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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. 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 for Work

- 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 >

[LH FRONT ONLY AUTO DOWN]

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PREPARATION

Special Service Tool

INFOID:0000000009176102

To all accessing an	Description	
Tool number	Description	
(Kent-Moore No.)		
Tool name		
_	Removing trim compone	nts
(J-46534)		
Trim tool set		

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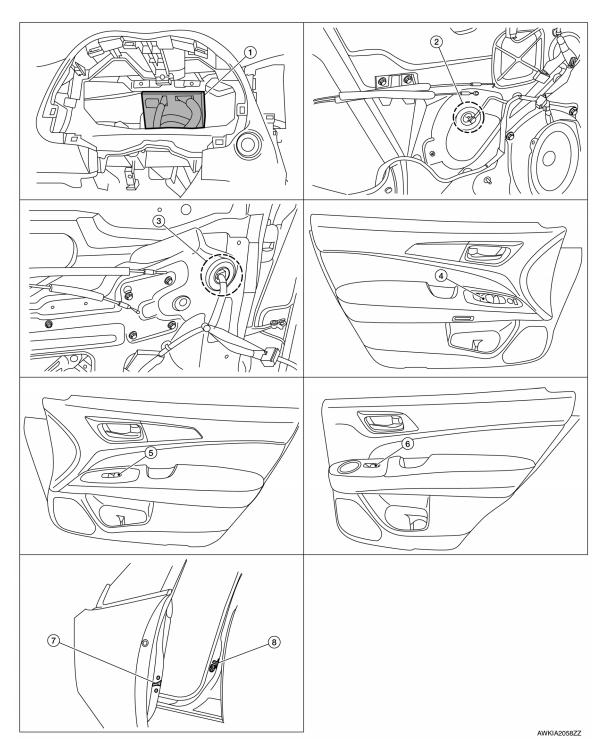
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000009176103



- BCM (view with the combination meter removed)
- Front power window motor LH (RH similar) (view with front door finisher removed)
- Rear power window motor LH (RH similar) (view with rear door finisher removed)

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[LH FRONT ONLY AUTO DOWN]

- Main power window and door lock/ unlock switch
- Front door lock assembly LH (key 7. cylinder switch)
- Power window and door lock/unlock 6. 5. switch RH Front door switch LH (RH similar)

8.

- Rear power window switch LH (RH
 - similar)

Component Description

INFOID:0000000009176104

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Component	Function
BCM	Supplies power to the window switches. Controls retained power.
Main power window and door lock/unlock switch	Directly controls all power window motors.
Power window and door lock/unlock switch RH	Controls power window motor of passenger door.
Rear power window switch	Controls right and left power window motors for the rear doors.
Power window motor	 Integrates the ENCODER and WINDOW MOTOR. Starts operating with signals from each power window switch. Transmits power window motor rotation as a pulse signal to power window switch.
Front door lock assembly (door key cylinder switch)	Transmits operation condition of door key cylinder switch to power window main switch.
Front door switch LH/RH	Detects door open/close condition and transmits it to the BCM.

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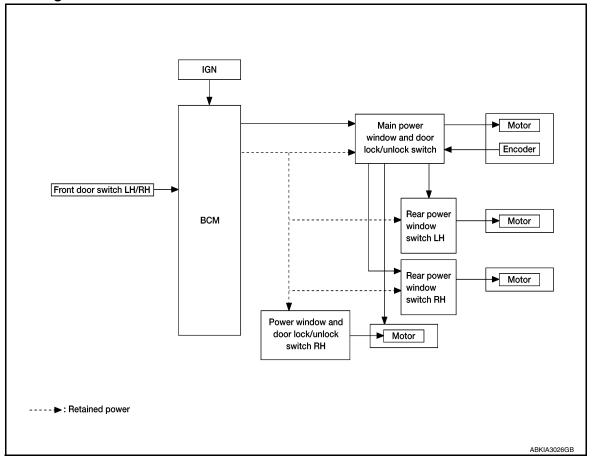
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SYSTEM

System Diagram

INFOID:0000000009176105



System Description

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POWER WINDOW OPERATION

- Power window system is activated by the power window switch when the ignition switch is in the ON position or during the retained power operation after ignition switch turns OFF.
- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- Power window lock switch can lock all power windows other than driver seat.
- All power windows open when pressing Intelligent Key unlock button for 3 seconds.
- Power window serial link transmits the signals from power window main switch to each power window switch.

POWER WINDOW AUTO-OPERATION

- AUTO-DOWN operation can be performed when the front power window motor LH turns to AUTO.
- Encoder continues detecting the movement of power window motor and output the encoder pulse signal to power window switch while power window motor is operating.
- Power window motor is operable in case encoder is malfunctioning.
- AUTO-DOWN function does not operate if encoder is malfunctioning.

RETAINED POWER OPERATION

Retained power operation is an additional power supply function that enables power window system to operate during the 45 seconds even when ignition switch is turned OFF.

Retained Power Function Cancel Conditions

- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- When ignition switch is ON again.
- When timer time passes. (45 seconds)

POWER WINDOW LOCK FUNCTION

Ground circuit inside power window main switch shuts off when power window lock switch is ON. This inhibits power window switch operation except with the power window main switch.

DOOR KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for 1 second or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, it stops when key position is moved to N (NEUTRAL) when operating.

Operation Condition

- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1 second or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to UNLOCK position for 1 second or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION

All power windows open when the unlock button on Intelligent Key is activated and pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed. The power window opening stops when the following operations are performed.

- When the unlock button is pressed for more than 15 seconds.
- When the ignition switch is turned ON while the power window opening is operated.
- · When the unlock button is released.

While retained power operation activate, keyless power window down function cannot be operated.

Fail-safe

FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when an error beyond the regulation value is detected between the fully closed position and the actual position of the glass.

Malfunction	Malfunction condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.
Glass recognition position malfunction 2	When it detects pulse count more that the value of glass full stroke during glass open/close operation.
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more that the specified value (approximately 10 strokes).

It changes to condition before initialization and the following functions do not operate when switched to failsafe control:

- Auto-up operation
- Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH FRONT ONLY AUTO DOWN]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000009764032

CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF \rightarrow ON (for at least 5 seconds) \rightarrow OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and no-start condition.

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 [Diagnosti	c Mode		
System	Sub System	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			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH FRONT ONLY AUTO DOWN]

				Direct D	Diagnosti	c Mode		
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Signal buffer system	SIGNAL BUFFER			×				
TPMS AIR PRESSURE MONITOR			×	×	×	×		

RETAINED PWR

RETAINED PWR: CONSULT Function (BCM - RETAINED PWR)

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CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF \rightarrow ON (for at least 5 seconds) \rightarrow OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and no-start condition.

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[LH FRONT ONLY AUTO DOWN]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000009176110

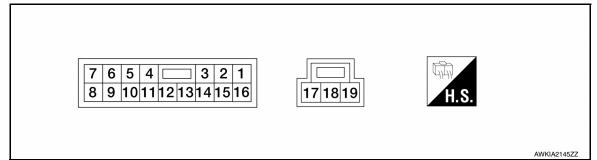
ECU	Reference
	BCS-30, "Reference Value"
BCM	BCS-50, "Fail Safe"
BCIVI	BCS-50, "DTC Inspection Priority Chart"
	BCS-52, "DTC_Index"

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

	nal No. color)	Description		Condition	Voltage
+	-	Signal name Input/ Output		Goridian	(Approx.)
1 (B)	Ground	Ground	_	_	0
2 (Y)	16	Front power window motor RH DOWN signal	Output	When front RH switch in power window main switch is operated DOWN.	Battery voltage
4 (SB)	12	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms
5 (Y)	12	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms
6 (L)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
7 (V)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (LG)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage

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POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH FRONT ONLY AUTO DOWN]

	nal No. color)	Description		Condition	Voltage
+	-	Signal name	Input/ Output	Gondidon	(Approx.)
9 (SB)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage
			IGN SW ON		Battery voltage
10	Ground	RAP signal	Input	Within 45 second after ignition switch is turned to OFF.	Battery voltage
(BR)	J. Gara			When driver side or passenger side door is opened during retained power operation.	0
12 (BR)	Ground	Encoder ground	_	_	0
14 (LG)	Ground	Encoder power supply	er power supply Output po		10
16 (R)	2	Front power window motor RH LIP signal Output		When front RH switch in power window main switch is operated UP.	Battery voltage
17 (Y)	19	Front power window motor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
18 (Y)	Ground	Battery power supply	Input	_	Battery voltage
19 (L)	17	Front power window motor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage

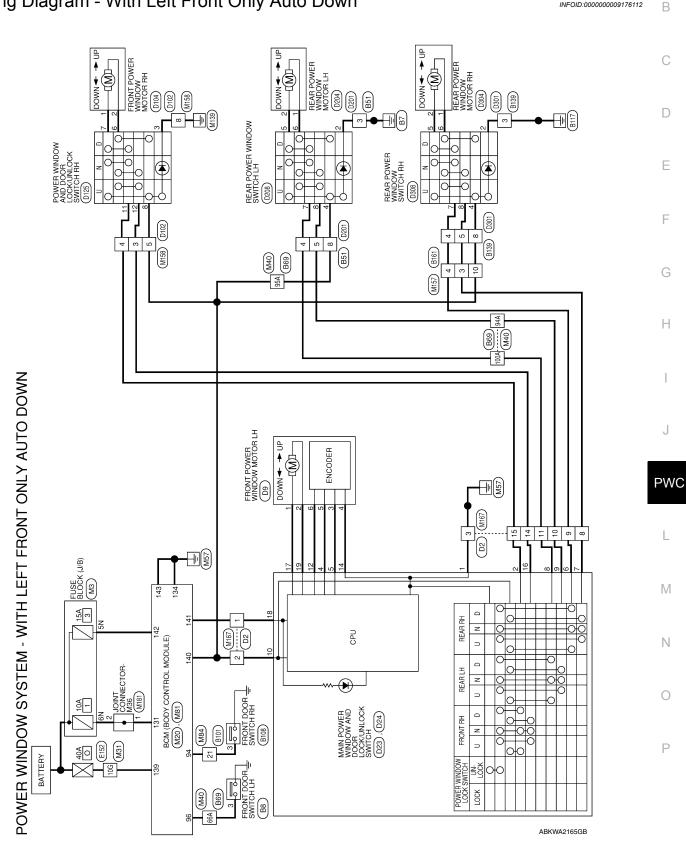
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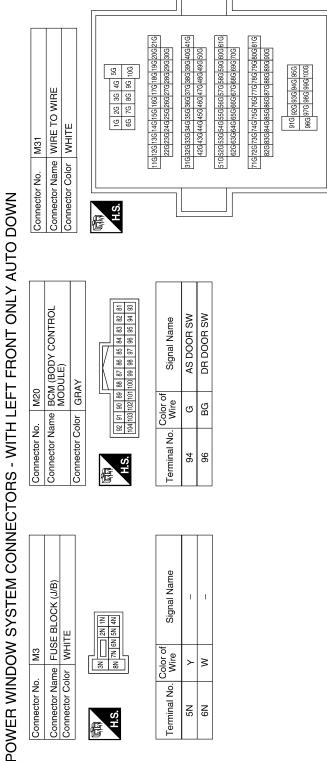
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WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram - With Left Front Only Auto Down





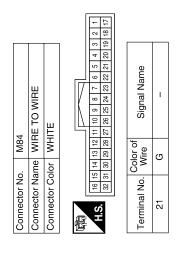
Terminal No.	Color of Wire	Signal Name
10G	Μ	-

Connector No.

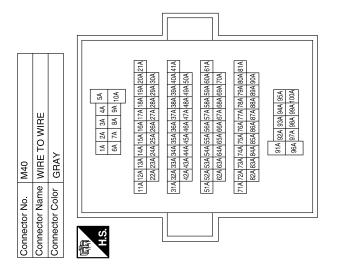
3	-	104 10	Terminal No.	94	96
	92 91 90 89	104 103 102 101 100	Color of Wire	В	BG
\	88 87	100			
	87 86	96 66	Sig	AS DOOR SW	DR DOOR SW
7	88	97	Signal Name	18	00
	84 83	96	Ž	ğ	ğ
	88	32	E	S	s s
	82 81	94	_ o	≥	>
	81	93			

Connector Name FUSE BLOCK (J/B) Connector Color WHITE	SN 1NN SN 4N	Signal Name	_	_
me FUSE E lor WHITE	N N N N N N N N N N	Color of Wire	٨	Ν
Connector Name Connector Color	原 H.S.	Terminal No.	2N	N9

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	BCM (BODY CONTROL MODULE)	IE III	142 141 140 133 138 138 139	Signal Name	BAT BCM FUSE	GND 2	BAT POWER F/L	PW POWER SUPPLY IGN	P/W POWER SUPPLY BAT	BAT FRONT DOOR	GND 1
M81		or WHITE	143 142	Color of Wire	>	В	×	BR	>	\	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	131	134	139	140	141	142	143



Signal Name	-	_	ı	-	
Color of Wire	BG	SB	BR	ГG	
Terminal No.	66A	94A	95A	100A	

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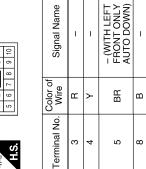
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			l											
67	WIRE TO WIRE	WHITE		4 5 6 7 12 13 14 15 16	Signal Name	1	ı	ı	I	ı	ı	-	ı	_
M167				9 10 11	Color of Wire	>	BB	В	>	_	SB	Ы	Œ	\
Connector No.	Connector Name	Connector Color		H.S.	Terminal No.	-	2	က	8	6	10	11	14	15

37	WIRE TO WIRE	WHITE	4 5 6 7	13 14	Signal N	ı	1	ı	1	1	ı	1	ı	I
. M167			2 3	9 10 11 12	Color of Wire	>	BB	В	>	_	SB	ГG	۳	>
Connector No.	Connector Name	Connector Color		H.S.	Terminal No.	-	2	က	8	6	10	+	14	15
•														

M158	WIRE TO WIRE	WHITE	3 4
Connector No.	Connector Name	Connector Color	斯斯 H.S.



Signal Name	1	1	1
Color of Wire	^	_	BR
Terminal No.	3	4	10

_			1					
	Connector Name JOINT CONNECTOR-M36	ТЕ		4 3 2 1 1		Signal Name	-	ı
	me JOI	lor WH		4 3		Color of Wire	Μ	>
Collinger 140.	Connector Na	Connector Color WHITE		匮	H.S.	Terminal No.	1	^

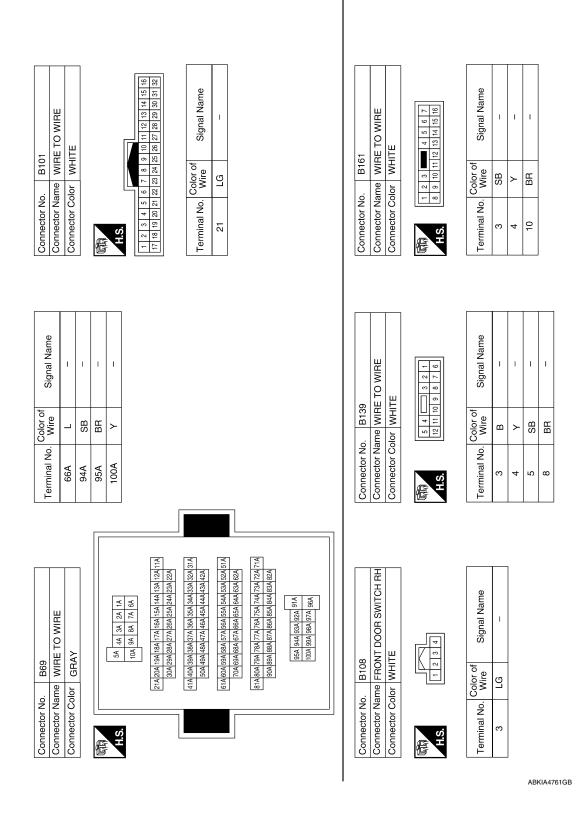
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POWER WINDOW SYSTEM

[LH FRONT ONLY AUTO DOWN]

	А
Signal Name	В
B B B B B B B B B B	С
	D
Connector No. Connector Cold Terminal No. 8 8 8	E
	F
Signal Name	G
Signal Signal	Н
	1
Connector No. Connector Color Connector Color H.S. 3 Terminal No. 3	J
	PW
E152	L
Color of Signal Color of Color of	M
	N
Connector No Connector Co	0
ABK	IA4760GB

Revision: May 2013 PWC-21 2014 Pathfinder



Connector No.). D24	
Connector Name	- \ -	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	olor WHITE	TE
南 H.S.	4	61 81
Terminal No.	Color of Wire	Signal Name
17	Υ	MOTOR DR UP
18	Υ	B+
19	٦	MOTOR DR DOWN

1	1	ı	1	
>	ГG	SB	BR	

Signal Name	ı	ı	ı	I	ı	ı	
Color of Wire	\	_	\	ГС	SB	BR	
Terminal No.	-	2	က	4	S	9	

	Signal Name		ENCODER SIG-1	(DLP)	MOTOR RR DOWN		MOTOR RR UP
	Color of	wie	`	>-	_		>
	Terminal No. 1465		-	Ω	ų	,	2
	D23	MAIN POWER WINDOW	AND DOOR	LOCK/UNLOCK	SWIICH (WITH LEFT	FRONI ONLY AUTO	DOWN)
l		-		_			_

Connector No.

