

SECTION DEF

DEFOGGER

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000007202388

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.

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DEF

COMPONENT PARTS

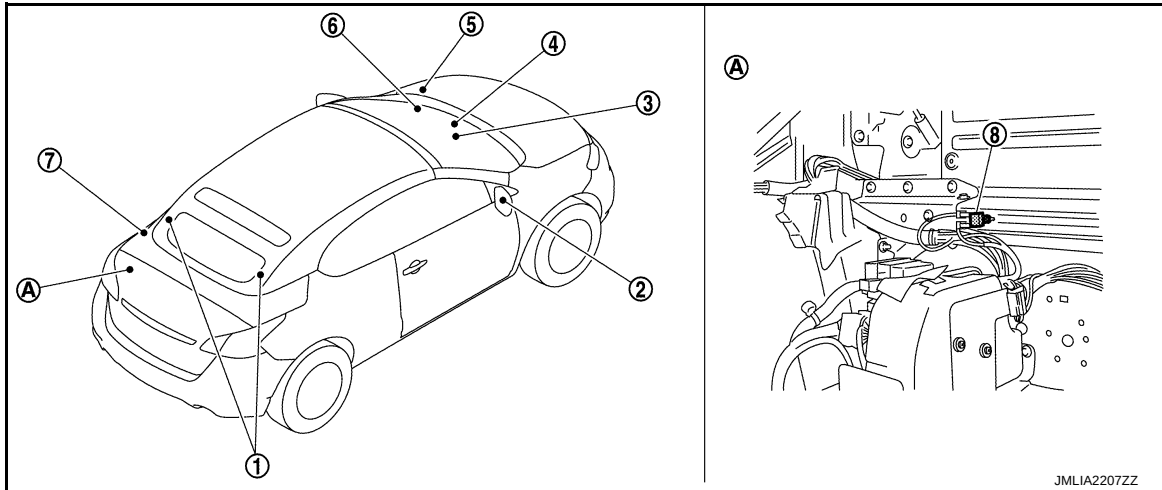
< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000006939181



- | | | |
|---|---------------------------------------|--|
| 1. Rear window defogger connector | 2. Door mirror (door mirror defogger) | 3. Rear window defogger switch (built-in multifunction switch) |
| 4. AV control unit | 5. IPDM E/R | 6. BCM |
| 7. Soft top control unit | 8. Condenser | |
| A. View with trunk front finisher removed | | |

Component Description

INFOID:000000006939182

BCM	- Controls the rear window defogger relay 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 control 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.
Soft top control unit	Soft top control unit detects roof state and controls rear window defogger operation.
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.

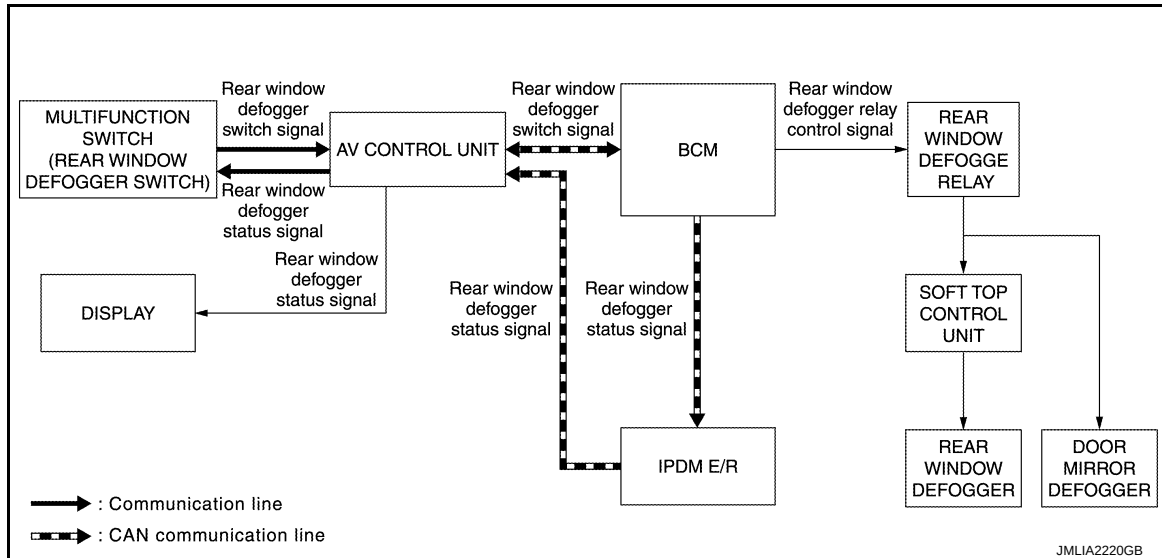
SYSTEM

< SYSTEM DESCRIPTION >

SYSTEM

System Diagram

INFOID:000000006939179



System Description

INFOID:000000007221065

OPERATION DESCRIPTION

- Turn rear window defogger switch ON when the ignition switch is 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 transmits rear window defogger ON signal to IPDM E/R via CAN communication when rear window defogger switch signal is received.
- Door mirror defoggers are supplied with power and operate when rear window defogger relay turns ON.
- Rear window defogger relay sends power supply to soft top control unit.
- Soft top control unit detects roof state and controls rear window defogger operation.
- IPDM E/R transmits rear window defogger status signal to AV control unit via CAN communication.
- When receiving the signal, AV control unit indicates rear defogger ON on the display. At the same time, AV control unit transmits rear window defogger status signal to multifunction switch (rear window defogger switch) via AV communication and illuminates rear window defogger switch indicator.

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 defoggers operate.
- Timer is canceled after pressing rear window defogger switch again during timer operation. Then BCM turns rear window defogger relay OFF. The same operation also occurs during timer operation, if the ignition switch is turned OFF.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000007258915

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: 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	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*			
- Intelligent Key system - Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

NOTE:

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

FREEZE FRAME DATA (FFD)

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power 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" (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		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, 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:000000006939188

Data monitor

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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	This test is able to check rear window defogger operation. Rear window defogger operates when "ON" on CONSULT screen is touched.

DIAGNOSIS SYSTEM (SOFT TOP CONTROL UNIT)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (SOFT TOP CONTROL UNIT)

CONSULT Function

INFOID:000000007258936

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with soft top control unit.

Diagnosis mode		Function Description
ECU Identification		The soft top control unit part number is displayed.
Self Diagnostic Result		Displays the diagnosis results judged by soft top control unit.
	Freeze Frame Data	The soft top control unit records the vehicle condition at the time when the DTC is detected, and displays.
Data Monitor		The soft top control unit input/output signals are displayed.
Active Test		The signals used to activate each device are forcibly supplied from soft top control unit.
CAN Diag Support Monitor		Monitors the reception status of CAN communication viewed from soft top control unit.

