-118
B171C	SWITCHING VALVE 1	×	×	RF-120
B171D	SWITCHING VALVE 2	×	×	RF-122
B171E	ROOF CONTROL UNIT	×	×	RF-124
B171F	ROOF CONTROL UNIT	×	×	RF-125
B1720	ROOF CONTROL UNIT	×	×	RF-126
B1721	ROOF CONTROL UNIT	×	×	RF-127
B1722	ROOF CONTROL UNIT	×	×	RF-128
B1723	ROOF CONTROL UNIT	×	×	RF-129
B1724	ROOF CONTROL UNIT	×	×	RF-130
B1725	ROOF CONTROL UNIT	×	×	RF-131
B1726	ROOF CONTROL UNIT	×	×	RF-132
B1728	ROOF CONTROL UNIT	×	×	RF-133

Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
B1729	ROOF CONTROL UNIT	×	×	RF-134
B172A	ROOF CONTROL UNIT	×	×	RF-135
B172B	ROOF STATE SIG(AUDIO)	×	×	RF-136
B172D	ROOF WARNING BUZZER	×	×	RF-138
B172E	ROOF CONTROL UNIT	×	×	RF-140
B172F	REAR PWR WINDOW(LH)	×	×	RF-141
B1730	REAR PWR WINDOW(RH)	×	×	RF-143
B1731	HYDRAULIC STATE 1	×	×	RF-145
B1732	HYDRAULIC STATE 2	×	×	RF-147
B1733	HYDRAULIC STATE 3	×	×	RF-149
B1734	HYDRAULIC STATE 4	×	×	RF-151
B1735	HYDRAULIC STATE 5	×	×	RF-153
B1736	HYDRAULIC STATE 6	×	×	RF-155
B1737	HYDRAULIC STATE 7	×	×	RF-156
B1738	HYDRAULIC STATE 8	×	×	RF-157
B1739	HYDRAULIC STATE 9	×	×	RF-158
B173A	HYDRAULIC STATE 10	×	×	RF-159
B173B	HYDRAULIC STATE 11	×	×	RF-160
B173C	HYDRAULIC STATE 12	×	×	RF-161
B173D	HYDRAULIC STATE 13	×	×	RF-162
B173E	HYDRAULIC STATE 14	×	×	RF-163
B173F	HYDRAULIC STATE 15	×	×	RF-164
B1740	HYDRAULIC STATE 16	×	×	RF-165
B1741	HYDRAULIC STATE 17	×	×	RF-168
B1742	HYDRAULIC STATE 18	×	×	RF-169
B1743	HYDRAULIC STATE 19	×	×	RF-171
B1744	HYDRAULIC STATE 20	×	×	RF-173
B1745	HYDRAULIC STATE 21	×	×	RF-175
B1746	HYDRAULIC STATE 22	×	×	RF-177
B1747	P SHELF (DRAW) STATE 1	×	×	RF-179
B1748	P SHELF (DRAW) STATE 2	×	×	RF-180
B1749	P SHELF (DRAW) STATE 3	×	×	RF-181
B174A	P SHELF (DRAW) STATE 4	×	×	RF-182
B174B	P SHELF (DRAW) STATE 5	×	×	RF-183
B174C	P SHELF (DRAW) STATE 6	×	×	RF-184
B174D	P SHELF (ROT) STATE 1	×	×	RF-185
B174E	P SHELF (ROT) STATE 2	×	×	RF-186
B174F	P SHELF (ROT) STATE 3	×	×	RF-187
B1750	P SHELF (ROT) STATE 4	×	×	RF-188
B1751	ROOF LATCH STATE 1	×	×	RF-189
B1752	ROOF LATCH STATE 2	×	×	RF-190
B1753	ROOF LATCH STATE 3	×	×	RF-191
B1754	FLIPPER DOOR STATE 1	×	×	RF-192
B1755	FLIPPER DOOR STATE 2	×	×	RF-193

Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
B1756	FLIPPER DOOR STATE 3	×	×	RF-194
B1757	FLIPPER DOOR STATE 4	×	×	RF-195
B1758	THERMO PROTECTION	×	×	RF-196
B175C	PWR SOURCE(ROOF)	×	×	RF-197
B175D	PWR SOURCE(ROOF)	×	×	RF-198
B175E	PWR SOURCE(WINDOW)	×	×	RF-199
B175F	PWR SOURCE(WINDOW)	×	×	RF-201
B1760	ROOF CONTROL UNIT	×	×	RF-203
B1761	ROOF CONTROL UNIT	×	×	RF-204
B1762	ROOF STATE	×	×	RF-205
B1763	HYDRAULIC STATE	×	×	RF-208
B1764	ROOF LATCH STATE	×	×	RF-210
B1765	FLIPPER DOOR STATE	×	×	RF-211

SYMPTOM DIAGNOSIS

REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGERS DO NOT OPERATE

Diagnosis Procedure

INFOID:0000000008155835

1. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit.
Refer to DEF-9, "BCM (BODY CONTROL MODULE) : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR WINDOW DEFOGGER SWITCH

Check rear window defogger switch.
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 RELAY

Check rear window defogger relay.
Refer to DEF-11, "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-42, "Intermittent Incident".
NO >> GO TO 1.

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

Diagnosis Procedure

INFOID:0000000008155836

1.CHECK RETRACTABLE HARD TOP CONTROL UNIT CIRCUIT

Check retractable hard top control unit circuit.
Refer to DEF-13, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR WINDOW DEFOGGER

Check rear window defogger.
Refer to DEF-15, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

DOOR MIRROR DEFOGGER DOES NOT OPERATE

BOTH SIDES

BOTH SIDES : Diagnosis Procedure

INFOID:0000000008155837

1. CHECK DOOR MIRROR DEFOGGER

Check door mirror defogger.
Refer to DEF-17, "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-42, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008155838

1. CHECK DRIVER SIDE DOOR MIRROR DEFOGGER

Check driver side door mirror defogger.
Refer to DEF-18, "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-42, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008155839

1. CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER.

Check passenger side door mirror defogger.
Refer to DEF-20, "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-42, "Intermittent Incident".
NO >> GO TO 1.

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

Diagnosis Procedure

INFOID:0000000008155840

1.CHECK AV CONTROL UNIT FUNCTION

Check that the AV control unit is operating normally.
Base audio without navigation refer to AV-53, "Work Flow".
Bose audio without navigation refer to AV-170, "Work Flow".
Bose audio with navigation refer to AV-300, "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 toGI-42, "Intermittent Incident" .
NO >> GO TO 1.

REAR WINDOW DEFOGGER INDICATOR DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:0000000008155841

1.CHECK MULTIFUNCTION SWITCH (REAR WINDOW DEFOGGER SWITCH)

Check rear window defogger operate.

YES >> Replace multifunction switch (rear window defogger switch). Refer to AV-107, "Removal and Installation"

NO >> Check rear window defogger system. Refer to DEF-3, "Work Flow"

PRECAUTION

PRECAUTIONS

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

INFOID:0000000008155842

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

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

Precaution for Battery Service

INFOID:0000000008155843

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

Service Procedure Precautions for Models with a Pop-up Roll Bar

INFOID:0000000008155844

WARNING:

Always observe the following items for preventing accidental activation.

- **Risk of passenger injury or death may increase if the pop-up roll bar does not deploy during a roll over collision. In order to reduce the chance of an incident where the pop-up roll bar is inoperative, all maintenance must be performed by a NISSAN or INFINITI dealer.**
- **Before removing and installing the pop-up roll bar component parts and harness, always turn the ignition switch OFF, disconnect the battery negative terminal, and wait for 3 minutes or more. (The purpose of this operation is to discharge electricity that is accumulated in the auxiliary power supply circuit in the air bag diagnosis sensor unit.)**
- **When repairing, removing, and installing a pop-up roll bar, always refer to SRS AIR BAG and SRS AIR BAG CONTROL warnings in the Service Manual.**

