SECTION DEFOGGER

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< BASIC INSPECTION >	
BASIC INSPECTION	٨
DIAGNOSIS AND REPAIR WORKFLOW	A
Repair Work Flow	В
DETAILED FLOW	
1. OBTAIN INFORMATION ABOUT SYMPTOM	С
Interview the customer to obtain the malfunction information (conditions and environment when the malfunc- tion occurred) as much as possible when the customer brings the vehicle in.	D
>> GO TO 2	
2. REPRODUCE THE MALFUNCTION INFORMATION	E
Check the malfunction on the vehicle that the customer describes.	
Inspect the relation of the symptoms and the condition when the symptoms occur.	F
>> GO TO 3	
3. identify the malfunctioning system with "symptom diagnosis"	G
Use "Symptom diagnosis" from the symptom inspection result in step 2 and then identify where to start per- forming the diagnosis based on possible causes and symptoms.	0
>> GO TO 4	Н
4. IDENTIFY THE MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"	
Perform the diagnosis with "Component diagnosis" of the applicable system.	
>> GO TO 5	
5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS	J
Repair or replace the specified malfunctioning parts.	
	Κ
>> GO TO 6	
6. FINAL CHECK	DEF
Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 2.	
Are the malfunctions corrected?	M
YES >> Inspection End	

YES >> Inspection End NO >> Refer to <u>GI-43, "Intermittent Incident"</u>.

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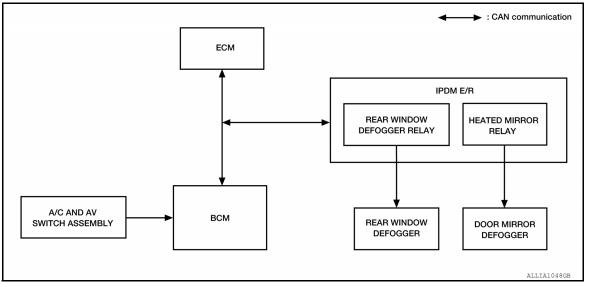
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< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION REAR WINDOW DEFOGGER SYSTEM

System Diagram

INFOID:000000011288533



System Description

INFOID:000000011288534

Operation Description

- When rear window defogger switch is turned ON while ignition switch is ON, the A/C and AV switch assembly (rear window defogger switch) transmits rear window defogger switch signal to BCM.
- BCM transmits rear window defogger control signal to IPDM E/R and display unit via CAN communication when rear window defogger operates.
- IPDM E/R turns rear window defogger relay and heated mirror relay ON when rear window defogger switch signal is received.
- Rear window defogger and door mirror defogger are supplied with power and operate when rear window defogger relay and heated mirror relay turn ON.
- Rear window defogger ON is displayed when signal is received.

Timer function

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

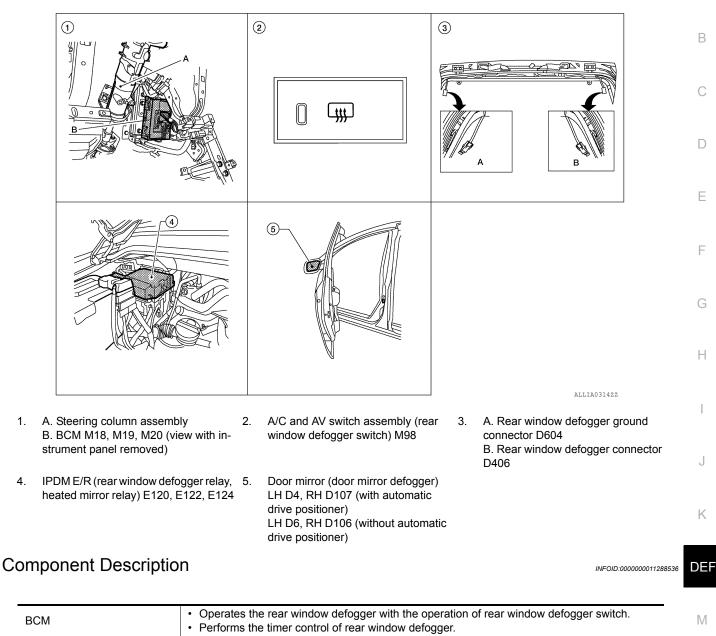
Switch	Input signal to BCM	BCM function	Actuator
Rear window defogger switch	Defogger switch signal	Rear window defogger & door mirror	Rear window defogger
Ignition switch	Ignition signal	defogger control	Door mirror defogger

REAR WINDOW DEFOGGER SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

А



BCM	Performs the timer control of rear window defogger.
Rear window defogger relay	Operates the rear window defogger with the control signal from BCM.
A/C and AV switch assembly (rear window defogger switch)	 The rear window defogger switch is turned ON. Turns the indicator lamp ON when detecting the operation of rear window defogger.
Rear window defogger	Heats the heating wire with the power supply from the rear window defogger relay to prevent the rear window from fogging up.
Heated mirror relay	Operates the door mirror defogger with the control signal from IPDM E/R. Controlled simulta- neously with the rear window defogger relay.
Door mirror defogger	Heats the heating wire with the power supply from the heated mirror relay to prevent the door mirror from fogging up.

1.

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000011518493

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.

		Direct Diagnostic Mode						
System	Sub System	ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	х	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT			×	×	×		
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			×	×	×		
Back door open	TRUNK			×	×			
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×	×	×		
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

Revision: August 2014

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

REAR DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000011518494

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DATA MONITOR

Monitor Item [Unit]	Description	
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.	C
ACC ON SW [On/Off]	Indicates condition of ignition switch ACC position.	
REAR DEF SW [On/Off]	Indicates condition of rear window defogger switch.	

ACTIVE TEST

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

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< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS REAR WINDOW DEFOGGER SWITCH

Description

• The rear window defogger is operated by turning the rear window defogger switch ON.

• Turns the indicator lamp in the rear window defogger switch ON when operating the rear window defogger.

Component Function Check

1. CHECK REAR WINDOW DEFOGGER SWITCH FUNCTION

Check that the indicator lamp of rear window defogger illuminates with rear window defogger switch ON. Is the inspection result normal?

- YES >> Rear window defogger switch function is OK.
- NO >> Refer to <u>DEF-8</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000011288541

INFOID:000000011288539

INFOID:000000011288540

Regarding Wiring Diagram information, refer to DEF-34, "Wiring Diagram".

1. CHECK A/C AND AV SWITCH ASSEMBLY (REAR WINDOW DEFOGGER SWITCH) CIRCUIT

Check rear window defogger switch operation.

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

2. Disconnect BCM and A/C and AV switch assembly.

3. Check continuity between BCM connector M19 terminal 41 and A/C and AV switch assembly connector M98 terminal 16.

BCM connector	Terminal	A/C and AV switch assembly connector	Terminal	Continuity
M19	41	M98	16	Yes

4. Check continuity between BCM connector M19 terminal 41 and ground.

BCM connector	Terminal	Ground	Continuity
M19	41	Ground	No

Is the inspection result normal?

YES >> Replace A/C and AV switch assembly. Refer to <u>VTL-7, "Removal and Installation"</u>.

NO >> Repair or replace harness.