SELF-DIAG RESULT

Refer to [RF-56. "DTC Index"](#).

Freeze Frame Data

The soft top control unit records the following vehicle condition at the time when the DTC is detected, and displays on CONSULT.

CONSULT display		Description
ROOF SW (OPEN)	ON/OFF	OPEN input state of roof open/close switch is displayed.
ROOF SW (CLOSE)	ON/OFF	CLOSE input state of roof open/close switch is displayed.
ROOF LATCHED LH	ON/OFF	Input state of roof striker sensor LH is displayed.
ROOF LATCHED RH	ON/OFF	Input state of roof striker sensor RH is displayed.
F/CENTER LOCK	ON/OFF	Input state of roof latch lock sensor is displayed.
R/RAIL RAISED LH	ON/OFF	Input state of roof status sensor LH is displayed.
R/RAIL LOWERED	ON/OFF	Input state of roof status sensor LH is displayed.
5BOW LOWERED	ON/OFF	Input state of 5th bow status sensor LH is displayed.
5BOW RAISED	ON/OFF	Input state of 5th bow status sensor RH is displayed.
S/LID OPEN LH	ON/OFF	Input state of storage lid status sensor LH is displayed.
STORAGE LID CLOSE LH	ON/OFF	Input state of storage lid status sensor LH is displayed.
SWITCH VALVE 1	ON/OFF	Output state to switching valve 1 is displayed.
SWITCH VALVE 2	ON/OFF	Output state to switching valve 2 is displayed.
SWITCH VALVE 3	ON/OFF	Output state to switching valve 3 is displayed.
SWITCH VALVE 4	ON/OFF	Output state to switching valve 4 is displayed.
PUMP OUT (LH)	ON/OFF	Right rotation output state to hydraulic motor is displayed.
PUMP OUT (RH)	ON/OFF	Left rotation output state to hydraulic motor is displayed.
OUTSIDE FLAP DEPLOYMENT	ON/OFF	Input state of outside flap sensor (deployment switch) is displayed.
OUTSIDE FLAP STORAGE	ON/OFF	Input state of outside flap sensor (storage switch) is displayed.
INSIDE FLAP DEPLOYMENT	ON/OFF	Input state of inside flap sensor (deployment switch) is displayed.
INSIDE FLAP STORAGE	ON/OFF	Input state of inside flap sensor (storage switch) is displayed.
S/LID LOCK OPEN SW	ON/OFF	Input state of storage lid lock assembly (open switch) is displayed.
S/LID LOCK CLOSE SW	ON/OFF	Input state of storage lid lock assembly (close switch) is displayed.
S/LID LOCK HALF LATCH SW	ON/OFF	Input state of storage lid lock assembly (half latch switch) is displayed.

DIAGNOSIS SYSTEM (SOFT TOP CONTROL UNIT)

< SYSTEM DESCRIPTION >

CONSULT display		Description
STORAGE LID DOOR SWITCH	ON/OFF	Input state of storage lid lock assembly (storage lid door switch) is displayed.
OUT FLAP MOTOR RELAY 1	ON/OFF	Input state of outside flap motor relay 1 is displayed.
OUT FLAP MOTOR RELAY 2	ON/OFF	Input state of outside flap motor relay 2 is displayed.
INSIDE FLAP MOTOR RELAY 1	ON/OFF	Input state of inside flap motor relay 1 is displayed.
INSIDE FLAP MOTOR RELAY 2	ON/OFF	Input state of inside flap motor relay 2 is displayed.
STORAGE LID LOCK RELAY 1	ON/OFF	Input state of storage lid lock relay 1 is displayed.
STORAGE LID LOCK RELAY 2	ON/OFF	Input state of storage lid lock relay 2 is displayed.
TONNEAU BOARD SWITCH	ON/OFF	Input state of tonneau board switch is displayed.
TRUNK LID OP/CL STATUS	OPEN/CLOSE	Input state of trunk lid lock assembly (trunk room lamp switch) is displayed.

DATA MONITOR

CONSULT display		Description
ROOF LATCHED LH	ON/OFF/NG	Input state of roof striker sensor LH is displayed.
ROOF LATCHED RH	ON/OFF/NG	Input state of roof striker sensor RH is displayed.
F/CENTER LOCK	ON/OFF/NG	Input state of roof latch lock sensor is displayed.
R/RAIL RAISED LH	ON/OFF/NG	Input state of roof status sensor LH is displayed.
R/RAIL LOWERED	ON/OFF/NG	Input state of roof status sensor LH is displayed.
5TH BOW LOWERED	ON/OFF/NG	Input state of 5th bow status sensor LH is displayed.
5TH BOW RAISED	ON/OFF/NG	Input state of 5th bow status sensor RH is displayed.
S/LID OPEN LH	ON/OFF/NG	Input state of storage lid status sensor LH is displayed.
STORAGE LID CLOSE LH	ON/OFF/NG	Input state of storage lid status sensor LH is displayed.
SWITCHING VALVE 1	ON/OFF/NG	Output state to switching valve 1 is displayed.
SWITCHING VALVE 2	ON/OFF/NG	Output state to switching valve 2 is displayed.
SWITCHING VALVE 3	ON/OFF/NG	Output state to switching valve 3 is displayed.
SWITCHING VALVE 4	ON/OFF/NG	Output state to switching valve 4 is displayed.
PUMP OUT (RH)	ON/OFF/NG	Right rotation output state to hydraulic motor is displayed.
PUMP OUT (LH)	ON/OFF/NG	Left rotation output state to hydraulic motor is displayed.
OUTSIDE FLAP DEPLOYMENT	ON/OFF/NG	Input state of outside flap sensor (deployment switch) is displayed.
OUTSIDE FLAP STORAGE	ON/OFF/NG	Input state of outside flap sensor (storage switch) is displayed.
INSIDE FLAP DEPLOYMENT	ON/OFF/NG	Input state of inside flap sensor (deployment switch) is displayed.
INSIDE FLAP STORAGE	ON/OFF/NG	Input state of inside flap sensor (storage switch) is displayed.
S/LID LOCK OPEN SW	ON/OFF/NG	Input state of storage lid lock assembly (open switch) is displayed.
S/LID LOCK CLOSE SW	ON/OFF/NG	Input state of storage lid lock assembly (close switch) is displayed.
S/LID LOCK HALF LATCH SW	ON/OFF/NG	Input state of storage lid lock assembly (half latch switch) is displayed.
STORAGE LID DOOR SWITCH	ON/OFF/NG	Input state of storage lid lock assembly (storage lid door switch) is displayed.
OUT FLAP MOTOR RELAY 1	ON/OFF/NG	Input state of outside flap motor relay 1 is displayed.
OUT FLAP MOTOR RELAY 2	ON/OFF/NG	Input state of outside flap motor relay 2 is displayed.
INSIDE FLAP MOTOR RELAY 1	ON/OFF/NG	Input state of inside flap motor relay 1 is displayed.
INSIDE FLAP MOTOR RELAY 2	ON/OFF/NG	Input state of inside flap motor relay 2 is displayed.
STORAGE LID LOCK RELAY 1	ON/OFF/NG	Input state of storage lid lock relay 1 is displayed.
STORAGE LID LOCK RELAY 2	ON/OFF/NG	Input state of storage lid lock relay 2 is displayed.
ROOF SW (OPEN)	ON/OFF	OPEN input state of roof open/close switch is displayed.
ROOF SW (CLOSE)	ON/OFF	CLOSE input state of roof open/close switch is displayed.
SHIFT R SIGNAL	ON/OFF	Input state of shift position (R position) is displayed.

