SECTION POWER WINDOW CONTROL SYSTEM

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< PRECAUTION > PRECAUTION PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least 3 minutes before performing any service.

Precaution for Work

INFOID:000000009020463

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.
- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

PREPARATION

< PREPARATION >
PREPARATION

PREPARATION

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Special Service Tool

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description	C
 (J-46534) Trim tool set	ANJIA0483ZZ	Removing trim components	E
			F

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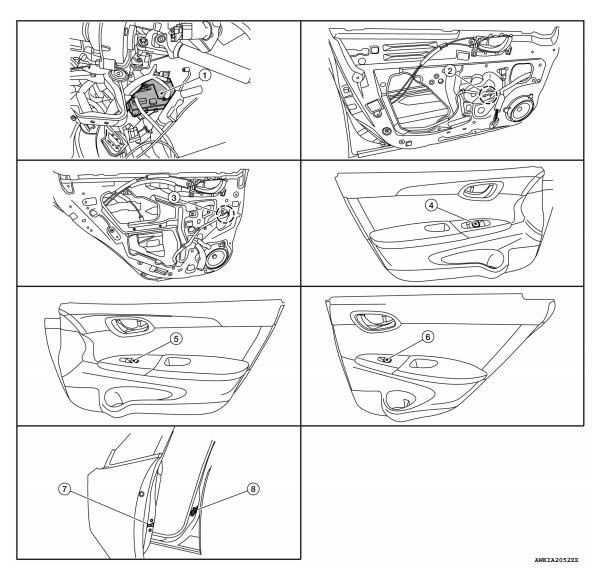
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SYSTEM DESCRIPTION COMPONENT PARTS

Component Parts Location

INFOID:000000008779189



- 1. BCM (view under instrument panel on the left side of the vehicle)
- 4. Main power window and door lock/ unlock switch
- 7. Front door lock assembly LH (key cylinder switch)
- Front power window motor LH (RH 3. similar) (view with front door finisher removed)
- 5. Power window and door lock/unlock 6. switch RH
- 8. Front door switch LH (RH similar)
- similar) (view with rear door finisher removed)

Rear power window motor LH (RH

Rear power window switch RH (LH similar)

Component Description

FRONT POWER WINDOW LH ANTI-PINCH SYSTEM

INFOID:000000008779190

COMPONENT PARTS

< SYSTEM DESCRIPTION >

Component	Function
ВСМ	Supplies power to power window switches.Controls retained power.
Front power window motor LH	 Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from main power window and door lock/unlock switch. Transmits power window motor rotation as a pulse signal to main power window and door lock/unlock switch.
Front power window motor RH	Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH.
Main power window and door lock/un- lock switch	Directly controls all power window motor of all doors.Controls anti-pinch operation of front power window LH.
Power window and door lock/unlock switch RH	Controls front power window motor RH.
Rear power window switch	Controls rear power window motors LH and RH.
Rear power window motor	Starts operating with signals from main power window and door lock/unlock switch & rear power window switch.
Front door switch LH or RH	Detects door open/close condition and transmits to BCM.

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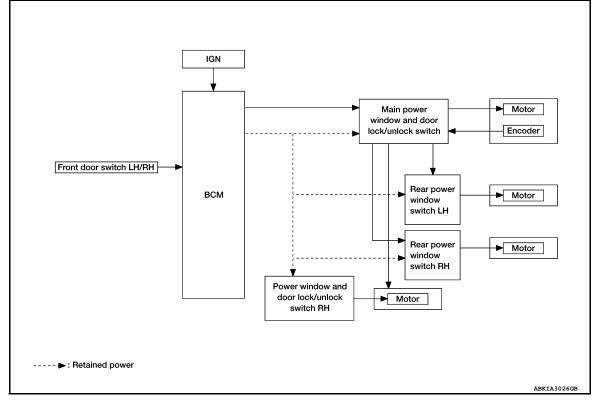
< SYSTEM DESCRIPTION >

SYSTEM

System Diagram

INFOID:000000008779191

FRONT POWER WINDOW LH ANTI-PINCH SYSTEM



System Description

INFOID:000000008779192

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to main power window and door lock/unlock switch	Main power window and door lock/unlock switch function	Actuator
Encoder	Encoder pulse signal	Power window control	
Main power window and door lock/unlock switch	Front power window motor LH UP/ DOWN signal		Front power window meter
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal		
BCM	RAP signal		
Rear power window switch	Rear power window motor UP/DOWN signal		Rear power window motor

POWER WINDOW OPERATION

- Power window system is activated by the power window switch when the ignition switch is in the ON position or during the retained power operation after ignition switch is turned OFF.
- Main power window and door lock/unlock switch can open/close all windows.
- Front & rear power window switches can open/close the corresponding windows.
- Power window lock switch can lock all power windows other than driver seat.
- If door glass receives resistance that is more than the specified value and the power window is in the AUTO-UP operation (Front LH), power window will move in the reverse direction (Anti-Pinch Function).

POWER WINDOW AUTO-OPERATION (FRONT LH)

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SYSTEM

< SYSTEM DESCRIPTION >

to AUTO.	ation can be performed when main power window and door lock/unlock switch turns	А
and door lock/unlock swMain power window and ation when door glass is	ecting the movement of power window motor and transmits to main power window vitch as the encoder pulse signal while power window motor is operating. I door lock/unlock switch reads the changes of encoder signal and stops AUTO oper- s at fully opened/closed position. operable in case encoder is malfunctioning.	
	PERATION on is an additional power supply function that enables power window system to oper- ds even when ignition switch is turned OFF	С
When ignition switch is (When timer time passes)	r switch OFF)→OPEN (door switch ON). ON. s. (45 seconds)	D
	t operate if encoder is malfunctioning.	
	CK FUNCTION in power window and door lock/unlock switch shuts off when power window lock s power window switch operation except with the main power window and door lock/	
	ON (FRONT LH) In the door glass during AUTO-UP operation, and it is the anti-pinch function that low- Inm. (5.9 in.) or 2 seconds when detected.	G
 Encoder continues deter and door lock/unlock sw Resistance is applied to 	which be a power window motor and transmits to main power window vitch as the encoder pulse signal while power window motor is operating. The power window motor rotation that changes the frequency of encoder pulse sig- trapped in the door glass.	Π
	ontrols to lower the window glass form 150mm (5.9 in.) or 2 seconds after it detects equency change.	Ι
glass closes and is fully NOTE:	,	J
Depending on environme may lower.	ent and driving conditions, if a similar impact or load is applied to the door glass, it	PW(
Fail-safe	INFOID:000000008779193	
FAIL-SAFE CONTROL		L
Switches to fail-safe contrand direction of door glass	rol when malfunction is detected in the encoder signal that detects UP/DOWN speed s. Switches to fail-safe control when an error beyond the regulation value is detected position and the actual position of the glass.	
Malfunction	Malfunction condition	
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.	Ν
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.	
Pulse direction malfunc- tion	When the pulse signal that is detected during glass open/close operation detects the opposite con- dition of power window motor operating direction.	0
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.	Ρ
Glass recognition position malfunction 2	When it detects pulse count more that the value of glass full stroke during glass open/close opera- tion.	

Malfunction of not yet up-

dated closed position of

glass

ified value (approximately 10 strokes).

When glass open/close operation is continuously performed without fully closing more that the spec-

SYSTEM

< SYSTEM DESCRIPTION >

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

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

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

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) 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.

Direct Diagnostic Mode	Description	
ECU identification	The BCM part number is displayed.	
Self Diagnostic Result	The BCM self diagnostic results are displayed.	D
Data Monitor	The BCM input/output data is displayed in real time.	
Active Test	The BCM activates outputs to test components.	E
Work support	The settings for BCM functions can be changed.	
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.	F
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.	

SYSTEM APPLICATION

BCM can perform the following functions.

				Direct [Diagnosti	c Mode			Н
System	Sub System	ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR	⊓ I J PWC
Door lock	DOOR LOCK		×	×	×	×			PVVC
Rear window defogger	REAR DEFOGGER			×	×				
Warning chime	BUZZER			×	×				L
Interior room lamp timer	INT LAMP			×	×	×			
Exterior lamp	HEAD LAMP			×	×	×			ь.д.
Wiper and washer	WIPER			×	×	×			Μ
Turn signal and hazard warning lamps	FLASHER			×	×	×			
Air conditioner	AIR CONDITIONER			×					Ν
Intelligent Key system	INTELLIGENT KEY		×	×	×	×			
Combination switch	COMB SW			×					
BCM	BCM	×	×			×	×	×	0
Immobilizer	IMMU		×	×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×	×			Р
Trunk open	TRUNK			×					
Vehicle security system	THEFT ALM			×	×	×			
RAP system	RETAINED PWR			×					
Signal buffer system	SIGNAL BUFFER			×					
TPMS	AIR PRESSURE MONITOR		×	×	×	×			

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000009014689

DATA MONITOR

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

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000009014690

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APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description	
ECU identification	The BCM part number is displayed.	
Self Diagnostic Result	The BCM self diagnostic results are displayed.	D
Data Monitor	The BCM input/output data is displayed in real time.	
Active Test	The BCM activates outputs to test components.	E
Work support	The settings for BCM functions can be changed.	
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.	F
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.	

SYSTEM APPLICATION

BCM can perform the following functions.

				Direct [Diagnosti	c Mode			
System	Sub System	ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR	- H I J
Door lock	DOOR LOCK		×	×	×	×			PWC
Rear window defogger	REAR DEFOGGER			×	×				
Warning chime	BUZZER			×	×				L
Interior room lamp timer	INT LAMP			×	×	×			-
Remote keyless entry system	MULTI REMOTE ENT			×	×	×			
Exterior lamp	HEAD LAMP			×	×	×			M
Wiper and washer	WIPER			×	×	×			-
Turn signal and hazard warning lamps	FLASHER			×	×				N
Air conditioner	AIR CONDITIONER			×					-
Combination switch	COMB SW			×					-
BCM	BCM	×	×			×	×	×	0
Immobilizer	IMMU		×		×	×			-
Interior room lamp battery saver	BATTERY SAVER			×	×	×			P
Trunk open	TRUNK			×					
RAP system	RETAINED PWR			×		×			-
Signal buffer system	SIGNAL BUFFER			×					-
TPMS	AIR PRESSURE MONITOR		×	×	×	×			-
Panic alarm system	PANIC ALARM				×				-

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000009014691

DATA MONITOR

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

WORK SUPPORT

Support Item	Setting		Description
RETAINED PWR SET	MODE3	2 min	
	MODE2	OFF	Sets the retained accessory power operating time.
	MODE1*	45 sec	

*: Initial setting

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

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WITH INTELLIGENT KEY SYSTEM

ECU	Reference
	BCS-29, "Reference Value"
POM	BCS-47, "Fail-safe"
BCM	BCS-49, "DTC Inspection Priority Chart"
	BCS-50, "DTC Index"

WITHOUT INTELLIGENT KEY SYSTEM

ECU	Reference
	BCS-98, "Reference Value"
BCM	BCS-109, "Fail-safe"
BCIM	BCS-109, "DTC Inspection Priority Chart"
	BCS-110, "DTC Index"

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POWER WINDOW MAIN SWITCH

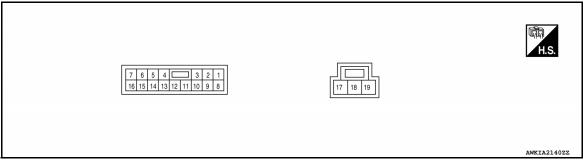
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POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000008765606

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Terminal No. (Wire color)		Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output	Condition	voltage (v)
1 (B)	Ground	Ground	_	_	0 - 1
2 (GR)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front RH switch in power window main switch is DOWN at operated.	Battery voltage
4 (P)	Ground	Encoder pulse signal 2	Input	When front power window motor (driver side) operates.	(V) 6 2 0 10 ms JMKIA0070GB
5 (W)	Ground	Encoder pulse signal 1	Input	When front power window motor (driver side) operates.	(V) 6 4 2 0 10 ms
6 (P)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is DOWN at operated.	Battery voltage
7 (LG)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is UP at operated.	Battery voltage
8 (Y)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is DOWN at operated.	Battery voltage
9 (G)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is UP at operated.	Battery voltage

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output	Condition	voltage (v)
10	Ground	Ignition switch power supply	Input	Ignition switch ON	Battery voltage
(SB)	Gibunu		mput	Other than above	0 - 1
12 (LG)	Ground	Encoder ground		_	0 – 1
14 (G)	Ground	Encoder power supply	Output	Ignition switch ON	Battery voltage
16 (V)	Ground	Front power window motor (passenger side) UP signal	Output	When front RH switch in power window main switch is UP at operated.	Battery voltage
17 (O)	Ground	Front power window motor (driver side) UP signal	Output	When front LH switch in power window main switch is UP at operated.	Battery voltage
18 (R)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
19 (GR)	Ground	Front power window motor (driver side) DOWN signal	Output	When front LH switch in power window main switch is DOWN at operated.	Battery voltage

Fail Safe

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FAIL-SAFE CONTROL

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

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.
Pulse direction malfunc- tion	When the pulse signal that is detected during glass open/close operation detects the opposite con- dition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close opera- tion.

