SECTION PWC

POWER WINDOW CONTROL SYSTEM

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000013055179

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

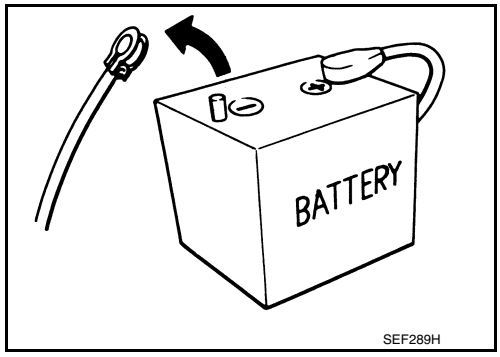
Precautions for Removing Battery Terminal

INFOID:0000000013043091

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

D4D engine	: 20 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		
V9X engine	: 4 minutes		
YD25DDTi	: 2 minutes		



NOTE:

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

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
  - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
  - Driving for 30 minutes or more on a steep slope.

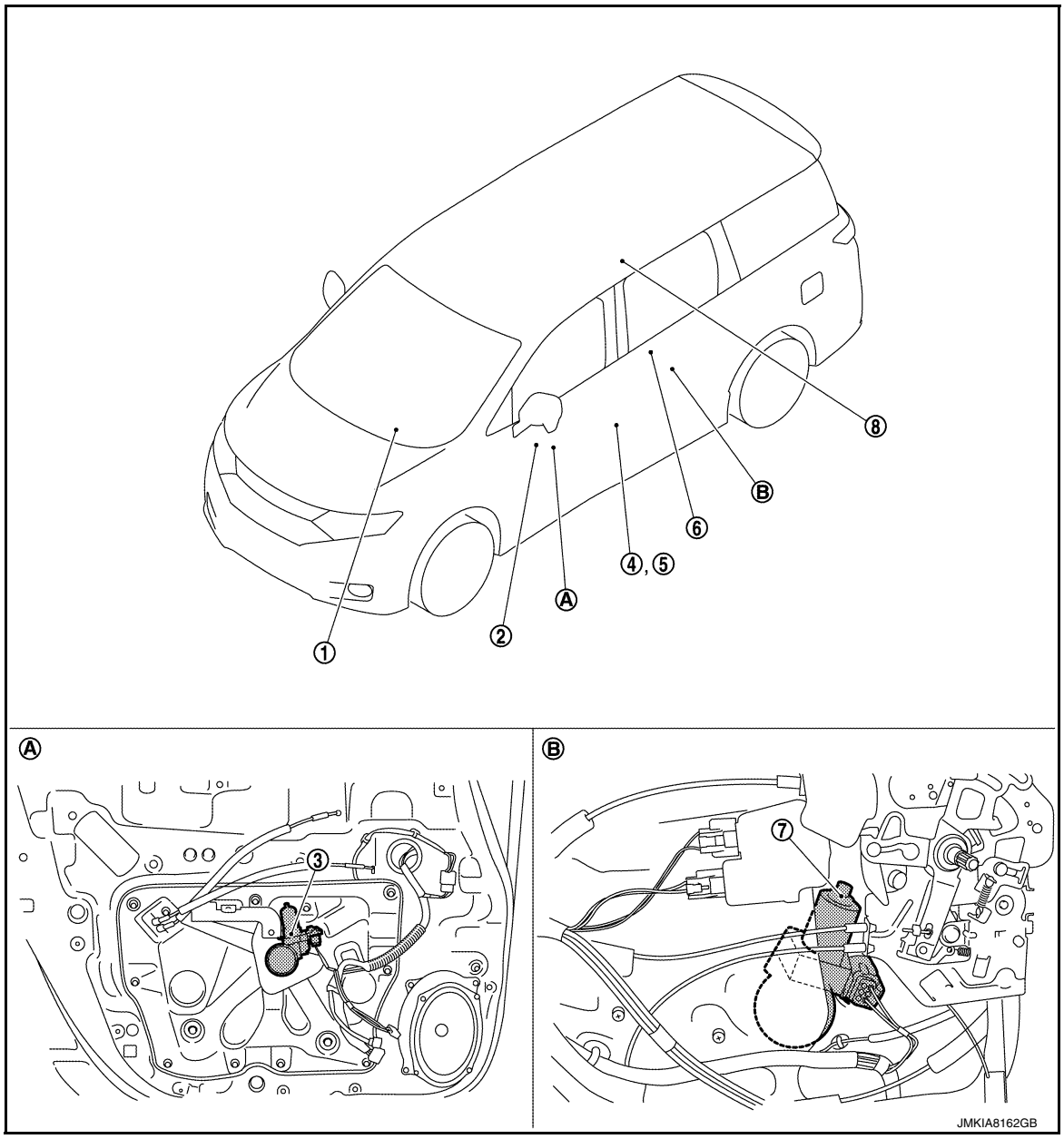
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
  NOTE:
  If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.
- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
  NOTE:
  The removal of 12V battery may cause a DTC detection error.