DIAGNOSIS SYSTEM (SOFT TOP CONTROL UNIT)

< SYSTEM DESCRIPTION >

CONSULT display		Description
TRUNK OPEN REQUEST SIG	ON/OFF	Input state of trunk open request signal from BCM is displayed.
TRUNK LID OP/CL STATUS	OPEN/CLOSE	Input state of trunk lid lock assembly (trunk room lamp switch) is displayed.
THER PROTEC PUMP	OK/NG	Non-operation state of thermo protection (hydraulic pump) is displayed.
THER PROTEC RCU	OK/NG	Non-operation state of thermo protection (soft top control unit) is displayed.
PWR COND RCU	OK/NG	Diagnosis result of power supply (soft top control unit) is displayed.
PWR COND P/W	OK/NG	Diagnosis result of power supply (front power window) is displayed.
PWR COND REAR P/W	OK/NG	Diagnosis result of power supply (rear power window) is displayed.
LOCAL COMM 1	NG/SLEEP/NG	State of serial link 1 is displayed.
LOCAL COMM 2	NG/SLEEP/NG	State of serial link 2 is displayed.
REAR DEF OUT	OK/NG	Output state to rear window defogger is displayed.
TONNEAU BOARD SWITCH	ON/OFF	Input state of tonneau board switch is displayed.
P/W OP REQ SW SIG	ON/OFF	Input state of power window open signal from request switch is displayed.
PROHIBIT P/W UP	ON/OFF	Output state to power window operation prohibition signal is displayed.
IGN ON SIG (BCM)	ON/OFF	Receiving state of ignition ON signal from BCM is displayed.
RF OP REQ SW SIG	ON/OFF	Input state of soft top open signal from request switch is displayed.

ACTIVE TEST

CONSULT display		Operation/condition	Description
Item	Indication		
ROOF LATCHED LH/RH	LOCK	Soft top is fully closed position.	Roof lock assembly performs lock operation.
	UNLOCK		Roof lock assembly performs unlock operation.
STORAGE LID	OPEN	Storage lid is neutral position.	Storage lid performs open operation.
	CLOSE		Storage lid performs close operation.
SOFT TOP SYSTEM	UP	- Storage lid is fully open position. - Outside flap is fully closed position.	Soft top performs closed operation.
	DOWN		Soft top performs open operation.
ROOF SYSTEM	OPEN	—	Soft top system performs open operation.
	CLOSE		Soft top system performs closed operation.
5TH BOW SYSTEM	OPEN	- Roof lock is unlock position. - Storage lid is fully closed position.	1st bow and 5th bow performs fold operation.
	CLOSE		1st bow and 5th bow performs spread operation.
HYDRAULIC PRESSURE RELEASE	ON	—	Switching valve performs OFF operation. CAUTION: An unintentional operation of soft top or storage lid may occur due to its own weight because oil pressure is not maintained when switching valve is released. To prevent injury, be careful not to pinch hands.
TRUNK OPENER	ON	Soft top is fully open/closed position.	Trunk lid opener actuator performs unlock operation.
ROOF STATE OUTPUT (AUDIO)	ON	Roof lock is unlock position.	Full open position signal of roof is transmitted to audio unit.
	OFF		Full closed position signal of roof is transmitted to audio unit.
POWER WINDOW (LH/RH)	UP	- Soft top is fully open/closed position. - Power window system is initialized.	Power window (LH/RH) performs closed operation.
	DOWN		Power window (LH/RH) performs open operation.
REAR WINDOW DEFOGGER	ON	Soft top is fully closed position.	Rear window defogger performs ON operation.
	OFF		Rear window defogger performs OFF operation.

DIAGNOSIS SYSTEM (SOFT TOP CONTROL UNIT)

< SYSTEM DESCRIPTION >

CONSULT display		Operation/condition	Description
Item	Indication		
OUTSIDE FLAP MOTOR	DEPLOY	- Soft top is in the storage room. - Storage lid is fully open position.	Outside flap motor performs deployment operation.
	STORAGE		Outside flap motor performs storage operation.
INSIDE FLAP MOTOR	DEPLOY	Storage lid is fully open position.	Inside flap motor performs deployment operation.
	STORAGE		Inside flap motor performs storage operation.
STORAGE LID CLOSURE MOTOR	OP POS	Storage lid is fully closed position.	Storage lid closure motor performs open operation.
	CL POS		Storage lid closure motor performs closed operation. NOTE: Closure motor stops the closed operation and starts the neutral operation after turning close switch ON.

