SECTION DEF
DEFOGGER

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000014899482

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

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

Handling for Adhesive and Primer

INFOID:0000000014623422

- Do not use an adhesive which is past its usable date. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.
- Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.
- Open the seal of the primer and adhesive just before application. Discard the remainder.
- Before application, be sure to shake the primer container to stir the contents. If any floating material is found, do not use it.
- If any primer or adhesive contacts the skin, wipe it off with gasoline or equivalent and wash the skin with soap.
- When using primer and adhesive, always observe the precautions in the instruction manual.

Precaution for Work

INFOID:0000000014623423

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:

- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.

• Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
• Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

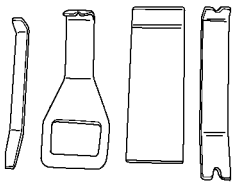
PREPARATION

PREPARATION

Special Service Tools

INFOID:0000000014623424

The actual shape of the tools may differ from those illustrated here.

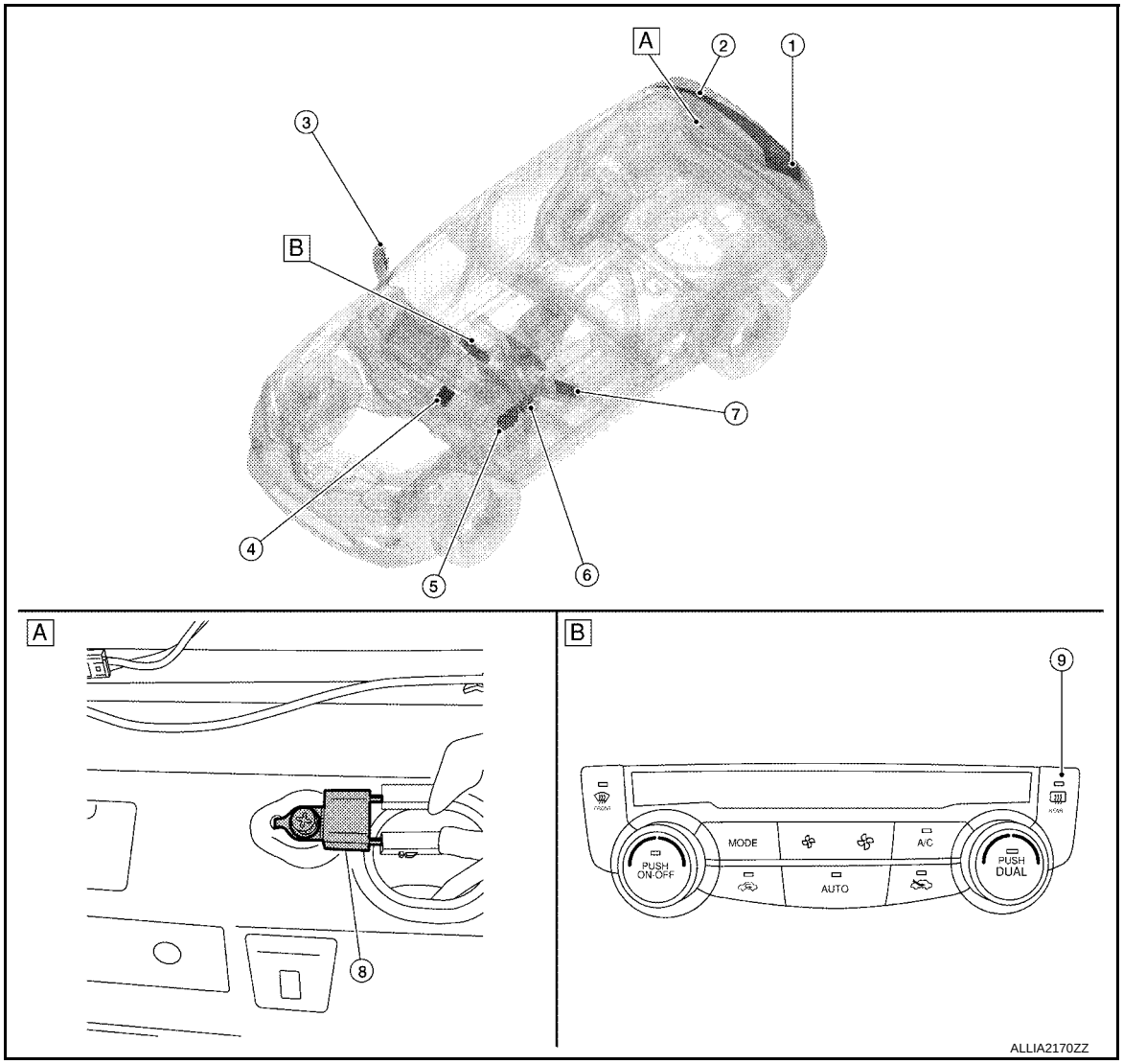
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014623425



A. Back side of headlining assembly rear
B. A/C switch

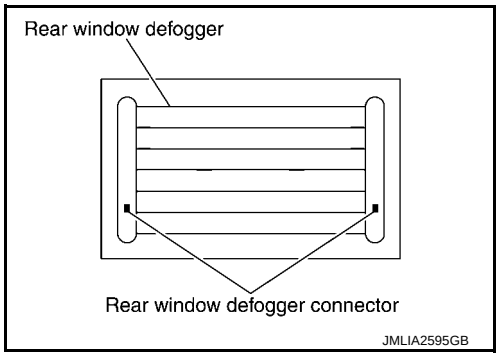
No.	Component	Description
1.	Rear window defogger connector LH (Rear window defogger)	Refer to DEF-7, "Rear window defogger".
2.	Rear window defogger connector RH (Rear window defogger)	
3.	Door mirror RH (door mirror defogger)	Refer to DEF-7, "Door mirror defogger".

No.	Component	Description
4.	A/C auto amp.	• Displays the rear window defogger ON to the display when detecting the operation of the rear window defogger. Refer to HAC-8, "Component Part Location" for detailed installation location.
5.	BCM	• Operates the rear window defogger with the operation of rear window defogger switch. • Performs the timer control of rear window defogger. Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
6.	Rear window defogger relay	• Operates the rear window defogger and the door mirror defogger with the control signal from BCM. Refer to PG-112, "Terminal Arrangement" for detailed installation location.
7.	Door mirror LH (door mirror defogger)	Refer to DEF-7, "Door mirror defogger".
8.	Rear window defogger condenser	Removes the noise that is generated when rear window defogger turns ON/OFF.
9.	A/C switch (rear window defogger switch)	• The rear window defogger switch is turned ON. • Turns the indicator lamp ON when detecting the operation of rear window defogger.

Rear window defogger

INFOID:0000000014623426

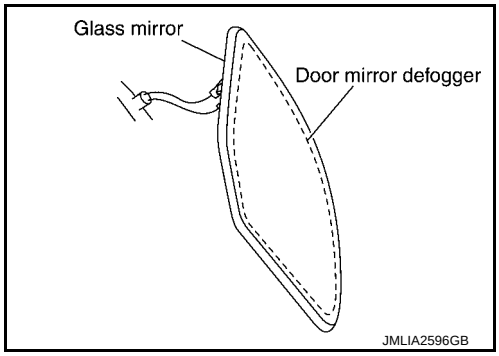
Heats the heating wire with the power supply from the rear window defogger relay to prevent the rear window from fogging up.