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012409665



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

No.	Component	Function
1.	BCM	• Supplies power supply to power window switch. • Controls retained power. • Receives key ID signal from remote keyless entry receiver. Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
2.	Power window main switch	Refer to PWC-9, "Power Window Main Switch".
3.	Front power window motor (driver side)	Refer to PWC-9, "Front Power Window Motor (Driver Side)".

No.	Component	Function
4.	Front door switch (driver side)	Detects door open/close condition and transmits to BCM. Refer to DLK-28, "Front Door Switch".
5.	Front door lock assembly (driver side) (key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch. Refer to DLK-28, "Front Door Lock Assembly (Driver Side)".
6.	Sliding door power window switch LH	Refer to PWC-9, "Sliding Door Power Window Switch".
7.	Sliding door power window motor LH	Refer to PWC-9, "Sliding Door Power Window Motor".
8.	Remote keyless entry receiver	Receives key ID signal from the Intelligent Key, and then transmits to BCM. Refer to DLK-18, "DOOR LOCK SYSTEM : Component Parts Location" for detailed installation location.

Power Window Main Switch

INFOID:0000000012409666

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

Front Power Window Motor (Driver Side)

INFOID:0000000012409667

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

Sliding Door Power Window Switch

INFOID:0000000012409668

Controls power window motor of sliding door.

Sliding Door Power Window Motor

INFOID:0000000012409669

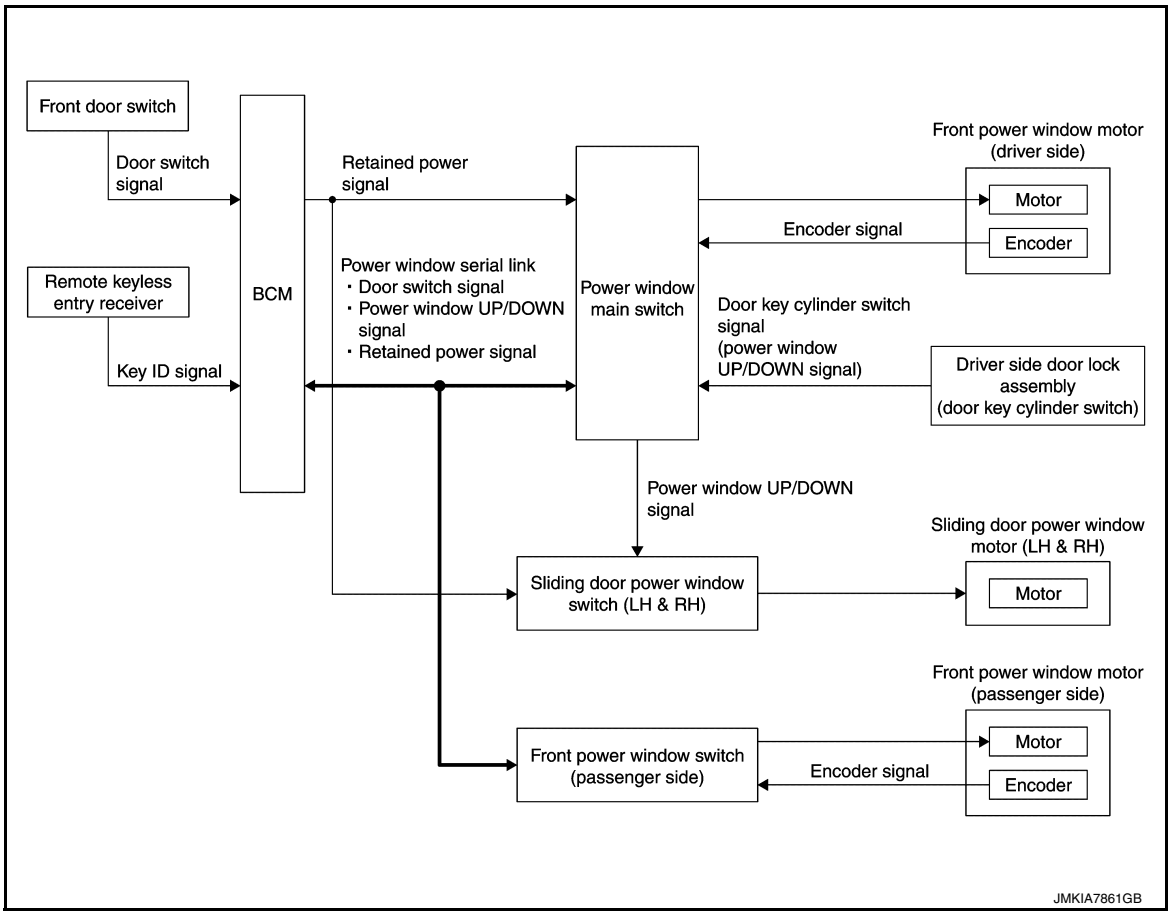
Operates with signals from power window main switch and sliding door power window switch.

