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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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
  ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with
  a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing
  serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

### Precautions for Removing Battery Terminal

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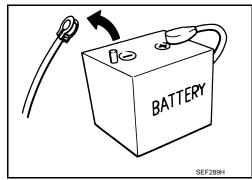
 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

#### NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
 NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.



After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

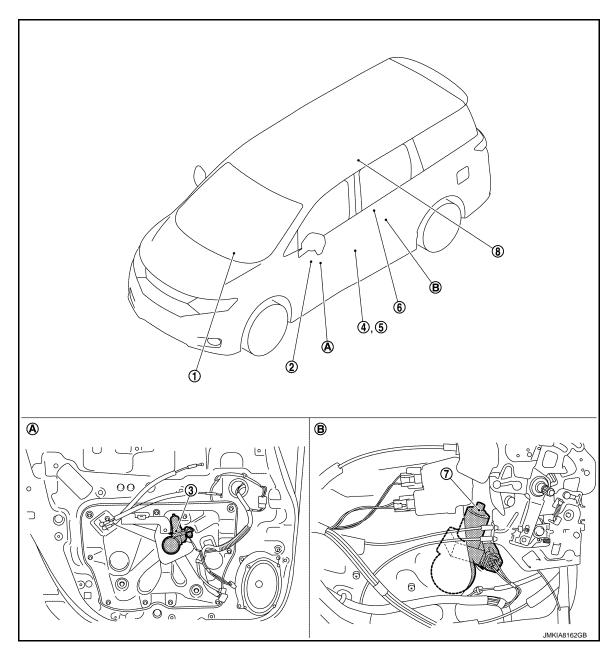
The removal of 12V battery may cause a DTC detection error.

## SYSTEM DESCRIPTION

### **COMPONENT PARTS**

Component Parts Location

INFOID:0000000011325959



View with front door finisher removed B. View with sliding door finisher removed

No.	Component	Function	
1.	всм	Supplies power supply to power window switch.     Controls retained power.     Receives key ID signal from remote keyless entry receiver.     Refer to BCS-4. "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.	
2.	Power window main switch	Refer to PWC-8, "Power Window Main Switch".	
3.	Front power window motor (driver side)	Refer to PWC-8, "Front Power Window Motor (Driver Side)".	

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#### **COMPONENT PARTS**

#### < SYSTEM DESCRIPTION >

#### [FRONT WINDOW ANTI-PINCH]

No.	Component	Function
4.	Front door switch (driver side)	Detects door open/close condition and transmits to BCM. Refer to <u>DLK-28</u> , <u>"Front Door Switch"</u> .
5.	Front door lock assembly (driver side) (key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch. Refer to DLK-28, "Front Door Lock Assembly (Driver Side)".
6.	Sliding door power window switch LH	Refer to PWC-8, "Sliding Door Power Window Switch".
7.	Sliding door power window motor LH	Refer to PWC-8, "Sliding Door Power Window Motor".
8.	Remote keyless entry receiver	Receives key ID signal from the Intelligent Key, and then transmits to BCM. Refer to <u>DLK-18</u> , " <u>DOOR LOCK SYSTEM</u> : Component Parts Location" for detailed installation location.

#### Power Window Main Switch

INFOID:0000000011325960

- Directly controls all power window motor of all doors.
- Controls anti-pinch operation of power window.

### Front Power Window Motor (Driver Side)

INFOID:0000000011325961

- Integrates the encoder and power window motor.
- Operates with signals from power window main switch.
- Transmits front power window motor (driver side) rotation as a pulse signal to power window main switch.

### Sliding Door Power Window Switch

INFOID:0000000011325962

Controls power window motor of sliding door.

### Sliding Door Power Window Motor

INFOID:0000000011325963

Operates with signals from power window main switch and sliding door power window switch.

#### SYSTEM

### System Description

#### INFOID:0000000011325964

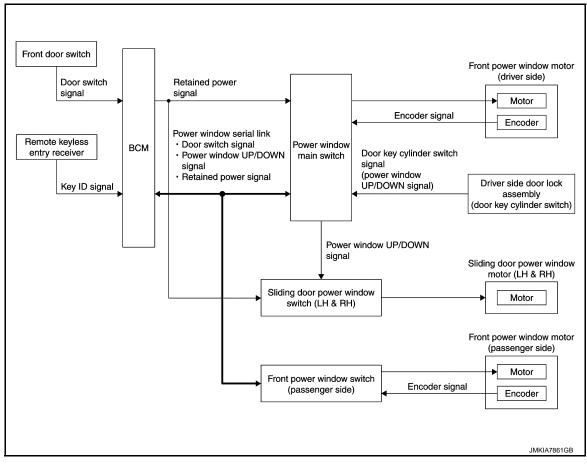
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#### SYSTEM DIAGRAM



#### DESCRIPTION

- Power window system is activated by power window switch when ignition switch turns ON, or during the retained power operation after ignition switch turns OFF.
- Power window main switch opens/closes all door glass.
- Front and sliding door power window switch opens/closes the corresponding door glass.
- AUTO UP/DOWN operation can be performed when power window main switch or front power window switch (passenger side) turns to AUTO.
- Power window serial link transmits the signals from power window main switch to front power window switch (passenger side).
- Power window lock switch can lock all power windows other than driver seat.
- If door glass receives resistance that is the specified value or more while power window of front seat is in AUTO-UP operation, power window of front seat operates in the reverse direction.
- Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5 seconds or more to OPEN or CLOSE front power windows when ignition switch OFF.
- Front power windows open when pressing Intelligent Key unlock button for 3 seconds.

#### Power Window AUTO-Operation

- AUTO UP/DOWN operation can be performed when power window main switch or front power window switch (passenger side) turns to AUTO.
- Encoder continues detecting the movement of power window motor and transmits the encoder pulse signal to power window switch while power window motor is operating.
- Power window switch reads the changes of encoder signal and stops AUTO operation when door glass is at the fully opened/closed position.
- Power window motor is operable if encoder is malfunctioning.

#### Retained Power Operation

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#### < SYSTEM DESCRIPTION >

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 Cancel Conditions**

- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- When ignition switch is ON.
- 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 each power window switch operation except the power window main switch.

#### 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.
- Power window serial link transmits the power window main switch operation signals and retained power signal to power window main switch module and front power window switch (passenger side) module.

#### Anti-Pinch Operation

- Pinch foreign matter in the door glass during AUTO-UP operation, and it is the anti-pinch function that lowers the door glass 150 mm (5.9 in) or for 2 seconds when detected.
- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse 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) after it detects encoder pulse signal frequency change.

#### **Operation Condition**

When front 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 1.5 seconds or more to OPEN or CLOSE front power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating.

#### **Operation Conditions**

- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1.5 seconds or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to UNLOCK position for 1.5 seconds or more to perform OPEN operation of the door glass.

#### Keyless Power Window Down Operation

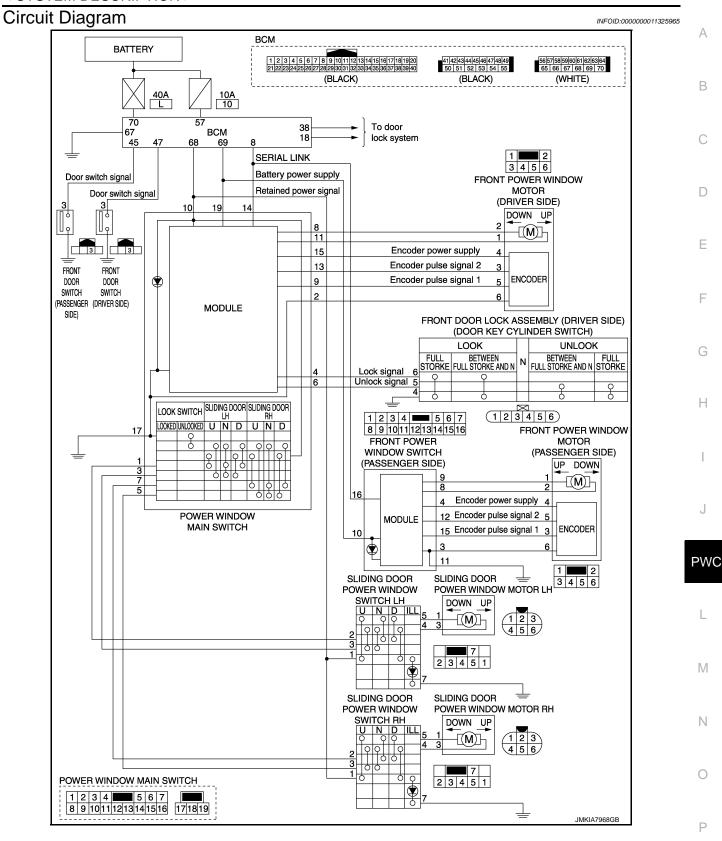
Front power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.

The power window opening stops when the following operations are performed.

- When the unlock button is kept pressed 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.

Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to <u>DLK-95</u>, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".



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.

#### [FRONT WINDOW ANTI-PINCH]

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.

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

- Auto-up operation
- Anti-pinch 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 main switch or front power window switch (passenger side) front power window motor (driver side/passenger side).

### **DIAGNOSIS SYSTEM (BCM)**

< SYSTEM DESCRIPTION >

[FRONT WINDOW ANTI-PINCH]

### **DIAGNOSIS SYSTEM (BCM)**

**COMMON ITEM** 

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description	
Work Support	Changes the setting for each system function.	
Self Diagnostic Result	Displays the diagnosis results judged by BCM.	
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.	
Data Monitor	The BCM input/output signals are displayed.	
Active Test	The signals used to activate each device are forcibly supplied from BCM.	
Ecu Identification	The BCM part number is displayed.	·
Configuration	<ul> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>	F

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

x: Applicable item

System	Sub avetem colonies item	Diagnosis mode			
System	Sub system selection item	Work Support	Data Monitor	Active Test	
Door lock	DOOR LOCK	×	×	×	
Rear window defogger	REAR DEFOGGER		×	×	
Warning chime	BUZZER		×	×	
Interior room lamp control system	INT LAMP	×	×	×	
Exterior lamp	HEAD LAMP	×	×	×	
Wiper and washer	WIPER	×	×	×	
Turn signal and hazard warning lamps	FLASHER	×	×	×	
Air conditioning control system	AIR CONDITONER		×	×*	
<ul><li>Intelligent Key system</li><li>Engine start system</li></ul>	INTELLIGENT KEY	×	×	×	
Combination switch	COMB SW		×		
Body control system	ВСМ	×			
NVIS	IMMU	×	×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	
Back door open	TRUNK		×		
Vehicle security system	THEFT ALM	×	×	×	
RAP system	RETAINED PWR		×		
Signal buffer system	SIGNAL BUFFER		×	×	
TPMS	AIR PRESSURE MONITOR	×	×	X	

#### FREEZE FRAME DATA (FFD)

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

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<sup>\*:</sup> For models with automatic air conditioning control system, this diagnosis mode is not used.

#### < SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit		Description
Vehicle Speed	km/h	Vehicle speed of the mo	ment a particular DTC is detected
Odo/Trip Meter	km	Total mileage (Odomete	r value) of the moment a particular DTC is detected
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (LOCK)]
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (OFF)]
	LOCK>ACC		While turning power supply position from OFF (LOCK) to ACC
	ACC>ON		While turning power supply position from ACC to ON
	RUN>ACC		While turning power supply position from RUN to ACC (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from CRANK to RUN
	RUN>URGENT		While turning power supply position from RUN to ACC (Emergency stop operation)
	ACC>OFF		While turning power supply position from ACC to OFF (OFF)
Vehicle Condition	OFF>LOCK	Power position status of the moment a particular	While turning power supply position from OFF (OFF) to OFF (LOCK)
	OFF>ACC	DTC is detected*	While turning power supply position from OFF (OFF) to ACC
	ON>CRANK		While turning power supply position from ON to CRANK
	OFF>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (OFF)] to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (LOCK)] to low power consumption mode
	LOCK		Power supply position is OFF (LOCK)
	OFF		Power supply position is OFF (OFF)
	ACC		Power supply position is ACC
	ON		Power supply position is ON
	ENGINE RUN		Power supply position is RUN
	CRANKING		Power supply position is CRANK
IGN Counter	0 - 39	<ul><li>The number is 0 when</li><li>The number increases whenever ignition swit</li></ul>	th ignition switch is turned ON after DTC is detected in a malfunction is detected now. If the sum of the sum

#### NOTE:

- \*: Refer to the following for details of the power supply position.
- OFF (OFF, LOCK): Ignition switch OFF
- ACC: Ignition switch ACC
- IGN: Ignition switch ON with engine stopped
- RUN: Ignition switch ON with engine running
- · CRANK: At engine cranking

Power supply position shifts to "OFF (LOCK)" from "OFF (OFF)", when ignition switch is in the OFF position, shift position is in the P position, and any of the following conditions are met.

- · Closing door
- · Opening door
- · Door is locked using door request switch
- · Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "OFF (LOCK)".

### **RETAIND PWR**

RETAIND PWR: CONSULT Function (BCM - RETAINED PWR) (Front Window Anti-

### **DIAGNOSIS SYSTEM (BCM)**

< SYSTEM DESCRIPTION >

### [FRONT WINDOW ANTI-PINCH]

pinch)

#### **DATA MONITOR**

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Description
DOOR SW-DR	Indicates [ON/OFF] condition of driver side door switch.
DOOR SW-AS	Indicates [ON/OFF] condition of passenger side door switch.

