

SECTION **PWC**
POWER WINDOW CONTROL SYSTEM

CONTENTS

LH FRONT ONLY ANTI-PINCH	
PRECAUTION	6
PRECAUTIONS	6
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	6
Precaution for Work	6
PREPARATION	7
PREPARATION	7
Special Service Tool	7
SYSTEM DESCRIPTION	8
COMPONENT PARTS	8
Component Parts Location	8
Component Description	8
SYSTEM	10
System Diagram	10
System Description	10
Fail-safe	11
DIAGNOSIS SYSTEM (BCM)	13
COMMON ITEM	13
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)	13
RETAINED PWR	14
RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)	14
ECU DIAGNOSIS INFORMATION	15
BCM (BODY CONTROL MODULE)	15
List of ECU Reference	15
MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH	16
Reference Value	16
WIRING DIAGRAM	18
POWER WINDOW SYSTEM	18
Wiring Diagram - With Left Front Only Power Window Anti- Pinch	18
BASIC INSPECTION	25
DIAGNOSIS AND REPAIR WORKFLOW	25
Work Flow	25
INSPECTION AND ADJUSTMENT	27
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL	27
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description	27
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement	27
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	27
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description	27
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement	27
DTC/CIRCUIT DIAGNOSIS	29
POWER SUPPLY AND GROUND CIRCUIT	29
BCM	29
BCM : Diagnosis Procedure	29
POWER WINDOW MAIN SWITCH	29
POWER WINDOW MAIN SWITCH : Description	29
POWER WINDOW MAIN SWITCH : Component Function Check	30
POWER WINDOW MAIN SWITCH : Diagnosis Procedure	30

POWER WINDOW MAIN SWITCH : Component Inspection	33	Description	49
POWER WINDOW MAIN SWITCH : Special Repair Requirement	34	Component Function Check	49
FRONT POWER WINDOW SWITCH	34	Diagnosis Procedure	49
FRONT POWER WINDOW SWITCH : Description	34	Component Inspection	50
FRONT POWER WINDOW SWITCH : Component Function Check	34	POWER WINDOW LOCK SWITCH	51
FRONT POWER WINDOW SWITCH : Diagnosis Procedure	35	Description	51
FRONT POWER WINDOW SWITCH : Component Inspection	36	Component Function Check	51
REAR POWER WINDOW SWITCH	36	Special Repair Requirement	51
REAR POWER WINDOW SWITCH : Description	36	SYMPTOM DIAGNOSIS	52
REAR POWER WINDOW SWITCH : Component Function Check	36	POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES	52
REAR POWER WINDOW SWITCH : Diagnosis Procedure	37	Diagnosis Procedure	52
REAR POWER WINDOW SWITCH : Component Inspection	38	DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE	53
POWER WINDOW MOTOR	39	Diagnosis Procedure	53
DRIVER SIDE	39	FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE	54
DRIVER SIDE : Description	39	Diagnosis Procedure	54
DRIVER SIDE : Component Function Check	39	REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE	55
DRIVER SIDE : Diagnosis Procedure	39	Diagnosis Procedure	55
DRIVER SIDE : Component Inspection	40	REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE	56
DRIVER SIDE : Special Repair Requirement	40	Diagnosis Procedure	56
PASSENGER SIDE	40	AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (DRIVER SIDE)	57
PASSENGER SIDE : Description	40	Diagnosis Procedure	57
PASSENGER SIDE : Component Function Check	41	ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)	58
PASSENGER SIDE : Diagnosis Procedure	41	Diagnosis Procedure	58
PASSENGER SIDE : Component Inspection	42	POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY	59
REAR LH	42	Diagnosis Procedure	59
REAR LH : Description	42	POWER WINDOW LOCK SWITCH DOES NOT FUNCTION	60
REAR LH : Component Function Check	42	Diagnosis Procedure	60
REAR LH : Diagnosis Procedure	42	KEYLESS POWER WINDOW DOWN DOES NOT OPERATE	61
REAR LH : Component Inspection	43	Diagnosis Procedure	61
REAR RH	43	PERIODIC MAINTENANCE	62
REAR RH : Description	44	PRE-INSPECTION FOR DIAGNOSTIC	62
REAR RH : Component Function Check	44	Basic Inspection	62
REAR RH : Diagnosis Procedure	44	REMOVAL AND INSTALLATION	63
REAR RH : Component Inspection	45		
ENCODER	46		
DRIVER SIDE	46		
DRIVER SIDE : Description	46		
DRIVER SIDE : Component Function Check	46		
DRIVER SIDE : Diagnosis Procedure	46		
DRIVER SIDE : Special Repair Requirement	48		
DOOR SWITCH	49		

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	63	POWER WINDOW SYSTEM	81	
Removal and Installation	63	Wiring Diagram - With Left And Right Front Power Window Anti-Pinch	81	A
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	64	BASIC INSPECTION	89	B
Removal and Installation	64	DIAGNOSIS AND REPAIR WORKFLOW	89	
REAR POWER WINDOW SWITCH	65	Work Flow	89	C
Removal and Installation	65	INSPECTION AND ADJUSTMENT	91	
LH & RH FRONT ANTI-PINCH		ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL	91	D
PRECAUTION	66	ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description	91	E
PRECAUTIONS	66	ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement	91	
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	66	ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	91	F
Precaution for Work	66	ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description	91	G
PREPARATION	67	ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement	91	
PREPARATION	67	DTC/CIRCUIT DIAGNOSIS	93	H
Special Service Tool	67	POWER SUPPLY AND GROUND CIRCUIT	93	
SYSTEM DESCRIPTION	68	BCM	93	I
COMPONENT PARTS	68	BCM : Diagnosis Procedure	93	
Component Parts Location	68	POWER WINDOW MAIN SWITCH	93	J
Component Description	68	POWER WINDOW MAIN SWITCH : Description	93	
SYSTEM	70	POWER WINDOW MAIN SWITCH : Component Function Check	94	PWC
System Diagram	70	POWER WINDOW MAIN SWITCH : Diagnosis Procedure	94	
System Description	70	POWER WINDOW MAIN SWITCH : Component Inspection	96	L
Fail-safe	72	POWER WINDOW MAIN SWITCH : Special Repair Requirement	97	
DIAGNOSIS SYSTEM (BCM)	73	FRONT POWER WINDOW SWITCH	97	M
COMMON ITEM	73	FRONT POWER WINDOW SWITCH : Description	97	
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)	73	FRONT POWER WINDOW SWITCH : Component Function Check	98	N
RETAINED PWR	74	FRONT POWER WINDOW SWITCH : Diagnosis Procedure	98	
RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)	74	FRONT POWER WINDOW SWITCH : Special Repair Requirement	99	O
ECU DIAGNOSIS INFORMATION	75	REAR POWER WINDOW SWITCH	99	P
BCM (BODY CONTROL MODULE)	75	REAR POWER WINDOW SWITCH : Description	99	
List of ECU Reference	75	REAR POWER WINDOW SWITCH : Component Function Check	99	
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	76	REAR POWER WINDOW SWITCH : Diagnosis Procedure	99	
Reference Value	76	REAR POWER WINDOW SWITCH : Component Inspection	101	
Fail Safe	77			
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	79			
Reference Value	79			
Fail Safe	80			
WIRING DIAGRAM	81			

POWER WINDOW MOTOR	102	POWER WINDOW MAIN SWITCH : Diagnosis Procedure	118
DRIVER SIDE	102	FRONT POWER WINDOW SWITCH	119
DRIVER SIDE : Description	102	FRONT POWER WINDOW SWITCH : Descrip- tion	119
DRIVER SIDE : Component Function Check	102	FRONT POWER WINDOW SWITCH : Compo- nent Function Check	119
DRIVER SIDE : Diagnosis Procedure	102	FRONT POWER WINDOW SWITCH : Diagnosis Procedure	120
DRIVER SIDE : Component Inspection	103	POWER WINDOW LOCK SWITCH	122
DRIVER SIDE : Special Repair Requirement	103	Description	122
PASSENGER SIDE	103	Component Function Check	122
PASSENGER SIDE : Description	104	Special Repair Requirement	122
PASSENGER SIDE : Component Function Check	104	SYMPTOM DIAGNOSIS	123
PASSENGER SIDE : Diagnosis Procedure	104	POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES	123
PASSENGER SIDE : Component Inspection	105	Diagnosis Procedure	123
PASSENGER SIDE : Special Repair Requirement	105	DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE	124
REAR LH	105	Diagnosis Procedure	124
REAR LH : Description	105	FRONT PASSENGER SIDE POWER WIN- DOW ALONE DOES NOT OPERATE	125
REAR LH : Component Function Check	105	Diagnosis Procedure	125
REAR LH : Diagnosis Procedure	106	REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE	126
REAR LH : Component Inspection	107	Diagnosis Procedure	126
REAR RH	107	REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE	127
REAR RH : Description	107	Diagnosis Procedure	127
REAR RH : Component Function Check	107	ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)	128
REAR RH : Diagnosis Procedure	107	Diagnosis Procedure	128
REAR RH : Component Inspection	108	ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)	129
ENCODER	109	Diagnosis Procedure	129
DRIVER SIDE	109	AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (DRIVER SIDE)	130
DRIVER SIDE : Description	109	Diagnosis Procedure	130
DRIVER SIDE : Component Function Check	109	AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (PASSENGER SIDE)	131
DRIVER SIDE : Diagnosis Procedure	109	Diagnosis Procedure	131
PASSENGER SIDE	111	POWER WINDOW RETAINED POWER OP- ERATION DOES NOT OPERATE PROPERLY	132
PASSENGER SIDE : Description	111	Diagnosis Procedure	132
PASSENGER SIDE : Component Function Check	111		
PASSENGER SIDE : Diagnosis Procedure	111		
DOOR SWITCH	114		
Description	114		
Component Function Check	114		
Diagnosis Procedure	114		
Component Inspection	115		
KEY CYLINDER SWITCH	116		
Description	116		
Component Function Check	116		
Diagnosis Procedure	116		
Component Inspection	117		
POWER WINDOW SERIAL LINK	118		
POWER WINDOW MAIN SWITCH	118		
POWER WINDOW MAIN SWITCH : Description ..	118		
POWER WINDOW MAIN SWITCH : Component Function Check	118		

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION	133
Diagnosis Procedure	133
DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS	134
Diagnosis Procedure	134
KEYLESS POWER WINDOW DOWN DOES NOT OPERATE	135
Diagnosis Procedure	135
PERIODIC MAINTENANCE	136
PRE-INSPECTION FOR DIAGNOSTIC	136
Basic Inspection	136
REMOVAL AND INSTALLATION	137
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	137
Removal and Installation	137
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	138
Removal and Installation	138
REAR POWER WINDOW SWITCH	139
Removal and Installation	139

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

PRECAUTION

PRECAUTIONS

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

INFOID:0000000012592192

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, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 or batteries, and wait at least three minutes before performing any service.

Precaution for Work

INFOID:0000000012592193

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

PREPARATION

< PREPARATION >

[LH FRONT ONLY ANTI-PINCH]

PREPARATION

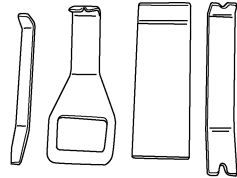
PREPARATION

Special Service Tool

INFOID:0000000012592194

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components



AWJIA0483ZZ

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

COMPONENT PARTS

< SYSTEM DESCRIPTION >

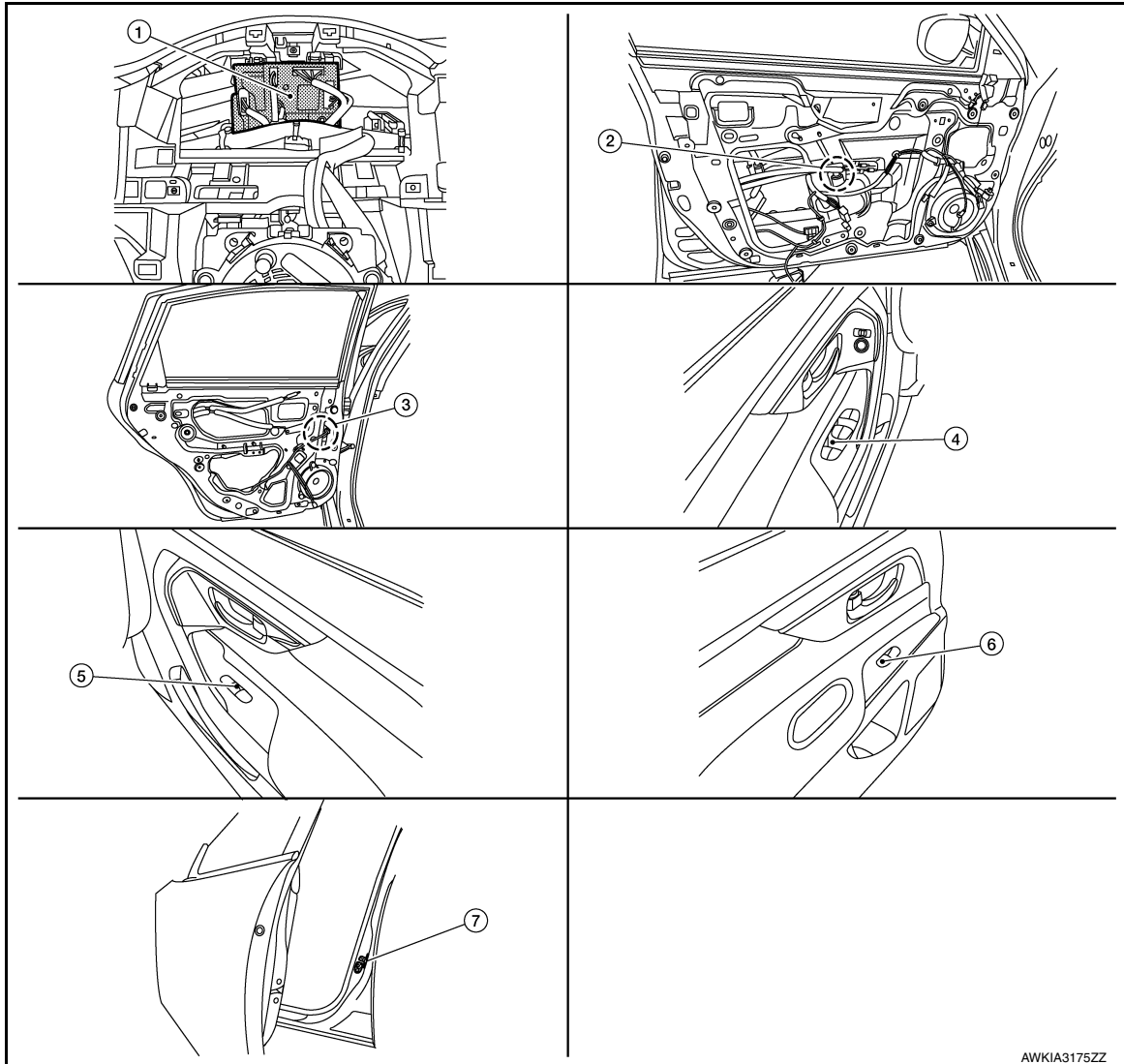
[LH FRONT ONLY ANTI-PINCH]

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012592195



- | | | |
|--|--|---|
| 1. BCM (view with combination meter removed) | 2. Front power window motor LH (RH similar) | 3. Rear power window motor LH (RH similar) |
| 4. Main power window and door lock/unlock switch | 5. Power window and door lock/unlock switch RH | 6. Rear power window switch LH (RH similar) |
| 7. Front door switch LH (RH similar) | | |

Component Description

INFOID:0000000012592196

Component	Function
BCM	<ul style="list-style-type: none">Supplies power to power window switches.Controls retained power.
Front power window motor LH	<ul style="list-style-type: none">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.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[LH FRONT ONLY ANTI-PINCH]

Component	Function
Front power window motor RH	Starts operating with signals from main power window and door lock/unlock switch and power window and door lock/unlock switch RH.
Main power window and door lock/unlock switch	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Controls front power window motor RH.
Rear power window switch	<ul style="list-style-type: none"> 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 and rear power window switch.
Front door switch LH or RH	Detects door open/close condition and transmits to BCM.