ECU DIAGNOSIS INFORMATION

BCM

List of ECU Reference

INFOID:0000000007202384

ECU	Reference
BCM	BCS-31, "Reference Value"
	BCS-53, "Fail-safe"
	BCS-53, "DTC Inspection Priority Chart"
	BCS-54, "DTC Index"

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J
- K
- DEF
- M
- N
- O
- P

SOFT TOP CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

SOFT TOP CONTROL UNIT

List of ECU Reference

INFOID:0000000007258916

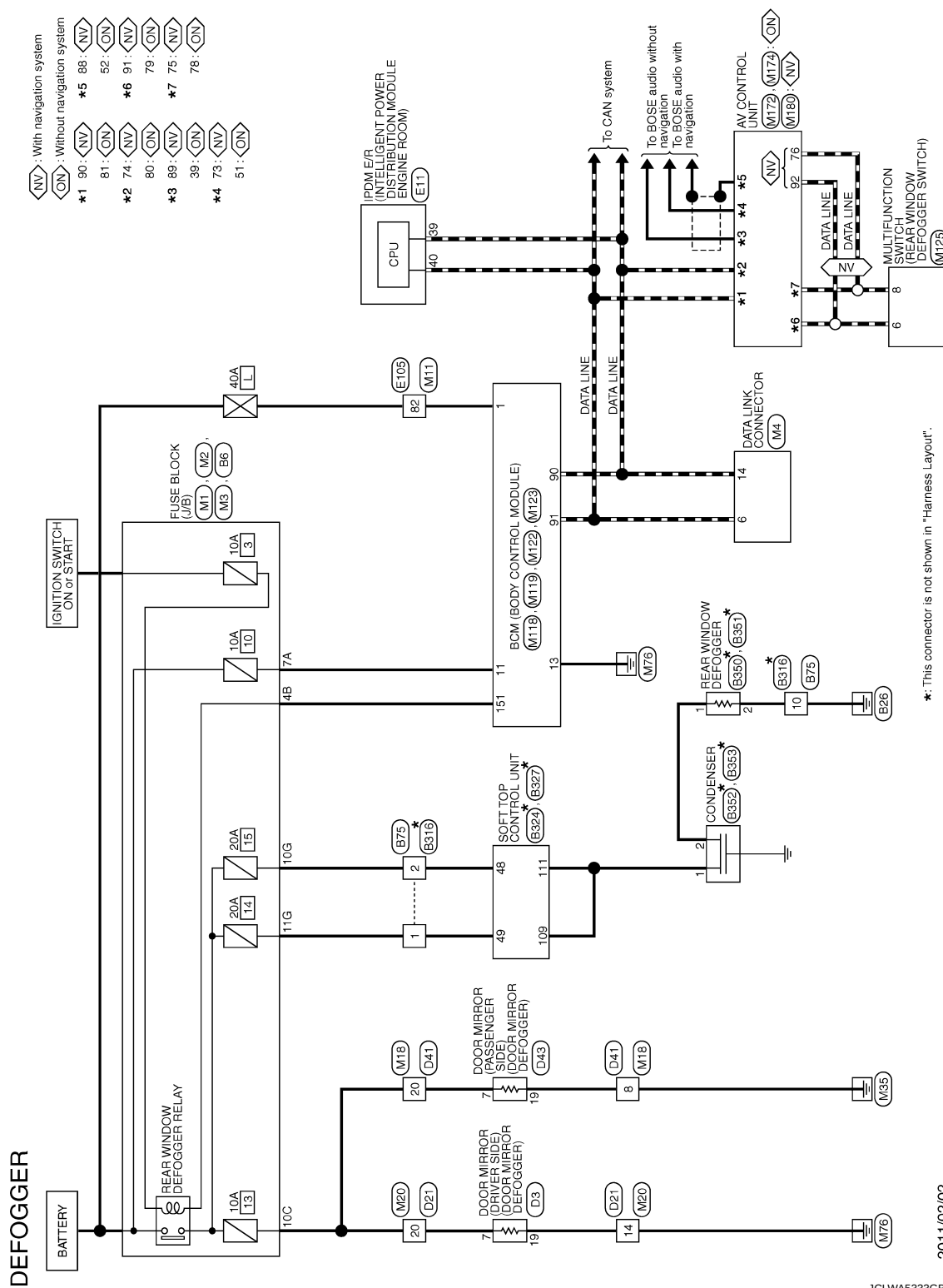
ECU	Reference
Soft top control unit	RF-44, "Reference Value"
	RF-53, "Fail-safe"
	RF-54, "DTC Inspection Priority Chart"
	RF-56, "DTC Index"

< WIRING DIAGRAM >

REAR WINDOW DEFOGGER SYSTEM

Wiring Diagram

INFOID:0000000007221121



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

2011/02/02

JCLWA5333GB

REAR WINDOW DEFOGGER SYSTEM

< WIRING DIAGRAM >

DEFOGGER

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FB-CS

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
4G	L	-
5G	P	-
10G	G	-
11G	BR	-

Connector No.	B75
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	-
2	G	-
3	W	-
4	R	-
5	GR	-
6	P	-
8	Y	-
10	B	-

Connector No.	B316
Connector Name	WIRE TO WIRE
Connector Type	NS10MW

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	G	-
3	O	-
4	L	-
5	GR	-
6	P	-
8	Y	-
10	B	-

Connector No.	B324
Connector Name	SOFT TOP CONTROL UNIT
Connector Type	TYCO 0-1674119-1

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
41	O	TRUNK OPENER ACTUATOR
44	V	OUT FLAP MOTOR RELAY 2 ON SIG (STORAGE)
45	W	OUT FLAP MOTOR RELAY 1 ON SIG (DEPLOYMENT)
46	Y	IN FLAP MOTOR RELAY 2 ON SIG (STORAGE)
47	G	IN FLAP MOTOR RELAY 1 ON SIG (DEPLOYMENT)
48	G	REAR WINDOW DEF IN 2
49	G	REAR WINDOW DEF IN 1
50	W	CLOSURE MOTOR OPERATE SIGNAL (OPEN)
51	G	STORAGE LID LOCK RELAY 2 ON SIG (CLOSE)
52	V	STORAGE LID LOCK RELAY 1 ON SIG (OPEN)

Connector No.	B327
Connector Name	SOFT TOP CONTROL UNIT
Connector Type	TYCO 0-167409-1

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
96	W	SWITCHING VALVE 4
97	LG	SWITCHING VALVE 3
98	L	SWITCHING VALVE 2
99	O	SWITCHING VALVE 1
100	BR	HYDRAULIC PUMP RELAY 2 ON SIG
101	SB	HYDRAULIC PUMP RELAY 1 ON SIG
103	L	OUT FLAP MOTOR OPERATE SIG (DEPLOYMENT)
104	R	REAR WINDOW DEF OUT 2
105	GR	IN FLAP MOTOR OPERATE SIG (DEPLOYMENT)
106	BR	IN FLAP MOTOR OPERATE SIG (STORAGE)
109	R	CLOSURE MOTOR OPERATE SIG (CLOSE)
110	GR	OUT FLAP MOTOR OPERATE SIG (STORAGE)
111	R	REAR WINDOW DEF OUT 1