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### **BCM (BODY CONTROL MODULE)**

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

## **ECU DIAGNOSIS INFORMATION**

### BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000011325969

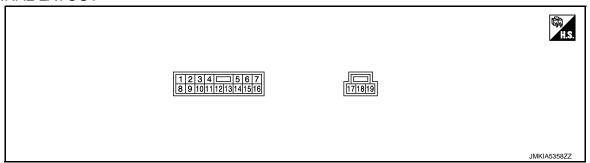
ECU	Reference
	BCS-40, "Reference Value"
BCM	BCS-62, "Fail-safe"
BCIVI	BCS-62, "DTC Inspection Priority Chart"
	BCS-63, "DTC Index"

### **POWER WINDOW MAIN SWITCH**

### **POWER WINDOW MAIN SWITCH**

Reference Value

#### **TERMINAL LAYOUT**



#### PHYSICAL VALUES

	inal No. e color)	Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output	Condition	voltage (v)
1 (O)	Ground	Sliding door power window motor LH UP signal	Output	When sliding door LH switch in power window main switch is in UP operation.	9 – 16
2 (W)	Ground	Encoder ground	_	_	0 – 1
3 (BR)	Ground	Sliding door power window motor LH DOWN signal	Output	When sliding door LH switch in power window main switch is in DOWN operation.	9 – 16
4 (P)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral → Locked)	4 − 6 → 0 − 1.5
5 (SB)	Ground	Sliding door power window mo- tor RH DOWN signal	Output	When sliding door RH switch in power window main switch is in DOWN operation.	9 – 16
6 (GR)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral → Unlocked)	4 − 6 → 0 − 1.5
7 (P)	Ground	Sliding door power window motor RH UP signal	Output	When sliding door RH switch in power window main switch is in UP operation.	9 – 16
8 (L)	Ground	Front power window motor (driver side) UP signal	Output	When front LH switch in power window main switch is in UP operation.	9 – 16
9 (SB)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms

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#### **POWER WINDOW MAIN SWITCH**

	inal No. e color)	Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output	Condition	voltage (v)
				Ignition switch ON	9 – 16
10		<b>.</b>		Within 45 seconds after ignition switch is turned to OFF.	9 – 16
(V)	Ground	Retained power signal	Input	When driver side or passenger side door is opened during retained power operation.	0 – 1
11 (LG)	Ground	Front power window motor (driver side) DOWN signal	Output	When front LH switch in power window main switch is in DOWN operation.	9 – 16
13 (Y)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
14 (BR)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB
15 (R)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	9 – 16
17 (B)	Ground	Ground	_	_	0 – 1
19 (LG)	Ground	Battery power supply	Input	_	9 – 16

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.

#### **POWER WINDOW MAIN SWITCH**

#### < ECU DIAGNOSIS INFORMATION >

#### [FRONT WINDOW ANTI-PINCH]

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

- Auto-up operation
- Anti-pinch 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 main switch or front power window switch (passenger side) front power window motor (driver side/passenger side).

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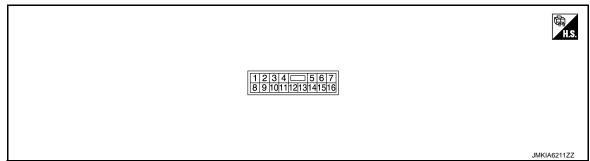
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### FRONT POWER WINDOW SWITCH

Reference Value

#### **TERMINAL LAYOUT**



#### PHYSICAL VALUES

	nal No. color)	Description		Condition	Voltage (V)
+	_	Signal name	Input/ Output	Condition	voltage (v)
3 (BR)	Ground	Encoder ground		_	0 – 1
4 (SB)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	9 – 16
8 (Y)	Ground	Front power window motor (passenger side) UP signal	Output	When front power window switch (passenger side) is in UP operation.	9 – 16
9 (G)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front power window switch (passenger side) is in DOWN operation.	9 – 16
10 (V)	Ground	Battery power supply	Input	_	9 – 16
11 (W)	Ground	Ground	_	_	0 – 1
12 (O)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms  JMKIA0070GB

#### FRONT POWER WINDOW SWITCH

#### < ECU DIAGNOSIS INFORMATION >

#### [FRONT WINDOW ANTI-PINCH]

	nal No. color)	Description		Condition	Voltage (V)
+	_	Signal name	Input/ Output	Condition	voltage (v)
15 (R)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
16 (L)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power window timer operating.	(V) 15 10 5 0 10 ms  JPMIA0013GB

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.

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

- Auto-up operation
- Anti-pinch 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 main switch or front power window switch (passenger side) front power window motor (driver side/passenger side).

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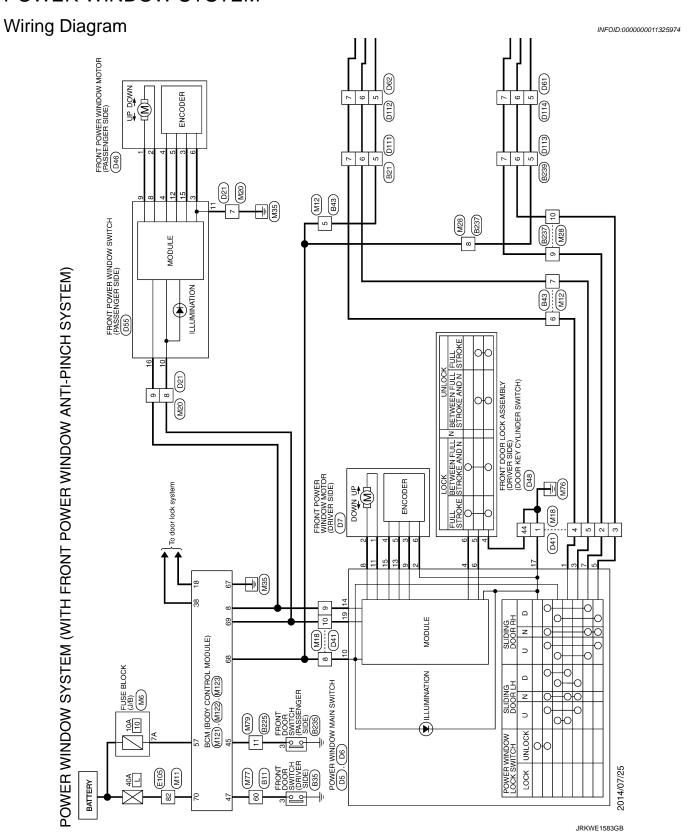
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### **WIRING DIAGRAM**

### POWER WINDOW SYSTEM



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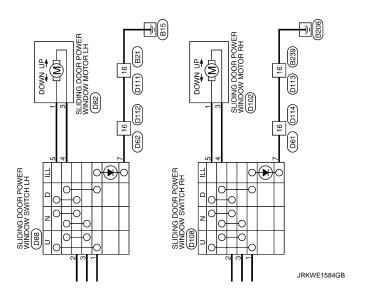
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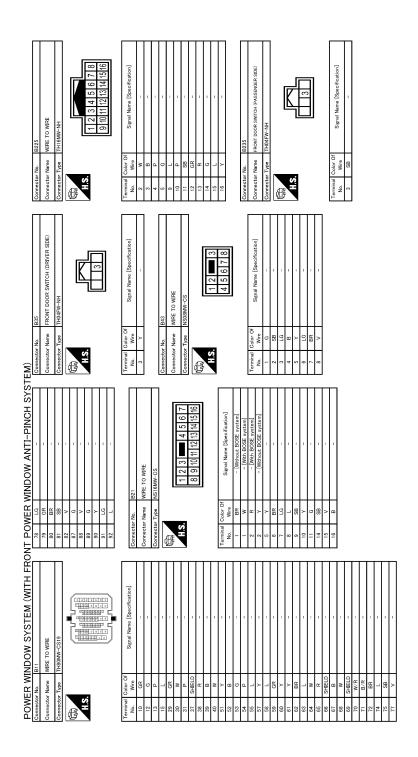
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5 LG - [With manual A/C]	2	, I	1 2 3 4 1 5 6 7				10	P	i	
5 P – [With auto A/C]			8 9 10 11 12 13 14 15 16	Connector No.	. No. D7		11	PI	1	
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7		1	51	œ	- [Without automatic drive positioner]		10 LG	
8	GR	-	52	g	- [Without automatic drive positioner]		11 BR	
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4	m .	1	Connector No.	tor No.	D46	3 4	Connector Name	NIRE TO WIRE
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nector No. D111 nector Name WIRE 1 nector Type NS16F	7   6   5   4         3   2   1	9 8 8	Connector No. D112 Connector Name WIRE TO WIRE Connector Type MS:16MW-CS  1 2 3 1 4 5 6 7  8 9 10 11 12 13 14 15 16	Terminal Color Of No.   Signal Name [Specification]
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POWER WINDOW SYSTEM (WITH FRC   1   1   1   1   1   1   1   1   1	No.   D82   No.   D82   No.   D82   No.   D82   No.   D82   No.   No.	Terminal Color Of   Signal Name [Specification]	Commenter Name SLIDNO DOOR POWER WINDOW SWITCH LH Commenter Type NSSIREW-CS  H.S.  L. S.	Terminal   Color Of   Signal Name   Specification

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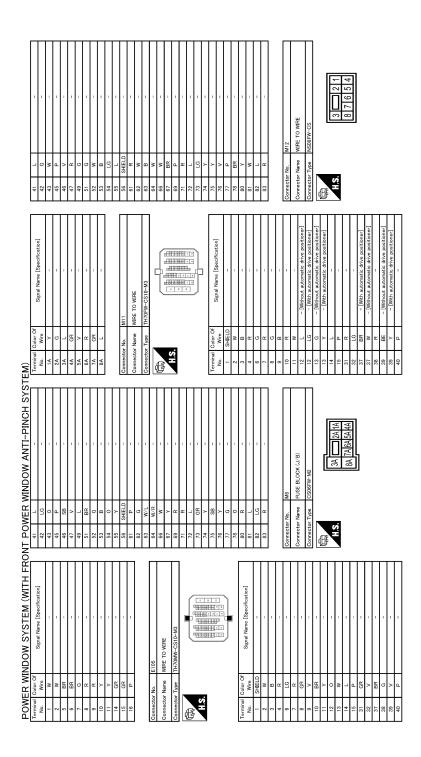
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#### **DIAGNOSIS AND REPAIR WORK FLOW**

< BASIC INSPECTION >

[FRONT WINDOW ANTI-PINCH]

### **BASIC INSPECTION**

#### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

### 1. OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much malfunction information (conditions and environment when the malfunction occurred) as possible when the customer brings the vehicle in.

>> GO TO 2.

### 2. REPRODUCE THE MALFUNCTION INFORMATION

Check the malfunction on the vehicle that the customer describes.

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

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

>> GO TO 4.  $\bf 4.$ IDENTIFY MALFUNCTIONING PARTS WITH "DTC/CIRCUIT DIAGNOSIS"

Perform the diagnosis with "DTC/CIRCUIT DIAGNOSIS" of the applicable system.

5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

#### 6. FINAL CHECK

Revision: 2014 August

Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 2.

Is the malfunctioning part repaired or replaced?

YES >> Trouble diagnosis is completed.

NO >> GO TO 3.

>> GO TO 5.

>> GO TO 6.

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### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL [FRONT WINDOW ANTI-PINCH]

< BASIC INSPECTION >

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL

Description INFOID:0000000011325976

When the battery negative 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:0000000011325977

### 1. SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-34, "Work Procedure".

>> GO TO 2.

### 2. CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-35, "Work Procedure".

>> END

### ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW SWITCH [FRONT WINDOW ANTI-PINCH]

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW SWITCH	_
Description INFOID:00000001132593	78
When the power window main switch or front power window switch (passenger side) replaced, the initialization in necessary for normal operation of power window system.  CAUTION:	n <sub>B</sub>
The following specified operations can not be performed under the non-initialized condition.  • Auto-up operation  • Anti-pinch function	C
Work Procedure	'9 [
1.SYSTEM INITIALIZATION	
Perform system initialization. Refer to <a href="PWC-34">PWC-34</a> . "Work Procedure".	E
>> GO TO 2.  2.CHECK ANTI-PINCH FUNCTION	F
Check anti-pinch function. Refer to PWC-35, "Work Procedure".	-
>> END	G
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**PWC-33** Revision: 2014 August **2015 QUEST** 

### SYSTEM INITIALIZATION

Description INFOID:000000011325980

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

- Disconnection and connection of battery cable from negative terminal.
- When power window main switch or front power window switch (passenger side) replaced.
- Electric power supply to power window main switch or front power window switch (passenger side) or power window motor (driver side/passenger side) is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc.
- Disconnection and connection of power window main switch or front power window switch (passenger side) harness connector.
- Removal of power window motor (driver side/passenger side) from regulator assembly.
- Operation of regulator assembly as an independent unit.
- · Removal and installation of glass.
- Removal and installation of door glass run.

#### **CAUTION:**

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

- Auto-up operation
- Anti-pinch function

Work Procedure

### **1.**STEP 1

- 1. Turn ignition switch ON.
- 2. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
- 3. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 2 seconds or more.
- 4. Check that AUTO-UP function operates normally.

>> GO TO 2.

#### 2.STEP 2

Check anti-pinch function. Refer to PWC-35, "Work Procedure".

>> END

#### CHECK ANTI-PINCH FUNCTION

< BASIC INSPECTION >

[FRONT WINDOW ANTI-PINCH]

### **CHECK ANTI-PINCH FUNCTION**

Description INFOID:0000000011325982

If any of the following operations are performed, the initialization is necessary for normal operation of antipinch function.

- Disconnection and connection of battery cable from negative terminal.
- When power window main switch or front power window switch (passenger side) replaced.
- Electric power supply to power window main switch or front power window switch (passenger side) or power window motor (driver side/passenger side) is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc.
- Disconnection and connection of power window main switch or front power window switch (passenger side)
  harness connector.
- Removal of power window motor (driver side/passenger side) from regulator assembly.
- Operation of regulator assembly as an independent unit.
- · Removal and installation of glass.
- Removal and installation of door glass run.

Work Procedure

### 1. CHECK ANTI-PINCH FUNCTION

- Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- 4. Check the following conditions.
- Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that glass does not rise not when operating the power window main switch or front power window switch (passenger side) 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.

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#### POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

## DTC/CIRCUIT DIAGNOSIS

# POWER SUPPLY AND GROUND CIRCUIT POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000011325984

### 1. CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- 3. Check voltage between power window main switch harness connector and ground.

Power windo	+) w main switch	(–)	Cor	Voltage (V)		
Connector	Terminal					
D5	10	Ground	Ignition switch	ON	9 – 16	
D6	19	Giodila	ignition switch	OFF	9-10	

#### Is the inspection result normal?

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

### 2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and power window main switch harness connector.

В	CM	Power windo	w main switch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M123	68	D5	10	Existed
W123	69	D6	19	EXISTEC

4. Check continuity between BCM harness connector and ground.

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	68	Giodila	Not existed
WIIZS	69		NOT existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-98, "Removal and Installation".

NO >> Repair or replace harness.

### 3.CHECK GROUND CIRCUIT

Check continuity between power window main switch harness connector and ground.