A

B

C

D

E

F

G

H

I

J

PWC

L

M

N

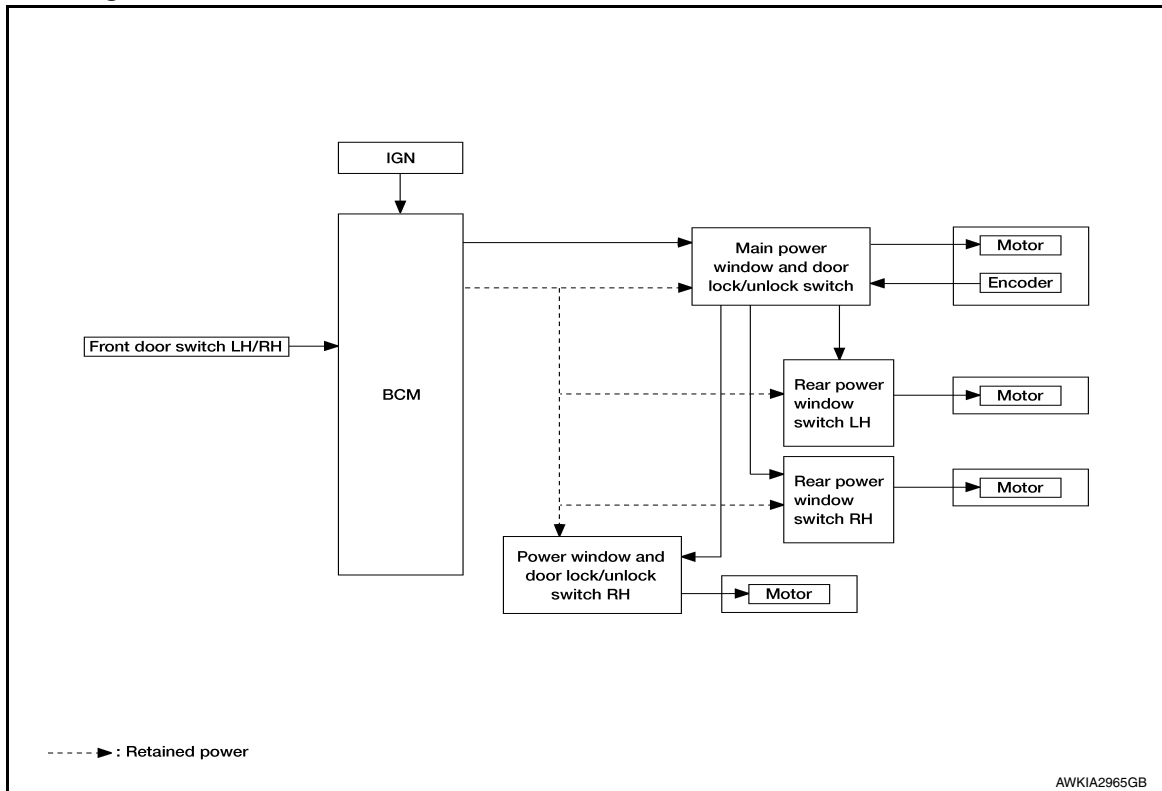
O

P

SYSTEM

System Diagram

INFOID:0000000012592197



System Description

INFOID:0000000012592198

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	Front power window motor
Main power window and door lock/unlock switch	Front power window motor LH UP/DOWN signal		
Power window and door lock/unlock switch RH	Front power window motor RH UP/DOWN signal		
BCM	RAP signal		Rear power window motor
Rear power window switch	Rear power window motor UP/DOWN signal		

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)

- AUTO UP/DOWN operation can be performed when main power window and door lock/unlock switch turns to AUTO.

SYSTEM

< SYSTEM DESCRIPTION >

[LH FRONT ONLY ANTI-PINCH]

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

RETAINED POWER OPERATION

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

Retained power function cancel conditions:

- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- When ignition switch is ON.
- When timer time passes. (45 seconds)
- AUTO function does not operate if encoder is malfunctioning.

POWER WINDOW LOCK FUNCTION

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

ANTI-PINCH OPERATION (FRONT LH)

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

OPERATION CONDITION

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

NOTE:

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

KEYLESS POWER WINDOW DOWN FUNCTION

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

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

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

Fail-safe

INFOID:0000000012592199

FAIL-SAFE CONTROL

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

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

SYSTEM

< SYSTEM DESCRIPTION >

[LH FRONT ONLY ANTI-PINCH]

Malfunction	Malfunction condition
Glass recognition position malfunction 2	When it detects pulse count more that the value of glass full stroke during glass open/close operation.
Malfunction of not yet updated closed position of glass	When glass open/close operation is continuously performed without fully closing more that the specified value (approximately 10 strokes).

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

< SYSTEM DESCRIPTION >

[LH FRONT ONLY ANTI-PINCH]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012822737

CAUTION:

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

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul style="list-style-type: none"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH FRONT ONLY ANTI-PINCH]

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000012822738

CAUTION:

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

DATA MONITOR

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

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000012592202

ECU	Reference
BCM	BCS-31, "Reference Value"
	BCS-50, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< ECU DIAGNOSIS INFORMATION >

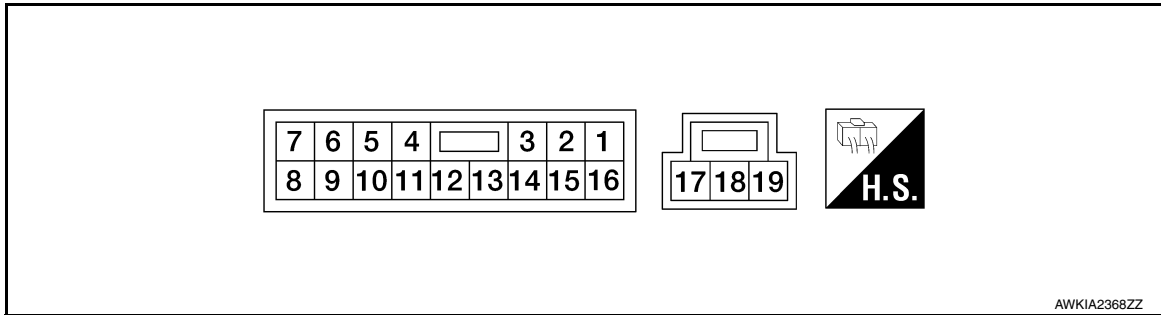
[LH FRONT ONLY ANTI-PINCH]

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Reference Value

INFOID:000000012592203

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
1 (B)	Ground	Ground	—	—	0
2 (L)	16 (BR)	Front power window motor RH DOWN signal	Output	When the front RH switch on the main power window and door lock/ unlock switch is operated in the DOWN position.	Battery voltage
4 (BG)	12 (B)	Encoder pulse signal 2	Input	When power window motor operates.	<p>JMKIA0070GB</p>
5 (R)	12 (B)	Encoder pulse signal 1	Input	When power window motor operates.	<p>JMKIA0070GB</p>
6 (SB)	Ground	Rear power window motor RH DOWN signal	Output	When the rear RH switch on the main power window and door lock/ unlock switch is operated in the DOWN position.	Battery voltage
7 (V)	Ground	Rear power window motor RH UP signal	Output	When the rear RH switch on the main power window and door lock/ unlock switch is operated in the UP position.	Battery voltage
8 (L)	Ground	Rear power window motor LH DOWN signal	Output	When the rear LH switch on the main power window and door lock/ unlock switch is operated in the DOWN position.	Battery voltage

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH FRONT ONLY ANTI-PINCH]

Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
9 (Y)	Ground	Rear power window motor LH UP signal	Output	When the rear LH switch on the main power window and door lock/ unlock switch is operated in the UP position.	Battery voltage
10 (BR)	Ground	RAP signal	Input	IGN SW ON	Battery voltage
				Within 45 second after ignition switch is turned to OFF.	Battery voltage
				When driver side or passenger side door is opened during retained power operation.	0
12 (B)	Ground	Encoder ground	—	—	0
14 (P)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
16 (BR)	2 (L)	Front power window motor RH UP signal	Output	When the front RH switch on the main power window and door lock/ unlock switch is operated in the UP position.	Battery voltage
17 (W)	19 (R)	Front power window motor LH UP signal	Output	When the front LH switch on the main power window and door lock/ unlock switch is operated in the UP position.	Battery voltage
18 (LG)	Ground	Battery power supply	Input	—	Battery voltage
19 (R)	17 (W)	Front power window motor LH DOWN signal	Output	When the front LH switch on the main power window and door lock/ unlock switch is operated in the DOWN position.	Battery voltage

A

B

C

D

E

F

G

H

I

J

PWC

L

M

N

O

P

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH FRONT ONLY ANTI-PINCH]

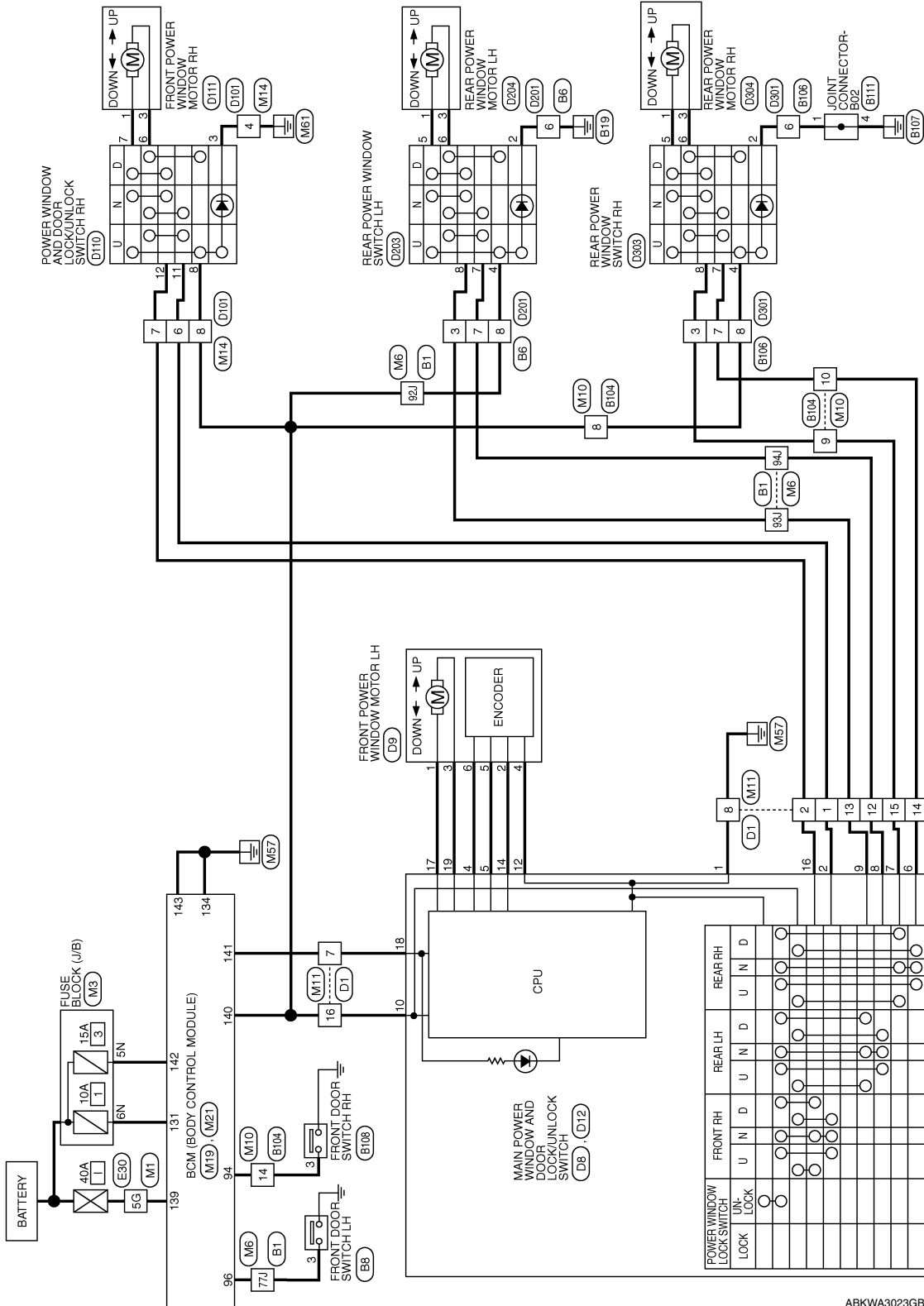
WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram - With Left Front Only Power Window Anti- Pinch

INFOID:0000000012592204

POWER WINDOW SYSTEM - WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM



ABKWA3023GB

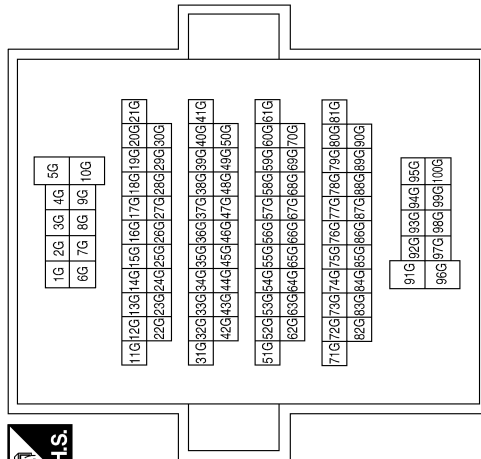
POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH FRONT ONLY ANTI-PINCH]

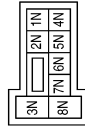
POWER WINDOW SYSTEM CONNECTORS - WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



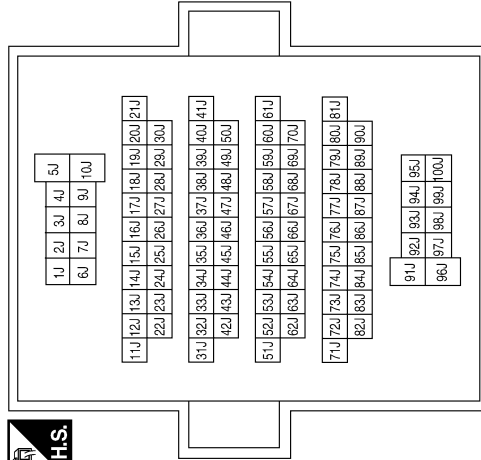
Terminal No.	Color of Wire	Signal Name
5G	W	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5N	BR	-
6N	W	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
77J	BR	-
92J	LG	-
93J	Y	-
94J	SB	-

A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH FRONT ONLY ANTI-PINCH]

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3
4	5	6
7	8	



Terminal No.	Color of Wire	Signal Name
4	GR	-
6	Y	-
7	V	-
8	LG	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					



Terminal No.	Color of Wire	Signal Name
1	Y	-
2	V	-
7	V	-
8	B	-
12	SB	-
13	Y	-
14	BR	-
15	V	-
16	LG	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN

7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					



Terminal No.	Color of Wire	Signal Name
8	LG	-
9	V	-
10	BR	-
14	SB	-

Terminal No.	Color of Wire	Signal Name
140	LG	PW POWER SUPPLY IGN
141	V	PW POWER SUPPLY BAT
142	BR	BAT FRONT DOOR
143	B	GND1

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

137	138	139	140	141	142	143	144	145	146
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	B	GND2
139	W	BAT POWER F/L

