SECTION DEF
DEFOGGER

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000014664640

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.**

Precaution for Work

INFOID:0000000014389015

- 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.

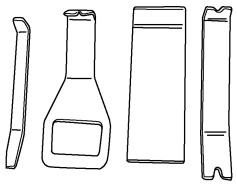
PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000014389016

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

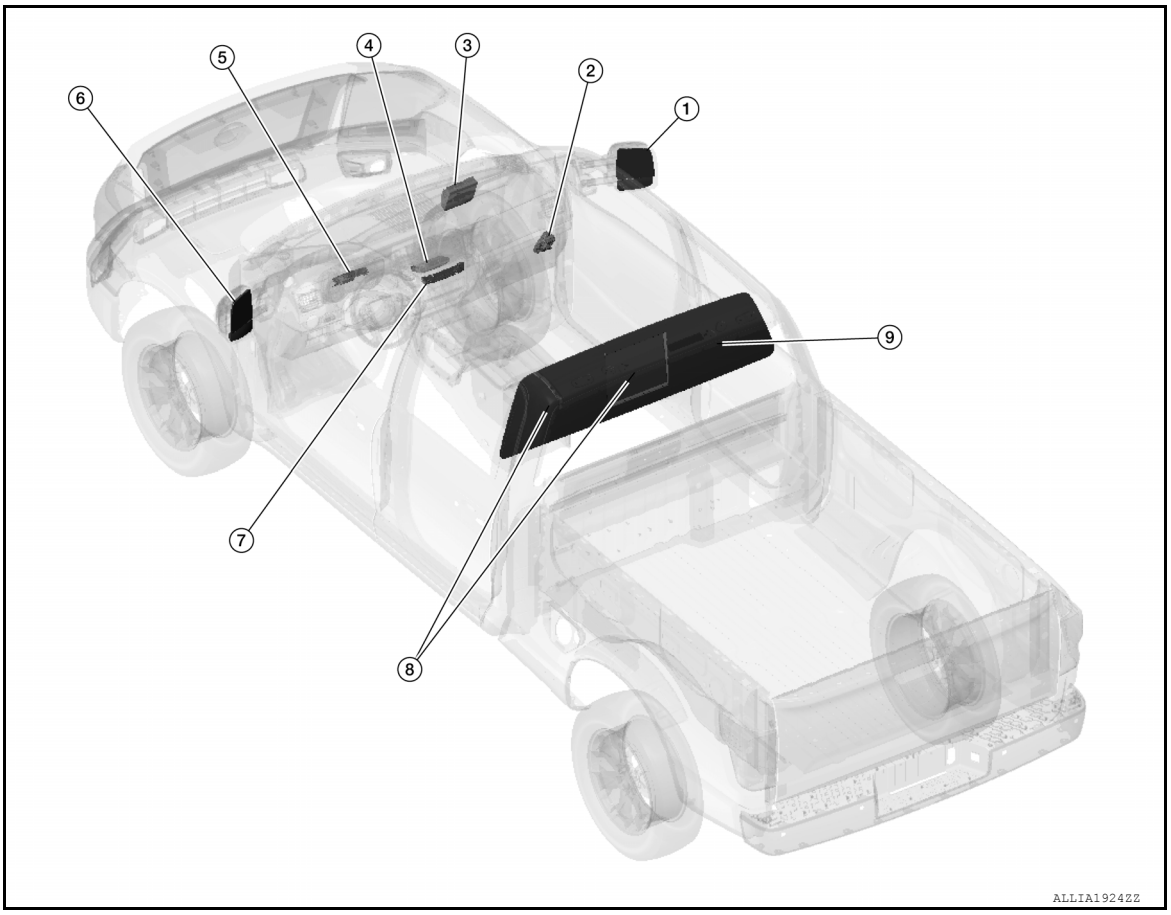
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000014389017



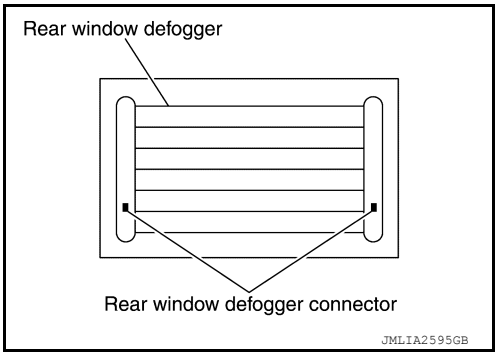
No.	Component	Function
1.	Door mirror RH	Refer to DEF-6, "Door Mirror Defogger".
2.	Fuse block (J/B) (Rear window defogger relay-2)	Operates the rear window defogger RH and the door mirror defoggers with the control signal from BCM.
3.	IPDM E/R (Rear window defogger relay-1)	Operates the rear window defogger LH with the control signal from BCM. Refer to PCS-5, "Component Parts Location" for detailed installation location.
4.	A/C auto amp. (with auto A/C)	• Transmits rear window defogger switch ON signal to the BCM. • Transmits the indicator lamp ON signal when detecting the operation of rear window defogger. Refer to HAC-10, "Component Parts Location" for detailed installation location.
5.	BCM	• Operates the rear window defogger with the operation of rear window defogger switch. • Performs the timer control for rear window defogger. Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
6.	Door mirror LH	Refer to DEF-6, "Door Mirror Defogger".
7.	A/C switch assembly (rear window defogger switch) (with auto A/C)	• Transmits rear window defogger switch ON signal. • Turns the indicator lamp ON when detecting the operation of rear window defogger. Refer to HAC-10, "Component Parts Location" for detailed installation location.
	Front air control (rear window defogger switch) (with manual A/C)	• Transmits rear window defogger switch ON signal. • Turns the indicator lamp ON when detecting the operation of rear window defogger. Refer to HAC-140, "Component Parts Location" for detailed installation location.

No.	Component	Function
8.	Rear window defogger LH	Refer to DEF-6, "Rear Window Defogger".
9.	Rear window defogger RH	Refer to DEF-6, "Rear Window Defogger".

Rear Window Defogger

INFOID:0000000014389018

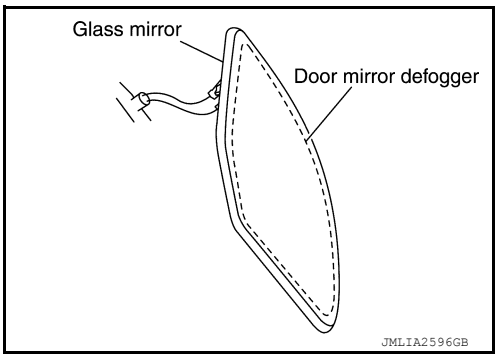
Heats the heating wire with the power supply from the rear window defogger relay to prevent the rear window from fogging up.



Door Mirror Defogger

INFOID:0000000014389019

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



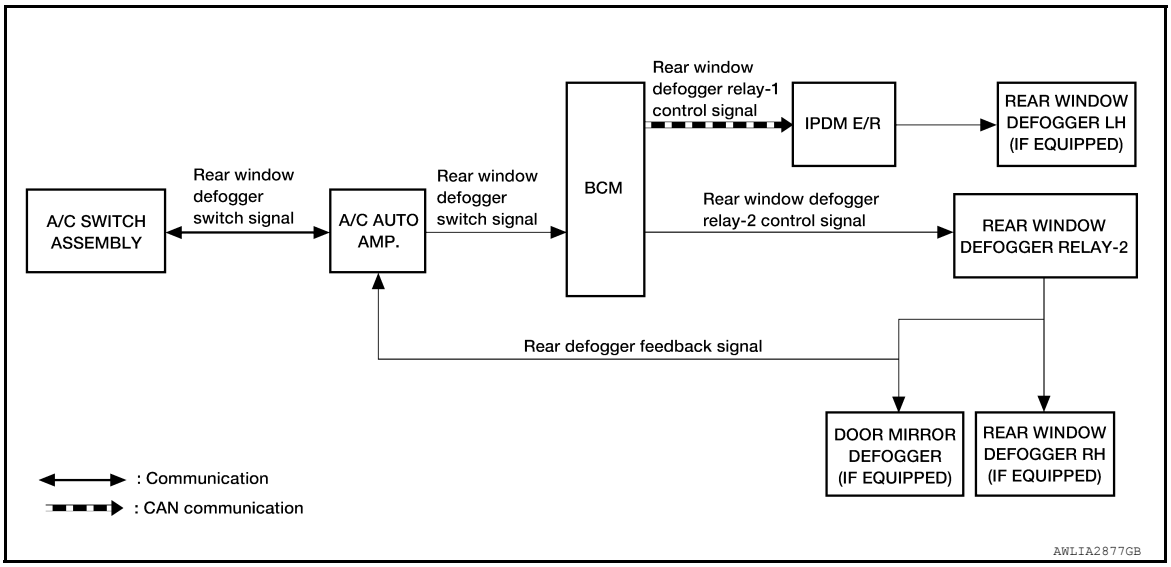
SYSTEM

System Description

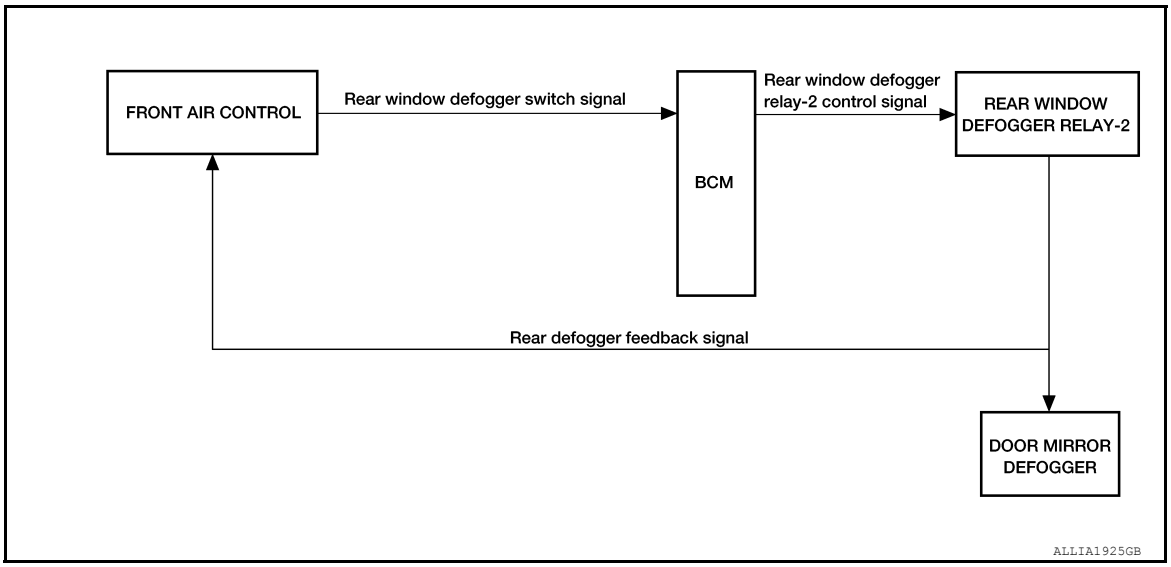
INFOID:0000000014389020

SYSTEM DIAGRAM

Auto A/C



Manual A/C



OPERATION DESCRIPTION

Auto A/C

- When rear window defogger switch is turned ON while ignition switch is ON, the A/C switch assembly (rear window defogger switch) transmits rear window defogger switch signal to A/C auto amp.
- A/C auto amp. transmits rear window defogger switch signal to BCM.
- BCM transmits rear window defogger relay-1 control signal to IPDM E/R via CAN communication and the rear window defogger relay-2 control signal to the rear window defogger relay-2 for approximately 15 minutes.
- IPDM E/R turns rear window defogger relay-1 ON when rear window defogger relay-1 control signal is received.
- Rear window defogger LH (if equipped) is supplied with power and operates when rear window defogger relay-1 is turned ON.
- Rear window defogger RH (if equipped) and door mirror defoggers (if equipped) are supplied with power and operate when rear window defogger relay-2 is turned ON.

- When rear window defogger or door mirror defoggers are activated, indicator lamp on rear window defogger switch turns ON.

Manual A/C

- When door mirror defogger switch is turned ON while ignition switch is ON, the front air control (door mirror defogger switch) transmits rear window defogger switch signal to BCM.
- BCM transmits rear window defogger relay-2 control signal to rear window defogger relay-2.
- Door mirror defoggers are supplied with power and operate when rear window defogger relay-2 is turned ON.
- Mirror defogger ON is displayed when signal is received.