Connector No.	B330
Connector Name	REAR WINDOW DEFOGGER
Connector Type	AMP 170456-2

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

Connector No.	B351
Connector Name	REAR WINDOW DEFOGGER
Connector Type	AMP 170456-2

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
2	B	-

Connector No.	B352
Connector Name	CONDENSER
Connector Type	TYCO 172863-2

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

Connector No.	B353
Connector Name	CONDENSER
Connector Type	TYCO 172863-2

1	2	3	4
5	6	7	8
9	10	11	12



Terminal No.	Color of Wire	Signal Name [Specification]
2	B	-

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REAR WINDOW DEFOGGER SYSTEM

< WIRING DIAGRAM >

DEFOGGER

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



12	11	10	7	19
24	23	22	21	

Terminal No.	Color of Wire	Signal Name [Specification]
7	LG	-
10	V	-
11	BR	-
12	SB	-
16	B	-
21	BR	-
22	G	-
23	GR	-
24	Y	-

Connector No.	D21
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



1	14	13	12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	G	-
3	P	-
4	B/W	-
5	L	-
10	V	-
11	O	-
14	B	-
15	LG	-
16	G	-
17	Y	-
18	GR	-
19	BR	-

20	LG	-
24	P	-
25	V	-
26	W	-
28	V	-
29	SB	-
30	SB	-
31	BR	-
32	R	-
33	G	-
34	Y	-
35	L	-
36	R	-
37	R	-
38	G	-
41	P	-
42	GR	-
43	L	-
44	W	-
45	SB	-
46	R	-
47	G	-
48	R	-
50	V	-
51	O	-
52	P	-
53	L	-
54	SB	-
55	LG	-

Connector No.	D41
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



1	14	13	12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13	12	11	10

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	V	-
4	B/R	-
5	BR	-
6	P	-
7	O	-
8	B	-
16	G	-

17	Y	-
18	GR	-
19	BR	-
20	LG	-
24	LG	-
25	W	-
26	O	-
29	V	-
30	SB	-
31	BR	-
32	R	-
33	G	-
36	R	-
44	R	-
45	G	-
47	P	-
48	L	-

Connector No.	D43
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH24MW-NH



12	11	10	7	19
24	23	22	21	

Terminal No.	Color of Wire	Signal Name [Specification]
7	LG	-
10	BR	-
11	SB	-
12	V	-
19	B	-
21	BR	-
22	G	-
23	GR	-
24	Y	-

Connector No.	E11
Connector Name	ENGINE & INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH40FW-NH



42	41	40	39
46	45	44	43

Terminal No.	Color of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	B	-
42	SB	-
43	Y	-
44	W	-
45	O	-
46	BR	-

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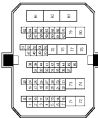
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REAR WINDOW DEFOGGER SYSTEM

< WIRING DIAGRAM >

DEFOGGER

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH70MW-CS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y	-
5	LG	-
8	G	-
11	P	-
12	L	-
13	Y	-
14	O	-
15	BR	-
19	L	-
20	Y	-
21	BR	-
22	P	-
24	L	-
25	O	-
28	SB	-
29	W	-
30	Y	-
49	SB	-
50	GR	-
51	LG	-
52	V	-
53	GR	-
54	BR	-
55	Y	-
56	O	-
60	V	-
61	BR	-
62	O	-
63	W	-
64	SHIELD	-
66	W	-
67	BR	-
68	Y	-
69	SB	-
70	GR	-
71	SB	-
72	Y	-
75	BR	-

76	GR	-
77	O	-
78	Y	-
79	Y	-
80	Y	-
81	Y	-
82	LG	-
83	GR	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	Color of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	Y	-
4A	GR	-
5A	R	-
6A	W	-
7A	LG	-
8A	Y	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1B	W	-
3B	L	-
4B	G	-
5B	L	-

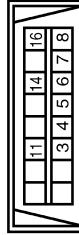
8B	Y	-
9B	R	-
9B	GR	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
8C	BR	-
7C	B	-
8C	G	-
10C	SB	-
11C	R	-
12C	O	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	-
4	B	-
5	B	-
6	L	-
7	O	-
8	G	-
11	R	-
14	P	-
16	Y	-

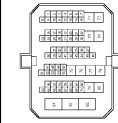
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REAR WINDOW DEFOGGER SYSTEM

< WIRING DIAGRAM >

DEFOGGER

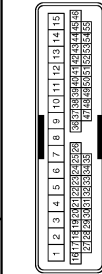
Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH00PW-CS10-M3



Terminal No.	Color of Wire	Signal Name [Specification]
3	P	-
5	O	-
8	R	-
11	P	-
12	L	-
13	V	-
14	Y	-
15	R	-
19	L	-
20	Y	-
21	BR	-
22	G	-
24	Y	-
25	L	-
28	BR	-
29	L	-
30	R	-
49	W	-
50	GR	-
51	LG	-
52	Y	-
53	V	-
54	SB	-
55	P	-
56	O	-
60	V	-
61	GR	-
62	O	-
63	W	-
64	SHIELD	-
66	W	-
67	R	-
68	W	-
69	P	-
70	G	-
71	G	-
72	BR	-
75	BR	-

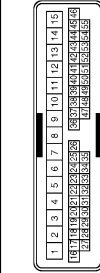
76	R	-
77	G	-
78	Y	-
79	G	-
80	Y	-
81	Y	-
82	W	-
83	G	-

Connector No.	M18
Connector Name	WIRE TO WIRE
Connector Type	TH40MM-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	V	-
4	W	-
5	BR	-
6	GR	-
7	G	-
8	B	-
16	W	-
17	Y	-
18	W	-
19	R	-
20	SB	-
24	LG	-
25	Y	-
26	P	-
31	W	-
32	W	-
33	P	-
34	LG	-
35	R	-
36	P	-
37	O	-
38	G	-
41	V	-
42	LG	-
43	P	-
36	R	-
44	R	-
45	R	-
47	P	-
48	L	-

Connector No.	M20
Connector Name	WIRE TO WIRE
Connector Type	TH40MM-CS15



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	G	-
3	W	-
4	B	-
5	L	-
10	L	-
11	G	-
14	B	-
15	GR	-
16	L	-
17	Y	-
18	W	-
19	Y	-
20	SB	-
24	P	-
25	V	-
26	W	-
29	R	-
30	L	-
31	SB	-
32	W	-
33	P	-
34	SB	-
35	R	-
36	R	-
37	R	-
38	G	-
41	LG	-
42	LG	-
43	O	-
44	Y	-
45	P	-
46	P	-
47	G	-
48	R	-
50	V	-
51	O	-
52	GR	-