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93



Terminal No.	Color of Wire	Signal Name
94	SB	AS DOOR SW
96	BR	DR DOOR SW

ABK1A3690GB

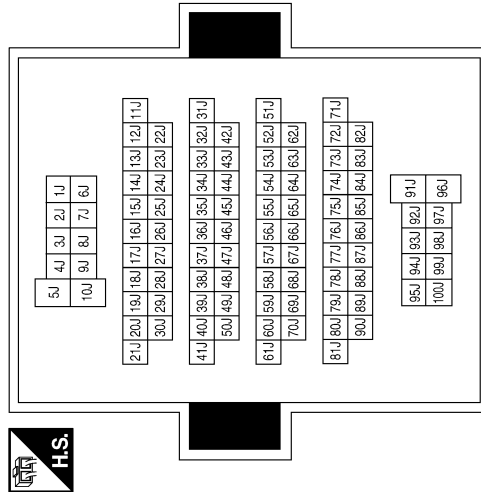
POWER WINDOW SYSTEM

< WIRING DIAGRAM >

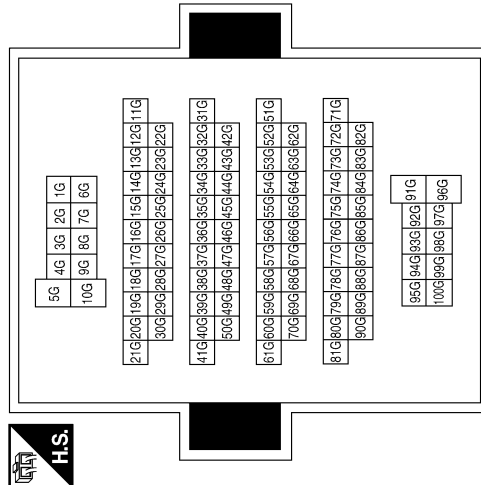
[LH FRONT ONLY ANTI-PINCH]

Terminal No.	Color of Wire	Signal Name
77J	L	-
92J	L	-
93J	SB	-
94J	LG	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	GRAY

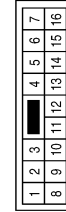


Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



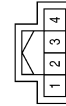
Terminal No.	Color of Wire	Signal Name
5G	P	-

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
8	L	-
9	V	-
10	SB	-
14	L	-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	L	-

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	SB	-
6	B	-
7	LG	-
8	L	-

ABKIA3691GB

A B C D E F G H I J L M N O P

PWC

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

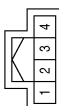
[LH FRONT ONLY ANTI-PINCH]

Connector No.	B111
Connector Name	JOINT CONNECTOR-B02
Connector Color	WHITE



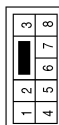
Terminal No.	Color of Wire	Signal Name
1	B	-
4	B	-

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



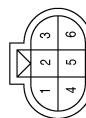
Terminal No.	Color of Wire	Signal Name
3	L	-

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	V	-
6	B	-
7	SB	-
8	L	-

Connector No.	D9
Connector Name	FRONT POWER WINDOW MOTOR LH
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	W	M2
2	P	VCC (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
3	R	M1
4	B	GND (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
5	R	PLS A
6	BG	PLS B

Connector No.	D8
Connector Name	MAIN POWER WINDOW DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	W	DR UP
18	LG	BAT
19	R	DR DN

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	-
2	BR	-
7	LG	-
8	B	-
12	L	-
13	Y	-
14	SB	-
15	V	-
16	BR	-

AAKIA2235GB

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH FRONT ONLY ANTI-PINCH]

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

3	2	1
8	7	6
5	4	



Terminal No.	Color of Wire	Signal Name
4	B	-
6	L	-
7	LG	-
8	SB	-

Terminal No.	Color of Wire	Signal Name
4	BG	ENCODER SIG 2
5	R	ENCODER SIG 1
6	SB	RR DN
7	V	RR UP
8	L	RL DN
9	Y	RL UP
10	BR	IGN
11	-	-
12	B	ENCODER GND
13	-	-
14	P	ENCODER +
15	-	-
16	BR	AS UP

Connector No.	D12
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE

7	6	5	4	3	2	1
8	9	10	11	12	13	14
15	16					



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	L	AS DN
3	-	-

Connector No.	D111
Connector Name	FRONT POWER WINDOW MOTOR RH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	GREEN

1	2	3
4	5	6



Terminal No.	Color of Wire	Signal Name
1	Y	-
3	V	-

Terminal No.	Color of Wire	Signal Name
6	V	-
7	Y	-
8	SB	-
11	L	-
12	LG	-

Connector No.	D110
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE

1	2	3	4	5
6	7	8	9	10
11	12			



Terminal No.	Color of Wire	Signal Name
3	B	-

AAKIA2236GB

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

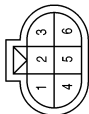
PWC

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

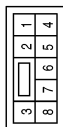
[LH FRONT ONLY ANTI-PINCH]

Connector No.	D204
Connector Name	REAR POWER WINDOW MOTOR LH
Connector Color	GREEN



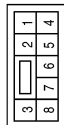
Terminal No.	Color of Wire	Signal Name
1	L	-
3	LG	-

Connector No.	D203
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Color	WHITE



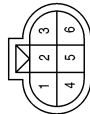
Terminal No.	Color of Wire	Signal Name
2	B	-
4	Y	-
5	L	-
6	LG	-
7	BR	-
8	V	-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



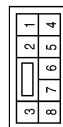
Terminal No.	Color of Wire	Signal Name
3	V	-
6	B	-
7	BR	-
8	Y	-

Connector No.	D304
Connector Name	REAR POWER WINDOW MOTOR RH
Connector Color	GREEN



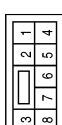
Terminal No.	Color of Wire	Signal Name
1	L	-
3	LG	-

Connector No.	D303
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	B	-
4	Y	-
5	L	-
6	LG	-
7	BR	-
8	V	-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	V	-
6	B	-
7	BR	-
8	Y	-

ABKIA4836GB

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH FRONT ONLY ANTI-PINCH]

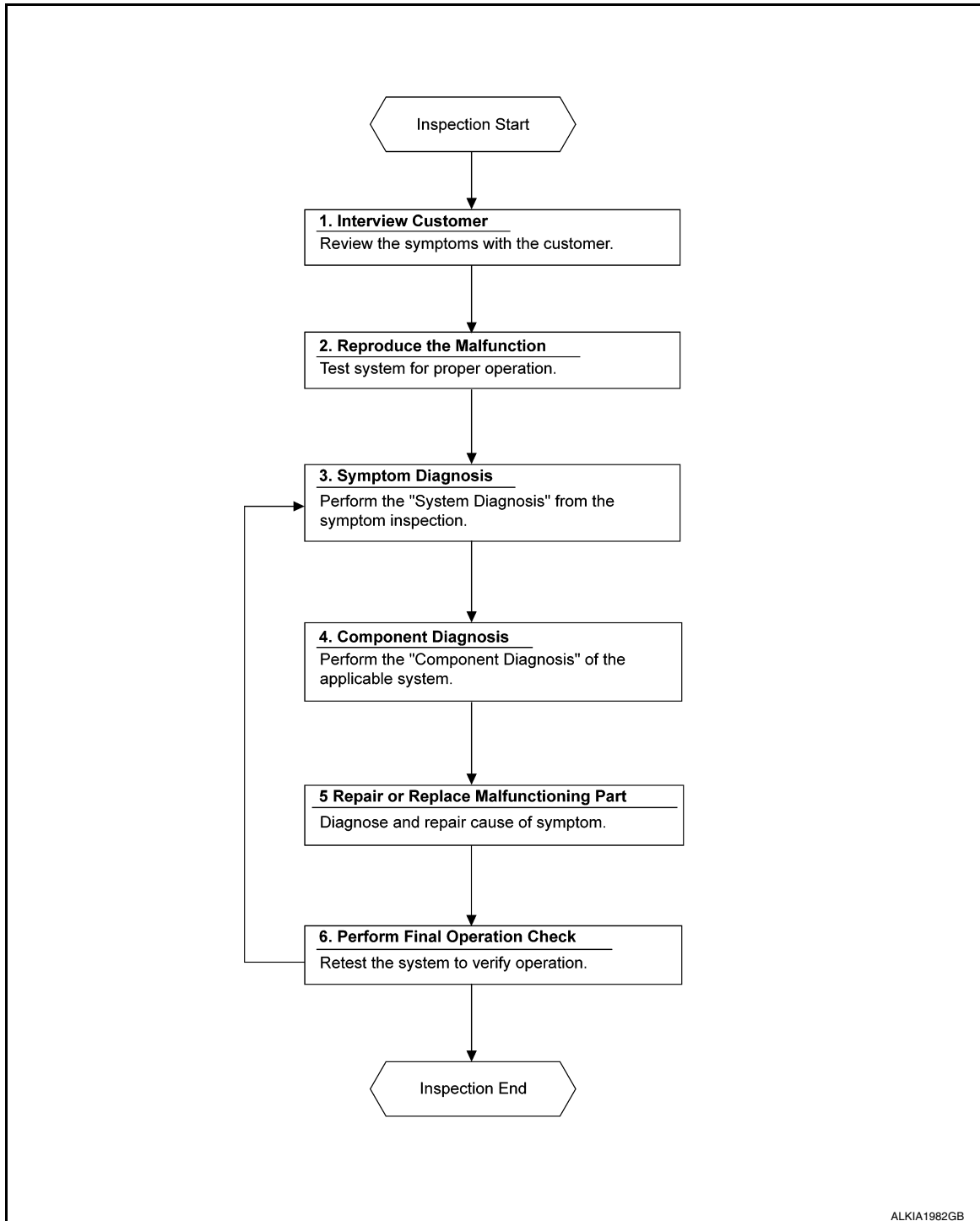
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000012592205

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

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

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH FRONT ONLY ANTI-PINCH]

>> 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.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH FRONT ONLY ANTI-PINCH]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000012592206

Initial setting is necessary when battery terminal is disconnected.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000012592207

INITIALIZATION PROCEDURE

1. Disconnect battery minus terminal or main power window and door lock/unlock switch connector. Reconnect it after a minute or more.
2. Turn ignition switch ON.
3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
5. Inspect anti-pinch function.

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.
 - Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
 - Check that glass does not rise when operating the main power window and door lock/unlock switch while lowering.

CAUTION:

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to [PWC-11, "Fail-safe"](#).
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.

1. Auto-up operation
2. Anti-pinch function
3. Retained power operation when ignition switch is OFF.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000012592208

Initial setting is necessary when replacing main power window and door lock/unlock switch.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000012592209

INITIALIZATION PROCEDURE

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH FRONT ONLY ANTI-PINCH]

1. Disconnect battery minus terminal or main power window and door lock/unlock switch connector. Reconnect it after a minute or more.
2. Turn ignition switch ON.
3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
5. Inspect anti-pinch function.

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.
 - Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
 - Check that glass does not rise when operating the main power window and door lock/unlock switch while lowering.

CAUTION:

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
 - Check that AUTO-UP operates before inspection when system initialization is performed.
 - It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to [PWC-11, "Fail-safe"](#).
 - Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
 - Finish initial setting. Otherwise, next operation cannot be done.
1. Auto-up operation
 2. Anti-pinch function
 3. Retained power operation when ignition switch is OFF.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000012822739

Regarding Wiring Diagram information, refer to [BCS-55, "Wiring Diagram"](#).

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M21.

2. Check voltage between BCM connector M21 terminals 131, 139 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M21	131	—	Battery voltage
	139		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M21 terminals 134, 143 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M21	134	—	Yes
	143		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000012592211

- 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 SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:000000012592212

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 [PWC-30, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012592213

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram - With Left Front Only Power Window Anti-Pinch"](#).

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

1. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch ON.
- Check voltage between main power window and door lock/unlock switch connectors D8, D12 and ground.

Terminal		Voltage (Approx.)
(+)	(-)	
Main power window and door lock/unlock switch	Terminal	
D12	10	Battery voltage
D8	18	

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M21	140	D12	10	Yes
	141	D8	18	

- Check continuity between BCM connector M21 and ground.

BCM connector	Terminal	Ground	Continuity
M21	140		No
	141		

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace the harness or connectors.

3. CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/unlock switch connector D12 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12	1		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.

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M21 and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
BCM connector	Terminal	
M21	140	Ground
	141	
		Battery voltage

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D12 and ground.

Terminal		Window switch position (rear LH)	Voltage (Approx.)
(+)	(-)		
Main power window and door lock/unlock switch connector	Terminal		
D12	9	UP	Battery voltage
		DOWN	0
	8	UP	0
		DOWN	Battery voltage

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-63, "Removal and Installation"](#). After that, refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D12 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Terminal		Window switch position (rear RH)	Voltage (Approx.)
(+)	(-)		
Main power window and door lock/unlock switch connector	Terminal		
D12	7	UP	Battery voltage
		DOWN	0
	6	UP	0
		DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-63, "Removal and Installation"](#). After that, refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D8 and ground.

Terminal		Window switch position (front LH)	Voltage (Approx.)
(+)	(-)		
Main power window and door lock/unlock switch connector	Terminal		
D8	17	UP	Battery voltage
		DOWN	0
	19	UP	0
		DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-63, "Removal and Installation"](#). After that, refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D12 and ground.

Terminal		Window switch position (front RH)	Voltage (Approx.)
(+)	(-)		
Main power window and door lock/unlock switch connector	Terminal		
D12	16	UP	Battery voltage
		DOWN	0
	2	UP	0
		DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-63, "Removal and Installation"](#). After that, refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:0000000012592214

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

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

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

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

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

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

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Terminal		Main power window and door lock/unlock switch condition		Continuity
8	1	Rear LH	UP	Yes
6		Rear RH		
2		Front RH		
8		Rear LH	NEUTRAL	
9				
7		Rear RH		
6				
2		Front RH		
16				
9		Rear LH	DOWN	
7		Rear RH		
16		Front RH		

Is the inspection result normal?

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

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-63, "Removal and Installation"](#). After that, refer to [PWC-34, "POWER WINDOW MAIN SWITCH : Special Repair Requirement"](#).

POWER WINDOW MAIN SWITCH : Special Repair Requirement

INFOID:0000000012592215

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-30, "POWER WINDOW MAIN SWITCH : Component Function Check"](#).

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:0000000012592216

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

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012592217

Power Window And Door Lock/unlock Switch RH

1. CHECK POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

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

NO >> Refer to [PWC-35, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000012592218

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram - With Left Front Only Power Window Anti-Pinch"](#).

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 D110 and ground.

Terminal			Voltage (Approx.)
(+)		(-)	
Power window and door lock/unlock switch RH connector	Terminal		
D110	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 M21 and power window and door lock/unlock switch RH connector D110.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M21	140	D110	8	Yes

4. Check continuity between BCM connector M21 and ground.

BCM connector	Terminal	Ground	Continuity
M21	140		No

PWC

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 D12 and power window and door lock/unlock switch RH connector D110.

Main power window and door lock/unlock switch connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
D12	2	D110	11	Yes
	16		12	

4. Check continuity between main power window and door lock/unlock switch connector D12 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12	2		No
	16		

Is the inspection result normal?

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

- YES >> GO TO 5.
NO >> Repair or replace the harness or connectors.

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M21 and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
BCM connector	Terminal		
M21	140	Ground	Battery voltage

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
NO >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

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

Check power window and door lock/unlock switch RH.

Refer to [PWC-36, "FRONT POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
NO >> Replace power window and door lock/unlock switch RH. Refer to [PWC-64, "Removal and Installation"](#).

FRONT POWER WINDOW SWITCH : Component Inspection

INFOID:0000000012592219

COMPONENT INSPECTION

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

Check power window and door lock/unlock switch RH D110.

Terminal		Power window switch condition	Continuity
8	7	UP	Yes
11	6		
11	6	NEUTRAL	
7	12		
8	6	DOWN	
7	12		

Is the inspection result normal?

- YES >> Power window and door lock/unlock switch RH is OK.
NO >> Replace power window and door lock/unlock switch RH. Refer to [PWC-64, "Removal and Installation"](#).

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Description

INFOID:0000000012592220

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

REAR POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012592221

Rear Power Window Switch

1. CHECK REAR POWER WINDOW MOTOR FUNCTION

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Is the inspection result normal?

- YES >> Rear power window switch power supply and ground circuit are OK.
NO >> Refer to [PWC-37. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012592222

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram - With Left Front Only Power Window Anti-Pinch"](#).

Rear Power Window Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch ON.
- Check voltage between rear power window switch connector and ground.

Terminal				Condition	Voltage (Approx.)
(+)		Terminal	(−)		
Rear power window switch connector					
LH	D203	4	Ground	Ignition switch ON	Battery voltage
RH	D303				

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)

- Turn ignition switch OFF.
- 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 and rear power window switch LH connector.