Power windo	w main switch		Continuity				
Connector	Terminal	Ground	Continuity				
D6	17		Existed				

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

### FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

# POWER SUPPLY AND GROUND CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

VEOL	D-nnni	ากกกก	1132	5985	

# 1. CHECK POWER SUPPLY

- Turn ignition switch OFF.
- Disconnect front power window switch (passenger side) connector.
- Check voltage between front power window switch (passenger side) harness connector and ground.

(	+)		
Front power window s	witch (passenger side)	(–)	Voltage (V)
Connector	Terminal		
D55	10	Ground	9 – 16

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

ВСМ		Front power (passer	Continuity	
Connector	Terminal	Connector	Terminal	
M123	69	D55	10	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		
Connector	Terminal	Ground	Continuity
M123	69		Not existed

#### Is the inspection result normal?

>> Replace BCM. Refer to BCS-98, "Removal and Installation".

NO >> Repair or replace harness.

# 3.CHECK GROUND CIRCUIT

Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window s	witch (passenger side)		Continuity	
Connector	Connector Terminal		Continuity	
D55	11		Existed	

## Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

## SLIDING DOOR POWER WINDOW SWITCH

# SLIDING DOOR POWER WINDOW SWITCH: Diagnosis Procedure

# 1. CHECK POWER SUPPLY

- Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch connectors.
- 3. Turn ignition switch ON.
- Check voltage between sliding door power window switch harness connector and ground.

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INFOID:0000000011325986

**2015 QUEST** 

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# POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

## [FRONT WINDOW ANTI-PINCH]

(+)			( )	V 16 00
-	ling door power window sy	vitch Terminal	(–)	Voltage (V)
LH	D88	1	Ground	9 – 16
RH	D108	<b>'</b>	Giodila	9 – 10

## Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

# 2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and sliding door power window switch harness connector.

В	CM	Sliding door power window switch		Continuity	
Connector	Terminal	Connector		Terminal	Continuity
M123	69	LH	D88	1	Evistod
IVI 123	68	RH	D108	<b>'</b>	Existed

4. Check continuity between BCM harness connector and ground.

B		Continuity	
Connector	Connector Terminal		Continuity
M123	68		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-98, "Removal and Installation".

NO >> Repair or replace harness.

# **SLIDING DOOR POWER WINDOW SWITCH**

# < DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# SLIDING DOOR POWER WINDOW SWITCH

# Component Function Check

INFOID:0000000011325987

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# 1. CHECK FUNCTION

Check sliding door power window motor operation with sliding door power window switch.

# Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-39, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011325988

# 1. CHECK SLIDING DOOR POWER WINDOW SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between sliding door power window switch harness connector and ground.

(+) Sliding door power window switch		(-) Condit		ition	Voltage (V)		
Connector Terminal		Terminal	-				
		2			NEUTRAL	0 - 1	
LH	2	2	switch (sliding doo	Power window main	UP	9 – 16	
LH	D88	3		(sliding door LH side)	NEUTRAL	0 - 1	
					DOWN	9 – 16	
			0	Ground		NEUTRAL	0 - 1
D400	2		Power window main	UP	9 – 16		
RH	RH D108	3		switch (sliding door RH side)	NEUTRAL	0 - 1	
					DOWN	9 – 16	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.check sliding door power window switch circuit

1. Turn ignition switch OFF.

- 2. Disconnect power window main switch connector.
- 3. Check continuity between sliding door power window switch harness connector and power window main switch harness connector.

Sliding door power window switch			Power window main switch		Continuity		
Connector		Terminal	Connector Terminal		Continuity		
LH	D88	2		1			
LH	D00	3	DE	3	Existed		
DU	RH D108		D400	2	D5	7	Existed
RH	0108	3		5			

4. Check continuity between sliding door power window switch harness connector and ground.

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# **SLIDING DOOR POWER WINDOW SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [FRONT WINDOW ANTI-PINCH]

Slid	ing door power window sv		Continuity		
Conr	nector	Terminal		Continuity	
LH	LH D88		Ground		
LIT	D00	3	Giouna	Not existed	
RH	D108	2		Not existed	
КП	D100	3			

## Is the inspection result normal?

YES >> Replace power window main switch. Refer to <a href="PWC-68">PWC-68</a>, "Removal and Installation".

NO >> Repair or replace harness.

# 3. CHECK SLIDING DOOR POWER WINDOW SWITCH

Check sliding door power window switch.

Refer to PWC-40, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace sliding door power window switch. Refer to <a href="PWC-69">PWC-69</a>, "Removal and Installation".

# Component Inspection

INFOID:0000000011325989

# 1. CHECK SLIDING DOOR POWER WINDOW SWITCH

- 1. Turn ignition switch OFF.
- Disconnect sliding door power window switch connector.
- 3. Check sliding door power window switch terminals under the following conditions.

	ver window switch	Condition	Continuity
Terminal			
1	5	UP	
3	4	OI OI	
2	5	NEUTRAL	Existed
3	4	NEOTIVAL	LXISIGU
1	4	DOWN	
2	5	DOWN	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace sliding door power window switch. Refer to PWC-69, "Removal and Installation".

#### [FRONT WINDOW ANTI-PINCH]

# **POWER WINDOW MOTOR**

**DRIVER SIDE** 

# DRIVER SIDE: Component Function Check

INFOID:0000000011325990

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# 1. CHECK FUNCTION

Check front power window motor (driver side) operation with power window main switch.

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-41, "DRIVER SIDE : Diagnosis Procedure".

# DRIVER SIDE: Diagnosis Procedure

INFOID:0000000011325991

# 1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor (driver side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor (driver side) harness connector and ground.

(+)			Condition		Voltage (V)
Front power window motor (driver side)		(-)			
Connector	Terminal				
	1			NEUTRAL	0 – 1
D7 -	ı	- Ground	Power window main switch (driver side)	DOWN	9 – 16
	2			NEUTRAL	0 – 1
				UP	9 – 16

#### Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to <u>GW-29, "Removal and Installation"</u>.

NO >> GO TO 2.

# 2.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- Check continuity between front power window motor (driver side) harness connector and power window main switch harness connector.

Front power window	w motor (driver side)	Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D7	1	D5	11	Existed
DI -	2	D3	8	LAISIGU

4. Check continuity between front power window motor (driver side) harness connector and ground.

Front power window	w motor (driver side)		Continuity
Connector	Terminal	Ground	Continuity
	1	Ground	Not existed
יט	2		Not existed

## Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "Removal and Installation".

NO >> Repair or replace harness.

#### PASSENGER SIDE

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#### POWER WINDOW MOTOR

## < DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# PASSENGER SIDE: Component Function Check

INFOID:0000000011325992

# 1. CHECK FUNCTION

Check front power window motor (passenger side) operation with power window main switch or front power window switch (passenger side).

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-42, "PASSENGER SIDE : Diagnosis Procedure".

# PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011325993

# 1. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect front power window motor (passenger side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor (passenger side) harness connector and ground.

(+) Front power window motor (passenger side)		(-) Condit		tion	Voltage (V)
Connector	Terminal				
	2	- Ground	Front power window switch (passenger side)	NEUTRAL	0 - 1
D46				DOWN	9 – 16
D40				NEUTRAL	0 – 1
				UP	9 – 16

#### Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to <u>GW-29, "Removal and Installation"</u>. NO >> GO TO 2.

# 2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check continuity between front power window motor (passenger side) harness connector and front power window switch (passenger side) harness connector.

Front power window r	motor (passenger side)	Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D46	1	D55	9	Existed
D40	2	D33	8	LXISIGU

4. Check continuity between front power window motor (passenger side) harness connector and ground.

Front power window	motor (passenger side)		Continuity
Connector	Terminal	Ground	Continuity
D46	1	Ground	Not existed
D46	2		Not existed

#### Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <a href="PWC-68">PWC-68</a>, "Removal and Installation".

NO >> Repair or replace harness.

#### SLIDING DOOR LH

## **POWER WINDOW MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## [FRONT WINDOW ANTI-PINCH]

# SLIDING DOOR LH: Component Function Check

#### INFOID:0000000011325994

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# 1. CHECK FUNCTION

Check sliding door power window motor LH operation with power window main switch or sliding door power window switch LH.

# he inspection result normal?

# Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-43, "SLIDING DOOR LH: Diagnosis Procedure".

# SLIDING DOOR LH: Diagnosis Procedure

#### INFOID:0000000011325995

# 1. CHECK SLIDING DOOR POWER WINDOW MOTOR LH INPUT SIGNAL

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

(+)			Condition		Voltage (V)
Sliding door power window motor LH		(-)			
Connector	Terminal				
	1 D82	Ground	Sliding door power window switch LH	NEUTRAL	0 – 1
D02				UP	9 – 16
D02	2	Giodila		NEUTRAL	0 – 1
	3			DOWN	9 – 16

#### Is the inspection result normal?

YES >> Replace sliding door power window motor LH.

NO >> GO TO 2.

# 2.check sliding door power window motor LH circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch LH connector.
- 3. Check continuity between sliding door power window motor LH harness connector and sliding door power window switch LH harness connector.

Sliding door pow	er window motor LH	Sliding door power window switch LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D82	1	D88	5	Existed
D02	3	D00	4	Existed

4. Check continuity between sliding door power window motor LH harness connector and ground.

Sliding door power	er window motor LH		Continuity
Connector	Terminal	Ground	Continuity
D82	1	Giouna	Not existed
	3		Not existed

#### Is the inspection result normal?

YES >> Replace sliding door power window switch LH. Refer to PWC-69, "Removal and Installation".

NO >> Repair or replace harness.

#### SLIDING DOOR RH

# SLIDING DOOR RH: Component Function Check

#### INFOID:0000000011325996

# 1. CHECK FUNCTION

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#### **POWER WINDOW MOTOR**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [FRONT WINDOW ANTI-PINCH]

Check sliding door power window motor RH operation with power window main switch or sliding door power window switch RH.

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-44, "SLIDING DOOR RH: Diagnosis Procedure".

# SLIDING DOOR RH: Diagnosis Procedure

INFOID:0000000011325997

# 1. CHECK SLIDING DOOR POWER WINDOW MOTOR RH INPUT SIGNAL

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

(+) Sliding door power window motor RH			Condition		Voltage (V)
		(-)			
Connector	Terminal				
D102	1	Ground	Sliding door power	NEUTRAL	0 - 1
	1			UP	9 – 16
	2		window switch RH	NEUTRAL	0 - 1
	3			DOWN	9 - 16

#### Is the inspection result normal?

YES >> Replace sliding door power window motor RH.

NO >> GO TO 2.

# 2. CHECK SLIDING DOOR POWER WINDOW MOTOR RH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch RH connector.
- Check continuity between sliding door power window motor RH harness connector and sliding door power window switch RH harness connector.

Sliding door powe	r window motor RH	Sliding door power window switch RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D102	1	D108	5	Existed
D102	3	D100	4	LAISIEU

Check continuity between sliding door power window motor RH harness connector and ground.

Sliding door power	r window motor RH		Continuity
Connector	Terminal	Ground	Continuity
D102	1	Ground	Not existed
D102	3		NOT EXISTED

#### Is the inspection result normal?

YES >> Replace sliding door power window switch RH. Refer to PWC-69, "Removal and Installation".

NO >> Repair or replace harness.

**DRIVER SIDE** 

# **DRIVER SIDE: Component Function Check**

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# 1. CHECK FUNCTION

Check that front driver side door glass perform AUTO UP/DOWN operation normally when power window main switch is operated.

#### Is the inspection result normal?

YES >> INSPECTION END

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

# DRIVER SIDE: Diagnosis Procedure

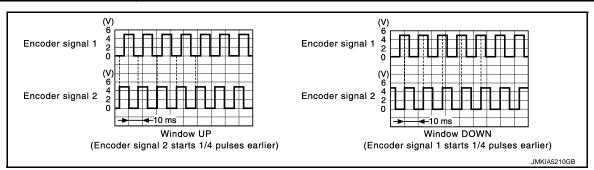
INFOID:0000000011325999

# 1. CHECK ENCODER PULSE SIGNAL

1. Turn ignition switch ON.

2. Check signal between power window main switch harness connector and ground using an oscilloscope.

(+) Power window main switch			Signal (Reference value)
		(-)	
Connector	Terminal		(**************************************
	9	Ground	Refer to the following signal
В3	13	Giodila	Neier to the following signal



#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK ENCODER SIGNAL CIRCUIT

Turn ignition switch OFF.

2. Disconnect power window main switch connector and front power window motor (driver side) connector.

 Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	w main switch	Front power window motor (driver side)		- Continuity	
Connector	Terminal	Connector Terminal		Continuity	
D5	9	D7	3	Existed	
Do	13	D7	5	Existed	

4. Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	9	Giouna	Not existed
Do	13		Not existed

#### < DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK ENCODER POWER SUPPLY

- 1. Connect power window main switch connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between front power window motor (driver side) harness connector and ground.

(+)			
Front power window motor (driver side)		(-)	Voltage (V)
Connector	Terminal		
D7	4	Ground	9 – 16

## Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

# 4. CHECK ENCODER POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	w main switch	Front power window	w motor (driver side)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
D5	15	D7	4	Existed

4. Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	15		Not existed

## Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "Removal and Installation".

NO >> Repair or replace harness.

# ${f 5.}$ CHECK ENCODER GROUND CIRCUIT 1

- Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	w main switch	Front power window motor (driver side)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
D5	2	D7	6	Existed	

4. Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	2		Not existed

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

# 6. CHECK ENCODER GROUND CIRCUIT 2

#### < DTC/CIRCUIT DIAGNOSIS >

#### [FRONT WINDOW ANTI-PINCH]

- Connect power window main switch connector.
- 2. Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	2		Existed

#### Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to <u>GW-29</u>, "Removal and Installation".

NO >> Replace power window main switch. Refer to <a href="PWC-68">PWC-68</a>. "Removal and Installation".

# PASSENGER SIDE

# PASSENGER SIDE: Component Function Check

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# 1. CHECK FUNCTION

Check that front passenger side door glass perform AUTO UP/DOWN operation normally when front power window switch (passenger side) is operated.

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-47, "PASSENGER SIDE : Diagnosis Procedure".

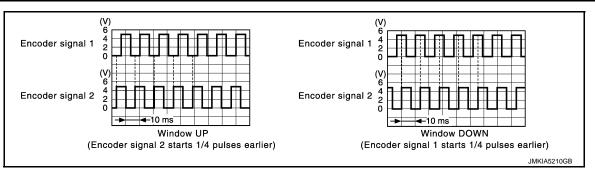
# PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011326001

# 1. CHECK ENCODER PULSE SIGNAL

- Turn ignition switch ON.
- Check signal between front power window switch (passenger side) harness connector and ground using an oscilloscope.