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

- Auto-up operation
- Anti-pinch function

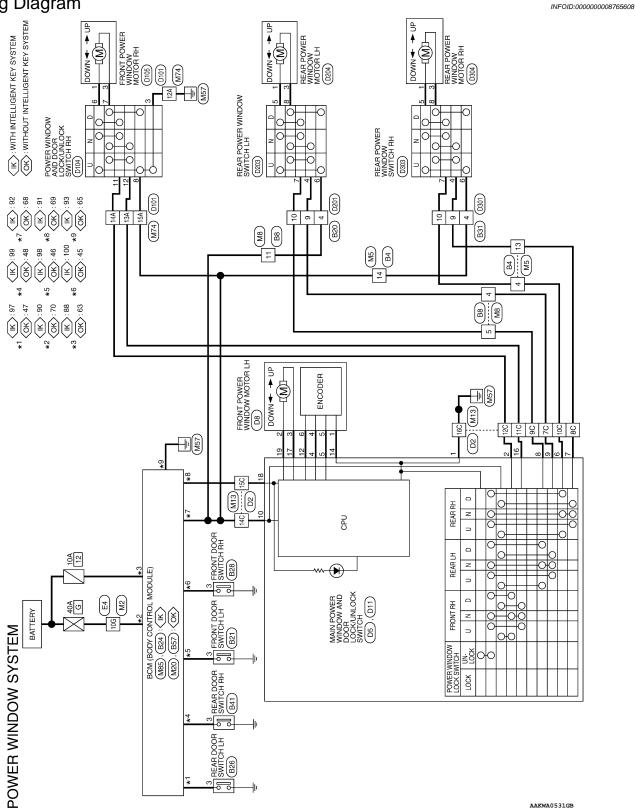
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window main switch or front power window motor (driver side).

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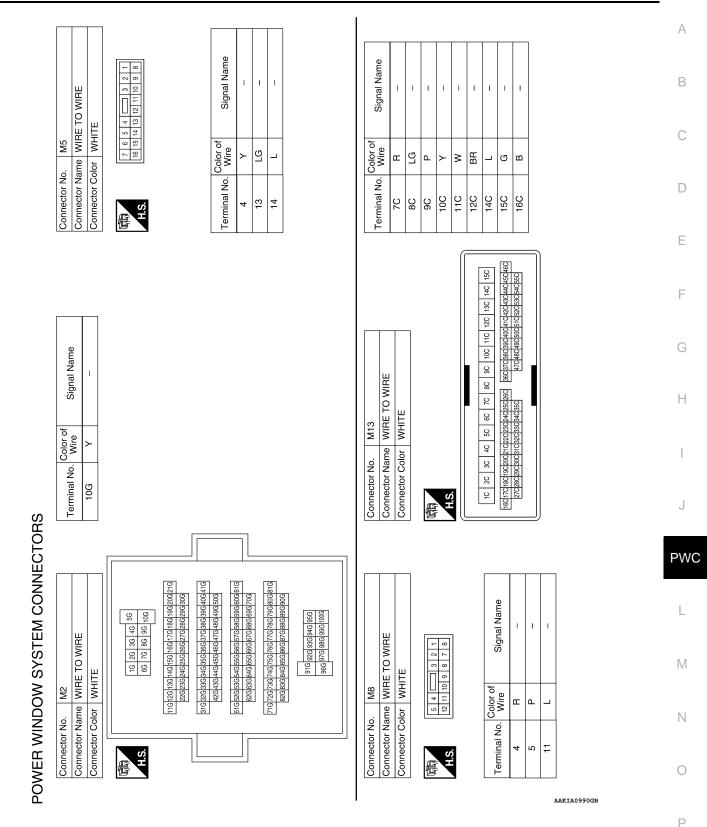
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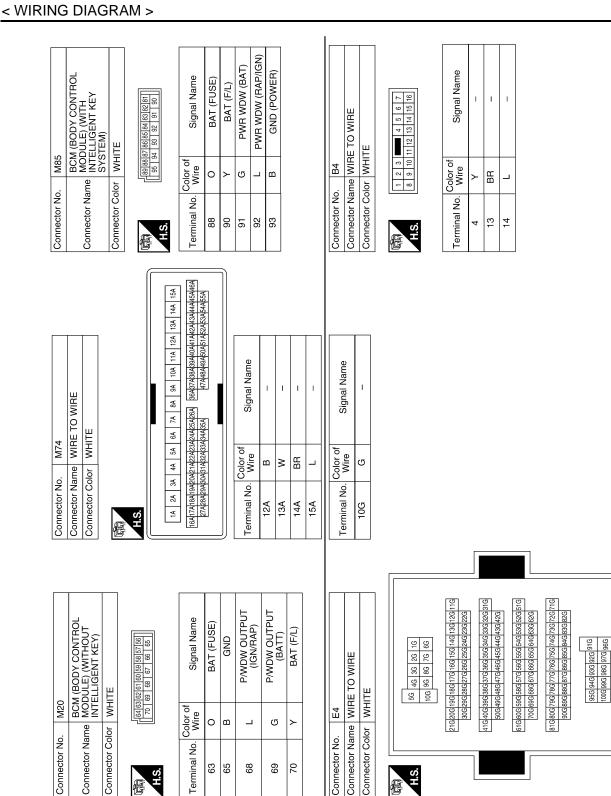
WIRING DIAGRAM POWER WINDOW SYSTEM

Wiring Diagram



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Revision: October 2012

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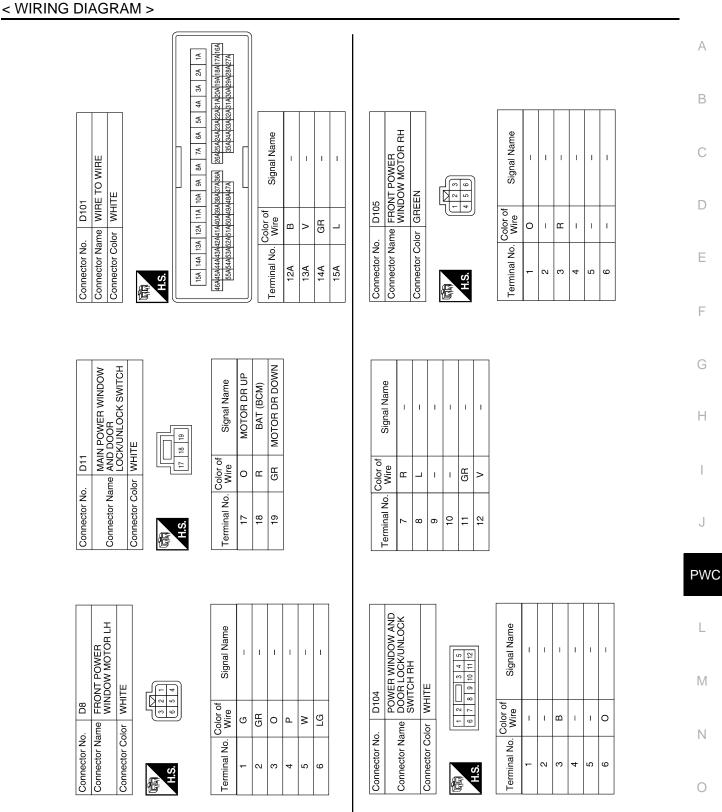
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B21 WHITE WHITE B28 B28 B28 B28 B28 B28 FRONT DOOR SWITCH LH WHITE B28 B28 FRONT DOOR SWITCH RH Cof Signal Name	В
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Connector No. B21 Connector Name FRONT DOOR SWITCH LI Connector Name FRONT DOOR SWITCH LI Connector Color WHITE Terminal No. Color of 3 Y 4 - 1 - 2 - 3 Y 1 - 2 - 3 Y 1 - 2 - 3 Y 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 2 - 3 R 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	E
	F
Connector No. B20 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Terminal No. Signal Name 10 P - 10 P - 10 P - 11 Connector Name REAR DOOR SWITCH LH Connector Name <th< td=""><td>G</td></th<>	G
B20 WHITE Crie Crie Crie Crie Crie Crie Crie Crie	Н
Connector No. B20 Connector Name WIRE 1 Connector Name WIRE 1 Connector Color WHITE 10 9 B 4 10 P 4 10 P 10 Connector No. B26 Connector Name REAR D Connector Color WHITE 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	I
Connector No. Connector Name Connector Name Connector Name Connector Name 10 F Terminal No. Color Connector Name 10 F 10 F 1 10 F 1 10 Color 1 10 F 1 2 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	J
	PWC
B8 WIRE TO WIRE WHITE WHITE WHITE To wine reference B24 B24 B24 B24 B24 B24 B24 B24 B24 B24	L
B8 Image: state of the st	Μ
	Ν
Connector No. Connector Name Connector Name Connector No. Terminal No. Connector No. Connector No. Connector No. Connector No. Connector Color 11 11 11 11 11 10 10 10 10 10	0
Алкіло9920В	