TIMER FUNCTION

- BCM turns rear window defogger relays 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. The BCM turns rear window defogger relays OFF. The same reaction also occurs during timer operation, if the ignition switch is turned OFF.

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

INFOID:0000000014687451

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			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				

FREEZE FRAME DATA (FFD)
The BCM records the following vehicle condition at the time a particular DTC is detected, and displays it on CONSULT.

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status at 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 stopped and selector lever is in 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” (Ignition switch OFF)*
	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 is switched 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 DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000014687450

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
REAR DEF SW [On/Off]	Indicates condition of rear window defogger 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	Rear defogger turns OFF after 1 minute.
	MODE2	Rear defogger remains ON until turned OFF.
	MODE1*	Rear defogger turns OFF after 15 minutes.

* : Initial setting

DIAGNOSIS SYSTEM (IPDM E/R)

CONSULT Function (IPDM E/R)

INFOID:0000000014687452

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with IPDM E/R:

Direct Diagnostic Mode	Description
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.
Active Test	The IPDM E/R activates outputs to test components.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-23, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description
AC COMP REQ [On/Off]	×	Indicates A/C compressor request signal received from ECM on CAN communication line
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communication line
HL LO REQ [On/Off]	×	Indicates low beam request signal received from BCM on CAN communication line
HL HI REQ [On/Off]	×	Indicates high beam request signal received from BCM on CAN communication line
FR FOG REQ [On/Off]	×	Indicates front fog light request signal received from BCM on CAN communication line
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Indicates front wiper request signal received from BCM on CAN communication line
WIP AUTO STOP [STOP P/ACT P]	×	Indicates condition of front wiper auto stop signal
WIP PROT [Off/BLOCK]	×	Indicates condition of front wiper fail-safe operation
IGN RLY1 -REQ [On/Off]		Indicates ignition switch ON signal received from BCM on CAN communication line.
IGN RLY [On/Off]	×	Indicates condition of ignition relay
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
INTER/NP SW [On/Off]		Indicates condition of AT shift position.
ST RLY CONT [On/Off]		Indicates starter relay status signal received from BCM on CAN communication line.
IHBT RLY -REQ [On/Off]		Indicates starter control relay signal received from BCM on CAN communication line.
ST/INHI RLY [Off/ ST /INHI]		Indicates condition of starter relay and starter control relay.
DETENT SW [On/Off]		Indicates condition of AT shift selector (park position switch).
DTRL REQ [Off]		Indicates daytime light request signal received from BCM on CAN communication line
HOOD SW [On/Off]		Indicates condition of hood switch.
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line
HORN CHIRP [On/Off]		Indicates horn reminder signal received from BCM on CAN communication line
HOOD SW 2 [On/Off]		Indicates condition of hood switch 2.

ACTIVE TEST

Test item	Description
REAR DEFOGGER	This test is able to check rear defogger operation [On/Off].
FRONT WIPER	This test is able to check wiper motor operation [Hi/Lo/Off].
EXTERNAL LAMPS	This test is able to check external lamp operation [Fog/Hi/Lo/TAIL/Off].
HORN	This test is able to check horn operation [On].

ECU DIAGNOSIS INFORMATION

BCM, IPDM E/R

List of ECU Reference

INFOID:0000000014389024

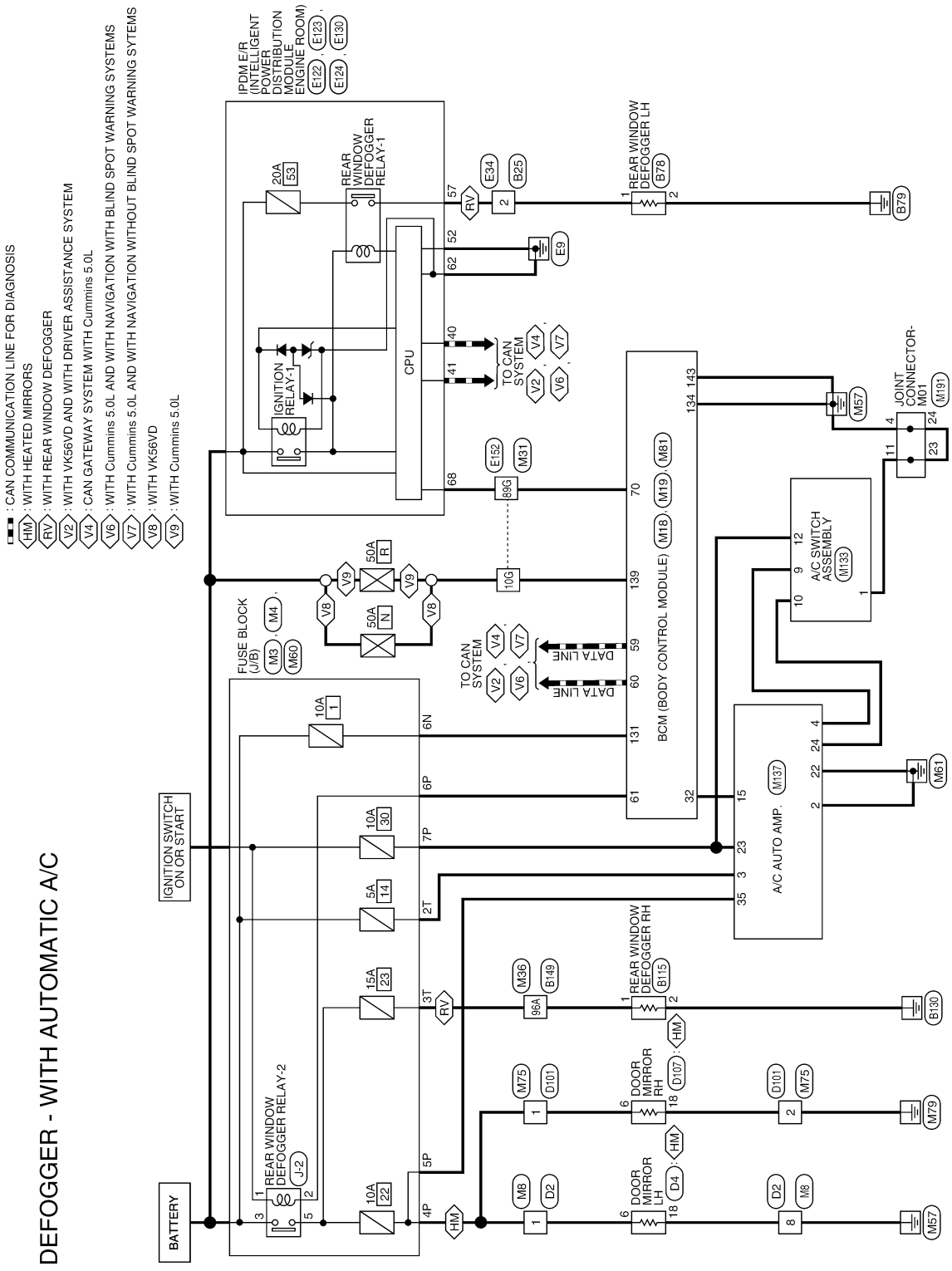
ECU	Reference
BCM	BCS-32, "Reference Value"
	BCS-51, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"
IPDM E/R	PCS-14, "Reference Value"
	PCS-22, "Fail Safe"
	PCS-23, "DTC Index"

WIRING DIAGRAM

REAR WINDOW DEFOGGER SYSTEM
WITH AUTO A/C

WITH AUTO A/C : Wiring Diagram

INFOID:0000000014389025



AALWA1738GB

DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	B25
Connector Name	WIRE TO WIRE
Connector Type	L02MB-MC
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	TO ENGINE ROOM HARNESS
2	W	TO ENGINE ROOM HARNESS

Connector No.	B78
Connector Name	REAR WINDOW DEFOGGER LH
Connector Type	M02MW-LC
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	REAR WINDOW DEFOGGER RELAY
2	B	GROUND

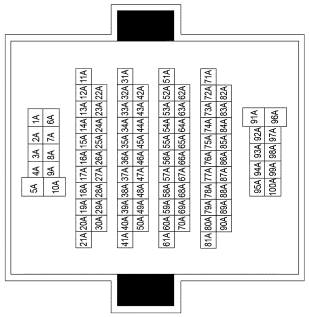
Connector No.	B115
Connector Name	REAR WINDOW DEFOGGER RH
Connector Type	M02MW-LC
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	R	REAR WINDOW DEFOGGER RELAY 2 POWER
2	B	GROUND

Connector No.	B149
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
1A	SB	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
1A	SB/G	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
2A	L	TO MAIN HARNESS
3A	V	TO MAIN HARNESS
4A	SB/R	TO MAIN HARNESS
5A	–	TO MAIN HARNESS
6A	LG	TO MAIN HARNESS -(WITH CLIMATE CONTROLLED SEATS)
6A	LG/Y	TO MAIN HARNESS -(WITHOUT CLIMATE CONTROLLED SEATS)
7A	W	TO MAIN HARNESS
8A	B	TO MAIN HARNESS
9A	L/B	TO MAIN HARNESS
10A	W	TO MAIN HARNESS
11A	LG	TO MAIN HARNESS
12A	BR/O	TO MAIN HARNESS
13A	Y/W	TO MAIN HARNESS
14A	R/G	TO MAIN HARNESS
15A	Y/L	TO MAIN HARNESS
16A	O/L	TO MAIN HARNESS
17A	L	TO MAIN HARNESS
18A	Y	TO MAIN HARNESS
19A	LG	TO MAIN HARNESS
20A	R	TO MAIN HARNESS
21A	BG	TO MAIN HARNESS
22A	LG/R	TO MAIN HARNESS
23A	Y/LG	TO MAIN HARNESS
24A	BR/Y	TO MAIN HARNESS
25A	–	TO MAIN HARNESS
26A	GR	TO MAIN HARNESS
27A	LG	TO MAIN HARNESS
28A	LG/B	TO MAIN HARNESS
29A	–	TO MAIN HARNESS
30A	BR	TO MAIN HARNESS
31A	W/R	TO MAIN HARNESS
32A	G/R	TO MAIN HARNESS
33A	–	TO MAIN HARNESS
34A	SHIELD	TO MAIN HARNESS
35A	P	TO MAIN HARNESS
36A	B	TO MAIN HARNESS
37A	–	TO MAIN HARNESS
38A	R/B	TO MAIN HARNESS
39A	G/O	TO MAIN HARNESS
40A	V	TO MAIN HARNESS
41A	SHIELD	TO MAIN HARNESS
42A	SHIELD	TO MAIN HARNESS
43A	R	TO MAIN HARNESS
44A	G	TO MAIN HARNESS
45A	–	TO MAIN HARNESS
46A	–	TO MAIN HARNESS
47A	Y	TO MAIN HARNESS
48A	R/W	TO MAIN HARNESS
49A	R/L	TO MAIN HARNESS
50A	B	TO MAIN HARNESS
51A	–	TO MAIN HARNESS
52A	–	TO MAIN HARNESS
53A	–	TO MAIN HARNESS
54A	–	TO MAIN HARNESS
55A	–	TO MAIN HARNESS
56A	–	TO MAIN HARNESS
57A	–	TO MAIN HARNESS
58A	–	TO MAIN HARNESS
59A	–	TO MAIN HARNESS
60A	G/W	TO MAIN HARNESS
61A	–	TO MAIN HARNESS
62A	–	TO MAIN HARNESS
63A	–	TO MAIN HARNESS
64A	–	TO MAIN HARNESS
65A	–	TO MAIN HARNESS
66A	–	TO MAIN HARNESS
67A	–	TO MAIN HARNESS
68A	–	TO MAIN HARNESS
69A	Y/R	TO MAIN HARNESS
70A	R/G	TO MAIN HARNESS
71A	–	TO MAIN HARNESS
72A	Y/B	TO MAIN HARNESS
73A	G	TO MAIN HARNESS
74A	B/R	TO MAIN HARNESS
75A	SHIELD	TO MAIN HARNESS
76A	GR/R	TO MAIN HARNESS
77A	L	TO MAIN HARNESS
78A	SHIELD	TO MAIN HARNESS
79A	Y	TO MAIN HARNESS
80A	L	TO MAIN HARNESS
81A	R	TO MAIN HARNESS
82A	SHIELD	TO MAIN HARNESS
83A	LG/B	TO MAIN HARNESS
84A	R	TO MAIN HARNESS
85A	SHIELD	TO MAIN HARNESS
86A	GR/B	TO MAIN HARNESS
87A	B	TO MAIN HARNESS
88A	W	TO MAIN HARNESS
89A	SHIELD	TO MAIN HARNESS
90A	G	TO MAIN HARNESS
91A	W/L	TO MAIN HARNESS
92A	BR	TO MAIN HARNESS
93A	L/Y	TO MAIN HARNESS
94A	R/L	TO MAIN HARNESS
95A	BR	TO MAIN HARNESS
96A	R	TO MAIN HARNESS
97A	LG	TO MAIN HARNESS
98A	B/V	TO MAIN HARNESS
99A	O/L	TO MAIN HARNESS
100A	BR/W	TO MAIN HARNESS