SYSTEM

System Description

INFOID:0000000012409670

SYSTEM DIAGRAM



DESCRIPTION

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

Power Window AUTO-Operation

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

Retained Power Operation

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

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

Power Window Lock Function
Ground circuit inside power window main switch shuts off when power window lock switch is ON. This inhibits each power window switch operation except the power window main switch.

Power Window Serial Link
- Power window main switch, front power window switch (passenger side), and BCM transmit and receive the signal by power window serial link.
- Power window serial link transmits the power window main switch operation signals and retained power signal to power window main switch module and front power window switch (passenger side) module.

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

Operation Condition
When front door glass AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed).
NOTE:
Depending on environment and driving conditions, if a similar impact or load is applied to the door glass, it may lower.

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

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

Keyless Power Window Down Operation
Front power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.
The power window opening stops when the following operations are performed.
- When the unlock button is kept pressed more than 15 seconds.
- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

While retained power operation activate, keyless power window down function cannot be operated.
Keyless power window down operation mode can be changed by “PW DOWN SET” mode in “WORK SUPPORT”. Refer to DLK-95, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Circuit Diagram

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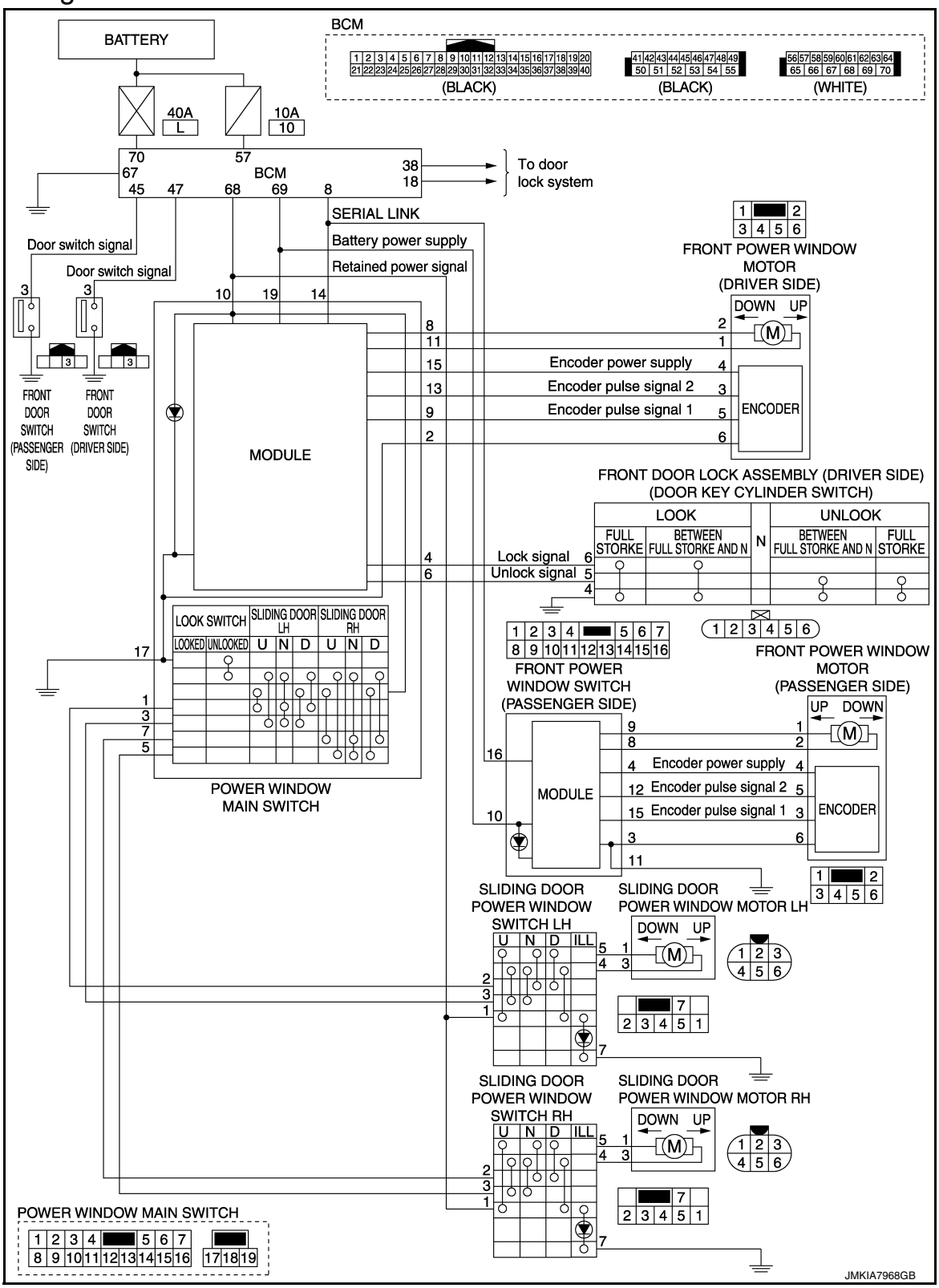


Fail-safe

INFOID:0000000012409672

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.

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.
- Auto-up operation
- Anti-pinch function

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