53	L	-
54	LG	-
55	SB	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LG



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	GR	POWER WINDOW POWER SUPPLY (BAT)
3	L	POWER WINDOW POWER SUPPLY (RAP)

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	P	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
7	W	STEP LAMP OUTPUT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR UNLOCK OUTPUT
11	LG	BAT (FUSE)
13	B	GND
14	O	PUSH-BUTTON IGNITION SW ILL GND
15	L	ACC IND
17	G	TURN SIGNAL RH
18	BR	TURN SIGNAL LH
19	G	ROOM LAMP TIMER CONTROL

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REAR WINDOW DEFOGGER SYSTEM

< WIRING DIAGRAM >

DEFOGGER

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72
111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92

REAR WINDOW DEFOGGER SYSTEM

< WIRING DIAGRAM >

DEFOGGER		
Connector No.	M180	
Connector Name	AV CONTROL UNIT	
Connector Type	THS2FW-NH	

			
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92

Terminal No.	Color of Wire	Signal Name [Specification]
65	G	PARKING BRAKE
67	V	COMPOSITE IMAGE SIGNAL GND
68	G	COMPOSITE IMAGE SIGNAL
71	SHIELD	SHIELD
72	B	MICROPHONE VCC
73	V	COMM (CONT->DISP)
74	P	CAN-L
75	L	AV COMM (L)
76	L	AV COMM (L)
79	R	ILLUMINATION SIGNAL
80	G	IGNITION
81	R	REVERSE
82	V	VEHICLE SPEED SIGNAL (8-PULSE)
83	SHIELD	SHIELD
87	W	MICROPHONE SIGNAL
88	SHIELD	SHIELD
89	G	COMM (DISP->CONT)
90	L	CAN-H
91	R	AV COMM (H)
92	R	AV COMM (H)

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DEF

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000006939178

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 [DEF-13. "List of ECU Reference"](#).

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.

REAR WINDOW DEFOGGER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

REAR WINDOW DEFOGGER SWITCH

Component Function Check

INFOID:0000000007221068

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> Rear window defogger switch function is OK.

NO >> Refer to [DEF-23. "Diagnosis Procedure"](#)

Diagnosis Procedure

INFOID:0000000007221069

1.CHECK MULTIFUNCTION SWITCH (REAR WINDOW DEFOGGER SWITCH)

Check multifunction switch (rear window defogger switch) operate.

Refer to [AV-17. "On Board Diagnosis Function"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace the malfunctioning parts.

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REAR WINDOW DEFOGGER RELAY

< DTC/CIRCUIT DIAGNOSIS >

REAR WINDOW DEFOGGER RELAY

Component Function Check

INFOID:000000007221074

1.CHECK FUNCTION

④ With CONSULT

1. Turn ignition switch ON.
2. Select "REAR DEFOGGER" of "BCM" using CONSULT.
3. Select "REAR DEFOGGER" in "ACTIVE TEST" mode.
4. Touch "ON".
5. Check that the rear window heating wire is getting warmer.

Is the inspection result normal?

- YES >> Rear window defogger relay power supply circuit function is OK.
NO >> Refer to [DEF-24. "Diagnosis Procedure"](#)

Diagnosis Procedure

INFOID:000000007221075

1.CHECK FUSE

1. Turn ignition switch OFF.
2. Check 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 RELAY CIRCUIT 1

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

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

Is the inspection result normal?

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

3.CHECK REAR WINDOW DEFOGGER RELAY CIRCUIT 2

1. Turn ignition switch OFF.
2. Disconnect BCM connector and fuse block (J/B).
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		Not existed

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace harness.

REAR WINDOW DEFOGGER RELAY

< DTC/CIRCUIT DIAGNOSIS >

4.CHECK REAR WINDOW DEFOGGER RELAY

1. Disconnect rear window defogger relay,
2. Check rear window defogger relay.

Refer to [DEF-25. "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.

(+)		(-)	Voltage (V) (Approx.)
Fuse block (J/B)			
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-40. "Intermittent Incident"](#)

>> INSPECTION END

Component Inspection

INFOID:000000007221076

1.CHECK REAR WINDOW DEFOGGER RELAY

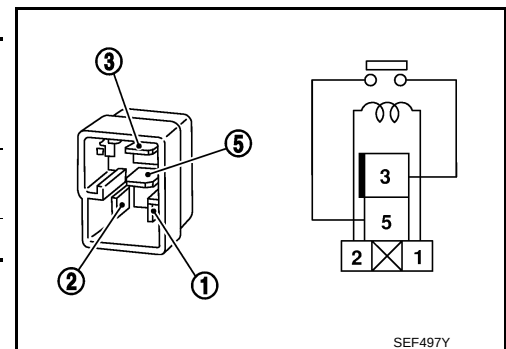
1. Turn ignition switch OFF.
2. Disconnect rear window defogger relay.
3. Check continuity between rear window defogger relay terminals.

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.



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SOFT TOP CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

SOFT TOP CONTROL UNIT

Component Function Check

INFOID:000000007221078

1.CHECK REAR WINDOW DEFOGGER

① With CONSULT

1. Turn ignition switch ON and soft top fully close.
2. Select "REAR DEFOGGER" of "BCM" using CONSULT.
3. Select "REAR DEFOGGER" in "ACTIVE TEST" mode.
4. Touch "ON".
5. Check that the rear window heating wire is getting warmer.

Is the inspection result normal?

YES >> Soft top control unit is OK.

NO >> Refer to [DEF-26, "Diagnosis Procedure"](#)

Diagnosis Procedure

INFOID:000000007221079

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 SOFT TOP CONTROL UNIT CIRCUIT

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

Fuse block (J/B)		Soft top control unit		Continuity
Connector	Terminal	Connector	Terminal	
B6	10G	B324	49	Existed
	11G		48	

3. Check continuity between soft top control unit and ground.

Soft top control unit		Ground	Continuity
Connector	Terminal		
B324	49		Not existed
	48		

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.

SOFT TOP CONTROL UNIT

< DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	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-40, "Intermittent Incident"](#).

>> INSPECTION END.

DEF

REAR WINDOW DEFOGGER

< DTC/CIRCUIT DIAGNOSIS >

REAR WINDOW DEFOGGER

Component Function Check

INFOID:000000007228305

1.CHECK FUNCTION

1. Select "REAR DEFOGGER" in "ACTIVE TEST" of "IPDM E/R" using 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-28. "Diagnosis Procedure"](#)

Diagnosis Procedure

INFOID:000000007228491

1.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON and soft top fully close.
2. Check voltage between rear window defogger harness connector and ground.