Door mirror defogger

INFOID:0000000014623427

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

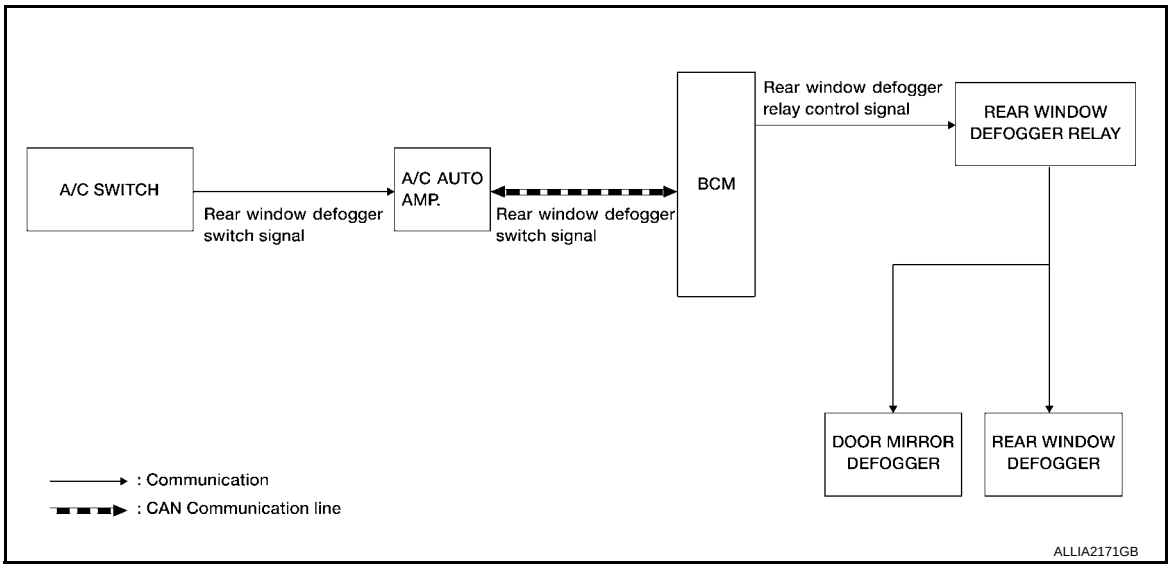


SYSTEM

System Description

INFOID:0000000014623428

SYSTEM DIAGRAM



OPERATION DESCRIPTION

- When rear window defogger switch is turned ON while ignition switch is ON, the rear window defogger switch transmits rear window defogger switch signal to BCM.
- BCM turns rear window defogger relay ON when rear window defogger switch signal is received.
- Rear window defogger and door mirror defogger are supplied with power and operate when rear window defogger relay turns ON.
- Rear window defogger ON is displayed when A/C switch receives signals.

TIMER FUNCTION

- BCM turns rear window defogger relay ON for approximately 15 minutes when rear window defogger switch is turned ON while ignition switch is ON. It makes rear window defogger and door 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.

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator
Rear window defogger switch	Defogger switch signal	Rear window defogger and door mirror defogger control	Rear window defogger Door mirror defogger

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000015211293

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
Ecu Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

System	Sub System	Direct Diagnostic Mode						
		Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×	×			

REAR DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000015211294

DATA MONITOR

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.

ACTIVE TEST

Test Item	Description
REAR DEFOGGER	This test is able to check rear window defogger operation [Off/On].

WORK SUPPORT

Support Item	Setting	Description
SET R-DEF TIMER	MODE3	**NOTE:** Do not use this function.
	MODE2	
	MODE1*	

*: Initial setting

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000014623433

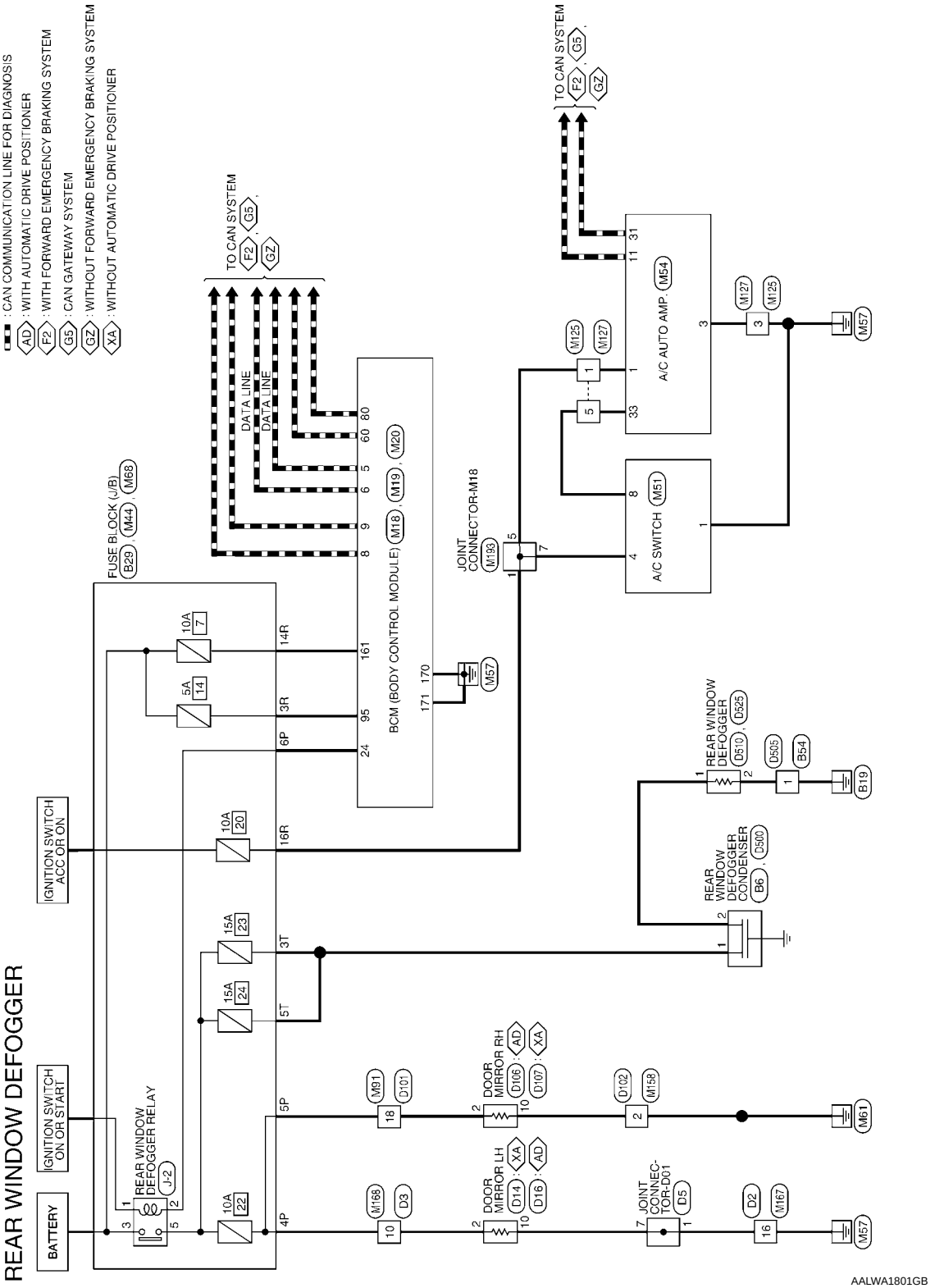
ECU	Reference
BCM	BCS-28, "Reference Value"
	BCS-46, "Fail-safe"
	BCS-47, "DTC Inspection Priority Chart"
	BCS-48, "DTC Index"