REMOVAL AND INSTALLATION

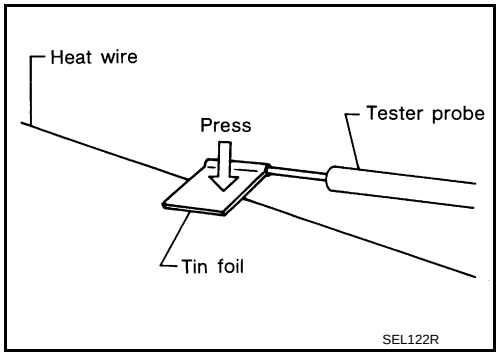
FILAMENT

Inspection and Repair

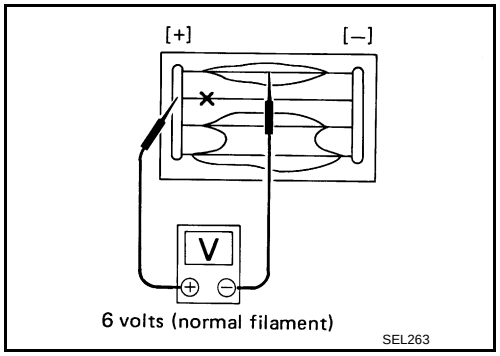
INFOID:0000000008155845

INSPECTION

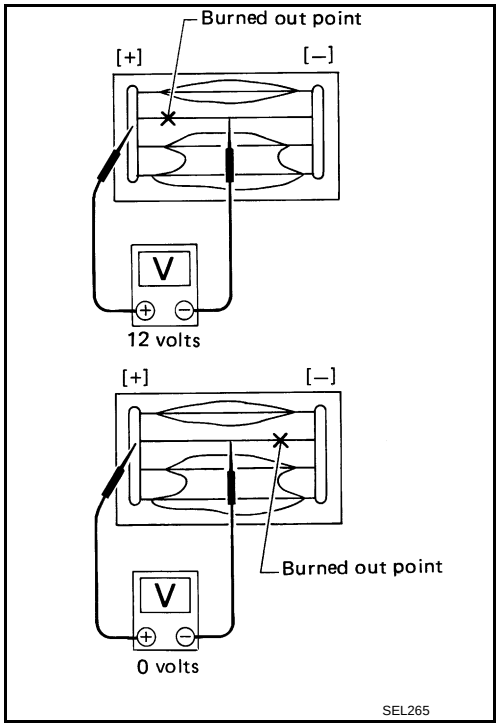
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



2. 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.
4. To locate burned out point, move probe to left and right along filament. Test needle will swing abruptly when probe passes the point.



REPAIR

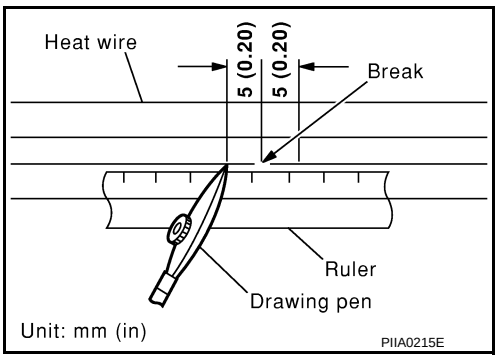
REPAIR EQUIPMENT

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

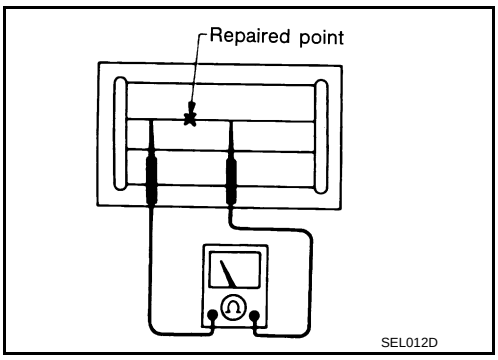
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

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.



5. 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.