(+)		(-)	Condition		Voltage (V) (Approx.)
Rear window defogger					
Connector	Terminal				
B350	1	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 REAR WINDOW DEFOGGER CIRCUIT 1

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

Condenser		Rear window defogger		Continuity
Connector	Terminal	Connector	Terminal	
B353	2	B350	1	Existed

4. Check continuity between condenser connector and ground.

Condenser		Ground	Continuity
Connector	Terminal		
B353	2		Not existed

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK REAR WINDOW DEFOGGER CIRCUIT 2

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

REAR WINDOW DEFOGGER

< DTC/CIRCUIT DIAGNOSIS >

Soft top control unit		Condenser		Continuity
Connector	Terminal	Connector	Terminal	
B327	104	B352	1	Existed
	111			

4. Check continuity between soft top control unit harness connector and ground.

Soft top control unit		Ground	Continuity
Connector	Terminal		
B327	104		Not existed
	111		

Is the inspection result normal?

YES >> Replace soft top control unit. Refer to [RF-242, "Removal and Installation"](#).

NO >> Repair or replace harness.

4.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		
B351	2		Existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5.CHECK FILAMENT

Check filament.

Refer to [DEF-29, "Component Inspection"](#)

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace filament. Refer to [DEF-40, "Inspection and Repair"](#).

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to [GI-40, "Intermittent Incident"](#)

>> INSPECTION END

Component Inspection

INFOID:000000007221083

1.CHECK FILAMENT

Check the filament for damage.

Refer to [DEF-40, "Inspection and Repair"](#)

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair filament.

DOOR MIRROR DEFOGGER

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR DEFOGGER

Component Function Check

INFOID:000000007221088

1.CHECK DOOR MIRROR DEFOGGER

④ With CONSULT

1. Turn ignition switch ON.
2. Select "REAR DEFOGGER" of "BCM" using CONSULT.
3. Select "REAR DEFOGGER" in "ACTIVE TEST" mode.
4. Touch "ON".
5. 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-30. "Diagnosis Procedure"](#)

Diagnosis Procedure

INFOID:000000007221089

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.

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

Is the inspection result normal?

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

DRIVER SIDE DOOR MIRROR DEFOGGER

< DTC/CIRCUIT DIAGNOSIS >

DRIVER SIDE DOOR MIRROR DEFOGGER

Component Function Check

INFOID:000000007221091

1.CHECK DRIVER SIDE DOOR MIRROR DEFOGGER

 With CONSULT

1. Turn ignition switch ON.
2. Select "REAR DEFOGGER" of "BCM" using CONSULT.
3. Select "REAR DEFOGGER" in "ACTIVE TEST" mode.
4. Touch "ON".
5. 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-31. "Diagnosis Procedure"](#)

Diagnosis Procedure

INFOID:000000007221092

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.

(+)Door mirror (driver side)		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D3	7	Ground	Rear window de-fogger 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.

(+)Fuse block (J/B)		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
M3	10C	Ground	Rear window de-fogger 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.

DRIVER SIDE DOOR MIRROR DEFOGGER

< DTC/CIRCUIT DIAGNOSIS >

Fuse block (J/B)		Door mirror (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
M3	10C	D3	7	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	19	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-32, "Component Inspection"](#)

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace door mirror (driver side).

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to [GI-40, "Intermittent Incident"](#).

Is the inspection result normal?

>> INSPECTION END.

Component Inspection

INFOID:000000007221093

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	7	19	Existed

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace door mirror (driver side).

PASSENGER SIDE DOOR MIRROR DEFOGGER

< DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE DOOR MIRROR DEFOGGER

Component Function Check

INFOID:000000007221095

1.CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER

 With CONSULT

1. Turn ignition switch ON.
2. Select "REAR DEFOGGER" of "BCM" using CONSULT.
3. Select "REAR DEFOGGER" in "ACTIVE TEST" mode.
4. Touch "ON".
5. 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-33. "Diagnosis Procedure"](#)

Diagnosis Procedure

INFOID:000000007221096

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				
D43	7	Ground	Rear window de-fogger 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 de-fogger 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.

PASSENGER SIDE DOOR MIRROR DEFOGGER

< DTC/CIRCUIT DIAGNOSIS >

Fuse block (J/B)		Door mirror (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M3	10C	D43	7	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 (passenger side) harness connector and ground.

Door mirror (passenger side)		Ground	Continuity
Connector	Terminal		
D43	19	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-34, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace door mirror (passenger side)..

6.CHECK INTERMITTENT INCIDENT

Check intermittent incident.

Refer to [GI-40, "Intermittent Incident"](#).

>> INSPECTION END.

Component Inspection

INFOID:000000007221097

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		
D43	7	19	Existed

Is the inspection result normal?

YES >> INSPECTION END.

NO >> Replace door mirror (passenger side).

REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGERS DO NOT OPERATE

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGERS DO NOT OPERATE

Diagnosis Procedure

INFOID:000000007221108

1.CHECK REAR WINDOW DEFOGGER SWITCH

Check rear window defogger switch.

Refer to [DEF-23, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay.

Refer to [DEF-24, "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-40, "Intermittent Incident"](#).

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000007221109

1.CHECK SOFT TOP CONTROL UNIT CIRCUIT

Check soft top control unit circuit.

Refer to [DEF-26, "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-28, "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-40, "Intermittent Incident"](#).

NO >> GO TO 1.

DOOR MIRROR DEFOGGER DOES NOT OPERATE BUT REAR WINDOW DEFOGGER OPERATES

< SYMPTOM DIAGNOSIS >

DOOR MIRROR DEFOGGER DOES NOT OPERATE BUT REAR WINDOW DEFOGGER OPERATES

BOTH SIDES

BOTH SIDES : Diagnosis Procedure

INFOID:000000007221110

1.CHECK DOOR MIRROR DEFOGGER

Check door mirror defogger.

Refer to [DEF-30, "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-40, "Intermittent Incident"](#).

NO >> GO TO 1.

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000007221111

1.CHECK DRIVER SIDE DOOR MIRROR DEFOGGER

Check driver side door mirror defogger.

Refer to [DEF-31, "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-40, "Intermittent Incident"](#).

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000007221112

1.CHECK PASSENGER SIDE DOOR MIRROR DEFOGGER.

Check passenger side door mirror defogger.

Refer to [DEF-33, "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-40, "Intermittent Incident"](#).