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch LH connector	Terminal	Continuity
D12	8	D203	7	Yes
	9		8	

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

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12	8		No
	9		

Is the inspection result normal?

- YES >> GO TO 5.
NO >> Repair or replace the harness or connectors.

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

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

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity
D12	6	D303	7	Yes
	7		8	

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

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

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12	6		No
	7		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

4. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity
M21	140	LH	D203	4	Yes
		RH	D303		

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M21	140		No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-81. "Removal and Installation"](#).

NO >> Repair or replace harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-38. "REAR POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44. "Intermittent Incident"](#).

NO >> Replace rear power window switch. Refer to [PWC-65. "Removal and Installation"](#).

REAR POWER WINDOW SWITCH : Component Inspection

INFOID:0000000012592223

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Terminal		Power window switch condition	Continuity
4	5	UP	Yes
7	6		
7	6	NEUTRAL	
5	8		
4	6	DOWN	
5	8		

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to [PWC-65. "Removal and Installation"](#).

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012592224

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

DRIVER SIDE : Component Function Check

INFOID:0000000012592225

1. CHECK FRONT POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Refer to [PWC-39, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012592226

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram - With Left Front Only Power Window Anti-Pinch"](#).

Front Power Window Motor LH Circuit Check

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

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

Terminal		Main power window and door lock/unlock switch condition	Voltage (Approx.)
(+)	(-)		
Front power window motor LH connector	Terminal		
D9	1	UP	Battery voltage
		DOWN	0
	3	UP	0
		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 main power window and door lock/unlock switch.
3. Check continuity between main power window and door lock/unlock switch connector D8 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D8	17	D9	1	Yes
	19		3	

4. Check continuity between main power window and door lock/unlock switch connector D8 and ground.

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D8	17		No
	19		

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-63, "Removal and Installation"](#). After that, refer to [PWC-40, "DRIVER SIDE : Special Repair Requirement"](#).

NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to [PWC-40, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace front power window motor LH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-40, "DRIVER SIDE : Special Repair Requirement"](#).

DRIVER SIDE : Component Inspection

INFOID:0000000012592227

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to power window motor D9.

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-40, "DRIVER SIDE : Special Repair Requirement"](#).

DRIVER SIDE : Special Repair Requirement

INFOID:0000000012592228

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-27, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-27, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to [PWC-39, "DRIVER SIDE : Component Function Check"](#).

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012592229

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.

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

PASSENGER SIDE : Component Function Check

INFOID:0000000012592230

1. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Refer to [PWC-41, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012592231

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram - With Left Front Only Power Window Anti-Pinch"](#).

Front Power Window Motor RH Circuit Check

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

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH.
3. Turn ignition switch ON.
4. Check voltage between front power window motor RH connector D111 and ground.

Terminal		Front power window motor RH condition	Voltage (V) (Approx.)
(+)	(-)		
Front power window motor RH connector	Terminal		
D111	1	UP	Battery voltage
		DOWN	0
	3	UP	0
		DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH.
3. Check continuity between power window and door lock/unlock switch RH connector D110 and front power window motor RH connector D111.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D110	7	D111	1	Yes
	6		3	

4. Check continuity between power window and door lock/unlock switch connector D110 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D110	7		No
	6		

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-64, "Removal and Installation"](#).

NO >> Repair or replace the harness or connectors.

A

B

C

D

E

F

G

H

I

J

PWC

L

M

N

O

P

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to [PWC-42, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace front power window motor RH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#).

PASSENGER SIDE : Component Inspection

INFOID:0000000012592232

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 D111.

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace front power window motor RH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#).

REAR LH

REAR LH : Description

INFOID:0000000012592233

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

INFOID:0000000012592234

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-42, "REAR LH : Diagnosis Procedure"](#)

REAR LH : Diagnosis Procedure

INFOID:0000000012592235

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram - With Left Front Only Power Window Anti-Pinch"](#).

Rear Power Window Motor LH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

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

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Terminal		Window condition	Voltage (Approx.)
(+)	(-)		
Rear power window motor LH connector	Terminal		
D204	1	UP	Battery voltage
		DOWN	0
	3	UP	0
		DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect rear power window switch LH.
- Check continuity between rear power window switch LH connector D203 and rear power window motor LH connector D204.

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D203	5	D204	1	Yes
	6		3	

- Check continuity between rear power window switch LH connector D203 and ground.

Rear power window switch LH connector	Terminal	Ground	Continuity
D203	5		No
	6		

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to [PWC-38, "REAR POWER WINDOW SWITCH : Component Inspection"](#).

NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-43, "REAR LH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

REAR LH : Component Inspection

INFOID:0000000012592236

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

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

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

REAR RH

A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

REAR RH : Description

INFOID:000000012592237

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

REAR RH : Component Function Check

INFOID:000000012592238

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Refer to [PWC-44, "REAR RH : Diagnosis Procedure"](#).

REAR RH : Diagnosis Procedure

INFOID:000000012592239

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram - With Left Front Only Power Window Anti-Pinch"](#).

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.

Terminal		Rear power window switch RH condition	Voltage (Approx.)
(+)	(-)		
Rear power window motor RH connector	Terminal		
D304	1	UP	Battery voltage
		DOWN	0
	3	UP	0
		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.
3. 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
	6		3	

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

Rear power window switch RH connector	Terminal	Ground	Continuity
D303	5		No
	6		

Is the inspection result normal?

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

- YES >> Check rear power window switch RH. Refer to [PWC-38, "REAR POWER WINDOW SWITCH : Component Inspection"](#).
- NO >> Repair or replace harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-45, "REAR RH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Replace rear power window motor RH. Refer to [GW-25, "Removal and Installation"](#).

REAR RH : Component Inspection

INFOID:0000000012592240

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

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

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

- YES >> Power window motor is OK.
- NO >> Replace rear power window motor RH. Refer to [GW-25, "Removal and Installation"](#).

PWC

ENCODER DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012592241

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

DRIVER SIDE : Component Function Check

INFOID:0000000012592242

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 [PWC-46, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012592243

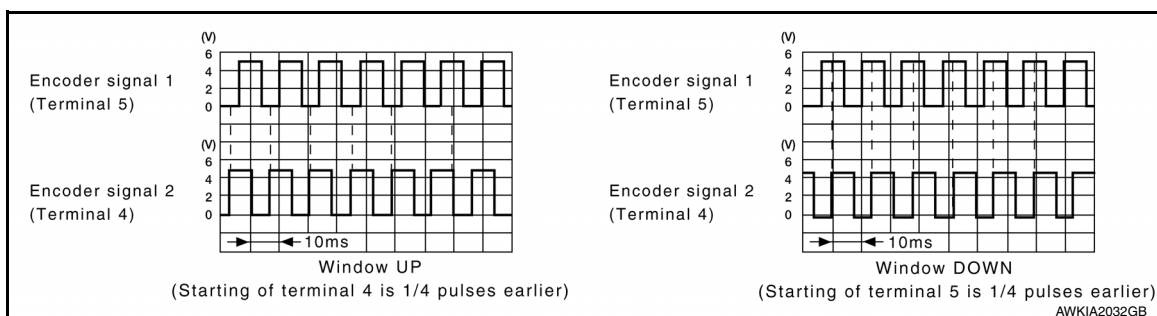
Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram - With Left Front Only Power Window Anti- Pinch"](#).

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 D12 and ground with oscilloscope.

Terminals		Signal (Reference value)
(+)	(-)	
Main power window and door lock/unlock switch connector	Terminal	
D12	4	Ground
	5	
		Refer to following signal



Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

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 D9 and ground.

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Terminal			Voltage (Approx.)
(+)		(-)	
Front power window motor LH connector	Terminal		
D9	2	Ground	10

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK HARNESS CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D12 and front power window motor connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D12	14	D9	2	Yes

4. Check continuity between main power window and door lock/unlock switch connector D12 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12	14		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-63, "Removal and Installation"](#). After that, refer to [PWC-48, "DRIVER SIDE : Special Repair Requirement"](#).

NO >> Repair or replace harness or connectors.

4. CHECK GROUND CIRCUIT

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

Front power window motor LH connector	Terminal	Ground	Continuity
D9	4		Yes

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

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

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D12	12	D9	4	Yes

Is the inspection result normal?

YES >> Check main power window and door lock/unlock switch. Refer to [PWC-33, "POWER WINDOW MAIN SWITCH : Component Inspection"](#).

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

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

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D12	4	D9	6	Yes
	5		5	

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

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12	4		No
	5		

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-48, "DRIVER SIDE : Special Repair Requirement"](#).

NO >> Repair or replace harness or connectors.

DRIVER SIDE : Special Repair Requirement

INFOID:0000000012592244

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Inspection end.

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

DOOR SWITCH

Description

INFOID:0000000012592245

Detects door open/close condition.

Component Function Check

INFOID:0000000012592246

1.CHECK FUNCTION

With CONSULT

Check door switches "DOOR SW-DR" and "DOOR SW-AS" in "Data Monitor".

Monitor item	Condition
DOOR SW-DR	CLOSE → OPEN: OFF → ON
DOOR SW-AS	

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to [PWC-49, "Diagnosis Procedure"](#).

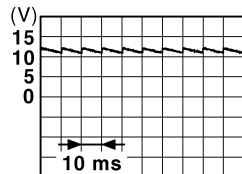
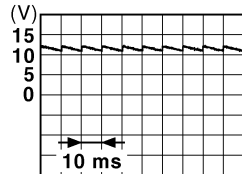
Diagnosis Procedure

INFOID:0000000012592247

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram - With Left Front Only Power Window Anti- Pinch"](#).

1.CHECK DOOR SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Check signal between BCM connector and ground with oscilloscope.

Terminals			Door condition		Voltage (V) (Approx.)
(+)		(-)			
BCM connector	Terminal				
M19	96	Ground	Front door switch LH	OPEN	0
				CLOSE	 JPMIA0011GB
	94		Front door switch RH	OPEN	0
				CLOSE	 JPMIA0011GB

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

2.CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Door switch connector	Terminal	Continuity
M19	96	Front door switch LH	3	Yes
	94	Front door switch RH		

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M19	96	Ground	No
	94		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

3.CHECK DOOR SWITCH

Refer to [PWC-50, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to [DLK-216, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> Inspection End.

Component Inspection

INFOID:0000000012592248

1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect door switch connector.
3. Check door switch.

Terminal		Door switch condition	Continuity
Door switch			
3	Ground part of door switch	Pressed	No
		Released	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch. Refer to [DLK-216, "Removal and Installation"](#).

POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

POWER WINDOW LOCK SWITCH

Description

INFOID:0000000012592254

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

Component Function Check

INFOID:0000000012592255

1. CHECK POWER WINDOW LOCK SIGNAL

Exchanges for a normal main power window and door lock/unlock switch, and operation is checked.

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-63. "Removal and Installation"](#). After that, refer to [PWC-51. "Special Repair Requirement"](#).
- NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:0000000012592256

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-27. "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

Is the inspection result normal?

- YES >> Inspection end.
- NO >> Check intermittent incident. Refer to [GI-44. "Intermittent Incident"](#).

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Diagnosis Procedure

INFOID:0000000012592257

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to [PWC-29, "BCM : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace the malfunctioning parts.

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

Check main power window and door lock/unlock switch.
Refer to [PWC-30, "POWER WINDOW MAIN SWITCH : Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Repair or replace the malfunctioning parts.

3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check main power window and door lock/unlock switch power supply and ground circuit.
Refer to [PWC-30, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Repair or replace the malfunctioning parts.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592258

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to [PWC-39, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592259

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

Check power window and door lock/unlock switch RH.

Refer to [PWC-34, "FRONT POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.

Refer to [PWC-41, "PASSENGER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592260

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to [PWC-36, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-42, "REAR LH : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592261

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to [PWC-36, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-44, "REAR RH : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

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

< SYMPTOM DIAGNOSIS > [LH FRONT ONLY ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000012592262

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).
Is the inspection result normal?
YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.
Refer to [PWC-46, "DRIVER SIDE : Component Function Check"](#).
Is the inspection result normal?
YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
NO >> Repair or replace the malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

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

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000012592263

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR WINDOW SLIDING PART

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to [PWC-46, "DRIVER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS > [LH FRONT ONLY ANTI-PINCH]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000012592264

1. CHECK FRONT DOOR SWITCH

Check front door switch.
Refer to [PWC-49, "Component Function Check"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Repair or replace the malfunctioning parts.

PWC

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000012592265

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

Replace main power window and door lock/unlock switch.

Refer to [PWC-63, "Removal and Installation"](#). After that, [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

>> Inspection End.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY ANTI-PINCH]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592267

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [DLK-141, "Component Function Check"](#).

2.CHECK POWER WINDOW OPERATION

Check power window operation.

In the inspection result normal?

YES >> GO TO 3.

NO >> Refer to [PWC-39, "DRIVER SIDE : Diagnosis Procedure"](#).

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> GO TO 1.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

PERIODIC MAINTENANCE

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

INFOID:0000000012592268

BASIC INSPECTION

1.INSPECTION START

1. Check the service history.
2. Check the following parts.
 - Fuse/circuit breaker blown.
 - Poor connection, open or short circuit of harness connector.
 - Battery voltage.

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Repair or replace the malfunctioning parts.

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY ANTI-PINCH]

REMOVAL AND INSTALLATION

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Removal and Installation

INFOID:0000000012592269

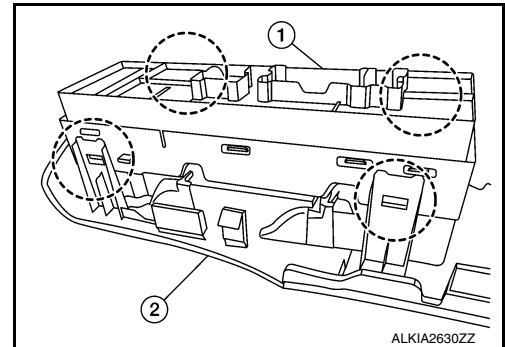
REMOVAL

1. Remove the front door pull handle outer finisher using a suitable tool.
2. Release the pawls using a suitable tool and lift the main power window and door lock/unlock switch and finisher as an assembly by starting at the rear, then pull upward and remove.
3. Disconnect the harness connector from the main power window and door lock/unlock switch.
4. 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/unlock 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 [PWC-27. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY ANTI-PINCH]

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Removal and Installation

INFOID:0000000012592270

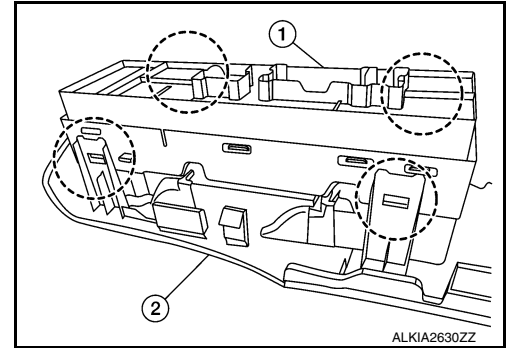
REMOVAL

1. Remove the front door pull handle outer finisher using a suitable tool.
2. Release the pawls using a suitable tool and lift the power window and door lock/unlock switch RH and finisher as an assembly by starting at the rear, then pull upward and remove.
3. Disconnect the harness connector from the power window and door lock/unlock switch RH.
4. Release the four pawls (two on each side) using a suitable tool, then separate the power window and door lock/unlock switch RH (1) from the power window and door lock/unlock 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.

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY ANTI-PINCH]

REAR POWER WINDOW SWITCH

Removal and Installation

INFOID:0000000012592271

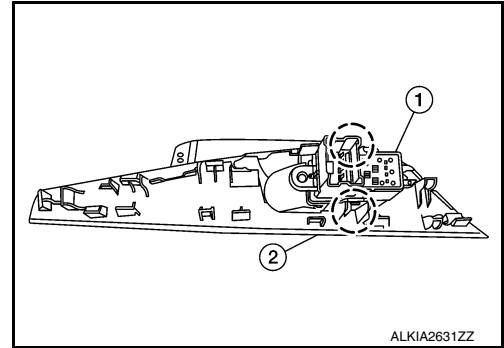
REMOVAL

1. Release the pawls using a suitable tool and lift the rear power window switch and finisher as an assembly by starting at the rear, then pull upward 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.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

PRECAUTION

PRECAUTIONS

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

INFOID:0000000012592272

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, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 or batteries, and wait at least three minutes before performing any service.