REAR WINDOW DEFOGGER RELAY

< DTC/CIRCUI				DEFOGGER	RELAY		
			GER RELA	(
Description						A	
-	ed to the re	ar window	defogger with B	CM control			
Component						INFOID:000000011288543	
			GER RELAY PO			С	
					n IPDM E/R) can be		
the rear window	defogger	switch ON.			,	D	
Is the inspection YES >> Rea			lay power supply	y circuit is OK.			
			sis Procedure".			E	
Diagnosis P	rocedure	;				INFOID:000000011288544	
Deserding Wiri		informatio	n refer to DEE (o"	F	
Regarding wini	ng Diagram	Informatio	n, refer to <u>DEF-3</u>	<u>84, Winng Diagr</u>	<u>am</u> .		
1.CHECK FUS	SES					G	
Check if any of	the followir	ng fuses in	the IPDM E/R ar	e blown.			
CC	OMPONENT F	PARTS		AMPERE	Fl	JSE NO.	
	IPDM E/R			15A		46	
	IPDM E/R			15A		47	
•) TO 2 use is blowi	n, be sure t	o eliminate caus iGER RELAY PC		before installing new CIRCUIT	J fuse.	
 Turn ignitio Check volta and ground 	age betwee		R connector E1	24 terminal 60		H.S. CONNECT DE	
	Terminals		Condition of rear		l l		
(+) IPDM E/R con- nector	Terminal	(—)	window defogger switch	Voltage (V) (Approx.)	V		
E124	60	Ground	ON	Battery voltage			
			OFF	0		LIIA2190E N	
Is the inspection result normal? YES >> GO TO 3 NO >> Replace IPDM E/R. Refer to PCS-31, "Removal and Installation of IPDM E/R". 3. CHECK INTERMITTENT INCIDENT							
Check intermitte						P	
Refer to <u>GI-43,</u>	"Intermitter	<u>nt Incident"</u>					
Is the inspection YES >> C	heck the fo						
• B		er supply ci	rcuit.				
NO >> Repair or replace the malfunctioning parts.							

REAR WINDOW DEFOGGER POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

REAR WINDOW DEFOGGER POWER SUPPLY AND GROUND CIRCUIT

Description

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

Component Function Check

INFOID:000000011288546

INFOID:000000011288545

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 <u>DEF-10, "Diagnosis Procedure"</u>.

Diagnosis Procedure

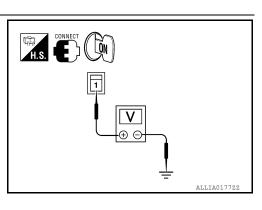
INFOID:0000000011288547

Regarding Wiring Diagram information, refer to DEF-34, "Wiring Diagram".

1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- Check voltage between rear window defogger connector D406 terminal 1 and ground.

Т	erminals				
(+)			Condition of rear	Voltage (V)	
Rear window defogger connector	Terminal	()	window defogger switch	(Approx.)	
D406	1	Ground	ON	Battery voltage	
D400	I	Giouna	OFF	0	



Is the inspection result normal?

YES >> GO TO 2

NO >> GO TO 3

- 2. CHECK GROUND CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect rear window defogger.
- 3. Check continuity between rear window defogger connector D604 terminal 2 and ground.

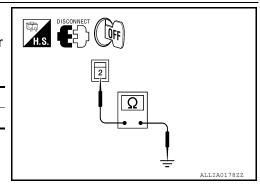
Rear window defogger connector	Terminal	Ground	Continuity
D604	2	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

3. CHECK HARNESS CONTINUITY



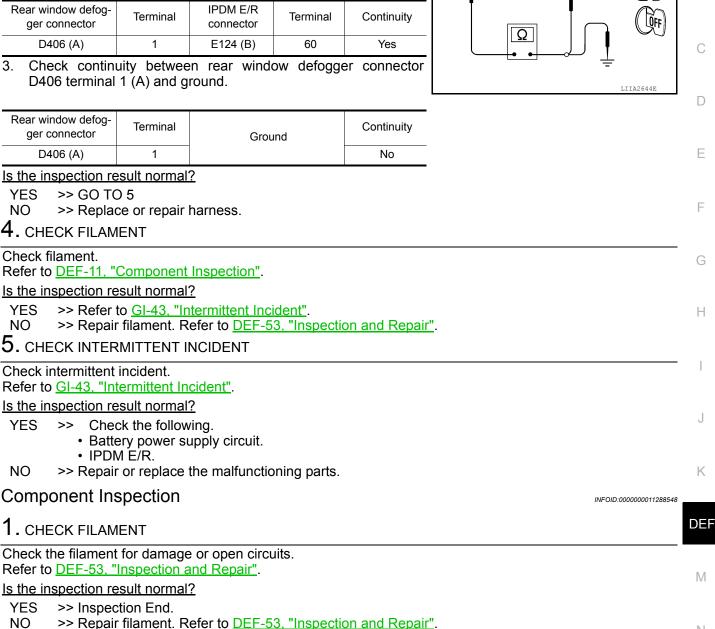
REAR WINDOW DEFOGGER POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect IPDM E/R.
- 2. Check continuity between rear window defogger connector D406 (A) terminal 1 and IPDM E/R connector E124 (B) terminal 60.

Rear window defog- ger connector	Terminal	IPDM E/R connector	Terminal	Continuity
D406 (A)	1	E124 (B)	60	Yes

D406 terminal 1 (A) and ground.



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DOOR MIRROR DEFOGGER LH (WITHOUT AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR DEFOGGER LH (WITHOUT AUTOMATIC DRIVE POSI-TIONER)

Description

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

Component Function Check

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 <u>DEF-12. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000011288551

INFOID:000000011288549

INFOID:000000011288550

Regarding Wiring Diagram information, refer to DEF-34, "Wiring Diagram".

1. CHECK POWER SUPPLY

Check if the following fuse in the IPDM E/R is blown.

COMPONENT PARTS	AMPERE	FUSE NO.
IPDM E/R	15A	43

Is the inspection result normal?

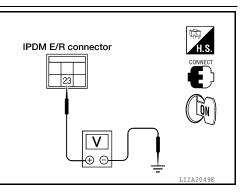
YES >> GO TO 2

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 1

Check voltage between IPDM E/R connector E120 terminal 23 and ground.

Connector	Ter	minal	Condition	Voltage (V)	
Connector	(+)		Condition	(Approx.)	
E120	23 Ground	Ground	Rear window defogger switch ON	Battery voltage	
E120		Rear window defogger switch OFF	0		



Is the inspection result normal?

YES >> GO TO 3

NO >> Replace IPDM E/R. Refer to <u>PCS-31</u>, "Removal and Installation of IPDM E/R".

3. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 2

DOOR MIRROR DEFOGGER LH (WITHOUT AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror LH.
- Turn ignition switch ON. 3.
- Check voltage between door mirror LH connector D6 terminal 4 4. and ground.

Door mirror connector	
W	IIA0532E

Door mirror

connector

WIIA0527E

LIIA0970E

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H.S.

IPDM E/R connector

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Connector	Teri	minal	Condition	Voltage (V)
Connector	(+) (-)		Condition	(Approx.)
D6	De 4 Cround	Rear window defogger switch ON	Battery voltage	
50	6 4 Ground		Rear window defogger switch OFF	0

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

- **4.** CHECK DOOR MIRROR DEFOGGER CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R and door mirror LH.
- 3. Check continuity between IPDM E/R connector E120 terminal 23 and door mirror LH connector D6 terminal 4.

23 - 4

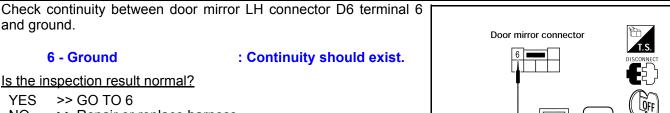
: Continuity should exist.

Is the inspection result normal?

YES >> GO TO 5

>> Repair or replace harness. NO

5. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT



NO >> Repair or replace harness.

6. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH. Refer to <u>DEF-14, "Component Inspection"</u> .	Ν
Is the inspection result normal?	
YES >> GO TO 7	0
NO >> Replace door mirror LH. Refer to <u>MIR-21, "Door Mirror Assembly"</u> .	
7. CHECK INTERMITTENT INCIDENT	
Check intermittent incident.	Р
Refer to GI-43, "Intermittent Incident".	
Is the inspection result normal?	
YES >> Check the following.	
Battery power supply circuit	

Battery power supply circuit.

- IPDM E/R.
- NO >> Repair or replace the malfunctioning parts.

DOOR MIRROR DEFOGGER LH (WITHOUT AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

Component Inspection

1. CHECK DOOR MIRROR DEFOGGER

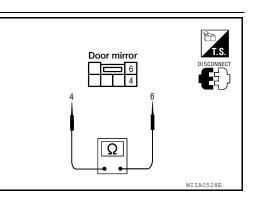
Check continuity between door mirror LH terminals 4 and 6.

4 - 6

: Continuity should exist.

Is the inspection result normal?

- YES >> Check the condition of the harness and the connector.
- NO >> Replace malfunctioning door mirror LH. Refer to <u>MIR-</u> 21, "Door Mirror Assembly".



INFOID:000000011288552

DOOR MIRROR DEFOGGER LH (WITH AUTOMATIC DRIVE POSITIONER) < DTC/CIRCUIT DIAGNOSIS > DOOR MIRROR DEFOGGER LH (WITH AUTOMATIC DRIVE POSITIONER) А Description INFOID:000000011288553 Heats the heating wire with the power supply from the heated mirror relay to prevent the door mirror from fog-В ging up. Component Function Check INEOID:000000011288554 1. CHECK DOOR MIRROR DEFOGGER LH Check that heating wire of door mirror defogger LH is heated when turning the rear window defogger switch D ON. Is the inspection result normal? YES >> Door mirror defogger is OK. Е >> Refer to DEF-15, "Diagnosis Procedure". NO Diagnosis Procedure INFOID:000000011288555 Regarding Wiring Diagram information, refer to DEF-34, "Wiring Diagram". 1. CHECK POWER SUPPLY Check if the following fuse in the IPDM E/R is blown. Н COMPONENT PARTS AMPERE FUSE NO. IPDM E/R 15A 43 Is the inspection result normal? YES >> GO TO 2 NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. 2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 1 Check voltage between IPDM E/R connector E120 terminal 23 and Κ ground. **IPDM E/R connector** Terminal Voltage (V) DEF Condition Connector 23 (Approx.) (+) (-) ĨŐN Rear window defogger Battery voltage switch ON M F120 23 Ground Rear window defogger 0 switch OFF ŦΕ Is the inspection result normal? LIIA2049E Ν >> GO TO 3 YES NO >> Replace IPDM E/R. Refer to PCS-31, "Removal and Installation of IPDM E/R". **3.** CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 2 1. Turn ignition switch OFF. 2. Disconnect door mirror LH. Ρ 3. Turn ignition switch ON. Check voltage between door mirror LH connector D4 terminal 10 and ground. 4. Terminal Voltage (V)

DOOR MIRROR DEFOGGER LH (WITH AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

		AGNUSIS	12			
D4	10	Ground	Rear window defogger switch ON	Battery voltage		
D4	10	Ground	Rear window defogger switch OFF	0		
Is the insp	ection res	ult normal?	2			
NO >:	•	or replace l				
4. CHEC	K DOOR I	MIRROR E	EFOGGER CIRCUIT	-		
 Turn ignition switch OFF. Disconnect IPDM E/R and door mirror LH. Check continuity between IPDM E/R connector E120 terminal 23 and door mirror LH connector D4 terminal 10. 						
23	- 10		: Continuity s	should exist.		
<u>Is the inspection result normal?</u> YES >> GO TO 5 NO >> Repair or replace harness.						
5. CHEC	K DOOR I		EFOGGER GROUNI	D CIRCUIT		
Check con and ground	ntinuity be		r mirror LH connector	r D4 terminal 11	Door mirror connector	
-	<u>ection res</u> > GO TO > Repair c					
			EFOGGER LH		LIIA1454E	
Check doo			l. Inapaction"			

Refer to DEF-16, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7

YES

NO >> Replace door mirror LH. Refer to MIR-21, "Door Mirror Assembly".

7. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

Is the inspection result normal?

- >> Check the following.
- Battery power supply circuit.
 - IPDM E/R.
- NO >> Repair or replace the malfunctioning parts.
- **Component Inspection**

1. CHECK DOOR MIRROR DEFOGGER

Check continuity between door mirror LH terminals 10 and 11.

10 - 11

: Continuity should exist.

INFOID:000000011288556

DOOR MIRROR DEFOGGER LH (WITH AUTOMATIC DRIVE POSITIONER)

	/CIRCUIT DIAGNOSIS > <u>nspection result normal?</u>	
YES NO	>> Check the condition of the harness and the connector. >> Replace malfunctioning door mirror LH. Refer to MIR-21, "Door Mirror Assembly".	A
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		DE
		М
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		Р

DOOR MIRROR DEFOGGER RH (WITHOUT AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR DEFOGGER RH (WITHOUT AUTOMATIC DRIVE POSI-TIONER)

Description

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

Component Function Check

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 <u>DEF-18. "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:000000011288559

INFOID:000000011288557

INFOID:000000011288558

Regarding Wiring Diagram information, refer to DEF-34, "Wiring Diagram".

1. CHECK POWER SUPPLY

Check if the following fuse in the IPDM E/R is blown.

COMPONENT PARTS	AMPERE	FUSE NO.
IPDM E/R	15A	43

Is the inspection result normal?

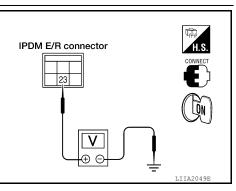
YES >> GO TO 2

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 1

Check voltage between IPDM E/R connector E120 terminal 23 and ground.

Connector	Terminal		Condition	Voltage (V)	
Connector	(+)	(-)	Condition	(Approx.)	
E120	23	Ground	Rear window defogger switch ON	Battery voltage	
L 120	23 Ground	Rear window defogger switch OFF	0		



Is the inspection result normal?

YES >> GO TO 3

NO >> Replace IPDM E/R. Refer to PCS-31, "Removal and Installation of IPDM E/R".

3. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 2

DOOR MIRROR DEFOGGER RH (WITHOUT AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect door mirror RH.
- 3. Turn ignition switch ON.
- 4. Check voltage between door mirror RH connector D106 terminal 4 and ground.

Door mirror

connector

WIIA0527E

LIIA0970E

Λ

H.S.

IPDM E/R connector

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Connector	Terminal (+) (-)		Condition	Voltage (V)	
Connector			Condition	(Approx.)	
D106 4 Ground -		Ground	Rear window defogger switch ON	Battery voltage	
		Rear window defogger switch OFF	0		

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

- **4.** CHECK DOOR MIRROR DEFOGGER CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect IPDM E/R and door mirror RH.
- 3. Check continuity between IPDM E/R connector E120 terminal 23 and door mirror RH connector D106 terminal 4.

23 - 4

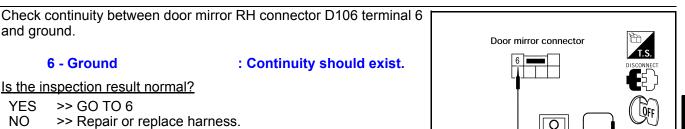
: Continuity should exist.

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

5. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT



6. CHECK DOOR MIRROR DEFOGGER RH

Check door mirror defogger RH. Refer to <u>DEF-20, "Component Inspection"</u> .	Ν
Is the inspection result normal?	
YES >> GO TO 7	0
NO >> Replace door mirror RH. Refer to <u>MIR-21, "Door Mirror Assembly"</u> .	
7. CHECK INTERMITTENT INCIDENT	
Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .	Ρ
Is the inspection result normal?	
YES >> Check the following.	

- Battery power supply circuit.
 - IPDM E/R.
- NO >> Repair or replace the malfunctioning parts.

DOOR MIRROR DEFOGGER RH (WITHOUT AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

Component Inspection

1. CHECK DOOR MIRROR DEFOGGER

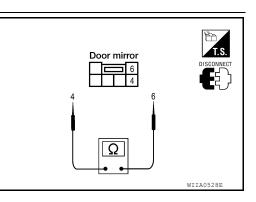
Check continuity between door mirror RH terminals 4 and 6.

4 - 6

: Continuity should exist.

Is the inspection result normal?

- YES >> Check the condition of the harness and the connector.
- NO >> Replace malfunctioning door mirror RH. Refer to <u>MIR-</u> 21, "Door Mirror Assembly".



INFOID:000000011288560

DOOR MIRROR DEFOGGER RH (WITH AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

DOOR MIRROR DEFOGGER RH (WITH AUTOMATIC DRIVE POSITION-ER)

ER)							~
Descripti	on					INFOID:000000011288561	В
Heats the h ging up.	neating wi	re with the	power supply from	the heated mirror i	relay to	prevent the door mirror from fog-	
Compone	ent Fun	ction Ch	neck			INFOID:000000011288562	С
1.снеск	DOOR M	IIRROR DI	EFOGGER RH				5
Check that switch ON.	the heat	ing wire o	f door mirror defog	ger RH is heated	when t	urning the rear window defogger	D
Is the inspe	ection resu	ult normal?	>				_
YES >>	Door mi	ror defogg	jer RH is OK.	- "			E
			Diagnosis Procedur	<u> </u>			_
Diagnosi	s Proce	aure				INFOID:000000011288563	F
Regarding	-	-	rmation, refer to <u>DE</u>	F-34, "Wiring Diag	<u>ram"</u> .		G
			e IPDM E/R is blow	n.			Н
		NENT PARTS	5	AMPERE 15A		FUSE NO. 43	
Is the inspe			>	10/1			I
YES >> NO >>	GO TO 2	2 blown, be	_			e installing new fuse.	J
Check volta ground.	age betwe	en IPDM	E/R connector E12) terminal 23 and			
ground					IF	PDM E/R connector	DEF
Connector		minal	Condition	Voltage (V) (Approx.)			
	(+)	(-)	Rear window defogger switch ON	Battery voltage			M
E120	23	Ground	Rear window defogger switch OFF	0			Ν
Is the inspe	ection resu	ult normal?	2			LIIA2049E	
	GO TO		Defer to DCC 21	Domoval and look	ollation		0
-	•		R. Refer to <u>PCS-31, '</u> EFOGGER POWEF				0
-	nition swi				11 2		D
2. Discon	nect door	mirror RH	l.				Р
	nition swi voltage b		or mirror RH connec	ctor D107 terminal	10 and	l ground.	
			Ĩ				
Connector -		minal	Condition	Voltage (V) (Approx.)			
	(+)	(-)		(, , , , , , , , , , , , , , , , , , ,			

А

DOOR MIRROR DEFOGGER RH (WITH AUTOMATIC DRIVE POSITIONER)

< DTC/CIRCUIT DIAGNOSIS >

BIOION					
D107	10	Ground	Rear window defogger switch ON	Battery voltage	
0107	10	Ground	Rear window defogger switch OFF	0	
Is the inspe	ection res	ult normal?)		
NO >>	•	or replace h			
4. CHECH	K DOOR I	MIRROR D	EFOGGER CIRCUIT		
 Discor Check 	continuit	M E/R and y between	door mirror RH. IPDM E/R connecto nector D107 terminal		IPDM E/R connector
23	- 10		: Continuity s	should exist.	
-	> GO TO		_		
5. CHEC	K DOOR I	MIRROR D		D CIRCUIT	WIIA0529E
Check con 11 and gro		tween doo	r mirror RH connecto	or D107 terminal	
11 -	- Ground		: Continuity s	should exist.	
-	> GO TO		2		
-					LIIA1454E
6. CHECH	K DOOR I		EFOGGER RH		

6. CHECK DOOR MIRROR DEFOGGER F Check door mirror defogger RH.

Refer to <u>DEF-22</u>, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7

YES

NO >> Replace door mirror RH. Refer to <u>MIR-21, "Door Mirror Assembly"</u>.

7. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

Is the inspection result normal?

- >> Check the following.
- Battery power supply circuit.
 - IPDM E/R.
- NO >> Repair or replace the malfunctioning parts.
- **Component Inspection**

1. CHECK DOOR MIRROR DEFOGGER

Check continuity between door mirror RH terminals 10 and 11.

10 - 11

: Continuity should exist.

DEF-22

INFOID:000000011288564

DOOR MIRROR DEFOGGER RH (WITH AUTOMATIC DRIVE POSITIONER)

< DTC	/CIRCUIT DIAGNOSIS >	
	nspection result normal?	
YES NO	 > Check the condition of the harness and the connector. > Replace malfunctioning door mirror RH. Refer to <u>MIR-21, "Door Mirror Assembly"</u>. 	А
		В
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< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000011514644

NOTE:

The Signal Tech II Tool (J-50190) can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- Check Intelligent Key relative signal strength
- · Confirm vehicle Intelligent Key antenna signal strength
- Test remote keyless entry keyfob relative signal strength

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
	Ignition switch OFF or ON	Off
ACC ON SW	Ignition switch ACC	On
AIR COND SW	A/C switch OFF	Off
AIR COND SW	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi
	Lighting switch OFF	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Back door closed	Off
BACK DOOR SW	Back door opened	On
BRAKE SW	Brake pedal released	Off
DRARE SVI	Brake pedal applied	On
BUCKLE SW	Seat belt buckle unfastened	Off
BUCKLE SW	Seat belt buckle fastened	On
BUZZER	Buzzer in combination meter OFF	Off
DUZZER	Buzzer in combination meter ON	On
CARGO LAMP SW	Cargo lamp switch OFF	Off
CARGO LAIVIP SVI	Cargo lamp switch ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
CDL LOCK SW	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
	Front door RH opened	On
DOOR SW-DR	Front door LH closed	Off
	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
DOUR SW-RL	Rear door LH opened	On

Revision: August 2014

Monitor Item	Condition	Value/Status	_
	Rear door RH closed	Off	- A
DOOR SW-RR	Rear door RH opened	On	_
	Blower motor fan switch OFF	Off	В
FAN ON SIG	Blower motor fan switch ON	On	
	Front fog lamp switch OFF	Off	
FR FOG SW	Front fog lamp switch ON	On	C
	Front washer switch OFF	Off	
FR WASHER SW	Front washer switch ON	On	- r
	Front wiper switch OFF	Off	_ L
FR WIPER LOW	Front wiper switch LO	On	_
	Front wiper switch OFF	Off	Ε
FR WIPER HI	Front wiper switch HI	On	_
	Front wiper switch OFF	Off	-
FR WIPER INT	Front wiper switch INT	On	_ F
	Any position other than front wiper stop position	Off	
FR WIPER STOP	Front wiper stop position	On	_
	When hazard switch is not pressed	Off	_
HAZARD SW	When hazard switch is pressed	On	
	Headlamp switch OFF	Off	— -
HEAD LAMP SW1	Headlamp switch 1st	On	_
	Headlamp switch OFF	Off	-
HEAD LAMP SW2	Headlamp switch 1st	On	_ '
	High beam switch OFF	Off	
HI BEAM SW	High beam switch HI	On	- J
	ID registration of front left tire incomplete	YET	
ID REGST FL1	ID registration of front left tire complete	DONE	_
	ID registration of front right tire incomplete	YET	k
ID REGST FR1	ID registration of front right tire complete	DONE	_
	ID registration of rear left tire incomplete	YET	D
ID REGST RL1	ID registration of rear left tire complete	DONE	_
	ID registration of rear right tire incomplete	YET	
ID REGST RR1	ID registration of rear right tire complete	DONE	N
	Ignition switch OFF or ACC	Off	
IGN ON SW	Ignition switch ON	On	- N
		Off	
IGN SW CAN	Ignition switch OFF or ACC		_
	Ignition switch ON	On 1 7	_ (
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1-7	
I-KEY LOCK ¹	LOCK button of Intelligent Key is not pressed	Off	_
	LOCK button of Intelligent Key is pressed	On On	F
I-KEY PANIC ¹	PANIC button of Intelligent Key is not pressed	Off	
-	PANIC button of Intelligent Key is pressed	On	_
	UNLOCK button of Intelligent Key is not pressed	Off	
I-KEY PW DWN ¹	UNLOCK button of Intelligent Key is pressed for greater than 3 sec- onds and driver's window operating in DOWN direction	On	

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
I-KEY UNLOCK ¹	UNLOCK button of Intelligent Key is not pressed	Off
I-RET UNLOCK	UNLOCK button of Intelligent Key is pressed	On
KEY CYL LK-SW	Door key cylinder LOCK position	On
	Door key cylinder other than LOCK position	Off
KEY CYL UN-SW	Door key cylinder UNLOCK position	On
	Door key cylinder other than UNLOCK position	Off
KEY ON SW	Mechanical key is removed from key cylinder	Off
REF ON SW	Mechanical key is inserted to key cylinder	On
	LOCK button of key fob is not pressed	Off
KEYLESS LOCK ²	LOCK button of key fob is pressed	On
	PANIC button of key fob is not pressed	Off
KEYLESS PANIC ²	PANIC button of key fob is pressed	On
	UNLOCK button of key fob is not pressed	Off
KEYLESS UNLOCK ²	UNLOCK button of key fob is pressed	On
	Lighting switch OFF	Off
LIGHT SW 1ST	Lighting switch 1st	On
OIL PRESS SW	Ignition switch OFF or ACCEngine running	Off
	Ignition switch ON	On
	Bright outside of the vehicle	Close to 5V
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0V
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Return to ignition switch to LOCK position	Off
PUSH SW ¹	Press ignition switch	On
	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
	Rear wiper switch OFF	Off
RR WIPER INT	Rear wiper switch INT	On
	Rear wiper switch OFF	Off
RR WIPER ON	Rear wiper switch ON	On
	Rear wiper stop position	Off
RR WIPER STOP	Other than rear wiper stop position	On
	Rear wiper stop position	Off
RR WIPER STP2	Other than rear wiper stop position	On
	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAMP	Low tire pressure warning lamp in combination meter ON	On

1: With Intelligent Key

Revision: August 2014

< ECU DIAGNOSIS INFORMATION >

2: With remote keyless entry system

Terminal Layout



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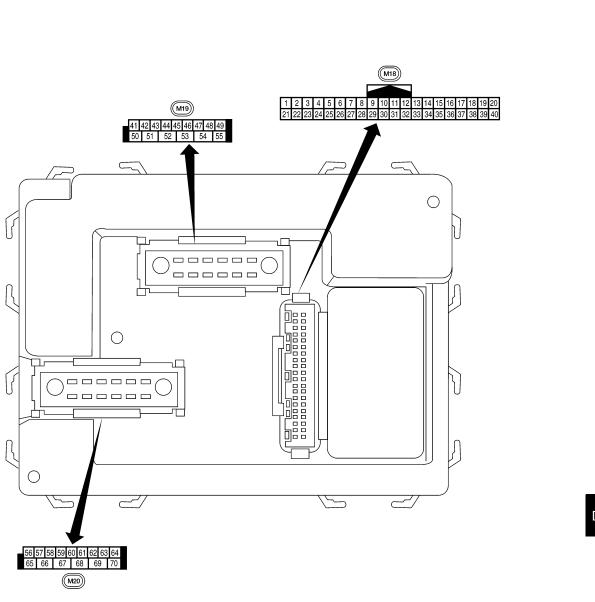
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AWMIA1542ZZ

INFOID:000000011514642

Physical Values

	Wire		Signal		Measuring condition	- Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
1	BR/W	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage
I	DR/W	nation	Output	OFF	Door is unlocked (SW ON)	0V
2	SB	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 0 + 5ms SKIA5291E
3	G/Y	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 2 0 •••5ms skia5292E
4	Y	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5	G/B	Combination switch input 2				(V)
6	V	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	skiaszege
	F (2)			055	Brake pedal depressed	Battery voltage
9	R/G	Stop lamp switch	Input	OFF	Brake pedal released	0V
40	~		1	055	ON (opening or closing)	0V
10	G	Hazard lamp flash	Input	OFF	OFF (other than above)	Battery voltage
11	0	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
10	R/L	Front door owitch DL	Inn: +	055	ON (open)	0V
12	R/L	Front door switch RH	Input	OFF	OFF (closed)	Battery voltage
13	GR	Rear door switch RH	Input	OFF	ON (open) OFF (closed)	0V Battery voltage
15	L/W	Tire pressure warning check connector	Input	OFF		5V
18	Р	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	_	0V

	14.5		Signal		Measuring condition		
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)	A
19	V/W	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 • • • 50 ms LIIA1893E	B C D
20	G/W	Remote keyless entry	Input	OFF	Stand-by (keyfob buttons re- leased)	(V) 6 4 0 0 •••50 ms LIIIA1894E	E
20	6/11	receiver (signal)	mput		When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 4 2 0 + 50 ms LIIAL895E	G
21	G	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.	J
22	G	BUS		_	Ignition switch ON or power window timer operates	(V) 15 10 5 0 200 ms PIIA2344E	K
23	G/O	Security indicator lamp	Output	OFF	Goes OFF \rightarrow illuminates (Every 2.4 seconds)	Battery voltage \rightarrow 0V	N
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.	N
					Rise up position (rear wiper arm on stopper)	0V	
					A Position (full clockwise stop position)	0V	С
26	Y/L	Rear wiper auto stop switch 2	Input	ON	Forward sweep (counterclock- wise direction)	Fluctuating	P
					B Position (full counterclock- wise stop position)	Battery voltage	
					Reverse sweep (clockwise di- rection)	Fluctuating	
27	W/R	Compressor ON sig-	Input	ON	A/C switch OFF	5V	
		nal		0.1	A/C switch ON	0V	

	10/1		Signal		Measuring condition	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
28	L/R	Front blower monitor	loout	ON	Front blower motor OFF	Battery voltage
28	L/R	From blower monitor	Input	UN	Front blower motor ON	0V
29	W/B	Hazard switch	loout	OFF	ON	0V
29	VV/D		Input	UFF	OFF	5V
32	R/G	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 0 0 5 ms 1 5 ms 1 5 ms 1 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5
33	R/Y	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 0 • • 5 ms
34	L	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 4 0
35	O/B	Combination switch output 2				(V)
36	R/W	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	skiaszeje
071	D/D	Key switch and igni-	loout	OFF	Intelligent Key inserted	Battery voltage
37 ¹	B/R	tion knob switch	Input	OFF	Intelligent Key removed	0V
37 ²	B/R	Key switch and key	Input	OFF	Key inserted	Battery voltage
	Bitt	lock solenoid	mput		Key removed	0V
38	W/L	Ignition switch (ON)	Input	ON	—	Battery voltage
39	L	CAN-H	_		—	_
40	Р	CAN-L	_		—	_
41	GR/R	Rear window defogger switch	Input	ON	Rear window defogger switch ON Rear window defogger switch OFF	0V 5V
		Glass hatch ajar		<u></u>	Glass hatch open	0
42	GR	switch	Input	ON	Glass hatch closed	Battery

	10/1-0		Signal		Measuring condition	Poforonoo voluo or vouoform
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)
		Back door switch			ON (open)	0V
43	R/B	(without power back door) or back door latch (door ajar switch) (with power back door)	Input	OFF	OFF (closed)	Battery voltage
					Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	Battery voltage
44	0	Rear wiper auto stop switch 1	Input	ON	Forward sweep (counterclock- wise direction)	Fluctuating
					B Position (full counterclock- wise stop position)	0V
					Reverse sweep (clockwise di- rection)	Fluctuating
47	SB	Front door switch LH	Input	OFF	ON (open)	0V
			pat	0.1	OFF (closed)	Battery voltage
48	R/Y	Rear door switch LH	Input	OFF	ON (open)	0V
	111		input		OFF (closed)	Battery voltage
49	R	Cargo lamp	Output	OFF	Any door open (ON)	0V
73		Jaigo lailip	Juipui	ULL	All doors closed (OFF)	Battery voltage
51	Y/B	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 10 0 50 50 50 50 50 50 50 50 50
52	G/B	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 50 500 ms 500 ms SKIA3009J
					Rise up position (rear wiper arm on stopper)	0V
					A Position (full clockwise stop position)	0V
54	Y	Rear wiper output cir- cuit 2	Input	ON	Forward sweep (counterclock- wise direction)	0V
					B Position (full counterclock- wise stop position)	Battery voltage
					Reverse sweep (clockwise di- rection)	Battery voltage
55	SB	Rear wiper output cir-	Output	ON	OFF	0
		cuit 1			ON	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	Wire		Signal		Measuring cond	dition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation	or condition	(Approx.)
56	R/G	Battery saver output	Output	OFF	10 minutes after switch is turned		0V
				ON	-	_	Battery voltage
57	Y/R	Battery power supply	Input	OFF	-	_	Battery voltage
58	W/R	Optical sensor	Input	ON	When optical s nated	ensor is illumi-	3.1V or more
56	VV/IX	Optical sensor	mput	ON	When optical s minated	ensor is not illu-	0.6V or less
_		Front door lock as-	_		OFF (neutral)		0V
59	G	sembly LH actuator (unlock)	Output	OFF	ON (unlock)		Battery voltage
60	G/B	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 50 50 50 50 50 50 50 50 50 5
61	G/Y	Turn signal (right)	Output	ON	Turn right ON		(V) 15 0 50 500 ms 500 ms
					ON (any door of	open)	0V
62	R/W	Foot lamp LH and RH	Output	OFF	OFF (all doors	closed)	Battery voltage
		Interior room/map			Any door	ON (open)	0V
63	L	lamp	Output	OFF	switch	OFF (closed)	Battery voltage
05		All door lock actuators	0.1.1	055	OFF (neutral)		0V
65	V	(lock)	Output	OFF	ON (lock)		Battery voltage
		Front door lock actua-			OFF (neutral)		0V
66	G/Y	tor RH, rear door lock actuators LH/RH and back door lock actua- tor (unlock)	Output	OFF	ON (unlock)		Battery voltage
67	В	Ground	Input	ON	-	_	0V
					Ignition switch	ON	Battery voltage
					Within 45 seco tion switch OF		Battery voltage
68	W/L	Power window power supply (RAP)	Output	—	More than 45 s nition switch O	econds after ig- FF	0V
					When front doo open or power operates		٥V
69	W/R	Power window power supply	Output		-	_	Battery voltage
70	W/B	Battery power supply	Input	OFF	-	_	Battery voltage

1: With Intelligent Key system

< E	CU	DIAGN	OSIS	INFOI	RMAT	ION :	>
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2: With remote keyless entry system

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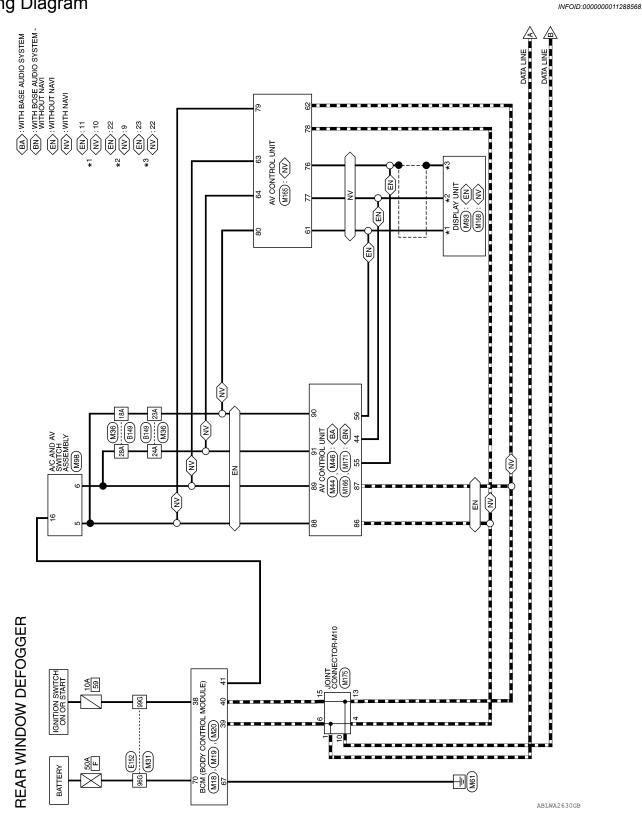
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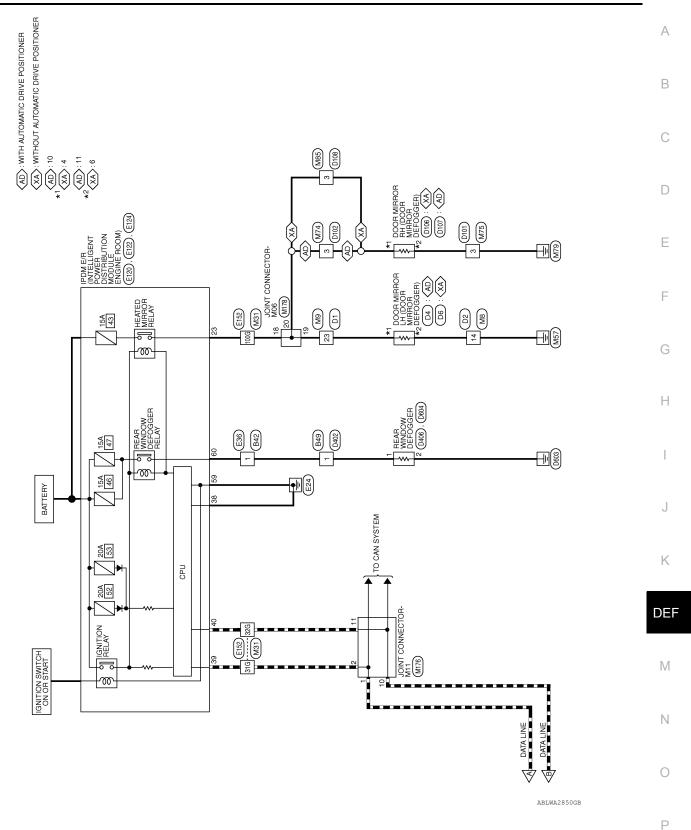
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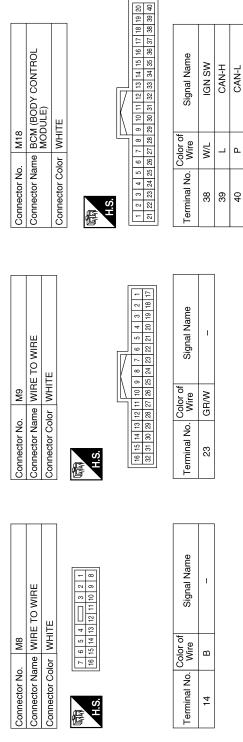
WIRING DIAGRAM REAR WINDOW DEFOGGER

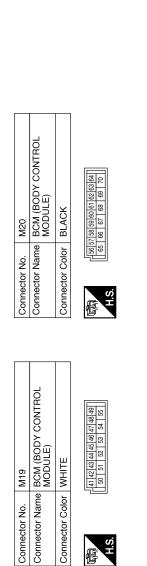
Wiring Diagram











Terminal No.	Color of Wire	Signal Name
41	GR/R	REAR DEFOGGER SW

GND (POWER)

BAT (F/L)

W/B ш

20 67

Signal Name

Color of Wire

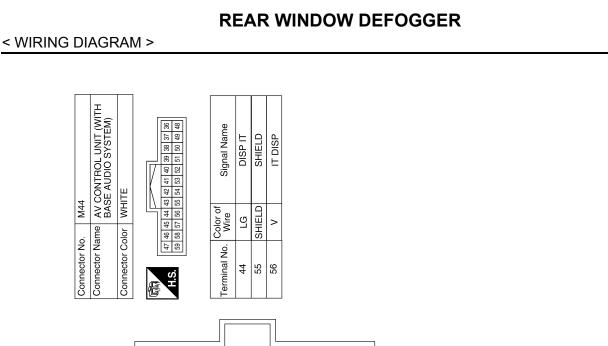
Terminal No.

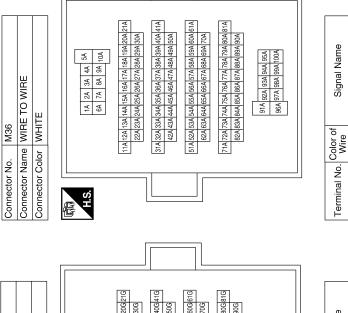
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CAN-H IGN SW

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Connector Name Connector Color	

Signal Name	I	I	I	Ι	I	
Color of Wire	L	٩	W/B	W/L	GR/W	
Terminal No. Color of Wire	31G	32G	96G	96G	100G	

Signal Name

Terminal No.

I. I. I.

P/B P/B

23A 24A 28A

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W/L

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ABLIA4105GB

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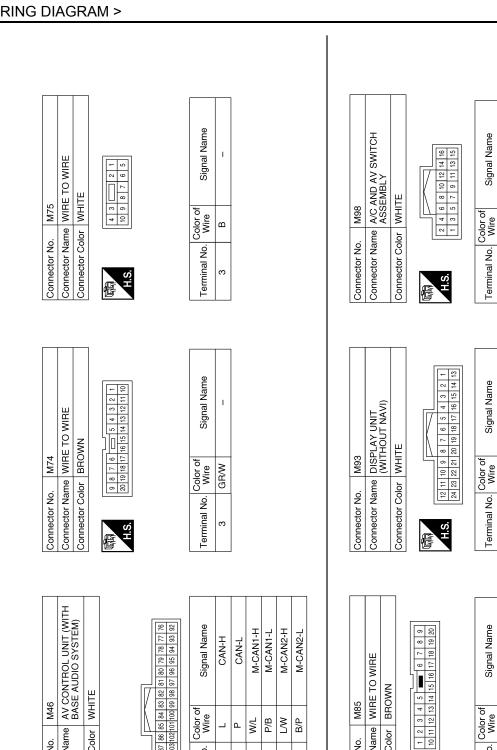
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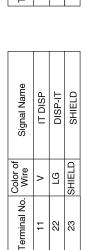
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M31

Connector No.





T L I.

GR/R

16

W/L P/B

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Connector Color BROWN

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H.S. 10 11 12 13 14 15 16 17 18 19 20 ferminal No. Color of Signal Name 3 GRAW
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ABLIA6944GB

AV CONTROL UNIT (WITH BASE AUDIO SYSTEM) WHITE Connector Name Connector Color

M46

Connector No.

 $\left[\right]$ H.S. fe

86 87 88 89 6 91

W/L P/B

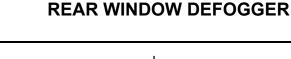
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Revision: August 2014

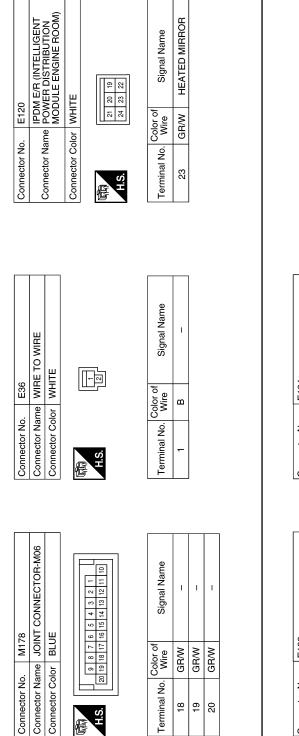
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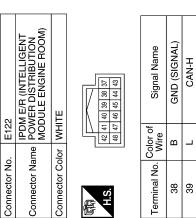


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E124	Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM)	r BLACK	[5] 58 57 [5] 58 57 [5] 58 57
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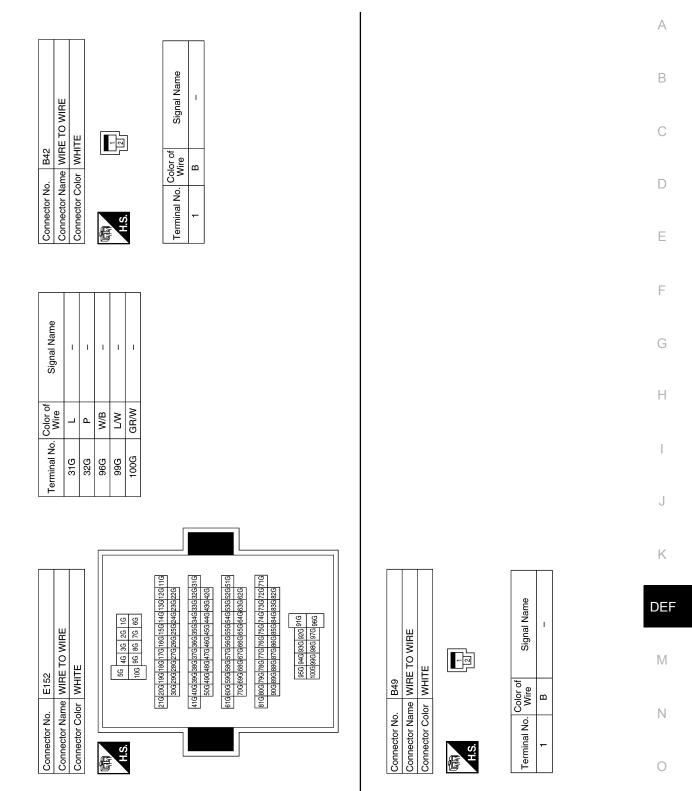
Signal Name	GND (POWER)	RR DEF
Color of Wire	В	в
Terminal No.	59	60



CAN-L ٩ Terminal No. 39 38 40

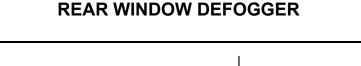
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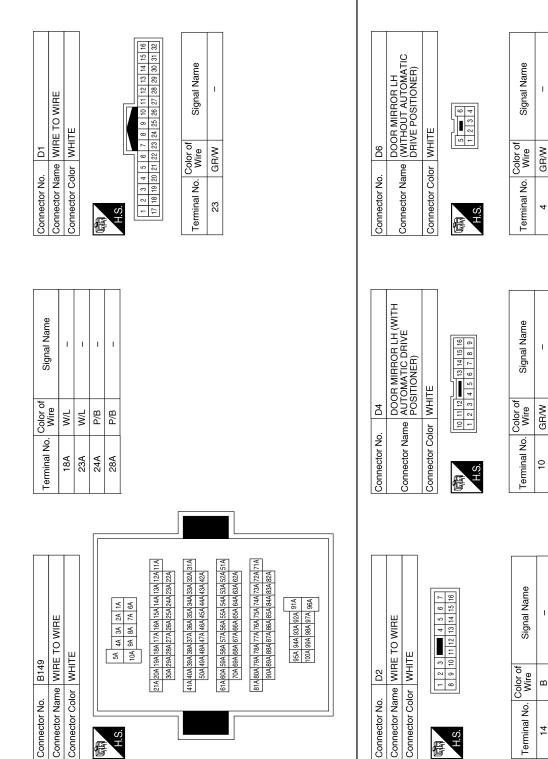
REAR WINDOW DEFOGGER



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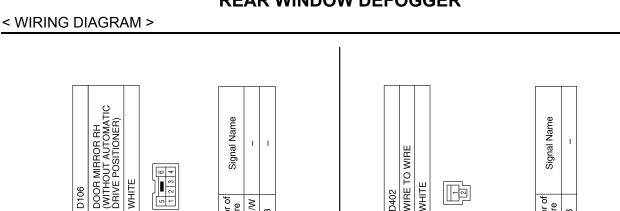
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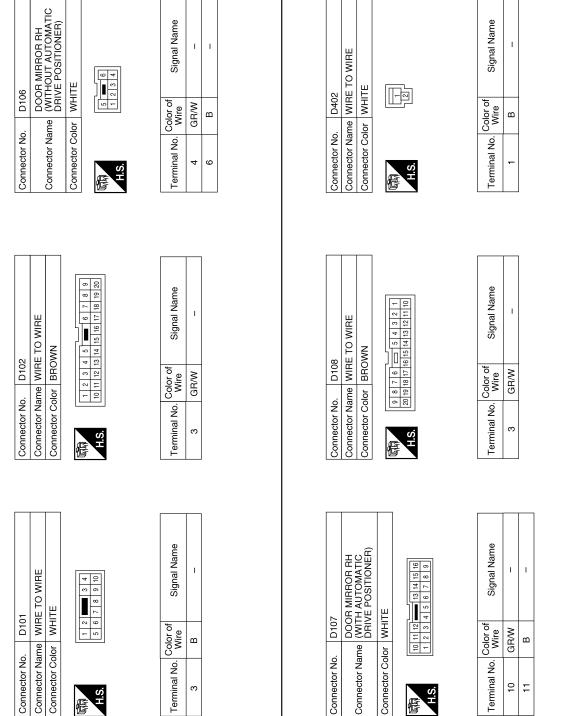
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< WIRING DIAGRAM >





REAR WINDOW DEFOGGER

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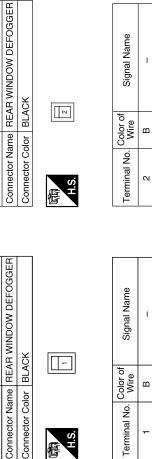
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D604

Connector No.

Connector Color BLACK

D406

Connector No.

	Signal Name
	Color of Wire
H.S.H	Terminal No. Wire

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ABLIA6948GB

< WIRING DIAGRAM >

REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGER DO NOT OPER-ATE.

AIL.	
< SYMPTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	Δ
REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGER DO NOT OPERATE.	A
Diagnosis Procedure	D
1. CHECK REAR WINDOW DEFOGGER SWITCH	С
Check rear window defogger switch. Refer to <u>DEF-8, "Component Function Check"</u> .	
Is the inspection result normal?	D
YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts. 2. CHECK REAR WINDOW DEFOGGER RELAY	E
Check rear window defogger relay. Refer to <u>DEF-9, "Component Function Check"</u> .	F
Is the inspection result normal?	
YES >> Refer to <u>GI-43, "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.	G

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Revision: August 2014

REAR WINDOW DEFOGGER DOES NOT OPERATE BUT BOTH OF DOOR MIR-ROR DEFOGGER OPERATE.

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000011288570

1. CHECK REAR WINDOW DEFOGGER POWER SUPPLY AND GROUND CIRCUIT

Check rear window defogger power supply and ground circuit. Refer to <u>DEF-10</u>, "Component Function Check".

Is the inspection result normal?

YES >> Refer to <u>GI-43</u>, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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

< SYMPTOM DIAGNOSIS >

BOTH DOORS MIRROR DEFOGGER DON'T OPERATE BUT REAR WIN-DOW DEFOGGER OPERATES

Diagnosis Procedure	INFOID:000000011288571
1. CHECK BOTH DOOR MIRROR DEFOGGER	
 Check door mirror LH. Refer to <u>DEF-12, "Component Function Check"</u> (without automatic d or <u>DEF-15, "Component Function Check"</u> (with automatic drive positioner). Check door mirror RH. Refer to <u>DEF-18, "Component Function Check"</u> (without automatic tioner) or <u>DEF-21, "Component Function Check"</u> (with automatic drive positioner). 	C
Is the inspection result normal?	D
 YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>. NO >> Repair or replace the malfunctioning parts. 	E
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DRIVER SIDE DOOR MIRROR DEFOGGER DOES NOT OPERATE.

< SYMPTOM DIAGNOSIS >

DRIVER SIDE DOOR MIRROR DEFOGGER DOES NOT OPERATE.

Diagnosis Procedure

INFOID:000000011288572

1. CHECK DOOR MIRROR DEFOGGER LH

Check door mirror defogger LH.

Refer to <u>DEF-12</u>, "Component Function Check" (without automatic drive positioner) or <u>DEF-15</u>, "Component Function Check" (with automatic drive positioner).

Is the inspection result normal?

YES >> Refer to GI-43, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

PASSENGER SIDE DOOR MIRROR DEFOGGER DOES NOT OPERATE.

< SYMPTOM DIAGNOSIS >	
PASSENGER SIDE DOOR MIRROR DEFOGGER DOES NOT OPERATE.	А
Diagnosis Procedure	Λ
1. CHECK DOOR MIRROR DEFOGGER RH	В
Check door mirror defogger RH. Refer to <u>DEF-18</u> , " <u>Component Function Check</u> " (without automatic drive positioner) or <u>DEF-21</u> , " <u>Component Function Check</u> " (with automatic drive positioner). <u>Is the inspection result normal?</u>	С
YES >> Refer to <u>GI-43. "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.	D
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REAR WINDOW DEFOGGER SWITCH DOES NOT LIGHT, BUT REAR WINDOW DEFOGGER OPERATES

< SYMPTOM DIAGNOSIS >

REAR WINDOW DEFOGGER SWITCH DOES NOT LIGHT, BUT REAR WIN-DOW DEFOGGER OPERATES

Diagnosis Procedure

INFOID:000000011288574

1. CHECK A/C AND AV SWITCH ASSEMBLY (REAR WINDOW DEFOGGER SWITCH)

Check that the A/C and AV switch assembly (rear window defogger switch) is operating normally. Is the inspection result normal?

YES >> Refer to <u>GI-43</u>, "Intermittent Incident".

NO >> Refer to <u>DEF-8</u>, "Diagnosis Procedure".

< PRECAUTION > PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the 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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the 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 Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

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NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYS-TEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

Connect both battery cables.
 NOTE:
 Supply power using import cables if battery is discharged.

Supply power using jumper cables if battery is discharged.

- 2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
- 3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
- 4. Perform the necessary repair operation.

PRECAUTIONS

< PRECAUTION >

- 5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
- 6. Perform a self-diagnosis check of all control units using CONSULT.

Handling for Adhesive and Primer

INFOID:000000011288577

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

< REMOVAL AND INSTALLATION > **REMOVAL AND INSTALLATION** FILAMENT

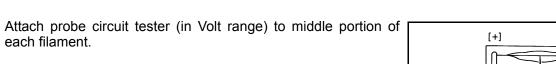
Inspection and Repair

INSPECTION

2.

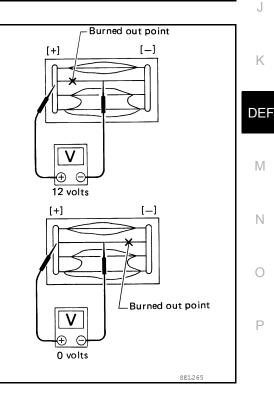
each filament.

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



3. If a filament is burned out, circuit tester registers 0 or battery voltage.

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



REPAIR

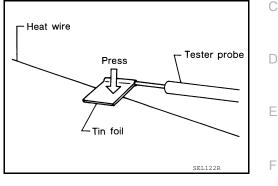
REPAIR EQUIPMENT

Conductive silver composition (Dupont No. 4817 or equivalent)

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INFOID:000000011288578 В



Æ e 6 volts (normal filament)

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- < REMOVAL AND INSTALLATION >
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE

composition is deposited.

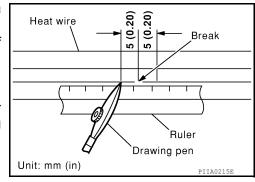
CAUTION:

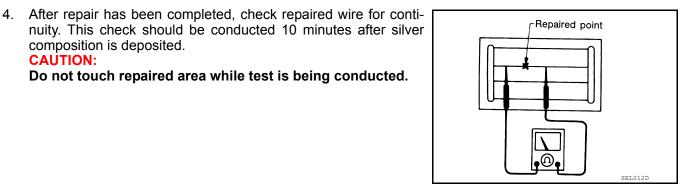
- Wipe broken heat wire and its surrounding area clean with a 1 cloth dampened in alcohol.
- 2. Apply a small amount of conductive silver composition to tip of drawing pen. NOTE:

Shake silver composition container before use.

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

Do not touch repaired area while test is being conducted.





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

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