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000007221113

1.CHECK AV CONTROL FUNCTION

Check that the AV control unit is operating normally.

Refer to [AV-67, "Work Flow"](#) (BOSE audio without navigation).

Refer to [AV-192, "Work Flow"](#) (BOSE audio with navigation).

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-40, "Intermittent Incident"](#).

NO >> GO TO 1.

REAR WINDOW DEFOGGER INDICATOR DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

REAR WINDOW DEFOGGER INDICATOR DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:000000007221114

1.CHECK REAR WINDOW DEFOGGER OPERATION

Check rear window defogger operation.

Is the inspection result normal?

YES-1 >> Check AV control system (BOSE audio without navigation). Refer to [AV-67, "Work Flow"](#).

YES-2 >> Check AV control system (BOSE audio with navigation). Refer to [AV-192, "Work Flow"](#).

NO >> Check rear window defogger system. Refer to [DEF-22, "Work Flow"](#).

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FILAMENT

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

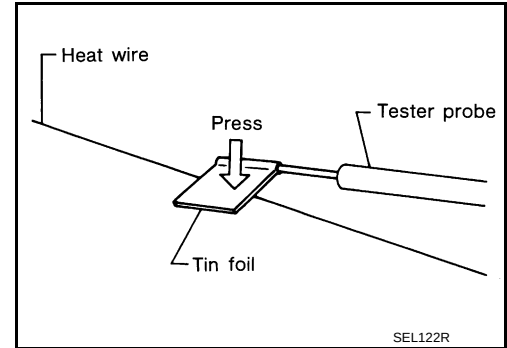
FILAMENT

Inspection and Repair

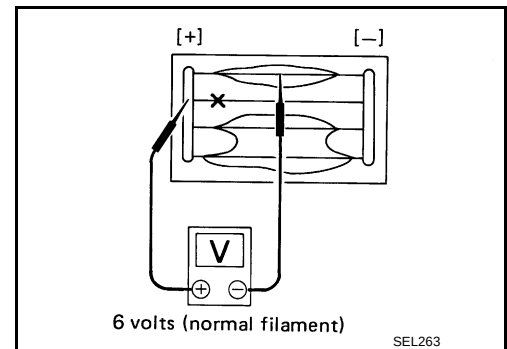
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INSPECTION

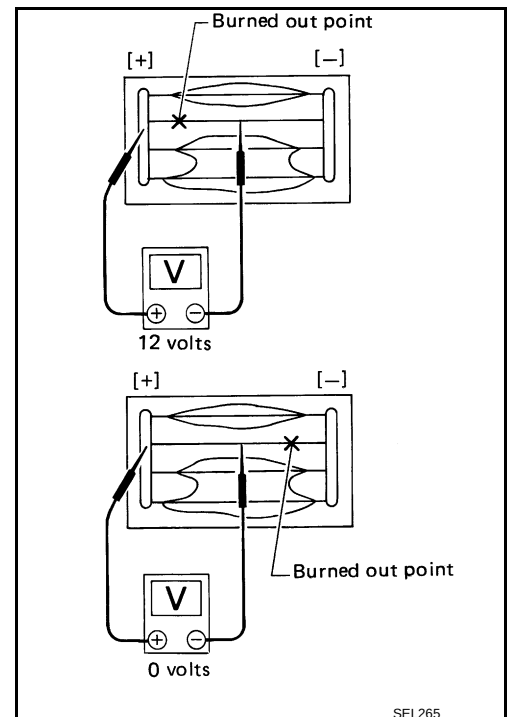
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



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)

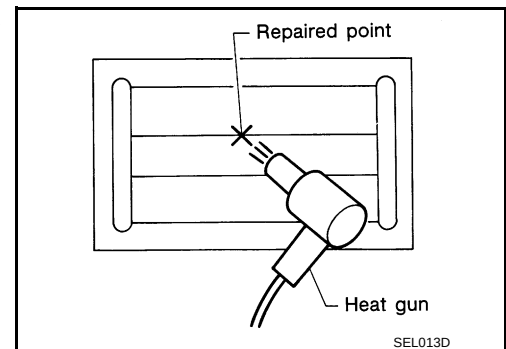
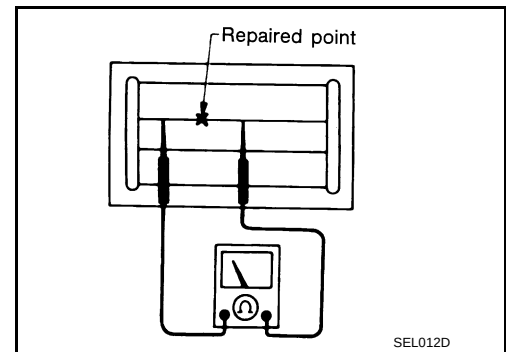
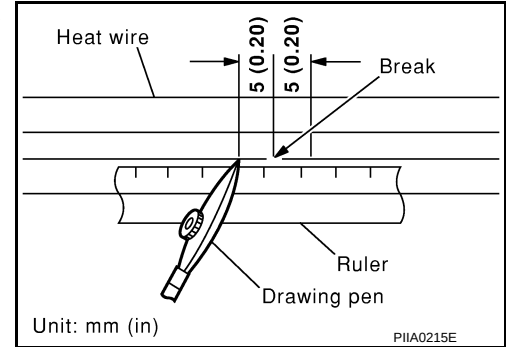
FILAMENT

< REMOVAL AND INSTALLATION >

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

REPAIRING PROCEDURE

1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited.
Do not touch repaired area while test is being conducted.
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.



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CONDENSER

< REMOVAL AND INSTALLATION >

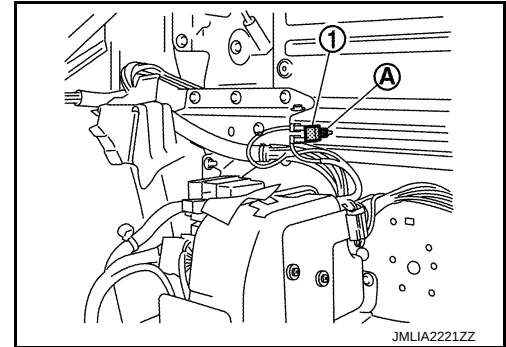
CONDENSER

Removal and Installation

INFOID:000000007220818

REMOVAL

1. Remove the trunk front finisher.
Refer to [INT-36, "TRUNK FRONT FINISHER : Removal and Installation"](#)
2. Remove bolt (A), and then remove condenser (1) from the vehicle body.



INSTALLATION

Install in the reverse order of removal.