Precaution for Work

INFOID:0000000012592273

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

PREPARATION

< PREPARATION >

[LH & RH FRONT ANTI-PINCH]

PREPARATION

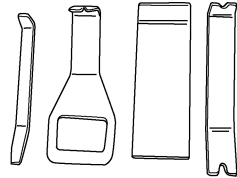
PREPARATION

Special Service Tool

INFOID:0000000012592274

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components



AWJIA0483ZZ

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

COMPONENT PARTS

< SYSTEM DESCRIPTION >

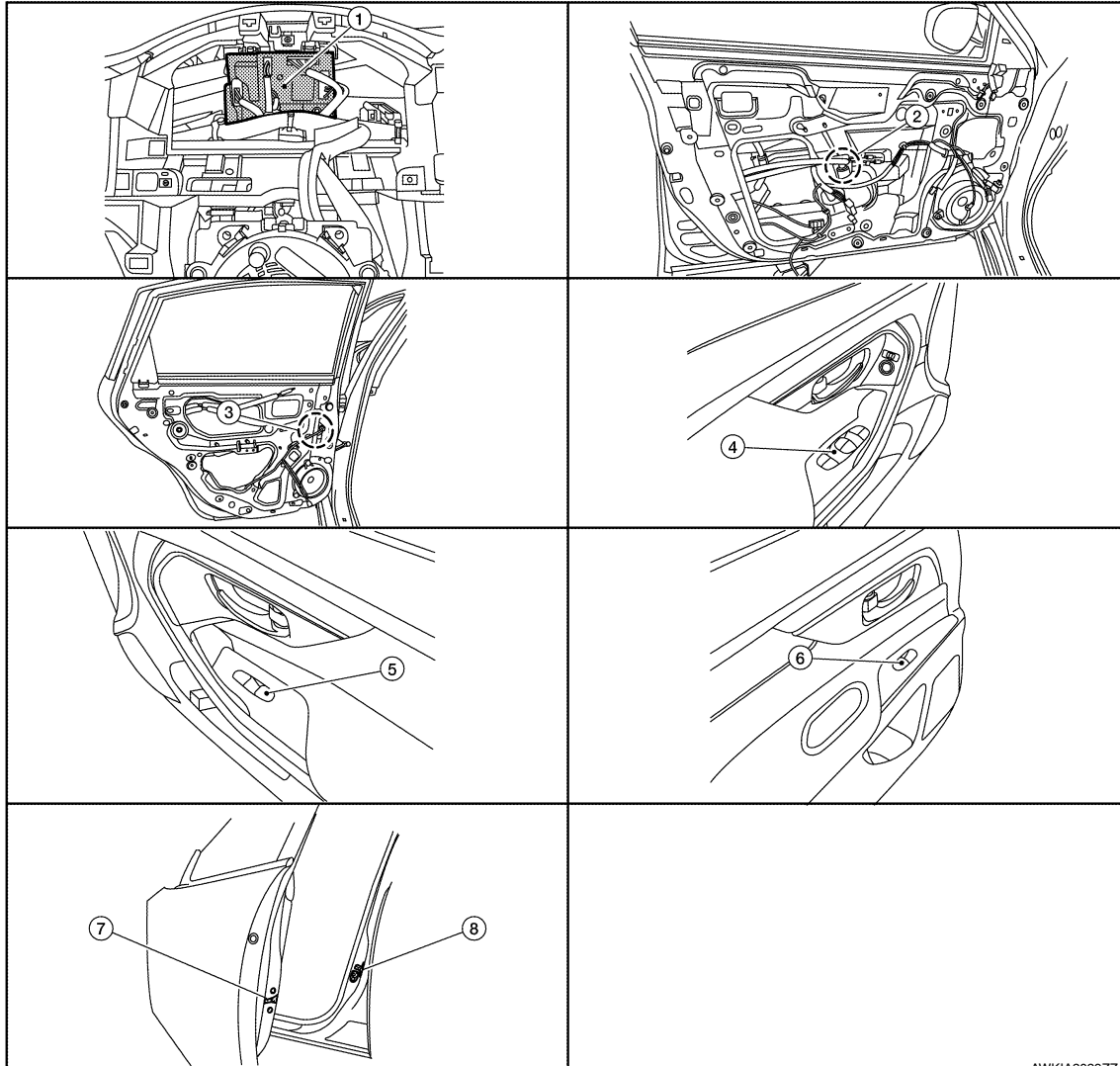
[LH & RH FRONT ANTI-PINCH]

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012592275



AWKIA2029ZZ

- | | | |
|--|--|---|
| 1. BCM (view with combination meter removed) | 2. Front power window motor LH (RH similar) | 3. Rear power window motor LH (RH similar) |
| 4. Main power window and door lock/unlock switch | 5. Power window and door lock/unlock switch RH | 6. Rear power window switch LH (RH similar) |
| 7. Front door lock assembly LH (key cylinder switch) | 8. Front door switch LH (RH similar) | |

Component Description

INFOID:0000000012592276

FRONT WINDOW ANTI-PINCH SYSTEM

COMPONENT PARTS

< SYSTEM DESCRIPTION >

[LH & RH FRONT ANTI-PINCH]

Component	Function
BCM	<ul style="list-style-type: none"> Supplies power to power window switches. Controls retained power.
Front power window motor LH	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH. Transmits power window motor rotation as a pulse signal to main power window and door lock/unlock switch & power window and door lock/unlock switch RH.
Main power window and door lock/unlock switch	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Controls front power window motor RH. Controls anti-pinch operation of front power window RH.
Rear power window switch	<ul style="list-style-type: none"> 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 lock assembly LH (key cylinder switch)	Transmits operation condition of key cylinder switch to main power window and door lock/unlock switch.
Front door switch LH or RH	Detects door open/close condition and transmits to BCM.

A

B

C

D

E

F

G

H

I

J

PWC

L

M

N

O

P

SYSTEM

< SYSTEM DESCRIPTION >

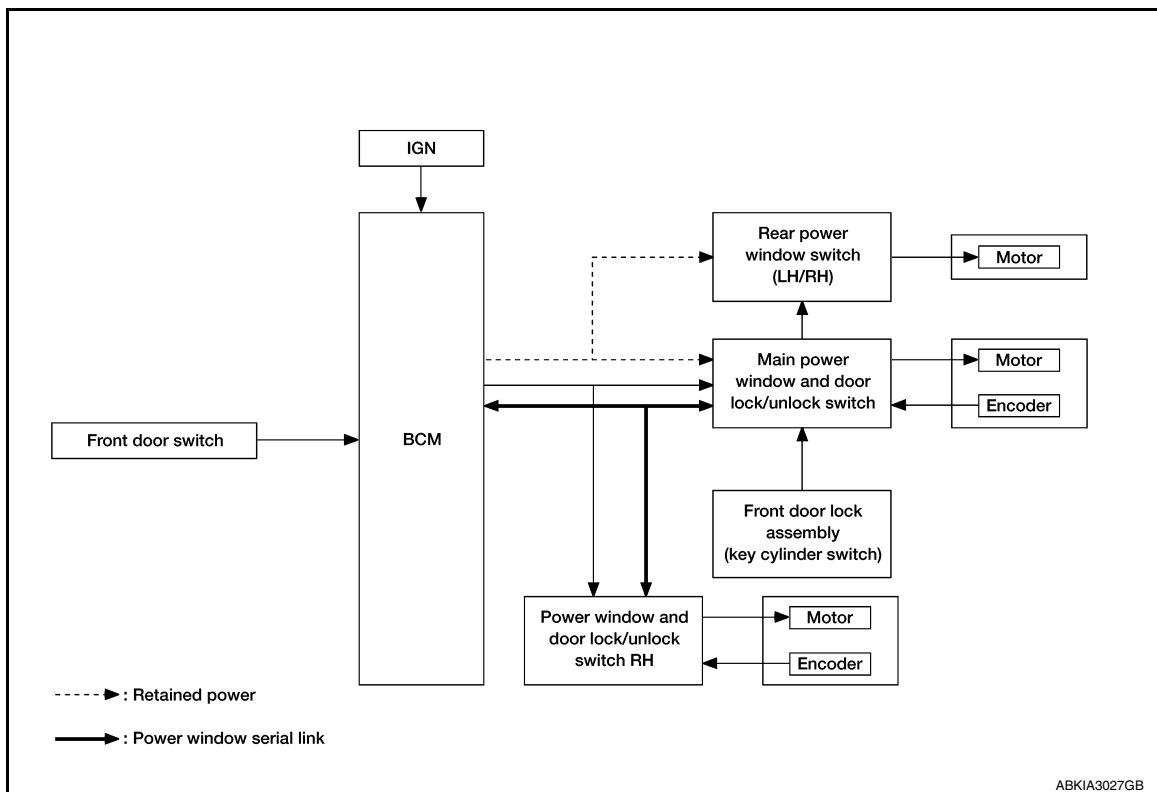
[LH & RH FRONT ANTI-PINCH]

SYSTEM

System Diagram

INFOID:0000000012592277

FRONT WINDOW ANTI-PINCH SYSTEM



System Description

INFOID:0000000012592278

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
Key cylinder switch	LOCK/UNLOCK signal (more than 1 seconds over)	Power window control	Front power window motor
Encoder	Encoder pulse signal		
Main power window and door lock/unlock switch	Front power window motor LH UP/DOWN signal		
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 AND DOOR LOCK/UNLOCK SWITCH RH INPUT/OUTPUT SIGNAL CHART

SYSTEM

< SYSTEM DESCRIPTION >

[LH & RH FRONT ANTI-PINCH]

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

POWER WINDOW OPERATION

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

POWER WINDOW AUTO-OPERATION (FRONT LH & RH)

- AUTO UP/DOWN operation can be performed when main power window and door lock/unlock switch & power window and door lock/unlock switch RH turns to AUTO.
- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Power window switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case encoder is malfunctioning.
- AUTO function does not operate if encoder is malfunctioning.

RETAINED POWER OPERATION

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

Retained power function cancel conditions

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

POWER WINDOW LOCK FUNCTION

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

ANTI-PINCH OPERATION (FRONT LH & RH)

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

OPERATION CONDITION

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

NOTE:

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

KEY CYLINDER SWITCH OPERATION

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

OPERATION CONDITION

- Ignition switch OFF

SYSTEM

< SYSTEM DESCRIPTION >

[LH & RH FRONT ANTI-PINCH]

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

KEYLESS POWER WINDOW DOWN OPERATION (FRONT LH & RH)

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

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

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

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

Fail-safe

INFOID:0000000012592279

FAIL-SAFE CONTROL

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

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

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

< SYSTEM DESCRIPTION >

[LH & RH FRONT ANTI-PINCH]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012822742

CAUTION:

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

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul style="list-style-type: none"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH & RH FRONT ANTI-PINCH]

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000012822743

CAUTION:

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

DATA MONITOR

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

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000012592282

ECU	Reference
BCM	BCS-31, "Reference Value"
	BCS-50, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< ECU DIAGNOSIS INFORMATION >

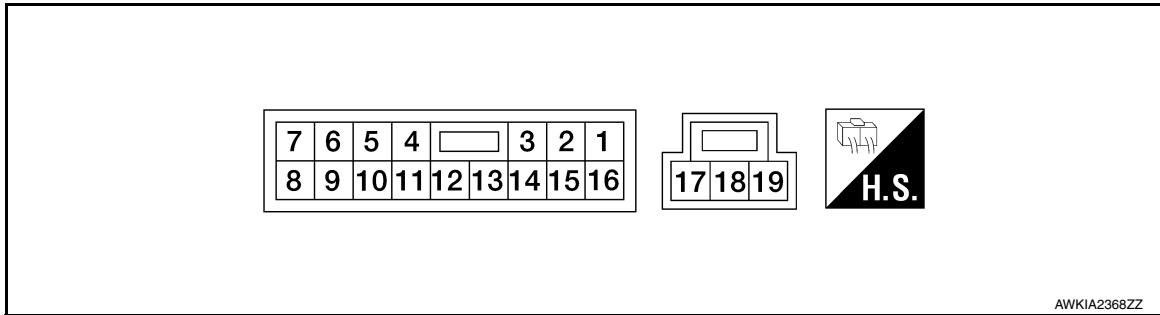
[LH & RH FRONT ANTI-PINCH]

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

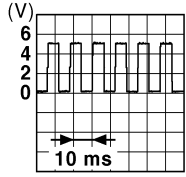
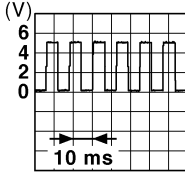
Reference Value

INFOID:0000000012592283

TERMINAL LAYOUT



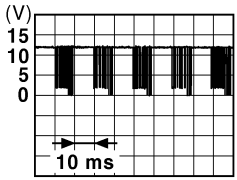
PHYSICAL VALUES

Terminal No.		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/Output		
1 (B)	Ground	Ground	—	—	0
3 (P)	Ground	Door key cylinder switch LH LOCK signal	Input	Key position (Neutral/Unlocked → Locked)	5 → 0
4 (BG)	12 (P)	Encoder pulse signal 2	Input	When power window motor operates.	 <p>JMKIA0070GB</p>
5 (R)	12 (P)	Encoder pulse signal 1	Input	When power window motor operates.	 <p>JMKIA0070GB</p>
6 (SB)	Ground	Rear power window motor RH DOWN signal	Output	When the rear RH switch on the main power window and door lock/unlock switch is operated in the DOWN position.	Battery voltage
7 (V)	Ground	Rear power window motor RH UP signal	Output	When the rear RH switch on the main power window and door lock/unlock switch is operated in the UP position.	Battery voltage
8 (L)	Ground	Rear power window motor LH DOWN signal	Output	When the rear LH switch on the main power window and door lock/unlock switch is operated in the DOWN position.	Battery voltage
9 (Y)	Ground	Rear power window motor LH UP signal	Output	When the rear LH switch on the main power window and door lock/unlock switch is operated in the UP position.	Battery voltage

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT ANTI-PINCH]

Terminal No.		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/Output		
10 (BR)	Ground	RAP signal	Input	IGN SW ON	Battery voltage
				Within 45 second after ignition switch is turned to OFF.	Battery voltage
				When front LH or RH door is opened during retained power operation.	0
11 (P)	Ground	Power window serial link	Input/Output	IGN SW ON or power window timer operating.	
12 (P)	Ground	Encoder ground	—	—	0
14 (LG)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
15 (G)	Ground	Door key cylinder switch LH UNLOCK signal	Input	Key position (Neutral/Locked → Unlocked)	5 → 0
17 (W)	19 (R)	Front door power window motor LH UP signal	Output	When the front LH switch on the main power window and door lock/unlock switch is operated in the UP position.	Battery voltage
18 (LG)	Ground	Battery power supply	Input	—	Battery voltage
19 (R)	17 (W)	Front door power window motor LH DOWN signal	Output	When the front LH switch on the main power window and door lock/unlock switch is operated in the DOWN position.	Battery voltage

Fail Safe

INFOID:0000000012592284

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

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT ANTI-PINCH]

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

- Auto-up operation
- Anti-pinch function
- 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.