(+)			0:1
Front power window switch (passenger side)		(-)	Signal (Reference value)
Connector	Terminal		(
D55	12	12 Ground	
D55	15	Giouna	Refer to the following signal



#### Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <a href="PWC-68">PWC-68</a>, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK ENCODER SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect front power window switch (passenger side) connector and front power window motor (passenger side) connector.
- Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

#### < DTC/CIRCUIT DIAGNOSIS >

Front power window s	Front power window switch (passenger side)		Front power window motor (passenger side)	
Connector	Terminal	Connector	Terminal	Continuity
D55	12	D46	5	Existed
555	15	540	3	LAISIEU

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D55	12	Ground	Not existed
	15	-	Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK ENCODER POWER SUPPLY

- Connect front power window switch (passenger side) connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between front power window motor (passenger side) harness connector and ground.

(+)			
Front power window i	Front power window motor (passenger side)		Voltage (V)
Connector	Terminal		
D46	4	Ground	9 – 16

# Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

# 4. CHECK ENCODER POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect front power window switch (passenger side) connector.
- Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window s	switch (passenger side) Front power window motor (passenger side)		Front power window motor (passenger side)	
Connector	Terminal	Connector	Terminal	Continuity
D55	4	D46	4	Existed

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window switch (passenger side)			Continuity	
Connector	Terminal	Ground	Continuity	
D55	4		Not existed	

#### Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <a href="PWC-68">PWC-68</a>, "Removal and Installation".

NO >> Repair or replace harness.

# 5. CHECK ENCODER GROUND CIRCUIT 1

- Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

## < DTC/CIRCUIT DIAGNOSIS >

## [FRONT WINDOW ANTI-PINCH]

Front power window s	witch (passenger side)	Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D55	3	D46	6	Existed

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D55	3		Not existed

## Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

# 6. CHECK ENCODER GROUND CIRCUIT 2

1. Connect front power window switch (passenger side) connector.

Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D55	3		Existed

#### Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to <u>GW-29</u>, "<u>Removal and Installation</u>". NO >> Replace front power window switch (passenger side). Refer to <u>PWC-68</u>, "<u>Removal and Installation</u>".

>> Replace front power window switch (passenger side). Refer to PWC-68, "Removal and Installation".

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#### DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# DOOR KEY CYLINDER SWITCH

# Component Function Check

INFOID:0000000011326002

# 1. CHECK FUNCTION

- 1. Select "DOOR LOCK" of "BCM" using CONSULT.
- Select "KEY CYL LK-SW", "KEY CYL UN-SW" in "DATA MONITOR" mode.
- 3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		
KEY CYL LK-SW	Lock	: ON	
RET GTE ER-GW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
KET CTL UN-SW	Neutral / Lock	: OFF	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-50, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011326003

# 1. CHECK DOOR KEY CYLINDER SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) (key cylinder switch) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front door lock assembly (driver side) (key cylinder switch) harness connector and ground.

(+)			
Front door lock assembly (driver side) (key cylinder switch)		(–)	Voltage (V)
Connector	Terminal		
	5	Ground	4 – 6
D48	6	- Ground	4-0

# Is the inspection result normal?

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

# 2. CHECK DOOR KEY CYLINDER SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- 3. Check continuity between power window main switch harness connector and front door lock assembly (driver side) (key cylinder switch) harness connector.

Power window main switch		Front door lock assembly (driver side) (key cylinder switch)		Continuity
Connector	Terminal	Connector	Terminal	
DE.	4	D49	6	Evictod
D5	6	D48	5	Existed

4. Check continuity between power window main switch harness connector and ground.

# DOOR KEY CYLINDER SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

#### [FRONT WINDOW ANTI-PINCH]

Power window n	Power window main switch		Continuity
Connector	Terminal	Ground	Continuity
D5	4	Giouna	Not existed
DS	6	_	NOT EXISTED

## Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "Removal and Installation".

NO >> Repair or replace harness.

# 3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Turn ignition switch OFF.

2. Check continuity between front door lock assembly (driver side) (key cylinder switch) harness connector and ground.

Front door lock assembly (driver s	side) (key cylinder switch)		Continuity
Connector	Terminal	Ground	Continuity
D48	4		Existed

# Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly (driver side) (key cylinder switch).

Refer to PWC-51, "Component Inspection".

# Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace front door lock assembly (driver side) (key cylinder switch).

# Component Inspection

INFOID:0000000011326004

#### COMPONENT INSPECTION

# 1. CHECK DOOR KEY CYLINDER SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) (key cylinder switch) connector.
- 3. Check front door lock assembly (driver side) (key cylinder switch) terminals under the following conditions.

Front door lock assembly (driver side) (key cylinder switch)		Key position	Continuity
Terminal		Rey position	
	4	Unlock	Existed
J		Neutral / Lock	Not existed
6	4	Lock	Existed
		Neutral / Unlock	Not existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side) (key cylinder switch).

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#### < DTC/CIRCUIT DIAGNOSIS >

# POWER WINDOW SERIAL LINK POWER WINDOW MAIN SWITCH

# POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000011326005

# 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between power window main switch harness connector and ground using an oscilloscope.

(+)  Power window main switch  Connector Terminal		(–)	Signal (Reference value)
D5	14	Ground	(V) 15 10 10 10 ms JPMIA0013GB

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 2.

# $2.\mathsf{CHECK}$ POWER WINDOW SERIAL LINK SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power window main switch harness connector and ground.

(+)			
Power window main switch		(–)	Voltage (V)
Connector	Terminal		
D5	14	Ground	9 – 16

## Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "Removal and Installation".

NO >> GO TO 3.

# 3.check power window serial link circuit

- Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and power window main switch harness connector.

ВСМ		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	8	D5	14	Existed

4. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M121	8		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-98, "Removal and Installation".

# **POWER WINDOW SERIAL LINK**

## < DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

NO >> Repair or replace harness.

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

INFOID:0000000011326006

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# 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between front power window switch (passenger side) harness connector and ground using an oscilloscope.

(+) Front power window switch (passenger side)  Connector Terminal		(-)	Signal (Reference value)	
D55	16	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB	

#### Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <a href="PWC-68">PWC-68</a>, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK POWER WINDOW SERIAL LINK CIRCUIT

Turn ignition switch OFF.

- Disconnect power window main switch connector and front power window switch (passenger side) connector.
- Check continuity between power window main switch harness connector and front power window switch (passenger side) harness connector.

Power window main switch		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D5	14	D55	16	Existed

Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	14		Not existed

#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "Removal and Installation".

NO >> Repair or replace harness.

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Revision: 2014 August PWC-53 2015 QUEST

# NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH [FRONT WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

# NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY **SWITCH**

# Diagnosis Procedure

INFOID:0000000011326007

# ${f 1}$ .CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

Refer to BCS-91, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check power window main switch power supply and ground circuit.

Refer to PWC-36, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3.check power window main switch serial link circuit

Check power window main switch serial link circuit.

Refer to PWC-52, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 4.

>> Repair or replace the malfunctioning parts. NO

#### 4.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

# DRIVER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

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< SYMPTOM DIAGNOSIS >	[FRONT WINDOW ANTI-PINCH]
DRIVER SIDE POWER WINDOW DOES NOT OF	PERATE
Diagnosis Procedure	INFOID:000000011326008
1. CHECK DRIVER SIDE POWER WINDOW MOTOR	E
Check front power window motor (driver side).	
Refer to <a href="PWC-41">PWC-41</a> , "DRIVER SIDE: Component Function Check".  Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.  2.REPLACE POWER WINDOW MAIN SWITCH	
Replace power window main switch. Refer to PWC-68, "Removal and I	nstallation".
Is the inspection result normal?	E
YES >> INSPECTION END NO >> Check intermittent incident. Refer to GI-42, "Intermittent Inc	cident".
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Revision: 2014 August PWC-55 2015 QUEST

# FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

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

 $1.\mathsf{CHECK}$  FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIRCUIT

Check front power window switch (passenger side) power supply and ground circuit.

Refer to PWC-37, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).

Refer to PWC-42, "PASSENGER SIDE: 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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

# WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED:

Diagnosis Procedure

INFOID:0000000011326010

# 1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to PWC-68, "Removal and Installation"

>> INSPECTION END

## WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000011326011

# 1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) SERIAL LINK CIRCUIT

Check front power window switch (passenger side) serial link circuit.

Refer to PWC-53, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure".

#### 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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [FRONT WINDOW ANTI-PINCH]	
SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE WHEN POWER WINDOW MAIN AND SLIDING DOOR LH POWER WINDOW SWITCHES ARE OPERATED	А
WHEN POWER WINDOW MAIN AND SLIDING DOOR LH POWER WINDOW SWITCHES ARE OPERATED : Diagnosis Procedure	В
1. CHECK SLIDING DOOR POWER WINDOW SWITCH LH	С
Check sliding door power window switch LH. Refer to PWC-39, "Component Function Check".  Is the inspection result normal?	D
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CHECK SLIDING DOOR POWER WINDOW MOTOR LH	Е
Check sliding door power window motor LH.  Refer to PWC-43, "SLIDING DOOR LH: Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.	F
NO >> Repair or replace the malfunctioning parts.  3.CONFIRM THE OPERATION	G
Confirm the operation again.	Н
Is the result normal?  YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.  WHEN SLIDING DOOR LH POWER WINDOW SWITCH IS OPERATED	I
WHEN SLIDING DOOR LH POWER WINDOW SWITCH IS OPERATED : Diagnosis Procedure	J
1. CHECK SLIDING DOOR POWER WINDOW SWITCH LH POWER SUPPLY AND GROUND CIRCUIT	PWC
Check sliding door power window switch LH power supply and ground circuit.  Refer to <a href="PWC-37">PWC-37</a> , "SLIDING DOOR POWER WINDOW SWITCH: Diagnosis Procedure".  Is the inspection result normal?	L
YES >> GO TO 2.  NO >> Repair or replace the malfunctioning parts.  2.CHECK SLIDING DOOR POWER WINDOW SWITCH LH	M

Check sliding door power window switch LH.

Refer to PWC-39, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

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# SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE

# < SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

VFOID:0000000011326014

# 1. Check sliding door power window switch LH

Check sliding door power window switch LH.

Refer to PWC-39, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE  SYMPTOM DIAGNOSIS > [FRONT WINDOW ANTI-PINCH]
SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE
WHEN POWER WINDOW MAIN AND SLIDING DOOR RH POWER WINDOW
SWITCHES ARE OPERATED
WHEN POWER WINDOW MAIN AND SLIDING DOOR RH POWER WINDOW SWITCHES ARE OPERATED: Diagnosis Procedure
1. CHECK SLIDING DOOR POWER WINDOW SWITCH RH
Check sliding door power window switch RH.
Refer to PWC-39, "Component Function Check".
Is the inspection result normal?  YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.
2. CHECK SLIDING DOOR POWER WINDOW MOTOR RH
Check sliding door power window motor RH.
Refer to PWC-43, "SLIDING DOOR 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 result normal?
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1. WHEN SLIDING DOOR RH POWER WINDOW SWITCH IS OPERATED
WHEN SLIDING DOOR RH POWER WINDOW SWITCH IS OPERATED: Diagnosis
Procedure
1. CHECK SLIDING DOOR POWER WINDOW SWITCH RH POWER SUPPLY AND GROUND CIRCUIT
Check sliding door power window switch RH power supply and ground circuit.  Refer to <a href="PWC-37">PWC-37</a> , "SLIDING DOOR POWER WINDOW SWITCH: Diagnosis Procedure".
Is the inspection result normal?
YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.
2.CHECK SLIDING DOOR POWER WINDOW SWITCH RH
Check sliding door power window switch RH.  Refer to PWC-39, "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.

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YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

Is the result normal?

NO >> GO TO 1.

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# SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

VFOID:0000000011326017

# 1. Check sliding door power window switch RH

Check sliding door power window switch RH.

Refer to PWC-39, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMAL-[FRONT WINDOW ANTI-PINCH] < SYMPTOM DIAGNOSIS > AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR-MALLY **DRIVER SIDE** В DRIVER SIDE: Diagnosis Procedure INFOID:0000000011326018 1. PERFORM INITIALIZATION PROCEDURE Initialization procedure is executed and operation is confirmed. Refer to PWC-34, "Work Procedure". Is the inspection result normal? D YES >> INSPECTION END NO >> GO TO 2. 2.CHECK ENCODER CIRCUIT (DRIVER SIDE) Е Check encoder circuit (driver side). Refer to PWC-45, "DRIVER SIDE: Component Function Check". Is the inspection result normal? F YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? Н YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". >> GO TO 1. NO PASSENGER SIDE PASSENGER SIDE: Diagnosis Procedure INFOID:0000000011326019  $1_{\cdot}$ PERFORM INITIALIZATION PROCEDURE Initialization procedure is executed and operation is confirmed. Refer to PWC-34, "Work Procedure". Is the inspection result normal? YES >> INSPECTION END NO >> GO TO 2. 2.CHECK ENCODER CIRCUIT (PASSENGER SIDE)

Check encoder circuit (passenger side). Refer to PWC-47, "PASSENGER SIDE: 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 result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

**PWC-61** Revision: 2014 August **2015 QUEST** 

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# ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (FRONT SIDE)

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

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

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000011326020

# 1. CHECK POWER WINDOW AUTO OPERATION

Check AUTO operation when anti-pinch function does not operate.

## Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to PWC-61, "DRIVER SIDE : Diagnosis Procedure".

# 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

PASSENGER SIDE

# PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011326021

# 1. CHECK POWER WINDOW AUTO OPERATION

Check AUTO operation when anti-pinch function does not operate.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to PWC-61, "PASSENGER SIDE : Diagnosis Procedure".

# 2.CONFIRM THE OPERATION

Confirm the operation again.

## Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

# POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NOR-MALLY

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

INFOID:000000011326022

Diagnosis Procedure

# 1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to DLK-241, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

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# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

## < SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

# Diagnosis Procedure

INFOID:0000000011326023

# 1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to PWC-34, "Work Procedure".

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

# 2.CHECK DRIVER SIDE DOOR LOCK ASSEMBLY (DOOR KEY CYLINDER SWITCH)

Check driver side door lock assembly (door key cylinder switch).

Refer to PWC-50, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

# **KEYLESS POWER WINDOW DOWN DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE		А
Diagnosis Procedure	INFOID:0000000011326024	Α
1. CHECK REMOTE KEYLESS ENTRY FUNCTION		В
Check remote keyless entry function.		
Does door lock/unlock with Intelligent key button?		0
YES >> GO TO 2. NO >> Refer to <u>DLK-44, "REMOTE KEYLESS ENTRY FUNCTION : System Description"</u> .		С
2. CHECK POWER WINDOW OPERATION		D
Check power window operation.		
Does power window up/down with power window main switch?  YES >> GO TO 3.  NO >> Refer to PWC-54, "Diagnosis Procedure".		Е
3.CHECK "PW DOWN SET" SETTING IN "WORK SUPPORT"		_
Check "PW DOWN SET" setting in "WORK SUPPORT".  Refer to DLK-95, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".		F
Is the inspection result normal?		G
YES >> GO TO 4.  NO >> Set "PW DOWN SET" setting in "WORK SUPPORT".		
4.CONFIRM THE OPERATION		Н
Confirm the operation again.		
Is the result normal?		1
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.		ı
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# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000011326025

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-68, "Removal and Installation".

>> INSPECTION END

# POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE IFRONT WINDOW ANTI-PINCH

[FRONT WINDOW ANTI-PINCH] < SYMPTOM DIAGNOSIS > POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE Α DRIVER SIDE **DRIVER SIDE**: Diagnosis Procedure INFOID:0000000011326026 В 1. REPLACE POWER WINDOW MAIN SWITCH Replace power window main switch. Refer to PWC-68, "Removal and Installation". >> INSPECTION END D PASSENGER SIDE PASSENGER SIDE: Diagnosis Procedure INFOID:0000000011326027 Е 1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE) Replace front power window switch (passenger side). F Refer to PWC-68, "Removal and Installation". >> INSPECTION END SLIDING DOOR LH SLIDING DOOR LH: Diagnosis Procedure INFOID:0000000011326028 Н 1. REPLACE SLIDING DOOR POWER WINDOW SWITCH LH Replace sliding door power window switch LH. Refer to PWC-69, "Removal and Installation". >> INSPECTION END SLIDING DOOR RH SLIDING DOOR RH: Diagnosis Procedure INFOID:0000000011326029 **PWC** 1. REPLACE SLIDING DOOR POWER WINDOW SWITCH RH Replace sliding door power window switch RH. Refer to PWC-69, "Removal and Installation". >> INSPECTION END M Ν Р

# **POWER WINDOW MAIN SWITCH**

< REMOVAL AND INSTALLATION >

[FRONT WINDOW ANTI-PINCH]

# REMOVAL AND INSTALLATION

# POWER WINDOW MAIN SWITCH

## Removal and Installation

INFOID:0000000011326030

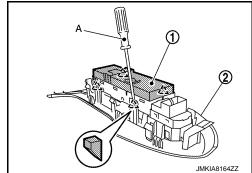
#### **REMOVAL**

- 1. Remove the power window main switch finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- 2. Remove power window main switch (1) from power window main switch finisher (2) using a remover tool (A).



#### NOTE:

The same procedure is also performed for front power window switch (passenger side).



#### INSTALLATION

Install in the reverse order of removal.

#### NOTE:

If power window main switch or front power window (passenger side) is replaced or is removed, it is necessary to perform the initialization procedure.

Refer to PWC-34, "Work Procedure".

# **SLIDING DOOR POWER WINDOW SWITCH**

< REMOVAL AND INSTALLATION >

[FRONT WINDOW ANTI-PINCH]

# SLIDING DOOR POWER WINDOW SWITCH

# Removal and Installation

#### INFOID:0000000011326031

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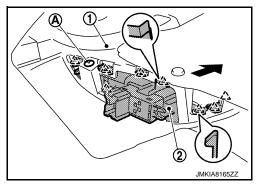
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#### **REMOVAL**

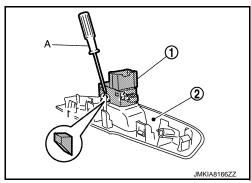
- Remove sliding door finisher. Refer to <u>INT-17</u>, "Removal and Installation".
- 2. Remove screw (A), disconnect pawls from sliding door finisher (1), and then remove power window switch finisher (2).

\_\_\_\_\_: Pawl



3. Remove power window switch (1) from power window switch finisher (2) using a remover tool (A).

\_\_\_\_\_\_: Pawl



## **INSTALLATION**

Install in the reverse order of removal.

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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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
  ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with
  a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing
  serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

# Precautions for Removing Battery Terminal

INFOID:0000000011326033

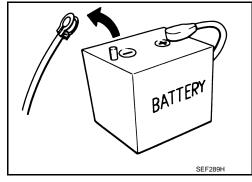
 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

#### NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
 NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.



After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

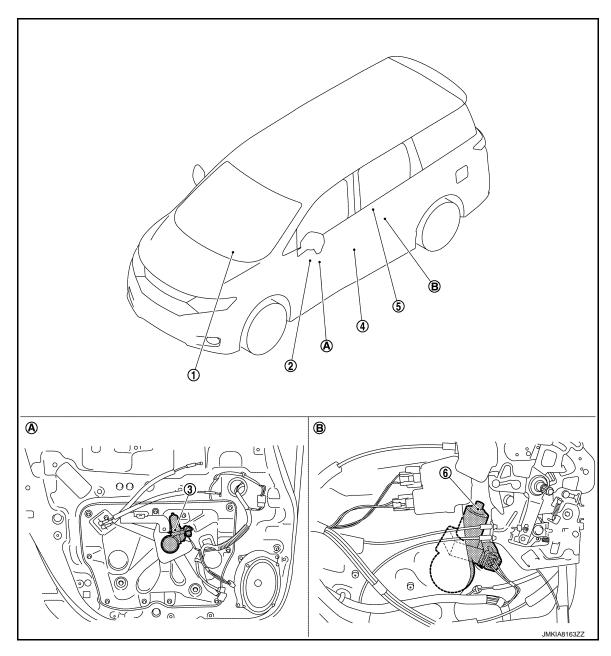
The removal of 12V battery may cause a DTC detection error.

# SYSTEM DESCRIPTION

# **COMPONENT PARTS**

Component Parts Location

INFOID:0000000011326034



A. View with front door finisher removed B. View with sliding door finisher removed

No.	Component parts	Description
1.	ВСМ	Supplies power supply to power window switch.     Controls retained power.  Refer to BCS-4, "BODY CONTROL SYSTEM: Component Parts Location" for detailed installation location.
2.	Power window main switch	Refer to PWC-72, "Power Window Main Switch".
3.	Front power window motor (driver side)	Refer to PWC-72, "Front Power Window Motor (Driver Side)".
4.	Front door switch (driver side)	Detects door open/close condition and transmits to BCM. Refer to <u>DLK-28</u> , <u>"Front Door Switch"</u> .

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# **COMPONENT PARTS**

## < SYSTEM DESCRIPTION >

## [DRIVER SIDE WINDOW ANTI-PINCH]

No.	Component parts	Description
5.	Sliding door power window switch LH	Refer to PWC-72, "Sliding Door Power Window Switch".
6.	Sliding door power window motor LH	Refer to PWC-72, "Sliding Door Power Window Motor".

# Power Window Main Switch

INFOID:0000000011326035

- Directly controls all power window motor of all doors.
- Controls anti-pinch operation of power window.

# Front Power Window Motor (Driver Side)

INFOID:0000000011326036

- Integrates the encoder and power window motor.
- Operates with signals from power window main switch.
- Transmits front power window motor (driver side) rotation as a pulse signal to power window main switch.

# Sliding Door Power Window Switch

INFOID:0000000011326037

Controls power window motor of sliding door.

# Sliding Door Power Window Motor

INFOID:0000000011326038

Operates with signals from power window main switch and sliding door power window switch.

### SYSTEM

# System Description

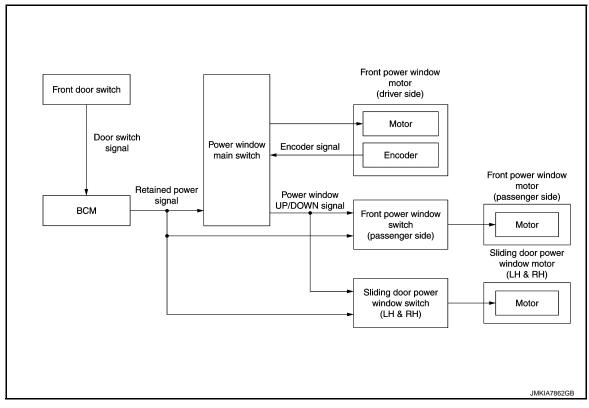
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#### SYSTEM DIAGRAM



#### DESCRIPTION

 Power window system is activated by power window switch when ignition switch turns ON, or during the retained power operation after ignition switch turns OFF.

- Power window main switch opens/closes all door glass.
- Front and sliding door power window switch opens/closes the corresponding door glass.
- AUTO UP/DOWN operation can be performed when power window main switch turns to AUTO.
- Power window lock switch can lock all power windows other than driver seat.
- If door glass receives resistance that is the specified value or more while power window of driver seat is in AUTO-UP operation, power window of driver seat operates in the reverse direction.

#### Power Window AUTO-Operation

- AUTO UP/DOWN operation can be performed when power window main switch turns to AUTO.
- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Power window switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case encoder is malfunctioning.

#### **Retained Power Operation**

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

#### **Retained Power 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 each power window switch operation except the power window main switch.

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### **SYSTEM**

#### [DRIVER SIDE WINDOW ANTI-PINCH]

#### Anti-Pinch System

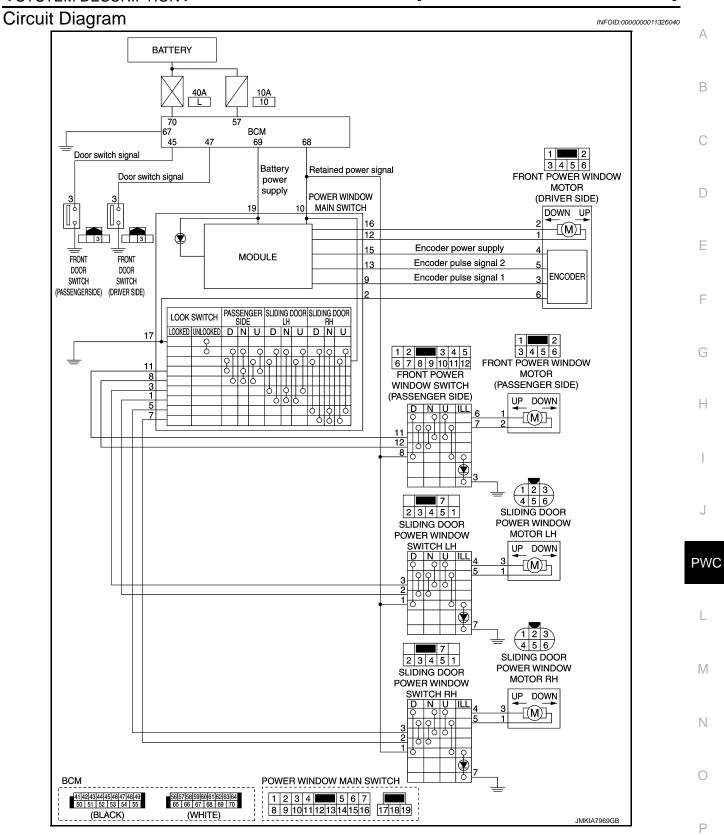
- Pinch foreign material in the door glass during AUTO-UP operation, and it is the anti-pinch function that lowers the door glass 150 mm (5.9 in) when detected.
- Encoder continues detecting the movement of front power window motor (driver side) and transmits to power window main switch as the encoder pulse signal while front power window motor (driver side) is operating.
- Resistance is applied to the front power window motor (driver side) rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window main switch controls to lower the window glass for 150 mm (5.9 in) after it detects encoder pulse signal frequency change.

#### **Operation Condition**

When front door glass (driver side) 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.



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.

### [DRIVER SIDE WINDOW ANTI-PINCH]

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.

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

- Auto-up operation
- Anti-pinch 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 main switch or front power window motor (driver side).

# **DIAGNOSIS SYSTEM (BCM)**

< SYSTEM DESCRIPTION >

[DRIVER SIDE WINDOW ANTI-PINCH]

# **DIAGNOSIS SYSTEM (BCM)**

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011561368

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#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description	
Work Support	Changes the setting for each system function.	
Self Diagnostic Result	Displays the diagnosis results judged by BCM.	
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.	
Data Monitor	The BCM input/output signals are displayed.	
Active Test	The signals used to activate each device are forcibly supplied from BCM.	
Ecu Identification	The BCM part number is displayed.	
Configuration	<ul> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>	

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

x: Applicable item

System	Cub avatam adaption item		Diagnosis mode			
System	Sub system selection item	Work Support	Data Monitor	Active Test		
Door lock	DOOR LOCK	×	×	×		
Rear window defogger	REAR DEFOGGER		×	×		
Warning chime	BUZZER		×	×		
Interior room lamp control system	INT LAMP	×	×	×		
Exterior lamp	HEAD LAMP	×	×	×		
Wiper and washer	WIPER	×	×	×		
Turn signal and hazard warning lamps	FLASHER	×	×	×		
Air conditioning control system	AIR CONDITONER		×	×*		
<ul><li>Intelligent Key system</li><li>Engine start system</li></ul>	INTELLIGENT KEY	×	×	×		
Combination switch	COMB SW		×			
Body control system	ВСМ	×				
NVIS	IMMU	×	×	×		
Interior room lamp battery saver	BATTERY SAVER	×	×	×		
Back door open	TRUNK		×			
Vehicle security system	THEFT ALM	×	×	×		
RAP system	RETAINED PWR		×			
Signal buffer system	SIGNAL BUFFER		×	×		
TPMS	AIR PRESSURE MONITOR	×	×	×		

### FREEZE FRAME DATA (FFD)

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

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<sup>\*:</sup> For models with automatic air conditioning control system, this diagnosis mode is not used.

CONSULT screen item	Indication/Unit		Description
Vehicle Speed	km/h	Vehicle speed of the mo	ment a particular DTC is detected
Odo/Trip Meter	km	Total mileage (Odomete	r value) of the moment a particular DTC is detected
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (LOCK)]
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (OFF)]
	LOCK>ACC		While turning power supply position from OFF (LOCK) to ACC
	ACC>ON		While turning power supply position from ACC to ON
	RUN>ACC		While turning power supply position from RUN to ACC (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from CRANK to RUN
Vehicle Condition	RUN>URGENT		While turning power supply position from RUN to ACC (Emergency stop operation)
	ACC>OFF		While turning power supply position from ACC to OFF (OFF)
	OFF>LOCK	Power position status of the moment a particular	While turning power supply position from OFF (OFF) to OFF (LOCK)
	OFF>ACC	DTC is detected*	While turning power supply position from OFF (OFF) to ACC
	ON>CRANK		While turning power supply position from ON to CRANK
	OFF>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (OFF)] to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (LOCK)] to low power consumption mode
	LOCK		Power supply position is OFF (LOCK)
	OFF		Power supply position is OFF (OFF)
	ACC		Power supply position is ACC
	ON		Power supply position is ON
	ENGINE RUN		Power supply position is RUN
	CRANKING		Power supply position is CRANK
IGN Counter	0 - 39	The number is 0 wher  number increases whenever ignition swit	It ignition switch is turned ON after DTC is detected a malfunction is detected now. If the interval of a malfunction is detected now. If the interval of a malfunction is detected now. If the interval of the normal condition is consistent of the interval of the interva

#### NOTE:

- \*: Refer to the following for details of the power supply position.
- OFF (OFF, LOCK): Ignition switch OFF
- ACC: Ignition switch ACC
- IGN: Ignition switch ON with engine stopped
- RUN: Ignition switch ON with engine running
- CRANK: At engine cranking

Power supply position shifts to "OFF (LOCK)" from "OFF (OFF)", when ignition switch is in the OFF position, shift position is in the P position, and any of the following conditions are met.

- · Closing door
- · Opening door
- · Door is locked using door request switch
- · Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "OFF (LOCK)".

### **RETAIND PWR**

RETAIND PWR: CONSULT Function (BCM - RETAINED PWR) (Driver Side Window

# **DIAGNOSIS SYSTEM (BCM)**

< SYSTEM DESCRIPTION >

[DRIVER SIDE WINDOW ANTI-PINCH]

INFOID:0000000011326043

# DATA MONITOR

Anti-pinch)

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Description
DOOR SW-DR	Indicates [ON/OFF] condition of driver side door switch.
DOOR SW-AS	Indicates [ON/OFF] condition of passenger side door switch.

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# **BCM (BODY CONTROL MODULE)**

< ECU DIAGNOSIS INFORMATION >

[DRIVER SIDE WINDOW ANTI-PINCH]

# **ECU DIAGNOSIS INFORMATION**

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000011326044

ECU	Reference
	BCS-40, "Reference Value"
BCM	BCS-62, "Fail-safe"
BCIVI	BCS-62, "DTC Inspection Priority Chart"
	BCS-63, "DTC Index"

### **POWER WINDOW MAIN SWITCH**

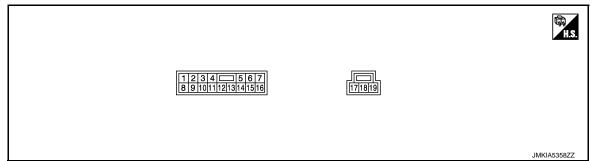
< ECU DIAGNOSIS INFORMATION >

[DRIVER SIDE WINDOW ANTI-PINCH]

# POWER WINDOW MAIN SWITCH

Reference Value

### **TERMINAL LAYOUT**



### PHYSICAL VALUES

	nal No. color)	Description		Condition	Voltage (V)	
+	-	Signal name	Input/ Output	Condition	Voltage (V)	
1 (O)	Ground	Sliding door power window motor LH UP signal	Output	When sliding door LH switch in power window main switch is in UP operation.	9 – 16	
2 (W)	Ground	Encoder ground	_	_	0 - 1	
3 (BR)	Ground	Sliding door power window motor LH DOWN signal	Output	When sliding door LH switch in power window main switch is in DOWN operation.	9 – 16	
5 (SB)	Ground	Sliding door power window motor RH DOWN signal	Output	When sliding door RH switch in power window main switch is in DOWN operation.	9 – 16	
7 (P)	Ground	Sliding door power window motor RH UP signal	Output	When sliding door RH switch in power window main switch is in UP operation.	9 – 16	
8 (BR)	Ground	Front power window motor (passenger side) UP signal	Output	When front RH switch in power window main switch is in UP operation.	9 – 16	
9 (SB)	Ground	Encoder pulse signal 2	Input	When front power window motor (driver side) operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	
				Ignition switch ON	9 – 16	
10				Within 45 seconds after ignition switch is turned to OFF.	9 – 16	
10 (V)	Ground	Retained power signal	Input	When driver side or passenger side door is opened during retained power operation.	0 – 1	

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### **POWER WINDOW MAIN SWITCH**

#### < ECU DIAGNOSIS INFORMATION >

#### [DRIVER SIDE WINDOW ANTI-PINCH]

	nal No. color)	Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output	Condition	voltage (v)
11 (GR)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front RH switch in power window main switch is in DOWN operation.	9 – 16
12 (LG)	Ground	Front power window motor (driver side) DOWN signal	Output	When front LH switch in power window main switch is in DOWN operation.	9 – 16
13 (Y)	Ground	Encoder pulse signal 1	Input	When front power window motor (driver side) operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
15 (R)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operating.	9 – 16
16 (L)	Ground	Front power window motor (driver side) UP signal	Output	When front LH switch in power window main switch is in UP operation.	9 – 16
17 (B)	Ground	Ground	_	_	0 - 1
19 (LG)	Ground	Battery power supply	Input	Ignition switch OFF	9 – 16

Fail-safe INFOID.000000011561372

#### **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.

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

- Auto-up operation
- Anti-pinch 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 main switch or front power window motor (driver side).

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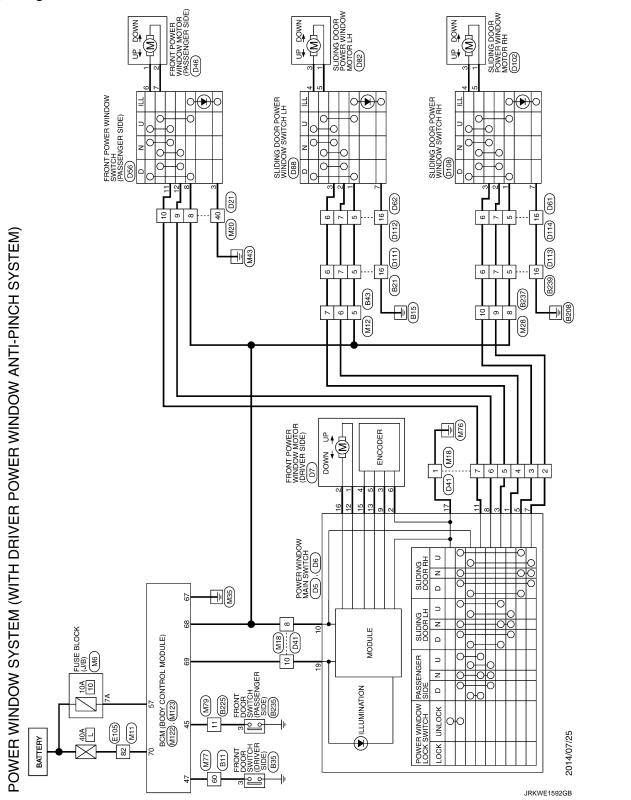
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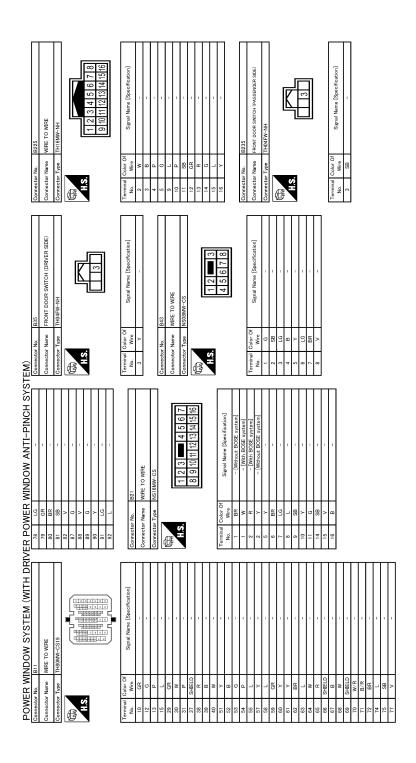
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# WIRING DIAGRAM

# POWER WINDOW SYSTEM

Wiring Diagram INFOID:0000000011326047 DOWN





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# **POWER WINDOW SYSTEM**

Connector No. D21  Connector Name Write TO WRE  Connector Type TH40FW-CS15  (State 12th 10 to 12th	No.   Wire   Signal Name (Specification)   No.   Wire   Signal Name (Specification)	1	GR G
ector No. DR ector Name POWER WINDOW MAIN SWITCH ector Type NSSSEW-CS  [17] [8] [9]	Terminal Golor Of Signal Name (Specification)   Terminal Golor Of Signal Name (Specification)   To Wise   Company   To Wise   Commercer No   D7   Commercer No   D7   Commercer No   Norwell Wise Microw Morton (DRIVER SIDE)   Concenter Town Norwell Wise Microwalter Town Norwell Wise Wise Side   Concenter Town Norwell Wise Wise Wise Wise Wise Wise Wise Wise		
POWER WINDOW SYSTEM (WITH DRIVER POWER WINDOW ANTI-PINCH SYSTEM)           Commetter Name In Will 1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (	Connector Name POWER WINDOW MAIN SWITCH Connector Type  NS16FW-GS  H.S.  1 2 3 4 1 5 6 7  8 9 10 11 12 13 14 15 16	Terminal   Color Of   Segral Name (Sea-orication)   No.   Wire   No.   Segral Name (Sea-orication)   No.	
POWER WINDOW SYSTEM (WITH DRI Connector No. 1823	No.   Wires   Signal Name (Specification)	1 2 3 1 1 2 3 1 1 1 2 3 1 1 1 2 3 1 1 1 1	Terminal Color Of   Signal Name (Specification)   No.   Wife   Signal Name (Specification)   No.   With Color Posterin   No.   With Books system   1   W   With Books system   2   W   With BOOKs system   2   V   With Stocks System   2   V   Without EOSE system   1   W   Without EOSE system   1

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POW	ER WI	POWER WINDOW SYSTEM (WITH DRIV	VER P	OWE	R WINDOW ANTI-PINCH SYSTEM)	GR -	10	7	
			34	ი. ≥			11		
Connector No.	or No.	D41	35	5	- Connector No.	lo. D56	15		
Connecto	Connector Name	WRE TO WRE	36	a (	Connector Name	lame FRONT POWER WINDOW SWITCH (PASSENGER SIDE)	16	GR	_
Connecto	Connector Type	TH40FW-CS15	38	5 ≥		ype NS12FW-CS			
			39	LG	-		Connector No.	.No. D62	
F			40	+			Connector Name	Name WIRE TO WIRE	
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			45	Υ	- [With around view monitor]		2		
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No.	Wire	Functional authorities	46	-	- [With around view monitor] No.				
-	В	1	47	æ	-	GR -			
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S.	BR	1	20	≥		1	-		_
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80	GR	1	25	g	- [Without automatic drive positioner] 12	BR -	2	R - [With BOSE system]	_
6	g	- [With manual A/C]	52	Α	- [With automatic drive positioner]		2	_ ^	
6	œ	- [With auto A/C]	23	SHIELD			9		_
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13	3	-				Connector Type NS16FW-CS	10	TG	_
14	В	1	Connec	Connector No.	D46		=	BR -	_
15	7	- [Without BOSE system]	Connec	Connector Name	FRONT POWER WINDOW MOTOR (PASSENGER SIDE)		14		_
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24	В	1			1	W - [With BOSE system]			
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### **POWER WINDOW SYSTEM**

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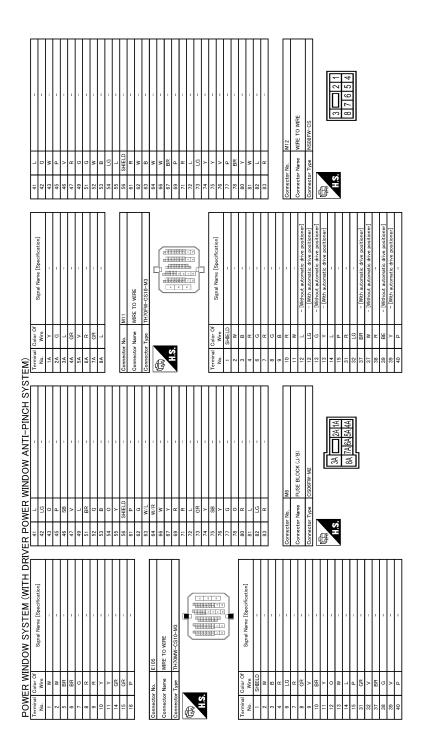
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# **POWER WINDOW SYSTEM**

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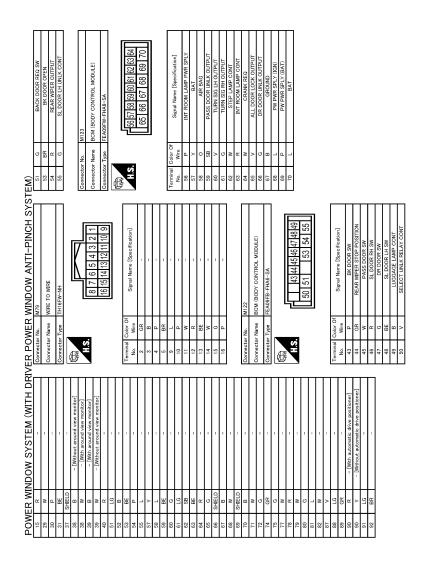
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### **DIAGNOSIS AND REPAIR WORK FLOW**

< BASIC INSPECTION >

[DRIVER SIDE WINDOW ANTI-PINCH]

# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORK FLOW

Work Flow INFOID:0000000011326048

# 1. OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much malfunction information (conditions and environment when the malfunction occurred) as possible when the customer brings the vehicle in.

>> GO TO 2. D

# $2.\mathsf{REPRODUCE}$ THE MALFUNCTION INFORMATION

Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur.

>> GO TO 3.

# 3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"

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

>> GO TO 4.

# f 4.IDENTIFY MALFUNCTIONING PARTS WITH "DTC/CIRCUIT DIAGNOSIS"

Perform the diagnosis with "DTC/CIRCUIT DIAGNOSIS" of the applicable system.

>> GO TO 5.

>> GO TO 6.

# $5.\mathtt{REPAIR}$ OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

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.

Is the malfunctioning part repaired or replaced?

>> Trouble diagnosis is completed. YES

NO >> GO TO 3.

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**PWC-91 2015 QUEST** 

### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL [DRIVER SIDE WINDOW ANTI-PINCH]

< BASIC INSPECTION >

# ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL

Description INFOID:0000000011326049

When the battery negative 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:0000000011326050

# 1. SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-94, "Work Procedure".

>> GO TO 2.

# 2. CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-95, "Work Procedure".

>> END

### ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN SWITCH [DRIVER SIDE WINDOW ANTI-PINCH]

< BASIC INSPECTION >

# ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN **SWITCH**

Description INFOID:0000000011326051

When the power window main switch replaced, the initialization in 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:0000000011326052

# 1. SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-94, "Work Procedure".

>> GO TO 2.

# 2. CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-95, "Work Procedure".

>> END

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### SYSTEM INITIALIZATION

< BASIC INSPECTION >

[DRIVER SIDE WINDOW ANTI-PINCH]

### SYSTEM INITIALIZATION

Description INFOID:000000011326053

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

- Disconnection and connection of battery cable from negative terminal.
- When power window main switch replaced.
- Electric power supply to power window main switch or power window motor (driver side) is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc.
- Disconnection and connection of power window main switch harness connector.
- Removal of power window motor (driver side) from regulator assembly.
- Operation of regulator assembly as an independent unit.
- · Removal and installation of glass.
- · Removal and installation of door glass run.

#### **CAUTION:**

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

- Auto-up operation
- Anti-pinch function

Work Procedure

# **1.**STEP 1

- 1. Turn ignition switch ON.
- 2. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
- 3. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 2 seconds or more.
- 4. Check that AUTO-UP function operates normally.

>> GO TO 2.

### 2.STEP 2

Check anti-pinch function. Refer to PWC-95, "Work Procedure".

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#### **CHECK ANTI-PINCH FUNCTION**

< BASIC INSPECTION >

[DRIVER SIDE WINDOW ANTI-PINCH]

### **CHECK ANTI-PINCH FUNCTION**

Description INFOID:000000011326055

If any of the following operations are performed, the initialization is necessary for normal operation of antipinch function.

- Disconnection and connection of battery cable from negative terminal.
- When power window main switch replaced.
- Electric power supply to power window main switch or power window motor (driver side) is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc.
- Disconnection and connection of power window main switch harness connector.
- Removal of power window motor (driver side) from regulator assembly.
- Operation of regulator assembly as an independent unit.
- · Removal and installation of glass.
- Removal and installation of door glass run.

Work Procedure

# 1. CHECK ANTI-PINCH FUNCTION

- Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- Close door glass completely with AUTO-UP.
- 4. Check the following conditions.
- Check that glass lowers for approximately 150 mm (5.9 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.

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### POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

# DTC/CIRCUIT DIAGNOSIS

# POWER SUPPLY AND GROUND CIRCUIT POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000011326057

# 1. CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- 3. Check voltage between power window main switch harness connector and ground.

Power windo	+) w main switch	(-) Condition Voltage (	Condition		Voltage (V)
Connector	Terminal				
D5	10	Ground	Ignition switch	ON	9 – 16
D6	19	Giouna	igililion Switch	OFF	9 – 10

#### Is the inspection result normal?

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

# 2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and power window main switch harness connector.

В	CM	Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M123	68	D5	10	Existed
IVITZS	69	D6	19	EXISTEC

4. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	68	Ground	Not existed
IVITZS	69		Not existed

### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-98, "Removal and Installation".

NO >> Repair or replace harness.

# 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

Check continuity between power window main switch harness connector and ground.

Power windo	w main switch		Continuity
Connector	Terminal	Ground	Continuity
D6	17		Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

### POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

### [DRIVER SIDE WINDOW ANTI-PINCH]

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

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# 1. CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window switch (passenger side) harness connector and ground.

(	+)		
Front power window s	switch (passenger side)	(-)	Voltage (V)
Connector	Terminal		
D56	8	Ground	9 – 16

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

# 2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM connector.
- Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

В	BCM		Front power window switch (passenger side)	
Connector	Terminal	Connector	Terminal	Continuity
M123	68	D56	8	Existed

4. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	68		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-98, "Removal and Installation".

NO >> Repair or replace harness.

### SLIDING DOOR POWER WINDOW SWITCH

# SLIDING DOOR POWER WINDOW SWITCH: Diagnosis Procedure

#### INFOID:0000000011326059

# 1. CHECK POWER SUPPLY

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch connector.
- Turn ignition switch ON.
- 4. Check voltage between sliding door power window switch harness connector and ground.

(+)				
Sliding door power window switch			(-)	Voltage (V)
Coni	Connector Terminal			
LH	D88	1	Ground	9 – 16
RH	D108	<b>1</b>	Giouria	9 – 10

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

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### POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

# 2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- Check continuity between BCM harness connector and sliding door power window switch harness connector.

В	СМ	Sliding door power window switch			Continuity
Connector	Terminal	Connector		Terminal	Continuity
M123	68	LH	D88	1	Existed
101123	30	RH	D108	1	LAISIEU

4. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M123	68		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-98, "Removal and Installation"</u>.

NO >> Repair or replace harness.

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

# Component Function Check

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# 1. CHECK FUNCTION

Check front power window motor (passenger side) operation with front power window switch (passenger side). Is the inspection result normal?

YES >> INSPECTION END

>> Refer to PWC-99, "Diagnosis Procedure". NO

# Diagnosis Procedure

#### INFOID:0000000011326061

# $1.\mathsf{check}$ front power window switch (passenger side) input signal

- Turn ignition switch OFF.
- Disconnect front power window switch (passenger side) connector.
- 3. Turn ignition switch ON.
- Check voltage between front power window switch (passenger side) harness connector and ground.

(	(+)				
Front power window switch (passenger side)		(-) Condition		ion	Voltage (V)
Connector	Terminal				
	11			NEUTRAL	0 – 1
D56	11	Ground	Power window main switch	DOWN	9 – 16
D30	12	Giodila	(passenger side)	NEUTRAL	0 – 1
	12			UP	9 – 16

### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2. 2.check front power window switch (passenger side) circuit

- Turn ignition switch OFF.
- Disconnect power window main switch connector. 2.
- Check continuity between front power window switch (passenger side) harness connector and power window main switch harness connector.

Front power window	switch (passenger side)	Power windo	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
D56	11	D5	11	Existed	
D56 -	12	D3	8	Existed	

Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window s	switch (passenger side)		Continuity	
Connector	Terminal	Ground	Continuity	
D56	11	Ground	Not existed	
	12		Not existed	

#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

# 3.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to PWC-100, "Component Inspection".

#### Is the inspection result normal?

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# FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

### < DTC/CIRCUIT DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

>> Replace front power window switch (passenger side). Refer to <a href="PWC-123">PWC-123</a>, "Removal and Installation".

# Component Inspection

NO

INFOID:0000000011326062

# 1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

- Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check front power window switch (passenger side) terminals under the following conditions.

Front power window s	Front power window switch (passenger side)		Continuity	
Terr	Terminal		Continuity	
8	7	UP		
11	6		Existed	
11	6	NEUTRAL		
12	7	NEOTIVAL	LXISIEU	
8	6	DOWN		
12	7			

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window switch (passenger side). Refer to <a href="PWC-123">PWC-123</a>, "Removal and Installation".

### **SLIDING DOOR POWER WINDOW SWITCH**

### < DTC/CIRCUIT DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

# SLIDING DOOR POWER WINDOW SWITCH

# Component Function Check

INFOID:0000000011326063

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# 1. CHECK FUNCTION

Check sliding door power window motor operation with sliding door power window switch.

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to <a href="PWC-101">PWC-101</a>, "Diagnosis Procedure".

# Diagnosis Procedure

INFOID:0000000011326064

# 1. CHECK SLIDING DOOR POWER WINDOW SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between sliding door power window switch harness connector and ground.

(+)		(-) Condi				
Sliding do	Sliding door power window switch		(-)	Cond	ition	Voltage (V)
Conr	nector	Terminal				
		2			NEUTRAL	0 - 1
LH	D88	Power window m	Power window main switch	UP	9 – 16	
LN	LH D88	3	Ground -	(sliding door LH side)	NEUTRAL	0 - 1
					DOWN	9 – 16
			Ground		NEUTRAL	0 - 1
RH D108	. 2		Power window main	UP	9 – 16	
	3		switch (sliding door RH side)	NEUTRAL	0 - 1	
			,	DOWN	9 – 16	

#### Is the inspection result normal?

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

# 2.check sliding door power window switch circuit

1. Turn ignition switch OFF.

- 2. Disconnect power window main switch connector.
- 3. Check continuity between sliding door power window switch harness connector and power window main switch harness connector.

Slidin	Sliding door power window switch			Power window main switch	
Coni	Connector		Connector	Terminal	Continuity
LH	D88	2		1	Existed
LH	D00	3	D5	3	
DU	D109	2		7	Existed
RH	D108	3		5	1

4. Check continuity between sliding door power window switch harness connector and ground.

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### **SLIDING DOOR POWER WINDOW SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

### [DRIVER SIDE WINDOW ANTI-PINCH]

Slid	Sliding door power window switch			Continuity	
Conr	Connector			Continuity	
LH	D88	2	Ground		
LIT		3	Giouna	Not existed	
RH	D109	2		Not existed	
KΠ	D108	3			

#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to <a href="PWC-123">PWC-123</a>, "Removal and Installation".

NO >> Repair or replace harness.

# 3. CHECK SLIDING DOOR POWER WINDOW SWITCH

Check sliding door power window switch.

Refer to PWC-102, "Component Inspection".

#### Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace sliding door power window switch. Refer to PWC-124, "Removal and Installation".

# Component Inspection

INFOID:0000000011326065

# 1. CHECK SLIDING DOOR POWER WINDOW SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch connector.
- 3. Check sliding door power window switch terminals under the following conditions.

	Sliding door power window switch Terminal		Continuity
1	5	UP	
3	4		
2	5	- NEUTRAL	Existed
3	4	NEOTIVAL	LAISIGU
1	4	DOWN	
2	5	DOWN	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace sliding door power window switch. Refer to <a href="PWC-124">PWC-124</a>, "Removal and Installation".

### < DTC/CIRCUIT DIAGNOSIS >

### [DRIVER SIDE WINDOW ANTI-PINCH]

# **POWER WINDOW MOTOR**

DRIVER SIDE

# DRIVER SIDE : Component Function Check

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## 1. CHECK FUNCTION

Check front power window motor (driver side) operation with power window main switch.

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-103, "DRIVER SIDE : Diagnosis Procedure".

# DRIVER SIDE: Diagnosis Procedure

INFOID:0000000011326067

# 1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect front power window motor (driver side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor (driver side) harness connector and ground.

(+)			Condition		
Front power window motor (driver side)		(-)			Voltage (V)
Connector	Terminal				
	1			NEUTRAL	0 – 1
D7	'	Ground	Power window main switch	DOWN	9 – 16
Di	2	Giodila	(driver side)	NEUTRAL	0 - 1
	2			UP	9 - 16

#### Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to <u>GW-29, "Removal and Installation"</u>. NO >> GO TO 2.

# 2.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- Check continuity between front power window motor (driver side) harness connector and power window main switch harness connector.

Front power window motor (driver side)		Power window main switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
D7	1	D5	12	Existed	
Di	2	D3	16	LXISIEU	

4. Check continuity between front power window motor (driver side) harness connector and ground.

Front power window	w motor (driver side)		Continuity
Connector	Terminal	Ground	Continuity
	1	Ground	Not existed
Ul	2		Not existed

#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to <a href="PWC-123">PWC-123</a>, "Removal and Installation".

NO >> Repair or replace harness.

#### PASSENGER SIDE

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< DTC/CIRCUIT DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

# PASSENGER SIDE: Component Function Check

INFOID:0000000011326068

# 1. CHECK FUNCTION

Check front power window motor (passenger side) operation with power window main switch or front power window switch (passenger side).

#### Is the inspection result normal?

YES >> INSPECTION END

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

## PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011326069

# 1. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect front power window motor (passenger side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor (passenger side) harness connector and ground.

(+) Front power window motor (passenger side)		(-)	Condition		Voltage (V)
Connector	Terminal				
	1			NEUTRAL	0 - 1
D46	'	Ground	Front power window switch	DOWN	9 – 16
D40	2	Ground	(passenger side)	NEUTRAL	0 – 1
	2			UP	9 – 16

#### Is the inspection result normal?

YES >> Replace front power window motor (passenger side).

NO >> GO TO 2.

# 2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- Check continuity between front power window motor (passenger side) harness connector and front power window switch (passenger side) harness connector.

Front power window i	motor (passenger side)	Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
D46	1	D56	6	Existed
D40	2	D30	7	LXISIGU

4. Check continuity between front power window motor (passenger side) harness connector and ground.

Front power window motor (passenger side)			Continuity
Connector	Terminal	Ground _	Continuity
D46	1	Giouna	Not existed
D46	2		Not existed

#### Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <a href="PWC-123">PWC-123</a>, "Removal and Installation".

NO >> Repair or replace harness.

#### SLIDING DOOR LH

### < DTC/CIRCUIT DIAGNOSIS >

### [DRIVER SIDE WINDOW ANTI-PINCH]

# SLIDING DOOR LH: Component Function Check

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# 1. CHECK FUNCTION

Check sliding door power window motor LH operation with power window main switch or sliding door power window switch LH.

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-105, "SLIDING DOOR LH: Diagnosis Procedure".

# SLIDING DOOR LH : Diagnosis Procedure

INFOID:0000000011326071

# 1. CHECK SLIDING DOOR POWER WINDOW MOTOR LH INPUT SIGNAL

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

(+)			Condition		Voltage (V)
Sliding door power window motor LH		(-)			
Connector	Terminal				
	D82 3	Ground	Sliding door power window switch LH	NEUTRAL	0 – 1
Doo				UP	9 – 16
D62				NEUTRAL	0 – 1
				DOWN	9 – 16

#### Is the inspection result normal?

YES >> Replace sliding door power window motor LH.

NO >> GO TO 2.

# 2.check sliding door power window motor LH circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch LH connector.
- 3. Check continuity between sliding door power window motor LH harness connector and sliding door power window switch LH harness connector.

Sliding door powe	r window motor LH	Sliding door power window switch LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
D82	1	D88	5	Existed
D02	3	D00	4	LAISIEU

Check continuity between sliding door power window motor LH harness connector and ground.

Sliding door powe	r window motor LH		Continuity
Connector	Terminal	Ground	Continuity
D82	1	Ground	Not existed
D02	3		Not existed

#### Is the inspection result normal?

YES >> Replace sliding door power window switch LH. Refer to PWC-124, "Removal and Installation".

NO >> Repair or replace harness.

#### SLIDING DOOR RH

### SLIDING DOOR RH: Component Function Check

INFOID:0000000011326072

# 1. CHECK FUNCTION

Revision: 2014 August

**PWC-105** 2015 QUEST

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#### < DTC/CIRCUIT DIAGNOSIS >

#### [DRIVER SIDE WINDOW ANTI-PINCH]

Check sliding door power window motor RH operation with power window main switch or sliding door power window switch RH.

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to PWC-106, "SLIDING DOOR RH : Diagnosis Procedure".

### SLIDING DOOR RH: Diagnosis Procedure

INFOID:0000000011326073

# 1. CHECK SLIDING DOOR POWER WINDOW MOTOR RH INPUT SIGNAL

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

(+)			Condition		Voltage (V)
Sliding door power window motor RH		(-)			
Connector	Terminal				
	1	Ground	Sliding door power	NEUTRAL	0 – 1
D102				UP	9 – 16
3	Ground	window switch RH	NEUTRAL	0 - 1	
	3			DOWN	9 – 16

#### Is the inspection result normal?

YES >> Replace sliding door power window motor RH.

NO >> GO TO 2.

# 2. CHECK SLIDING DOOR POWER WINDOW MOTOR RH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect sliding door power window switch RH connector.
- Check continuity between sliding door power window motor RH harness connector and sliding door power window switch RH harness connector.

Sliding door powe	r window motor RH	Sliding door power window switch RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D102	1	D108	5	Existed
D102	3	D100	4	LAISIGU

Check continuity between sliding door power window motor RH harness connector and ground.

Sliding door power window motor RH			Continuity
Connector	Terminal	Ground	Continuity
D102	1	Ground	Not existed
D102	3		NOT EXISTED

#### Is the inspection result normal?

YES >> Replace sliding door power window switch RH. Refer to PWC-124, "Removal and Installation".

NO >> Repair or replace harness.

# **ENCODER CIRCUIT**

# Component Function Check

#### INFOID:0000000011326074

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### 1. CHECK FUNCTION

Check that front driver side door glass perform AUTO UP/DOWN operation normally when power window main switch is operated.

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to <a href="PWC-107">PWC-107</a>, "Diagnosis Procedure".

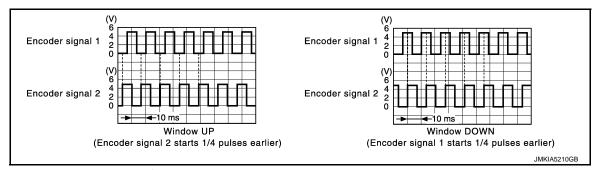
# Diagnosis Procedure

#### INFOID:0000000011326075

# 1. CHECK ENCODER PULSE SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between power window main switch harness connector and ground using an oscilloscope.

(+) Power window main switch		(-)	Signal (Reference value)	
Connector	Terminal		(11010101100 10100)	
	9	Ground	Pofor to the following signal	
D3	13	Ground	Refer to the following signal	



#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to <a href="PWC-123">PWC-123</a>, "Removal and Installation".

NO >> GO TO 2.

# 2.check encoder signal circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector and front power window motor (driver side) connector.
- Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	w main switch	Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D5	9	D7	3	Existed
D3	13		5	LXISIEU

Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	9	Giodila	Not existed
	13		Not existed

#### Is the inspection result normal?

### **ENCODER CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3. CHECK ENCODER POWER SUPPLY

- Connect power window main switch connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between front power window motor (driver side) harness connector and ground.

(+)				
Front power window motor (driver side)		(-)	Voltage (V)	
Connector	Terminal			
D7	4	Ground	9 – 16	

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

# 4. CHECK ENCODER POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D5	15	D7	4	Existed

4. Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity	
	Connector	Terminal	Ground	Continuity
	D5	15		Not existed

#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

# 5. CHECK ENCODER GROUND CIRCUIT 1

- Turn ignition switch OFF.
- Disconnect power window main switch connector.
- Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D5	2	D7	6	Existed

4. Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	2		Not existed

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

#### **O.**CHECK ENCODER GROUND CIRCUIT 2

1. Connect power window main switch connector.

## **ENCODER CIRCUIT**

## < DTC/CIRCUIT DIAGNOSIS >

## [DRIVER SIDE WINDOW ANTI-PINCH]

2. Check continuity between power window main switch harness connector and ground.

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D5	2		Existed

# Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to <u>GW-29</u>, "Removal and Installation".

NO >> Replace power window main switch. Refer to <a href="PWC-123">PWC-123</a>, "Removal and Installation".

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# NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH [DRIVER SIDE WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

# NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY **SWITCH**

# **Diagnosis Procedure**

INFOID:0000000011326076

# ${f 1}$ .CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

Refer to BCS-91, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check power window main switch power supply and ground circuit.

Refer to PWC-96, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

#### 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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

## DRIVER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

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# DRIVER SIDE POWER WINDOW DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000011326077 1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) В Check front power window motor (driver side). Refer to PWC-103, "DRIVER SIDE: Component Function Check". C Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. D 2.replace power window main switch Replace power window main switch. Refer to PWC-123, "Removal and Installation". Is the inspection result normal? Е YES >> INSPECTION END NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". F Н J **PWC** M Ν

Revision: 2014 August PWC-111 2015 QUEST

# FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

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

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to PWC-99, "Component Function Check".

# Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).

Refer to PWC-104, "PASSENGER SIDE: 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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

# WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED:

Diagnosis Procedure

INFOID:0000000011326079

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIRCUIT

Check front power window switch (passenger side) power supply and ground circuit.

Refer to PWC-97, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to PWC-99, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

#### WHEN POWER WINDOW MAIN SWITCH IS OPERATED

# FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

[DRIVER SIDE WINDOW ANTI-PINCH] < SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure			
1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)			
Check front power window switch (passenger side).			
Refer to <a href="PWC-99">PWC-99</a> , "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 result normal?			
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 1.			
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**PWC-113** Revision: 2014 August **2015 QUEST** 

# SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE
WHEN POWER WINDOW MAIN AND SLIDING DOOR LH POWER WINDOW
SWITCHES ARE OPERATED

WHEN POWER WINDOW MAIN AND SLIDING DOOR LH POWER WINDOW SWITCHES ARE OPERATED: Diagnosis Procedure

# 1.check sliding door power window switch <code>LH</code>

Check sliding door power window switch LH.

Refer to PWC-101, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK SLIDING DOOR POWER WINDOW MOTOR LH

Check sliding door power window motor LH.

Refer to PWC-105, "SLIDING DOOR 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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

# WHEN SLIDING DOOR LH POWER WINDOW SWITCH IS OPERATED

# WHEN SLIDING DOOR LH POWER WINDOW SWITCH IS OPERATED : Diagnosis Procedure

# ${f 1.}$ CHECK SLIDING DOOR POWER WINDOW SWITCH LH POWER SUPPLY AND GROUND CIRCUIT

Check sliding door power window switch LH power supply and ground circuit.

Refer to PWC-97, "SLIDING DOOR POWER WINDOW SWITCH: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK SLIDING DOOR POWER WINDOW SWITCH LH

Check sliding door power window switch LH.

Refer to PWC-101, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

#### WHEN POWER WINDOW MAIN SWITCH IS OPERATED

# SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

.CHECK SLIDING DOOR POWER WINDOW SWITCH LH	
Check sliding door power window switch LH. Refer to PWC-101, "Component Function Check".	
s the inspection result normal? YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	
CONFIRM THE OPERATION Confirm the operation again.	
s the result normal?	
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incide NO >> GO TO 1.	<u>∍nt"</u> .

Revision: 2014 August PWC-115 2015 QUEST

# SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE
WHEN POWER WINDOW MAIN AND SLIDING DOOR RH POWER WINDOW
SWITCHES ARE OPERATED

WHEN POWER WINDOW MAIN AND SLIDING DOOR RH POWER WINDOW SWITCHES ARE OPERATED: Diagnosis Procedure

# 1.check sliding door power window switch RH

Check sliding door power window switch RH.

Refer to PWC-101, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK SLIDING DOOR POWER WINDOW MOTOR RH

Check sliding door power window motor RH.

Refer to PWC-105, "SLIDING DOOR 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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

# WHEN SLIDING DOOR RH POWER WINDOW SWITCH IS OPERATED

# WHEN SLIDING DOOR RH POWER WINDOW SWITCH IS OPERATED : Diagnosis Procedure

# 1. CHECK SLIDING DOOR POWER WINDOW SWITCH RH POWER SUPPLY AND GROUND CIRCUIT

Check sliding door power window switch RH power supply and ground circuit.

Refer to PWC-97, "SLIDING DOOR POWER WINDOW SWITCH: Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK SLIDING DOOR POWER WINDOW SWITCH RH

Check sliding door power window switch RH.

Refer to PWC-101, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

#### WHEN POWER WINDOW MAIN SWITCH IS OPERATED

# SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE

## < SYMPTOM DIAGNOSIS >

# [DRIVER SIDE WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS > [DRIVER SIDE WINDOW ANT	I-PINCH]
WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Proced	dure
INFOIL	D:0000000011326086
1.CHECK SLIDING DOOR POWER WINDOW SWITCH RH	
Check sliding door power window switch RH.	
Refer to PWC-101, "Component Function Check".	
s the inspection result normal? YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	
CONFIRM THE OPERATION	
onfirm the operation again.	
the result normal?	
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".  NO >> GO TO 1.	

Revision: 2014 August PWC-117 2015 QUEST

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

## < SYMPTOM DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR-MALLY (DRIVER SIDE)

# Diagnosis Procedure

INFOID:0000000011326087

# 1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to PWC-94, "Work Procedure".

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

# 2. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to PWC-107, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

# ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE) [DRIVER SIDE WINDOW ANTI-PINCH]

## < SYMPTOM DIAGNOSIS >

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

# Diagnosis Procedure

INFOID:0000000011326088

# 1. CHECK POWER WINDOW AUTO OPERATION

Check AUTO operation when anti-pinch function does not operate.

#### Is the inspection result normal?

YES >> GO TO 2.

>> Refer to PWC-118, "Diagnosis Procedure". NO

# 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

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**PWC-119** Revision: 2014 August **2015 QUEST** 

# POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[DRIVER SIDE WINDOW ANTI-PINCH]

# POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

**Diagnosis Procedure** 

INFOID:0000000011326089

# 1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to DLK-241, "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 result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 1.

# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

# [DRIVER SIDE WINDOW ANTI-PINCH] < SYMPTOM DIAGNOSIS > POWER WINDOW LOCK SWITCH DOES NOT FUNCTION Α Diagnosis Procedure INFOID:0000000011326090 1. REPLACE POWER WINDOW MAIN SWITCH В Replace power window main switch. C >> Refer to PWC-123, "Removal and Installation". D Е F Н J PWC L M Ν 0

Revision: 2014 August PWC-121 2015 QUEST

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# POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE [DRIVER SIDE WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

# POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE DRIVER SIDE

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000011326091

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

Refer to PWC-123, "Removal and Installation".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000011326092

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to PWC-123, "Removal and Installation".

>> INSPECTION END

SLIDING DOOR LH

SLIDING DOOR LH: Diagnosis Procedure

INFOID:0000000011326093

 ${\sf 1.}$ REPLACE SLIDING DOOR POWER WINDOW SWITCH LH

Replace sliding door power window switch LH. Refer to PWC-124, "Removal and Installation".

>> INSPECTION END

SLIDING DOOR RH

SLIDING DOOR RH: Diagnosis Procedure

INFOID:0000000011326094

 ${f 1}$  . REPLACE SLIDING DOOR POWER WINDOW SWITCH RH

Replace sliding door power window switch RH.

Refer to PWC-124, "Removal and Installation".

>> INSPECTION END

## **POWER WINDOW MAIN SWITCH**

< REMOVAL AND INSTALLATION >

[DRIVER SIDE WINDOW ANTI-PINCH]

# REMOVAL AND INSTALLATION

# POWER WINDOW MAIN SWITCH

#### Removal and Installation

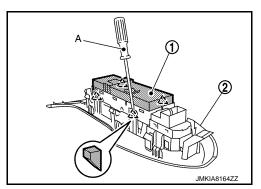
#### **REMOVAL**

- 1. Remove the power window main switch finisher. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- 2. Remove power window main switch (1) from power window main switch finisher (2) using a remover tool (A).



#### NOTE:

The same procedure is also performed for front power window switch (passenger side).



#### **INSTALLATION**

Install in the reverse order of removal.

#### NOTE:

If power window main switch is replaced or is removed, it is necessary to perform the initialization procedure. Refer to <a href="https://example.com/PWC-94">PWC-94</a>, "Work Procedure".

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# **SLIDING DOOR POWER WINDOW SWITCH**

< REMOVAL AND INSTALLATION >

[DRIVER SIDE WINDOW ANTI-PINCH]

# SLIDING DOOR POWER WINDOW SWITCH

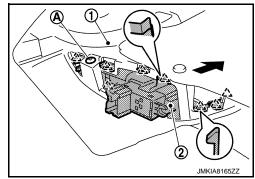
# Removal and Installation

#### INFOID:0000000011326096

#### **REMOVAL**

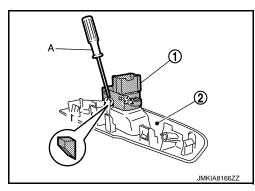
- 1. Remove sliding door finisher. Refer to <a href="INT-17">INT-17</a>, "Removal and Installation".
- 2. Remove screw (A), disconnect pawls from sliding door finisher (1), and then remove power window switch finisher (2).

<u>^</u> \	: Pawl
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3. Remove power window switch (1) from power window switch finisher (2) using a remover tool (A).





#### **INSTALLATION**

Install in the reverse order of removal.