AALIA5571GB

DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	G/B	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	R	TO MAIN HARNESS
5	W/R	TO MAIN HARNESS
6	W/L	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	L/W	TO MAIN HARNESS
10	L/R	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	SB	TO MAIN HARNESS
15	V	TO MAIN HARNESS
16	LG	TO MAIN HARNESS

Connector No.	D4
Connector Name	DOOR MIRROR LH
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	LG	SWITCH MTR UP
2	L	SWITCH MOTOR LT - (WITH MEMORY MIRRORS)
2	Y	SWITCH MOTOR LT (WITHOUT MEMORY MIRRORS)
3	BG	MOTOR COMMON
4	G/L	POWERFOLD UNFOLD+ -(WITH MEMORY MIRRORS)

5	GR	POWERFOLD FOLD+ -(WITH MEMORY MIRRORS)
6	B/W	HEATED MIRROR +
7	W	VCC
8	R	VIDEO +
9	G/B	FRONT TURN LH
10	B	GND
11	LG/B	EC FEED
12	Y/V	EC RETURN
13	Y	MEMORY GND
14	SB	MEMORY FEED
15	V	HOR SENSOR
16	BG	VER SENSOR
17	–	–
18	B	HEATED MIRROR -
19	B	GND
20	SHIELD	VIDEO -
21	R/G	BAT SAVER OUT
22	L	ROOM LAMP CONT
23	W	LED LH
24	B	GND

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	W/L	TO MAIN HARNESS
4	V	TO MAIN HARNESS
5	W/B	TO MAIN HARNESS
6	G/Y	TO MAIN HARNESS
7	W/B	TO MAIN HARNESS
8	L/B	TO MAIN HARNESS
9	G/Y	TO MAIN HARNESS
10	–	TO MAIN HARNESS

Connector No.	D107
Connector Name	DOOR MIRROR RH
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	BR	SWITCH MTR UP
2	G	SWITCH MTR LT
3	SB	MTR COMMON
4	L/R	POWERFOLD UNFOLD+
5	L	POWERFOLD FOLD+
6	B/W	HEATED MIRROR +
7	B	VCC
8	R	VIDEO +
9	G/Y	FR TURN RH
10	B	GND
11	LG/B	EC FEED
12	Y/V	EC RETURN
13	L	MEMORY GND
14	V	MEMORY FEED
15	Y	HOR SENSOR
16	BR	VER SENSOR
17	–	–
18	B	HEATED MIRROR-
19	W	GND
20	SHIELD	VIDEO -
21	R/G	BAT SAVER OUT
22	L	ROOM LAMP CONT
23	R	LED RH
24	B	GND

Connector No.	E34
Connector Name	WIRE TO WIRE
Connector Type	L02FB-MC
Connector Color	BLACK

H.S.

1
2

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

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

42	41	40	39	38	37
48	47	46	45	44	43

Terminal No.	Color of Wire	Signal Name
37	–	–
38	–	–
39	L/Y	WIPER AUTO STOP SW
40	P	CAN-L
41	L	CAN-H
42	BR	DTRL RLY
43	–	–
44	W/B	START CONT
45	GR	FUEL RLY CONT
46	Y	HOOD SW
47	Y	ALT C - (WITH VK56VD)
48	R/W	HORN RLY CONT

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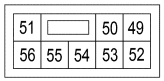
DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	E123
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FBR-CS
Connector Color	BROWN

H.S.



Terminal No.	Color of Wire	Signal Name
49	Y/B	A/C COMP - (WITH CUMMINS 5.0L)
49	GR/R	A/C COMP - (WITH VK56VD)
50	BR	TRAILER TOW
51	–	–
52	B	S-GND
53	–	–
54	–	–
55	–	–
56	–	–

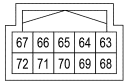
Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FB-LC
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
57	W/B	RR DEF
58	BR	FUEL PUMP - (WITH CUMMINS 5.0L)
58	B/Y	FUEL PUMP - (WITH VK56VD)
59	–	–
60	–	–
61	–	–
62	B	P GND

Connector No.	E130
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH10FB-NH
Connector Color	BLACK

H.S.



Terminal No.	Color of Wire	Signal Name
63	–	–
64	R	DETENT SW
65	–	–
66	P	PUSH START SW
67	–	–
68	L	IGN SIGNAL
69	–	–
70	–	–
71	SB	HOOD SW2
72	W	E-CPLG - (WITH VK56VD)

AALIA5573GB

DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS
24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS
72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	Y	IGNITION
3P	G	IGNITION RELAY OUT
4P	B/W	RR DEF RLY
5P	B/W	RR DEF RLY
6P	O	RR DEF RLY OUT
7P	G	IGNITION
8P	W	IGNITION
9P	L	BATTERY
10P	–	–
11P	–	–
12P	–	–
13P	R	BATTERY
14P	Y	BATTERY
15P	Y/LG	BATTERY
16P	W	BLOWER FAN RELAY OUT

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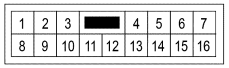
DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	M8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS
Connector Color	WHITE

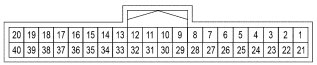
H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR LH HARNESS
2	G/B	TO FRONT DOOR LH HARNESS
3	L	TO FRONT DOOR LH HARNESS
4	R	TO FRONT DOOR LH HARNESS
5	W/R	TO FRONT DOOR LH HARNESS
6	W/L	TO FRONT DOOR LH HARNESS
7	V	TO FRONT DOOR LH HARNESS
8	B	TO FRONT DOOR LH HARNESS
9	L/W	TO FRONT DOOR LH HARNESS
10	L/R	TO FRONT DOOR LH HARNESS
11	L/W	TO FRONT DOOR LH HARNESS
12	L	TO FRONT DOOR LH HARNESS
13	Y	TO FRONT DOOR LH HARNESS
14	SB	TO FRONT DOOR LH HARNESS
15	V	TO FRONT DOOR LH HARNESS
16	LG	TO FRONT DOOR LH HARNESS

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

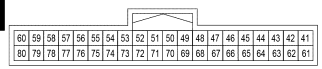
H.S.



Terminal No.	Color of Wire	Signal Name
1	G	ENG START SW NO ESCL
2	–	–
3	R	A/L POWER SUPPLY 5V
4	W/R	A/L SIGNAL
5	–	–
6	–	–
7	–	–
8	–	–
9	–	–
10	SB	COMBI SW IN 5
11	G/Y	COMBI SW IN 4
12	Y	COMBI SW IN 3
13	G/B	COMBI SW IN 2
14	V	COMBI SW IN 1
15	–	–
16	–	–
17	P	GND RF A/L
18	V	SECURITY INDICATOR
19	–	–
20	R	SHIFT P
21	R/W	STEP LAMP CONT
22	–	–
23	Y	AIRCON SW
24	–	–
25	W	BRAKE SW FUSE
26	L	SHORT IN PIN INPUT
27	R/G	BRAKE SW LAMP
28	–	–
29	W	BLOWER FAN SW
30	P	DR DOOR LOCK STATUS
31	–	–
32	Y	REAR DEFOGGER SW
33	–	–
34	–	
35	R/G	REVERSE SW
36	W/B	HAZARD SW
37	–	–
38	–	–
39	B/R	SHIFT N/P
40	–	–

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

H.S.



Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MR OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

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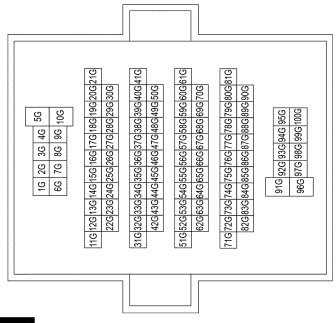
DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	BR/W	TO ENGINE ROOM HARNESS
5G	–	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G	W	TO ENGINE ROOM HARNESS
11G	R/G	TO ENGINE ROOM HARNESS
12G	W/B	TO ENGINE ROOM HARNESS
13G	BR	TO ENGINE ROOM HARNESS
14G	Y/B	TO ENGINE ROOM HARNESS
15G	G/W	TO ENGINE ROOM HARNESS
16G	G	TO ENGINE ROOM HARNESS
17G	O	TO ENGINE ROOM HARNESS
18G	G/Y	TO ENGINE ROOM HARNESS
19G	Y/V	TO ENGINE ROOM HARNESS
20G	G/Y	TO ENGINE ROOM HARNESS
21G	B/Y	TO ENGINE ROOM HARNESS
22G	G/R	TO ENGINE ROOM HARNESS
23G	Y/R	TO ENGINE ROOM HARNESS
24G	G/B	TO ENGINE ROOM HARNESS
25G	R/W	TO ENGINE ROOM HARNESS
26G	R	TO ENGINE ROOM HARNESS
27G	LG	TO ENGINE ROOM HARNESS
28G	G/B	TO ENGINE ROOM HARNESS
29G	G/B	TO ENGINE ROOM HARNESS
30G	BR/Y	TO ENGINE ROOM HARNESS
31G	R	TO ENGINE ROOM HARNESS
32G	R	TO ENGINE ROOM HARNESS
33G	Y/L	TO ENGINE ROOM HARNESS
34G	GR	TO ENGINE ROOM HARNESS
35G	G/R	TO ENGINE ROOM HARNESS
36G	SB	TO ENGINE ROOM HARNESS
37G	R/W	TO ENGINE ROOM HARNESS
38G	BR	TO ENGINE ROOM HARNESS
39G	BR	TO ENGINE ROOM HARNESS
40G	–	TO ENGINE ROOM HARNESS
41G	R/G	TO ENGINE ROOM HARNESS
42G	O	TO ENGINE ROOM HARNESS
43G	G	TO ENGINE ROOM HARNESS
44G	R/Y	TO ENGINE ROOM HARNESS
45G	G	TO ENGINE ROOM HARNESS
46G	LG	TO ENGINE ROOM HARNESS
47G	R	TO ENGINE ROOM HARNESS
48G	W	TO ENGINE ROOM HARNESS
49G	–	TO ENGINE ROOM HARNESS
50G	BR	TO ENGINE ROOM HARNESS
51G	R	TO ENGINE ROOM HARNESS
52G	L	TO ENGINE ROOM HARNESS
53G	W	TO ENGINE ROOM HARNESS
54G	W	TO ENGINE ROOM HARNESS
55G	G	TO ENGINE ROOM HARNESS
56G	W	TO ENGINE ROOM HARNESS
57G	Y	TO ENGINE ROOM HARNESS
58G	BG	TO ENGINE ROOM HARNESS
59G	BG	TO ENGINE ROOM HARNESS
60G	BG	TO ENGINE ROOM HARNESS
61G	O	TO ENGINE ROOM HARNESS
62G	W	TO ENGINE ROOM HARNESS
63G	O	TO ENGINE ROOM HARNESS
64G	W/L	TO ENGINE ROOM HARNESS
65G	W/R	TO ENGINE ROOM HARNESS
66G	BG	TO ENGINE ROOM HARNESS
67G	O	TO ENGINE ROOM HARNESS
68G	B	TO ENGINE ROOM HARNESS
69G	Y	TO ENGINE ROOM HARNESS
70G	L	TO ENGINE ROOM HARNESS
71G	R/W	TO ENGINE ROOM HARNESS
72G	L/W	TO ENGINE ROOM HARNESS
73G	SHIELD	TO ENGINE ROOM HARNESS
74G	W	TO ENGINE ROOM HARNESS
75G	R	TO ENGINE ROOM HARNESS
76G	R/G	TO ENGINE ROOM HARNESS
77G	BG	TO ENGINE ROOM HARNESS
78G	P	TO ENGINE ROOM HARNESS
79G	–	TO ENGINE ROOM HARNESS
80G	R	TO ENGINE ROOM HARNESS
81G	L	TO ENGINE ROOM HARNESS
82G	R	TO ENGINE ROOM HARNESS
83G	L	TO ENGINE ROOM HARNESS
84G	L	TO ENGINE ROOM HARNESS
85G	W	TO ENGINE ROOM HARNESS
86G	B/R	TO ENGINE ROOM HARNESS
87G	W	TO ENGINE ROOM HARNESS
88G	G	TO ENGINE ROOM HARNESS
89G	P	TO ENGINE ROOM HARNESS
90G	G	TO ENGINE ROOM HARNESS
91G	P	TO ENGINE ROOM HARNESS
92G	V/W	TO ENGINE ROOM HARNESS
93G	BR	TO ENGINE ROOM HARNESS
94G	B	TO ENGINE ROOM HARNESS
95G	G	TO ENGINE ROOM HARNESS
96G	R	TO ENGINE ROOM HARNESS
97G	R	TO ENGINE ROOM HARNESS
98G	W/B	TO ENGINE ROOM HARNESS
99G	R	TO ENGINE ROOM HARNESS
100G	GR/W	TO ENGINE ROOM HARNESS

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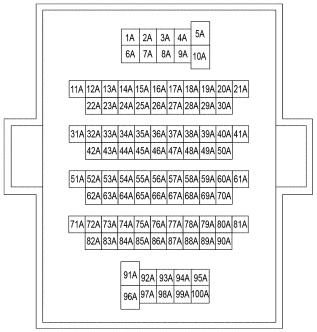
DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY

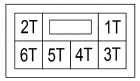
H.S.