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< WIRING DIAGRAM >

Connector No.	No. B31		Connector No.	. B41		Connector No.		B57		
Connector Name WIRE TO WIR Connector Color WHITE	Name WIR	E TO WIRE TE	Connector Name REAR C Connector Color WHITE	tme REAF	Connector Name REAR DOOR SWITCH RH Connector Color WHITE	Connector Name		BCM (BOE MODULE) INTELLIGI	BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY)	1
			Æ	6		Connector Color		BLACK		
HIS.	4 3 1 10 9 8 7	7 8 5	HIA			同 H.S.		48 48 47 46 45 44 43 42 41 55 54 53 52 51 50	5444314241 52 51 50	
Terminal No.	o. Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Vo. Color of Wire	r of re	Signal Name	
4	_	1	-	1	I	45	Œ		DOOR SW AS	_
6	ГG	1	2	1	I	46	>		DOOR SW DR	
10	≻	1	ო	æ	I	47	GR		DOOR SW RL	
			4	1	1	48	д		DOOR SW RR	
Connector No.			Connector No.			Terminal No.	No. Color of Wire	r of re	Signal Name	
Connector Name		WIRE IO WIRE WHITE	Connector Name			2	3		ENCODER SIG-1	
	_	I			SWITCH	9	٩.		MOTOR RR DOWN	
			Connector Color		TE	7	LG		MOTOR RR UP	
				-		8	>	Ŭ	MOTOR RL DOWN	
Pro-				6 5 4 1	3 2 1	6	σ		MOTOR RL UP	_
			H.S. 16	8 15 14 13 12	2 11 10 9 8	10	SB	~	IGN	
15C 14C	15C 14C 13C 12C 11C	10C 9C 8C 7C 6C 5C 4C 3C 2C 1C				11	1		I	
46045044043	30420410400390					12	LG		ENCODER GND	
55054053	550540530520510500490480470	C48C47C 85C54C53C531C30C59C28C27C				13	1		I	
						14	σ		ENCODER +	
	Color of			Color of		15	1		1	
	o. Wire	olgrial Narrie		Wire		16	>		MOTOR AS UP	
2 28	p g	1 1	- 2	a B	MOTOR DOWN AS					
90 06	>	1	m	I	1					
10C	٩	1	4	٩	ENCODER SIG-2					
11C	>	1								
12C	GR	1								
14C	SB	1								
15C	æ	1								
16C	в	1								

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POWER WINDOW SYSTEM

Connector Name REAR POWER WINDOW D203 Connector Name REAR POWER WINDOW Connector Name REAR POWER WINDOW Connector Name REAR POWER WINDOW Connector Color WHTE Terminal No. Connector Name (nime 1 - 2 - 3 - 5 R 7 V 7 V 6 L 7 V 6 - 7 V 7 V 7 V 7 V 7 V 7 V 8 - 10 Connector Name REAR POWER WINDOW Connect

AAKIA0995GB

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

< BASIC INSPECTION >

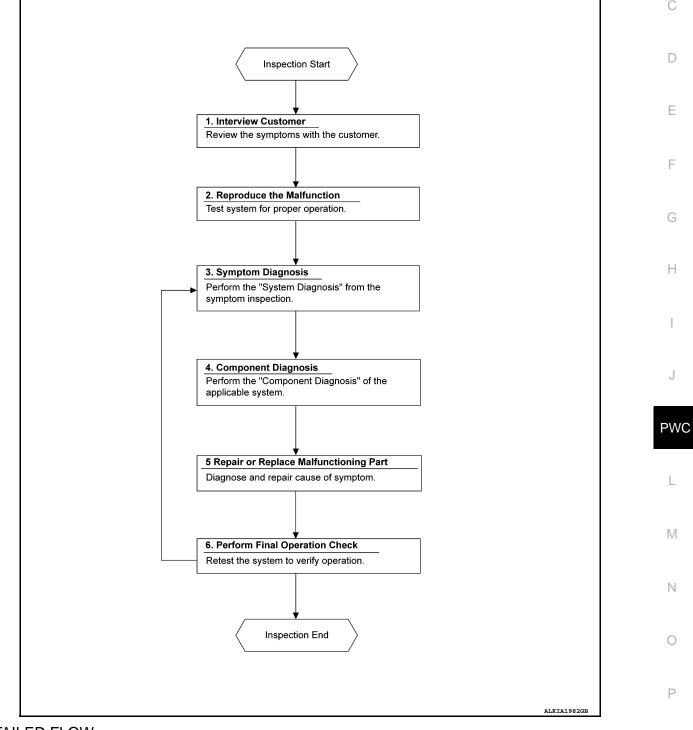
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:00000008772826

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DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

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

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

>> GO TO 2.

2. CONFIRM THE SYMPTOM

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

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

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

>> GO TO 4.

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

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

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

Are the malfunctions corrected?

YES >> Inspection End. NO >> GO TO 3.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

< BASIC INSPECTION > ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMI-А NAL Description INFOID:000000008765610 В When the battery negative terminal is disconnected, the initialization is necessary for normal operation of power window system. **CAUTION:** С The following specified operations can not be performed under the non-initialized condition. Auto-up operation Anti-pinch function D Work Procedure INFOID:000000008765611 **1.**SYSTEM INITIALIZATION Е Perform system initialization. Refer to PWC-29, "Work Procedure". F >> GO TO 2. **2.**CHECK ANTI-PINCH FUNCTION Check anti-pinch function. Refer to PWC-30, "Work Procedure".

>> END

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ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN SWITCH

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN SWITCH

Description

INFOID:000000008765612

When the power window main switch is replaced, the initialization is necessary for normal operation of power window system.

CAUTION:

- The following specified operations can not be performed under the non-initialized condition.
- Auto-up operation
- Anti-pinch function

Work Procedure

INFOID:000000008765613

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-29, "Work Procedure".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-30, "Work Procedure".

>> END

SYSTEM INITIALIZATION

SYSTEM INITIALIZATION

Description INFOID:000000008765614	
If any of the following operations are performed, the initialization is necessary for normal operation of power window system.	В
 Disconnection and connection of battery cable from negative terminal. When power window main switch replaced. 	
 Electric power supply to power window main switch or power window motor (driver side) is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc. Disconnection and connection of power window main switch harness connector. 	С
 Removal of power window motor (driver side) from regulator assembly. Operation of regulator assembly as an independent unit. 	D
 Removal and installation of glass. Removal and installation of door glass run. CAUTION: 	E
The following specified operations can not be performed under the non-initialized condition. Auto-up operation 	
• Anti-pinch function	F
Work Procedure	
1. STEP 1	G
 Turn ignition switch ON. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open) 	Н
3. Operate the power window switch in the UP position (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 2 seconds or more.	
4. Release the switch and check that AUTO-UP function operates normally.	
>> GO TO 2.	
2.STEP 2	J
Check anti-pinch function. Refer to PWC-30, "Work Procedure".	
>> END	PW

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ANTI-PINCH INSPECTION

Description

INFOID:000000008765616

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

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

Work Procedure

INFOID:000000008765617

1.CHECK ANTI-PINCH FUNCTION

- 1. Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- 4. Check the following conditions.
- Check that glass lowers for approximately 150 mm (5.91 in.) without pinching piece of wood and stops.
- Check that glass does not rise not when operating the power window main switch while lowering.
- 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.

>> END

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS POWER SUPPLY AND GROUND CIRCUIT BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM) BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

Regarding Wiring Diagram information, refer to BCS-52, "Wiring Diagram".

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.		Signal	name	Fuses and fusible link No.
88		Battery power supply		12 (10A)
90		Ballery pov		G (40A)
s the fuse blown?				
	own fuse or fu	sible link after r	epairing the affected of	circuit.
NO >> GO TO 2.				
CHECK POWER SUPP	LY CIRCUIT			
. Disconnect BCM connect				
. Check voltage betweer	n BCIVI connec	for M85 and gr	ouna.	
B(СМ			
Connector	-	ninal	Ground	Voltage
	8	8		
M85	9	0	—	Battery voltage
at 1 at 14				
s the inspection result nori	mai?			
s the inspection result norr YES >> GO TO 3.	<u>mai ?</u>			
YES >> GO TO 3. NO >> Repair harness	s or connector			
YES >> GO TO 3.	s or connector			
YES >> GO TO 3. NO >> Repair harness	s or connector. CUIT		und.	
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC	s or connector. CUIT		und.	
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B	s or connector. CUIT		und. Ground	Continuity
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B	s or connector. CUIT BCM connecto			Continuity
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B	s or connector CUIT BCM connecto CM Terr	or M85 and grou		Continuity Yes
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B Connector M85 Sthe inspection result norr	s or connector CUIT BCM connecto CM Terr 9 mal?	ninal		
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B Connector M85 Sthe inspection result norr YES >> Inspection End	s or connector. CUIT BCM connecto CM Terr 9 mal? 1.	ninal		
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B Connector M85 Sthe inspection result norr YES >> Inspection End NO >> Repair harness	s or connector. CUIT BCM connector CM Terr 9 mal? 5. s or connector.	ninal	Ground —	Yes
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B Connector M85 Sthe inspection result norr YES >> Inspection End NO >> Repair harness SCM (BODY CONTI	s or connector. CUIT BCM connector CM Terr 9 mal? 1. s or connector. ROL SYST	ninal B EM) (WITH	Ground — IOUT INTELLIGI	ENT KEY SYSTEM)
YES >> GO TO 3. NO >> Repair harness CHECK GROUND CIRC Check continuity between B Connector M85 Sthe inspection result norr YES >> Inspection End NO >> Repair harness SCM (BODY CONTI	s or connector. CUIT BCM connector CM Terr 9 mal? 1. s or connector. ROL SYST	ninal B EM) (WITH	Ground — IOUT INTELLIGI	Yes

Regarding Wiring Diagram information, refer to BCS-112, "Wiring Diagram".

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< DTC/CIRCUIT DIAGNOSIS >

1.CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
63	Pottony power supply	12 (10A)
70	Battery power supply	G (40A)
11	Ignition switch ACC or ON	18 (10A)

Is the fuse blown?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connectors.

3. Check voltage between BCM connector and ground.

B	СМ			Ignition switch position	n
Connector	Terminal	Ground	OFF	ACC	ON
M20	63	Ground	Battery voltage	Battery voltage	Battery voltage
IM20	70		Ballery vollage	Dattery voltage	Dattery voltage
M21	11	_	0 V	Battery voltage	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

$\mathbf{3.}$ CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

E	BCM	Ground	Continuity
Connector	Terminal	Ground	Continuity
M20	65		Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

• BCM supplies power.

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

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:000000008800755

INFOID:000000008800754

Main Power Window And Door Lock/unlock Switch

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

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

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

NO >> Refer to <u>PWC-33</u>, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

< DTC/CIRCUIT	_	ER SUF	PPLY AND GROU	JND CIF	RCUIT	
		SWITC	H : Diagnosis Pro	cedure		INFOID:00000008800756
Regarding Wiring	Diagram informa	ation, refe	er to <u>PWC-18, "Wiring</u>	<u>Diagram"</u> .		
Main Power Win 1. CHECK POW			lock Switch Power S	upply Cir	cuit Check	
 Turn ignition s Check voltage 		power wi	ndow and door lock/ur	llock switc	h connectors	D5, D11 and ground.
		Terr	ninal			
	(+)				Voltage
Main power window	and door lock/unloo	ck switch	Terminal	(—)	(Approx.)
	D5		10	Gri	aund	Pottony voltage
	D11		18	GIC	bund	Battery voltage
switch RH, re	switch OFF. CM, main power ar power window	r window v switch L	and door lock/unlock H and rear power win ctor and main power v	dow switcł	n RH.	
With Intelligent Ke	ey system					
BCM connector	Terminal	Main pow	ver window and door lock/ur connector	nlock switch	Terminal	Continuity
M85	92		D5		10	Yes
	91		D11		18	
Without Intelligent	Key system			1 1		
BCM connector	Terminal	Main pow	ver window and door lock/ur connector	NOCK SWITCH	Terminal	Continuity
M20	68		D5		10	Yes
	69		D11	_	18	
	•	M conneo	ctor M85 or M20 and g	round.		
With Intelligent Ke	connector		Terminal			Continuity
			91		Ground	
M85 91 Ground 92				No		
Without Intelligent	Key system	I				
	connector		Terminal			Continuity
	M20		68		Ground	No
			69			110
<u>s the inspection r</u> YES >> GO T NO >> Repai 3. CHECK GROU	O 4. ir or replace the	harness	or connectors.			

1.

Turn ignition switch OFF. Disconnect main power window and door lock/unlock switch. 2.

< DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between main power window and door lock/unlock switch connector D11 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D11	1	Gibana	Yes

Is the inspection result normal?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5.
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6.
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch LH) GO TO 7.
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch RH) GO TO 8.
- NO >> Repair or replace the harness or connectors.
- CHECK BCM OUTPUT SIGNAL
- 1. Connect BCM.
- 2. Turn ignition switch ON.

Check voltage between BCM connector M85 or M20 and ground. 3.

With Intelligent Key system

T	erminals			
(+)		()	Voltage (Approx.)	
BCM connector	Terminal	— (—)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
M85	91	Ground	Dettersustance	
CBM	92	Ground	Battery voltage	
Without Intelligent Key system				
Т				
(+)		()	Voltage (Approx.)	
BCM connector	Terminal	(-)	(

M20	68	Ground	Battery
IVIZU	69	Cround	Ballery

Is the inspection result normal?

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

>> Replace BCM. Refer to BCS-74, "Removal and Installation". NO

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

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

2. Turn ignition switch ON.

3. Check voltage between main power window and door lock/unlock switch D5 and ground.

Tern	ninal			
(+)			Window switch	Voltage
Main power window and door lock/ unlock switch connector		(-)	position (rear LH)	(Approx.)
	9		UP	Battery voltage
Dr	9		DOWN	0
D5 -	Ground		UP	0
	8		DOWN	Battery voltage

Is the inspection result normal?

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

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-70, "Removal and Installation". After that, refer to PWC-29, "Work Procedure".

voltage

< DTC/CIRCUIT DIAGNOSIS >

Turn ignition switch ON.	low and door loc	K/UTIOCK SWITCH.		
Turn ignition switch ON. Check voltage between m	ain nowar wind	w and door lock	Juplack switch D5 and ar	ound
Check voltage between in			Authock Switch D5 and gr	ound.
Ter	rminal			
(+)			Window switch	Voltage
Main power window and door lock/unlock switch connector	Terminal	()	position (rear RH)	(Approx.)
	7	- Ground -	UP	Battery voltage
D5 –			DOWN	0
55			UP	0
	0		DOWN	Battery voltage
O >> Replace main pov lation". After that, CHECK MAIN POWER \ WER WINDOW SWITCH L Connect main power wind Turn ignition switch ON.	refer to <u>PWC-29</u> WINDOW AND .H)), "Work Procedu DOOR LOCK/U		
Check voltage between m	•	ow and door lock	/unlock switch D11 and g	round.
	rminal			Valtaga
(+) Main power window and door lock unlock switch connector	/ Terminal	()	Window switch position (front LH)	Voltage (Approx.)
	17		UP	Battery voltage
		-	DOWN	0
D11		Ground	UP	
	19			0
	19	-		0 Battery voltage
	<u> ?</u>		DOWN	Battery voltage
the inspection result normal YES >> Check intermitten NO >> Replace main pov <u>lation"</u> . After that, CHECK MAIN POWER N OWER WINDOW SWITCH F Connect main power wind Turn ignition switch ON. Check voltage between m	t incident. Refer ver window and refer to <u>PWC-29</u> WINDOW AND RH) dow and door loc	door lock/unlock), <u>"Work Procedu</u> DOOR LOCK/U k/unlock switch.	DOWN <u>nittent Incident"</u> . switch. Refer to <u>PWC-70</u> <u>rre"</u> . NLOCK SWITCH OUTP	Battery voltage
YES >> Check intermitten NO >> Replace main pow <u>lation"</u> . After that, OWER WINDOW SWITCH F Connect main power wind Turn ignition switch ON. Check voltage between m	t incident. Refer ver window and refer to <u>PWC-29</u> WINDOW AND RH) dow and door loc	door lock/unlock), <u>"Work Procedu</u> DOOR LOCK/U k/unlock switch.	DOWN <u>nittent Incident"</u> . switch. Refer to <u>PWC-70</u> <u>rre"</u> . NLOCK SWITCH OUTP	Battery voltage
YES >> Check intermitten NO >> Replace main pow <u>lation"</u> . After that, OWER WINDOW SWITCH F Connect main power wind Turn ignition switch ON. Check voltage between m	t incident. Refer ver window and refer to <u>PWC-29</u> WINDOW AND RH) dow and door loc nain power windo	door lock/unlock <u>), "Work Procedu</u> DOOR LOCK/U k/unlock switch. w and door lock	DOWN <u>nittent Incident"</u> . switch. Refer to <u>PWC-70</u> <u>ure"</u> . NLOCK SWITCH OUTP /unlock switch D5 and gr Window switch	Battery voltage , "Removal and Ins UT SIGNAL (FRC ound.
YES >> Check intermitten NO >> Replace main pow <u>lation"</u> . After that, OWER WINDOW SWITCH F Connect main power wind Turn ignition switch ON. Check voltage between m	t incident. Refer ver window and refer to <u>PWC-29</u> WINDOW AND RH) dow and door loc nain power windo	door lock/unlock), <u>"Work Procedu</u> DOOR LOCK/U k/unlock switch.	DOWN hittent Incident". switch. Refer to <u>PWC-70</u> re". NLOCK SWITCH OUTP /unlock switch D5 and gr	Battery voltage
YES >> Check intermitten NO >> Replace main pow <u>lation"</u> . After that, OWER WINDOW SWITCH F Connect main power windo Turn ignition switch ON. Check voltage between m	t incident. Refer ver window and refer to <u>PWC-29</u> WINDOW AND RH) dow and door loc nain power windo rminal	door lock/unlock <u>), "Work Procedu</u> DOOR LOCK/U k/unlock switch. w and door lock	DOWN <u>nittent Incident"</u> . switch. Refer to <u>PWC-70</u> <u>ure"</u> . NLOCK SWITCH OUTP /unlock switch D5 and gr Window switch	Battery voltage , "Removal and Ins UT SIGNAL (FRC ound.
YES >> Check intermitten NO >> Replace main power lation". After that, OWER WINDOW SWITCH F Connect main power wind Turn ignition switch ON. Check voltage between m (+) Main power window and door lock/unlock switch connector	t incident. Referver window and refer to <u>PWC-29</u> WINDOW AND RH) dow and door loc nain power windo	door lock/unlock <u>), "Work Procedu</u> DOOR LOCK/U k/unlock switch. ow and door lock (-)	DOWN hittent Incident". switch. Refer to <u>PWC-70</u> ure". NLOCK SWITCH OUTP /unlock switch D5 and groups Window switch position (front RH)	Battery voltage , "Removal and Ins UT SIGNAL (FRC ound. Voltage (Approx.)
YES >> Check intermitten NO >> Replace main pow <u>lation"</u> . After that, OWER WINDOW SWITCH F Connect main power wind Turn ignition switch ON. Check voltage between m (+) Main power window and door	t incident. Refer ver window and refer to <u>PWC-29</u> WINDOW AND RH) dow and door loc nain power windo rminal	door lock/unlock <u>), "Work Procedu</u> DOOR LOCK/U k/unlock switch. w and door lock	DOWN <u>nittent Incident"</u> . switch. Refer to <u>PWC-70</u> <u>ure"</u> . NLOCK SWITCH OUTP /unlock switch D5 and gr Window switch position (front RH) UP	Battery voltage . "Removal and Ins UT SIGNAL (FRC ound. Voltage (Approx.) Battery voltage

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< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.
- NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-70, "Removal and Instal-</u> lation". After that, refer to <u>PWC-29, "Work Procedure"</u>.

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:000000008800757

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

1. Check main power window and door lock/unlock switch D5.

Terr	ninal	Main power window and door lock/unlock switch condition		Continuity	
10	9	Rear LH			
10	7	Rear RH	UP		
10	16	Front RH			
8	9	Rear LH			
6	7	Rear RH	NEUTRAL	Vac	
2	16	Front RH		Yes	
10	8	Rear LH			
10	6	Rear RH	DOWN		
10	2	Front RH			
1	12	-			

2. Check continuity between main power window and door lock/unlock switch D5 (power window lock switch) (Lock operation).

Terminal		Main power window and door lock/unlock switch condition		Continuity
9		Rear LH		
7		Rear RH	UP	
16		Front RH		
8		Rear LH	NEUTRAL	No
9		Rear LH Rear RH Front RH		
7	1			
6				
2				
16		TORCKI		
8		Rear LH		1
6		Rear RH	DOWN	
2	1	Front RH		

3. Check continuity between main power window and door lock/unlock switch D5 (power window lock switch) (Unlock operation).

< DTC/CIRCUIT DIAGNOSIS >

Tern	ninal	Main power window and door	ock/unlock switch condition	Continuity
9		Rear LH		
7		Rear RH	UP	
16		Front RH		
8		Rear LH		
9				
7	1	Door DH	NEUTRAL	Vee
6	1	Rear RH	NEUTRAL	Yes
2		Front RH		
16				
8		Rear LH		
6		Rear RH	DOWN	
2		Front RH		
the inspection	result normal?			
		and door lock/unlock switch i		
		r window and door lock/unlock		"Removal and Instal-
		fer to <u>PWC-29, "Work Proced</u>		
OWER WIN	IDOW MAIN	SWITCH : Special Rep	pair Requirement	INFOID:00000008800758
	NITIALIZATION			
efform initializa	tion procedure.), "Work Proced	ure"		
the inspection		<u></u> .		
YES >> GO				
		ncident. Refer to <u>GI-43, "Interr</u>	nittent Incident".	
CHECK ANT	I-PINCH OPER	ATION		
heck anti-pinch	operation.			
), "Work Proced	ure".		
the inspection	result normal?			
YES >> Insp	ection End.			
		POWER WINDOW MAIN SWI DW SWITCH	ICH : Component Functio	<u>n Check"</u> .
KUNT FUV				
RONT POW	VER WINDO	W SWITCH : Description	on	INFOID:00000008800759
PCM ounding	DOWOF			
BCM supplies Front power wi		will be operated if power wind	low and door lock/unlock s	witch RH is operated
•				·
		W SWITCH : Compone		INFOID:00000008800760
ower Window	And Door Loc	k/unlock Switch RH		
		MOTOR FUNCTION		
•		r operation with power window	v and door lock/unlock swi	tch RH.
s the inspection			,	
		door lock/unlock switch RH po FRONT POWER WINDOW S		
	лю <u>т үүс-эг,</u> Г	NONT I OVEN WINDOW O	MILLER PIAGENESS FILLED	

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000008800761

< DTC/CIRCUIT DIAGNOSIS >

Regarding Wiring Diagram information, refer to <u>PWC-18, "Wiring Diagram"</u>.

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

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

1. Turn ignition switch ON.

2. Check voltage between power window and door lock/unlock switch RH connector D104 and ground.

(+)		Voltage (Approx.)	
Power window and door lock/unlock switch RH connector	Terminal	()	(Approx.)
D104	8	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

- 2. Disconnect BCM, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- 3. Check continuity between BCM connector M85 or M20 and power window and door lock/unlock switch RH connector D104.

With Intelligent Key system

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M85	92	D104	8	Yes
Without Intelligent Key syste	m			
BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M20	68	D104	8	Yes

4. Check continuity between BCM connector M85 or M20 and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M85 (with Intelligent Key system)	92	Ground	No
M20 (without Intelligent Key system)	68		NO

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connectors.

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

1. Turn ignition switch OFF.

- 2. Disconnect main power window and door lock/unlock switch and power window and door lock/unlock switch RH.
- 3. Check continuity between main power window and door lock/unlock switch connector D5 and power window and door lock/unlock switch RH connector D104.

Main power window and door lock/unlock switch connector	Terminal	Power window and door lock/ unlock switch RH connector	Terminal	Continuity
D5	2	D104	11	Yes
63	16	0104	12	165

4. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

< DTC/CIRCUIT DIAGNOSIS >

	Continuity
Ground	
	No
ound.	
	Continuity
Ground	
	No
ttent Incident". allation".	
WITCH RH	
nt Inspection	1, "Removal and Installa-
WITCH RH	
tch condition	Continuity
AL	Yes
J	
K. RH. Refer to <u>PWC-7</u>	1. "Removal and Installa-
КΠ. I	Refer to <u>PVVC-7</u>

< DTC/CIRCUIT DIAGNOSIS >

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

REAR POWER WINDOW SWITCH : Component Function Check

INFOID:000000008800764

Rear Power Window Switch

1. CHECK REAR POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

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

NO >> Refer to <u>PWC-40</u>, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000008800765

Regarding Wiring Diagram information, refer to PWC-18, "Wiring Diagram".

Rear Power Window Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- 2. Check voltage between rear power window switch connector D203 or D303 and ground.

	Terminal				
	(+)			Condition	Voltage
	Rear power window switch connector		()		(Approx.)
LH	D203	6	Ground	Ignition switch ON	Patton voltago
RH	D303	0	Ground	Ignition Switch ON	Battery voltage

Is the inspection result normal?

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

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

NO >> GO TO 4.

2. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and rear power window switch LH.
- Check continuity between main power window and door lock/unlock switch connector D5 and rear power window switch LH connector D203.

Main power window and door lock/ unlock switch connector	Terminal	Rear power window switch LH connector	Terminal	Continuity
 D5	8	D203	7	Yes
23	9	D203	4	163

4. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
DE	8	Ground	No
D5	9		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

1. Turn ignition switch OFF.

- 2. Disconnect main power window and door lock/unlock switch and rear power window switch RH.
- Check continuity between main power window and door lock/unlock switch connector D5 and rear power window switch RH connector D303.

Main power window and door lock/ unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity	C
D5	6	- D303	7	Yes	
23	7	- 0303	4	165	-

4. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

Main power window and door lock/un- lock switch connector	Terminal		Continuity	E
D5	6	Ground	No	
	7		No	F

Is the inspection result normal?

YES >> GO TO 5.

NO	>> Repair or replace the harness or of	connectors.
----	--	-------------

4. CHECK HARNESS CONTINUITY

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

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

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity	I	
MOE	00	LH	D203	0			
M85	92	RH	D303	6	Yes	J	
Without Intelligent Ke	y system						
BCM connector	Terminal	Rear power windo	w switch connector	Terminal	Continuity	PWC	
M20	69	LH	D203	6	Vee		
M20	68	RH	D303	6	Yes		

3. Check continuity between BCM connector M85 or M20 and ground.

BCM			Continuity	Ν./Ι
Connector	Terminal	- Ground	Continuity	IVI
M85 (with Intelligent Key system)	92	Ground	No	
M20 (without Intelligent Key system)	68		No	Ν

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> Repair or replace harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-42, "REAR POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

NO >> Replace rear power window switch. Refer to PWC-72, "Removal and Installation".

А

Н

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

< DTC/CIRCUIT DIAGNOSIS >

REAR POWER WINDOW SWITCH : Component Inspection

INFOID:000000008800766

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Те	rminal	Power window switch condition	Continuity		
4	5	UP			
8	6	UF UF			
6	8	NEUTRAL	Yes		
5	7	NEUTRAE	Tes		
4	6	DOWN			
5	7	DOWN			

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to <u>PWC-72, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGN	osis >	POV	VER	WIND	OW MOTOR		
POWER WINDOW		TOR					
DRIVER SIDE							
DRIVER SIDE : Des	scriptio	n					INFOID:000000008800767
Door glass moves UP/DC	OWN by	receiving	g the si	gnal fror	m main power windo	w and door loc	k/unlock switch.
DRIVER SIDE : Cor	npone	nt Fun	ction	Check	ζ.		INFOID:000000008800768
1. CHECK FRONT POW	ER WI		IOTOR	LH CIR	CUIT		
Check front power window		LH oper	ation w	ith the n	nain power window a	and door lock/u	nlock switch.
<u>Is the inspection result no</u> YES >> Front power		motor LF	l is OK				
NO >> Refer to <u>PWC</u>	<u>C-43, "D</u>	RIVER S	<u>SIDE : I</u>		is Procedure".		
DRIVER SIDE : Dia	gnosis	Proce	dure				INFOID:000000008800769
	. ,						
Regarding Wiring Diagrar	n inform	lation, re	ter to F	<u>200-18,</u>	<u>"Wiring Diagram"</u> .		
Front Power Window M							
1. CHECK MAIN POWE		OW ANI	D DOC	R LOCH	WUNLOCK SWITCH	OUTPUT SIG	NAL
 Turn ignition switch C Disconnect front power 	er windo	ow motor	LH.				
 Turn ignition switch C Check voltage between 		power w	vindow	motor L	H connector D8 and	ground.	
	Terminal						
(+)					Main power window a door lock/unlock switch		Voltage
Front power window motor LH connector	Term	inal	(—)	dition		(Approx.)
	1				UP	Ва	ttery voltage
D8 -			Gro	ound	DOWN		0
	3	3			DOWN	Ba	ttery voltage
Is the inspection result no	ormal?						
YES >> GO TO 3. NO >> GO TO 2.							
2. CHECK HARNESS C	ONTINU	JITY					
1. Turn ignition switch C				., .			
 Disconnect main pow Check continuity bet 	ween m	nain pow	er win			switch connect	tor D11 and front
power window motor	LH conr	nector D8	8.				
Main power window and doo lock switch	r lock/un-	Term	inal	Front p	oower window motor LH	Terminal	Continuity
connector					connector		
D11		17	(-	D8	1	Yes

4. Check continuity between main power window and door lock/unlock switch connector D11 and ground.

19

D8

D11

3

Yes

< DTC/CIRCUIT DIAGNOSIS >

Main power window and door lock/un- lock switch connector	Terminal		Continuity
 D11	17	Ground	No
DII	19		NO

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-70, "Removal and Instal-</u> lation". After that, refer to <u>PWC-29, "Work Procedure"</u>.

NO >> Repair or replace harness.

 ${f 3.}$ CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to PWC-44, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.
- NO >> Replace front power window motor LH. Refer to <u>GW-16. "Removal and Installation"</u>. After that, refer to <u>PWC-29, "Work Procedure"</u>.

DRIVER SIDE : Component Inspection

COMPONENT INSPECTION

1.CHECK FRONT POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to power window motor D8.

Teri	ninal	- Motor condition	
(+)	(-)		
1	3	UP	
3	1	DOWN	

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to <u>GW-16, "Removal and Installation"</u>. After that, refer to <u>PWC-29, "Work Procedure"</u>.

DRIVER SIDE : Special Repair Requirement

INFOID:000000008800771

INFOID:000000008800770

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-29, "Work Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation. Refer to <u>PWC-30, "Work Procedure"</u>.

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to <u>PWC-43, "DRIVER SIDE : Component Function Check"</u>. PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000008800772

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

ASSENGER SIDE : C	omponent H	-unction Che	CK			INFOID:000000008800773
CHECK FRONT POWER	WINDOW MO	FOR RH CIRCUI	Т			
neck front power window mo ndow and door lock/unlock	switch.	on with main pow	ver window and	door lock/	unlock s	witch or power
the inspection result norma		.				
<pre>'ES >> Front power wind IO >> Refer to PWC-45</pre>			sis Procedure".			
ASSENGER SIDE : D		-				
OULINGER OIDE . D		Secure				INFOID:000000008800774
egarding Wiring Diagram inf	ormation, refer	to <u>PWC-18, "Wi</u> ı	ring Diagram".			
ont Power Window Motor	RH Circuit C	heck				
CHECK POWER WINDO	W AND DOOR	LOCK/UNLOCK	SWITCH RH	OUTPUT S	IGNAL	
Turn ignition switch OFF. Disconnect front power w Turn ignition switch ON. Check voltage between fr			onnector D105	and ground	l.	
	erminal					
(+)		()	Front power window motor RH condition		Voltage (V) (Approx.)	
Front power window motor RH connector	Terminal					
	3	-	UP		Batte	ry voltage
D105	5	Ground	DOW	N		0
	1		UP			0
			DOW	N	Batte	ry voltage
the inspection result norma (ES >> GO TO 3. NO >> GO TO 2. CHECK HARNESS CONT Turn ignition switch OFF. Disconnect power window Check continuity between window motor RH connect	FINUITY w and door lock			H connecto	r D104 a	nd front power
Power window and door lock/un- lock switch RH connector	Terminal		ndow motor RH ector	Termina	al	Continuity
D104	6	D1	05	1		Yes
	7			3	10.1	
Check continuity betweer	i power window	/ and door lock/u	niock switch co	Dinnector D	104 and (ground.
Power window and door lock/unlo connector	ock switch RH	Terminal	Ground		Cont	nuity
		6	Ground		N	•
D104		7				0

NO >> Repair or replace the harness or connectors.

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to PWC-46, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

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

>> Replace front power window motor RH. Refer to GW-16, "Removal and Installation". NO

PASSENGER SIDE : Component Inspection

COMPONENT INSPECTION

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

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

Ter	ninal	- Motor condition	
(+)	(-)		
3	1	UP	
1	3	DOWN	

Is the inspection result normal?

YES >> Power window motor is OK.

>> Replace front power window motor RH. Refer to <u>GW-16, "Removal and Installation"</u>. NO REAR LH

REAR LH : Description

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

REAR LH : Component Function Check

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

- YES >> Rear power window motor LH is OK.
- NO >> Refer to PWC-46, "REAR LH : Diagnosis Procedure"

REAR LH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-18, "Wiring Diagram".

Rear Power Window Motor LH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

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

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INFOID:000000008800777

INFOID-000000008800778

INFOID:000000008800775

< DTC/CIRCUIT DIAGNOSIS >

	Terminal	1	4		
(+)	<u></u>			ndow dition	Voltage (Approx.)
Rear power window motor LH connector	Terminal	(-)	CON	anion	(Αμριολ.)
	1		l	JP	Battery voltage
D204	·	- Ground	DC	OWN	0
5201	3	Croana	L	JP	0
			DC	DWN	Battery voltage
s the inspection result normal YES >> GO TO 3. NO >> GO TO 2. CHECK HARNESS CON Turn ignition switch OFF. Disconnect rear power work of the set of the	TINUITY /indow switch LH.				
B. Check continuity betwee LH connector D204. Rear power window switch LH	en rear power wind	Rear power windo	v motor LH	7203 and re Termina	
connector	5	connecto	r		
D203	8	D204		1	Yes
 Check continuity betwee 			nnector D2	03 and gro	
Rear power window switch LH co	ower window switch LH connector Terminal Continuity		Continuity		
D203		5	Ground	d	No
s the inspection result norma					
YES >> Check rear power NO >> Repair or replace CHECK REAR POWER N Check rear power window mo Refer to <u>PWC-47. "REAR LH</u> s the inspection result norma YES >> Check intermitten NO >> Replace rear power REAR LH : Componen COMPONENT INSPECTION	e the harness or co WINDOW MOTOR otor LH. <u>1: Component Insp al?</u> nt incident. Refer to wer window motor at Inspection	onnectors. CLH <u>Dection"</u> . to <u>GI-43, "Interm</u> LH. Refer to <u>GV</u>	ittent Incide	ent".	stallation".
YES >> Check rear power NO >> Repair or replace Check rear power window mo Refer to <u>PWC-47, "REAR LH</u> the inspection result norma YES >> Check intermitten NO >> Replace rear power REAR LH : Componen	e the harness or co WINDOW MOTOR otor LH. <u>1: Component Insp al?</u> nt incident. Refer to wer window motor to Inspection ON WINDOW MOTOR	onnectors. LH <u>bection"</u> . to <u>GI-43, "Interm</u> LH. Refer to <u>GV</u> LH	ittent Incide V-21, "Rem	ent". oval and In	stallation".
YES >> Check rear power NO >> Repair or replace CHECK REAR POWER N Check rear power window mo Refer to <u>PWC-47</u> , "REAR LH s the inspection result norma YES >> Check intermitter NO >> Replace rear power REAR LH : Componen COMPONENT INSPECTION CHECK REAR POWER N Check motor operation by co	e the harness or co WINDOW MOTOR otor LH. <u>1: Component Insp</u> <u>al?</u> nt incident. Refer to wer window motor it Inspection ON WINDOW MOTOR onnecting the batte	onnectors. CLH Dection". to <u>GI-43, "Interm</u> LH. Refer to <u>GV</u> CLH try voltage direct	ittent Incide V-21, "Rem	e <u>nt"</u> . oval and In ower windo	stallation".
YES >> Check rear power NO >> Repair or replace CHECK REAR POWER N Check rear power window mo Refer to <u>PWC-47</u> , "REAR LH s the inspection result norma YES >> Check intermitter NO >> Replace rear power REAR LH : Componen COMPONENT INSPECTION CHECK REAR POWER N Check motor operation by co	e the harness or co WINDOW MOTOR otor LH. 1: Component Insp al? nt incident. Refer to wer window motor at Inspection DN WINDOW MOTOR onnecting the batter Ferminal	onnectors. CLH Dection". to <u>GI-43, "Interm</u> LH. Refer to <u>GV</u> CLH try voltage direct	ittent Incide V-21, "Rem	oval and In oval and In ower windo	stallation". INFOID:000000000000000000000000000000000000
YES >> Check rear power NO >> Repair or replace Check rear power window mo Refer to <u>PWC-47</u> , "REAR LH the inspection result norma YES >> Check intermitter NO >> Replace rear power REAR LH : Componen COMPONENT INSPECTION . CHECK REAR POWER NO Check motor operation by co	e the harness or co WINDOW MOTOR otor LH. 1: Component Insp al? nt incident. Refer to wer window motor at Inspection DN WINDOW MOTOR onnecting the batter Ferminal	onnectors. CLH Dection". to <u>GI-43, "Interm</u> LH. Refer to <u>GV</u> CLH try voltage direct	ittent Incide V-21, "Rem	oval and In oval and In ower windo Motor o	stallation". INFOID:000000008800 w motor LH D204.

Revision: October 2012

NO

>> Replace rear power window motor LH. Refer to <u>GW-21, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS >

REAR RH

REAR RH : Description

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

REAR RH : Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Power window motor is OK.

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

REAR RH : Diagnosis Procedure

INFOID:000000008800782

Regarding Wiring Diagram information, refer to PWC-18, "Wiring Diagram".

Rear Power Window Motor RH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

Т	erminal				
(+)			Rear power window	Voltage	
Rear power window motor RH connector	Terminal	()	switch RH condition	(Approx.)	
	1		UP	Battery voltage	
D204	I	DOWN	0		
D304	2	- Ground	UP	0	
	3		DOWN	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window switch RH.
- Check continuity between rear power window switch RH connector D303 and rear power window motor RH connector D304.

Rear power window switch RH connector	Terminal	Rear power window motor RH connector	Terminal	Continuity
D303	5	D304	1	Yes
0000	8	0504	3	165

4. Check continuity between rear power window switch RH connector D303 and ground.

INFOID:000000008800780

INFOID:000000008800781

< DTC/CIRCUIT DIAGNOSIS >

Rear power window switch RH connector	Terminal		Continuity
D000	5	Ground	NI-
D303	8		No
s the inspection result normal? YES >> Check rear power window s NO >> Repair or replace harness o B. CHECK REAR POWER WINDOW M Check rear power window motor RH. Refer to PWC-49, "REAR RH : Component Inspection result normal? YES >> Check intermittent incident. NO >> Replace rear power window REAR RH : Component Inspection COMPONENT INSPECTION	r connectors. IOTOR RH <u>ent Inspection"</u> . Refer to <u>GI-43. "Inter</u> motor RH. Refer to <u>G</u> tion	mittent Incident".	
CHECK REAR POWER WINDOW M			
Check motor operation by connecting th	e battery voltage dire	ctly to rear power window	/ motor RH D304.
Terminal		Motor co	andition
(+)	()		
3	1	DOV	WN
1	3	UI	
<u>s the inspection result normal?</u> YES >> Power window motor is OK. NO >> Replace rear power window		<u>GW-21. "Removal and Ins</u>	stallation".

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ENCODER

< DTC/CIRCUIT DIAGNOSIS > ENCODER

DRIVER SIDE

DRIVER SIDE : Description

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

DRIVER SIDE : Component Function Check

1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to <u>PWC-50</u>, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

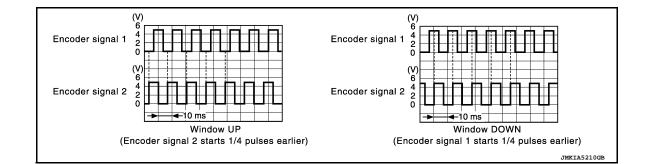
INFOID:000000008800786

Regarding Wiring Diagram information, refer to PWC-18, "Wiring Diagram".

Encoder Circuit Check

- **1.** CHECK ENCODER OPERATION
- 1. Connect front power window motor LH.
- 2. Turn ignition switch ON.
- 3. Check signal between main power window and door lock/unlock switch connector D5 and ground with oscilloscope.

(+)			Signal
Main power window and door lock/ unlock switch connector	Terminal	()	(Reference value)
D5	4	Ground	Refer to following signal
	5	Giodila	



Is the inspection result normal?

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

NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

- 1. Turn ignition switch ON.
- 2. Check voltage between front power window motor LH connector D8 and ground.

INFOID:000000008800784

INFOID:00000008800785

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

Front power window motor LH co					Voltage
•	(+)		()		(Approx.)
	onnector	Terminal			
D8 the inspection result normal?		2	Grour	id	10
YES >> GO TO 4. NO >> GO TO 3. CHECK HARNESS CONTIN Turn ignition switch OFF. Disconnect main power window Check continuity between r power window motor connect	dow and door l main power w				
Main power window and door lock/ unlock switch connector	Terminal	Front power windo connect		Terminal	Continuity
D11	14	D8		2	Yes
D11 the inspection result normal?		14	(Ground	No
YES >> Replace main power lation". After that, ref NO >> Repair or replace ha CHECK GROUND CIRCUIT . Turn ignition switch OFF. . Disconnect front power wind . Check continuity between fro	fer to <u>PWC-29</u> irness or conne low motor LH.	, <u>"Work Procedure</u> ectors.	<u>}"</u> .		Removal and Insta
lation". After that, ref NO >> Repair or replace ha CHECK GROUND CIRCUIT Turn ignition switch OFF. Disconnect front power wind Check continuity between fro	fer to <u>PWC-29</u> irness or conn low motor LH. ont power wind	<u>, "Work Procedure</u> ectors. dow motor LH con	<u>}"</u> .		
Iation". After that, ref NO >> Repair or replace ha CHECK GROUND CIRCUIT Turn ignition switch OFF. Disconnect front power wind Check continuity between from the power wind witch of the power wind wi	fer to <u>PWC-29</u> irness or conn low motor LH. ont power wind	, <u>"Work Procedure</u> ectors.	<u>}"</u> .		Removal and Insta Continuity Yes
lation". After that, ref NO >> Repair or replace ha CHECK GROUND CIRCUIT Turn ignition switch OFF. Disconnect front power wind Check continuity between fro	fer to <u>PWC-29</u> Irness or conn low motor LH. ont power wind ector Te UITY 2 dow and door I ain power wind	<u>, "Work Procedure</u> ectors. dow motor LH con rminal 6 ock/unlock switch	nector D8 a	nd ground.	Continuity Yes
Iation". After that, ref NO >> Repair or replace ha NO >> Repair or replace ha CHECK GROUND CIRCUIT Turn ignition switch OFF. Disconnect front power wind Check continuity between from Front power window motor LH connect D8 Sthe inspection result normal? YES >> GO TO 6. NO >> GO TO 5. CHECK HARNESS CONTIN Disconnect main power wind Check continuity between mind	fer to <u>PWC-29</u> Irness or conn low motor LH. ont power wind ector Te UITY 2 dow and door I ain power wind	<u>, "Work Procedure</u> ectors. dow motor LH con rminal 6 ock/unlock switch	nector D8 a Ground /unlock swit	nd ground.	Continuity Yes

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

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

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< DTC/CIRCUIT DIAGNOSIS >

2. Check continuity between main power window D5 and door lock/unlock switch connector and front power window motor LH connector D8.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D5	4	D8	5	Yes
D5	5	00	4	163

3. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D5	4	Ground	No
	5		NO

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to <u>GW-16, "Removal and Installation"</u>. After that, refer to <u>PWC-29, "Work Procedure"</u>.

NO >> Repair or replace harness or connectors.

DRIVER SIDE : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-29, "Work Procedure"</u>.

Is the inspection result normal?

YES >> Inspection end.

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

< DTC/CIRCUIT DIAGNOSIS > DOOR SWITCH WITH INTELLIGENT KEY

WITH INTELLIGENT KEY : Component Function Check

INFOID:000000009024111

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1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.

2. Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL and DOOR SW-RR in DATA MONITOR mode.

3. Check that the function operates normally according to the following conditions.

Monitor item		Condition	Status	
	Front door LH	Open	ON	
DOOR SW-DR		Closed	OFF	
	Front door DU	Open	ON	
DOOR SW-AS	Front door RH	Closed	OFF	
DOOR SW-RL		Open	ON	
	Rear door LH	Closed	OFF	
	Boor door DH	Open	ON	
DOOR SW-RR	Rear door RH	Closed	OFF	

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to PWC-53, "WITH INTELLIGENT KEY : Diagnosis Procedure".

WITH INTELLIGENT KEY : Diagnosis Procedure

Regarding Wiring Diagram information, refer to DLK-49, "Wiring Diagram".

1. CHECK DOOR SWITCH INPUT SIGNAL

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

(+)					
	Door switch		(-)	Signal (Reference value)	
Conne	ector	Terminal			
Front door switch _H	B21	3		(V) 15	
Front door switch	B28	3	Ground		
ear door switch H	B26	3		→ ← 10ms	
ear door switch H	B41	3		рктв4960 <i>ј</i> 7.0 - 8.0 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.

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

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	Door switch		B	Continuity		
Connector		Terminal	Connector Terminal		Continuity	
Front door switch LH	B21	3		98		
Front door switch RH	B28			B24	100	Yes
Rear door switch LH	B26		624	97	fes	
Rear door switch RH	B41			99		

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

	Door switch		Continuity	
Connector Terminal				Continuity
Front door switch LH	B21		Ground	
Front door switch RH	B28	3	Ground	No
Rear door switch LH	B26	3		INO
Rear door switch RH	B41			

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-74, "Removal and Installation"</u>.

NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to PWC-54, "WITH INTELLIGENT KEY : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-43, "Intermittent Incident".

>> Inspection End.

WITH INTELLIGENT KEY : Component Inspection

INFOID:000000009024113

1.CHECK DOOR SWITCH

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

	Door switch		Condition		Continuity
Terminal			Condition		Continuity
Front door switch				Pressed	No
LH				Released	Yes
Front door switch RH Rear door switch LH				Pressed	No
	2	Ground part of door		Released	Yes
	switch	Door switch	Pressed	No	
				Released	Yes
Rear door switch				Pressed	No
RH				Released	Yes

Is the inspection result normal?

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DOC	OR SWITCH			
< DTC/CIRCUIT DIAGNOSIS >				
YES >> Inspection End. NO >> Replace malfunction door switch. WITHOUT INTELLIGENT KEY				
WITHOUT INTELLIGENT KEY : Description				
Detects door open/close condition.				
WITHOUT INTELLIGENT KEY : Comp	onent Function Check	INFOID:000000009024115		
1.CHECK FUNCTION				
With CONSULT Check door switches DOOR SW-DR, DOOR SW with CONSULT.	V-AS, DOOR SW-RL, DOOR SW-RR in	Data Monitor mode		
Monitor item	Condition			
DOOR SW-DR				
DOOR SW-AS				
DOOR SW-RL				
DOOR SW-RR				
WITHOUT INTELLIGENT KEY : Diagn		INFOID:0000000009024116		
Regarding Wiring Diagram information, refer to D	LK-223. "Wiring Diagram".			
1.CHECK DOOR SWITCH INPUT SIGNAL				
 Turn ignition switch OFF. Check signal between BCM connector and gr 	round with oscilloscope.			

< DTC/CIRCUIT DIAGNOSIS >

Terminals					
(+) BCM connector		()	Door condition		Voltage (V) (Approx.)
				OPEN	0
45	45 Front RH	Front RH	CLOSE	(V) 15 0 10 10 ms JPNIA0011GB	
-				OPEN	0
DEZ	48	Ground	Rear RH	CLOSE	(V) 15 0 10 10 10 10 10 10 10 10 10 10 10 10 1
B57		Ground		OPEN	0
46	Front L	Front LH	CLOSE	(V) 15 0 0 10 ms JPMIA0011GB	
				OPEN	0
47	R	Rear LH	CLOSE	(V) 15 10 5 0 10 ms JPHIA0011GB	

Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 2

NU >> GU IU Z

2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.

2. Check continuity between BCM connector and door switch connector.

BCM connector	Terminal	Door switch connector	Terminal	Continuity
	45	B28 (Front RH)		
B57	48	B41 (Rear RH)	3	Vee
	46	B21 (Front LH)	3	Yes
	47	B26 (Rear LH)		



< DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between BCM connector and ground.

BCM connec	1					
Dom connoc	tor	Terminal		Continuity		
		45	Ground			
		48				
B57		46		No		
		47				
the inspectior	n result norm	<u>al?</u>				
′ES >> GO			DOM			
-	-	e harness betw	een BCM	and door sw	cn.	
.CHECK DOC						
		T INTELLIGEN	<u>IT KEY : C</u>	Component In	pection".	
<u>the inspectior</u> ′ES >> GO		<u>al?</u>				
		ctioning door sv	witch.			
CHECK INTE		-				
efer to <u>GI-43,</u> '						<u> </u>
	Intornittorit	<u>inolaone</u> .				
>> Insp	pection End.					
		ENT KEY : C	omnon	ont Inspac	ion	
			Jompon	ent mopeo		INFOID:000000009024117
.CHECK DOC	OR SWITCH					
Turn ignitior	n switch OFF	-				
Disconnect						
	door switch					
Check door	door switch					
	door switch o switch.	connector.				
Check door	door switch o switch.		dition	Continuity		
Check door Termin Door sv	door switch switch. nal vitch	connector.	dition	Continuity		
Check door Termin Door sv	door switch o switch.	Door switch cond	dition			
Check door Termin Door sv 3	door switch switch. nal vitch Ground part of door switch	- Door switch cond Pressed Released	dition	No		
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Check door Termin Door sv 3 the inspection (ES >> Insp	door switch switch. nal vitch Ground part of door switch result norm bection End.	- Door switch cond Pressed Released al?		No		

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW LOCK SWITCH

Description

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

Component Function Check

1. CHECK POWER WINDOW LOCK SIGNAL

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

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-70, "Removal and Instal-</u> lation". After that, refer to <u>PWC-29, "Work Procedure"</u>.
- NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:000000008800794

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-29, "Work Procedure"</u>.

Is the inspection result normal?

- YES >> Inspection end.
- NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH

< 31MFTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	A
POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH	B
Diagnosis Procedure	
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT	С
Check BCM power supply and ground circuit. Refer to <u>BCS-68, "Diagnosis Procedure"</u> (with Intelligent Key) or <u>BCS-121, "Diagnosis Procedure"</u> (without Intelligent Key).	D
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	E
Check power window main switch power supply and ground circuit. Refer to <u>PWC-33, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"</u> .	F
<u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. REPLACE POWER WINDOW MAIN SWITCH	G
 Replace power window main switch. Confirm the operation after replacement. Is the result normal? 	Η
YES >> INSPECTION END NO >> Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident"</u> .	I
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DRIVER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000008765631

1.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side). Refer to <u>PWC-43, "DRIVER SIDE : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE POWER WINDOW MAIN SWITCH

• Replace power window main switch.

• Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

SYMPTOM DIAGNOSIS > FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE A WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW B WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW B WHEN BOTH POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window switch (passenger side). Refer to PUC-37, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window motor (passenger side). Refer to PUC-46, "PASSENGER SIDE) C Check front power window motor (passenger side). Refer to PUC-46, "PASSENGER SIDE) C Check front power window motor (passenger side). Refer to PUC-46, "PASSENGER SIDE) C Check front power window mator window MAIN SWITCH E C 2. CHECK FRONT POWER WINDOW MAIN SWITCH E C SatepLace Power window mator window MAIN SWITCH F E S. REPLACE POWER WINDOW MAIN SWITCH Replace power window main switch. F S. REPLACE POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED H WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED WOMENT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) Power SUPPLY AND GROUND CIC C YES >> 60 TO 2. NO >> Repair or rep	FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE
WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW A SWITCH ARE OPERATED B WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW B SWITCH ARE OPERATED : Diagnosis Procedure B 1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window switch (passenger side). C Refer to PWC37.*FRONT POWER WINDOW MOTOR (PASSENGER SIDE) D Check front power window motor (passenger side). E Refer to PWC35.*FRONT POWER WINDOW MOTOR (PASSENGER SIDE) F Check front power window motor (passenger side). F Is the inspection result normal? F YES > GO TO 3. G NO >> Repair or replace the maifunctioning parts. G 3.REPLACE POWER WINDOW MAIN SWITCH H Reflace power window main switch. H VE Confirm the operation after replacement. Is the result normal? YES > SO TO 2. F WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED I WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED I WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) Power Supply and ground circuit. Refer to PVC37.**FRONT POWER WINDOW SWITCH (PA	< SYMPTOM DIAGNOSIS >
WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW B WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW B UHEN BOTH POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window switch (passenger side). C Refer to PWC37. "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window motor (passenger side). C Refer to PWC37. "FRONT POWER WINDOW MOTOR (PASSENGER SIDE) C Check front power window motor (passenger side). F Refer to PWC45. "PASSENGER SIDE : Diagnosis Procedure". E Is the inspection result normal? F YES >> GO TO 3. G O >> Repair or replace the malfunctioning parts. G 3.REPLACE POWER WINDOW MAIN SWITCH H • Confirm the operation after replacement. H Is the inspection result normal? H YES >> INSPECTION END H NO >> Septor or eplace the winDOW SWITCH (PASSENGER SIDE) IS OPERATED : J WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : J WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR- L Our Check front power window switch (passenger side) power supply and ground circuit. Refer to PUC37. "	FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE
WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW B WHEN BCH POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window switch (passenger side). C Refer to PWC37. "FRONT POWER WINDOW SWITCH : Diagnosis Procedure". D Is the inspection result normal? YES > GO TO 2. NO >> Repair or replace the maifunctioning parts. E 2. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) F Check front power window motor (passenger side). F Refer to PWC47. "PASSENGER SIDE : Diagnosis Procedure". F Is the inspection result normal? F YES >> GO TO 3. G NO >> Repair or replace the maifunctioning parts. G 3. REPLACE POWER WINDOW MAIN SWITCH H • Confirm the operation after replacement. H Is the result normal? H YES >> SIGPECTION END H NO >> Check intermittent incident. Refer to GL43. "Intermittent Incident". H WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : J UHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR- L Cutt Check front power window switch (passenger side) power supply and ground circuit. L	WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW
WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED : Diagnosis Procedure 1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) Check front power window switch (passenger side). Refer to PWC-37, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure". Is the inspection result normal? YES > 60 T02. NO >> Repair or replace the maffunctioning parts. 2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) Check front power window motor (passenger side). Refer to PWC-45. "PASSENGER SIDE : Diagnosis Procedure". Is the inspection result normal? YES > 60 T03. NO >> Repair or replace the maffunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH • Replace power window main switch. • Confirm the operation after replacement. Is the result normal? YES > INSPECTION END NO >> Check intermittent incident. Refer to CI-43. "Intermittent Incident". WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : Diagnosis Procedure	SWITCH ARE OPERATED
SWITCH ARE OPERATED : Diagnosis Procedure C 1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window switch (passenger side). C Refer to PWC-37. "FRONT POWER WINDOW SWITCH : Diagnosis Procedure". D Is the inspection result normal? YES YES > GO TO 2. NO >> Repair or replace the malfunctioning parts. E 2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) F Stehe inspection result normal? F YES > GO TO 3. NO >> Repair or replace the malfunctioning parts. G 3.REPLACE POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED F WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) NO DEPEATED: J UHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR- C Cutt F S<	
1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) C Check front power window switch (passenger side). Refer to PWC-37. "FRONT POWER WINDOW SWITCH : Diagnosis Procedure". Is the inspection result normal? VES YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. E 2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) F Is the inspection result normal? YES YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH • Replace power window main switch. • Confirm the operation after replacement. Is the result normal? YES >> INSPECTION END NO >> Check intermittent incident. Refer to GL43. "Intermittent incident." WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED: Diagnosis Procedure J VHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR. Check front power window switch (passenger side) power supply and ground circuit. <t< td=""><td></td></t<>	
1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) Check front power window switch (passenger side). Refer to PWC-37, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure". Is the inspection result normal? YES >> G OT 0.2. NO >> Repair or replace the malfunctioning parts. 2. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) Check front power window motor (passenger side). Refer to PWC-45. "PASSENGER SIDE: Diagnosis Procedure". Is the inspection result normal? YES >> G OT 0.3. NO >> Repair or replace the malfunctioning parts. 3. REPLACE POWER WINDOW MAIN SWITCH H • Confirm the operation after replacement. Is the result normal? Is the result normal? YES YES >> INSPECTION END NO >> Check intermittent incident. Refer to CI-43. "Intermittent Incident". WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED J WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED J UT Check front power window switch (passenger side) power supply and ground circuit. Refer to <u>PWC-37, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE)</u> M Check front power window switch (passenger side). N </th <th></th>	
Refer to <u>PWC-37, 'FRONT POWER WINDOW SWITCH : Diagnosis Procedure'</u> . Is the inspection result normal? Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. E 2. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) F Check front power window motor (passenger side). F Refer to <u>PWC-45, 'PASSENGER SIDE : Diagnosis Procedure'</u> . F Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. G 3. REPLACE POWER WINDOW MAIN SWITCH * * Replace power window main switch. H • Confirm the operation after replacement. Is the result normal? YES >> NISPECTION END NO NO >> Check intermittent incident. Refer to GL43. "Intermittent Incident." WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : Diagnosis Procedure UHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR- Image: Procedure // PWC-37, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR- Cutt Check front power window switch (passenger side) power supply and ground circuit. Refer to <u>PWC-37, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE)</u> Check front power window switch (passenger side).	1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Is the inspection result normal? YES >> GOTO 2. E NO >> Repair or replace the malfunctioning parts. E 2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) F Is the inspection result normal? F Is the inspection result normal? YES >> GOTO 3. G 3.REPLACE POWER WINDOW MAIN SWITCH H H • Replace power window main switch. H Confirm the operation after replacement. Is the inspection result normal? YES >> INSPECTION END H NO >> Check intermittent incident. Refer to GI-43. "Intermittent Incident". H WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED J Diagnosis Procedure	
YES >> GO TO 2. M P NO >> Repair or replace the malfunctioning parts. E 2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) F Check front power window motor (passenger side). F Refer to PWC-45. "PASSENGER SIDE : Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 3. G NO >> Repair or replace the malfunctioning parts. G 3.REPLACE POWER WINDOW MAIN SWITCH H • Confirm the operation after replacement. Is the inspection result normal? YES >> INSPECTION END H NO >> Check intermittent incident. Refer to GI-43. "Intermittent Incident". H WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED J UHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : J Diagnosis Procedure M 1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR. M Cutt Check front power window switch (passenger side) power supply and ground circuit. Refer to PWC-37. "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) No >> Repair or replace the malfunctioning parts. M M 2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE	
2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) Check front power window motor (passenger side). Refer to <u>PWC-45. *PASSENGER SIDE : Diagnosis Procedure".</u> Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH • Replace power window main switch. • Confirm the operation after replacement. Is the result normal? YES >> INSPECTION END NO >> Check intermittent incident. Refer to <u>GI-43. "Intermittent Incident".</u> WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : Diagnosis Procedure 1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR- CUIT Check front power window switch (passenger side) power supply and ground circuit. Refer to <u>PWC-37. "FRONT POWER WINDOW SWITCH (PASSENGER SIDE)</u> NO >> Repair or replace the malfunctioning parts. 2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) Check front power window switch (passenger side). Refer to <u>PWC-37. "FRONT POWER WINDOW SWITCH (PASSENGER SIDE)</u> No >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH P	
Check front power window motor (passenger side). F Refer to <u>PVC-45</u> . "PASSENGER SIDE : Diagnosis Procedure". F Is the inspection result normal? G YES >> GO TO 3. G NO >> Repair or replace the malfunctioning parts. G Replace power window main switch. H • Confirm the operation after replacement. H Is the result normal? YES >> INSPECTION END NO >> Check intermittent incident. Refer to GI-43. "Intermittent Incident". H WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED J WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : J Diagnosis Procedure J CUIT Check front power window switch (passenger side) power supply and ground circuit. L Refer to <u>PWC-37</u> . "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) M Check front power window switch (passenger side) power supply and ground circuit. L L Is the inspection result normal? M YES >> GO TO 2. M M NO >> Repair or replace the malfunctioning parts. M 2. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) N Check front power window switch (passenger side). Refer	
Refer to PWC-45. "PASSENGER SIDE : Diagnosis Procedure". F Is the inspection result normal? YES >> GO TO 3. NO >>> Repair or replace the malfunctioning parts. G 3.REPLACE POWER WINDOW MAIN SWITCH H • Confirm the operation after replacement. H Is the result normal? YES >> INSPECTION END NO >>> Check intermittent incident. Refer to GI-43. "Intermittent Incident". H WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED J Diagnosis Procedure ✓ MC-LECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : J Diagnosis Procedure ✓ CUIT Check front power window switch (passenger side) power supply and ground circuit. L Refer to PWC-37, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) M 2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) M 3.REPLACE POWER WINDOW SWITCH (PASSENGER SIDE) M Check front power window switch (passenger side). <t< td=""><td>2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)</td></t<>	2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)
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YES >> GO TO 3. G NO >> Repair or replace the malfunctioning parts. G 3. REPLACE POWER WINDOW MAIN SWITCH • H • Replace power window main switch. • H • Confirm the operation after replacement. Is the result normal? I YES >> INSPECTION END I NO >> Check intermittent incident. Refer to GI-43. "Intermittent Incident". U WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED J Diagnosis Procedure Improvement of the inspection result normal? J Cuit Improvement of the inspection result normal? Improvement of the inspection result normal? L YES >> GO TO 2. M M Improvement of the inspection result normal? M YES >> GO TO 2. M M Improvement of the inspection result normal? M YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. O N Z-CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) M N M N Refer to PWC-37. "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) N N N	
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Confirm the operation after replacement. <u>Is the result normal?</u> YES >> INSPECTION END	
Is the result normal? YES >> INSPECTION END	
NO >> Uneck intermittent incident. Refer to GI-43, "Intermittent Incident".	Is the result normal?
WHEN POWER WINDOW MAIN SWITCH IS OPERATED	YES >> INSPECTION END
	Replace power window main switch.

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE < SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000008765634

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side). Refer to <u>PWC-37</u>, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE POWER WINDOW MAIN SWITCH

• Replace power window main switch.

• Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

REAR LH SIDE POWER WINDOW DOES NOT OPERATE
< SYMPTOM DIAGNOSIS >
REAR LH SIDE POWER WINDOW DOES NOT OPERATE WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW
SWITCH LH ARE OPERATED
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED : Diagnosis Procedure
1. CHECK REAR POWER WINDOW SWITCH LH
Check rear power window switch LH. Refer to PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".
<u>Is the inspection result normal?</u> YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts. 2.CHECK REAR POWER WINDOW MOTOR LH
Check rear power window motor LH. Refer to <u>PWC-46, "REAR LH : Diagnosis Procedure"</u> .
Is the inspection result normal? YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH
 Replace power window main switch. Confirm the operation after replacement.
Is the result normal?
YES >> INSPECTION END NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . WHEN REAR POWER WINDOW SWITCH LH IS OPERATED
WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure
INFOID:00000008765636
1. CHECK REAR POWER WINDOW SWITCH LH POWER SUPPLY AND GROUND CIRCUIT
Check rear power window switch LH power supply and ground circuit. Refer to <u>PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u> .
<u>Is the inspection result normal?</u> YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts. 2.CHECK REAR POWER WINDOW SWITCH LH
Check rear power window switch LH. Refer to <u>PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u> .
Is the inspection result normal? YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH
Replace power window main switch.
Confirm the operation after replacement.

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000008765637

1.CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to <u>PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE POWER WINDOW MAIN SWITCH

• Replace power window main switch.

• Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >
REAR RH SIDE POWER WINDOW 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 RH
Check rear power window switch RH. Refer to PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".
<u>Is the inspection result normal?</u> 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 <u>PWC-48, "REAR RH : Diagnosis Procedure"</u> .
<u>Is the inspection result normal?</u> YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH
 Replace power window main switch. Confirm the operation after replacement.
<u>Is the result normal?</u> YES >> INSPECTION END
NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> . WHEN REAR POWER WINDOW SWITCH RH IS OPERATED
WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure
1. CHECK REAR POWER WINDOW SWITCH RH POWER SUPPLY AND GROUND CIRCUIT
Check rear power window switch RH power supply and ground circuit. Refer to <u>PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u> .
<u>Is the inspection result normal?</u> YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts. 2.CHECK REAR POWER WINDOW SWITCH RH
Check rear power window switch RH. Refer to <u>PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u> .
<u>Is the inspection result normal?</u> YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts. 3.REPLACE POWER WINDOW MAIN SWITCH
Replace power window main switch.
Confirm the operation after replacement. <u>Is the result normal?</u>
YES >> INSPECTION END NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .
WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000008765640

1.CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to <u>PWC-40. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE POWER WINDOW MAIN SWITCH

• Replace power window main switch.

• Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

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

LY (DRIVER SIDE)			
< SYMPTOM DIAGNOSIS >			
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR- MALLY (DRIVER SIDE)	A		
Diagnosis Procedure	В		
1. PERFORM INITIALIZATION PROCEDURE	D		
Initialization procedure is executed and operation is confirmed. Refer to <u>PWC-29, "Work Procedure"</u> .	С		
Is the inspection result normal? YES >> INSPECTION END NO >> GO TO 2. 2.CHECK ENCODER CIRCUIT	D		
Check encoder circuit. Refer to <u>PWC-50, "DRIVER SIDE : Diagnosis Procedure"</u> .	Е		
<u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F		
3.REPLACE POWER WINDOW MAIN SWITCH	G		
 Replace power window main switch. Confirm the operation after replacement. 	G		
<u>Is the result normal?</u> YES >> INSPECTION END NO >> Check intermittent incident. Refer to <u>GI-43</u> , "Intermittent Incident".	Η		

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000008765642

1. CHECK POWER WINDOW AUTO OPERATION

Check AUTO operation when anti-pinch function does not operate. Refer to <u>PWC-67. "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.REPLACE POWER WINDOW MAIN SWITCH

• Replace power window main switch.

• Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u>.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

		Δ
Diagnosis Procedure	INFOID:000000008765643	Π
1.REPLACE POWER WINDOW MAIN SWITCH		В
Replace power window main switch.Confirm the operation after replacement.		
Is the result normal?		С
YES >> INSPECTION END		
NO >> Check intermittent incident. Refer to <u>GI-43, "Intermittent Incident"</u> .		D

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MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Removal and Installation

INFOID:000000008840760

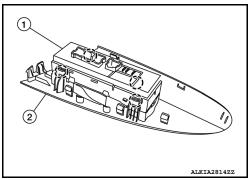
REMOVAL

- 1. Release the pawls using a suitable tool and lift the main power window and door lock/unlock switch and finisher as an assembly and remove.
- 2. Disconnect the harness connector from the main power window and door lock/unlock switch.
- 3. Release the four pawls (two on each side) using a suitable tool, then separate the main power window and door lock/unlock switch (1) from the main power window and door lock switch finisher (2).

(_): Pawl

CAUTION:

Do not bend back the pawls on the switch finisher too far or breakage may occur.



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the main power window and door lock/unlock switch is disconnected from the harness connector it is necessary to perform the initialization procedure. Refer to <u>PWC-29</u>, "Work Procedure".

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

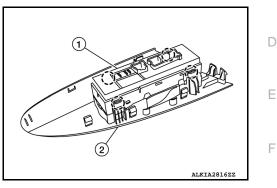
Removal and Installation

REMOVAL

- 1. Release the pawls using a suitable tool and lift the power window and door lock/unlock switch RH and finisher as an assembly and remove.
- 2. Disconnect the harness connector from the power window and door lock/unlock switch RH.
- 3. Release the four pawls (two on each side) using a suitable tool, then separate the main power window and door lock/unlock switch RH (1) from the main power window and door lock switch RH finisher (2).

(): Pawl CAUTION:

Do not bend back the pawls on the switch finisher too far or breakage may occur.



INSTALLATION Installation is in the reverse order of removal.

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< REMOVAL AND INSTALLATION >

REAR POWER WINDOW SWITCH

Removal and Installation

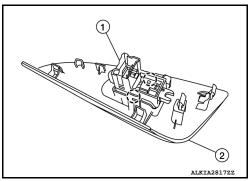
INFOID:000000008840762

REMOVAL

- 1. Release the pawls using a suitable tool and lift the rear power window switch and finisher as an assembly and remove
- 2. Disconnect the harness connector from the rear power window switch.
- 3. Release the pawl (one on each side) using a suitable tool, then separate the rear power window switch (1) from the rear power switch finisher (2).

(): Pawl CAUTION:

Do not bend back the pawls on the switch finisher too far or breakage may occur.



INSTALLATION Installation is in the reverse order of removal.

Revision: October 2012