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< ECU DIAGNOSIS INFORMATION >

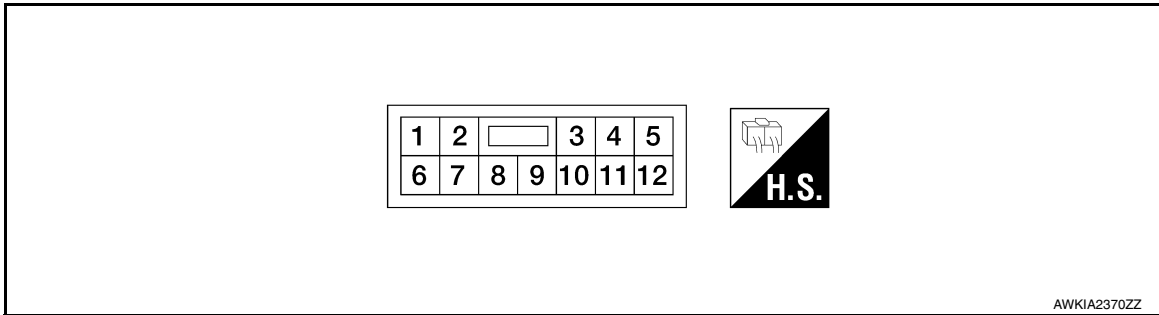
[LH & RH FRONT ANTI-PINCH]

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Reference Value

INFOID:000000012592285

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No.		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/Output		
3 (P)	Ground	Power window serial link	Input/Output	IGN SW ON or power window timer operating.	<p>JPMIA0013GB</p>
4 (BG)	Ground	Encoder ground	—	—	0
5 (W)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10
7 (B)	Ground	Ground	—	—	0
8 (LG)	Ground	Battery power supply	Input	—	Battery voltage
9 (LG)	4 (BG)	Encoder pulse signal 1	Input	When power window motor operates.	<p>JMKIA0070GB</p>
10 (G)	4 (BG)	Encoder pulse signal 2	Input	When power window motor operates.	<p>JMKIA0070GB</p>
11 (R)	12 (P)	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
12 (P)	11 (R)	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT ANTI-PINCH]

Fail Safe

INFOID:0000000012592286

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

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

- Auto-up operation
- 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.

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT ANTI-PINCH]

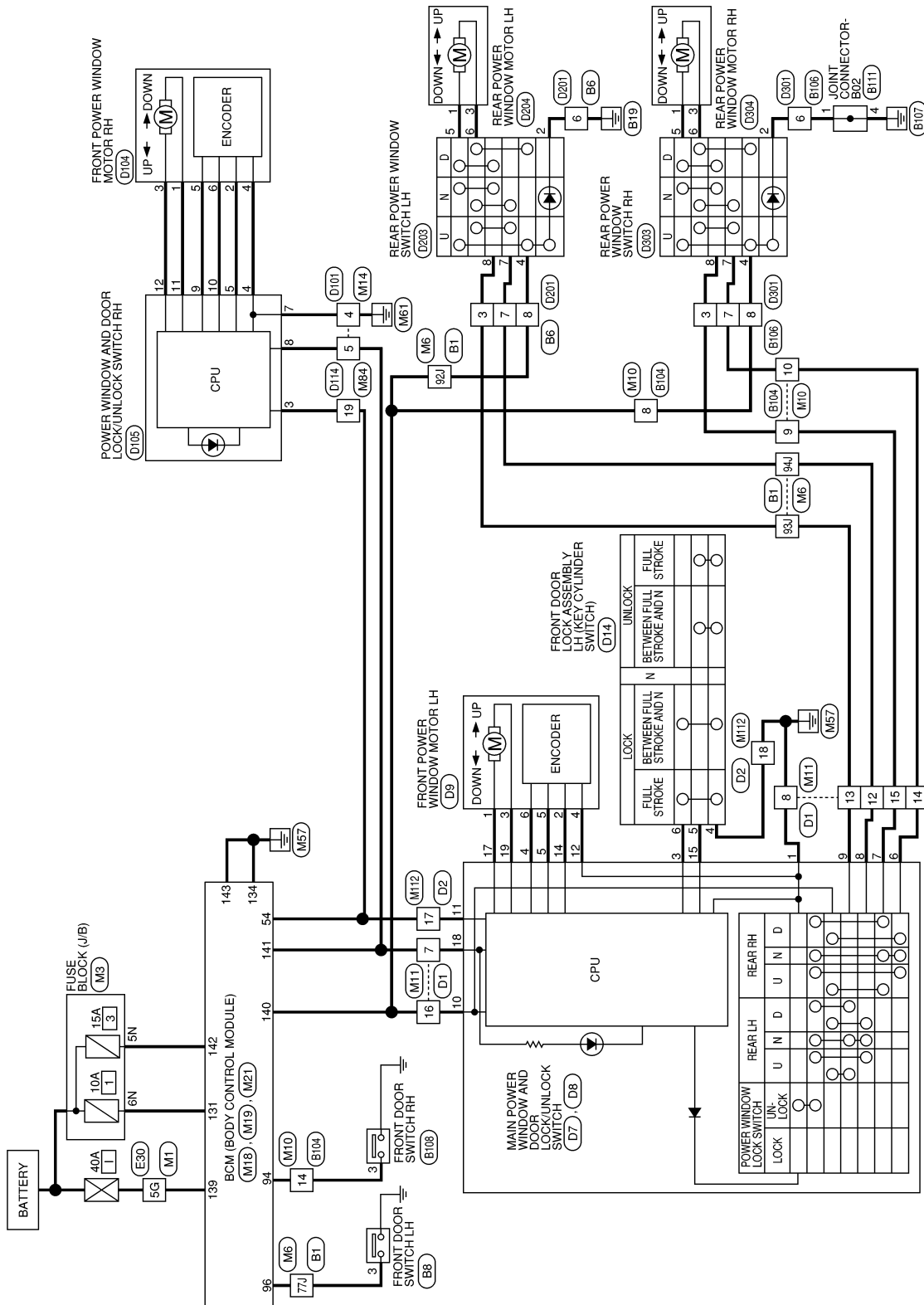
WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram - With Left And Right Front Power Window Anti-Pinch

INFOID:0000000012592287

POWER WINDOW SYSTEM - WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM



AAKWA0930GB

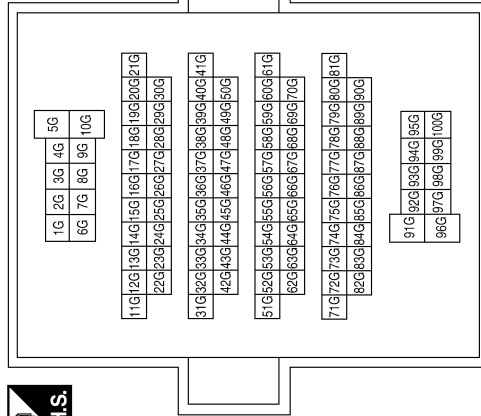
POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT ANTI-PINCH]

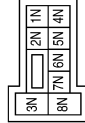
POWER WINDOW SYSTEM CONNECTORS - WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



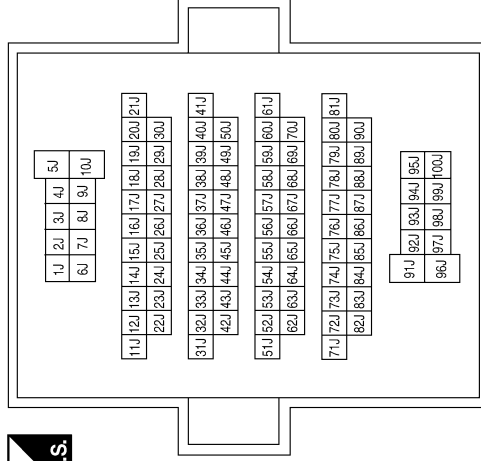
Terminal No.	Color of Wire	Signal Name
5G	W	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



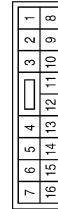
Terminal No.	Color of Wire	Signal Name
5N	BR	-
6N	W	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
77J	BR	-
92J	LG	-
93J	Y	-
94J	SB	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN




Terminal No.	Color of Wire	Signal Name
8	LG	-
9	V	-
10	BR	-
14	SB	-

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT ANTI-PINCH]


Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
54	P	PW LIN


Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3
4	5	6
7	8	

Terminal No.	Color of Wire	Signal Name
4	GR	-
5	L	-


Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

Terminal No.	Color of Wire	Signal Name
7	V	-
8	B	-
12	SB	-
13	Y	-
14	BR	-
15	V	-
16	LG	-


Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name
19	P	-


Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



137	136	135	134	133	132	131	130	129
143	142	141	140	139	138			

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	B	GND2
139	W	BAT POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	BR	BAT FRONT DOOR
143	B	GND1

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
94	SB	AS DOOR SW
96	BR	DR DOOR SW

Terminal No.	Color of Wire	Signal Name
19	P	-

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	B	GND2
139	W	BAT POWER F/L
140	LG	P/W POWER SUPPLY IGN
141	V	P/W POWER SUPPLY BAT
142	BR	BAT FRONT DOOR
143	B	GND1

Terminal No.	Color of Wire	Signal Name
94	SB	AS DOOR SW
96	BR	DR DOOR SW

ABKIA4846GB

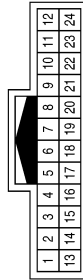
A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

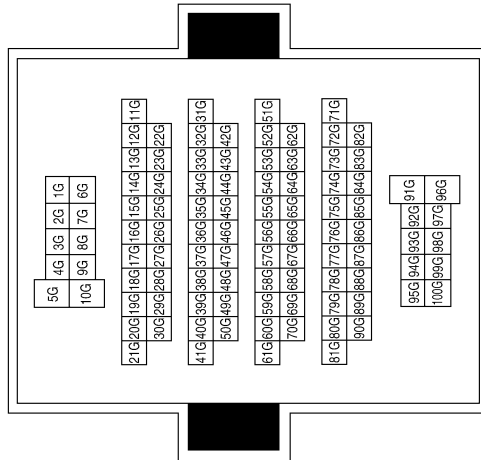
[LH & RH FRONT ANTI-PINCH]

Connector No.	M112
Connector Name	WIRE TO WIRE
Connector Color	WHITE



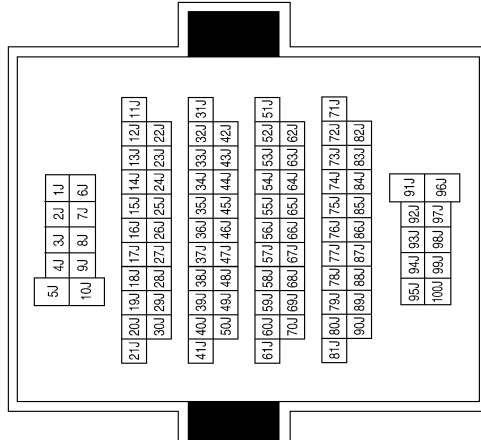
Terminal No.	Color of Wire	Signal Name
17	P	-
18	B	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	P	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
77J	L	-
92J	L	-
93J	SB	-
94J	LG	-

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	SB	-
6	B	-
7	LG	-
8	L	-

ABKIA3684GB

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT ANTI-PINCH]

Connector No.	B106
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3
4	5	6
7	8	

Terminal No.	Color of Wire	Signal Name
3	V	-
6	B	-
7	SB	-
8	L	-

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

Terminal No.	Color of Wire	Signal Name
8	L	-
9	V	-
10	SB	-
14	L	-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name
3	L	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Connector No.	B111
Connector Name	JOINT CONNECTOR-B02
Connector Color	WHITE



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name
7	LG	-
8	B	-
12	L	-
13	Y	-
14	SB	-
15	V	-
16	BR	-

Terminal No.	Color of Wire	Signal Name
1	B	-
4	B	-

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name
3	L	-

ABKIA3685GB

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT ANTI-PINCH]

Terminal No.	Color of Wire	Signal Name
6	SB	RR DN
7	V	RR UP
8	L	RL DN
9	Y	RL UP
10	BR	IGN
11	P	COM
12	P	ENCODER GND
13	-	-
14	LG	ENCODER +
15	G	KEYCYLINDER UNLOCK
16	-	-

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE

7	6	5	4	3	2	1		
8	9	10	11	12	13	14	15	16



Terminal No.	Color of Wire	Signal Name
1	B	GND
2	-	-
3	P	KEYCYLINDER LOCK
4	BG	ENCODER SIG2
5	R	ENCODER SIG1

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

12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13



Terminal No.	Color of Wire	Signal Name
17	P	-
18	B	-

Terminal No.	Color of Wire	Signal Name
1	W	M2
2	LG	VCC (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
3	R	M1
4	P	GND (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
5	R	PLS A
6	BG	PLS B

Connector No.	D9
Connector Name	FRONT POWER WINDOW MOTOR LH
Connector Color	GREEN

1	2	3
4	5	6



Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE

17	18	19
----	----	----



Terminal No.	Color of Wire	Signal Name
17	W	DR UP
18	LG	BAT
19	R	DR DN

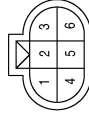
AAKIA2233GB

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

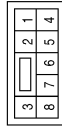
[LH & RH FRONT ANTI-PINCH]

Connector No.	D104
Connector Name	FRONT POWER WINDOW MOTOR RH (WITH LEFT AND RIGHT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	GREEN



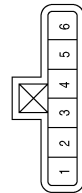
Terminal No.	Color of Wire	Signal Name
1	R	M2
2	W	VCC
3	P	M1
4	BG	GND
5	LG	PLS A
6	G	PLS B

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



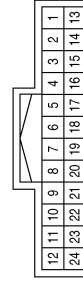
Terminal No.	Color of Wire	Signal Name
4	B	-
5	LG	-

Connector No.	D14
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
4	B	-
5	G	-
6	P	-

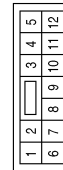
Connector No.	D114
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
19	P	-

Terminal No.	Color of Wire	Signal Name
1	-	-
2	-	-
3	P	COM
4	BG	ENCODER GND
5	W	ENCODER +
6	-	-
7	B	GND
8	LG	BAT
9	LG	ENCODER SGN1
10	G	ENCODER SGN2
11	R	AS UP
12	P	AS DN

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



AAKIA2234GB

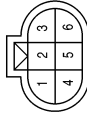
A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

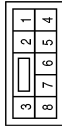
[LH & RH FRONT ANTI-PINCH]

Connector No.	D204
Connector Name	REAR POWER WINDOW MOTOR LH
Connector Color	GREEN



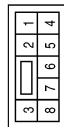
Terminal No.	Color of Wire	Signal Name
1	L	-
3	LG	-

Connector No.	D203
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	B	-
4	Y	-
5	L	-
6	LG	-
7	BR	-
8	V	-

Connector No.	D201
Connector Name	WIRE TO WIRE
Connector Color	WHITE



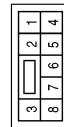
Terminal No.	Color of Wire	Signal Name
3	V	-
6	B	-
7	BR	-
8	Y	-

Connector No.	D304
Connector Name	REAR POWER WINDOW MOTOR RH
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	L	-
3	LG	-

Connector No.	D303
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	B	-
4	Y	-
5	L	-
6	LG	-
7	BR	-
8	V	-

Connector No.	D301
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	V	-
6	B	-
7	BR	-
8	Y	-

ABKIA4828GB

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH & RH FRONT ANTI-PINCH]