Terminal No.	Color of Wire	Signal Name
1A	W	TO BODY NO. 2 HARNESS
2A	LG	TO BODY NO. 2 HARNESS
3A	V	TO BODY NO. 2 HARNESS
4A	SB	TO BODY NO. 2 HARNESS
5A	–	TO BODY NO. 2 HARNESS
6A	BG	TO BODY NO. 2 HARNESS - (WITH CLIMATE CONTROLLED SEAT)
6A	LG	TO BODY NO. 2 HARNESS - (WITHOUT CLIMATE CONTROLLED SEAT)
7A	W	TO BODY NO. 2 HARNESS
8A	B	TO BODY NO. 2 HARNESS
9A	L/B	TO BODY NO. 2 HARNESS
10A	W	TO BODY NO. 2 HARNESS
11A	R	TO BODY NO. 2 HARNESS
12A	BR	TO BODY NO. 2 HARNESS
13A	G	TO BODY NO. 2 HARNESS
14A	R/G	TO BODY NO. 2 HARNESS
15A	O	TO BODY NO. 2 HARNESS
16A	O/L	TO BODY NO. 2 HARNESS
17A	L	TO BODY NO. 2 HARNESS
18A	Y	TO BODY NO. 2 HARNESS
19A	B/W	TO BODY NO. 2 HARNESS
20A	R	TO BODY NO. 2 HARNESS
21A	BG	TO BODY NO. 2 HARNESS
22A	G	TO BODY NO. 2 HARNESS
23A	Y	TO BODY NO. 2 HARNESS
24A	L	TO BODY NO. 2 HARNESS
25A	–	TO BODY NO. 2 HARNESS
26A	GR	TO BODY NO. 2 HARNESS
27A	LG	TO BODY NO. 2 HARNESS
28A	LG	TO BODY NO. 2 HARNESS
29A	GR	TO BODY NO. 2 HARNESS
30A	BR	TO BODY NO. 2 HARNESS
31A	W/R	TO BODY NO. 2 HARNESS
32A	G/R	TO BODY NO. 2 HARNESS
33A	–	TO BODY NO. 2 HARNESS
34A	SHIELD	TO BODY NO. 2 HARNESS
35A	P	TO BODY NO. 2 HARNESS
36A	B	TO BODY NO. 2 HARNESS
37A	–	TO BODY NO. 2 HARNESS
38A	R/B	TO BODY NO. 2 HARNESS
39A	G/O	TO BODY NO. 2 HARNESS
40A	V	TO BODY NO. 2 HARNESS
41A	SHIELD	TO BODY NO. 2 HARNESS
42A	SHIELD	TO BODY NO. 2 HARNESS
43A	R	TO BODY NO. 2 HARNESS
44A	G	TO BODY NO. 2 HARNESS
45A	–	TO BODY NO. 2 HARNESS
46A	–	TO BODY NO. 2 HARNESS
47A	Y	TO BODY NO. 2 HARNESS
48A	R/W	TO BODY NO. 2 HARNESS
49A	R/L	TO BODY NO. 2 HARNESS
50A	B	TO BODY NO. 2 HARNESS
51A	–	TO BODY NO. 2 HARNESS
52A	–	TO BODY NO. 2 HARNESS
53A	–	TO BODY NO. 2 HARNESS
54A	–	TO BODY NO. 2 HARNESS
55A	–	TO BODY NO. 2 HARNESS
56A	–	TO BODY NO. 2 HARNESS
57A	–	TO BODY NO. 2 HARNESS
58A	–	TO BODY NO. 2 HARNESS
59A	–	TO BODY NO. 2 HARNESS
60A	G/W	TO BODY NO. 2 HARNESS
61A	–	TO BODY NO. 2 HARNESS
62A	–	TO BODY NO. 2 HARNESS
63A	–	TO BODY NO. 2 HARNESS
64A	–	TO BODY NO. 2 HARNESS
65A	–	TO BODY NO. 2 HARNESS
66A	–	TO BODY NO. 2 HARNESS
67A	–	TO BODY NO. 2 HARNESS
68A	–	TO BODY NO. 2 HARNESS
69A	Y/R	TO BODY NO. 2 HARNESS
70A	R/G	TO BODY NO. 2 HARNESS
71A	–	TO BODY NO. 2 HARNESS
72A	W	TO BODY NO. 2 HARNESS
73A	G	TO BODY NO. 2 HARNESS
74A	W	TO BODY NO. 2 HARNESS
75A	SHIELD	TO BODY NO. 2 HARNESS
76A	R	TO BODY NO. 2 HARNESS
77A	L	TO BODY NO. 2 HARNESS
78A	SHIELD	TO BODY NO. 2 HARNESS
79A	GR	TO BODY NO. 2 HARNESS
80A	V	TO BODY NO. 2 HARNESS
81A	R	TO BODY NO. 2 HARNESS
82A	SHIELD	TO BODY NO. 2 HARNESS
83A	R	TO BODY NO. 2 HARNESS
84A	O	TO BODY NO. 2 HARNESS
85A	SHIELD	TO BODY NO. 2 HARNESS
86A	W	TO BODY NO. 2 HARNESS
87A	B	TO BODY NO. 2 HARNESS
88A	W	TO BODY NO. 2 HARNESS
89A	SHIELD	TO BODY NO. 2 HARNESS
90A	G	TO BODY NO. 2 HARNESS
91A	W/L	TO BODY NO. 2 HARNESS
92A	BR	TO BODY NO. 2 HARNESS
93A	L/Y	TO BODY NO. 2 HARNESS
94A	R/L	TO BODY NO. 2 HARNESS
95A	BR	TO BODY NO. 2 HARNESS
96A	R	TO BODY NO. 2 HARNESS
97A	LG	TO BODY NO. 2 HARNESS
98A	B/V	TO BODY NO. 2 HARNESS
99A	O/L	TO BODY NO. 2 HARNESS
100A	BR/W	TO BODY NO. 2 HARNESS

Connector No.	M60
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-CS
Connector Color	WHITE

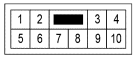
H.S.



Terminal No.	Color of Wire	Signal Name
1T	–	–
2T	SB	BATTERY
3T	R	RR DEF RLY
4T	G	BATTERY
5T	–	–
6T	–	–

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR RH HARNESS
2	B	TO FRONT DOOR RH HARNESS
3	W/L	TO FRONT DOOR RH HARNESS
4	V	TO FRONT DOOR RH HARNESS
5	W/B	TO FRONT DOOR RH HARNESS
6	G/Y	TO FRONT DOOR RH HARNESS
7	W/B	TO FRONT DOOR RH HARNESS
8	L/B	TO FRONT DOOR RH HARNESS
9	G/Y	TO FRONT DOOR RH HARNESS
10	–	TO FRONT DOOR RH HARNESS

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DEFOGGER CONNECTORS - WITH AUTOMATIC A/C

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

H.S.

137	136	135	134	133	132	131	130	129
143	142	141	140	139	138			

Terminal No.	Color of Wire	Signal Name
129	P/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

Connector No.	M133
Connector Name	A/C SWITCH ASSEMBLY
Connector Type	TH12FW-NH
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	–	–
3	–	–
4	–	–
5	L	ILL +
6	GR	ILL -
7	–	–
8	–	–
9	BR	RX
10	V	TX
11	–	–
12	G	IGN

Connector No.	M137
Connector Name	A/C AUTO AMP.
Connector Type	TH40FW-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	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
1	L	CAN-H
2	B	GND
3	SB	BAT
4	BR	TX (FR CONT)
5	–	–
6	–	–
7	W	AMB SENS
8	BR	STRG HEATER SW
9	G	SUN SENS
10	–	–
11	–	–
12	–	–
13	W	IGN2(ACC)
14	P	FAN GATE
15	Y	RR DEF ON
16	G	LIN SIG
17	W	VACTR
18	–	–
19	G/R	PTC1 - (WITH CUMMINS 5.0L)
20	P	STRG HEATER RLY
21	P	CAN-L
22	B	P-GND
23	G	IGN
24	V	RX (FR CONT)
25	–	–
26	R	SENS GND
27	G	INCAR SENS
28	P	INTAKE SENS
29	–	–
30	–	–
31	–	–
32	–	–
33	Y	COMP ON
34	L/W	FAN FB
35	B/W	RR DEF F/B
36	–	–
37	B	ACTR GND
38	W	FAN ON
39	LG	PTC2 - (WITH CUMMINS 5.0L)
40	SB	PTC3 - (WITH CUMMINS 5.0L)

Connector No.	M191
Connector Name	JOINT CONNECTOR-M01
Connector Type	NH24FW-J
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	B	GND
3	B	GND
4	B	GROUND
5	–	–
6	B	GND
7	B	GND
8	B	GND
9	–	–
10	B	GND
11	B	GND
12	B	GND
13	B	GND
14	B	GND
15	B	GND
16	–	–
17	B	GND
18	B	GND
19	SHIELD	GROUND
20	B	GND
21	B	GND
22	B	GND
23	B	GROUND
24	B	GROUND

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WITH MANUAL A/C

WITH MANUAL A/C : Wiring Diagram

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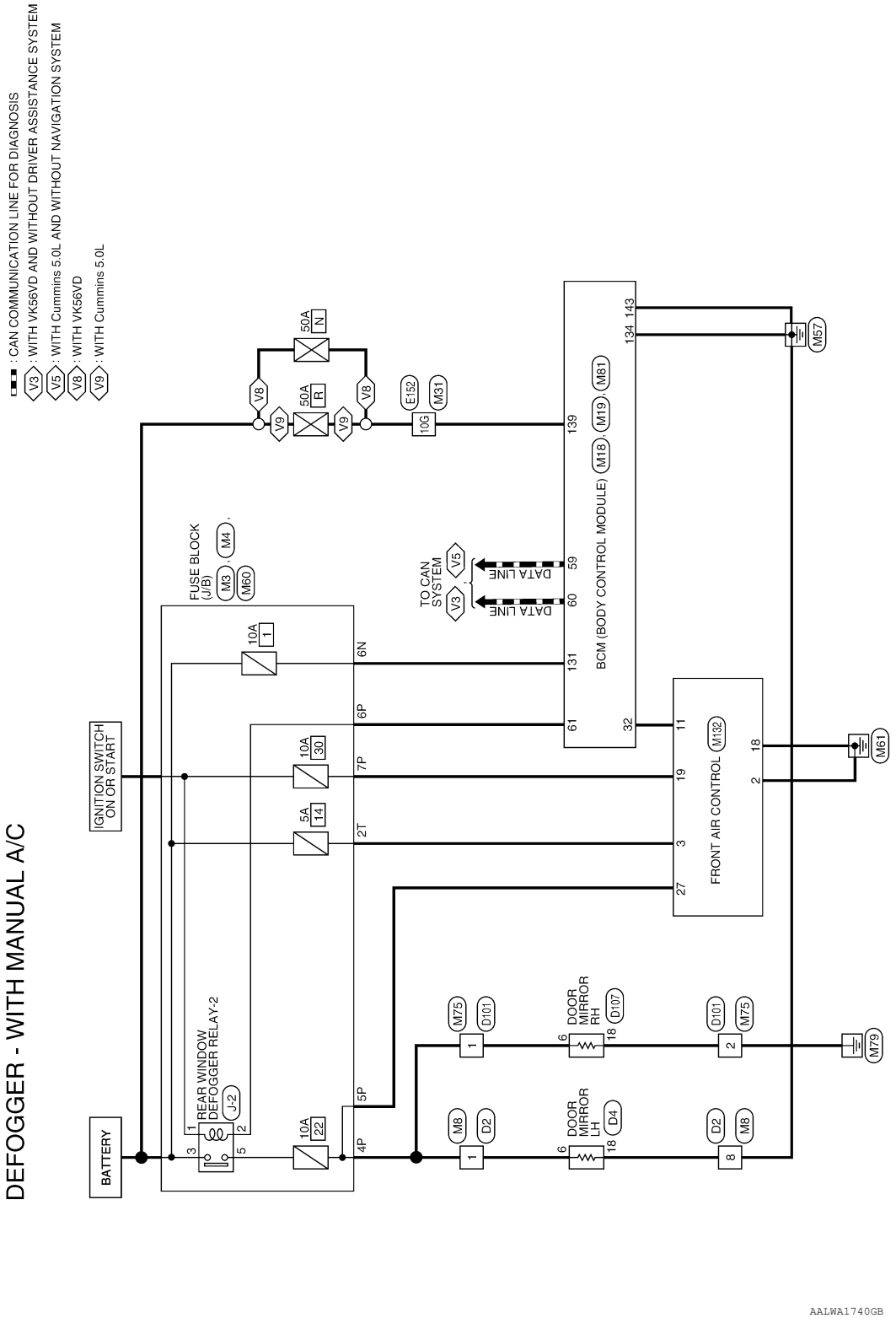

DEFOGGER CONNECTORS - WITH MANUAL A/C

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	G/B	TO MAIN HARNESS
3	L	TO MAIN HARNESS
4	R	TO MAIN HARNESS
5	W/R	TO MAIN HARNESS
6	W/L	TO MAIN HARNESS
7	V	TO MAIN HARNESS
8	B	TO MAIN HARNESS
9	L/W	TO MAIN HARNESS
10	L/R	TO MAIN HARNESS
11	L/W	TO MAIN HARNESS
12	L	TO MAIN HARNESS
13	Y	TO MAIN HARNESS
14	SB	TO MAIN HARNESS
15	V	TO MAIN HARNESS
16	LG	TO MAIN HARNESS

Connector No.	D4
Connector Name	DOOR MIRROR LH
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	LG	SWITCH MTR UP
2	L	SWITCH MOTOR LT -(WITH MEMORY MIRRORS)
2	Y	SWITCH MOTOR LT (WITHOUT MEMORY MIRRORS)
3	BG	MOTOR COMMON
4	G/L	POWERFOLD UNFOLD+ -(WITH MEMORY MIRRORS)

5	GR	POWERFOLD FOLD+ -(WITH MEMORY MIRRORS)
6	B/W	HEATED MIRROR +
7	W	VCC
8	R	VIDEO +
9	G/B	FRONT TURN LH
10	B	GND
11	LG/B	EC FEED
12	Y/V	EC RETURN
13	Y	MEMORY GND
14	SB	MEMORY FEED
15	V	HOR SENSOR
16	BG	VER SENSOR
17	–	–
18	B	HEATED MIRROR -
19	B	GND
20	SHIELD	VIDEO -
21	R/G	BAT SAVER OUT
22	L	ROOM LAMP CONT
23	W	LED LH
24	B	GND

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name
1	B/W	TO MAIN HARNESS
2	B	TO MAIN HARNESS
3	W/L	TO MAIN HARNESS
4	V	TO MAIN HARNESS
5	W/B	TO MAIN HARNESS
6	G/Y	TO MAIN HARNESS
7	W/B	TO MAIN HARNESS
8	L/B	TO MAIN HARNESS
9	G/Y	TO MAIN HARNESS
10	–	TO MAIN HARNESS

Connector No.	D107
Connector Name	DOOR MIRROR RH
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	BR	SWITCH MTR UP
2	G	SWITCH MTR LT
3	SB	MTR COMMON
4	L/R	POWERFOLD UNFOLD+
5	L	POWERFOLD FOLD+
6	B/W	HEATED MIRROR +
7	B	VCC
8	R	VIDEO +
9	G/Y	FR TURN RH
10	B	GND
11	LG/B	EC FEED
12	Y/V	EC RETURN
13	L	MEMORY GND
14	V	MEMORY FEED
15	Y	HOR SENSOR
16	BR	VER SENSOR
17	–	–
18	B	HEATED MIRROR -
19	W	GND
20	SHIELD	VIDEO -
21	R/G	BAT SAVER OUT
22	L	ROOM LAMP CONT
23	R	LED RH
24	B	GND

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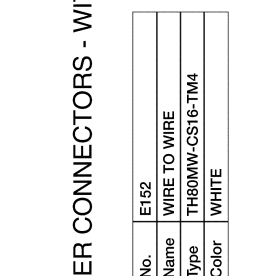
DEFOGGER CONNECTORS - WITH MANUAL A/C

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE

H.S.



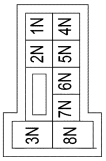
Terminal No.	Color of Wire	Signal Name
1G	G	TO MAIN HARNESS
2G	B/R	TO MAIN HARNESS
3G	W/B	TO MAIN HARNESS
4G	BR/W	TO MAIN HARNESS
5G	BR	TO MAIN HARNESS
6G	P	TO MAIN HARNESS - (WITH VK56VD)
6G	R/W	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
7G	Y	TO MAIN HARNESS
8G	G	TO MAIN HARNESS
9G	R	TO MAIN HARNESS
10G	W	TO MAIN HARNESS
11G	R/G	TO MAIN HARNESS
12G	W/B	TO MAIN HARNESS
13G	BR	TO MAIN HARNESS
14G	Y/B	TO MAIN HARNESS
15G	G/W	TO MAIN HARNESS
16G	G	TO MAIN HARNESS
17G	G/Y	TO MAIN HARNESS
18G	G/Y	TO MAIN HARNESS
19G	Y/V	TO MAIN HARNESS
20G	G/Y	TO MAIN HARNESS
21G	B/Y	TO MAIN HARNESS
22G	G/R	TO MAIN HARNESS
23G	Y/R	TO MAIN HARNESS

24G	G/B	TO MAIN HARNESS
25G	R/W	TO MAIN HARNESS
26G	R	TO MAIN HARNESS
27G	LG	TO MAIN HARNESS
28G	G/B	TO MAIN HARNESS
29G	G/B	TO MAIN HARNESS
30G	BR/Y	TO MAIN HARNESS
31G	P	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
31G	R	TO MAIN HARNESS - (WITH VK56VD)
32G	P	TO MAIN HARNESS
33G	Y/L	TO MAIN HARNESS
34G	GR	TO MAIN HARNESS
35G	G/R	TO MAIN HARNESS
36G	SB	TO MAIN HARNESS
37G	R/W	TO MAIN HARNESS
38G	BR	TO MAIN HARNESS
39G	BR	TO MAIN HARNESS
40G	–	TO MAIN HARNESS
41G	R/G	TO MAIN HARNESS
42G	O	TO MAIN HARNESS
43G	B	TO MAIN HARNESS - (WITH CUMMINS 5.0L)
43G	G	TO MAIN HARNESS - (WITH VK56VD)
44G	R/Y	TO MAIN HARNESS
45G	G	TO MAIN HARNESS
46G	LG	TO MAIN HARNESS
47G	R	TO MAIN HARNESS
48G	W	TO MAIN HARNESS
49G	–	TO MAIN HARNESS
50G	BR	TO MAIN HARNESS
51G	R	TO MAIN HARNESS
52G	L	TO MAIN HARNESS
53G	W	TO MAIN HARNESS
54G	W	TO MAIN HARNESS
55G	G	TO MAIN HARNESS
56G	W	TO MAIN HARNESS
57G	Y	TO MAIN HARNESS
58G	BG	TO MAIN HARNESS
59G	BG	TO MAIN HARNESS
60G	BG	TO MAIN HARNESS
61G	B	TO MAIN HARNESS
62G	W	TO MAIN HARNESS
63G	R	TO MAIN HARNESS
64G	W/L	TO MAIN HARNESS
65G	W/R	TO MAIN HARNESS
66G	BG	TO MAIN HARNESS
67G	BG	TO MAIN HARNESS
68G	B	TO MAIN HARNESS
69G	Y	TO MAIN HARNESS
70G	L	TO MAIN HARNESS
71G	R/W	TO MAIN HARNESS

72G	L/W	TO MAIN HARNESS
73G	SHIELD	TO MAIN HARNESS
74G	W	TO MAIN HARNESS
75G	R	TO MAIN HARNESS
76G	R/G	TO MAIN HARNESS
77G	G	TO MAIN HARNESS
78G	W	TO MAIN HARNESS
79G	–	TO MAIN HARNESS
80G	R	TO MAIN HARNESS
81G	L	TO MAIN HARNESS
82G	R	TO MAIN HARNESS
83G	L	TO MAIN HARNESS
84G	L	TO MAIN HARNESS
85G	W/B	TO MAIN HARNESS
86G	B/R	TO MAIN HARNESS
87G	W/B	TO MAIN HARNESS
88G	P	TO MAIN HARNESS
89G	L	TO MAIN HARNESS
90G	G	TO MAIN HARNESS
91G	G	TO MAIN HARNESS
92G	V/W	TO MAIN HARNESS
93G	BR	TO MAIN HARNESS
94G	G	TO MAIN HARNESS
95G	G	TO MAIN HARNESS
96G	W	TO MAIN HARNESS
97G	R	TO MAIN HARNESS
98G	W/B	TO MAIN HARNESS
99G	BR	TO MAIN HARNESS
100G	GR/W	TO MAIN HARNESS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1N	–	–
2N	W	BATTERY
3N	W	BLOWER FAN RELAY OUT
4N	V	BATTERY
5N	Y	BATTERY
6N	W	BATTERY
7N	L	ACC RELAY OUT
8N	W	IGNITION

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1P	R	IGNITION
2P	Y	IGNITION
3P	G	IGNITION RELAY OUT
4P	B/W	RR DEF RLY
5P	B/W	RR DEF RLY
6P	O	RR DEF RLY OUT
7P	G	IGNITION
8P	W	IGNITION
9P	L	BATTERY
10P	–	–
11P	–	–
12P	–	–
13P	R	BATTERY
14P	Y	BATTERY
15P	Y/LG	BATTERY
16P	W	BLOWER FAN RELAY OUT

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DEFOGGER CONNECTORS - WITH MANUAL A/C

Connector No.	M8
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/W	TO FRONT DOOR LH HARNESS
2	G/B	TO FRONT DOOR LH HARNESS
3	L	TO FRONT DOOR LH HARNESS
4	R	TO FRONT DOOR LH HARNESS
5	W/R	TO FRONT DOOR LH HARNESS
6	W/L	TO FRONT DOOR LH HARNESS
7	V	TO FRONT DOOR LH HARNESS
8	B	TO FRONT DOOR LH HARNESS
9	L/W	TO FRONT DOOR LH HARNESS
10	L/R	TO FRONT DOOR LH HARNESS
11	L/W	TO FRONT DOOR LH HARNESS
12	L	TO FRONT DOOR LH HARNESS
13	Y	TO FRONT DOOR LH HARNESS
14	SB	TO FRONT DOOR LH HARNESS
15	V	TO FRONT DOOR LH HARNESS
16	LG	TO FRONT DOOR LH HARNESS

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN

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	G	ENG START SW NO ESCL
2	–	–
3	R	A/L POWER SUPPLY 5V
4	W/R	A/L SIGNAL
5	–	–
6	–	–

7	–	–
8	–	–
9	–	–
10	SB	COMBI SW IN 5
11	G/Y	COMBI SW IN 4
12	Y	COMBI SW IN 3
13	G/B	COMBI SW IN 2
14	V	COMBI SW IN 1
15	–	–
16	–	–
17	P	GND RF A/L
18	V	SECURITY INDICATOR
19	–	–
20	R	SHIFT P
21	R/W	STEP LAMP CONT
22	–	–
23	Y	AIRCON SW
24	–	–
25	W	BRAKE SW FUSE
26	L	SHORT IN PIN INPUT
27	R/G	BRAKE SW LAMP
28	–	–
29	W	BLOWER FAN SW
30	P	DR DOOR LOCK STATUS
31	–	–
32	Y	REAR DEFOGGER SW
33	–	–
34	–	–
35	R/G	REVERSE SW
36	W/B	HAZARD SW
37	–	–
38	–	–
39	B/R	SHIFT N/P
40	–	–

43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	R	HIGH SIDE START SW LED
49	–	–
50	–	–
51	–	–
52	W	AUDIO DONGLE
53	–	–
54	W/L	PW UART
55	W/B	L&R SENSOR K-LINE
56	–	–
57	–	–
58	–	–
59	P	CAN-L
60	L	CAN-H
61	O	REAR DEFOGGER RELAY OUT
62	W	STARTER RELAY OUT
63	–	–
64	P	BUZZER OUT
65	–	–
66	W	BLOWER FAN RELAY OUT
67	G	IGN ELEC RELAY OUT 2
68	L	MFI OUTPUT
69	R/B	AT DEVICE OUT
70	P	IGN USM OUT 1
71	O	DR REQUEST SW
72	G	AS REQUEST SW
73	–	–
74	–	–
75	L/W	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	L	COMBI SW OUT 3
78	O/B	COMBI SW OUT 2
79	R/W	COMBI SW OUT 1
80	–	–

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

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	Y/L	TRAILER LIGHT CHECK RELAY OUT
42	R/Y	CARGO LAMP OUT

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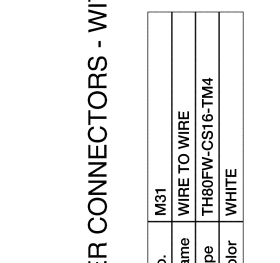
DEFOGGER CONNECTORS - WITH MANUAL A/C

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE

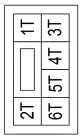
H.S.



Terminal No.	Color of Wire	Signal Name
1G	G	TO ENGINE ROOM HARNESS
2G	B/R	TO ENGINE ROOM HARNESS
3G	W	TO ENGINE ROOM HARNESS
4G	BR/W	TO ENGINE ROOM HARNESS
5G	–	TO ENGINE ROOM HARNESS
6G	R/W	TO ENGINE ROOM HARNESS
7G	Y	TO ENGINE ROOM HARNESS
8G	G	TO ENGINE ROOM HARNESS
9G	R	TO ENGINE ROOM HARNESS
10G	W	TO ENGINE ROOM HARNESS
11G	R/G	TO ENGINE ROOM HARNESS
12G	W/B	TO ENGINE ROOM HARNESS
13G	BR	TO ENGINE ROOM HARNESS
14G	Y/B	TO ENGINE ROOM HARNESS
15G	G/W	TO ENGINE ROOM HARNESS
16G	G	TO ENGINE ROOM HARNESS
17G	O	TO ENGINE ROOM HARNESS
18G	G/Y	TO ENGINE ROOM HARNESS
19G	Y/V	TO ENGINE ROOM HARNESS
20G	G/Y	TO ENGINE ROOM HARNESS
21G	B/Y	TO ENGINE ROOM HARNESS
22G	G/R	TO ENGINE ROOM HARNESS
23G	Y/R	TO ENGINE ROOM HARNESS
24G	G/B	TO ENGINE ROOM HARNESS
25G	R/W	TO ENGINE ROOM HARNESS
26G	R	TO ENGINE ROOM HARNESS
27G	LG	TO ENGINE ROOM HARNESS
28G	G/B	TO ENGINE ROOM HARNESS
29G	G/B	TO ENGINE ROOM HARNESS
30G	BR/Y	TO ENGINE ROOM HARNESS
31G	R	TO ENGINE ROOM HARNESS
32G	R	TO ENGINE ROOM HARNESS
33G	Y/L	TO ENGINE ROOM HARNESS
34G	GR	TO ENGINE ROOM HARNESS
35G	G/R	TO ENGINE ROOM HARNESS
36G	SB	TO ENGINE ROOM HARNESS
37G	R/W	TO ENGINE ROOM HARNESS
38G	BR	TO ENGINE ROOM HARNESS
39G	BR	TO ENGINE ROOM HARNESS
40G	–	TO ENGINE ROOM HARNESS
41G	R/G	TO ENGINE ROOM HARNESS
42G	O	TO ENGINE ROOM HARNESS
43G	G	TO ENGINE ROOM HARNESS
44G	R/Y	TO ENGINE ROOM HARNESS
45G	G	TO ENGINE ROOM HARNESS
46G	LG	TO ENGINE ROOM HARNESS
47G	R	TO ENGINE ROOM HARNESS
48G	W	TO ENGINE ROOM HARNESS
49G	–	TO ENGINE ROOM HARNESS
50G	BR	TO ENGINE ROOM HARNESS
51G	R	TO ENGINE ROOM HARNESS
52G	L	TO ENGINE ROOM HARNESS
53G	W	TO ENGINE ROOM HARNESS
54G	W	TO ENGINE ROOM HARNESS
55G	G	TO ENGINE ROOM HARNESS
56G	W	TO ENGINE ROOM HARNESS
57G	Y	TO ENGINE ROOM HARNESS
58G	BG	TO ENGINE ROOM HARNESS
59G	BG	TO ENGINE ROOM HARNESS
60G	BG	TO ENGINE ROOM HARNESS
61G	O	TO ENGINE ROOM HARNESS
62G	W	TO ENGINE ROOM HARNESS
63G	O	TO ENGINE ROOM HARNESS
64G	W/L	TO ENGINE ROOM HARNESS
65G	W/R	TO ENGINE ROOM HARNESS
66G	BG	TO ENGINE ROOM HARNESS
67G	O	TO ENGINE ROOM HARNESS
68G	B	TO ENGINE ROOM HARNESS
69G	Y	TO ENGINE ROOM HARNESS
70G	L	TO ENGINE ROOM HARNESS
71G	R/W	TO ENGINE ROOM HARNESS
72G	L/W	TO ENGINE ROOM HARNESS
73G	SHIELD	TO ENGINE ROOM HARNESS
74G	W	TO ENGINE ROOM HARNESS
75G	R	TO ENGINE ROOM HARNESS
76G	R/G	TO ENGINE ROOM HARNESS
77G	BG	TO ENGINE ROOM HARNESS
78G	P	TO ENGINE ROOM HARNESS
79G	–	TO ENGINE ROOM HARNESS
80G	R	TO ENGINE ROOM HARNESS
81G	L	TO ENGINE ROOM HARNESS
82G	R	TO ENGINE ROOM HARNESS
83G	L	TO ENGINE ROOM HARNESS
84G	L	TO ENGINE ROOM HARNESS
85G	W	TO ENGINE ROOM HARNESS
86G	B/R	TO ENGINE ROOM HARNESS
87G	W	TO ENGINE ROOM HARNESS
88G	G	TO ENGINE ROOM HARNESS
89G	P	TO ENGINE ROOM HARNESS
90G	G	TO ENGINE ROOM HARNESS
91G	P	TO ENGINE ROOM HARNESS
92G	V/W	TO ENGINE ROOM HARNESS
93G	BR	TO ENGINE ROOM HARNESS
94G	B	TO ENGINE ROOM HARNESS
95G	G	TO ENGINE ROOM HARNESS
96G	R	TO ENGINE ROOM HARNESS
97G	R	TO ENGINE ROOM HARNESS
98G	W/B	TO ENGINE ROOM HARNESS
99G	R	TO ENGINE ROOM HARNESS
100G	GR/W	TO ENGINE ROOM HARNESS

Connector No.	M60
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-CS
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
1T	–	–
2T	SB	BATTERY
3T	R	RR DEF RLY
4T	G	BATTERY
5T	–	–
6T	–	–

Connector No.	M75
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B/W	TO FRONT DOOR RH HARNESS
2	B	TO FRONT DOOR RH HARNESS
3	W/L	TO FRONT DOOR RH HARNESS
4	V	TO FRONT DOOR RH HARNESS
5	W/B	TO FRONT DOOR RH HARNESS
6	G/Y	TO FRONT DOOR RH HARNESS
7	W/B	TO FRONT DOOR RH HARNESS
8	L/B	TO FRONT DOOR RH HARNESS
9	G/Y	TO FRONT DOOR RH HARNESS
10	–	TO FRONT DOOR RH HARNESS

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DEFOGGER CONNECTORS - WITH MANUAL A/C

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE

H.S.

137	136	135	134	133	132	131	130	129
143	142	141	140	139	138			

Terminal No.	Color of Wire	Signal Name
129	P/G	BATTERY SAVER OUT
130	LG	SUPER LOCK/DOOR UNLOCK AS
131	W	BAT BCM FUSE
132	Y	DOOR LOCK AS/RR/RL
133	BR	DOOR UNLOCK AS/RR/RL
134	B	GND2
135	O	DOOR LOCK DR/AS/FL
136	L	ROOM LAMP CONT
137	V	DOOR UNLOCK DR/AS/FL
138	V	BAT REAR DOOR
139	W	BAT-POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND1

8	-	-
9	W	IGN2(ACC)
10	P	FAN GATE
11	Y	RR DEF ON
12	G	LIN SIG
13	W	VACTR
14	-	-
15	-	-
16	-	-
17	P	CAN-L
18	B	GND(POWER)
19	G	IGN
20	GR	ILL-
21	R	SENS GND
22	P	INTAKE SENS
23	-	-
24	-	-
25	Y	COMP ON
26	L/W	FAN FB
27	B/W	RR DEF F/B
28	-	-
29	B	ACTR GND
30	W	FAN ON
31	-	-
32	-	-

Connector No.	M132
Connector Name	FRONT AIR CONTROL
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	L	CAN-H
2	B	GND
3	SB	BAT
4	L	ILL+
5	-	-
6	-	-
7	-	-

AALIA5586GB

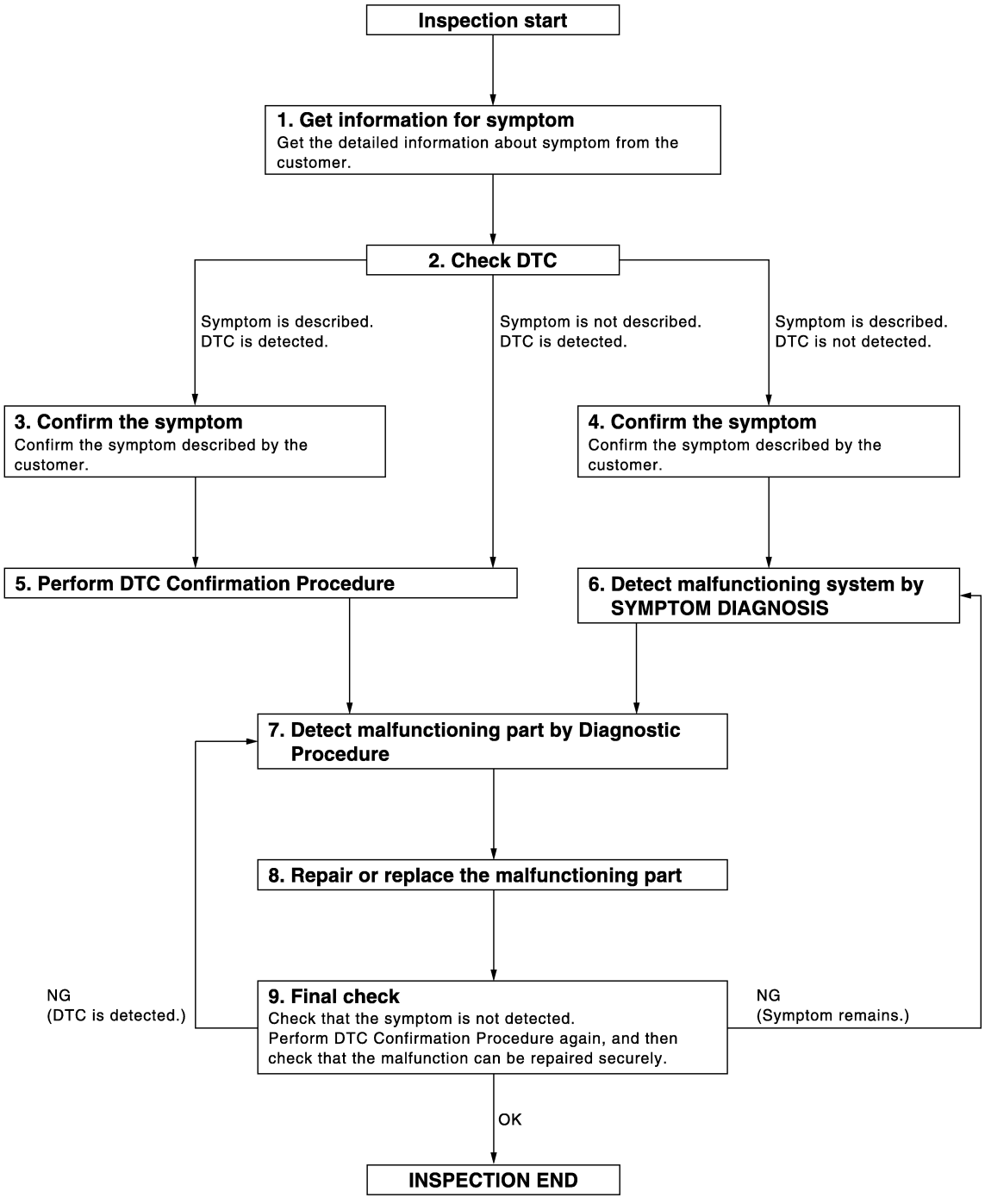
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000014389027

OVERALL SEQUENCE



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DETAILED FLOW

1. GET INFORMATION FOR SYMPTOM

Get 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-51, "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-47, "Intermittent Incident".