WIRING DIAGRAM

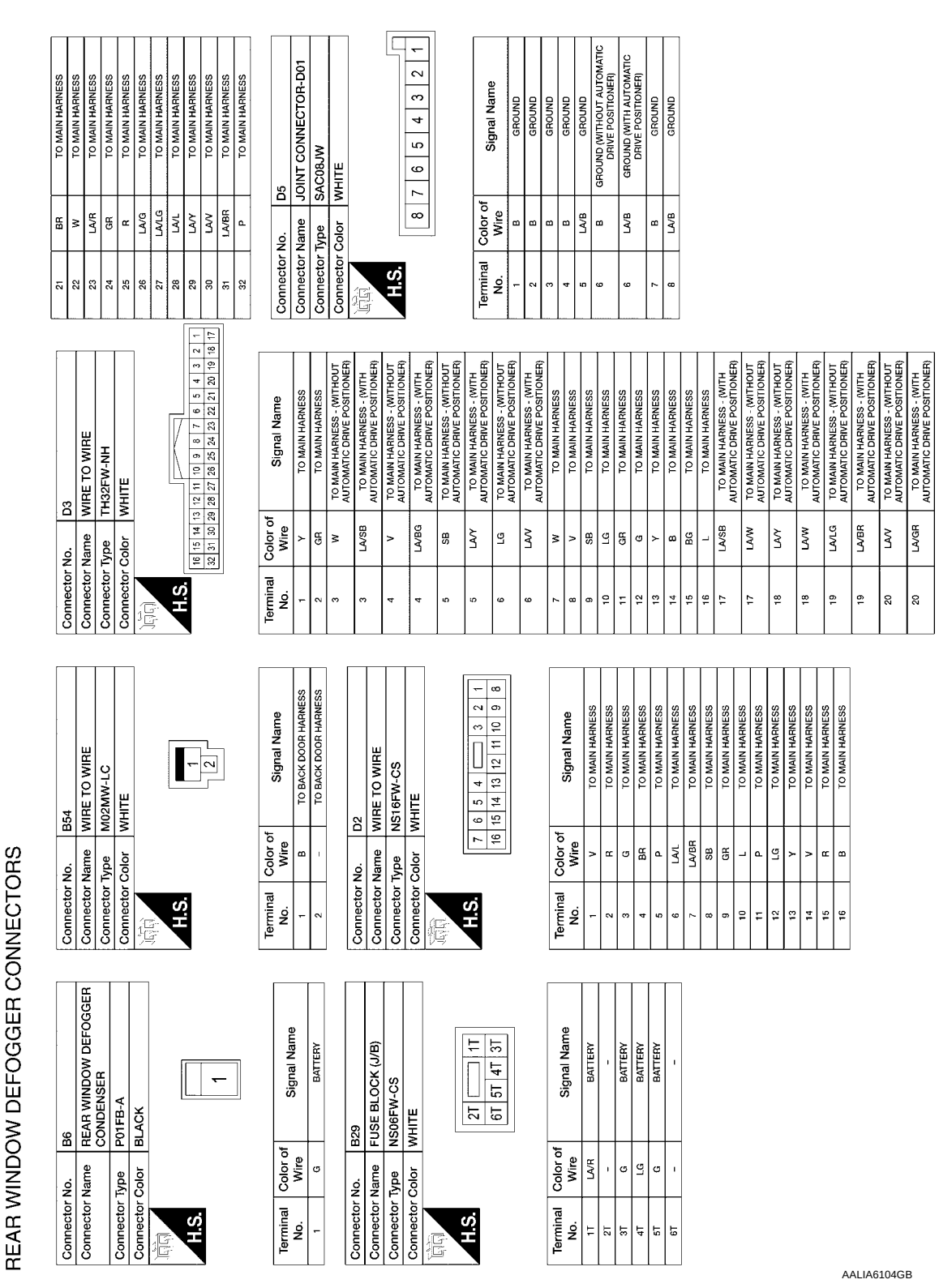
REAR WINDOW DEFOGGER SYSTEM

Wiring Diagram

INFOID:0000000014623434

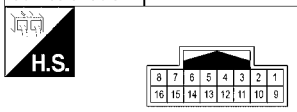


REAR WINDOW DEFOGGER CONNECTORS



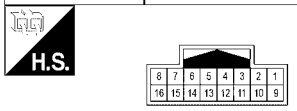
REAR WINDOW DEFOGGER CONNECTORS

Connector No.	D14
Connector Name	DOOR MIRROR LH (WITHOUT AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE



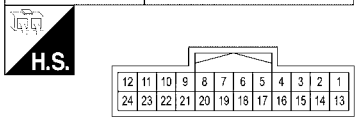
Terminal No.	Color of Wire	Signal Name
1	–	–
2	LG	REAR DEFOGGER RELAY OUTPUT
3	–	–
4	LA/BR	SWITCH OUTPUT (COMMON)
5	LA/W	SWITCH OUTPUT (RIGHT)
6	–	–
7	GR	SV2 POWER 6.2V
8	G	SV2 POWER GND
9	–	–
10	B	GROUND
11	–	–
12	LA/GR	SWITCH OUTPUT (DOWN)
13	LA/G	O DI FR LEFT D
14	LA/B	GROUND
15	B	SV2 VIDEO GND
16	Y	SV2 VIDEO SIGNAL

Connector No.	D16
Connector Name	DOOR MIRROR LH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE



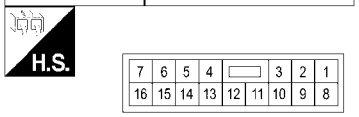
Terminal No.	Color of Wire	Signal Name
1	LA/BG	MIRROR SENSOR (LH VERTICAL)
2	LG	RELAY OUTPUT
3	LA/SB	POWER SUPPLY (SENSOR FOR 5V)
4	LA/BR	MIRROR MOTOR LH COMMON (DOWN&RIGHT)
5	LA/W	MIRROR MOTOR LH HORIZONTAL (LEFT)
6	–	–
7	–	–
8	–	–
9	LA/V	MIRROR SENSOR (LH HORIZONTAL)
10	B	GROUND
11	LA/Y	GND (SENSOR GND)
12	LA/GR	MIRROR MOTOR LH VERTICAL
13	LA/G	O DI FR LEFT D
14	LA/B	GROUND
15	–	–
16	–	–

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH
Connector Color	WHITE



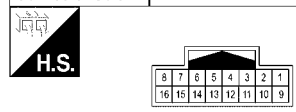
Terminal No.	Color of Wire	Signal Name
1	B	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	B	TO MAIN HARNESS
4	P	TO MAIN HARNESS
5	R	TO MAIN HARNESS
6	SB	TO MAIN HARNESS
7	L	TO MAIN HARNESS
8	V	TO MAIN HARNESS
9	Y	TO MAIN HARNESS
10	B	TO MAIN HARNESS
11	G	TO MAIN HARNESS
12	LA/V	TO MAIN HARNESS
13	LA/Y	TO MAIN HARNESS
14	LA/R	TO MAIN HARNESS
15	LA/V	TO MAIN HARNESS
16	LA/L	TO MAIN HARNESS
17	LA/BG	TO MAIN HARNESS
18	GR	TO MAIN HARNESS
19	LG	TO MAIN HARNESS
20	BR	TO MAIN HARNESS
21	LA/G	TO MAIN HARNESS
22	LA/SB	TO MAIN HARNESS
23	LA/BG	TO MAIN HARNESS
24	LA/Y	TO MAIN HARNESS

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LA/B	TO MAIN HARNESS
2	LA/G	TO MAIN HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
2	B	TO MAIN HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
3	–	TO MAIN HARNESS
4	–	TO MAIN HARNESS
5	–	TO MAIN HARNESS
6	–	TO MAIN HARNESS
7	–	TO MAIN HARNESS
8	GR	TO MAIN HARNESS
9	Y	TO MAIN HARNESS
10	BR	TO MAIN HARNESS
11	L	TO MAIN HARNESS
12	V	TO MAIN HARNESS
13	LA/R	TO MAIN HARNESS
14	LA/G	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	–	TO MAIN HARNESS

Connector No.	D106
Connector Name	DOOR MIRROR RH (WITH AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LA/BG	MIRROR SENSOR (RH VERTICAL)
2	GR	RELAY OUTPUT
3	LA/SB	POWER SUPPLY (SENSOR FOR 5V)
4	LA/R	MIRROR MOTOR RH (COMMON)
5	LA/Y	MIRROR MOTOR RH HORIZONTAL (LEFT)
6	–	–
7	–	–
8	–	–
9	LA/V	MIRROR SENSOR (RH HORIZONTAL)
10	B	GROUND
11	LA/Y	GND (SENSOR GND)
12	LA/V	MIRROR MOTOR RH VERTICAL
13	LA/G	O DI FR RIGHT D
14	LA/B	GROUND
15	–	–
16	–	–

AALIA6105GB

REAR WINDOW DEFOGGER CONNECTORS

Connector No.	D107
Connector Name	DOOR MIRROR RH (WITHOUT AUTOMATIC DRIVE POSITIONER)
Connector Type	TH16MW-NH
Connector Color	WHITE

H.S.

8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9

Terminal No.	Color of Wire	Signal Name
1	–	–
2	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
3	–	–
4	LA/R	SWITCH OUTPUT (COMMON)
5	LA/Y	SWITCH OUTPUT (RIGHT)
6	–	–
7	L	SV1 POWER 6.2V
8	V	SV1 POWER GND
9	–	–
10	LA/G	GROUND
11	–	–
12	LA/V	SWITCH OUTPUT (DOWN)
13	LA/G	O DI FR RIGHT D
14	LA/B	GROUND
15	B	SV1 VIDEO GND
16	Y	SV1 VIDEO SIGNAL

Connector No.	D505
Connector Name	WIRE TO WIRE
Connector Type	M02FW-LC
Connector Color	WHITE

H.S.

1
2

Terminal No.	Color of Wire	Signal Name
1	B	TO BODY HARNESS
2	–	TO BODY HARNESS

Connector No.	D510
Connector Name	REAR WINDOW DEFOGGER
Connector Type	P01FB-A
Connector Color	BLACK

H.S.

1

Terminal No.	Color of Wire	Signal Name
1	G	BATTERY

Connector No.	D525
Connector Name	REAR WINDOW DEFOGGER
Connector Type	P01FB-A
Connector Color	BLACK

H.S.

2

Terminal No.	Color of Wire	Signal Name
2	B	GROUND

Connector No.	D500
Connector Name	REAR WINDOW DEFOGGER CONDENSER
Connector Type	P01FB-A
Connector Color	BLACK

H.S.