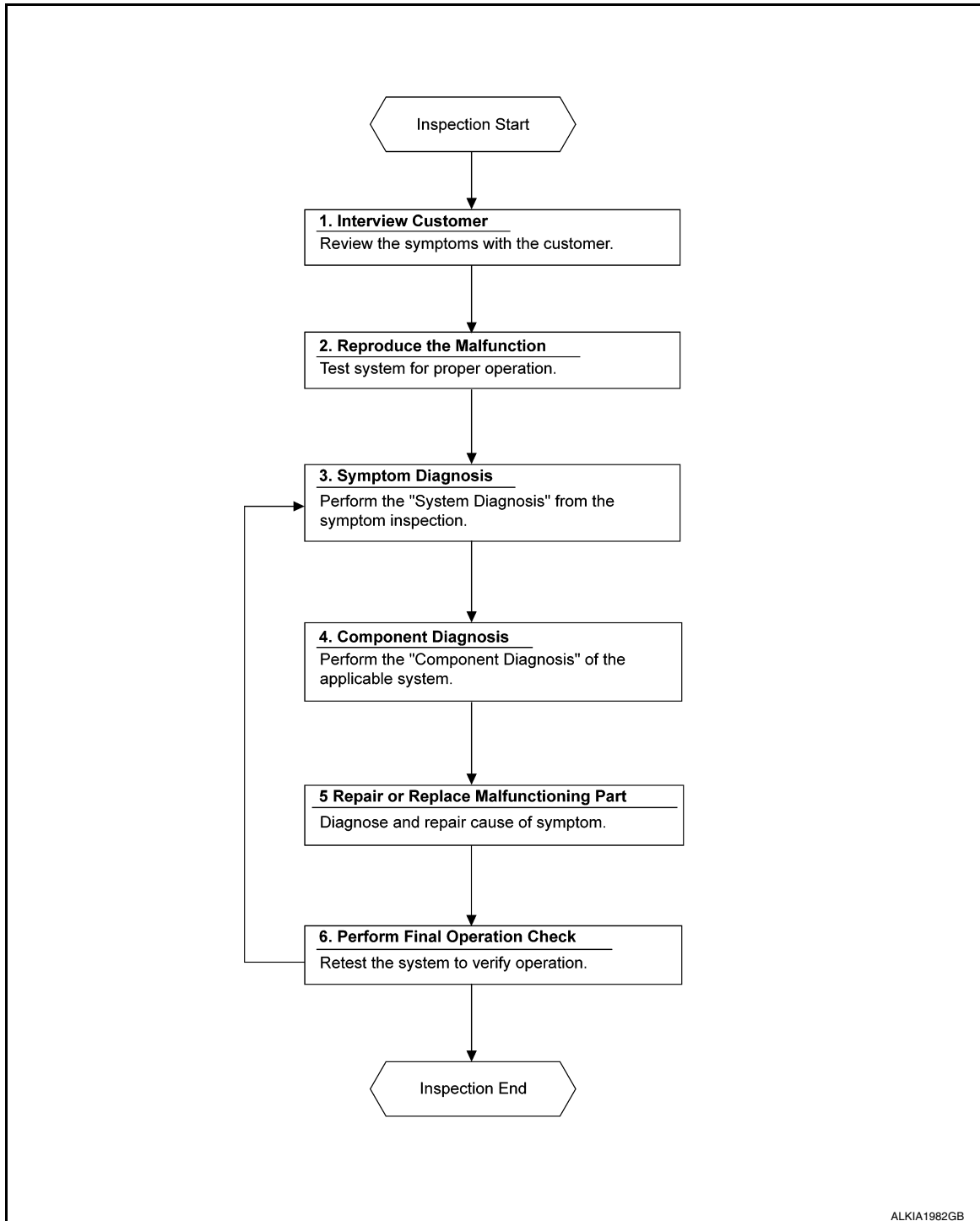
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000012592288

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

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

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH & RH FRONT ANTI-PINCH]

>> 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.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH & RH FRONT ANTI-PINCH]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000012592289

Initial setting is necessary when battery terminal is disconnected.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000012592290

INITIALIZATION PROCEDURE

1. Disconnect battery minus terminal or main power window and door lock/unlock switch connector. Reconnect it after a minute or more.
2. Turn ignition switch ON.
3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
5. Inspect anti-pinch function.

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.
 - Check that glass lowers for approximately 150 mm (5.91 in.) or 2 seconds without pinching piece of wood and stops.
 - Check that glass does not rise when operating the main power window and door lock/unlock switch while lowering.

CAUTION:

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to [PWC-77, "Fail Safe"](#).
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.

1. Auto-up operation
2. Anti-pinch function
3. Retained power operation when ignition switch is OFF.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000012592291

Initial setting is necessary when replacing main power window and door lock/unlock switch.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000012592292

INITIALIZATION PROCEDURE

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH & RH FRONT ANTI-PINCH]

1. Disconnect battery minus terminal or main power window and door lock/unlock switch connector. Reconnect it after a minute or more.
2. Turn ignition switch ON.
3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
5. Inspect anti-pinch function.

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.
 - Check that glass lowers for approximately 150 mm (5.91 in.) or 2 seconds without pinching piece of wood and stops.
 - Check that glass does not rise when operating the main power window and door lock/unlock switch while lowering.

CAUTION:

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
 - Check that AUTO-UP operates before inspection when system initialization is performed.
 - It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to [PWC-77, "Fail Safe"](#).
 - Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
 - Finish initial setting. Otherwise, next operation cannot be done.
1. Auto-up operation
 2. Anti-pinch function
 3. Retained power operation when ignition switch is OFF.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000012822744

Regarding Wiring Diagram information, refer to [BCS-55, "Wiring Diagram"](#).

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M21.

2. Check voltage between BCM connector M21 terminals 131, 139 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M21	131	—	Battery voltage
	139		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connectors.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M21 terminals 134, 143 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M21	134	—	Yes
	143		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000012592294

- 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 SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:000000012592295

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 [PWC-94, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000012592296

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

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

1. CHECK POWER SUPPLY CIRCUIT

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

Terminal		Voltage (Approx.)
(+)	(-)	
Main power window and door lock/unlock switch connector	Terminal	
D7	10	Battery voltage
D8	18	

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M21	140	D7	10	Yes
	141	D8	18	

4. Check continuity between BCM connector M21 and ground.

BCM connector	Terminal	Ground	Continuity
M21	140		No
	141		

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace the harness or connectors.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch.
3. Check continuity between main power window and door lock/unlock switch connector D7 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7	1		Yes

Is the inspection result normal?

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

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M21 and ground.

Terminals			Voltage (Approx.)
(+)	(-)		
BCM connector	Terminal		
M21	140	Ground	Battery voltage
	141		

Is the measurement value within the specification?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch connector D7 and ground.

Terminal			Window switch position (rear LH)	Voltage (Approx.)
(+)		(−)		
Main power window and door lock/unlock switch connector	Terminal			
D7	9	Ground	UP	Battery voltage
			DOWN	0
	8		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch connector D7 and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

Terminal			Window switch position (rear RH)	Voltage (Approx.)
(+)Main power window and door lock/unlock switch connector		Terminal		
			(-)	
D7		Ground	UP	Battery voltage
			DOWN	0
			UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch connector D7 and ground.

Terminal			Window switch position (front LH)	Voltage (Approx.)
(+) Main power window and door lock/unlock switch connector		Terminal		
D7	17	Ground	UP	Battery voltage
			DOWN	0
	19		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:0000000012592297

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

1. Check main power window and door lock/unlock switch D7.

Terminal		Main power window and door lock/unlock switch condition		Continuity
10	9	Rear LH	UP	Yes
10	7	Rear RH		
8	9	Rear LH	NEUTRAL	
6	7	Rear RH		
10	8	Rear LH	DOWN	
10	6	Rear RH		
1	12	-		

2. Check continuity between main power window and door lock/unlock switch D7 (power window lock switch). (Lock operation).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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

3. Check continuity between main power window and door lock/unlock switch D7 (power window lock switch). (Unlock operation).

Terminal		Main power window and door lock/unlock switch condition		Continuity
8	1	Rear LH	UP	Yes
6		Rear RH		
8		Rear LH	NEUTRAL	
9				
6				
7		Rear RH		
9		Rear LH	DOWN	
7		Rear RH		

Is the inspection result normal?

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

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-97, "POWER WINDOW MAIN SWITCH : Special Repair Requirement"](#).

POWER WINDOW MAIN SWITCH : Special Repair Requirement

INFOID:0000000012592298

PWC

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to [PWC-94, "POWER WINDOW MAIN SWITCH : Component Function Check"](#).

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:0000000012592299

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012592300

Power Window And Door Lock/unlock Switch RH

1. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

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

Is the inspection result normal?

- YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.
NO >> Refer to [PWC-98, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012592301

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

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

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between power window and door lock/unlock switch RH connector D105 and ground.

Terminal			Voltage (Approx.)
(+)		(-)	
Power window and door lock/unlock switch RH connector	Terminal		
D105	8	Ground	Battery voltage

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect BCM and power window and door lock/unlock switch RH.
- Check continuity between BCM connector M21 and power window and door lock/unlock switch RH connector D105.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M21	141	D105	8	Yes

- Check continuity between BCM connector M21 and ground.

BCM connector	Terminal	Ground	Continuity
M21	141		No

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace the harness or connectors.

3. CHECK GROUND CIRCUIT

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

Power window and door lock/unlock switch RH	Terminal	Ground	Continuity
D105	7		Yes

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

NO >> Repair or replace the harness or connectors.

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M21 and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
BCM connector	Terminal		
M21	141	Ground	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

FRONT POWER WINDOW SWITCH : Special Repair Requirement

INFOID:0000000012592302

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to [PWC-98, "FRONT POWER WINDOW SWITCH : Component Function Check"](#).

REAR POWER WINDOW SWITCH

PWC

REAR POWER WINDOW SWITCH : Description

INFOID:0000000012592303

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

REAR POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012592304

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 [PWC-99, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012592305

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

Rear Power Window Switch Power Supply Circuit Check

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between rear power window switch connector and ground.

Terminal				Condition	Voltage (Approx.)
(+)		(-)			
Rear power window switch connector	Terminal				
LH	D203	4	Ground	Ignition switch ON	Battery voltage
RH	D303				

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.
3. Check continuity between main power window and door lock/unlock switch connector D7 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
D7	8	D203	7	Yes
	9		8	

4. Check continuity between main power window and door lock/unlock switch connector D7 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7	8		No
	9		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

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.
3. Check continuity between main power window and door lock/unlock switch connector D7 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
D7	6	D303	7	Yes
	7		8	

4. Check continuity between main power window and door lock/unlock switch connector D7 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7	6		No
	7		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

4. CHECK HARNESS CONTINUITY

1. Disconnect BCM and rear power window switch.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity
M21	140	LH	D203	4	Yes
		RH	D303		

3. Check continuity between BCM connector M21 and ground.

BCM connector	Terminal	Ground	Continuity
M21	140		No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

NO >> Repair or replace the harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-101, "REAR POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace rear power window switch. Refer to [PWC-139, "Removal and Installation"](#).

REAR POWER WINDOW SWITCH : Component Inspection

INFOID:0000000012592306

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH D203.

Terminal		Power window switch condition	Continuity
4	5	UP	Yes
7	6		
7	6	NEUTRAL	
5	8		
6	4	DOWN	
5	8		

Is the inspection result normal?

YES >> Rear power window switch LH is OK.

NO >> Replace rear power window switch. Refer to [PWC-139, "Removal and Installation"](#).

2. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH D303.

Terminal		Power window switch condition	Continuity
4	5	UP	Yes
7	6		
7	6	NEUTRAL	
5	8		
6	4	DOWN	
5	8		

Is the inspection result normal?

YES >> Rear power window switch RH is OK.

NO >> Replace rear power window switch. Refer to [PWC-139, "Removal and Installation"](#).

POWER WINDOW MOTOR

[LH & RH FRONT ANTI-PINCH]

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012592307

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

DRIVER SIDE : Component Function Check

INFOID:0000000012592308

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Refer to [PWC-102, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012592309

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

Front Power Window Motor LH Circuit Check

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

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

Terminal		Main power window and door lock/unlock switch condition	Voltage (Approx.)
(+)	(-)		
Power window motor LH connector	Terminal		
D9	1	UP	Battery voltage
		DOWN	0
	3	UP	0
		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 main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D8 and front power window motor connector LH D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D8	17	D9	1	Yes
	19		3	

4. Check continuity between main power window and door lock/unlock switch connector D8 and ground.

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D8	17		No
	19		

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-103, "DRIVER SIDE : Special Repair Requirement"](#).
- NO >> Repair or replace the harness or connectors.

3. CHECK POWER WINDOW MOTOR

Check front power window motor LH.

Refer to [PWC-103, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Replace power window motor LH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-103, "DRIVER SIDE : Special Repair Requirement"](#).

DRIVER SIDE : Component Inspection

INFOID:0000000012592310

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to power window motor D9.

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

- YES >> Front power window motor LH is OK.
- NO >> Replace front power window motor LH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-103, "DRIVER SIDE : Special Repair Requirement"](#).

DRIVER SIDE : Special Repair Requirement

INFOID:0000000012592311

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Refer to [PWC-102, "DRIVER SIDE : Component Function Check"](#).

PASSENGER SIDE

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

PASSENGER SIDE : Description

INFOID:000000012592312

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.

PASSENGER SIDE : Component Function Check

INFOID:000000012592313

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Refer to [PWC-104, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000012592314

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

Front Power Window Motor RH Circuit Check

1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

Terminal			Front power window motor RH condition	Voltage (Approx.)
(+)		(−)		
Front power window motor RH connector	Terminal			
D104	1	Ground	UP	Battery voltage
			DOWN	0
	3		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH.
3. Check continuity between power window and door lock/unlock switch RH connector D105 and front power window motor RH connector D104.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105	11	D104	1	Yes
	12		3	

4. Check continuity between power window and door lock/unlock switch RH connector D105 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D105	11		No
	12		

POWER WINDOW MOTOR

[LH & RH FRONT ANTI-PINCH]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-138, "Removal and Installation"](#). After that, refer to [PWC-105, "PASSENGER SIDE : Special Repair Requirement"](#).
- NO >> Repair or replace harness or connectors.

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to [PWC-105, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
- NO >> Replace front power window motor RH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-105, "PASSENGER SIDE : Special Repair Requirement"](#).

PASSENGER SIDE : Component Inspection

INFOID:0000000012592315

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

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

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

- YES >> Front power window motor RH is OK.
- NO >> Replace front power window motor RH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-105, "PASSENGER SIDE : Special Repair Requirement"](#).

PASSENGER SIDE : Special Repair Requirement

INFOID:0000000012592316

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Refer to [PWC-104, "PASSENGER SIDE : Component Function Check"](#).

REAR LH

REAR LH : Description

INFOID:0000000012592317

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

INFOID:0000000012592318

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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-106, "REAR LH : Diagnosis Procedure"](#)

REAR LH : Diagnosis Procedure

INFOID:000000012592319

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

Power Window Motor Circuit Check

1. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

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

Terminal		Window condition	Voltage (Approx.)
(+)	(-)		
Rear power window motor LH connector	Terminal		
D204	1	UP	Battery voltage
		DOWN	0
	3	UP	0
		DOWN	Battery voltage

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH.
3. Check continuity between rear power window switch LH connector D203 and rear power window motor LH connector D204.

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D203	5	D204	1	Yes
	6		3	

4. Check continuity between rear power window switch LH connector D203 and ground.

Rear power window switch LH connector	Terminal	Ground	Continuity
D203	5		No
	6		

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to [PWC-101, "REAR POWER WINDOW SWITCH : Component Inspection"](#).

NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-107, "REAR LH : Component Inspection"](#).

Is the inspection result normal?

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

REAR LH : Component Inspection

INFOID:0000000012592320

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

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

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

- YES >> Rear power window motor LH is OK.
NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

REAR RH

REAR RH : Description

INFOID:0000000012592321

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

REAR RH : Component Function Check

INFOID:0000000012592322

1. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

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

Is the inspection result normal?

- YES >> Rear power window motor RH is OK.
NO >> Refer to [PWC-107, "REAR RH : Diagnosis Procedure"](#).

REAR RH : Diagnosis Procedure

INFOID:0000000012592323

PWC

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

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.

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

Is the measurement value within the specification?

POWER WINDOW MOTOR

[LH & RH FRONT ANTI-PINCH]

< DTC/CIRCUIT DIAGNOSIS >

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH.
3. 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
	6		3	

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

Rear power window switch RH connector	Terminal	Ground	Continuity
D303	5	Ground	No
	6		

Is the inspection result normal?

- YES >> Check rear power window switch RH. Refer to [PWC-101, "REAR POWER WINDOW SWITCH : Component Inspection"](#).
NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-108, "REAR RH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
NO >> Replace rear power window motor RH. Refer to [GW-25, "Removal and Installation"](#).

REAR RH : Component Inspection

INFOID:0000000012592324

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

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

Terminal		Motor condition
(+)	(-)	
3	1	DOWN
1	3	UP

Is the inspection result normal?

- YES >> Rear power window motor RH is OK.
NO >> Replace rear power window motor RH. Refer to [GW-25, "Removal and Installation"](#).