MOTOR RL DOWN

2

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WHITE

Connector Color

Connector Name

MOTOR RL UP

SB HH H BB 2 4

9

ENCODER GND

MOTOR AS UP ENCODER +

14 12



	Signal Name	GND	MOTOR AS DOWN	ENCODER SIG-2 (ULP)
	Color of Wire	В	Υ	SB
	erminal No.	-	2	4

D2	WIRE TO WIRE	WHITE	
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	

Connector Name FRONT POWER WINDOW MOTOR LH

Connector No.

WHITE

Connector Color

-	œ
8	6
3	10
П	11
Ш	12
4	13
2	14
9	15
7	16



Signal Name	1	I	1	1	I	1	I	I	1
Color of Wire	>	BB	В	>	7	SB	БЛ	ш	٨
Terminal No.	-	2	3	8	6	10	11	14	15

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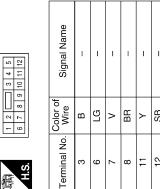
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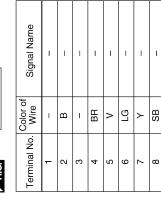
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Connector No.	D125
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT ONLY AUTO DOWN)
Connector Color WHITE	WHITE

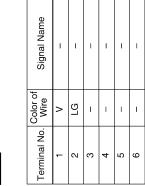




Connector No.	D208
Connector Name	Connector Name REAR POWER WINDOW SWITCH LH
Connector Color WHITE	WHITE
斯 H.S.	7 6 2 4



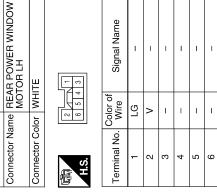
D104	FRONT POWER WINDOW MOTOR RH (WITH LEFT FRONT ONLY AUTO DOWN)	WHITE
Connector No.	Connector Name	Connector Color



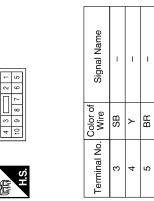
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-	D204
	Connector No.



	Ш		
D102	WIRE TO WIF	WHITE	
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	



Jo. D201	Connector Name WIRE TO WIRE	Solor WHITE	6 7 8 9 10 11 12
Connector No.	Connector Name	Connector Color WHITE	而 H.S.

9 10 11 12	Signal Name	Ī	I	ı	I
6 1 2 8 3	Color of Wire	В	Υ	SB	BR
H.S.	Terminal No.	3	4	2	8

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Connector No.	D308	8
Connector Name	_	REAR POWER WINDOW SWITCH RH
Connector Color	olor WHITE	ITE
用.S.		3 7 6 5 1
Terminal No.	Color of Wire	Signal Name
-	_	ı
2	В	1
က	-	I
4	BR	ı
5	٨	1
9	ГG	I
7	λ	1
8	SB	ı

Connector No.		D304
Connector Name		REAR POWER WINDOW MOTOR RH
Connector Color		WHITE
H.S.		C/ G/ C/
Terminal No.	Color of Wire	of Signal Name
-	ГG	ı
2	>	I
3	-	-
4	1	1
5	1	ı

ector No. D301	Connector Name WIRE TO WIRE	Connector Color WHITE	1 2 3 mm 4 5 6 7 8 9 10 111 12	nal No. Wire Signal Name	3 B	4 Y	5 SB –	8 BR –
Connector No.	Connector	Connector	原面 H.S.	Terminal No.	ဗ	4	5	8

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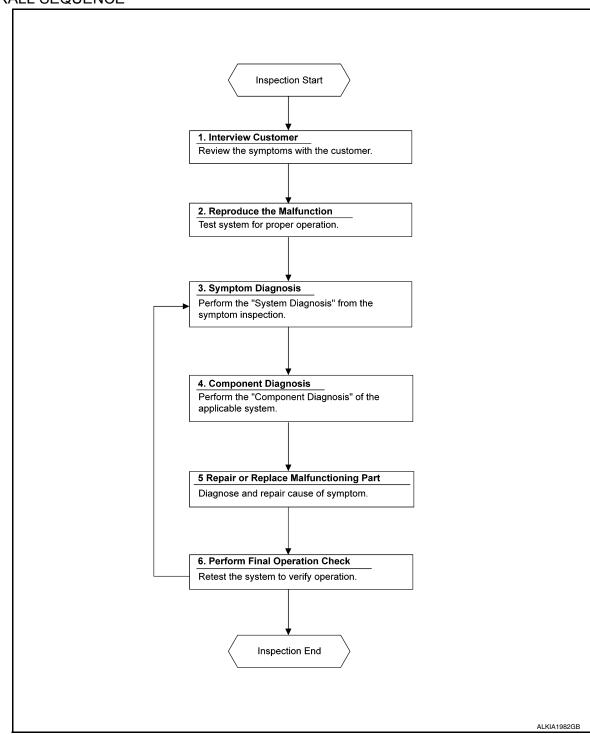
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH FRONT ONLY AUTO DOWN]

>> GO TO 2.	Α
2. CONFIRM THE SYMPTOM	
Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur.	В
>> GO TO 3.	С
3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS	
Use Symptom diagnosis from the symptom inspection result in step 2 and then identify where to start performing the diagnosis based on possible causes and symptoms.	D
>> GO TO 4.	Е
4. PERFORM THE COMPONENT DIAGNOSIS OF THE OF THE APPLICABLE SYSTEM	
Perform the diagnosis with Component diagnosis of the applicable system.	
>> GO TO 5.	F
5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS	
Repair or replace the specified malfunctioning parts.	G
N 00 TO 0	Н
>> GO TO 6.	П
6. FINAL CHECK	
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?	
YES >> Inspection End. NO >> GO TO 3.	J

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< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000009781491

INFOID:0000000009176115

Regarding Wiring Diagram information, refer to BCS-55, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
139	Fusible link battery power	O (40A)
131	BCM battery fuse	1 (10A)

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

$oldsymbol{2}$. CHECK POWER SUPPLY CIRCUIT

- Disconnect BCM connector M81.
- 2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

BCM		Ground	Voltage (Approx.)	
Connector	Terminal	Ground	(Approx.)	
M81	131		Pottory voltago	
IVI81	139	_	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

BCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
M81	134		Yes	
IVIOI	143	_		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Description

BCM supplies power.

• It operates each power window motor via corresponding power window switch and makes window move up/down when main power window and door lock/unlock switch is operated.

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

POWER WINDOW MAIN SWITCH: Component Function Check

INFOID:0000000009176116

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Main Power Window And Door Lock/unlock Switch

${f 1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH FUNCTION

Check power window motor operation with main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.

NO >> Refer to PWC-29, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:000000009176117

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Main Power Window And Door Lock/unlock Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

Turn ignition switch ON.

Check voltage between main power window and door lock/unlock switch connectors D23, D24 and ground.

Ter			
(+)		Voltage (Approx.)	
Main power window and door lock/unlock switch	tch Terminal (–) (Approx		(Approx.)
D23	10	Ground	Pattory voltage
D24	18	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

Turn ignition switch OFF.

- Disconnect BCM, main power window and door lock/unlock switch, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- Check continuity between BCM connector and main power window and door lock/unlock switch connectors.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M81	140	D23	10	Yes
IVIO I	141	D24	18	163

Check continuity between BCM connector M81 and ground.

BCM connector	Terminal		Continuity
M81	140	Ground	No
IVIO I	141		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connectors.

3. CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch.

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PWC-29 2014 Pathfinder Revision: May 2013

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	1	Giodila	Yes

Is the inspection result normal?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5.
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6.
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch LH) GO TO 7.
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch RH) GO TO 8.
- NO >> Repair or replace the harness or connectors.

f 4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM.
- 2. Turn ignition switch ON.
- 3. Check voltage between BCM connector M81 and ground.

Terminals			V 11	
(+)		()	Voltage (Approx.)	
BCM connector	Terminal	(-)	(
M81	140	Ground	Battery voltage	
IVIOI	141	Ground	Dattery Voltage	

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".
- NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

5. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POWER WINDOW SWITCH LH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch D23 and ground.

Terminal				
(+)			Window switch	Voltage
Main power window and door lock/ unlock switch connector	Terminal	(–)	position (rear LH)	(Approx.)
0	9	Ground	UP	Battery voltage
Das	9		DOWN	0
D23	D23	Ground	UP	0
	8		DOWN	Battery voltage

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-49. "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-62, "Removal and Installation".

6. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POWER WINDOW SWITCH RH)

- Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch D23 and ground.

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

Terminal						
(+)			Window switch	Voltage		
Main power window and door lock/unlock switch connector	Terminal	(–)	position (rear RH)	(Approx.)		
D23		7	7		UP	Battery voltage
	1	Cround	DOWN	0		
	6	Ground	UP	0		
	6		DOWN	Battery voltage		

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-62, "Removal and Installation".
- $7.\ \mathsf{CHECK}\ \mathsf{MAIN}\ \mathsf{POWER}\ \mathsf{WINDOW}\ \mathsf{AND}\ \mathsf{DOOR}\ \mathsf{LOCK/UNLOCK}\ \mathsf{SWITCH}\ \mathsf{OUTPUT}\ \mathsf{SIGNAL}\ (\mathsf{FRONT}\ \mathsf{POWER}\ \mathsf{WINDOW}\ \mathsf{SWITCH}\ \mathsf{LH})$
- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch D24 and ground.

Terminal						
(+)			Window switch	Voltage		
Main power window and door lock/ unlock switch connector	Terminal	(–)	position (front LH)	(Approx.)		
D24		47	47		UP	Battery voltage
	17	Ground	DOWN	0		
	19	Giouna	UP	0		
			DOWN	Battery voltage		

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-62, "Removal and Installation".
- f 8. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH RH)
- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch D23 and ground.

Te	rminal			
(+)			Window switch	Voltage
Main power window and door lock/unlock switch connector	Terminal	(–)	position (front RH)	(Approx.)
D23	16	Cround	UP	Battery voltage
			DOWN	0
	2	Ground	UP	0
		1	DOWN	Battery voltage

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-62, "Removal and Installation".

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Revision: May 2013 PWC-31 2014 Pathfinder

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

POWER WINDOW MAIN SWITCH: Component Inspection

INFOID:000000000917611

$1. \ \mathsf{CHECK} \ \mathsf{MAIN} \ \mathsf{POWER} \ \mathsf{WINDOW} \ \mathsf{AND} \ \mathsf{DOOR} \ \mathsf{LOCK/UNLOCK} \ \mathsf{SWITCH}$

1. Check main power window and door lock/unlock switch D12.

Teri	minal	Main power window and do	Continuity	
10	9	Rear LH		
10	7	Rear RH	UP	
10	16	Front RH		
8	9	Rear LH		
6	7	Rear RH	NEUTRAL	Yes
2	16	Front RH		
10	8	Rear LH		
10	6	Rear RH	DOWN	
10	2	Front RH		
1	12		-	

2. Check continuity between main power window and door lock/unlock switch D12 (power window lock switch) (Lock operation).

Terr	minal	Main power window and doo	or lock/unlock switch condition	Continuity
9		Rear LH		
7		Rear RH	UP	
16		Front RH		
8		Rear LH		
9		Nedi Ln		
7	1	Rear RH	NEUTRAL	No
6		Redi KII	NEUTRAL	NO
2		Front DU		
16		Front RH		
8		Rear LH		
6		Rear RH	DOWN	
2		Front RH		

^{3.} Check continuity between main power window and door lock/unlock switch D12 (power window lock switch) (Unlock operation).

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

Terminal	Main power window and doo	Main power window and door lock/unlock switch condition	
9	Rear LH		
7	Rear RH	UP	
16	Front RH		
8	Rear LH		
9	Real Ln		
7	Door DII	NEUTDAL	Voo
6	Rear RH	NEUTRAL	Yes
2	Front RH		
16	FIORER		
8	Rear LH		
6	Rear RH	DOWN	
2	Front RH		

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-62, "Removal and Installation".

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH: Description

BCM supplies power.

Front power window motor RH will be operated if power window and door lock/unlock switch RH is operated.

FRONT POWER WINDOW SWITCH: Component Function Check

INFOID:0000000009176120

Power Window And Door Lock/unlock Switch RH

$oldsymbol{1}_{\scriptscriptstyle{\perp}}$ CHECK POWER WINDOW MOTOR FUNCTION

Check front power window motor operation with power window and door lock/unlock switch RH. Is the inspection result normal?

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.

>> Refer to PWC-33, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure". NO

FRONT POWER WINDOW SWITCH: Diagnosis Procedure

INFOID:0000000009176121

INFOID:0000000009176119

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Power Window And Door Lock/Unlock Switch RH Power Supply Circuit Check

 ${f 1}$. CHECK POWER SUPPLY CIRCUIT (POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH)

- Turn ignition switch ON.
- Check voltage between power window and door lock/unlock switch RH connector D125 and ground.

(+)		Voltage	
Power window and door lock/unlock switch RH connector Terminal		(–)	(Approx.)
D125	8	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

PWC-33 Revision: May 2013 2014 Pathfinder **PWC**

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< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- Disconnect BCM, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- Check continuity between BCM connector M81 and power window and door lock/unlock switch RH connector D125.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M81	140	D125	8	Yes

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity	
M81	140	Oround	No	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connectors.

3. CHECK HARNESS CONTINUITY (POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH)

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and power window and door lock/unlock switch RH.
- 3. Check continuity between main power window and door lock/unlock switch connector D23 and power window and door lock/unlock switch RH connector D125.

Main power window and door lock/unlock switch connector	Terminal	Power window and door lock/ unlock switch RH connector	Terminal	Continuity
D23	2	D125	11	Yes
DZJ	16	D123	12	163

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D23	2	Ground	No
<i>D2</i> 3	16	7	

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace the harness or connectors.

4. CHECK BCM OUTPUT SIGNAL

- Connect BCM.
- 2. Turn ignition switch ON.
- 3. Check voltage between BCM connector M81 and ground.

Terr			
(+)	(_)	Voltage (Approx.)	
BCM connector	Terminal	(-)	()
M81	140	Ground	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

5. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Check power window and door lock/unlock switch RH.

DT0/01-0:		SUPPLY AND GROUND CIRCUIT	T ONLY ALITO DOWN
< DTC/CIRCUIT DIA		-	T ONLY AUTO DOWN]
Refer to <u>PWC-35</u> , "F Is the inspection resu		VINDOW SWITCH: Component Inspection".	
•		t. Refer to GI-49, "Intermittent Incident".	
		d door lock/unlock switch RH. Refer to PWC-6	63, "Removal and Installa-
<u>tion"</u> .			
FRONT POWER	R WINDOW S	WITCH : Component Inspection	INFOID:000000009176122
COMPONENT INS	DECTION		
4			
		DOOR LOCK/UNLOCK SWITCH RH	
Check power window	v and door lock/ur	nlock switch RH D125.	
Termi	nal	Power window switch condition	Continuity
8	7	UP	
12	6	UF .	
12	6	NEUTRAL	Yes
7	11	-	
8	6	DOWN	
7 Is the inspection resu	11		
	power window an	ock/unlock switch RH is OK. ad door lock/unlock switch RH. Refer to <u>PWC-6</u> WITCH	63. "Removal and Installa-
REAR POWER	WINDOW SW	ITCH : Description	INFOID:0000000009176123
 BCM supplies power Rear power window switch. 		perated if rear power window switch is opera	ated. Rear power window
REAR POWER	WINDOW SW	/ITCH : Component Function Check	INFOID:000000009176124
Rear Power Windo	w Switch		
1. CHECK REAR P	OWER WINDOW	MOTOR FUNCTION	
Check rear power wi	ndow motor opera	ation with rear power window switch.	
Is the inspection resu	•	•	
		n power supply and ground circuit are OK.	
		POWER WINDOW SWITCH : Diagnosis Prod	<u>cedure"</u> .
REAR POWER	WINDOW SW	/ITCH : Diagnosis Procedure	INFOID:000000009176125
Regarding Wiring Dia	agram information	, refer to <u>PWC-17, "Wiring Diagram - With Lef</u>	t Front Only Auto Down".
Rear Power Windo	w Switch Power	Supply Circuit Check	
TYPE I CAMPI AAIIINN	** O**********************************	CARRIA CHOUIT CHECK	

- Rear Power Window Switch Power Supply Circuit Check
- 1. CHECK POWER SUPPLY CIRCUIT
- 1. Turn ignition switch ON.
- 2. Check voltage between rear power window switch connector and ground.

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[LH FRONT ONLY AUTO DOWN]

	Terminal				
	(+)			Condition	Voltage (Approx.)
	Rear power window switch connector		(–)		(Approx.)
LH	D208	4	Ground	Ignition switch ON	Battery voltage
RH	D308	4	Ground	ignition switch ON	Dattery voltage

Is the inspection result normal?

YES >> GO TO 2 (Rear power window switch LH).

YES >> GO TO 3 (Rear power window switch RH).

NO >> GO TO 4.

${f 2}.$ CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and rear power window switch LH.
- 3. Check continuity between main power window and door lock/unlock switch connector and rear power window switch LH connector.

Main power window and door lock/ unlock switch connector	Terminal	Rear power window switch LH connector	Terminal	Continuity	
D23	8	D208	7	Yes	
	9	D200	8	103	

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D23	8	Ground	No
	9	1	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

${f 3.}$ CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and rear power window switch RH.
- Check continuity between main power window and door lock/unlock switch connector and rear power window switch RH connector.

Main power window and door lock/ unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity	
D23	6	D308	7	Yes	
	7	D300	8	163	

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/un- lock switch connector	Terminal	Ground	Continuity
D23	6		No
	7		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

4. CHECK HARNESS CONTINUITY

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

1. Disconnect BCM, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.

Check continuity between BCM connector and rear power window switch connector.

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity
M81	140	LH	D208	4	Yes
IVIO	140	RH	D308	7	163

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M81	140	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-37, "REAR POWER WINDOW SWITCH: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace rear power window switch. Refer to PWC-64, "Removal and Installation".

REAR POWER WINDOW SWITCH: Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Ter	minal	Power window switch condition	Continuity	
4	5	UP		
8	6	UF .	Yes	
8	6	NEUTRAL		
7	5	NEOTIME		
7	5	DOWN		
4	6	DOWN		

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to <u>PWC-64</u>, "<u>Removal and Installation</u>".

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< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

POWER WINDOW MOTOR

DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000009176127

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch.

DRIVER SIDE : Component Function Check

INFOID:0000000009176128

1. CHECK FRONT POWER WINDOW MOTOR LH CIRCUIT

Check front power window motor LH operation with the main power window and door lock/unlock switch. Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Refer to PWC-38, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000009176129

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Front Power Window Motor LH Circuit Check

${f 1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor LH.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor LH connector D9 and ground.

Terminal					
(+)			Main power window and door lock/unlock switch con-	Voltage	
Front power window motor LH connector	Terminal	(–)	dition	(Approx.)	
	1		UP	Battery voltage	
D9		Ground	DOWN	0	
Da	2	Ground	UP	0	
	2		DOWN	(Approx.) Battery voltage 0	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- 3. Check continuity between main power window and door lock/unlock switch connector D24 and front power window motor LH connector D9.

Main power window and door lock/un- lock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity	
	19	19 D9		Yes	
D24	17	9	1	165	

^{4.} Check continuity between main power window and door lock/unlock switch connector D24 and ground.

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

< DTC/CIRCUIT DIAGNOSIS >		[LII FRON	I ONL! AUTO DOWN]
Main power window and door lock/un-			
lock switch connector	Terminal		Continuity
	19	Ground	No
D24	17		INU
Is the inspection result normal?			
YES >> Replace main power w	indow and door lock/unlo	ck switch. Refer to PWC-	<u>-62, "Removal and Instal-</u>
lation". NO >> Repair or replace harno	222		
3. CHECK FRONT POWER WIND			
Check front power window motor L			
Refer to PWC-39, "DRIVER SIDE:			
Is the inspection result normal?			
YES >> Check intermittent incid			
NO >> Replace front power wi	ndow motor LH. Refer to	PWC-62, "Removal and	Installation".
DRIVER SIDE : Componen	t Inspection		INFOID:000000009176130
COMPONENT INSPECTION			
COMPONENT INSPECTION			
1. CHECK FRONT POWER WIND			
Check motor operation by connecti	ng the battery voltage dir	ectly to power window m	otor D9.
Terminal			
(+)	(–)	— Motor	condition
1	2		UP
2	1	Do	NWC
Is the inspection result normal?		<u> </u>	
YES >> Front power window m			
NO >> Replace front power wip PASSENGER SIDE	indow motor LH. Refer to	GW-14, "Removal and I	<u>nstallation"</u> .
PASSENGER SIDE : Descr	ription		INFOID:000000009176131
Door glass moves UP/DOWN by re	eceiving the signal from n	nain power window and d	loor lock/unlock switch or
power window and door lock/unlock		r	
PASSENGER SIDE : Comp	onent Function Che	eck	INFOID:000000009176132
1			
1. CHECK FRONT POWER WIND			
Check front power window motor R	H operation with main po		ck/unlock switch or power
Check front power window motor R window and door lock/unlock switcl	H operation with main po		k/unlock switch or power
Check front power window motor R	H operation with main po า.		ck/unlock switch or power

PASSENGER SIDE : Diagnosis Procedure INFOID:0000000009176133

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Front Power Window Motor RH Circuit Check

 $1. \ \mathsf{CHECK} \ \mathsf{POWER} \ \mathsf{WINDOW} \ \mathsf{AND} \ \mathsf{DOOR} \ \mathsf{LOCK/UNLOCK} \ \mathsf{SWITCH} \ \mathsf{RH} \ \mathsf{OUTPUT} \ \mathsf{SIGNAL}$

1. Turn ignition switch OFF.

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< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

INFOID:0000000009176134

- Disconnect front power window motor RH.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor RH connector D104 and ground.

Т	erminal				
(+)			Front power window motor	Voltage (V)	
Front power window motor RH connector	Terminal	(–)	RH condition	(Approx.)	
	1		UP	Battery voltage	
D104		Ground	DOWN	0	
D10 4	2	Giouna	UP	0	
	2		DOWN	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH.
- Check continuity between power window and door lock/unlock switch RH connector D125 and front power window motor RH connector D104.

Power window and door lock/un- lock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D125	6	D104	2	Yes
5120	7	2104	1	103

4. Check continuity between power window and door lock/unlock switch connector D125 and ground.

Power window and door lock/unlock switch RH connector	Terminal		Continuity
D125	6	Ground	No
D123	7		INO

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-63, "Removal and Installation"

NO >> Repair or replace the harness or connectors.

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to PWC-40, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace front power window motor RH. Refer to GW-14, "Removal and Installation".

PASSENGER SIDE: Component Inspection

COMPONENT INSPECTION

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to front power window motor RH D104.

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

T	erminal	Motor condition
(+)	(-)	Wiotor Condition
1	2	UP
2	1	DOWN

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace front power window motor RH. Refer to <u>GW-14</u>, "<u>Removal and Installation</u>".

REAR LH

REAR LH: Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or rear power window switch LH.

REAR LH: Component Function Check

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

Check rear power window motor LH operation with main power window and door lock/unlock switch or rear power window switch LH.

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to PWC-41, "REAR LH : Diagnosis Procedure"

REAR LH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Rear Power Window Motor LH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window motor LH.
- 3. Turn ignition switch ON.
- Check voltage between rear power window motor LH connector D204 and ground.

	Terminal			
(+)	(+)		Window	Voltage
Rear power window motor LH connector	Terminal	(–)	condition	(Approx.)
	2		UP	Battery voltage
D204	2	Ground	DOWN	0
D20 4	4	Ground	UP	0
	ı		DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect rear power window switch LH.
- Check continuity between rear power window switch LH connector D208 and rear power window motor LH connector D204.

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[LH FRONT ONLY AUTO DOWN]

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D208	6	D204	1	Yes
5200	5	5204	2	163

4. Check continuity between rear power window switch LH connector D208 and ground.

Rear power window switch LH connector	Terminal		Continuity	
D208	6	Ground	No	
	5		No	

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to PWC-42, "REAR LH: Component Inspection".

NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-42, "REAR LH: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace rear power window motor LH. Refer to GW-19, "Removal and Installation".

REAR LH: Component Inspection

INFOID:0000000009176138

COMPONENT INSPECTION

${f 1}$. CHECK REAR POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to rear power window motor LH D204.

Terminal		Motor condition	
(+)	(-)	Wotor condition	
2	1	UP	
1	2	DOWN	

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Replace rear power window motor LH. Refer to <u>GW-19</u>, "Removal and Installation".

REAR RH

REAR RH: Description

INFOID:0000000009176139

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or rear power window switch RH.

REAR RH: Component Function Check

INFOID:0000000009176140

CHECK POWER WINDOW MOTOR CIRCUIT

Check rear power window motor RH operation with operating power window main switch or rear power window switch RH.

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Refer to PWC-42, "REAR RH: Diagnosis Procedure".

REAR RH: Diagnosis Procedure

INFOID:0000000009176141

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

Rear Power Window Motor RH Circuit Check

${f 1}$. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- Disconnect rear power window motor RH. 2.
- 3. Turn ignition switch ON.
- Check voltage between rear power window motor RH connector D304 and ground.

Terminal					
(+)			Rear power window	Voltage	
Rear power window motor RH connector	Terminal	(–)	switch RH condition	(Approx.)	
			UP	Battery voltage	
D204	2		DOWN	0	
D304 —	4	Ground	UP	0	
	1		DOWN	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

$oldsymbol{2}$. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect rear power window switch RH. 2.
- Check continuity between rear power window switch RH connector D308 and rear power window motor RH connector D304.

Rear power window switch RH connector	Terminal	Rear power window motor RH connector	Terminal	Continuity
D308	5	D304	2	Yes
D300	6	2004	1	103

Check continuity between rear power window switch RH connector D308 and ground.

Rear power window switch RH connector	Terminal		Continuity
D308	5	Ground	No
	6		INO

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to PWC-43, "REAR RH: Component Inspection".

NO >> Repair or replace harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-43, "REAR RH: Component Inspection".

Is the inspection result normal?

>> Check intermittent incident. Refer to GI-49, "Intermittent Incident". YES

NO >> Replace rear power window motor RH. Refer to GW-19, "Removal and Installation".

REAR RH: Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to rear power window motor RH D304.

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< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

Terminal		Motor condition
(+)	(–)	INICIOI CONTUNION
1	2	DOWN
2	1	UP

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace rear power window motor RH. Refer to <u>GW-19</u>, "Removal and Installation".

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ENCODER

DRIVER SIDE

DRIVER SIDE : Description

Detects condition of the front power window motor LH operation and transmits to main power window and door lock/unlock switch as pulse signal.

DRIVER SIDE: Component Function Check

1. CHECK ENCODER OPERATION

Check front door glass LH perform AUTO DOWN operation normally with main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to PWC-45, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

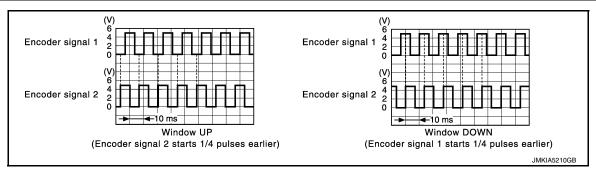
Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Encoder Circuit Check

1. CHECK ENCODER OPERATION

- 1. Connect front power window motor LH.
- 2. Turn ignition switch ON.
- 3. Check signal between main power window and door lock/unlock switch connector D23 and ground with oscilloscope.

	Terminal			
Signal name	(+)		Signal	
Olgridi Halilo	Main power window and door lock/un- lock switch connector	Terminal	(-)	(Reference value)
Encoder signal 1	D23	5	Ground	Refer to following signal
Encoder signal 2	D23	4	Giodila	Trefer to following signal



Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

- Turn ignition switch ON.
- 2. Check voltage between front power window motor LH connector D9 and ground.

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Termin				
(+)	(-)	Voltage (Approx.)		
Front power window motor LH connector	Terminal	(-)		
D9	4	Ground	10	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

${f 3}.$ CHECK HARNESS CONTINUITY 1

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
- 3. Check continuity between main power window and door lock/unlock switch connector D23 and front power window motor connector D9.

Main power window and door lock/ unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D23	14	D9	4	Yes

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	14	Ground	No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-62</u>, "Removal and Installation".

NO >> Repair or replace harness or connectors.

4. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor LH.
- 3. Check continuity between front power window motor LH connector D9 and ground.

Front power window motor LH connector	Terminal	Ground	Continuity	
D9	6	Giodila	Yes	

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

- 1. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/unlock switch connector D12 and front power window motor LH connector D9.

Main power window and door lock/un- lock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D23	12	D9	6	Yes

Is the inspection result normal?

YES >> Check main power window and door lock/unlock switch. Refer to PWC-32, "POWER WINDOW MAIN SWITCH: Component Inspection".

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

- 1. Disconnect main power window and door lock/unlock switch.
- 2. Check continuity between main power window D23 and door lock/unlock switch connector and front power window motor LH connector D9.

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D23	5	D9	3	Yes
D23	4	D9	5	163

3. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	01	Continuity
D23	5	Ground	No
D23	4		INO

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to <u>GW-14</u>, "<u>Removal and Installation</u>".

NO >> Repair or replace harness or connectors.

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DOOR SWITCH

Component Function Check

INFOID:0000000009781488

1. CHECK FUNCTION

- Select DOOR LOCK of BCM using CONSULT.
- 2. Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL, DOOR SW-RR, in DATA MONITOR mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Cor	ndition	Status
DOOR SW-DR	Driver side door	Open	On
DOOK SW-DK	Driver side door	Closed	Off
DOOR SW-AS	Passenger side door	Open	On
DOOR SW-AS		Closed	Off
DOOR SW-RL	Door door I H	Open	On
DOOR SW-RL	Rear door LH	Closed	Off
DOOR SW-RR	Rear door RH	Open	On
		Closed	Off

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to PWC-48, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009781489

Regarding Wiring Diagram information, refer to <u>DLK-74, "Wiring Diagram"</u>.

1. CHECK DOOR SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect malfunctioning door switch connector.
- 3. Check signal between malfunctioning door switch harness connector and ground using oscilloscope.

(+)			0.		
	Door switch		(–)	Signal (Reference value)	
Conne	ctor	Terminal		(1.0.0.0.100 value)	
Driver side	B8				
Passenger side	B108			(V) 15	
Rear LH	B18			10 5	
Rear RH	B116	3	Ground	0 + 10ms PKIB4960J 7.0 - 8.0 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

- Disconnect BCM connector.
- 2. Check continuity between door switch harness connector and BCM harness connector.

DOOR SWITCH

[LH FRONT ONLY AUTO DOWN]

	Door switch		В	СМ	Continuity
Coni	nector	Terminal	Connector	Terminal	Continuity
Driver side	B8			96	
Passenger side	B108	2	M20	94	Yes
Rear LH	B18	3	IVIZU	82	res
Rear RH	B116			93	

3. Check continuity between door switch harness connector and ground.

	Door switch			Continuity
Con	nector	Terminal		Continuity
Driver side	B8		Ground	
Passenger side	B108	2	Ground	No
Rear LH	B18	3		INO
Rear RH	B116			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK DOOR SWITCH

Refer to PWC-49, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-313, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-49, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK DOOR SWITCH

- Turn ignition switch OFF.
 Disconnect malfunctioning door switch connector.
- 3. Check continuity between door switch terminals.

Door switch		Condition		Continuity
	Terminal	Condition		Continuity
3	Ground contact is part of the	Door switch	Pressed	No
J	switch.	Door Switch	Released	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunction door switch. Refer to <u>DLK-313, "Removal and Installation"</u>.

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POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

POWER WINDOW LOCK SWITCH

Description INFOID:000000009176149

Ground circuit of main power window and door lock/unlock switch shuts off if power window lock switch of main power window and door lock/unlock switch is operated. This inhibits all operation, except for the main switch.

Component Function Check

INFOID:0000000009176150

1. CHECK POWER WINDOW LOCK SIGNAL

Exchange for a normal main power window and door lock/unlock switch, and check operation. Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to PWC-62, "Removal and Installation".
- NO >> Check condition of harness and connector.

POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH [LH FRONT ONLY AUTO DOWN] < SYMPTOM DIAGNOSIS > SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH POWER WIND SWITCH	
Diagnosis Procedure	INFOID:0000000009176151
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT	С
Check BCM power supply and ground circuit. BCS-80, "Removal and Installation". Is the inspection result normal? YES >> GO TO 2.	D
NO >> Repair or replace the malfunctioning parts. 2. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT	Е
Check power window switch power supply and ground circuit. Refer to PWC-29 , "POWER WINDOW MAIN SWITCH: Diagnosis Procedure" . Is the inspection result normal?	F
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CONFIRM THE OPERATION	G
Confirm the operation again. Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".	Н
NO >> GO TO 1.	I

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PWC-51 Revision: May 2013 2014 Pathfinder

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000009176152

1. CHECK DRIVER SIDE POWER WINDOW MOTOR

Check driver side power window motor.

Refer to PWC-38, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 1.

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE [LH FRONT ONLY AUTO DOWN] < SYMPTOM DIAGNOSIS > FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE Α WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure INFOID:0000000009176153 ${f 1}$.CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH Check power window and door lock/unlock switch RH circuit. Refer to PWC-33, "FRONT POWER WINDOW SWITCH: Component Function Check". Is the inspection result normal? D YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident". F >> GO TO 1. NO WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED: Diagnosis Procedure INFOID:0000000009176154 Н 1. REPLACE POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH Replace power window and door lock/unlock switch RH. Refer to PWC-62, "Removal and Installation". >> Inspection End. WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED **PWC** WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED: Diagnosis Procedure INFOID:0000000009176155 1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR-**CUIT** Check power window and door lock/unlock switch RH power supply and ground circuit. M Refer to PWC-33, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. N NO >> Repair or replace the malfunctioning parts. 2.CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT Check front power window motor RH circuit. Refer to PWC-33, "FRONT POWER WINDOW SWITCH: Component Function Check". Is the inspection result normal? Р YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CONFIRM THE OPERATION Confirm the operation again. Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident". >> GO TO 1. NO

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000009176156

1. CHECK REAR POWER WINDOW SWITCH LH CIRCUIT

Check rear power window switch LH circuit.

Refer to PWC-35, "REAR POWER WINDOW SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED: Diagnosis Procedure

INFOID:0000000009176157

1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to PWC-62, "Removal and Installation".

>> Inspection End.

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED: Diagnosis Procedure

1. CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch power supply and ground circuit.

Refer to PWC-35, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-41, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 1.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE [LH FRONT ONLY AUTO DOWN] < SYMPTOM DIAGNOSIS > REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE Α WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure ${f 1}$.CHECK REAR POWER WINDOW SWITCH RH CIRCUIT Check rear power window switch RH circuit. Refer to PWC-35, "REAR POWER WINDOW SWITCH: Component Function Check". Is the inspection result normal? D >> GO TO 2. >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Е Confirm the operation again. Is the inspection result normal? >> Check intermittent incident. Refer to GI-49, "Intermittent Incident". >> GO TO 1. WHEN REAR POWER WINDOW SWITCH RH IS OPERATED WHEN REAR POWER WINDOW SWITCH RH IS OPERATED: Diagnosis Procedure INFOID:0000000009176160 ${f 1}$. REPLACE REAR POWER WINDOW SWITCH RH Н Refer to PWC-62, "Removal and Installation". >> Inspection End.

Replace rear power window switch RH.

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED: Diagnosis Procedure INFOID:0000000009176161

 ${f 1}.$ CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch power supply and ground circuit.

Refer to PWC-35, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

YES

YES

NO

NO

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-42, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3 . CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 1.

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AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMAL-LY

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR-MALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009176162

1. CHECK ENCODER (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit.

Refer to PWC-45, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NOR-MALLY

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

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Diagnosis Procedure

1. CHECK DOOR SWITCH

Check door switch.

Refer to DLK-170, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 1.

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DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Diagnosis Procedure

INFOID:0000000009176164

1. CHECK FRONT DOOR LOCK ASSEMBLY LH (DOOR KEY CYLINDER SWITCH)

Check front door lock assembly LH (door key cylinder switch).

Refer to DLK-191, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49. "Intermittent Incident".

NO >> Inspection End.

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KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE	
Diagnosis Procedure	INFOID:0000000009176165
1. CHECK REMOTE KEYLESS ENTRY FUNCTION	
Check remote keyless entry function.	
Is the inspection result normal? YES >> GO TO 2.	
NO >> Refer to >> Pocedure . CHECK POWER WINDOW OPERATION	
Check power window operation.	
In the inspection result normal? YES >> GO TO 3. NO >> Refer to PWC-29, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".	
3.CONFIRM THE OPERATION	
Confirm the operation again.	
s the inspection result normal? YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident". NO >> GO TO 1.	

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000009176166

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-62, "Removal and Installation".

>> Inspection End.

POWER WINDOW SWITCH DOES NOT ILLU	
- I I I I I I I I I I I I I I I I I I I	FRONT ONLY AUTO DOWN]
POWER WINDOW SWITCH DOES NOT ILLUMINATE DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000009176167
1.REPLACE POWER WINDOW MAIN SWITCH	
Replace power window main switch. Refer to PWC-62 , "Removal and Installation".	
>> Inspection End. PASSENGER SIDE	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000009176168
1.REPLACE POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	
Replace power window and door lock/unlock switch RH. Refer to PWC-62, "Removal and Installation".	
>> Inspection End. REAR LH	
REAR LH : Diagnosis Procedure	INFOID:000000009176169
1.REPLACE REAR POWER WINDOW SWITCH LH	
Replace rear power window switch LH. Refer to PWC-62, "Removal and Installation".	
>> Inspection End. REAR RH	
REAR RH : Diagnosis Procedure	INFOID:000000009176170
1.REPLACE REAR POWER WINDOW SWITCH RH	
Replace rear power window switch RH. Refer to PWC-62, "Removal and Installation".	
>> Inspection End.	

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MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY AUTO DOWN]

REMOVAL AND INSTALLATION

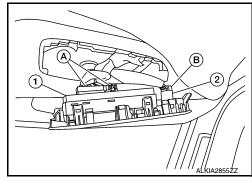
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Removal and Installation

INFOID:0000000009176171

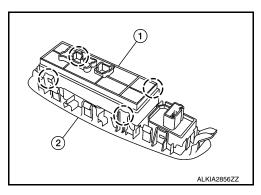
REMOVAL

- Remove the main power window and door lock/unlock switch from the front door finisher using a suitable
- Disconnect the harness connectors (A) from the main power window and door lock/unlock switch (1) and harness connector (B) from the mirror control switch (2).



3. Release the pawls, then separate the main power window and door lock/unlock switch (1) from the switch finisher (2).





INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-26, "Work Flow".

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY AUTO DOWN]

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Removal and Installation

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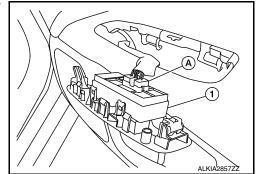
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REMOVAL

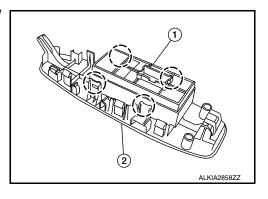
 Remove the power window and door lock/unlock switch (RH) from the front door finisher using a suitable tool.

2. Disconnect the harness connector (A) from the power window and door lock/unlock switch (RH) (1).



 Release four pawls, then separate power window and door lock/ unlock switch (RH) (1) from switch finisher (2).

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INSTALLATION

Installation is in the reverse order of removal.

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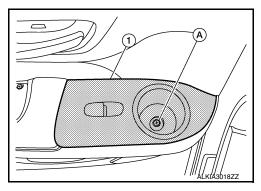
REAR POWER WINDOW SWITCH

Removal and Installation

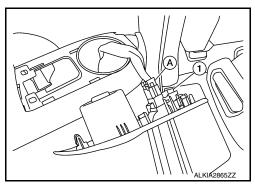
INFOID:0000000009176173

REMOVAL

- 1. Remove the rear door cup holder mat.
- 2. Remove the rear power window switch finisher screw (A) and the rear power window switch finisher (1) from the rear door finisher using a suitable tool.

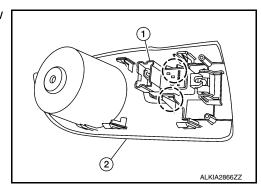


3. Disconnect the harness connector (A) from the rear power window switch (1).



4. Release the two pawls, then separate the rear power window switch (1) from the switch finisher (2).





INSTALLATION

Installation is in the reverse order of removal.

PRECAUTIONS

< PRECAUTION >

[LH & RH FRONT AUTO UP/DOWN]

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRF-TFNSIONER"

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, 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 for Work

- 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.

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PREPARATION

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[LH & RH FRONT AUTO UP/DOWN]

PREPARATION

PREPARATION

Special Service Tool

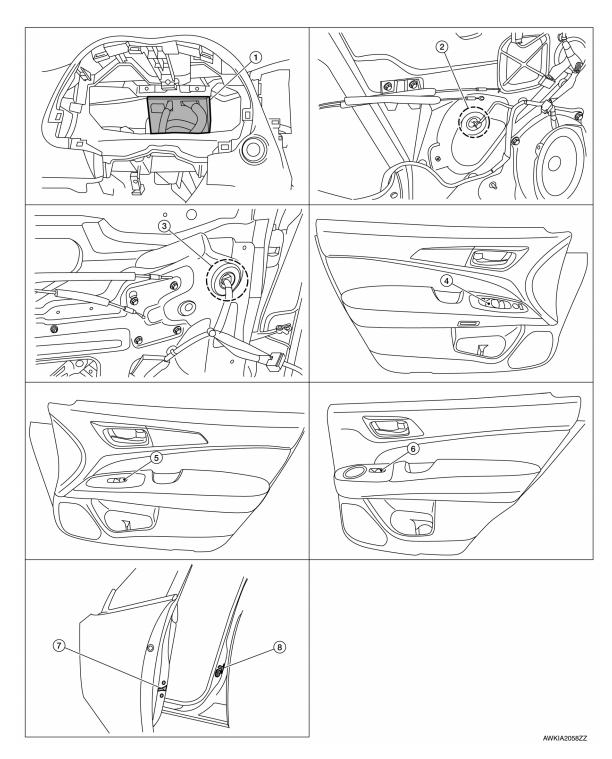
INFOID:0000000009176176

Tool number (Kent-Moore No.) Tool name		Description
 (J-46534) Trim tool set	AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location



- BCM (view with the combination meter removed)
- Front power window motor LH (RH similar) (view with front door finisher removed)
- Rear power window motor LH (RH similar) (view with rear door finisher removed)

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

- 4. Main power window and door lock/ unlock switch
- 7. Front door lock assembly LH (key cylinder switch)
- 5. Power window and door lock/unlock 6. switch RH
- Rear power window switch LH (RH similar)
- 8. Front door switch LH (RH similar)

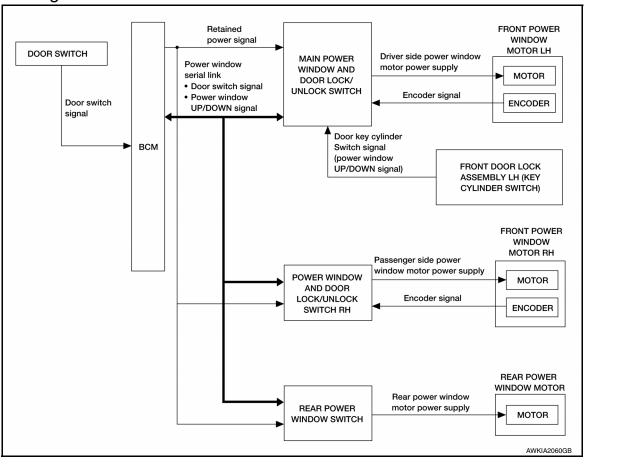
Component Description

INFOID:0000000009176178

Component	Function
BCM	Supplies power to the window switches. Controls retained power.
Main power window and door lock/unlock switch	Directly controls all power window motors.
Power window and door lock/unlock switch RH	Controls power window motor of passenger door.
Rear power window switch	 Controls anti-pinch operation of power window. Controls right and left power window motors for the rear doors.
Power window motor	 Integrates the CPU and WINDOW MOTOR. Starts operating with signals from each power window switch. Transmits power window motor rotation as a pulse signal to power window switch. Controls anti-pinch operation for all windows.
Front door lock assembly (door key cylinder switch)	Transmits operation condition of door key cylinder switch to power window main switch.
Front door switch LH/RH	Detects door open/close condition and transmits it to the BCM.

SYSTEM

System Diagram



System Description

INFOID:0000000009176180

POWER WINDOW OPERATION

- Power window system is activated by the power window switch when the ignition switch is in the ON position
 or during the retained power operation after ignition switch turns OFF.
- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- Power window lock switch can lock all power windows other than driver seat.
- All power windows open when pressing Intelligent Key unlock button for 3 seconds.
- If door glass receives resistance that is more than the specified value and the power window is in the AUTO-UP operation, power window will move in the reverse direction (Anti-Pinch Function).

POWER WINDOW AUTO-OPERATION

- AUTO-UP/DOWN operation can be performed when each power window motor turns to AUTO.
- Power window switch reads the changes of the CPU signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case of CPU malfunctioning.
- AUTO function does not operate if the CPU is malfunctioning.

POWER WINDOW SERIAL LINK

Power window main switch, front power window switch (passenger side) and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side).

- Keyless power window down signal.
- · Door switch signal.

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[LH & RH FRONT AUTO UP/DOWN]

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side).

- Front passenger side door window operation signal.
- Retained power operation signal.

RETAINED POWER OPERATION

 Retained power operation is an additional power supply function that enables power window system to operate during the 45 seconds even when ignition switch is turned OFF.

Retained Power Function Cancel Conditions

- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- When ignition switch is ON again.
- When timer time passes. (45 seconds)

POWER WINDOW LOCK FUNCTION

Ground circuit inside power window main switch shuts off when power window lock switch is ON. This inhibits power window switch operation except with the power window main switch.

ANTI-PINCH OPERATION

- Pinch foreign material in the door glass during Auto-Up operation, and it is the anti-pinch that lowers the door glass 150 mm (5.9 in) or 2 seconds when detected.
- CPU continues detecting the movement of power window motor and transmits to the power window switch
 as the CPU signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of CPU signal if foreign material is trapped in the door glass.
- Power window switch controls to lower the door glass for 150 mm (5.9 in) or 2 seconds after it detects CPU pulse signal frequency change.

Operation Condition

When all door glass AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed)

NOTE:

Depending on environment and driving conditions, if a similar impact or load is applied to the door glass, it may lower.

DOOR KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for 1 second or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, it stops when key position is moved to N (NEUTRAL) when operating.

Operation Condition

- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1 second or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to UNLOCK position for 1 second or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION

All power windows open when the unlock button on Intelligent Key is activated and pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed. The power window opening stops when the following operations are performed.

- When the unlock button is pressed for more than 15 seconds.
- When the ignition switch is turned ON while the power window opening is operated.
- · When the unlock button is released.

While retained power operation activate, keyless power window down function cannot be operated.

Fail-safe INFOID-000000009176181

FAIL-SAFE CONTROL

Window system switches to fail-safe control when a malfunction is detected in the CPU during UP and DOWN operation. Switches to fail-safe control when an error beyond the regulation value is detected between the fully closed position and the actual position of the glass.

SYSTEM

[LH & RH FRONT AUTO UP/DOWN]

Malfunction	Malfunction condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.
Glass recognition position malfunction 2	When it detects pulse count more that the value of glass full stroke during glass open/close operation.
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more that the specified value (approximately 10 strokes).

It changes to condition before initialization and the following functions do not operate when switched to failsafe control:

- Auto-up operation
- Anti-pinch function
- Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000009764034

CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF \rightarrow ON (for at least 5 seconds) \rightarrow OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and no-start condition.

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.

	Sub System	Direct Diagnostic Mode						
System		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	ВСМ	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

				Direct D	Diagnosti	c Mode		
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

RETAINED PWR

RETAINED PWR: CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000009764035

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CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF \rightarrow ON (for at least 5 seconds) \rightarrow OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and no-start condition.

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.

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Revision: May 2013 PWC-73 2014 Pathfinder

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT AUTO UP/DOWN]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000009176184

ECU	Reference
	BCS-30, "Reference Value"
BCM	BCS-50, "Fail Safe"
BCIVI	BCS-50, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

POWER WINDOW MAIN SWITCH

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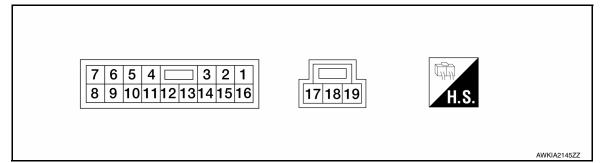
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POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Termina	al No.	Description			Voltage
+	-	Signal name	Input/ Output	Condition	Voltage (Approx.)
1 (B)	Ground	Ground	_	_	0
4 (SB)	12	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms
5 (Y)	12	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
6 (L)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
7 (V)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (LG)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage
9 (SB)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage

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Revision: May 2013 PWC-75 2014 Pathfinder

POWER WINDOW MAIN SWITCH

[LH & RH FRONT AUTO UP/DOWN]

Termina	al No.	Description			Voltage
+	-	Signal name	Input/ Output	Condition	(Approx.)
-				IGN SW ON	Battery voltage
10 (BR)	Ground	RAP signal	Input	Within 45 second after ignition switch is turned to OFF.	Battery voltage
				When front LH or RH door is opened during retained power operation.	0
11 (P)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB
12 (BR)	Ground	Encoder ground	_	_	0
14 (LG)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
17 (Y)	19	Front door power window motor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
18 (Y)		Battery power supply	Input	_	Battery voltage
19 (L)	17	Front door power window motor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage

Fail Safe

FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more than the specified value (approximately 10 strokes).

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.

· Auto-up operation

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT AUTO UP/DOWN]

•	Anti	-ninch	function

Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

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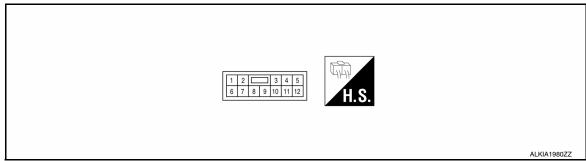
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FRONT POWER WINDOW SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Termi	nal No.	Description			Voltage
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (Y)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB
4 (LG)	Ground	Encoder ground	_	_	0
5 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10
7 (B)	Ground	Ground	_	_	0
8 (BR)	Ground	Battery power supply	Input	_	Battery voltage
9 (V)	4	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
10 (W)	4	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB

FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT AUTO UP/DOWN]

Termi	nal No.	Description			Voltage
+	-	Signal name	Input/ Output	Condition	(Approx.)
11 (L)	12	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
12 (BR)	11	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage

Fail Safe

FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more than the specified value (approximately 10 strokes).

It changes to condition before initialization and the following functions do not operate when switched to failsafe control.

- Auto-up operation
- Anti-pinch function

Revision: May 2013

Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

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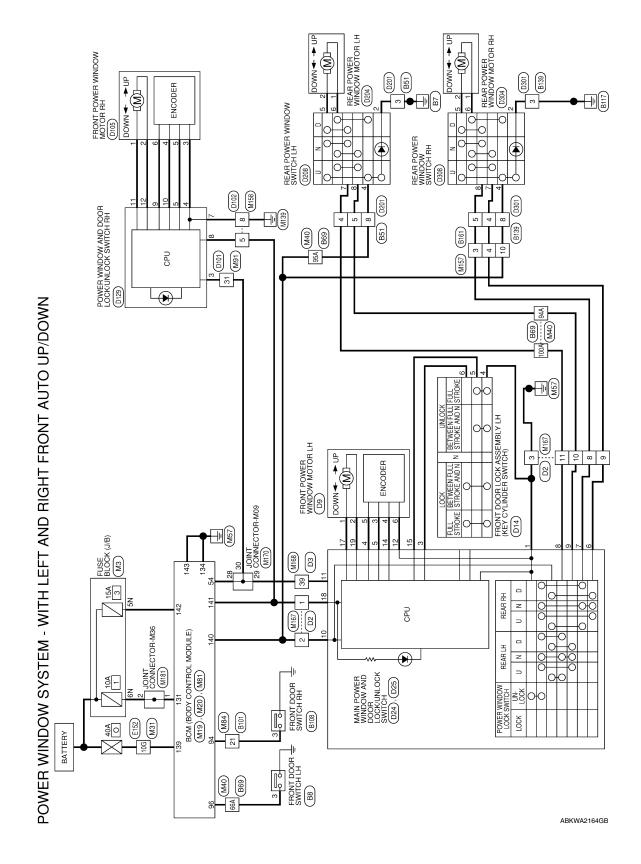
2014 Pathfinder

WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram - With Left & Right Front Auto Up/Down

INFOID:0000000009176189



			А
TROL	Vame R SW		В
MN M20 BCM (BODY CONTROL MODULE) GRAY	87 86 85 44 88 82 61 99 98 99 99 99 99 99 99 99 99 99 99 99		С
Vo. M20 M20 M20 M20 GRAY	10 10 10 10 10 10 10 10		D
CONNECTORS - WITH LEFT AND RIGHT FRONT AUTO UP/DOWN Connector Na. M19 Connector Name BCM (BODY CONTROL Connector Name BCM MODULE) Connector Color BLACK Connector Color GRACK	Terminal No. 94 96		Е
RONT A	1 62 61 1 82 61		F
RIGHT F		Signal Name	G
EFT AND M19 MODULE) BLACK	Signature Signat		Н
SS - WITH LEFT AND RIGHT Connector No. M19 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK	57 56 55 54 53 57 77 77 75 74 73 74 73 74 73 74 73 74 73 74 73 74 73 74 73 74 73 74 73 74 73 74 73 74 74	No. Color of Wire of W	I
ORS - WITH L Connector No. Connector Name Connector Color	#S. (10) (2) (2) (3)	Terminal No.	J
N ECT			PW
	Signal Name	TE TE TE TG TG TG TG TG TG TG	L
POWER WINDOW SYSTEM Connector No. M3 Connector Name FUSE BLOCK (J/B) Connector Color WHITE		M31	M
MER WINDC Connector No. N Connector Color V Connector Color N Connector Color		Connector No. Connector No. Connector No. Connector Name N Connector Color No. Connector No. Connect	Ν
Connector No. Connector Connector Color	Terminal No. 5N 6N	Connector No. Connector Name Connector Color H.S.	0
ď	l	ABKIA4749GB	Р

Connector No. M40 Connector Name WIRE TO WIRE	<u> </u>	Terminal No.	Color of Wire	Signal Name	5 0 0	Connector No.	_	(BODY CONTROL
		66A	BG	1				MODÚLE)
-		94A	SB	ı	Con	Connector Color	or WHITE	TE
		95A	BB	ı				
14 28 38 48 5A		100A	re	1			137 136 135 134 133 132 131	비율는
6A 7A 8					9	H.S.	143 145 14	190 100 100
114 24 24 254 254 254 254 254 25					Ter	Terminal No.	Color of Wire	Signal Name
314 324 334 354 364 374 384 394 404 414						131	>	BAT BCM FUSE
42A 43A 44A 45A 46A 47A 48A 49A 50A						134	В	GND 2
51A 52A 53A 54A 55A 56A 57A 58A 59A 60A 61A	<u> </u>					139	Μ	BAT POWER F/L
62A 63A 64A 65A 65A 67A 68A 69A 70A						140	BB	P/W POWER SUPPLY IGN
82A 63A 84A 85A 86A 87A 88A 89A 90A						141	>	P/W POWER SUPPLY BAT
***						142	>	BAT FRONT DOOR
91A 92A 93A 94A 95A 02A 97A 98A 99A100A						143	В	GND 1
Connector No. M84	3 3	Connector No.		MIBT TO WIDE	5 S	Connector No.		M15/
WHITE	<u> </u>	Connector Color		- III	5 5	Connector Color		TE TE
							5 4	3 2
H.S. 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 1 1 1 1 1 1 1 1	_	H.S.	2 3 4 5 6 18 19 20 21 22	7 8 9 10 11 12 13 14 23 24 25 26 27 28 29 30		H.S.	16 15 14 13	12 11 10 9 8
Terminal No. Color of Signal Name	<u> </u>	Terminal No.	Color of Wire	Signal Name	Terr	Terminal No.	Color of Wire	Signal Name
21 G -	<u> </u>	31	>	ı		е	>	1
						4	_	1
						ç	aa	1

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ρ.	PH-M36	В
Signal Name	Connector No. M181 Connector Name JOINT CONNECTOR-M36 Connector Color WHITE Terminal No. Wire Signal Name 1 W - 2 W -	С
Color of Wire SB SB LG LG	0. M181 ame JOINT (Olor of Wire Wire W	D
Terminal No. 8 9 9 11 11 11 11 11 11 11 11 11 11 11 11	Connector No. M181 Connector Name JOINT (Connector Color WHITE H.S. Terminal No. Wire 2 W	Е
		F
Signal Name	Connector No. M170 Connector Name JOINT CONNECTOR-M09 Connector Color WHITE The state of the	G
1 10 1 1141511 1 1 1 1 1	No. M170 Name JOINT CONNECTOR-M08 Color WHITE 11 10 9 8 7 6 5 4 3 2 1 22 21 20 19 18 17 16 14 13 12 33 32 31 30 29 28 27 26 25 24 23 W	Н
Connector No. M167 Connector Name WIRE T Connector Color WHITE 1 2 3	Connector No. M170 Connector Name JOINT (Connector Color WHITE This is a series of the series of	I
Connector No. Connector Cold Connector Cold A.S. Terminal No. 1 2 2 3	Connector No. Connector Nar. Connector Colc. Connector Nar. Connector No. Connector No. 28 29 29 30	J
	18 19 20 88 38 40	PW
Signal Name WITH LEFT AND IGHT FRONT TO UP/DOWN)	M168	L
8 TTE TTE ALL AL	M168 WIRE TO WIRE WHITE 8 9 10 11 12 13 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 14 15 18 18 18 18 18 18 18	M
	No. M168 Name WIRE T Color WHITE Color of Wire Wire	N
Connector No. Connector Name Connector Color H.S. Terminal No. 8 B	Connector No. Connector Name Connector Name Connector Color	0
	ABKIA4751GB	

PWC-83 Revision: May 2013 2014 Pathfinder

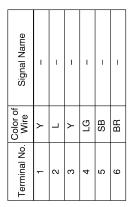
Connector No. B51 Connector Name WIRE TO WIRE Connector Color WHITE	#\$\frac{5 4 \leftrig 3 2 1}{12 11 10 9 8 7 6}\$\$ Terminal No. Wire Signal Name 3 B	5 SB 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Connector No. B8 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE	Terminal No. Wire Signal Name			
Connector No. E152 Connector Name WIRE TO WIRE Connector Color WHITE	56 4G 3G 2G 1G 10G 9G 8G 7G 6G 2TG20G19G18G17G16G15G14G13G12G11G 30G29G28G27G28G27G28G27G28G27G28G27G28G27G28G27G28G27G28G27G28G27G28G27G28G27G28G27G28G27G27G27G28G27G27G27G27G28G27G27G27G27G27G27G27G27G27G27G27G27G27G	4116400 3900 3800 3770 3800 3200 3	810600G790G780G780G780G780G780G780G780G 900G890G880G870G860G80G820G820 950G 940G 980G 970G 980G	Terminal No. Wire Signal Name

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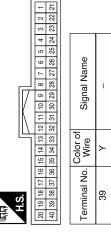
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ame	9 E	В
Connector No. B101	MIRE TO WIRE WHITE WHITE Ir of Signal Name Re Signal Name	С
No. B101 Name WIRE T Color WHITE Color of LG		D
Connector No. Connector Name Connector Color H.S. 1 2 3 4 5 6 7 17 18 19 20 21 22 22 Terminal No. Color 21 L.	Connector No. Connector Name Connector Color H.S. H.S. Terminal No. W. 3 S. 4 Y 4 Y 10 B	Е
		F
Signal Name	Name e	G
	B139 Connector Name WIRE TO WIRE	Н
Color of Wire SB SB SB SB Y	Connector No. B139	I
Terminal No. 66A 94A 95A 100A	Connector No. Connector Nam Connector Colc H.S. Terminal No. 3 4 4 4 5 5 8	J
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B69	Signal Name	L
B69 WIRE TO WIRE GRAY 5A 4a 3a 2a 1a 10a 9a 8a 77 6a 20a 19a 18a 17a 6a 30a 29a 22a 14a 30a 29a 13a 35a 35a 34a 30a 29a 59a 95a 95a 100a 99a 98a 97a 96a 100a 99a 98a 97a 96a		M
or No. B69 or Name WIR or Color GRA 21A20A 18 30A20 61A60A59 61A60A59 61A60A78 61A60A78	or No. B108 or Color of WHIT No. Wire LG	Ν
Connector No. Connector Name Connector Color H.S.	Connector Name Connector Color H.S. Terminal No. W 3 LO	0
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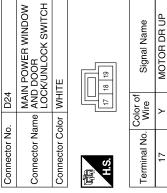








Signal Name	1	1	I	ı	1	I	1
Color of Wire	>	BR	В	>	٦	SB	LG
Terminal No.	-	2	3	8	6	10	11



FRONT DOOR LOCK ASSEMBLY LH

Connector Name

D14

Connector No.