2

Terminal No.	Color of Wire	Signal Name
2	G	BATTERY

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH
Connector Color	GRAY

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	L	LIN 3 D
2	LA/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D
12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	–	–
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	O CSW 5
34	Y	I CSW 5
35	BG	O SECURITY LED
36	G	O CSW 3
37	GR	O CSW 4
38	V	O CSW 1
39	W	O CSW 2
40	SB	I DOORUNLOCK SW

AALIA6106GB

REAR WINDOW DEFOGGER CONNECTORS

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

103	98	96	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81
120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101

Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	I SES FR HANDLE BUTTON SW
83	–	–
84	BR	I CSW 2
85	SB	I CSW 1
86	P	I CSW 3
87	BG	I CSW 4
88	W	O START SW BACKLIGHT LED
89	Y	I START WO ESCL SW
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–
100	V	SES EXT DR ANTENNA A
101	–	–
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	–	–
114	Y	O IMMOBILIZER KAZASHI B
115	W	O IMMOBILIZER KAZASHI A
116	BG	SES INT FRONT ANTENNA B
117	GR	SES INT FRONT ANTENNA A

118	SB	SES EXT AS ANTENNA B
119	P	SES EXT AS ANTENNA A
120	BR	SES EXT DR ANTENNA B

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

167	166	165	164		163	162	161
176	175	174	173	172	171	170	169	168

Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

Connector No.	M44
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

7P	6P	5P	4P		3P	2P	1P
16P	15P	14P	13P	12P	11P	10P	9P	8P

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	G	IGNITION
3P	Y	IGNITION RELAY-2 CONTROL
4P	LG	REAR WINDOW DEFOGGER RELAY OUTPUT
5P	GR	REAR WINDOW DEFOGGER RELAY OUTPUT
6P	LA/R	REAR WINDOW DEFOGGER RELAY CONTROL
7P	Y	IGNITION
8P	V	IGNITION
9P	L	BATTERY
10P	LG	IGNITION
11P	–	–
12P	–	–
13P	G	BATTERY
14P	–	–
15P	L	BATTERY
16P	LA/W	FRONT BLOWER MOTOR RELAY CONTROL

Connector No.	M51
Connector Name	A/C SWITCH
Connector Type	TH10FB-NH
Connector Color	BLACK

H.S.

1	2	3	4	5
6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
1	B	GROUND
2	–	–
3	–	–
4	GR	ACCESSORY
5	–	–
6	–	–
7	–	–
8	LG	LIN SW AMP

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REAR WINDOW DEFOGGER CONNECTORS

Connector No.	M54
Connector Name	A/C AUTO AMP.
Connector Type	TH40FB-NH
Connector Color	BLACK

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	BG	AUTO ACC
2	–	–
3	R	GND
4	–	–
5	–	–
6	–	–
7	–	–
8	–	–
9	B	LIN COMP
10	–	–
11	L	CAN-H
12	–	–
13	P	INCAR SEN
14	V	SUN SEN
15	–	–
16	–	–
17	–	–
18	–	–
19	–	–
20	–	–
21	–	–
22	–	–
23	G	SEN GND
24	–	–
25	–	–
26	BR	STRG HEATER RLY
27	–	–
28	–	–
29	–	–
30	–	–
31	W	CAN-L
32	–	–
33	Y	LIN SW AMP
34	–	–
35	–	–
36	–	–
37	LG	STRG HEATER SW
38	–	–
39	–	–
40	–	–

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN

H.S.

7R	6R	5R	4R		3R	2R	1R
16R	15R	14R	13R	12R	11R	10R	9R	8R

Terminal No.	Color of Wire	Signal Name
1R	V	ILLUMINATION +
2R	G	IGNITION
3R	V	BATTERY
4R	–	–
5R	–	–
6R	LA/L	ACCESSORY
7R	LA/V	BATTERY
8R	–	–
9R	–	–
10R	GR	BATTERY
11R	–	–
12R	–	–
13R	–	–
14R	W	BATTERY
15R	W	BATTERY
16R	GR	ACCESSORY

Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT DOOR RH HARNESS
2	GR	TO FRONT DOOR RH HARNESS
3	GR	TO FRONT DOOR RH HARNESS
4	W	TO FRONT DOOR RH HARNESS
5	V	TO FRONT DOOR RH HARNESS
6	B	TO FRONT DOOR RH HARNESS
7	L	TO FRONT DOOR RH HARNESS
8	SB	TO FRONT DOOR RH HARNESS
9	Y	TO FRONT DOOR RH HARNESS
10	SHIELD	TO FRONT DOOR RH HARNESS
11	G	TO FRONT DOOR RH HARNESS
12	V	TO FRONT DOOR RH HARNESS
13	Y	TO FRONT DOOR RH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
13	LA/SB	TO FRONT DOOR RH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
14	R	TO FRONT DOOR RH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
14	LA/GR	TO FRONT DOOR RH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
15	V	TO FRONT DOOR RH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
15	LA/V	TO FRONT DOOR RH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
16	LA/L	TO FRONT DOOR RH HARNESS
17	LA/BG	TO FRONT DOOR RH HARNESS
18	GR	TO FRONT DOOR RH HARNESS
19	LG	TO FRONT DOOR RH HARNESS
20	BR	TO FRONT DOOR RH HARNESS
21	LA/Y	TO FRONT DOOR RH HARNESS
22	SB	TO FRONT DOOR RH HARNESS
23	BG	TO FRONT DOOR RH HARNESS
24	Y	TO FRONT DOOR RH HARNESS

Connector No.	M125
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
1	SB	TO HVAC SUB HARNESS
2	–	TO HVAC SUB HARNESS
3	B	TO HVAC SUB HARNESS
4	–	TO HVAC SUB HARNESS
5	LG	TO HVAC SUB HARNESS
6	–	TO HVAC SUB HARNESS
7	L	TO HVAC SUB HARNESS
8	W	TO HVAC SUB HARNESS
9	R	TO HVAC SUB HARNESS
10	BR	TO HVAC SUB HARNESS
11	V	TO HVAC SUB HARNESS
12	GR	TO HVAC SUB HARNESS
13	LG	TO HVAC SUB HARNESS
14	SB	TO HVAC SUB HARNESS
15	–	TO HVAC SUB HARNESS
16	BR	TO HVAC SUB HARNESS
17	–	TO HVAC SUB HARNESS
18	BR	TO HVAC SUB HARNESS
19	G	TO HVAC SUB HARNESS
20	Y	TO HVAC SUB HARNESS
21	BG	TO HVAC SUB HARNESS
22	–	TO HVAC SUB HARNESS
23	R	TO HVAC SUB HARNESS
24	SB	TO HVAC SUB HARNESS
25	G	TO HVAC SUB HARNESS
26	BR	TO HVAC SUB HARNESS
27	LG	TO HVAC SUB HARNESS
28	W	TO HVAC SUB HARNESS
29	BG	TO HVAC SUB HARNESS
30	G	TO HVAC SUB HARNESS
31	–	TO HVAC SUB HARNESS
32	–	TO HVAC SUB HARNESS

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REAR WINDOW DEFOGGER CONNECTORS

Connector No.	M127
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

H.S.

16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17

Terminal No.	Color of Wire	Signal Name
1	BG	TO MAIN HARNESS
2	–	TO MAIN HARNESS
3	R	TO MAIN HARNESS
4	–	TO MAIN HARNESS
5	Y	TO MAIN HARNESS
6	–	TO MAIN HARNESS
7	L	TO MAIN HARNESS
8	W	TO MAIN HARNESS
9	B	TO MAIN HARNESS
10	BR	TO MAIN HARNESS
11	L	TO MAIN HARNESS
12	R	TO MAIN HARNESS
13	L	TO MAIN HARNESS
14	BR	TO MAIN HARNESS
15	–	TO MAIN HARNESS
16	G	TO MAIN HARNESS
17	–	TO MAIN HARNESS
18	BR	TO MAIN HARNESS
19	V	TO MAIN HARNESS
20	P	TO MAIN HARNESS
21	BG	TO MAIN HARNESS
22	–	TO MAIN HARNESS
23	W	TO MAIN HARNESS
24	G	TO MAIN HARNESS
25	LG	TO MAIN HARNESS
26	BR	TO MAIN HARNESS
27	BR	TO MAIN HARNESS
28	W	TO MAIN HARNESS
29	R	TO MAIN HARNESS
30	G	TO MAIN HARNESS
31	–	TO MAIN HARNESS
32	–	TO MAIN HARNESS

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

H.S.