ENCODER DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012592325

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

DRIVER SIDE : Component Function Check

INFOID:0000000012592326

1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

- YES >> Encoder operation is OK.
NO >> Refer to [PWC-109, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012592327

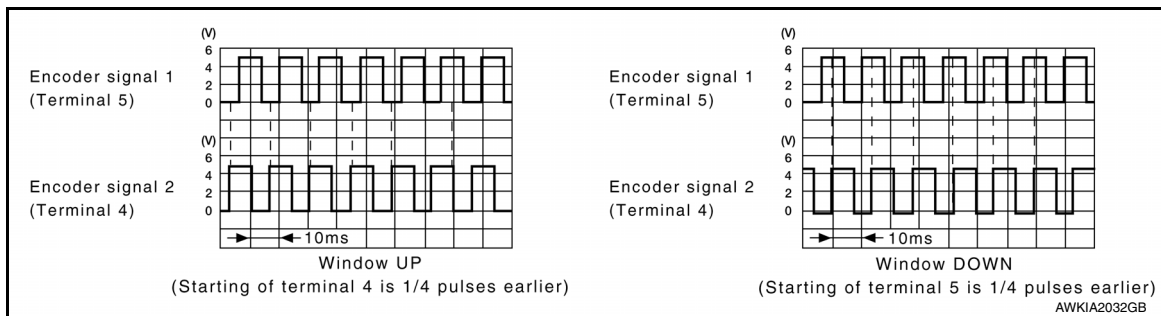
Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

Encoder Circuit Check

1. CHECK ENCODER OPERATION

- Turn ignition switch ON.
- Check signal between main power window and door lock/unlock switch connector D7 and ground with oscilloscope.

Terminals		Signal (Reference value)
(+)	(-)	
Main power window and door lock/unlock switch connector	Terminal	Refer to following signal
D7	4	
	5	



Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).
NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

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

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

Terminal			Voltage (Approx.)
(+)		(−)	
Front power window motor LH connector	Terminal		
D9	2	Ground	
			10

Is the measurement value within the specification?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK HARNESS CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D7 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D7	14	D9	2	Yes

4. Check continuity between main power window and door lock/unlock switch connector D7 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7	14		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> Repair or replace the harness or connectors.

4. CHECK GROUND CIRCUIT

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

Front power window motor LH connector	Terminal	Ground	Continuity
D9	4		Yes

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between main power window and door lock/unlock switch connector D7 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D7	12	D9	4	Yes

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between main power window and door lock/unlock switch connector D7 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D7	5	D9	5	Yes
	4		6	

3. Check continuity between main power window and door lock/unlock switch connector D7 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7	5	Ground	No
	4		

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> Repair or replace the harness or connectors.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012592328

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

PASSENGER SIDE : Component Function Check

INFOID:0000000012592329

1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to [PWC-111, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012592330

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

1. CHECK ENCODER SIGNAL

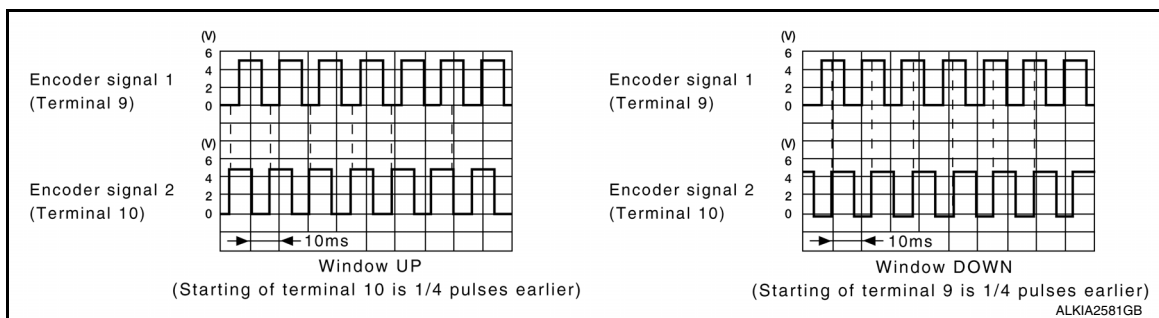
1. Connect front power window motor RH.
2. Turn ignition switch ON.
3. Check signal between power window and door lock/unlock switch RH connector D105 and ground with oscilloscope.

Terminals			Signal (Reference value)
(+) (−)		(−)	
Power window and door lock/unlock switch RH connector	Terminal		
D105	9	Ground	Refer to following signal
	10		

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]



Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR RH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window motor RH connector D104 and ground.

Terminal			Voltage (Approx.)
(+)		(–)	
Front power window motor RH connector	Terminal		
D104	2	Ground	10

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK HARNESS CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH and front power window motor RH.
3. Check continuity between power window and door lock/unlock switch RH connector D105 and front power window motor RH connector D104.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105	5	D104	2	Yes

4. Check continuity between power window and door lock/unlock switch RH connector D105 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D105	5		No

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-138, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> Repair or replace the harness or connectors.

4. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH.
3. Check continuity between front power window motor RH connector D104 and ground.

Front power window motor RH connector	Terminal	Ground	Continuity
D104	4		Yes

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

5. CHECK HARNESS CONTINUITY 2

1. Disconnect power window and door lock/unlock switch RH.
2. Check continuity between power window and door lock/unlock switch RH connector D105 and front power window motor RH connector D104.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105	4	D104	4	Yes

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-138, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

1. Disconnect power window and door lock/unlock switch RH.
2. Check continuity between power window and door lock/unlock switch RH connector D105 and front power window motor RH connector D104.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105	9	D104	5	Yes
	10		6	

3. Check continuity between power window and door lock/unlock switch RH connector D105 and ground.

Power window and door lock/unlock switch RH connector	Terminal		Continuity
D105	9	Ground	No
	10		

Is the inspection result normal?

YES >> Replace front power window motor RH. Refer to [GW-16, "Removal and Installation - Front Regulator"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> Repair or replace the harness or connectors.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

DOOR SWITCH

Description

INFOID:0000000012592331

Detects door open/close condition.

Component Function Check

INFOID:0000000012592332

1.CHECK FUNCTION

With CONSULT

Check door switches "DOOR SW-DR" and "DOOR SW-AS" in "Data Monitor".

Monitor item	Condition
DOOR SW-DR	CLOSE → OPEN: OFF → ON
DOOR SW-AS	

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to [PWC-114, "Diagnosis Procedure"](#).

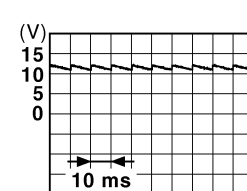
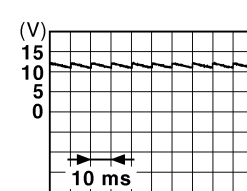
Diagnosis Procedure

INFOID:0000000012592333

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

1.CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check signal between BCM connector and ground with oscilloscope.

Terminals			Door condition		Voltage (V) (Approx.)
(+) (–)					
BCM connector	Terminal				
M19	96	Ground	Front door switch LH	OPEN	0
				CLOSE	 JPMIA0011GB
	94		Front door switch RH	OPEN	0
				CLOSE	 JPMIA0011GB

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

2.CHECK DOOR SWITCH CIRCUIT

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

BCM connector	Terminal	Door switch connector	Terminal	Continuity
M19	96	Front door switch LH	3	Yes
	94	Front door switch RH		

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M19	96		No
	94		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness between BCM and door switch.

3.CHECK DOOR SWITCH

Refer to [PWC-115, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to [DLK-216, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> Inspection End.

Component Inspection

INFOID:0000000012592334

1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect door switch connector.
3. Check door switch.

Terminal		Door switch condition	Continuity
Door switch			
3	Ground part of door switch	Pressed	No
		Released	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch. Refer to [DLK-216, "Removal and Installation"](#).

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

KEY CYLINDER SWITCH

Description

INFOID:0000000012592335

For vehicles equipped with LH and RH anti-pinch system, the main power window and door lock/unlock switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signal.

Component Function Check

INFOID:0000000012592336

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check "KEY CYL UN-SW", "KEY CYL UN-SW" in "Data Monitor" for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [DLK-80, "Work Flow"](#).

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

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to [PWC-116, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000012592337

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

Terminals			Key position	Voltage (V) (Approx.)
(+) (Main power window and door lock/unlock switch connector)		(-) (Ground)		
D7	3	Ground	Lock	0
			Neutral / Unlock	5
	15		Unlock	0
			Neutral / Lock	5

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> GO TO 2.

2.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

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

KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

Main power window and door lock/unlock switch connector	Terminal	Front door lock assembly LH connector	Terminal	Continuity
D7	3	D14	6	Yes
	15		5	

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

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7	3	Ground	No
	15		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between front door lock assembly LH connector and ground.

Front door lock assembly LH connector	Terminal	Ground	Continuity
D14	4	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [PWC-117, "Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace front door lock assembly LH. Refer to [DLK-200, "FRONT DOOR LOCK : Removal and Installation"](#).

Component Inspection

INFOID:0000000012592338

COMPONENT INSPECTION

1.CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly LH.

Terminal	Key position	Continuity
Front door lock assembly LH (key cylinder switch) connector		
5	Unlock	Yes
	Neutral / Lock	No
6	Lock	Yes
	Neutral / Unlock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock assembly LH. Refer to [DLK-200, "FRONT DOOR LOCK : Removal and Installation"](#).

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

POWER WINDOW SERIAL LINK

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000012592339

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

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

- Keyless power window down signal

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

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

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000012592340

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "Data Monitor" for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [BCS-17, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

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

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to [PWC-118, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012592341

Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

Power Window Serial Link Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

Terminal			Signal (Reference value)
(+)		(-)	
BCM connector	Terminal		
M18	54	Ground	<div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><</div></div></div></div>

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM and main power window and door lock/unlock switch.
- Check continuity between BCM connector M18 and main power window and door lock/unlock switch connector D7.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M18	54	D7	11	Yes

- Check continuity between BCM connector M18 and ground.

BCM connector	Terminal	Ground	Continuity
M18	54		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> Repair or replace harness or connectors.

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:0000000012592342

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

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

- Keyless power window down signal

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

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

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012592343

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

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "Data Monitor" for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [BCS-17, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to [PWC-120, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012592344

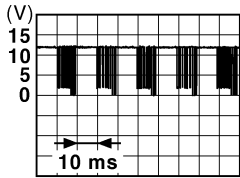
Regarding Wiring Diagram information, refer to [PWC-81, "Wiring Diagram - With Left And Right Front Power Window Anti-Pinch"](#).

Power Window Serial Link Check

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

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

Terminal		Signal (Reference value)
(+)	(-)	
BCM connector	Terminal	
M18	54	Ground



JPMIA0013GB

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM.
3. Check continuity between BCM connector M18 and power window and door lock/unlock switch RH connector D105.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M18	54	D105	3	Yes

4. Check continuity between BCM connector M18 and ground.

BCM connector	Terminal	Ground	Continuity
M18	54		No

Is the inspection result normal?

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

- YES
- >> Replace power window and door lock/unlock switch RH. Refer to [PWC-138, "Removal and Installation"](#). After that, refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).
- NO
- >> Repair or replace the harness or connectors.

A

B

C

D

E

F

G

H

I

J

L

M

N

O

P

PWC

POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

POWER WINDOW LOCK SWITCH

Description

INFOID:0000000012592345

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

Component Function Check

INFOID:0000000012592346

1. CHECK POWER WINDOW LOCK SIGNAL

Main power window and door lock/unlock switch operation (window lock signal) is checked.

Does power window lock operate?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-122, "Special Repair Requirement"](#).
NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:0000000012592347

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

- YES >> Inspection end.
NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Diagnosis Procedure

INFOID:0000000012592348

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to [PWC-93, "BCM : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

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

Check main power window and door lock/unlock switch.
Refer to [PWC-94, "POWER WINDOW MAIN SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check power window switch main power supply and ground circuit.
Refer to [PWC-94, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

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

Check main power window and door lock/unlock switch serial circuit.
Refer to [PWC-118, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

PWC

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592349

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to [PWC-102, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592350

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

Check power window and door lock/unlock switch RH.

Refer to [PWC-98, "FRONT POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK CIRCUIT

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

Refer to [PWC-120, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.

Refer to [PWC-104, "PASSENGER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592351

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to [PWC-99, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-105, "REAR LH : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592352

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to [PWC-99, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-107, "REAR RH : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

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

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000012592353

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR WINDOW SLIDING PART

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to [PWC-109, "DRIVER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

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

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000012592354

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR WINDOW SLIDING PART

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to [PWC-111, "PASSENGER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

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

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000012592355

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to [PWC-109, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

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

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000012592356

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to [PWC-111, "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000012592357

1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to [PWC-114, "Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000012592358

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

Replace main power window and door lock/unlock switch.

Refer to [PWC-137, "Removal and Installation"](#). After that, [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

>> Inspection End.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Diagnosis Procedure

INFOID:0000000012592359

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to [PWC-91, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 2.

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

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

Refer to [PWC-116, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT ANTI-PINCH]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012592360

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to [DLK-143, "Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Replace BCM. Refer to [BCS-81, "Removal and Installation"](#).

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

PERIODIC MAINTENANCE

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

INFOID:0000000012592361

BASIC INSPECTION

1.INSPECTION START

1. Check the service history.
2. Check the following parts.
 - Fuse/circuit breaker blown.
 - Poor connection, open or short circuit of harness connector.
 - Battery voltage.

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Repair or replace the malfunctioning parts.

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT ANTI-PINCH]

REMOVAL AND INSTALLATION

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Removal and Installation

INFOID:0000000012592362

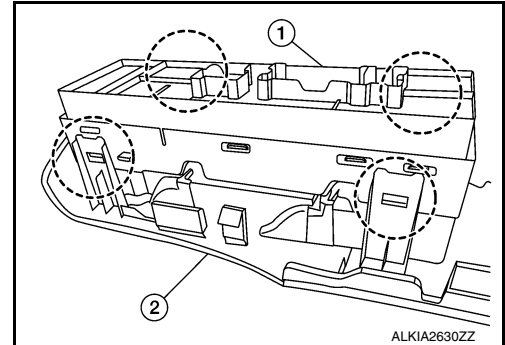
REMOVAL

1. Remove the front door pull handle outer finisher using a suitable tool.
2. Release the pawls using a suitable tool and lift the main power window and door lock/unlock switch and finisher as an assembly by starting at the rear, then pull upward and remove.
3. Disconnect the harness connector from the main power window and door lock/unlock switch.
4. 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/unlock 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 [PWC-27. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT ANTI-PINCH]

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Removal and Installation

INFOID:0000000012592363

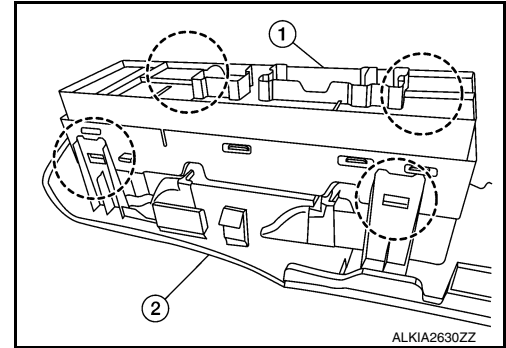
REMOVAL

1. Remove the front door pull handle outer finisher using a suitable tool.
2. Release the pawls using a suitable tool and lift the power window and door lock/unlock switch RH and finisher as an assembly by starting at the rear, then pull upward and remove.
3. Disconnect the harness connector from the power window and door lock/unlock switch RH.
4. Release the four pawls (two on each side) using a suitable tool, then separate the power window and door lock/unlock switch RH (1) from the power window and door lock/unlock 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.

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 [PWC-27, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT ANTI-PINCH]

REAR POWER WINDOW SWITCH

Removal and Installation

INFOID:0000000012592364

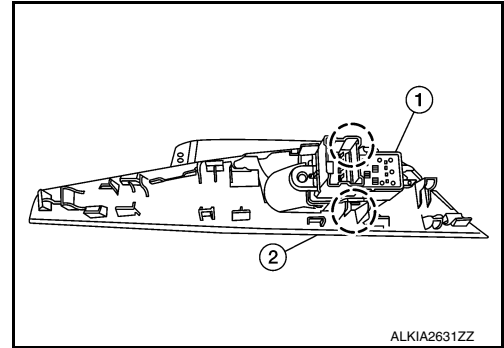
REMOVAL

1. Release the pawls using a suitable tool and lift the rear power window switch and finisher as an assembly by starting at the rear, then pull upward 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.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC