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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 of Battery Terminal

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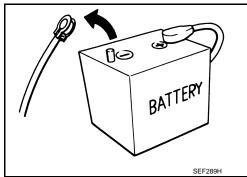
 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

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

(A) B 7

- Remote keyless entry receiver Refer to <u>DLK-9</u>, "<u>DOOR LOCK SYS-TEM</u>: Component Parts Location"
- Front power window motor (driver side)
- 7. Rear power window motor LH
- A. View with front door finisher removed B.
- 2. BCM
 Refer to BCS-4, "BODY CONTROL
 SYSTEM: Component Parts Location"
- 5. Front door switch (driver side)
- 8. Rear power window switch LH
- 3. View with rear door finisher removed
- 3. Power window main switch
 - Front door lock assembly (driver side) (door key cylinder switch)

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COMPONENT PARTS

< SYSTEM DESCRIPTION >

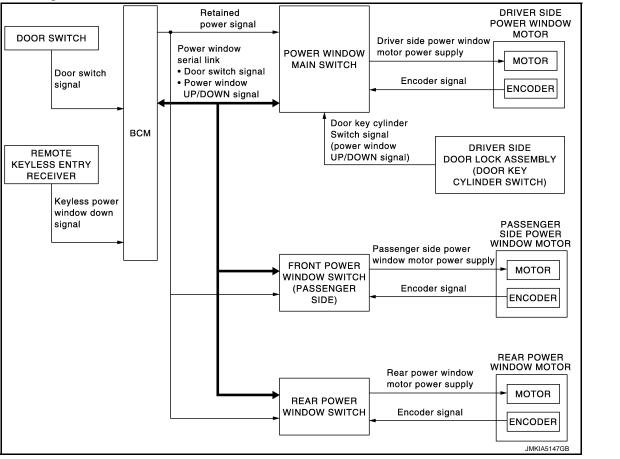
Component Description

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Component	Function		
BCM	Supplies power supply to power window switch.Controls retained power.		
Power window main switch	 Directly controls all power window motor of all doors. Controls anti-pinch operation of power window. 		
Front power window switch (passenger side)	Controls anti-pinch operation of power window.Controls power window motor of passenger door.		
Rear power window switch	 Controls anti-pinch operation of power window. Controls power window motor of rear right and left doors. 		
Power window motor	 Integrates the ENCODER and WINDOW MOTOR. Starts operating with signals from each power window switch. Transmits power window motor rotation as a pulse signal to power window switch. 		
Remote keyless entry receiver	Receives lock/unlock signal from the intelligent key, and then transmits to BCM.		
Front door lock assembly (door key cylinder switch)	Transmits operation condition of door key cylinder switch to power window main switch.		
Front door switch (driver side/passenger side)	Front door open/close condition and transmits to BCM.		

SYSTEM

System Diagram



System Description

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POWER WINDOW OPERATION

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

- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- Power window lock switch can lock all power windows other than driver seat.
- All power windows open when pressing Intelligent Key unlock button for 3 seconds.
- If door glass receives resistance that is the specified value or more while power window of each seat is in AUTO-UP operation, power window operates in the reverse direction.
- Power window serial link transmits the signals from power window main switch to each power window switch
- AUTO UP/DOWN operation can be performed when front power window switch turns to AUTO.

POWER WINDOW AUTO-OPERATION

- AUTO UP/DOWN operation can be performed when each power window motor 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.

POWER WINDOW SERIAL LINK

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

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SYSTEM

< SYSTEM DESCRIPTION >

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

- Keyless power window down signal
- Door switch signal

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

- Front passenger side door window and rear door window operation signal
- Power window control by door key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

RETAINED POWER OPERATION

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

Retained power function cancel conditions

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

POWER WINDOW LOCK FUNCTION

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

ANTI-PINCH OPERATION

- Anti-pinch foreign lowers door glass 150 mm (5.9 in) when foreign material is pinched in door glass during AUTO-UP operation.
- 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 all door glass AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed)

NOTE:

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

DOOR KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5 seconds or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating.

OPERATION CONDITION

- 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 FUNCTION

All 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 DLK-34, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

NOTE:

SYSTEM

< SYSTEM DESCRIPTION >

Use CONSULT to change settings.
MODE 1 (3 sec) / MODE 2 (OFF) / MODE 3 (5 sec)

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FAIL-SAFE CONTROL

Fail-safe

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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

Malfunction	Malfunction condition				
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specific time or more, while door glass is being operated UP or DOWN.				
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.				
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.				
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.				
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.				

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

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

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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	 Read and save the vehicle specification. Write the vehicle specification when replacing BCM. 		

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 system selection 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 timer	INT LAMP	×	×	×	
Exterior lamp	HEAD LAMP	×	×	×	
Wiper and washer	WIPER	×	×	×	
Turn signal and hazard warning lamps	FLASHER	×	×	×	
_	AIR CONDITONER*		×	×	
Intelligent Key system Engine start system	INTELLIGENT KEY		×	×	
Combination switch	COMB SW		×		
Body control system	BCM	×			
IVIS - NATS IMMU		×	×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	
Trunk lid open	TRUNK		×		
Vehicle security system	cle security system THEFT ALM		×	×	
RAP system	RETAINED PWR		×		
Signal buffer system	SIGNAL BUFFER		×	×	
_	AIR PRESSURE MONITOR*	×	×	×	

^{*:} This item is not used.

FREEZE FRAME DATA (FFD)

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description			
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected			
Odo/Trip Meter	km	Total mileage (Odometer 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 "LOCK"*)	В	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	С	
	LOCK>ACC		While turning power supply position from "LOCK" *to "ACC"		
	ACC>ON		While turning power supply position from "ACC" to "IGN"		
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	D	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	Е	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)	F	
	ACC>OFF	Power position status of the moment a particular DTC is detected*	While turning power supply position from "ACC" to "OFF"		
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*		
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"	G	
vernore containon	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"		
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	Н	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK"*.) to low power consumption mode		
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)*	I	
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	J	
	ACC		Power supply position is "ACC" (Ignition switch ACC)		
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	PV	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)		
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	L	
IGN Counter	0 - 39	 The number of times that ignition switch is turned ON after DTC is detected The number is 0 when a malfunction is detected now. The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 			

NOTE

- *: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.
- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

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

RETAIND PWR

RETAIND PWR: CONSULT Function (BCM - RETAINED PWR)

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Data monitor

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

ECU	Reference	
	BCS-33, "Reference Value"	
BCM	BCS-53, "Fail-safe"	
DCIVI	BCS-54, "DTC Inspection Priority Chart"	
	BCS-54, "DTC Index"	

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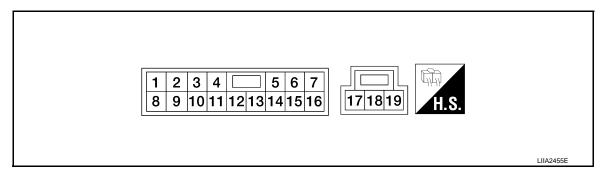
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POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (wire color)		Description		Condition	Voltage [V]	
+	-	Signal name	Input/ Output	Condition	(Approx.)	
3 (B)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	12	
4 (Y)	Ground	Battery power supply	Input		12	
5 (G)	Ground	Front driver side power win- dow motor DOWN signal	Output	When front LH switch in power window main switch is operated DOWN	12	
6 (L)	Ground	Front driver side power win- dow motor UP signal	Output	When front LH switch in power window main switch is operated UP	12	
7 (B)	Ground	Ground	_	_	0	
				IGN SW ON	12	
9	Ground	Ground Retained power signal Input	Input	Within 45 second after ignition switch is turned to OFF	12	
(O)			When driver side or passenger side door is opened during retained power operation	0		
10 (LG)	Ground	Encoder ground	_	_	0	
11 (P)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
12 (LG)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
13 (W)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB
15 (R)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral →Locked)	5 → 0
16 (G)	Ground	Door key cylinder switch UN- LOCK signal	Input	Key position (Neutral →Unlocked)	5 → 0

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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

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

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

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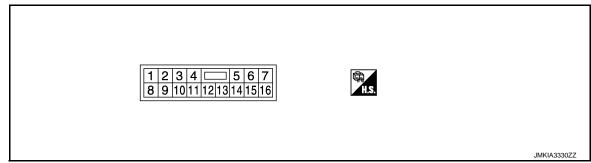
FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

FRONT POWER WINDOW SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (LG)	Ground	Encoder ground	_	_	0
4 (B)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	12
8 (L)	Ground	Power window motor UP signal	Output	When power window motor is operated UP	12
9 (G)	Ground	Power window motor DOWN signal	Output	When power window motor is operated DOWN	12
10 (Y)	Ground	Battery power supply	Input	_	12
11 (B)	Ground	Ground	_	_	0
12 (P)	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 >

	ninal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (O)	Ground	Encoder pulse signal 2	Input	When power window motor operates	(V) 6 4 2 0 10 ms JMKIA0070GB
16 (V)	Ground	Power window serial link	Input/ Output	When ignition switch ON or power window timer operates	(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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

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

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

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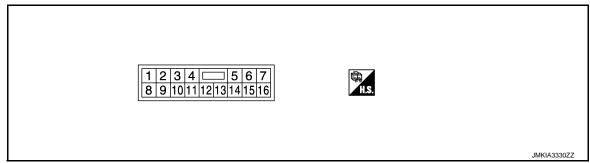
REAR POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

REAR POWER WINDOW SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

	ninal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (BR)	Ground	Encoder ground	_	_	0
4 (V)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	12
8 (P)	Ground	Power window motor UP signal	Output	When power window motor is operated UP	12
9 (G)	Ground	Power window motor DOWN signal	Output	When power window motor is operated DOWN	12
10 (P)	Ground	Battery power supply	Input	_	12
11 (B)	Ground	Ground	_	_	0
12 (W)	Ground	Encoder pulse signal 1	Input	When power window motor operates	(V) 6 4 2 0 10 ms JMKIA0070GB

REAR POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

	ninal No. re color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (O)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
16 (LG)	Ground	Power window serial link	Input/ Output	When ignition switch ON or power window timer operates	(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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

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

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

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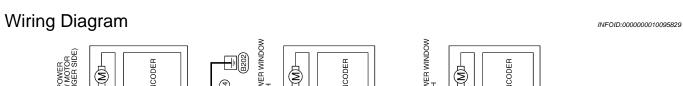
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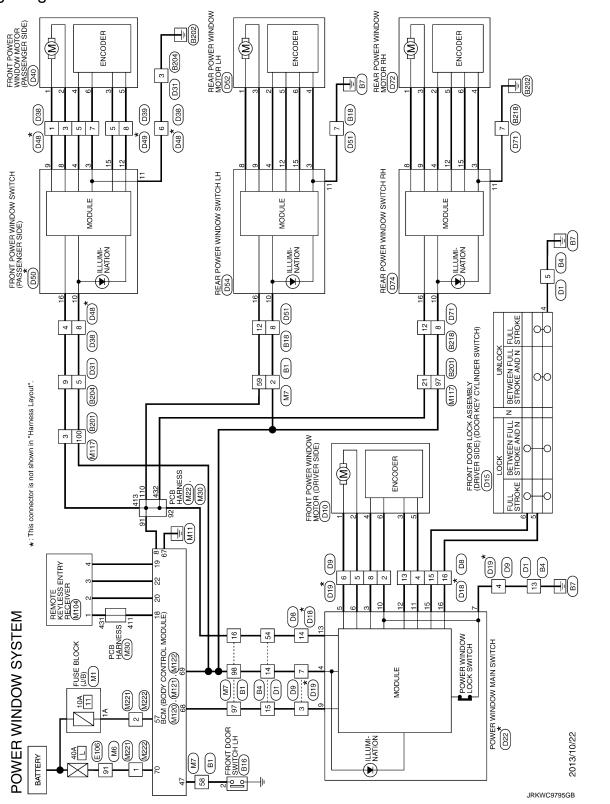
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WIRING DIAGRAM

POWER WINDOW SYSTEM





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97 0	Terminal Color Of National Signal Name [Specification]	
36 G 37 SB 40 SHELD 41 GR/V 42 W/L 44 B L 44 B B 45 W 46 W 47 O 48 Y 49 PR	550 100	
POWER WINDOW SYSTEM Connector Name WIRE TO WIRE Connector Type THEORY-CSIG-TM4 THS THS THS THS THS THS THS TH	offication] rolled seat] rolled seat]	
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Revision: 2013 November PWC-21 2014 Q70

	33 6	ν α.	34 SHIELD -	35 P	36 B/R -	37	38	\dashv	\dashv	45 R -			54 B -			Connector No. B218	Connector Name WIRE TO WIRE		Confidence Lype Inflictive Colo	4		2 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	13/12/11/10/9				Terminal Color Of Signal Name [Specification]	t	2 GR -	3 0 -	4 P	7 B -	- В	- 0 6	- w 01	- 0 11		13 B	1		T			1	7	
1	1	ı	1	1	Î	- [With heated seat]	 [With climate controlled seat] 	1	1	1	-	-	-			B204	WIRE TO WIRE	TUAOMMODUE	I HAUMINI COLO			2 3 5 9 10 11 12 13 14 15	第1718 第22 22 22 24 25 25 25 25 25 25 25 25 25 25	2010 3410			Signal Name [Specification]	1	1	-	-	1	-	-	-	=	-	1	1		-	ı		1		
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POWER	POWER WINDOW SYSTEM				ſ	
Connector No.	D1	4	SHIELD		Connector No. D9	Connector No. D15
Connector Name	e WIRE TO WIRE	42			Connector Name WIRE TO WIRE	Connector Name FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	TH40FW-CS15	44	>	,	Connector Type NS08FW-CS	Connector Type E06FGY-RS
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5 6		Connector Type	or Type	TH24FW-NH	8 B	
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	_	1	,		Connector No. D10	Connector Name MIDE TO MIDE
13 B/W		5	ń	12 11 10 9 8 7 4	Consector Name FRONT DOWER WINDOW MOTOR (DRIVER SIDE)	Commercial Marie 10 Miles
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	ا [5		Connector Type NS06FW-CS
WIRE TO WIRE NS08MW-CS	Con	Sonnector No.	D31 WIRE TO WIRE	Connector No.	D38 WIRE TO WIRE	1 1 2
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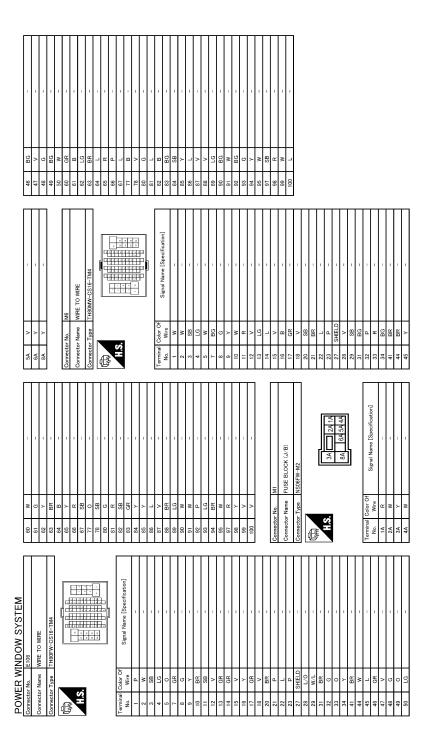
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Connector No. M30	
Connector No. MZ2 Connector Name PCB HARNESS	
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Connector No. M7 Connector No. M8 Connector N	
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Revision: 2013 November PWC-27 2014 Q70

	>-	NOO CON	α.	7	40 P CAN-L		To Management	ı	Sonnector Name BCM (BODY CONTROL MODULE)	Connector Type FEA09FB-FHA6-SA		Œ		41 42 44 45 46 47 48 49	51 53 55			Ferminal Color Of Signal Name [Specification]	$^{+}$	R TRUN	44 V TR LID OP CANCEL SW	45 GR PASSENGER DOOR SW	46 BR REARRH DOOR SW	LG	48 P REAR LH DOOR SW	9 2	LG	BR		Someortor No M122		connector Name BCM (BODY CONTROL MODULE)	Connector Type FEA09FW-FHA6-SA		10000000000000000000000000000000000000	e	7 56 57 58 59 60 61 62 63	20 00 00 00	69 89					
	- [With climate controlled seat]			_	-	1		8	M120 Co	BCM (BODY CONTROL MODILIE)	BOM (BODT CONTINCE MODOLE)	TH40FB-NH				1 2 3 4 5 6 8 9 11 14 16 17 18 19 20		Te	I	Signal Name [Specification]	RR WINDOW DEFG RLY CONT	COMBI SW INPUT 5	COMBI SW INPUT 4	COMBI SW INPUT 3	COMBI SW INPUT 2	POWER WINDOW SW COMM	STOP LAMP SW 1	RAIN SENSOR SERIAL LINK	OPTICAL SENSOR	<u></u>	ONS	RECEIVER PWR SPLY	COMM		ISSI	Ę	DONGLE LINK	NATS ANT AMP.	I-KEY IDENTIFICATION	HAZARD SW	TR LID OPNR SW	DR DOOR UNLK SENSOR	COMBI SW OUTPUT 5	COMBI SW OUTPUT 4 COMBI SW OUTPUT 3
ŀ	93 W	94 ^	M 96	+	+	5 66	100 Y		Connector No.	Connector Name	_	Connector Type	dį.	李	S T		_		Tarminal Color Of		1 6	2 BG	3 SB	4		+	а	Ξ.	W %	+	18 B	19 R	20 BR	+	+	23 G	+	+	26 G	29 G	30 0	Н	+	33 K
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	M222	WIRE TO WIRE	M03MW-LC						2 3				olgital ivame [obecimeation]	-	1	-								
	r No.	r Name	r Type	,								Terminal Color Of	Wire	۸	œ	٨								
	Connector No.	Connector Name	Connector Type				<u> </u>					Terminal	No.	1	2	3								
POWER WINDOW SYSTEM	Signal Name [Specification]	INT ROOM LAMP PWR SPLY	BAT (FUSE)	SENS CANCEL SW	PASS DOOR UNLK OUTPUT	TURN SIG LH OUTPUT	TURN SIG RH OUTPUT	STEP LAMP CONT	ROOM LAMP TIMER CONT	ALL DOOR, FL LID LOCK OUTPUT	DR DOOR, FL LID UNLK OUTPUT	GND	PW PWR SPLY (IGN)	PW PWR SPLY (BAT)	BAT (F/L)		M221	WIRE TO WIRE	M03FW-LC	 	Signal Name [Specification]	1	ı	
EK WI	Color Of Wire	œ	œ	٦	9	9	>	^	٦	>	PT	В	0	>	W				П	1	Terminal Color Of No. Wire	W	œ	>
2	Terminal Color Of No. Wire	26	22	28	29	09	61	62	63	69	99	49	89	69	70		Connector No.	Connector Name	Connector Type	₽ H.S.	Terminal No.	-	2	·

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

DETAILED 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.

>> 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.

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

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

>> GO TO 5.

REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

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

Is the malfunctioning part repaired or replaced?

YES >> Trouble diagnosis is completed.

NO >> GO TO 3.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

< BASIC INSPECTION >

Description

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-NAL

INFOID:0000000010095831

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Initialize the system if any of the following work has been done.

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

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

- Auto-up operation
- Anti-pinch function

Work Procedure

INFOID:0000000010095832

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-33, "Work Procedure".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-34, "Work Procedure".

>> END

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PWC-31 Revision: 2013 November 2014 Q70

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ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

Description INFOID.000000010095833

Initialize the system if any of the following work has been done.

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

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

- Auto-up operation
- Anti-pinch function

Work Procedure

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-33, "Work Procedure".

>> GO TO 2.

2. CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-34, "Work Procedure".

>> END

SYSTEM INITIALIZATION

< BASIC INSPECTION >

SYSTEM INITIALIZATION Α Description INFOID:0000000010095835 Initialize the system if any of the following work has been done. В When control unit replaced. Electric power supply to power window switch or motor is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc. Removal and installation of regulator assembly. Power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or if the battery fuse is blown. Disconnection and connection of power window main switch harness connector. D Removal and installation of motor from regulator assembly. Operation of regulator assembly as an independent unit. Removal and installation of door glass. Е Removal and installation of door glass run. The following specified operations can not be performed under the non-initialized condition. Auto-up operation Anti-pinch function Work Procedure INFOID:0000000010095836 **1**.STEP 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) >> GO TO 2. 2.STEP 2 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. >> GO TO 3. **PWC** ${f 3.}$ STEP ${f 3.}$ Check that auto-up function operates normally. >> GO TO 4. **4.**STEP 4 Check anti-pinch function. Refer to PWC-34, "Work Procedure". >> END N

CHECK ANTI-PINCH FUNCTION

< BASIC INSPECTION >

CHECK ANTI-PINCH FUNCTION

Description INFOID:0000000010095837

Initialize the system if any of the following work has been done.

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

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

- Auto-up operation
- Anti-pinch function

Work Procedure

INFOID:0000000010095838

1.STEP 1

Fully open the door window.

>> GO TO 2.

2.STEP 2

Place a piece of wood near fully closed position.

>> GO TO 3.

3.STEP $_{3}$

Close door glass completely with AUTO-UP.

>> GO TO 4.

4.STFP 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.
- It may switch to fail-safe mode if open/close operation is performed continuously without full close. Perform initial setting in that situation. Refer to PWC-33, "Work Procedure".

>> END

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

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1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
57	Rattory power supply	11 (10A)
70	Battery power supply	L (40A)

Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connectors.
- 3. Check voltage between BCM harness connector and ground.

	+) CM	(-)	Voltage (Approx.)
Connector	Terminal		(/ (ppi ox.)
M122	57	Crownd	Detter veltere
IVI I Z Z	70	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M122	67		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

1. CHECK POWER SUPPLY CIRCUIT 1

- Turn ignition switch OFF.
- 2. Disconnect power window main switch connectors.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

Power windo	+) w main switch	(-)	Voltage (V) (Approx.)
Connector	Terminal		(Αρβίολ.)
D22	4	Ground	12
522	9	Oround	12

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK GROUND CIRCUIT

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

Power windo	w main switch		Continuity
Connector	Terminal	Ground	Continuity
D22	7		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK POWER SUPPLY CIRCUIT 2

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

В	СМ	Power windo	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
M122	68	D22	9	Existed	
IVI 122	69	022	4	Existed	

4. Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M122	68	Ground	Not existed
IVITZZ	69		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-90, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

INFOID:0000000010095841

1. CHECK POWER SUPPLY CIRCUIT 1

1. Turn ignition switch OFF.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

_							
2	Disconnect fr	rant nawar	window	CWitch	/naccondor	cida)	connoctor
۷.	DISCUILLECT II	ioni bowei	willaow	SWILLI	(Dassenuer	Side	COHIECTOR.

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

	(+)			
	r window switch enger side)	(-)	Voltage (V) (Approx.)	
Connector	Terminal			
D50	10	Ground	12	

Is the inspection result normal?

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

2.CHECK GROUND CIRCUIT

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

•	window switch ger side)		Continuity
Connector	Terminal	Ground	
D50	11		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK POWER SUPPLY CIRCUIT 2

1. Disconnect BCM connector.

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

ВСМ		Front power (passen	Continuity	
Connector	Terminal	Connector	Terminal	
M122	69	D50	10	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		
Connector	Connector Terminal		Continuity
M122	69		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-90, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH: Diagnosis Procedure

1. CHECK POWER SUPPLY CIRCUIT 1

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

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	(+) Rear power window switch	1	(-)	Voltage (V) (Approx.)	
-	nector	Terminal			
LH	D54	10	Ground	12	
RH	D74	10	Giodila	12	

Is the inspection result normal?

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

2. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Check continuity between rear power window switch harness connector and ground.

	Rear power window switcl		Continuity		
Conr	Connector		Crownd	Continuity	
LH	D54	11	- Ground	Existed	
RH	D74	11		Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3. CHECK POWER SUPPLY CIRCUIT 2

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

ВСМ		Rear power window switch			Continuity
Connector	Terminal	Connector		Terminal	Continuity
M122	22 69	LH	D54	10	Existed
IVI 1 Z Z	09	RH	D74	10	Existed

4. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Connector Terminal		Continuity
M122	M122 69		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-90, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MOTOR

DRIVER SIDE

DRIVER SIDE : Component Function Check

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1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor (driver side) is OK.

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

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000010095844

1. CHECK FRONT POWER WINDOW MOTOR 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.

(+) Front power window motor (driver side)		(–)	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(
2				UP	12	
D10	2	Ground	Power window main switch	DOWN	0	
Dio	1		Fower window main switch	UP	0	
				DOWN	12	

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to <u>GW-20, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK POWER WINDOW MOTOR 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	Power window main switch		Front power window motor (driver side)		
Connector	Terminal	Connector	Terminal		
D22	5	D10	1	Existed	
DZZ	6	D10	2	LAISIEU	

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

Power windo	w main switch		Continuity	
Connector	Terminal	- - Ground	Continuity	
D22	5	Ground	Not existed	
DZZ	6		inot existed	

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> Repair or replace harness.

PASSENGER SIDE

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< DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE: Component Function Check

INFOID:0000000010095845

1. CHECK POWER WINDOW MOTOR CIRCUIT

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 >> Front power window motor (passenger side) is OK.

NO >> Refer to PWC-40, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000010095846

1. CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

- 1. 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) (Approx.)			
Connector	Terminal							
	2			UP	12			
D40	2	Front power	Ground	Ground	Ground	Front power window switch	DOWN	0
D40	4	Ground				Ground	(passenger side)	UP
	1			DOWN	12			

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to <u>GW-20, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK POWER WINDOW MOTOR 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.

Front power window s	switch (passenger side)	Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D50	8	D40	2	Existed
D30	9	540	1	LXISTEG

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

Front power window s	witch (passenger side)		Continuity
Connector	Terminal	Ground	Continuity
	8	Ground	Not existed
D30	9		Not existed

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <u>PWC-73</u>, "Removal and Installation"

NO >> Repair or replace harness.

REAR LH

< DTC/CIRCUIT DIAGNOSIS >

REAR LH: Component Function Check

INFOID:0000000010095847

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check rear power window motor LH operation with power window main switch or rear power window switch LH.

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Is the inspection result normal?

>> Rear power window motor LH is OK.

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

REAR LH: Diagnosis Procedure

INFOID:0000000010095848

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

Turn ignition switch OFF.

- Disconnect rear power window motor LH connector.
- Turn ignition switch ON.
- Check voltage between rear power window motor LH harness connector and ground.

(+) Rear power window motor LH		(–) Condition			Voltage (V) (Approx.)
Connector	Terminal				(, (ppiox.)
	1			UP	12
D52	'	Ground	Ground Rear power window switch LH	DOWN	0
D32	3			UP	0
	3			DOWN	12

Is the inspection result normal?

YES >> Replace rear power window motor LH. Refer to GW-23, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW MOTOR CIRCUIT

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

Rear power wi	ndow switch LH	Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D54	8	D52	1	Existed
D34	9	D32	3	LXISIGU

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

Rear power wi	ndow switch LH		Continuity
Connector	Terminal	Ground	Continuity
	8	Giodila	Not existed
D34	9		Not existed

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

REAR RH

REAR RH: Component Function Check

INFOID:0000000010095849

1. CHECK POWER WINDOW MOTOR CIRCUIT

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< DTC/CIRCUIT DIAGNOSIS >

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

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

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

REAR RH: Diagnosis Procedure

INFOID:0000000010095850

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

(+) Rear power winder	ow motor RH	(–)	Condition		Voltage (V) (Approx.)			
Connector	Terminal				(
	1	4					UP	12
D72	1	Ground	Rear power window switch RH	DOWN	0			
DIZ	3		ixeai powei willuow Switch Kri	UP	0			
	3			DOWN	12			

Is the inspection result normal?

YES >> Replace rear power window motor RH. Refer to <u>GW-23, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

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

Rear power win	ndow switch RH	Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D74	8	D72	1	Existed
574	9	572	3	LAISIEU

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

Rear power w	ndow switch RH		Continuity	
Connector	Terminal	Ground	Continuity	
	8	Giodila	Not existed	
D14	9		Not existed	

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

< DTC/CIRCUIT DIAGNOSIS >

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DRIVER SIDE

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DRIVER SIDE: Component Function Check

1. CHECK ENCODER

Check that driver side door glass performs AUTO open/close operation normally by power window main switch.

Is the inspection result normal?

YES >> Encoder is OK.

>> Refer to PWC-43, "DRIVER SIDE : Diagnosis Procedure". NO

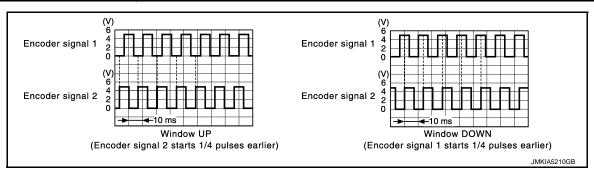
DRIVER SIDE: Diagnosis Procedure

INFOID:0000000010095852

1. CHECK ENCODER SIGNAL

- Turn ignition switch ON.
- Check signal between power window main switch harness connector and ground with oscilloscope.

	(+)		Cimnal	
Power window main switch		(–)	Signal (Reference value)	
Connector	Terminal		,	
D22	11	Ground	Refer to following signal	
UZZ	12	Giouna	ixelei to following signal	



Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> GO TO 2.

2.CHECK ENCORDER SIGNAL CIRCUIT

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

Power windo	Power window main switch		window motor r side)	Continuity
Connector	Terminal	Connector	Terminal	
D22	11	D10	5	Existed
	12	010	3	LAISIEG

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

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Power wind	Power window main switch		Continuity
Connector	Terminal	Ground	Continuity
D22	11	Ground	Not existed
DZZ	12	_	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK ENCORDER POWER SUPPLY CIRCUIT 1

- 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) (Approx.)	
Connector	, ,			
D10	4	Ground	12	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK ENCORDER POWER SUPPLY CIRCUIT 2

- 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
D22	3	D10	4	Existed

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

Power window main switch			Continuity
Connector	Connector Terminal		Continuity
D22	3		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK GROUND CIRCUIT 1

Turn ignition switch OFF.

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

Front power window motor (driver side)				Continuity
Cor	Connector Terminal		Ground	Continuity
-	D10	6		Existed

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-20, "Removal and Installation".

NO >> GO TO 6.

6.CHECK GROUND CIRCUIT 2

1. Disconnect power window main switch connector.

< DTC/CIRCUIT DIAGNOSIS >

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

Power windo	Power window main switch		Front power window motor (driver side)	
Connector	Terminal	Connector Terminal		Continuity
D22	10	D10	6	Existed

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

Power window main switch			Continuity
Connector Terminal		Ground	Continuity
D22 10			Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE: Component Function Check

1. CHECK ENCODER

Check that passenger side door glass performs AUTO open/close operation normally by power window main switch or front power window switch (passenger side).

Is the inspection result normal?

YES >> Encoder is OK.

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

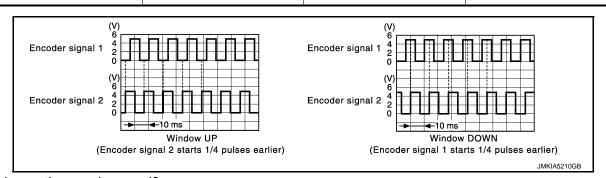
PASSENGER SIDE : Diagnosis Procedure

1. CHECK ENCODER SIGNAL

1. Turn ignition switch ON.

Check signal between front power window switch (passenger side) harness connector and ground with oscilloscope.

(+) Front power window switch (passenger side)		(-)	Signal (Reference value)	
Connector	Terminal		(1010101100 10100)	
D50	12	Ground	Refer to following signal	
D30	15	Ground	Refer to following signal	



Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-73, "Removal and Installation".

NO >> GO TO 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

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

Front power window switch (passenger side)		Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
D50	12	D40	5	Existed
D30	15	D40	3	LXISIEU

4. 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	
D50	12	Giodila	Not existed	
D30	15		NOT EXISTED	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCORDER POWER SUPPLY CIRCUIT 1

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

(+) Front power window motor (passenger side)		(-)	Voltage (V) (Approx.)	
Connector	Terminal		, , , , , , , , , , , , , , , , , , ,	
D40	4	Ground	12	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4. CHECK GROUND CIRCUIT 1

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

Front power window mo		Continuity	
Connector Terminal		Ground	Continuity
D40	6		Existed

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to <u>GW-20, "Removal and Installation"</u>. NO >> GO TO 6.

${f 5.}$ CHECK ENCORDER POWER SUPPLY CIRCUIT 2

- Turn ignition switch OFF.
- 2. 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	Front power window switch (passenger side)		Front power window motor (passenger side)	
Connector	Terminal	Connector Terminal		Continuity
D50	4	D40	4	Existed

< DTC/CIRCUIT DIAGNOSIS >

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D50	4		Not existed

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-73, "Removal and Installa-

NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

- 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	witch (passenger side)	Front power window r	notor (passenger side)	Continuity
Connector	Terminal	Connector Terminal		Continuity
D50	3	D40	6	Existed

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

Front power window switch (passenger side)			Continuity
Connector Terminal		Ground	Continuity
D50	3		Not existed

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-73, "Removal and Installation".

NO >> Repair or replace harness.

REAR LH

REAR LH: Component Function Check

1. CHECK ENCODER OPERATION

Check that rear door LH glass performs AUTO open/close operation normally by power window main switch or rear power window switch LH.

Is the inspection result normal?

YES >> Encoder operation is OK.

>> Refer to PWC-47, "REAR LH: Diagnosis Procedure".

REAR LH: Diagnosis Procedure

1. CHECK ENCODER SIGNAL

Turn ignition switch ON.

Check signal between rear power window switch LH harness connector and ground with oscilloscope.

(+)			Cimnal	
Rear power window switch LH		(–)	Signal (Reference value)	
Connector	Terminal		,	
D54	12	Ground	Refer to following signal	
D3 4	15	Ground	Trefer to following signal	

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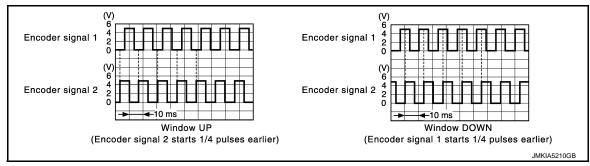
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Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation".

NO >> GO TO 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

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

Rear power wi	ndow switch LH	Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D54	12	D52	5	Existed
D34	15	D32	6	LXISIEU

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

Rear power window switch LH			Continuity	
Connector	Terminal	Ground	Continuity	
D54	12	Ground	Not existed	
	15		Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCORDER POWER SUPPLY CIRCUIT 1

- 1. Connect rear power window switch LH connector.
- Turn ignition switch ON.
- 3. Check voltage between rear power window motor LH harness connector and ground.

(+) Rear power window motor LH		(-)	Voltage (V) (Approx.)	
Connector Terminal			(дрргох.)	
D52	2	Ground	12	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4. CHECK GROUND CIRCUIT 1

- Turn ignition switch OFF.
- 2. Check continuity between rear power window motor LH harness connector and ground.

Rear power window motor LH			Continuity	
Connector	Connector Terminal		Continuity	
D52	4		Existed	

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

>> Replace rear power window motor LH. Refer to GW-23, "Removal and Installation".

NO >> GO TO 6.

5. CHECK ENCORDER POWER SUPPLY CIRCUIT2

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

Rear power wi	ndow switch LH	Rear power window motor LH		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
D54	4	D52	2	Existed	

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

Rear power window switch LH			Continuity
Connector Terminal		Ground	Continuity
D54	4		Not existed

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

- Disconnect rear power window switch LH harness connector.
- 2. Check continuity between rear power window switch LH harness connector and rear power window motor LH harness connector.

Rear power wi	ndow switch LH	Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D54	3	D52	4	Existed

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

Rear power window switch LH			Continuity
Connector	Terminal	Ground	Continuity
D54	3		Not existed

Is the inspection result normal?

>> Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

REAR RH

REAR RH: Component Function Check

1. CHECK ENCODER OPERATION

Check that rear door RH glass performs AUTO open/close operation normally by power window main switch or rear power window switch RH.

Is the inspection result normal?

YES >> Encoder operation is OK.

>> Refer to PWC-49, "REAR RH: Diagnosis Procedure". NO

REAR RH: Diagnosis Procedure

1. CHECK ENCODER SIGNAL

- Turn ignition switch ON.
- Check signal between rear power window switch RH harness connector and ground with oscilloscope.

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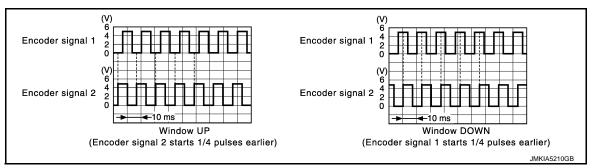
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(+) Rear power window switch RH		(-)	Signal (Reference value)	
Connector	Terminal		(
D74	12	Ground	Defer to following signal	
D/4	15	Giouna	Refer to following signal	



Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-74, "Removal and Installation".

NO >> GO TO 2.

2. CHECK ENCODER SIGNAL CIRCUIT

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

Rear power wi	Rear power window switch RH Rear power window motor RH		Continuity		
Connector	Terminal	Connector Terminal		Continuity	
D74	12	D72	5	Existed	
	15	DIZ	6	LAISIEU	

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

Rear power window switch RH			Continuity	
Connector	Terminal	Ground	Continuity	
D74	12		Not existed	
	15		Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY CIRCUIT 1

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

(+) Rear power window motor RH		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(/ (pp. 6/)	
D72	2	Ground	12	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

< DTC/CIRCUIT DIAGNOSIS >

4. CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.

2. Check continuity between rear power window motor RH harness connector and ground.

Rear power window motor RH			Continuity	
Connector Terminal		Ground	Continuity	
D72	4		Existed	

Is the inspection result normal?

YES >> Replace rear power window motor RH. Refer to <u>GW-23</u>, "Removal and Installation".

NO >> GO TO 6.

5. CHECK ENCORDER POWER SUPPLY CIRCUIT 2

1. Turn ignition switch OFF.

2. Disconnect rear power window switch RH connector.

3. Check continuity between rear power window switch RH harness connector and rear power window motor RH harness connector.

Rear power wi	ndow switch RH	Rear power window motor RH		Continuity
Connector	Terminal	Connector Terminal		Continuity
D74	4	D72	2	Existed

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

Rear power window switch RH			Continuity	
Connector Terminal		Ground	Continuity	
D74	4		Not existed	

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

1. Disconnect rear power window switch RH harness connector.

2. Check continuity between rear power window switch RH harness connector and rear power window motor RH harness connector.

Rear power wi	Rear power window switch RH Rear power window motor RH		Rear power window motor RH	
Connector	Terminal	Connector Terminal		Continuity
D74	3	D72	4	Existed

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

Rear power window switch RH			Continuity	
Connector	Connector Terminal		Continuity	
D74	3		Not existed	

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

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DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR KEY CYLINDER SWITCH

Component Function Check

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to DLK-34, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

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Monitor item	Condition		
KEY CYL LK-SW	Lock	: ON	
	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
RETUTE OIN-SVV	Neutral / Lock	: OFF	

Is the inspection result normal?

YES >> Door key cylinder switch is OK.

NO >> Refer to PWC-52, "Diagnosis Procedure".

Diagnosis Procedure

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1. CHECK DOOR KEY CYLINDER SWITCH SIGNAL

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

(+)				
Front door lock assembly (driver side) (door key cylinder switch)		(–)	Voltage (V) (Approx.)	
Connector	Terminal			
D15	5	Ground	5	
DIS	6	- Ground	5	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR KEY CYLINDER SWITCH CIRCUIT

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

Power window main switch		Front door lock assembly (driver side) (door key cylinder switch)		Continuity
Connector	Terminal	Connector Terminal		
D22	15	D15	6	Existed
DZZ	16	פוט	5	Existed

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

DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Power window main switch			Continuity	
Connector	Terminal	Ground	Continuity	
D22	15	Giound	Not existed	
	16		Not existed	

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> Repair or replace harness.

${f 3.}$ CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

Front door lock assembly (driver side	e) (door key cylinder switch)		Continuity
Connector Terminal		Ground	Continuity
D15	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) (door key cylinder switch).

Refer to PWC-53, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side) (door key cylinder switch). Refer to <u>DLK-183.</u> "<u>DOOR LOCK: Removal and Installation"</u>.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

Component Inspection

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).

Front door lock assembly (driver side) (key cylinder switch) Terminal		Koy position	Continuity
		Key position	
5 		Unlock	Existed
	4	Neutral / Lock	Not existed
	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). Refer to <u>DLK-185, "OUTSIDE HANDLE</u>: Removal and Installation".

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< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW SERIAL LINK POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Component Function Check

INFOID:0000000010095862

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(II) With CONSULT

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to DLK-32, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-54, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000010095863

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

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

(+) power window	power window main switch		Signal (Reference value)	
Connector	Terminal		,	
D22	13	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

- 1. 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) (Approx.)	
Connector	Terminal		(* PP. 5/11)	
D22	13	Ground	12	

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

< DTC/CIRCUIT DIAGNOSIS >

NO >> GO TO 3.

${f 3.}$ CHECK POWER WINDOW SERIAL LINK CIRCUIT

Disconnect BCM connector and power window main switch connector.

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

BCM		Power window main switch		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M120	8	D22	13	Existed	

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector Terminal		Ground	Continuity	
M120	8		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-90, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Component Function Check INFOID:0000000010095864

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

(P) With CONSULT

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT, Refer to DLK-32, "DOOR LOCK; CONSULT Function (BCM - DOOR LOCK)",

Monitor item	C	ondition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDE UNEOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

>> Refer to PWC-55, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Proce-NO dure".

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure INFOID:0000000010095865

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

Turn ignition switch ON.

Check signal between front power window switch (passenger side) harness connector and ground with oscilloscope.

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(+) Front power window switch (passenger side) Connector Terminal		(-)	Signal (Reference value)	
D50	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 PWC-73, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

- 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 switch (passenger side)		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(
D50	16	Ground	12	

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

Power windo	Power window main switch		Front power window switch (passenger side)	
Connector	Terminal	Connector Terminal		Continuity
D22	13	D50	16	Existed

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

	Power windo	w main switch		Continuity
C	Connector Terminal		Ground	Continuity
	D22	13		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

REAR POWER WINDOW SWITCH LH

< DTC/CIRCUIT DIAGNOSIS >

REAR POWER WINDOW SWITCH LH: Component Function Check

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1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(P) With CONSULT

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT. Refer to DLK-32, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

Monitor item	C	Condition	
CDL LOCK SW	LOCK	: ON	
GDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK 3W	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-57, "REAR POWER WINDOW SWITCH LH: Diagnosis Procedure".

REAR POWER WINDOW SWITCH LH: Diagnosis Procedure

INFOID:0000000010095867

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

- Turn ignition switch ON.
- Check signal between rear power window switch LH harness connector and ground with oscilloscope.

(+) Rear power wind		(–)	Signal (Reference value)	
Connector	Connector Terminal		(10.0.0.00 10.00)	
D54	16	Ground	(V) 15 10 5 0 JPMIA0013GB	

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-73, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

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

	+)	(-)		
Rear power wi	ndow switch LH		Voltage (V) (Approx.)	
Connector	Terminal		(11 -)	
D54	16	Ground	12	

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

Disconnect power window main switch connector.

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< DTC/CIRCUIT DIAGNOSIS >

Check continuity between power window main switch harness connector and rear power window switch LH harness connector.

Power window main switch		Rear power wi	Continuity	
Connector Terminal		Connector	Terminal	Continuity
D22	13	D54	16	Existed

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

Power windo	w main switch		Continuity
Connector Terminal		Ground	Continuity
D22	13		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

REAR POWER WINDOW SWITCH RH

REAR POWER WINDOW SWITCH RH : Component Function Check

INFOID:0000000010095868

INFOID:0000000010095869

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(II) With CONSULT

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to PWC-58, "REAR POWER WINDOW SWITCH RH: Diagnosis Procedure".

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

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-58, "REAR POWER WINDOW SWITCH RH: Diagnosis Procedure".

REAR POWER WINDOW SWITCH RH: Diagnosis Procedure

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between rear power window switch RH harness connector and ground with oscilloscope.

< DTC/CIRCUIT DIAGNOSIS >

(+) Rear power wind		(-)	Signal (Reference value)	
Connector	Connector Terminal		(Noticional Value)	
D74	16	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB	

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-73, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

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

(Rear power wir	+) ndow switch RH	(-)	Voltage (V) (Approx.)
Connector	Terminal		(11 - 7
D74	16	Ground	12

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-73, "Removal and Installation".

NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

Disconnect power window main switch connector.

Check continuity between power window main switch harness connector and rear power window switch RH harness connector.

Power window main switch		Rear power wi	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
D22	13	D74	16	Existed

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

P	Power window main switch			Continuity
Connecto	r	Terminal	Ground	Continuity
D22		13		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> INSPECTION END

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NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

INFOID:0000000010095870

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

PWC-35, "BCM: 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 switch power supply and ground circuit.

Refer to PWC-35, "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-47, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS > DRIVER SIDE POWER WINDOW ALONE DOES NOT OPE	RATE
Diagnosis Procedure	INFOID:000000010095871
1. CHECK DRIVER SIDE POWER WINDOW MOTOR	
Check driver side power window motor. Refer to PWC-39, "DRIVER SIDE: Component Function Check". s the measurement value within the specification?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. CONFIRM THE OPERATION	
onfirm the operation again.	
s the result normal? YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". NO >> GO TO 1.	

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FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

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

 ${\bf 1}$.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-36, "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 PASSENGER SIDE POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor circuit.

Refer to PWC-40, "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-47, "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:0000000010095873

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to GI-47, "Intermittent Incident"

>> INSPECTION END

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000010095874

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

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

Refer to PWC-55, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

DEAD LU SIDE DOWED WINDOW ALONE DOES NOT OPEDATE	
REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE	
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW	Α
SWITCH LH ARE OPERATED	
SWITCH LIT ARE OPERATED	_
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW	В
SWITCH LH ARE OPERATED : Diagnosis Procedure	
	С
1. CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT	Ü
Check rear power window switch power supply and ground circuit.	
Refer to PWC-37, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".	D
Is the inspection result normal? YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	Е
2.CHECK REAR POWER WINDOW MOTOR LH	
Check rear power window motor LH.	
Refer to PWC-41, "REAR LH: Component Function Check".	F
Is the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	G
3.CONFIRM THE OPERATION	
Confirm the operation again.	Н
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".	
NO >> GO TO 1. WHEN REAR POWER WINDOW SWITCH LH IS OPERATED	I
WHEN REAR POWER WINDOW SWITCH LH IS OPERATED	
WHEN REAR POWER WINDOW SWITCH LH IS OPERATED: Diagnosis Procedure	
WHEN TENT OWER WINDOW OWITOH EITHO OF ERVIED ! Diagnosis I roccadio	J
INFOID:000000010095876	J
y	
1.REPLACE REAR POWER WINDOW SWITCH LH	PWC
INFOID:0000000010095876	
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH.	
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END	
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1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED	
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1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure INFOID-000000010095877 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT	PWC
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure	PWC L M
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure INFOID-000000010095877 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit.	PWC
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure INFOID-000000010098877 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit. Refer to PWC-57, "REAR POWER WINDOW SWITCH LH: Component Function Check". Is the inspection result normal? YES >> GO TO 2.	PWC L M
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure **NFOID-000000010095877** 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit. Refer to PWC-57, "REAR POWER WINDOW SWITCH LH: Component Function Check". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	PWC L M
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure INFOID-000000010098877 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit. Refer to PWC-57, "REAR POWER WINDOW SWITCH LH: Component Function Check". Is the inspection result normal? YES >> GO TO 2.	PWC L M N
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure NPOID-000000010005877 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit. Refer to PWC-57, "REAR POWER WINDOW SWITCH LH: 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.	PWC L M N
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure **POID-0000000100098877** 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit. Refer to PWC-57, "REAR POWER WINDOW SWITCH LH: 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?	PWC L M N
1.REPLACE REAR POWER WINDOW SWITCH LH Replace rear power window switch LH. Refer to PWC-74, "Removal and Installation" >> INSPECTION END WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure NPOID-000000010005877 1.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit. Refer to PWC-57, "REAR POWER WINDOW SWITCH LH: 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.	PWC L M N

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REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED

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

1.check rear power window switch power supply and ground circuit

Check rear power window switch power supply and ground circuit.

Refer to PWC-37, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED: Diagnosis Procedure

INFOID:0000000010095879

1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to PWC-74, "Removal and Installation"

>> INSPECTION END

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000010095880

1. CHECK REAR POWER WINDOW SWITCH RH SERIAL LINK CIRCUIT

Check rear power window switch RH serial link circuit.

Refer to PWC-58, "REAR POWER WINDOW SWITCH RH: 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-47, "Intermittent Incident".

NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY

< SYMPTOM DIAGNOSIS >

MALLY DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000010095881
1.PERFORM INITIALIZATION PROCEDURE	
Initialization procedure is performed and operation is confirmed. Refer to <a href="https://www.pwc.edu.network.netwo</td><td></td></tr><tr><td>Is the inspection result normal?</td><td></td></tr><tr><td>YES >> INSPECTION END
NO >> GO TO 2.</td><td></td></tr><tr><td>2. CHECK ENCODER (DRIVER SIDE) CIRCUIT</td><td></td></tr><tr><td>Check encoder (driver side) circuit.</td><td></td></tr><tr><td>Refer to PWC-43 , "DRIVER 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 <u>GI-47, "Intermittent Incident"</u> . NO >> GO TO 1.	
PASSENGER SIDE	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000010095882
1.PERFORM INITIALIZATION PROCEDURE	
Initialization procedure is performed and operation is confirmed.	
Refer to PWC-31 , "Work Procedure". Is the inspection result normal?	
YES >> INSPECTION END	
NO >> GO TO 2. 2.CHECK ENCODER (PASSENGER SIDE) CIRCUIT	
Check encoder (passenger side) circuit.	
Refer to <u>PWC-45</u> , " <u>PASSENGER SIDE</u> : Component Function Check". <u>Is the inspection result normal?</u>	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident". NO >> GO TO 1.	
NO >> GO TO 1. REAR LH	
REAR LH : Diagnosis Procedure	INFOID:000000010095883
1.PERFORM INITIALIZATION PROCEDURE	
Initialization procedure is performed and operation is confirmed.	

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AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMAL-LY

< SYMPTOM DIAGNOSIS >

Refer to PWC-31, "Work Procedure"

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER (REAR LH) CIRCUIT

Check encoder (rear LH) circuit.

Refer to PWC-47, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.confirm the operation

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

REAR RH

REAR RH: Diagnosis Procedure

INFOID:0000000010095884

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to PWC-31, "Work Procedure".

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER (REAR RH) CIRCUIT

Check encoder (rear RH) circuit.

Refer to PWC-49, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

ANTI-PINCH FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000010095885

1. CHECK POWER WINDOW AUTO OPERATION

В

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

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to

>> Refer to <u>PWC-65</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>" (driver side), <u>PWC-65</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>" (passenjer side), <u>PWC-65</u>, "<u>REAR LH</u>: <u>Diagnosis Procedure</u>" (rear LH), <u>PWC-66</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>" (rear RH).

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2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

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

NO >> GO TO 1.

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POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000010095886

1. CHECK DOOR SWITCH

Check door switch.

Refer to DLK-77, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK POWER WINDOW MAIN SWITCH SERIAL LINK CIRCUIT

Check power window main switch serial link circuit.

Refer to PWC-54, "POWER WINDOW MAIN SWITCH: 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-47, "Intermittent Incident".

NO >> GO TO 1.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

< SYMPTOM DIAGNOSIS > DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WIN-	
DOWS	Α
Diagnosis Procedure	В
1. PERFORM INITIALIZATION PROCEDURE	
Perform Initialization procedure and check that inspection result is normal. Refer to PWC-31 , "Work Procedure"	С
Is the inspection result normal? YES >> INSPECTION END NO >> GO TO 2.	D
2.CHECK DRIVER SIDE DOOR LOCK ASSEMBLY (DOOR KEY CYLINDER SWITCH) Check driver side door lock assembly (door key cylinder switch).	Е
Refer to PWC-52, "Component Function Check" Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F
3. CONFIRM THE OPERATION	G
Confirm the operation again. Is the result normal?	0
YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident" NO >> GO TO 1.	Н
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KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Description

NOTE:

Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-60</u>. "Work Flow".

Diagnosis Procedure

INFOID:0000000010095889

1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent key button?

YES >> GO TO 2.

NO >> Go to DLK-19, "REMOTE KEYLESS ENTRY FUNCTION: System Description".

2.CHECK POWER WINDOW OPERATION

Check power window operation.

Does power window up/down with power window main switch?

YES >> GO TO 3.

NO >> Go to PWC-35, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

3.CHECK "PW DOWN SET" SETTING IN "WORK SUPPORT"

Check "PW DOWN SET" setting in "WORK SUPPORT".

Refer to DLK-34, "INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "PW DOWN SET" setting in "WORK SUPPORT".

4. CHECK POWER WINDOW MAIN SWITCH SERIAL LINK CIRCUIT

Check power window main switch serial link circuit.

Refer to PWC-54, "POWER WINDOW MAIN SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

INFOID:0000000010095890

1. REPLACE POWER WINDOW MAIN SWITCH

>> INSPECTION END

Diagnosis Procedure

Replace power window main switch. Refer to PWC-73, "Removal and Installation".

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POWER WINDOW SWITCH DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

POWER WINDOW SWITCH DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000010095891

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

Refer to PWC-73, "Removal and Installation".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000010095892

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to PWC-73, "Removal and Installation".

>> INSPECTION END

REAR LH

REAR LH: Diagnosis Procedure

INFOID:0000000010095893

1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to PWC-74, "Removal and Installation".

>> INSPECTION END

REAR RH

REAR RH: Diagnosis Procedure

INFOID:0000000010095894

1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to PWC-74, "Removal and Installation".

>> INSPECTION END

FRONT POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

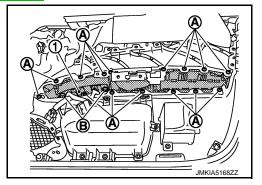
REMOVAL AND INSTALLATION

FRONT POWER WINDOW SWITCH

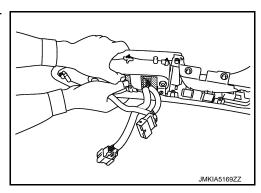
Removal and Installation

REMOVAL

- Remove the front door finisher.
 Refer to <u>INT-31</u>, "<u>FRONT DOOR FINISHER</u>: <u>Removal and Installation</u>".
- 2. Remove the armrest mounting screws (A), and then remove the armrest from the front door finisher.
- 3. Remove mounting screws (B) of power window main switch(1) from the armrest.



4. Push out and remove power window main switch (1) from lower side, as shown in the figure.



INSTALLATION

Install in the reverse order of removal.

NOTE:

- If power window main switch or front power window switch (passenger side) is replaced or is removed, it is necessary to perform the initialization procedure.
- The same procedure is also performed for front power window switch (passenger side).

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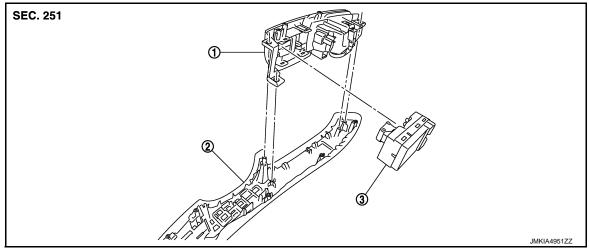
REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

REAR POWER WINDOW SWITCH

Exploded View

INFOID:0000000010095896



- 1. Power window switch finisher
- 2. Rear armrest

3. Rear power window switch

Removal and Installation

INFOID:0000000010095897

REMOVAL

- Remove the rear door finisher.
 Refer to INT-33, "REAR DOOR FINISHER: Removal and Installation".
- 2. Remove the armrest mounting screws (A), and then remove the armrest from the rear door finisher.
- 3. Remove grip finisher (2) from the armrest.
- Remove mounting screws (B) of power window switch finisher
 from the armrest. Remove power window switch finisher (1) from the armrest.
- 5. Disengage pawls of power window switch finisher (1) from rear power window switch (3), using remover tool. Remove rear power window switch(3).

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CAUTION:

Never bend finisher pawls when removing switch.

INSTALLATION

Install in the reverse order of removal.

NOTE:

If rear power window switch is replaced or is removed, it is necessary to perform the initialization procedure.