GRAY

Connector Color

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Wire Signal Name B SB				
Wire B			1	ı
	Color of Wire	Wire	SB	BR

MOTOR DR DOWN

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POWER WINDOW SYSTEM

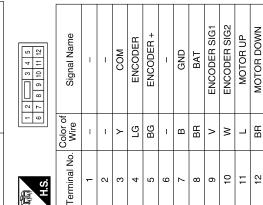
[LH & RH FRONT AUTO UP/DOWN]

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HE TO WIRE HITE 12 11 10 9 8 7 6 5 4 3 2 2 2 2 2 2 2 2 1 20 19 18	Signal Name	ı
ame WIRE Trool WHITE	Color of Wire	>
Connector No. D101 Connector Name WIRE TO WIRE Connector Color WHITE	Terminal No. Wire	31

Signal Name	ı	
Color of Wire	Y	
Terminal No. Wire	31	

D129	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT FRONT AUTO UP/DOWN)	VHITE
Connector No.	Connector Name S	Connector Color WHITE



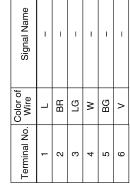
		_	_		_	_	_	_	_		_	_	
Signal Name	ENCODER SIG-2 (ULP)	ENCODER SIG-1 (DLP)	MOTOR RR DOWN	MOTOR RR UP	MOTOR RL DOWN	MOTOR RL UP	NSI	COM	ENCODER GND	ENCODER +	UNLOCK CDL	I	
Color of Wire	SB	\	_	>	ГG	SB	BR	\	BR	ГG	SB	1	
erminal No.	4	5	9	7	8	6	10	11	12	14	15	16	

	D105	FRONT POWER WINDOW MOTOR RH (WITH LEFT A RIGHT FRONT AUTO UP/DOWN)
	Connector No.	Connector Nam

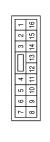
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Connector Color WHITE







6 5 4 3 2 1 9 10 11 12 13 14 15 16	Signal Name	GNĐ	_	KEY CYL LOC
8 9 8	Color of Wire	В	-	BR
H.S.	Terminal No.	1	2	3

ı	KEY CYL LOCA	12	RE TO WIRE	ITE
1	BR	D102	ne WIF	or WH
2	3	Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE





Signal Name	ı	_	
Color of Wire	BR	В	
Terminal No.	5	8	

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Connector No. D201 Connector Name WIRE T	Vo. D201	Connector No. D201 Connector Name WIRE TO WIRE	Connector No.	le le	D204 REAR POWER WINDOW MOTOR LH	Connector No. Connector Name	le le	D208 REAR POWER WINDOW SWITCH LH	
			Connector Color	-	WHITE	Connector Color	olor WHITE	Щ.	
是 H.S.	6 7	2 3 4 4 5 4 7 8 9 10 11 12	原 H.S.		27 0 7 0 4 0 1 0	opp H.S.	[8]	3 7 6 5 4	
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	
ო	В	1	-	ГG	1	-	ı	ı	
4	Α	ı	2	^	ı	2	В	ı	
5	SB	ı	က	1	I	ო	1	ı	
∞	BB	1	4	1	ı	4	BB	I	
			2	ı	ı	ß	>	1	
			9	-	ı	9	re	1	
						7	>	1	
						8	SB	1	
Connector No.	Jo. D301	_	Connector No.	No. D304	14	Connector No.	o. D308		
Connector Name WIRE T	lame WIR	Connector Name WIRE TO WIRE	Connector Name	_	REAR POWER WINDOW MOTOR RH	Connector Name		REAR POWER WINDOW SWITCH RH	
	N		Connector Color	+	WHITE	Connector Color	_	<u> </u>	
E	1	2 3 1 4 5							1
K.S.	9	8 9 10 11	H.S.		6 5 4 1	原动 H.S.		3 7 6 5 4	
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	
က	В	1	-	PI	ı	-	ı	1	
4	У	ı	2	>	ı	2	В	1	
5	SB	-	ဇ	ı	ı	3	ı	I	
8	BR	ı	4	1	ı	4	BB	1	
			2	ı	I	2	>	ı	
			9	1	ı	9	re	ı	
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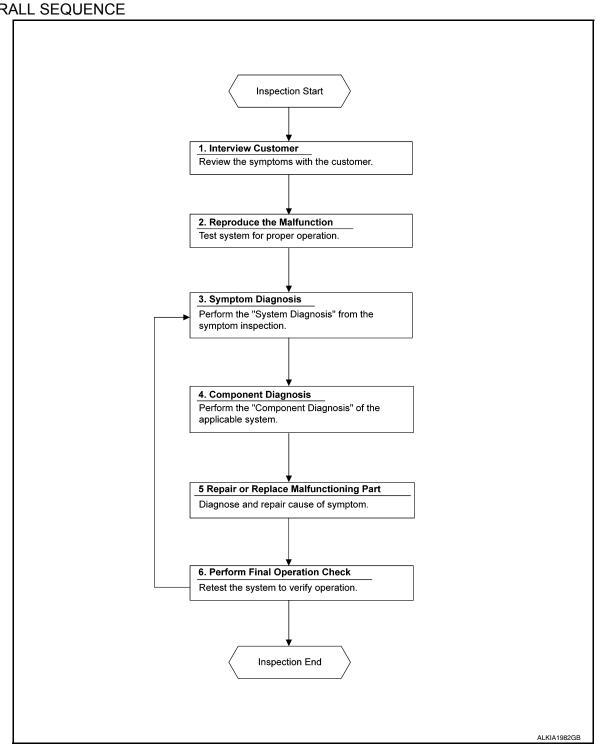
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow INFOID:0000000009176190 В

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

>> GO TO 2.

2. CONFIRM THE SYMPTOM

Check the malfunction on the vehicle that the customer describes.

Inspect the relation of the symptoms and the condition when the symptoms occur.

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

Use Symptom diagnosis from the symptom inspection result in step 2 and then identify where to start performing the diagnosis based on possible causes and symptoms.

>> GO TO 4.

4. PERFORM THE COMPONENT DIAGNOSIS OF THE OF THE APPLICABLE SYSTEM

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

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?

YES >> Inspection End.

NO >> GO TO 3.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL [LH & RH FRONT AUTO UP/DOWN]

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL

Description INFOID:0000000009176191

When the negative battery terminal is disconnected, the initialization is necessary for normal operation of power window system.

CAUTION:

The following specified operations can not be performed under the non-initialized condition.

- Auto-up operation
- Anti-pinch function

Work Procedure INFOID:0000000009176192

1. SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-93, "Work Procedure".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-94, "Work Procedure".

>> Inspection End.

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ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

Description INFOID:000000009176193

When the negative battery terminal is disconnected, the initialization is necessary for normal operation of power window system.

CAUTION:

The following specified operations can not be performed under the non-initialized condition.

- Auto-up operation
- Anti-pinch function

Work Procedure

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-93, "Work Procedure".

>> GO TO 2.

2. CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-94, "Work Procedure".

>> Inspection End.

SYSTEM INITIALIZATION

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

SYSTEM INITIALIZATION

Description INFOID:0000000009176195

If any of the following operations are performed, the initialization is necessary for normal operation of power window system.

- When control unit replaced.
- · Electric power supply to power window switch or motor is interrupted by blown fuse or disconnection and connection of the negative battery terminal.
- Removal and installation of regulator assembly.
- Power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or if the battery fuse is blown.
- Disconnection and connection of power window main switch harness connector.
- · Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of door glass.
- · Removal and installation of door glass run.

The following specified operations can not be performed under the non-initialized condition.

- Auto-up operation
- · Anti-pinch function

Work Procedure INFOID:0000000009176196

1.STEP 1

- Disconnect battery negative terminal or power main switch connector. Reconnect it after a minute or more.
- 2. Turn ignition switch ON.
- 3. Operate the power window switch to fully open the window. (This operation is not necessary if the window is already fully open).
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after the glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
- 5. Retest the AUTO-UP function operation.

>> GO TO 2.

2.STEP 2

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Check anti-pinch function. Refer to PWC-94, "Work Procedure".

>> Inspection End.

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PWC-93

CHECK ANTI-PINCH FUNCTION

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

CHECK ANTI-PINCH FUNCTION

Description INFOID:0000000009176197

If any of the following operations are performed, the initialization is necessary for normal operation of power window system.

- · When control unit is replaced.
- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnection and connection of the negative battery terminal.
- · Removal and installation of regulator assembly.
- Power supply to the power window main switch or power window motor is cut off by the removal
 of battery terminal or if the battery fuse is blown.
- · Disconnection and connection of power window main switch harness connector.
- · Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- · Removal and installation of door glass.
- · Removal and installation of door glass run.

The following specified operations can not be performed under the non-initialized condition.

- Auto-up operation
- · Anti-pinch function

Work Procedure

1. CHECK ANTI-PINCH FUNCTION

- Fully open the door window.
- · Place a piece of wood near fully closed position.
- · Close door glass completely with AUTO-UP.
- · Check the following conditions
- Check that glass lowers for approximately 150 mm (5.91 in.) without pinching piece of wood and stops.
- Check that glass does not rise not when operating the power window main switch while lowering.
 CAUTION:
 - Perform initial setting when AUTO-UP operation or anti-pinch function does not operate normally.
 - Check that AUTO-UP operates before inspection when system initialization is performed.
 - Do not check with hands and other body parts because they may be pinched. Do not get pinched.

>> Inspection End.

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

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Regarding Wiring Diagram information, refer to BCS-55, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
139	Fusible link battery power	O (40A)
131	BCM battery fuse	1 (10A)

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

$2.\,$ CHECK POWER SUPPLY CIRCUIT

- 1. Disconnect BCM connector M81.
- 2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

BO	CM	Ground	Voltage (Approx.)	
Connector	Terminal	Giodila		
M81	131		Pottony voltogo	
IVIÖ I	139	_	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

В	CM	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
M81	134		Voc	
IVIO I	143	_	Yes	

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Description

- BCM supplies power.
- It operates each power window motor via corresponding power window switch and makes window move up/ down when main power window and door lock/unlock switch is operated.

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INFOID:0000000009176200

Revision: May 2013 PWC-95 2014 Pathfinder

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

POWER WINDOW MAIN SWITCH: Component Function Check

INFOID:0000000009176201

Main Power Window And Door Lock/unlock Switch

${f 1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH FUNCTION

Check power window motor operation with main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.

NO >> Refer to PWC-96, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000009176202

Regarding Wiring Diagram information, refer to <u>PWC-80</u>. "Wiring <u>Diagram - With Left & Right Front Auto Up/</u> Down".

Main Power Window And Door Lock/unlock Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- 2. Check voltage between main power window and door lock/unlock switch connectors and ground.

	Terminal			
(+)			Voltage	
Main power window and door lock/un- lock switch connector	Terminal	(–)	(Approx.)	
D25 10		Ground	Battery voltage	
D24	18	Giodila	Dattery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM, main power window and door lock/unlock switch, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- Check continuity between BCM connector and main power window and door lock/unlock switch connectors.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M81	140	D25	10	Yes
IVIO	141	D24	18	163

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal		Continuity
M81	140	Ground	No
IVIO I	141		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connectors.

3. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/unlock switch connector D25 and ground.

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D25	1	Ground	Yes

Is the inspection result normal?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5.
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6.
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch LH) GO TO 7.
- NO >> Repair or replace the harness and connectors.

4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM.
- Turn ignition switch ON.
- 3. Check voltage between BCM connector M81 and ground.

	Terminals			
(+)		(_)	Voltage (Approx.)	
BCM connector	Terminal (-)		,	
M81	140	Ground	Pattanyvoltage	
IVIO I	141	Giouna	Battery voltage	

Is the measurement value within the specification?

- YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".
- NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

${f 5.}$ CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POWER WINDOW SWITCH LH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector D25 and ground.

	Terminal				
(+)			Window switch	Voltage	
Main power window and door lock/unlock switch connector	Terminal	(–)	position (rear LH)	(Approx.)	
	0		UP	Battery voltage	
D25	9	Craund	DOWN	0	
D25	0	Ground	UP	0	
	8		DOWN	Battery voltage	

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and <a href="Installation". After that, refer to PWC-99, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

6. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POWER WINDOW SWITCH RH)

- 1. Connect main power window and door lock/unlock switch.
- Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector D25 and ground.

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< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

٦	Terminal Terminal		Voltage	
(+)				Window switch
Main power window and door lock/unlock switch connector	Terminal	(–)	position (rear RH)	(Approx.)
	7	- Ground	UP	Battery voltage
D25			DOWN	0
D25	0		UP	0
	6		DOWN	Battery voltage

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and Installation".
- 7. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH LH)
- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector D25 and ground.

Terminal				
(+)			Window switch	Voltage
Main power window and door lock/unlock switch connector	Terminal	(–)	position (front LH)	(Approx.)
	17	- Ground	UP	Battery voltage
DOE			DOWN	0
D25	40		UP	0
	19		DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and Installation".

POWER WINDOW MAIN SWITCH: Component Inspection

INFOID:0000000009176203

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

1. Check main power window and door lock/unlock switch D25.

Terr	minal	Main power window and do	Continuity	
10	1	Rear LH	UP	
10	7	Rear RH	- Or	
8	9	Rear LH	NEUTRAL	Yes
6	7	Rear RH	NEOTIVAL	
10	8	Rear LH	DOWN	
10	6	Rear RH	DOWN	
1	12		-	

Check continuity between main power window and door lock/unlock switch D25 (power window lock switch). (Lock operation).

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

Terminal		Main power window and door lock/unlock switch condition		Continuity
9		Rear LH	UP	
7		Rear RH	UP	
8		Rear LH		
9	1	Real LH	NEUTRAL	No
7	'	Rear RH		
6		Real RH		
8		Rear LH		
6		Rear RH DOWN		

3. Check continuity between main power window and door lock/unlock switch D25 (power window lock switch). (Unlock operation).

Terr	minal	Main power window and do	Continuity	
9		Rear LH	UP	
7		Rear RH	OF OF	
8		Rear LH		-
3	1	ixeai Li i	NEUTRAL	Yes
9	1	Rear RH	NESTICLE	163
7		ixeai ixii		
8		Rear LH	DOWN	
6		Rear RH	DOWN	

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-99, "POWER WINDOW MAIN SWITCH: Requirement".

POWER WINDOW MAIN SWITCH: Special Repair Requirement

INFOID:0000000009176204

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to PWC-94, "Work Procedure".

Is the inspection result normal?

YES >> Inspection end.

BCM supplies power.

NO >> Refer to PWC-111, "DRIVER SIDE: Component Function Check".

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH: Description

• Front power window motor RH will be operated if power window and door lock/unlock switch RH is operated.

FRONT POWER WINDOW SWITCH: Component Function Check

INFOID:0000000009176206

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Power Window And Door Lock/unlock Switch RH

PWC-99 Revision: May 2013 2014 Pathfinder

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< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

1. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

Check front power window motor RH operation with power window and door lock/unlock switch RH. Is the inspection result normal?

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.

>> Refer to PWC-100, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure". NO

FRONT POWER WINDOW SWITCH: Diagnosis Procedure

INFOID:0000000009176207

Regarding Wiring Diagram information, refer to PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/ Down".

Power Window And Door Lock/unlock Switch RH Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between power window and door lock/unlock switch RH connector D129 and ground.

Ter			
(+)	(+)		
Power window and door lock/unlock switch RH connector	Ierminal		(Approx.)
D129	8	Ground	Battery voltage

Is the inspection result normal?

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

 $oldsymbol{2}.$ CHECK HARNESS CONTINUITY

- Turn ignition switch OFF. Disconnect BCM and power window and door lock/unlock switch RH.
- Check continuity between BCM connector M81 and power window and door lock/unlock switch RH connector D129.

BCM connector	Terminal	Power window and door lock/un- lock switch RH connector	Terminal	Continuity
M81	141	D129	8	Yes

Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	141	Ground	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connectors.

3. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect power window and door lock/unlock switch RH. 2.
- Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH	Terminal	Ground	Continuity
D129	7	Ground	Yes

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the harness or connectors.

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

CHECK BCM OUTPUT SIGNAL 1. Connect BCM. 2. Turn ignition switch ON. Check voltage between BCM connector M81 and ground.

	Terminals			
(+)		(-)	Voltage (Approx.)	
BCM connector	BCM connector Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M81	141	Ground	Battery voltage	

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace BCM. Refer to BCS-80, "Removal and Installation".

FRONT POWER WINDOW SWITCH: Special Repair Requirement

 $oldsymbol{1}$. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to PWC-94, "Work Procedure".

Is the inspection result normal?

YES >> Inspection end.

>> Refer to PWC-113, "PASSENGER SIDE: Component Function Check".

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH: Description

BCM supplies power.

 Rear power window motor will be operated if rear power window switch is operated. Rear power window switch.

REAR POWER WINDOW SWITCH: Component Function Check

Rear Power Window Switch

${f 1}$. CHECK REAR POWER WINDOW MOTOR FUNCTION

Check rear power window motor operation with rear power window switch.

Is the inspection result normal?

YES >> Rear power window switch power supply and ground circuit are OK.

NO >> Refer to PWC-101, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

REAR POWER WINDOW SWITCH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/ Down".

Rear Power Window Switch Power Supply Circuit Check

 ${f 1}$. CHECK POWER SUPPLY CIRCUIT

Check voltage between rear power window switch connector and ground.

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< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

	Terminal					
	(+) Rear power window switch connector Terminal			Condition	Voltage	
			Terminal (–)		(Approx.)	
LH	D208	4	Ground	Ignition switch ON	Rattery voltage	
RH	D308	4	Giound	Ignition switch ON	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2 (Rear power window switch LH).

YES >> GO TO 3 (Rear power window switch RH).

NO >> GO TO 4.

${f 2}.$ CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and rear power window switch LH.
- Check continuity between main power window and door lock/unlock switch connector D25 and rear power window switch LH connector D208.

Main power window and door lock/ unlock switch connector	Terminal	Rear power window switch LH connector	Terminal	Continuity
D25	8	D208	7	Yes
D23	9	D200	8	105

4. Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D25	8	Ground	No
D23	9		INO

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

${f 3.}$ CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

- Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and rear power window switch RH.
- Check continuity between main power window and door lock/unlock switch connector D25 and rear power window switch RH connector D308.

Main power window and door lock/ unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity
D25	6	D308	7	Yes
	7		8	163

4. Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D25	6	Ground	No
	7		INO

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

4. CHECK HARNESS CONTINUITY

- 1. Disconnect BCM and rear power window switch.
- 2. Check continuity between BCM connector and rear power window switch connector.

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

BCM connector	Terminal	Rear power windo	ow switch connector	Terminal	Continuity
M81	140	LH	D208	4	Yes
WOT	140	RH	D308		res

3. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	140	Giodila	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace the harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-103, "REAR POWER WINDOW SWITCH: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace rear power window switch. Refer to PWC-139, "Removal and Installation".

REAR POWER WINDOW SWITCH: Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH D208.

Terr	minal	Power window switch condition	Continuity
4	5	UP	
8	6	OF.	
8	6	NEUTRAL	Yes
7	5	NEOTIVAL	165
4	6	DOWN	
5	7	BOWN	

Is the inspection result normal?

YES >> Rear power window switch LH is OK.

NO >> Replace rear power window switch. Refer to PWC-139, "Removal and Installation".

2.CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH D308.

Term	ninal	Power window switch condition	Continuity
4	5	UP	
8	6	Or .	
8	6	NEUTRAL	Yes
7	5	NEOTIME	163
4	6	DOWN	
5	7	DOWN	

Is the inspection result normal?

YES >> Rear power window switch RH is OK.

NO >> Replace rear power window switch. Refer to PWC-139, "Removal and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

DRIVER SIDE

DRIVER SIDE: Description

POWER WINDOW MOTOR

INFOID:0000000009176213

[LH & RH FRONT AUTO UP/DOWN]

Door glass moves UP/DOWN by receiving the signal from power window main switch.

DRIVER SIDE: Component Function Check

INFOID:0000000009176214

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check front power window motor LH operation with operating main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Refer to PWC-104, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000009176215

Regarding Wiring Diagram information, refer to <u>PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/</u> Down".

Front Power Window Motor LH Circuit Check

${f 1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

- 1. Disconnect front power window motor LH.
- 2. Turn ignition switch ON.
- 3. Check voltage between front power window motor LH connector D9 and ground.

Terminal					
(+)			Main power window and door	Voltage	
Power window motor LH connector	Terminal	(–)	lock/unlock switch condition	(Approx.)	
	1		UP	Battery voltage	
D9			DOWN	0	
Da	2	Ground	UP	0	
	2		DOWN	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

$oldsymbol{2}$. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and front power window motor LH.
- Check continuity between main power window and door lock/unlock switch connector D24 and front power window motor connector LH D9.

Main power window and door lock/ unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D24	17	D9	1	Yes
D24	19	. D9	2	165

^{4.} Check continuity between main power window and door lock/unlock switch connector D24 and ground.

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

Main power window and door lock/unlock switch connected	or Terminal		Continuity
D24	17	Ground	No
	19		140
ls the inspection result normal?			
YES >> Replace main power window and o			<u>-137, "Removal and</u>
NO >> Repair or replace the harness or cor		<u>iie</u> .	
3. CHECK POWER WINDOW MOTOR			
Check front power window motor LH.			
Refer to PWC-105, "DRIVER SIDE : Component	Inspection".		
Is the inspection result normal?			
YES >> Check intermittent incident. Refer to			" After that refer to
NO >> Replace power window motor LH. R PWC-93, "Work Procedure".	eter to <u>GW-14. Re</u>	<u>movai and installatior</u>	L. After that, refer to
DRIVER SIDE : Component Inspection	n		
BINIVER SIDE : Component inspection	11		INFOID:0000000009176216
COMPONENT INSPECTION			
1. CHECK FRONT POWER WINDOW MOTOR	LH		
Check motor operation by connecting the battery	voltage directly to	power window motor	 D9.
	- voltage all early to		
Terminal		Motor condi	tion
(+)			
2 1		DOWN	
1 2		UP	
Is the inspection result normal?			
YES >> Front power window motor LH is OK NO >> Replace front power window motor		4. "Removal and Ins	tallation". After that
refer to PWC-93, "Work Procedure".		in, indinoval and me	. , ator triat
DRIVER SIDE : Special Repair Requir	rement		INFOID:000000000917621
1. PERFORM INITIALIZATION PROCEDURE			
Perform initialization procedure.			
Refer to PWC-93, "Work Procedure".			
Is the inspection result normal? YES >> GO TO 2			
NO >> Check intermittent incident. Refer to	GI-49, "Intermittent	Incident".	
2. CHECK ANTI-PINCH OPERATION			
Check anti-pinch operation.			
Refer to PWC-94, "Work Procedure".			
Is the inspection result normal?			
YES >> Inspection End.	0		
NO >> Refer to <u>PWC-111, "DRIVER SIDE :</u> PASSENGER SIDE	Component Function	on Check".	
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PASSENGER SIDE : Description			INFOID:000000000917621

Revision: May 2013 PWC-105 2014 Pathfinder

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or

power window and door lock/unlock switch RH.

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

PASSENGER SIDE: Component Function Check

INFOID:0000000009176219

${f 1}$. CHECK POWER WINDOW MOTOR CIRCUIT

Check power window motor operation with operating main power window and door lock/unlock switch or power window and door lock/unlock switch RH.

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Refer to PWC-106, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000009176220

Regarding Wiring Diagram information, refer to PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Front Power Window Motor RH Circuit Check

1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor RH.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor RH connector D105 and ground.

Terminal				
(+) Front power window motor RH connector Terminal		(-)	Front power window mo- tor RH condition	Voltage (Approx.)
		(-)		(FF - 7
	1		UP	Battery voltage
D105		Ground	DOWN	0
D103	2	Giodila	UP	0
	2		DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH.
- Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/un- lock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	11	D105	1	Yes
	12	5100	2	163

4. Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH connector	Terminal		Continuity	
D129	11	Ground	No	
	12			

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-138</u>, "Removal and Installation". After that, refer to <u>PWC-93</u>, "Work Procedure".
- NO >> Repair or replace harness or connectors.

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

$\overline{3}$. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to PWC-107, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

NO

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

>> Replace front power window motor RH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-94, "Work Procedure".

PASSENGER SIDE : Component Inspection

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COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to front power window motor RH D105.

Terminal		Motor condition	
(+)	(-)	- Wold Condition	
1	2	UP	
2	1	DOWN	

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Replace front power window motor RH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-93, "Work Procedure".

PASSENGER SIDE: Special Repair Requirement

INFOID:0000000009176222

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to PWC-94, "Work Procedure".

Is the inspection result normal?

YES >> Inspection End.

>> Refer to PWC-113, "PASSENGER SIDE: Component Function Check". NO

REAR LH

REAR LH: Description

Door glass moves UP/DOWN by receiving the signal from power window main switch or rear power window switch LH.

REAR LH: Component Function Check

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

Check rear power window motor LH operation with main power window and door lock/unlock switch or rear power window switch LH.

PWC-107

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to PWC-108, "REAR LH: Diagnosis Procedure" **PWC**

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< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

REAR LH: Diagnosis Procedure

INFOID:0000000009176225

Regarding Wiring Diagram information, refer to <u>PWC-80</u>, "Wiring Diagram - With Left & Right Front Auto Up/ <u>Down"</u>.

Power Window Motor Circuit Check

1. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window motor LH connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between rear power window motor LH connector D204 and ground.

Terminal				.,,,	
(+)		()	Window condition	Voltage (Approx.)	
Rear power window motor LH connector	Terminal	(–)		() ,	
D204	2		UP	Battery voltage	
	2	Ground	DOWN	0	
	1	Ground	UP	0	
			DOWN	Battery voltage	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect rear power window switch LH.
- Check continuity between rear power window switch LH connector D208 and rear power window motor LH connector D204.

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D208	5	D204	2	Yes
D200	6		1	

4. Check continuity between rear power window switch LH connector D208 and ground.

Rear power window switch LH connector	Terminal		Continuity	
D208	5	Ground	No	
	6		110	

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to PWC-103, "REAR POWER WINDOW SWITCH: Component Inspection".

NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-108, "REAR LH: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace rear power window motor LH. Refer to GW-19, "Removal and Installation".

REAR LH: Component Inspection

INFOID:0000000009176226

COMPONENT INSPECTION

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

1. CHECK REAR POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to rear power window motor LH D204.

Terminal		Motor condition	
(+)	(–)	- Wolor Condition	
1	2	DOWN	
2	1	UP	

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

>> Replace rear power window motor LH. Refer to GW-19, "Removal and Installation". NO

REAR RH

REAR RH: Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or rear power window switch RH.

REAR RH: Component Function Check

${f 1}$. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

Check rear power window motor RH operation with operating main power window and door lock/unlock switch or rear power window switch RH.

Is the inspection result normal?

>> Rear power window motor RH is OK. YES

>> Refer to PWC-109, "REAR RH: Diagnosis Procedure".

REAR RH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/ Down".

Rear Power Window Motor RH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect rear power window motor RH.
- Turn ignition switch ON.
- Check voltage between rear power window motor RH connector D304 and ground.

Terminal					
(+) Rear power window motor RH connector Terminal		()	Rear power window switch RH condition	Voltage (Approx.)	
		(-)			
	2		UP	Battery voltage	
D304	2	Ground	DOWN	0	
D304	1	Ground	UP	0	
	ı		DOWN	Battery voltage	

Is the measurement value within the specification?

>> GO TO 3. YES

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect rear power window switch RH.

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

Check continuity between rear power window switch RH connector D308 and rear power window motor RH connector D304.

Rear power window switch RH connector	Terminal	Rear power window motor RH con- nector	Terminal	Continuity
D308	5	D304	2	Yes
	6	5304	1	163

4. Check continuity between rear power window switch RH connector D308 and ground.

Rear power window switch RH connector	Terminal		Continuity
D308	5	Ground	No
	6		INO

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to PWC-103, "REAR POWER WINDOW SWITCH: Component Inspection".

NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-110, "REAR RH: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace rear power window motor RH. Refer to <u>GW-19</u>, "Removal and Installation".

REAR RH: Component Inspection

INFOID:0000000009176230

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to rear power window motor RH D304.

Terminal		Motor condition	
(+)	(–)	iviolor condition	
1	2	DOWN	
2	1	UP	

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Replace rear power window motor RH. Refer to <u>GW-19</u>, "Removal and Installation".

[LH & RH FRONT AUTO UP/DOWN]

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DRIVER SIDE

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DRIVER SIDE : Description

Detects condition of the front power window motor LH operation and transmits to main power window and door lock/unlock switch as pulse signal.

DRIVER SIDE : Component Function Check

INFOID:0000000009176232

1. CHECK ENCODER OPERATION

Check front door glass LH perform AUTO open/close operation normally when operating main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to PWC-111, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000009176233

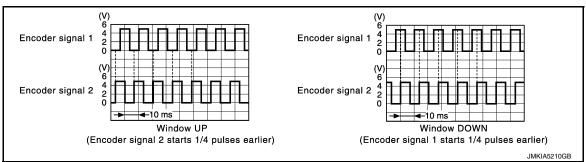
Regarding Wiring Diagram information, refer to <u>PWC-80</u>, "Wiring <u>Diagram - With Left & Right Front Auto Up/Down"</u>.

Encoder Circuit Check

1. CHECK ENCODER OPERATION

- 1. Turn ignition switch ON.
- Check signal between main power window and door lock/unlock switch connector D25 and ground with oscilloscope.

	Terminals				
Signal name	(+)			Signal	
	Main power window and door lock/unlock switch connector	Terminal	(–)	(Reference value)	
Encoder signal 1	D25	5	Ground	Refer to following signal	
Encoder signal 2	523	4	Ground	Trefer to following signal	



Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 2.

$oldsymbol{2}.$ CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

- Turn ignition switch ON.
- Check voltage between front power window motor LH connector D9 and ground.

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[LH & RH FRONT AUTO UP/DOWN]

(+)			Voltage (Approx.)
Front power window motor LH connector	Terminal	(–)	(Approx.)
D9	4	Ground	10

Is the measurement value within the specification?

YES >> GO TO 4.

NO >> GO TO 3.

$oldsymbol{3}.$ CHECK HARNESS CONTINUITY 1

- Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
- 3. Check continuity between main power window and door lock/unlock switch connector D25 and front power window motor LH connector D9.

Main power window and door lock/ unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D25	14	D9	4	Yes

Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D25	14	Ground	No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and <a href="Installation". After that, refer to PWC-93, "Work Procedure".

NO >> Repair or replace the harness or connectors.

4. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect front power window motor LH.
- 3. Check continuity between front power window motor LH connector D9 and ground.

Front power window motor LH connector	Terminal	Ground	Continuity
D9	6	Glouliu	Yes

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

- 1. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/unlock switch connector D25 and front power window motor LH connector D9.

Main power window and door lock/un- lock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D25	12	D9	6	Yes

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and <a href="Installation". After that, refer to PWC-93, "Work Procedure".

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

1. Disconnect main power window and door lock/unlock switch.

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< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

Check continuity between main power window and door lock/unlock switch connector D25 and front power window motor LH connector D9.

Main power window and door lock/un- lock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D25	5	D9	3	Yes
	4	Ъ	5	163

Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D25	5	Ground	No
D25	4		INO

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-93, "Work Procedure"

NO >> Repair or replace the harness or connectors.

PASSENGER SIDE

PASSENGER SIDE : Description

Detects condition of the front power window motor RH operation and transmits to power window and door lock/unlock switch RH as pulse signal.

PASSENGER SIDE: Component Function Check

CHECK ENCODER OPERATION

Check front door glass RH perform AUTO open/close operation normally when operating power window and door lock/unlock switch RH.

Is the inspection result normal?

YES >> Encoder operation is OK.

>> Refer to PWC-113, "PASSENGER SIDE: Diagnosis Procedure". NO

PASSENGER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/ Down".

1. CHECK ENCODER SIGNAL

- Connect front power window motor RH.
- Turn ignition switch ON.

Check signal between power window and door lock/unlock switch RH connector D129 and ground with oscilloscope.

	Terminal			
Signal name	(+)		Signal (Reference value)	
Tig. a	Power window and door lock/unlock switch RH connector	Terminal (-)		
Encoder signal 1	D129	9	Ground	Refer to following signal
Encoder signal 2	DIZA	10	Giouna	There to following signal

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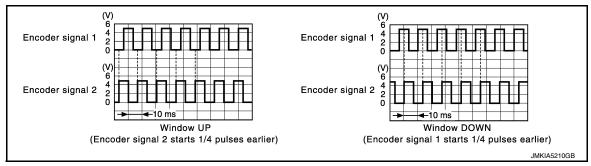
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PWC-113 Revision: May 2013 2014 Pathfinder



Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR RH POWER SUPPLY

Turn ignition switch ON.

2. Check voltage between front power window motor RH connector D105 and ground.

	V 11			
(+)	Voltage (Approx.)			
Front power window motor RH connector	Terminal	Terminal (-)		
D105	5	Ground	10	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK HARNESS CONTINUITY 1

- Turn ignition switch OFF.
- Disconnect power window and door lock/unlock switch RH and front power window motor RH.
- 3. Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	5	D105	5	Yes

Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D129	5	Ground	No

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-93, "Work Procedure".

NO >> Repair or replace the harness or connectors.

4. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor RH.
- 3. Check continuity between front power window motor RH connector D105 and ground.

Front power window motor RH connector	Terminal	Ground	Continuity
D105	3	Ground	Yes

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

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< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

5. CHECK HARNESS CONTINUITY 2

1. Disconnect power window and door lock/unlock switch RH.

Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	4	D105	3	Yes

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-138, "Removal and Installation". After that, refer to PWC-93, "Work Procedure".

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

Disconnect power window and door lock/unlock switch RH.

Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	9	D105	6	Yes
D129	10	D 103	4	165

3. Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH connector	Terminal		Continuity
D129	9	Ground	No
	10	_	No

Is the inspection result normal?

YES >> Replace front power window motor RH. Refer to <u>GW-14, "Removal and Installation"</u>. After that, refer to <u>PWC-93, "Work Procedure"</u>.

NO >> Repair or replace the harness or connectors.

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Revision: May 2013 PWC-115 2014 Pathfinder

DOOR SWITCH

Component Function Check

INFOID:0000000009781493

1. CHECK FUNCTION

- 1. Select DOOR LOCK of BCM using CONSULT.
- Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL, DOOR SW-RR, in DATA MONITOR mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Cor	Status	
DOOR SW-DR	Driver side door	Open	On
DOOK SW-DK	Driver side door	Closed	Off
DOOR SW-AS	Passenger side door	Open	On
DOOR SW-AS		Closed	Off
DOOR SW-RL	Rear door LH	Open	On
DOOR SW-RL		Closed	Off
DOOR SW-RR	Rear door RH	Open	On
		Closed	Off

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to PWC-116, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000009781494

Regarding Wiring Diagram information, refer to <u>DLK-74, "Wiring Diagram"</u>.

1. CHECK DOOR SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect malfunctioning door switch connector.
- 3. Check signal between malfunctioning door switch harness connector and ground using oscilloscope.

	(+)			2: .	
	Door switch		(-)	Signal (Reference value)	
Conne	Connector Terminal			(**************************************	
Driver side	B8				
Passenger side	B108				(V) 15
Rear LH	B18			10 5	
Rear RH	B116	3	Ground	0 + 10ms PKIB4960J 7.0 - 8.0 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between door switch harness connector and BCM harness connector.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

	Door switch		В	CM	Continuity
Connector		Terminal	Connector	Terminal	Continuity
Driver side	B8			96	
Passenger side	B108	3	M20	94	Voo
Rear LH	B18		IVIZU	82	Yes
Rear RH	B116			93	

3. Check continuity between door switch harness connector and ground.

	Door switch		Continuity	
Con	nector	Terminal		Continuity
Driver side	B8		Ground	
Passenger side	B108	2	Cround	No
Rear LH	B18	3		INO
Rear RH	B116			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-80, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK DOOR SWITCH

Refer to PWC-117, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to <u>DLK-313, "Removal and Installation"</u>.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-49, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK DOOR SWITCH

- Turn ignition switch OFF.
 Disconnect malfunctioning door switch connector.
- 3. Check continuity between door switch terminals.

	Door switch	Con	Continuity		
Terminal		Condition		Continuity	
3	Ground contact is part of the	Door switch	Pressed	No	
3	switch.	DOOI SWITCH	Released	Yes	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunction door switch. Refer to <u>DLK-313, "Removal and Installation"</u>.

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POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

POWER WINDOW LOCK SWITCH

Description INFOID:000000009176240

Ground circuit of main power window and door lock/unlock switch shuts off if power window lock switch of main power window and door lock/unlock switch is operated. This inhibits all operation, except for the main switch.

Component Function Check

INFOID:0000000009176241

1. CHECK POWER WINDOW LOCK SIGNAL

Exchange for a normal main power window and door lock/unlock switch, and check operation.

Does power window lock operate?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-118, "Special Repair Requirement".

NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:0000000009176242

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-91, "Work Procedure".

Is the inspection result normal?

YES >> Inspection end.

NO >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

POWER WINDOW SERIAL LINK POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Description

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Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH

Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH

- Front door window RH operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

POWER WINDOW MAIN SWITCH: Component Function Check

INFOID:0000000009176244

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to BCS-15, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

Monitor item	Con	ndition
CDL LOCK SW	LOCK	: ON
CDE LOCK SW	UNLOCK	: OFF
CDL UNLOCK SW	LOCK	: OFF
CDE UNLOCK SW	UNLOCK	: ON

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-119, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000009176245

Regarding Wiring Diagram information, refer to <u>PWC-80</u>, "Wiring <u>Diagram - With Left & Right Front Auto Up/Down"</u>.

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Power Window Serial Link Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Remove Intelligent Key, and close front door LH and RH.
- 2. Check signal between BCM connector and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".
- 3. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".

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	Terminal		0
(+)		(–)	Signal (Reference value)
BCM connector	BCM connector Terminal		,
M81	54	Ground	(V) 15 10 5 0 HIM 1297E

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and main power window and door lock/unlock switch.
- 3. Check continuity between BCM connector M81 and main power window and door lock/unlock switch connector D25.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M81	54	D25	11	Yes

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	54	Ground	No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-93, "Work Procedure".

NO >> Repair or replace harness or connectors.

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH: Description

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH

Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH

- Front door window RH operation signal
- · Power window control by key cylinder switch signal
- Retained power operation signal
- Power window lock switch signal

FRONT POWER WINDOW SWITCH: Component Function Check

INFOID:0000000009176247

INFOID:0000000009176246

${f 1}$. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH OUTPUT SIGNAL

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to <u>BCS-15</u>, "DOOR LOCK: <u>CONSULT Function</u> (<u>BCM - DOOR LOCK</u>)".

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

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INFOID:0000000009176248

Monitor item		Condition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SVV	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-121, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure".

FRONT POWER WINDOW SWITCH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>PWC-80</u>, "Wiring Diagram - With Left & Right Front Auto <u>Up/Down"</u>.

Power Window Serial Link Check

1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

- 1. Remove Intelligent Key, and close the front door LH and RH.
- 2. Check signal between BCM connector and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".
- 3. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".

	Terminal	0	
(+)		(–)	Signal (Reference value)
BCM connector	BCM connector Terminal		(**************************************
M81	54	Ground	(V) 15 10 5 10 ms PIIA1297E

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM.
- Check continuity between BCM connector M81 and power window and door lock/unlock switch RH connector D129.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M81	54	D129	3	Yes

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	M81 54		No

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-137, "Removal and <a href="Installation". After that, refer to PWC-93, "Work Procedure".

NO >> Repair or replace the harness or connectors.

POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH [LH & RH FRONT AUTO UP/DOWN] < SYMPTOM DIAGNOSIS > SYMPTOM DIAGNOSIS POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN **SWITCH** Diagnosis Procedure INFOID:0000000009176249 $oldsymbol{1}$. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT Check BCM power supply and ground circuit. Refer to BCS-74, "Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH Check main power window and door lock/unlock switch. Refer to PWC-98, "POWER WINDOW MAIN SWITCH: Component Inspection". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. $oldsymbol{3}.$ check main power window and door lock/unlock switch power supply and GROUND CIRCUIT

Check power window switch main power supply and ground circuit.

Refer to PWC-96, "POWER WINDOW MAIN SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH SERIAL CIRCUIT

Check main power window and door lock/unlock switch serial circuit.

Refer to PWC-119, "POWER WINDOW MAIN SWITCH: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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Revision: May 2013 PWC-123 2014 Pathfinder

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000009176250

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to PWC-104, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPER-ATE

Diagnosis Procedure

1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Check power window and door lock/unlock switch RH.

Refer to PWC-99, "FRONT POWER WINDOW SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

$oldsymbol{2}.$ CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK CIRCUIT

Check power window and door lock/unlock switch RH serial link circuit.

Refer to PWC-120, "FRONT POWER WINDOW SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

${f 3}.$ CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.

Refer to PWC-106, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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Revision: May 2013 PWC-125 2014 Pathfinder

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000009176252

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to PWC-101, "REAR POWER WINDOW SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-107, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Diagnosis Procedure

[LH & RH FRONT AUTO UP/DOWN]

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

1. CHECK REAR POWER WINDOW SWITCH RH

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Check rear power window switch RH.

Refer to PWC-101, "REAR POWER WINDOW SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-109, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:0000000009176254

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR WINDOW SLIDING PART

- · A foreign material adheres to window glass or glass run rubber.
- · Glass run rubber wear or deformation.
- · Sash is tilted too much or not enough.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

$3.\,$ CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to PWC-111, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE) [LH & RH FRONT AUTO UP/DOWN]

< SYMPTOM DIAGNOSIS >

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)

Diagnosis Procedure INFOID:0000000009176255

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Is the inspection result normal?

Refer to PWC-93, "Work Procedure".

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR WINDOW SLIDING PART

· A foreign material adheres to window glass or glass run rubber.

- · Glass run rubber wear or deformation.
- Sash is tilted too much or not enough.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to PWC-113, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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PWC-129 Revision: May 2013 2014 Pathfinder

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (DRIVER SIDE)

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:0000000009176256

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to PWC-111, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (PASSENGER SIDE)

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

AUTO	OPERAT	ION	DOES	NOT	OPERATE	BUT	MANUAL	OPERATES
NORM	ALLY (PAS	SSE	NGER S	SIDE)				

Diagnosis Procedure

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to PWC-113, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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Revision: May 2013 PWC-131 2014 Pathfinder

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000009176258

1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to DLK-170, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

ILH & RH FRONT AUTO LIP/DOWNI

< SYMPTOM DIAGNOSIS >	[LH & RH FRONT AUTO UP/DOWN]
DOOR KEY CYLINDER SWITCH DOES I	NOT OPERATE POWER WIN-
Diagnosis Procedure	INFOID:000000009176259
1.PERFORM INITIALIZATION PROCEDURE	
Initialization procedure is performed and operation is confirmed. Refer to PWC-93 , "Work Procedure". Is the inspection result normal?	С
YES >> Inspection End. NO >> GO TO 2.	D OW NIDER OWITOUR
2.CHECK FRONT DOOR LOCK ASSEMBLY LH (DOOR KEY Check front door lock assembly LH (door key cylinder switch). Refer to <u>DLK-191</u> , "Component Function Check".	CYLINDER SWITCH) E
Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F
3.CONFIRM THE OPERATION	G
Confirm the operation again. Is the inspection result normal?	
YES >> Check intermittent incident. Refer to GI-49, "Intermit NO >> GO TO 1.	ttent Incident".
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KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000009176260

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to DLK-203, "Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-49, "Intermittent Incident".

NO >> Replace BCM. Refer to <u>BCS-80. "Removal and Installation"</u>.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure 1. REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

INFOID:0000000009176261

Replace main power window and door lock/unlock switch.

Refer to PWC-137, "Removal and Installation". After that, PWC-93, "Work Procedure".

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POWER WINDOW SWITCH DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

POWER WINDOW SWITCH DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000009176262

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

Refer to PWC-137, "Removal and Installation".

>> Inspection End.

PASSENGER SIDE

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000009176263

1. REPLACE POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Replace power window and door lock/unlock switch RH.

Refer to PWC-138, "Removal and Installation".

>> Inspection End.

REAR LH

REAR LH: Diagnosis Procedure

INFOID:0000000009176264

1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to PWC-139, "Removal and Installation".

>> Inspection End.

REAR RH

REAR RH: Diagnosis Procedure

INFOID:0000000009176265

1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to PWC-139, "Removal and Installation".

>> Inspection End.

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH [LH & RH FRONT AUTO UP/DOWN]

< REMOVAL AND INSTALLATION >

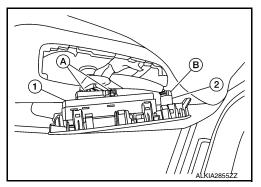
REMOVAL AND INSTALLATION

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

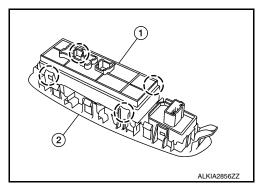
Removal and Installation

REMOVAL

- Remove the main power window and door lock/unlock switch from the front door finisher using a suitable tool.
- Disconnect the harness connectors (A) from the main power window and door lock/unlock switch (1) and harness connector (B) from the mirror control switch (2).



3. Release the pawls, then separate the main power window and door lock/unlock switch (1) from the switch finisher (2). (): Pawl



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-89, "Work Flow".

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PWC-137 Revision: May 2013 2014 Pathfinder

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT AUTO UP/DOWN]

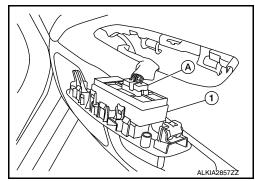
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Removal and Installation

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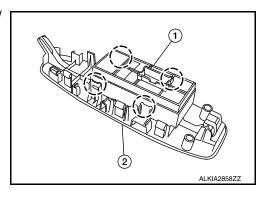
REMOVAL

- Remove the power window and door lock/unlock switch (RH) from the front door finisher using a suitable tool.
- 2. Disconnect the harness connector (A) from the power window and door lock/unlock switch (RH) (1).



3. Release four pawls, then separate power window and door lock/ unlock switch (RH) (1) from switch finisher (2).

(): Pawl



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the power window and door lock/unlock switch (RH) is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-89, "Work Flow".

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT AUTO UP/DOWN]

REAR POWER WINDOW SWITCH

Removal and Installation

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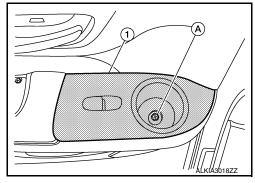
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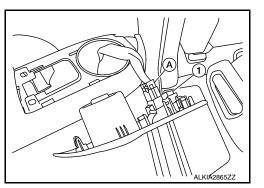
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REMOVAL

- 1. Remove the rear door cup holder mat.
- 2. Remove the rear power window switch finisher screw (A) and the rear power window switch finisher (1) from the rear door finisher using a suitable tool.

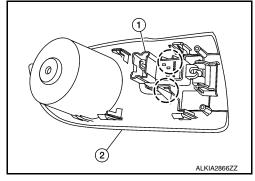


3. Disconnect the harness connector (A) from the rear power window switch (1).



4. Release the two pawls, then separate the rear power window switch (1) from the switch finisher (2).





INSTALLATION

Installation is in the reverse order of removal.

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