1	2	3		4	5	6	7
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	B	TO FRONT DOOR RH HARNESS
2	GR	TO FRONT DOOR RH HARNESS
3	–	TO FRONT DOOR RH HARNESS
4	–	TO FRONT DOOR RH HARNESS
5	–	TO FRONT DOOR RH HARNESS
6	–	TO FRONT DOOR RH HARNESS
7	–	TO FRONT DOOR RH HARNESS
8	SB	TO FRONT DOOR RH HARNESS
9	LA/BR	TO FRONT DOOR RH HARNESS
10	LA/GR	TO FRONT DOOR RH HARNESS
11	L	TO FRONT DOOR RH HARNESS
12	Y	TO FRONT DOOR RH HARNESS
13	GR	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
13	R	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
14	W	TO FRONT DOOR RH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
14	SB	TO FRONT DOOR RH HARNESS - (WITH BOSE AUDIO SYSTEM)
15	–	TO FRONT DOOR RH HARNESS
16	–	TO FRONT DOOR RH HARNESS

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

H.S.

1	2	3		4	5	6	7
8	9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name
1	V	TO FRONT DOOR LH HARNESS
2	R	TO FRONT DOOR LH HARNESS
3	G	TO FRONT DOOR LH HARNESS
4	BR	TO FRONT DOOR LH HARNESS
5	P	TO FRONT DOOR LH HARNESS
6	Y	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
6	LA/L	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
7	R	TO FRONT DOOR LH HARNESS - (WITHOUT BOSE AUDIO SYSTEM)
7	LA/BR	TO FRONT DOOR LH HARNESS - (WITH BOSE AUDIO SYSTEM)
8	L	TO FRONT DOOR LH HARNESS
9	LA/BR	TO FRONT DOOR LH HARNESS
10	LA/GR	TO FRONT DOOR LH HARNESS
11	Y	TO FRONT DOOR LH HARNESS
12	BG	TO FRONT DOOR LH HARNESS
13	LA/G	TO FRONT DOOR LH HARNESS
14	LA/R	TO FRONT DOOR LH HARNESS
15	P	TO FRONT DOOR LH HARNESS
16	B	TO FRONT DOOR LH HARNESS

Connector No.	M168
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
1	Y	TO FRONT DOOR LH HARNESS
2	GR	TO FRONT DOOR LH HARNESS
3	Y	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
3	SB	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
4	V	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
4	BG	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
5	BR	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
5	Y	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
6	LG	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
6	V	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
7	Y	TO FRONT DOOR LH HARNESS
8	V	TO FRONT DOOR LH HARNESS
9	BR	TO FRONT DOOR LH HARNESS
10	LG	TO FRONT DOOR LH HARNESS
11	L	TO FRONT DOOR LH HARNESS
12	Y	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
13	G	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
14	SHIELD	TO FRONT DOOR LH HARNESS
15	SB	TO FRONT DOOR LH HARNESS
16	BG	TO FRONT DOOR LH HARNESS
17	SB	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
17	GR	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
18	LA/SB	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
18	W	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
19	LA/GR	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
19	BR	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
20	LA/V	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
20	GR	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
21	BR	TO FRONT DOOR LH HARNESS
22	W	TO FRONT DOOR LH HARNESS
23	LA/R	TO FRONT DOOR LH HARNESS - (WITHOUT AUTOMATIC DRIVE POSITIONER)
23	R	TO FRONT DOOR LH HARNESS - (WITH AUTOMATIC DRIVE POSITIONER)
24	GR	TO FRONT DOOR LH HARNESS
25	R	TO FRONT DOOR LH HARNESS LED INDICATOR L
26	LA/G	TO FRONT DOOR LH HARNESS
27	LG	TO FRONT DOOR LH HARNESS
28	L	TO FRONT DOOR LH HARNESS
29	Y	TO FRONT DOOR LH HARNESS
30	V	TO FRONT DOOR LH HARNESS
31	G	TO FRONT DOOR LH HARNESS
32	P	TO FRONT DOOR LH HARNESS

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REAR WINDOW DEFOGGER CONNECTORS

Connector No.	M193
Connector Name	JOINT CONNECTOR-M18
Connector Type	SAC08JW
Connector Color	WHITE

H.S.

8	7	6	5	4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	GR	ACCESSORY
2	GR	ACCESSORY
3	GR	ACCESSORY
4	GR	ACCESSORY
5	SB	AUTO ACC
6	GR	ACCESSORY
7	GR	ACCESSORY
8	W	ACCESSORY

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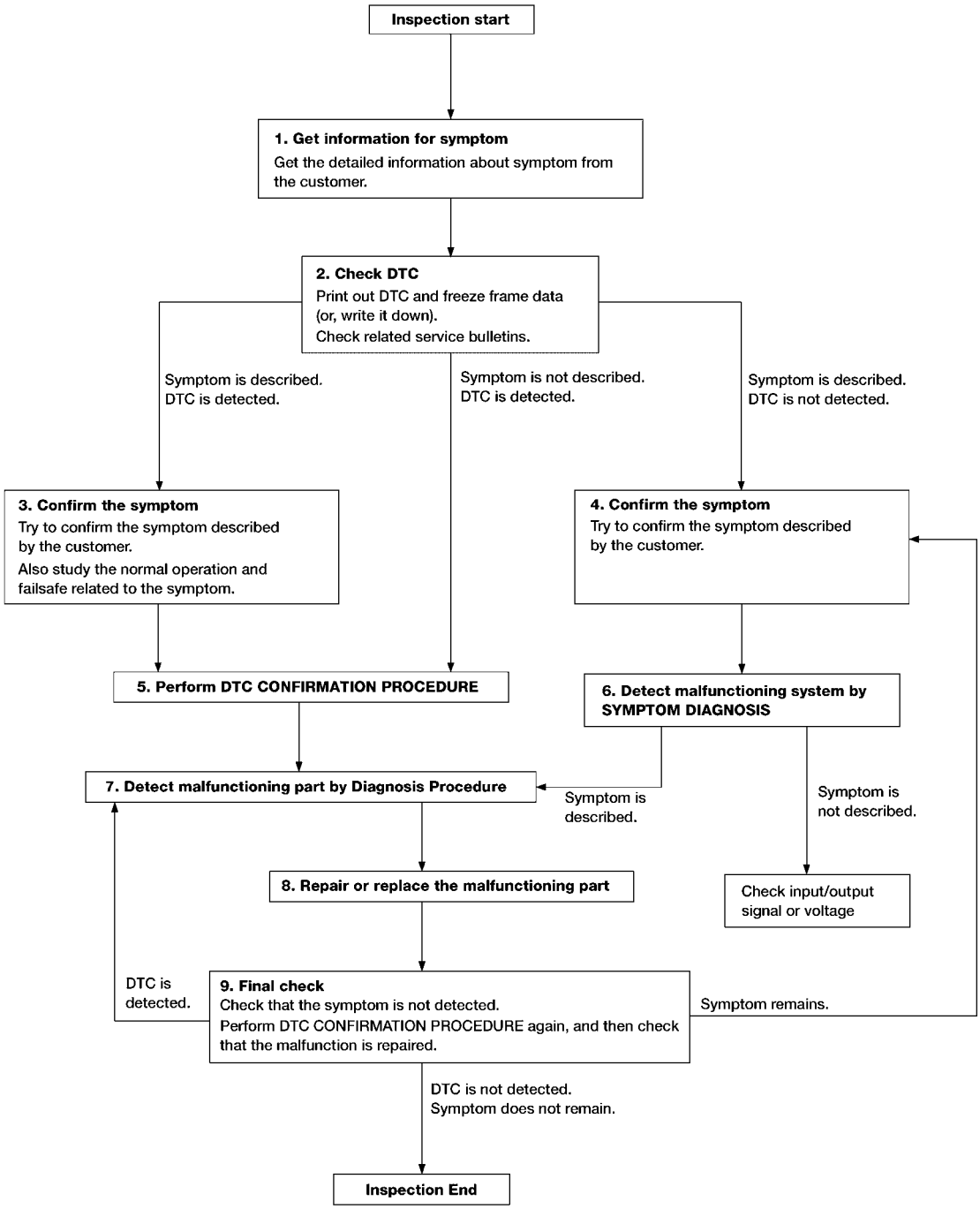
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014623435

OVERALL SEQUENCE



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DETAILED FLOW

1. GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

2. CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is displayed.
- Record DTC and freeze frame data (Print them out with CONSULT.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3.
Symptom is described, DTC is not displayed>>GO TO 4.
Symptom is not described, DTC is displayed>>GO TO 5.

3. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.
Connect CONSULT to the vehicle in “Data Monitor” mode and check real time diagnosis results.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.
Connect CONSULT to the vehicle in “Data Monitor” mode and check real time diagnosis results.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again.
At this time, always connect CONSULT to the vehicle, and check diagnostic results in real time.
If two or more DTCs are detected, refer to BCS-47, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC Confirmation Procedure is not included in Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
  If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC Confirmation Procedure.

Is DTC detected?

YES >> GO TO 7.
NO >> Refer to GI-54, "Intermittent Incident".

6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to DEF-8, "System Description" based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

>> GO TO 7.

7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

NOTE:

< BASIC INSPECTION >

The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

Is malfunctioning part detected?

YES >> GO TO 8.
NO >> Check voltage of related BCM terminals using CONSULT.

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement.
3. Check DTC. If DTC is displayed, erase it.

>> GO TO 9.

9. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been repaired securely.
When symptom was described from the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Does the symptom reappear?

YES (DTC is detected)>>GO TO 7.
YES (Symptom remains)>>GO TO 4.
NO >> Inspection End.

DTC/CIRCUIT DIAGNOSIS

REAR WINDOW DEFOGGER SWITCH

Description

INFOID:0000000014623439

- The rear window defogger is operated by pressing the rear window defogger switch ON.
- The indicator lamp in the rear window defogger switch illuminates while the rear window defogger is ON.

Component Function Check

INFOID:0000000014623440

1. CHECK REAR WINDOW DEFOGGER SWITCH FUNCTION

Check that the indicator lamp of the rear window defogger switch 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:0000000015231185

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK REAR WINDOW DEFOGGER RELAY OPERATION

1. Push the ignition switch to ON.
2. Check that an operation noise of rear window defogger relay [located in fuse block (J/B)] can be heard when pressing the rear window defogger switch ON and OFF.

Is the inspection result normal?

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

2. CHECK FUSE

Check if fuse 22 from the rear window defogger relay output is blown.

Is the fuse blown?

YES >> Replace the blown fuse after repairing the affected circuit.
NO >> GO TO 3.

3. CHECK A/C AUTO AMP. (REAR WINDOW DEFOGGER SWITCH) FUNCTION

CONSULT
1. Select “REAR DEFOGGER” of “BCM”.
2. Select “REAR DEF SW” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
REAR DEF SW	Rear window defogger switch	Pressed	On
		Released	Off

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 6.

4. CHECK REAR WINDOW DEFOGGER RELAY GROUND CIRCUIT

CONSULT
1. Select “REAR DEFOGGER” of “BCM”.
2. Select “REAR DEFOGGER” in “Active Test” mode.
3. Turn rear defogger active test ON and OFF.

4. Check voltage between fuse block (J/B) connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M44	6P	Ground	Rear window defogger active test	ON	0
				OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 7.
NO >> GO TO 5.

5. CHECK REAR WINDOW DEFOGGER RELAY CIRCUIT

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M44	6P	Ground	Rear window defogger switch	ON	0
				OFF	Battery voltage

Is the inspection result normal?

YES >> Replace rear window defogger relay.
NO >> GO TO 6.

6. CHECK HARNESS CONTINUITY

1. Push ignition switch to OFF.
2. Disconnect BCM and fuse block (J/B).
3. Check continuity between BCM connector and fuse block (J/B) connector.

BCM		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
M18	24	M44	6P	Yes

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

Fuse block (J/B)		(–)	Continuity
Connector	Terminal		
M44	6P	Ground	No

Is the inspection result normal?

YES >> Perform rear window defogger relay component inspection. Refer to DEF-27, "Component Inspection". If OK, replace BCM. Refer to BCS-73, "Removal and Installation".
NO >> Repair or replace harness.

7. CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay. Refer to DEF-27, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 8.
NO >> Replace rear window defogger relay.

8. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-54, "Intermittent Incident".

Is the inspection result normal?

YES >> Check the following:
- Battery power supply circuit

- Fuse block (J/B)

NO >> Repair or replace the malfunctioning parts.

REAR WINDOW DEFOGGER RELAY

Description

INFOID:0000000014623442

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

Component Function Check

INFOID:0000000014623443

1. CHECK REAR WINDOW DEFOGGER RELAY POWER SUPPLY CIRCUIT

Check that an operation noise of rear window defogger relay [located in fuse block (J/B)] can be heard when turning the rear window defogger switch ON.

Is the inspection result normal?

YES >> Rear window defogger relay power supply circuit is OK.
NO >> Refer to DEF-26, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014623444

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK REAR WINDOW DEFOGGER RELAY GROUND CIRCUIT

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

(+)		(–)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M18	24	Ground	Rear window defogger switch	ON	0
				OFF	Battery voltage

Is the inspection result normal?

YES >> Rear window defogger power supply circuit is OK.
NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

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

BCM		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
M18	24	M44	6P	Yes

Is the inspection result normal?

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

3. CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay.
Refer to DEF-27, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-54, "Intermittent Incident".
NO >> Replace rear window defogger relay.

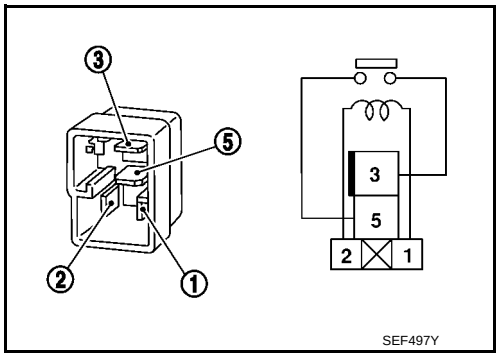
Component Inspection

INFOID:0000000014623445

1. CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay.

Terminal		Condition	Continuity
Rear window defogger relay			
3	5	12V direct current supply between terminals 1 and 2.	Yes
		No current supply	No



Is the inspection result normal?

YES >> Inspection End.
NO >> Replace rear window defogger relay.

REAR WINDOW DEFOGGER POWER SUPPLY AND GROUND CIRCUIT

Description

INFOID:0000000014623446

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

Component Function Check

INFOID:0000000014623447

1. CHECK REAR WINDOW DEFOGGER

Check that the heating wire of rear window defogger is heated when turning the rear window defogger switch ON.

Is the inspection result normal?

YES >> Rear window defogger is OK.
NO >> Refer to DEF-28, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014623448

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK FUSES

Check if any of the following fuses in fuse block (J/B) are blown.

COMPONENT PARTS	AMPERE	FUSE NO.
Fuse block (J/B)	15A	23
	15A	24

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK REAR WINDOW DEFOGGER POWER SUPPLY CIRCUIT

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
B29	3T, 5T	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 3.
NO >> Perform rear window defogger relay diagnosis. Refer to DEF-26, "Diagnosis Procedure".

3. 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				
D510	1	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4. CHECK GROUND CIRCUIT

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

Rear window defogger		(–)	Continuity
Connector	Terminal		
D525	2	Ground	Yes

Is the inspection result normal?

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

5. CHECK HARNESS CONTINUITY

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

Fuse block (J/B)		Rear window defogger condenser		Continuity
Connector	Terminal	Connector	Terminal	
B29	3T	B6	1	Yes
	5T			

Is the inspection result normal?

YES >> Replace rear window defogger condenser. Refer to DEF-47, "Removal and Installation".
NO >> Replace or repair harness.

6. CHECK FILAMENT

Check filament.
Refer to DEF-29, "Component Inspection".

Is the inspection result normal?

YES >> Refer to GI-54, "Intermittent Incident".
NO >> Repair filament. Refer to DEF-45, "Inspection and Repair".

Component Inspection

INFOID:0000000014623449

1. CHECK FILAMENT

Check the filament for damage or open circuits.
Refer to DEF-45, "Inspection and Repair".

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair filament. Refer to DEF-45, "Inspection and Repair".

DRIVER SIDE DOOR MIRROR DEFOGGER WITH AUTOMATIC DRIVE POSITIONER

WITH AUTOMATIC DRIVE POSITIONER : Description

INFOID:0000000015211707

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

WITH AUTOMATIC DRIVE POSITIONER : Component Function Check

INFOID:0000000015211708

1. CHECK DOOR MIRROR DEFOGGER LH

Check that the door mirror defogger LH heating wire is heated when the rear window defogger switch is turned ON.

Is the inspection result normal?

YES >> Door mirror defogger is OK.
NO >> Refer to DEF-30, "WITH AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure".

WITH AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure

INFOID:0000000015211709

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK POWER SUPPLY

Check if the following fuse in the fuse block (J/B) is blown.

Component	Capacity	Fuse No.
Fuse block (J/B)	10 A	22

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror LH.
3. Turn ignition switch ON.
4. Check voltage between door mirror LH connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Door mirror LH					
Connector	Terminal				
D16	2	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

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

3. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between door mirror LH connector and ground.

Door mirror LH		(–)	Continuity
Connector	Terminal		
D16	10	Ground	Yes

Is the inspection result normal?

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

4. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH. Refer to DEF-31, "WITH AUTOMATIC DRIVE POSITIONER : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace door mirror LH. Refer to MIR-25, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-54, "Intermittent Incident".

Is the inspection result normal?

YES >> Check the following:
- Battery power supply circuit
- Fuse block (J/B)

NO >> Repair or replace the malfunctioning parts.

WITH AUTOMATIC DRIVE POSITIONER : Component Inspection

INFOID:0000000015211710

1. CHECK DOOR MIRROR DEFOGGER

1. Turn ignition switch OFF.
2. Disconnect door mirror LH.
3. Check continuity between door mirror terminals.

Terminal		Continuity
2	10	Yes

Is the inspection result normal?

YES >> Check the condition of the harness and the connector.
NO >> Replace malfunctioning door mirror LH. Refer to MIR-25, "Removal and Installation".

WITHOUT AUTOMATIC DRIVE POSITIONER

WITHOUT AUTOMATIC DRIVE POSITIONER : Description

INFOID:0000000014623450

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

WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check

INFOID:0000000014623451

1. CHECK DOOR MIRROR DEFOGGER LH

Check that heating wire of door mirror defogger LH is heated when turning the rear window defogger switch ON.

Is the inspection result normal?

YES >> Door mirror defogger is OK.
NO >> Refer to DEF-31, "WITHOUT AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure".

WITHOUT AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure

INFOID:0000000014623452

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK POWER SUPPLY

Check if the following fuse in the fuse block (J/B) is blown.

Component	Capacity	Fuse No.
Fuse block (J/B)	10 A	22

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror LH.
3. Turn ignition switch ON.
4. Check voltage between door mirror LH connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Door mirror LH					
Connector	Terminal				
D14	2	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

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

3. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between door mirror LH connector and ground.

Door mirror LH		(–)	Continuity
Connector	Terminal		
D14	10	Ground	Yes

Is the inspection result normal?

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

4. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH. Refer to DEF-32, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace door mirror LH. Refer to MIR-25, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-54, "Intermittent Incident".

Is the inspection result normal?

YES >> Check the following:
- Battery power supply circuit
- Fuse block (J/B)

NO >> Repair or replace the malfunctioning parts.

WITHOUT AUTOMATIC DRIVE POSITIONER : Component Inspection

INFOID:0000000014623453

1. CHECK DOOR MIRROR DEFOGGER LH

1. Turn ignition switch OFF.
2. Disconnect door mirror LH.
3. Check continuity between door mirror terminals.

Terminal		Continuity
2	10	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace door mirror LH. Refer to MIR-23, "Removal and Installation".

PASSENGER SIDE DOOR MIRROR DEFOGGER WITH AUTOMATIC DRIVE POSITIONER

WITH AUTOMATIC DRIVE POSITIONER : Description

INFOID:0000000015211752

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

WITH AUTOMATIC DRIVE POSITIONER : Component Function Check

INFOID:0000000015211753

1. CHECK DOOR MIRROR DEFOGGER RH

Check that the door mirror defogger RH heating wire is heated when the rear window defogger switch is turned ON.

Is the inspection result normal?

YES >> Door mirror defogger RH is OK.
NO >> Refer to DEF-34, "WITH AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure".

WITH AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure

INFOID:0000000015211754

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK POWER SUPPLY

Check if the following fuse in the fuse block (J/B) is blown.

Component	Capacity	Fuse No.
Fuse block (J/B)	10 A	22

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror RH.
3. Turn ignition switch ON.
4. Check voltage between door mirror RH connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Door mirror RH					
Connector	Terminal				
D106	2	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

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

3. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between door mirror RH connector and ground.

Door mirror RH		(–)	Continuity
Connector	Terminal		
D106	10	Ground	Yes

Is the inspection result normal?

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

4. CHECK DOOR MIRROR DEFOGGER RH

Check door mirror defogger RH. Refer to DEF-35, "WITH AUTOMATIC DRIVE POSITIONER : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace door mirror RH. Refer to MIR-25, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-54, "Intermittent Incident".

Is the inspection result normal?

YES >> Check the following:
- Battery power supply circuit
- Fuse block (J/B)

NO >> Repair or replace the malfunctioning parts.

WITH AUTOMATIC DRIVE POSITIONER : Component Inspection

INFOID:0000000015211755

1. CHECK DOOR MIRROR DEFOGGER

1. Turn ignition switch OFF.
2. Disconnect door mirror RH.
3. Check continuity between door mirror terminals.

Terminal		Continuity
2	10	Yes

Is the inspection result normal?

YES >> Check the condition of the harness and the connector.
NO >> Replace malfunctioning door mirror RH. Refer to MIR-25, "Removal and Installation".

WITHOUT AUTOMATIC DRIVE POSITIONER

WITHOUT AUTOMATIC DRIVE POSITIONER : Description

INFOID:0000000014623454

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

WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check

INFOID:0000000014623455

1. CHECK DOOR MIRROR DEFOGGER RH

Check that the heating wire of door mirror defogger RH is heated when turning the rear window defogger switch ON.

Is the inspection result normal?

YES >> Door mirror defogger RH is OK.
NO >> Refer to DEF-35, "WITHOUT AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure".

WITHOUT AUTOMATIC DRIVE POSITIONER : Diagnosis Procedure

INFOID:0000000014623456

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK POWER SUPPLY

Check if the following fuse in the fuse block (J/B) is blown.

Component	Capacity	Fuse No.
Fuse block (J/B)	10 A	22

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror RH.
3. Turn ignition switch ON.
4. Check voltage between door mirror RH connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Door mirror RH					
Connector	Terminal				
D107	2	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

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

3. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between door mirror RH connector and ground.

Door mirror RH		(–)	Continuity
Connector	Terminal		
D107	10	Ground	Yes

Is the inspection result normal?

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

4. CHECK DOOR MIRROR DEFOGGER RH

Check door mirror defogger RH. Refer to DEF-36, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace door mirror RH. Refer to MIR-25, "Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to GI-54, "Intermittent Incident".

Is the inspection result normal?

YES >> Check the following:
- Battery power supply circuit
- Fuse block (J/B)

NO >> Repair or replace the malfunctioning parts.

WITHOUT AUTOMATIC DRIVE POSITIONER : Component Inspection

INFOID:0000000014623457

1. CHECK DOOR MIRROR DEFOGGER RH

1. Turn ignition switch OFF.
2. Disconnect door mirror RH.
3. Check continuity between door mirror terminals.

Terminal		Continuity
2	10	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace door mirror RH. Refer to MIR-25, "Removal and Installation".

SYMPTOM DIAGNOSIS

DEFOGGER SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000014623458

Symptom	Reference page
Rear window defoggers and door mirror defoggers do not operate.	Refer to DEF-39, "Diagnosis Procedure".
Rear window defoggers do not operate but both of the door mirror defoggers operate.	Refer to DEF-40, "Diagnosis Procedure".
Both door mirror defoggers don’t operate but rear window defoggers operate.	Refer to DEF-41, "Diagnosis Procedure".
Driver side door mirror defogger does not operate.	Refer to DEF-42, "Diagnosis Procedure".
Passenger side door mirror defogger does not operate.	Refer to DEF-43, "Diagnosis Procedure".
Rear window defogger switch does not light, but rear window defogger operates.	Refer to DEF-44, "Diagnosis Procedure".

REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGER DO NOT OPERATE.

Diagnosis Procedure

INFOID:0000000014623459

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

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-26, "Component Function Check".

Is the inspection result normal?

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

3. CHECK REAR WINDOW DEFOGGER POWER SUPPLY AND GROUND CIRCUIT

Check rear window defogger power supply and ground circuit.
Refer to DEF-28, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M44	4P, 5P	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace fuse block (J/B).

5. CHECK BOTH DOOR MIRROR DEFOGGER

1. Check door mirror LH. Refer to DEF-30, "WITH AUTOMATIC DRIVE POSITIONER : Component Function Check" (with automatic drive positioner) DEF-31, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check" or (without automatic drive positioner).
2. Check door mirror RH. Refer to DEF-34, "WITH AUTOMATIC DRIVE POSITIONER : Component Function Check" (with automatic drive positioner) DEF-35, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check" or (without automatic drive positioner).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-54, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

REAR WINDOW DEFOGGER DOES NOT OPERATE BUT BOTH OF DOOR MIRROR DEFOGGER OPERATE.

Diagnosis Procedure

INFOID:0000000014623460

1. CHECK REAR WINDOW DEFOGGER POWER SUPPLY AND GROUND CIRCUIT

Check rear window defogger power supply and ground circuit.
Refer to DEF-28, "Component Function Check".

Is the inspection result normal?

YES >> Refer to GI-54, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

BOTH DOORS MIRROR DEFOGGER DON'T OPERATE BUT REAR WINDOW DEFOGGER OPERATES

Diagnosis Procedure

INFOID:0000000014623461

Regarding Wiring Diagram information, refer to DEF-12, "Wiring Diagram".

1. CHECK DOOR MIRROR DEFOGGER FUSE

Check if the following fuse in fuse block (J/B) is blown.

COMPONENT PARTS	AMPERE	FUSE NO.
Fuse block (J/B)	10A	22

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M44	4P, 5P	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 BOTH DOOR MIRROR DEFOGGER

1. Check door mirror LH. Refer to DEF-30, "WITH AUTOMATIC DRIVE POSITIONER : Component Function Check" (with automatic drive positioner) or DEF-31, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check" (without automatic drive positioner).
2. Check door mirror RH. Refer to DEF-34, "WITH AUTOMATIC DRIVE POSITIONER : Component Function Check" (with automatic drive positioner) or DEF-35, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check" (without automatic drive positioner).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-54, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

DRIVER SIDE DOOR MIRROR DEFOGGER DOES NOT OPERATE.

Diagnosis Procedure

INFOID:0000000014623462

1. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH.
Refer to DEF-30, "WITH AUTOMATIC DRIVE POSITIONER : Component Function Check" (with automatic drive positioner) or DEF-31, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check" (without automatic drive positioner).

Is the inspection result normal?

YES >> Refer to GI-54, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

PASSENGER SIDE DOOR MIRROR DEFOGGER DOES NOT OPERATE.

Diagnosis Procedure

INFOID:0000000014623463

1. CHECK DOOR MIRROR DEFOGGER RH

Check door mirror defogger RH.
Refer to DEF-34, "WITH AUTOMATIC DRIVE POSITIONER : Component Function Check" (with automatic drive positioner) or DEF-35, "WITHOUT AUTOMATIC DRIVE POSITIONER : Component Function Check" (without automatic drive positioner).

Is the inspection result normal?

YES >> Refer to GI-54, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

REAR WINDOW DEFOGGER SWITCH DOES NOT LIGHT, BUT REAR WINDOW DEFOGGER OPERATES

Diagnosis Procedure

INFOID:0000000014623464

1. CHECK REAR WINDOW DEFOGGER SWITCH

Check that the rear window defogger switch is operating normally.

Is the inspection result normal?

YES >> Refer to GI-54, "Intermittent Incident".
NO >> Refer to DEF-23, "Diagnosis Procedure".

REMOVAL AND INSTALLATION

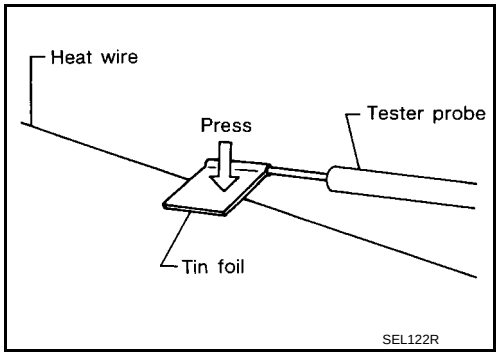
FILAMENT

Inspection and Repair

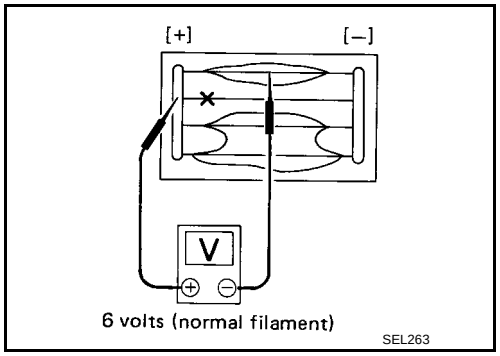
INFOID:0000000014623465

INSPECTION

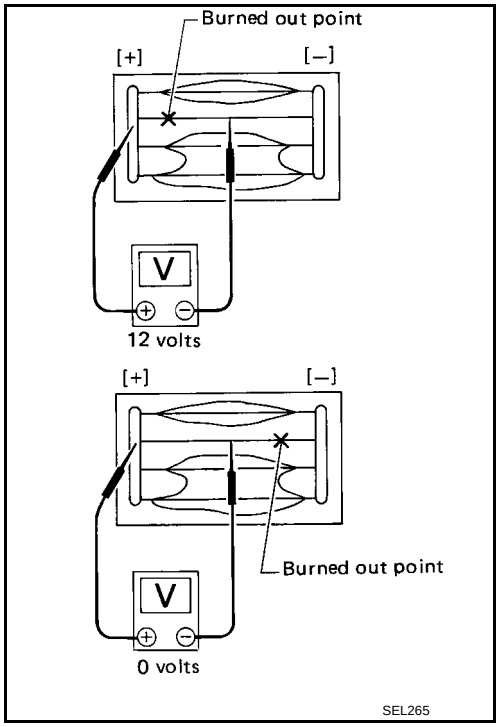
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



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

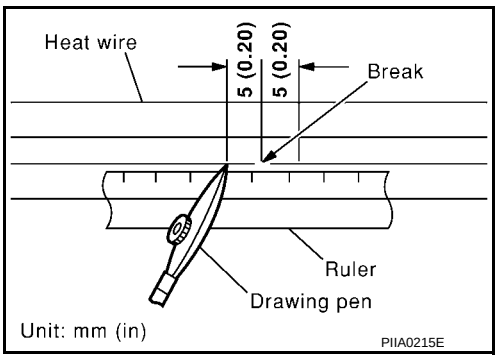
REPAIR EQUIPMENT

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

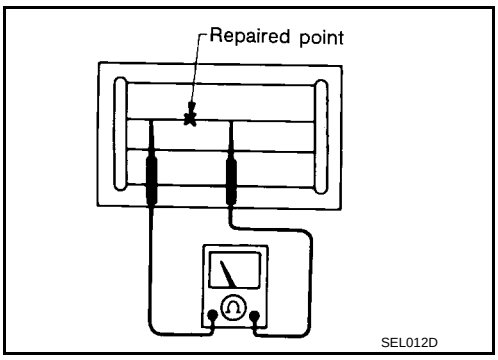
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE

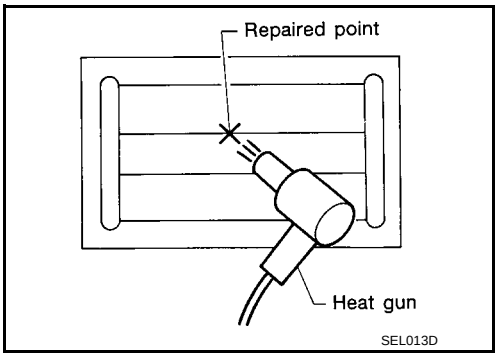
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.
   NOTE:
   Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition 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.
   CAUTION:
   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.
   NOTE:
   If a heat gun is not available, let the repaired area dry for 24 hours.



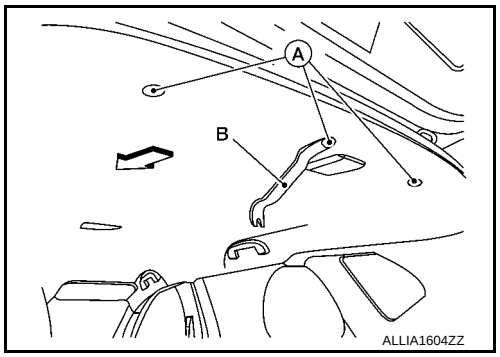
CONDENSER

Removal and Installation

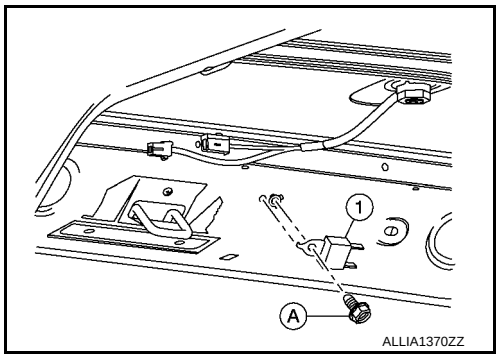
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REMOVAL

1. Remove luggage side upper finisher (LH/RH). Refer toINT-33, "LUGGAGE SIDE UPPER FINISHER : Removal and Installation".
2. Remove headlining clips (A) using suitable tool (B) and partially lower headlining (rear).



3. Disconnect the harness connectors from the condenser.
4. Remove the bolt (A) and the condenser (1).



INSTALLATION

Installation is in the reverse order of removal.