6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to DEF-7, "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:

The Diagnostic Procedure described is 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 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 has been repaired.
When symptom was described by 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 6.
NO >> Inspection End.

DTC/CIRCUIT DIAGNOSIS

REAR WINDOW DEFOGGER SWITCH
WITH AUTO A/C

WITH AUTO A/C : Component Function Check

INFOID:0000000014389028

1. CHECK REAR WINDOW DEFOGGER SWITCH FUNCTION

1. Push ignition switch to ON.
2. Press rear window defogger switch.
3. Check that the indicator lamp of the rear window defogger switch illuminates.
4. Press rear window defogger switch.
5. Check that the indicator lamp of the rear window defogger switch extinguishes.

Is the inspection result normal?

YES >> Rear window defogger switch function is OK.
NO >> Refer to DEF-33, "WITH AUTO A/C : Diagnosis Procedure".

WITH AUTO A/C : Diagnosis Procedure

INFOID:0000000014389029

Regarding Wiring Diagram information, refer to DEF-15, "WITH AUTO A/C : 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 5.

2. CHECK FUSE

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

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

Is the inspection result normal?

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

3. CHECK FOR VOLTAGE FROM THE REAR WINDOW DEFOGGER RELAY

1. Connect a voltmeter between fuse block (J/B) and ground.
2. While pressing the rear window defogger switch ON and OFF, check for voltage between fuse block (J/B) and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M4	5P	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> Perform rear window defogger relay diagnosis. Refer to DEF-42, "WITH MANUAL A/C : Diagnosis Procedure".

4. CHECK REAR WINDOW DEFOGGER SWITCH INDICATOR CIRCUIT

1. Press rear window defogger switch.
2. Check for voltage between A/C auto amp. connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
A/C auto amp.					
Connector	Terminal				
M137	35	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> Replace A/C auto amp. Refer to HAC-122, "Removal and Installation".
NO >> Repair or replace harness.

5. 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 8.
NO >> GO TO 6.

6. CHECK REAR WINDOW DEFOGGER ON SIGNAL CIRCUIT

Check voltage between BCM connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M18	32	Ground	Rear window defogger switch	ON	0
				OFF	5

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> GO TO 7.

7. CHECK HARNESS CONTINUITY

1. Push ignition switch to OFF.
2. Disconnect BCM and front air control.
3. Check continuity between BCM connector and A/C auto amp.

BCM		A/C auto amp.		Continuity
Connector	Terminal	Connector	Terminal	
M18	32	M137	15	Yes

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M18	32		No

Is the inspection result normal?

YES >> Replace A/C auto amp. Refer to HAC-122, "Removal and Installation".
NO >> Repair or replace harness.

8. CHECK REAR WINDOW DEFOGGER RELAY GROUND CIRCUIT

CONSULT
1. Select “REAR DEFOGGER” of “BCM.”
2. Select “REAR DEFOGGER” in “Active Test” mode.
3. Touch “On”.
4. Check voltage between fuse block (J/B) connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M4	6P	Ground	Rear window defogger active test	ON	0
				OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 11.
NO >> GO TO 9.

9. 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				
M4	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 10.

10. 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	
M19	61	M4	6P	Yes

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

Fuse block (J/B)		Ground	Continuity
Connector	Terminal		
M4	6P		No

Is the inspection result normal?

YES >> Perform rear window defogger relay component inspection. Refer to DEF-42, "WITH MANUAL A/C : Component Inspection". If OK, replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace harness.

11. CHECK REAR WINDOW DEFOGGER RELAY-2

Check rear window defogger relay-2.
Refer to DEF-42, "WITH MANUAL A/C : Component Inspection".

Is the inspection result normal?

YES >> GO TO 12.
NO >> Replace rear window defogger relay-2.

12. CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-47, "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 MANUAL A/C

WITH MANUAL A/C : Component Function Check

INFOID:0000000014389030

1. CHECK REAR WINDOW DEFOGGER SWITCH FUNCTION

1. Push ignition switch to ON.
2. Press rear window defogger switch.
3. Check that the indicator lamp of the rear window defogger switch illuminates.
4. Press rear window defogger switch.
5. Check that the indicator lamp of the rear window defogger switch extinguishes.

Is the inspection result normal?

YES >> Rear window defogger switch function is OK.
NO >> Refer to DEF-36, "WITH MANUAL A/C : Diagnosis Procedure".

WITH MANUAL A/C : Diagnosis Procedure

INFOID:0000000014389031

Regarding Wiring Diagram information, refer to DEF-24, "WITH MANUAL A/C : 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 5.

2. CHECK FUSE

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

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

Is the inspection result normal?

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

3. CHECK FOR VOLTAGE FROM THE REAR WINDOW DEFOGGER RELAY

1. Connect a voltmeter between fuse block (J/B) and ground.
2. While pressing the rear window defogger switch ON and OFF, check for voltage between fuse block (J/B) and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M4	5P	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> Perform rear window defogger relay diagnosis. Refer to DEF-42, "WITH MANUAL A/C : Diagnosis Procedure".

4. CHECK REAR WINDOW DEFOGGER SWITCH INDICATOR CIRCUIT

1. Press rear window defogger switch.
2. Check for voltage between front air control connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Front air control					
Connector	Terminal				
M132	27	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> Replace front air control. Refer to HAC-230, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK FRONT AIR CONTROL (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 8.
NO >> GO TO 6.

6. CHECK REAR WINDOW DEFOGGER ON SIGNAL CIRCUIT

Check voltage between BCM connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M18	32	Ground	Rear window defogger switch	ON	0
				OFF	5

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".

NO >> GO TO 7.

7. CHECK HARNESS CONTINUITY

1. Push ignition switch to OFF.
2. Disconnect BCM and front air control.
3. Check continuity between BCM connector and front air control connector.

BCM		Front air control		Continuity
Connector	Terminal	Connector	Terminal	
M18	32	M132	11	Yes

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M18	32		No

Is the inspection result normal?

YES >> Replace front air control. Refer to HAC-230, "Removal and Installation".
NO >> Repair or replace harness.

8. CHECK REAR WINDOW DEFOGGER RELAY GROUND CIRCUIT

CONSULT
1. Select “REAR DEFOGGER” of “BCM.”
2. Select “REAR DEFOGGER” in “Active Test” mode.
3. Touch “On”.
4. Check voltage between fuse block (J/B) connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Fuse block (J/B)					
Connector	Terminal				
M4	6P	Ground	Rear window defogger active test	ON	0
				OFF	Battery voltage

Is the inspection result normal?

YES >> GO TO 11.
NO >> GO TO 9.

9. 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				
M4	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 10.

10. 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	
M19	61	M4	6P	Yes

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

Fuse block (J/B)		Ground	Continuity
Connector	Terminal		
M4	6P		No

Is the inspection result normal?

YES >> Perform rear window defogger relay component inspection. Refer to DEF-42, "WITH MANUAL A/C : Component Inspection". If OK, replace BCM. Refer to BCS-79, "Removal and Installation".

NO >> Repair or replace harness.

11. CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay.
Refer to DEF-42, "WITH MANUAL A/C : Component Inspection".

Is the inspection result normal?

YES >> GO TO 12.

NO >> Replace rear window defogger relay.

12. CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-47, "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
WITH AUTO A/C

WITH AUTO A/C : Component Function Check

INFOID:0000000014389032

REAR WINDOW DEFOGGER RELAY-1

1.CHECK REAR WINDOW DEFOGGER RELAY-1

With CONSULT
1. Select “REAR DEFOGGER” in “Active Test” mode of “IPDM E/R”.
2. Touch “On”.
3. Check that the rear window heating wire LH is getting warmer.

Is the inspection result normal?

YES >> Rear window defogger relay function is OK.
NO >> Refer to DEF-40, "WITH AUTO A/C : Diagnosis Procedure".

REAR WINDOW DEFOGGER RELAY-2

1. CHECK REAR WINDOW DEFOGGER RELAY-2

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-40, "WITH AUTO A/C : Diagnosis Procedure".

WITH AUTO A/C : Diagnosis Procedure

INFOID:0000000014389033

Regarding Wiring Diagram information, refer to DEF-15, "WITH AUTO A/C : Wiring Diagram".

REAR WINDOW DEFOGGER RELAY-1

1.CHECK FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown.

Component	Capacity	Fuse No.
IPDM E/R	20A	53

Is the inspection result normal?

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

2.CHECK IPDM E/R OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between IPDM E/R harness connector and ground.

(+)		(-)	Condition		Voltage (V) (Approx.)
IPDM E/R					
Connector	Terminal				
E124	57	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace IPDM E/R. Refer to PCS-43, "Removal and Installation of IPDM E/R".

REAR WINDOW DEFOGGER RELAY-2

1. CHECK REAR WINDOW DEFOGGER RELAY-2 GROUND CIRCUIT

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

(+)		(–)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M19	61	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	
M19	61	M4	6P	Yes

Is the inspection result normal?

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

3. CHECK REAR WINDOW DEFOGGER RELAY-2

Check rear window defogger relay-2.
Refer to DEF-41, "WITH AUTO A/C : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident"
NO >> Replace rear window defogger relay-2.

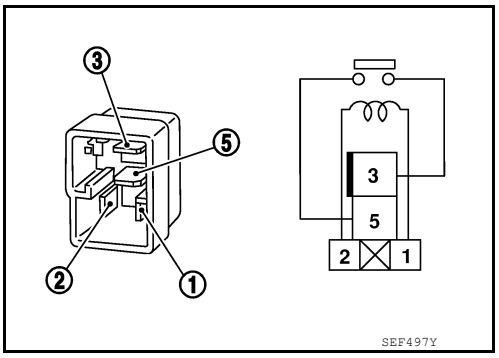
WITH AUTO A/C : Component Inspection

INFOID:0000000014389034

1. CHECK REAR WINDOW DEFOGGER RELAY-2

Check rear window defogger relay-2.

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-2.

WITH MANUAL A/C

WITH MANUAL A/C : Component Function Check

INFOID:0000000014389035

1. CHECK REAR WINDOW DEFOGGER RELAY-2 POWER SUPPLY CIRCUIT

Check that an operation noise of rear window defogger relay-2 [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-2 power supply circuit is OK.
NO >> Refer to DEF-42, "WITH MANUAL A/C : Diagnosis Procedure".

WITH MANUAL A/C : Diagnosis Procedure

INFOID:0000000014389036

Regarding Wiring Diagram information, refer to DEF-24, "WITH MANUAL A/C : Wiring Diagram".

1. CHECK REAR WINDOW DEFOGGER RELAY-2 GROUND CIRCUIT

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

(+)		(–)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M19	61	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	
M19	61	M4	6P	Yes

Is the inspection result normal?

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

3. CHECK REAR WINDOW DEFOGGER RELAY-2

Check rear window defogger relay-2.
Refer to DEF-42, "WITH MANUAL A/C : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident"
NO >> Replace rear window defogger relay-2.

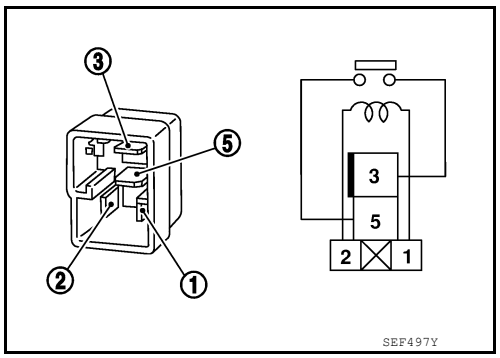
WITH MANUAL A/C : Component Inspection

INFOID:0000000014389037

1. CHECK REAR WINDOW DEFOGGER RELAY-2

Check rear window defogger relay-2.

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-2.

REAR WINDOW DEFOGGER

Component Function Check

INFOID:0000000014389038

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-44, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014389039

Regarding Wiring Diagram information, refer to DEF-15, "WITH AUTO A/C : Wiring Diagram".

1. CHECK FUSES

Check if any of the following fuses are blown.

Component	Capacity	Fuse No.
Fuse block (J/B)	15A	23
IPDM E/R	20A	53

Is the inspection result normal?

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

2. 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				
B78 (LH)	1	Ground	Rear window defogger switch	ON	Battery voltage
B115 (RH)				OFF	0

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

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

Rear window defogger		Ground	Continuity
Connector	Terminal		
B78 (LH)	2		Yes
B115 (RH)			

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK FILAMENT

Check filament.
Refer to DEF-58, "Filament Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair filament. Refer to DEF-58, "Filament Repair".

Component Inspection

INFOID:0000000014389040

1. CHECK FILAMENT

Check the filament for damage or open circuits.
Refer to DEF-58, "Filament Check".

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair filament. Refer to DEF-58, "Filament Repair".

DOOR MIRROR DEFOGGER

Component Function Check

INFOID:0000000014389041

1.CHECK DOOR MIRROR DEFOGGER

1. Select “REAR DEFOGGER” of “BCM”
2. Select “REAR DEFOGGER” in “Active Test” mode
3. Touch “ON”.
4. Check that both side door mirror glasses are getting warmer.

Is the inspection result normal?

YES >> Door mirror defogger function is OK.
NO >> Refer to DEF-46, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014389042

Regarding Wiring Diagram information, refer to DEF-15, "WITH AUTO A/C : Wiring Diagram" (with auto A/C) or DEF-24, "WITH MANUAL A/C : Wiring Diagram" (with manual A/C).

1. CHECK DOOR MIRROR DEFOGGER FUSE

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

Component	Capacity	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				
M4	4P	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace fuse block (J/B).

DOOR MIRROR DEFOGGER LH

Component Function Check

INFOID:0000000014389043

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-47, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014389044

Regarding Wiring Diagram information, refer to DEF-15, "WITH AUTO A/C : Wiring Diagram" (with auto A/C) or DEF-24, "WITH MANUAL A/C : Wiring Diagram" (with manual A/C).

1. 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				
D4	6	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

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

Door mirror LH		Ground	Continuity
Connector	Terminal		
D4	18		Yes

Is the inspection result normal?

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

3. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH.
Refer to DEF-47, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace door mirror LH. Refer to MIR-31, "Removal and Installation".

Component Inspection

INFOID:0000000014389045

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
6	18	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace door mirror LH. Refer to MIR-31, "Removal and Installation".

DOOR MIRROR DEFOGGER RH

Component Function Check

INFOID:0000000014389046

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-49, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000014389047

Regarding Wiring Diagram information, refer to DEF-15, "WITH AUTO A/C : Wiring Diagram" (with auto A/C) or DEF-24, "WITH MANUAL A/C : Wiring Diagram" (with manual A/C).

1. 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	6	Ground	Rear window defogger switch	ON	Battery voltage
				OFF	0

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace harness.

2. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

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

Door mirror RH		Ground	Continuity
Connector	Terminal		
D107	18		Yes

Is the inspection result normal?

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

3. CHECK DOOR MIRROR DEFOGGER RH

Check door mirror defogger RH.
Refer to DEF-49, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace door mirror RH. Refer to MIR-31, "Removal and Installation".

Component Inspection

INFOID:0000000014389048

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
6	18	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace door mirror RH. Refer to MIR-31, "Removal and Installation".

SYMPTOM DIAGNOSIS

REAR WINDOW DEFOGGER SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000014389049

Symptom	Reference page
Rear window defogger does not operate (without heated mirrors).	DEF-52, "Diagnosis Procedure"
Rear window defogger and door mirror defoggers do not operate.	DEF-53, "Diagnosis Procedure"
Rear window defogger does not operate but both door mirror defoggers operate.	DEF-54, "Diagnosis Procedure"
Door mirror defogger does not operate (without rear window defogger).	DEF-55, "Diagnosis Procedure"
Door mirror defogger does not operate but rear window defogger operates.	DEF-56, "Diagnosis Procedure"
Rear window defogger switch does not light, but rear window defogger operates.	DEF-57, "Diagnosis Procedure"

REAR WINDOW DEFOGGER DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000014389050

1. CHECK REAR WINDOW DEFOGGER SWITCH

Check rear window defogger switch. Refer to DEF-33, "WITH AUTO A/C : 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-40, "WITH AUTO A/C : Component Function Check".

Is the inspection result normal?

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

3. CHECK REAR WINDOW DEFOGGER

Check rear window defogger.
Refer to DEF-44, "Component Function Check".

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> Check the following.
- Battery power supply circuit
- Fuse block (J/B)
- IPDM E/R

NO >> Repair or replace the malfunctioning parts.

REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGERS DO NOT OPERATE

Diagnosis Procedure

INFOID:0000000014389051

1. CHECK REAR WINDOW DEFOGGER SWITCH

Check rear window defogger switch. Refer to DEF-33, "WITH AUTO A/C : 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-40, "WITH AUTO A/C : Component Function Check".

Is the inspection result normal?

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

3. CHECK REAR WINDOW DEFOGGER

Check rear window defogger.
Refer to DEF-44, "Component Function Check".

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Check intermittent incident.
Refer to GI-47, "Intermittent Incident".

Is the inspection result normal?

YES >> Check the following.
- Battery power supply circuit
- Fuse block (J/B)
- IPDM E/R

NO >> Repair or replace the malfunctioning parts.

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

Diagnosis Procedure

INFOID:0000000014389052

1. CHECK REAR WINDOW DEFOGGER

Check rear window defogger. Refer to DEF-44, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

DOOR MIRROR DEFOGGER DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000014389053

BOTH SIDES

1. CHECK DOOR MIRROR DEFOGGER

Check door mirror defogger.
Refer to DEF-46, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

DRIVER SIDE

1. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH.
Refer to DEF-47, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

PASSENGER SIDE

1. CHECK DOOR MIRROR DEFOGGER RH

Check door mirror defogger RH.
Refer to DEF-49, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

DOOR MIRROR DEFOGGER DOES NOT OPERATE BUT REAR WINDOW DEFOGGER OPERATES

Diagnosis Procedure

INFOID:0000000014389054

BOTH SIDES

1. CHECK DOOR MIRROR DEFOGGER

Check door mirror defogger.
Refer to DEF-46, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

DRIVER SIDE

1. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH.
Refer to DEF-47, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

PASSENGER SIDE

1. CHECK DOOR MIRROR DEFOGGER RH

Check door mirror defogger RH.
Refer to DEF-49, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

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

Diagnosis Procedure

INFOID:0000000014389055

1.CHECK REAR WINDOW DEFOGGER SWITCH

Check that the rear window defogger switch is operating normally.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Refer to DEF-33, "WITH AUTO A/C : Diagnosis Procedure" (with auto A/C) or DEF-36, "WITH MANUAL A/C : Diagnosis Procedure" (with manual A/C).

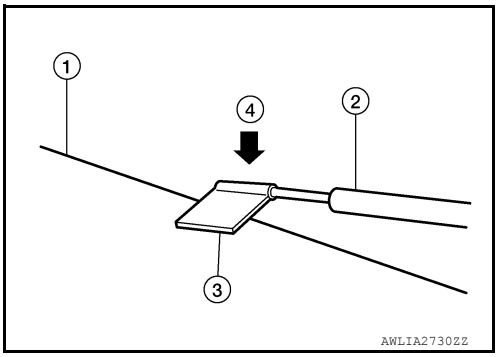
REMOVAL AND INSTALLATION

REAR WINDOW DEFOGGER

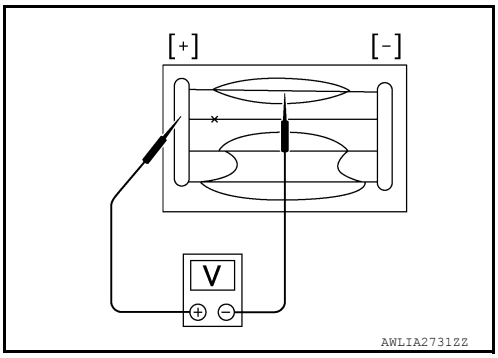
Filament Check

INFOID:0000000014389056

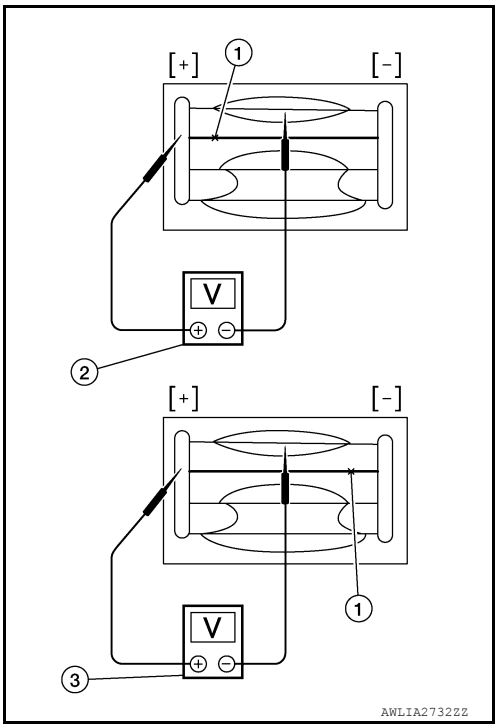
1. When measuring voltage at the heat wire (1), wrap tin foil (3) around the top of the negative probe (2). Then press the foil against the wire with your finger (4).



2. Attach probe circuit tester (in Volt range) to middle portion of each filament.
   - 6 volts (normal filiment).



3. If a filament is burned out (1), circuit tester registers zero (3) or battery voltage (2).
4. To locate burned out point, move probe to left and right along filament. Test needle will swing abruptly when probe passes the point.



Filament Repair

INFOID:0000000014389057

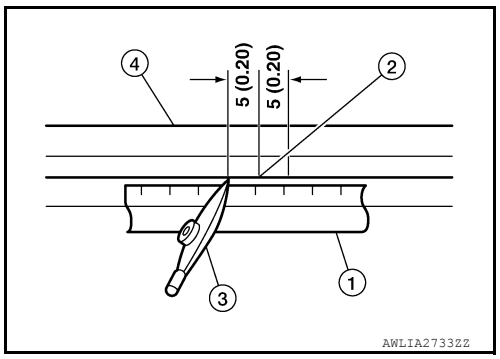
REPAIR EQUIPMENT

- Conductive silver composition (DuPont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long

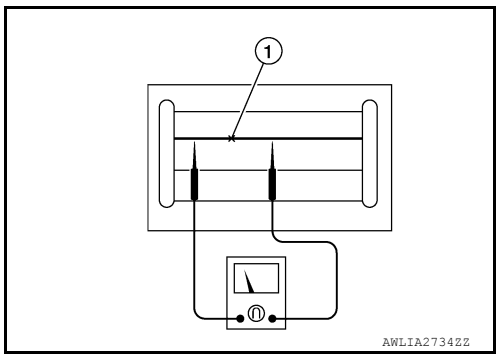
- Drawing pen
- Heat gun
- Alcohol
- Cloth

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 (1) on glass along broken line (2). Deposit conductive silver composition on break with drawing pen (3). Slightly overlap existing heat wire (4) on both sides [preferably 5 mm (0.20 in)] of the break.



4. After repair has been completed, check repaired wire (1) 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 (1) for approximately 20 minutes with a heat gun (2). 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.