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012409673

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

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

NOTE:

*: For models with automatic air conditioning control system, this diagnosis mode is not used.

FREEZE FRAME DATA (FFD)

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (LOCK)]
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (OFF)]
	LOCK>ACC		While turning power supply position from OFF (LOCK) to ACC
	ACC>ON		While turning power supply position from ACC to ON
	RUN>ACC		While turning power supply position from RUN to ACC (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from CRANK to RUN
	RUN>URGENT		While turning power supply position from RUN to ACC (Emergency stop operation)
	ACC>OFF		While turning power supply position from ACC to OFF (OFF)
	OFF>LOCK		While turning power supply position from OFF (OFF) to OFF (LOCK)
	OFF>ACC		While turning power supply position from OFF (OFF) to ACC
	ON>CRANK		While turning power supply position from ON to CRANK
	OFF>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (OFF)] to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (LOCK)] to low power consumption mode
	LOCK		Power supply position is OFF (LOCK)
	OFF		Power supply position is OFF (OFF)
	ACC		Power supply position is ACC
	ON		Power supply position is ON
	ENGINE RUN		Power supply position is RUN
	CRANKING		Power supply position is CRANK
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:

*: Refer to the following for details of the power supply position.

- OFF (OFF, LOCK): Ignition switch OFF
- ACC: Ignition switch ACC
- IGN: Ignition switch ON with engine stopped
- RUN: Ignition switch ON with engine running
- CRANK: At engine cranking

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

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

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

RETAIND PWR

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

pinch)

INFOID:0000000012409674

DATA MONITOR

NOTE:

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

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

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000012409675

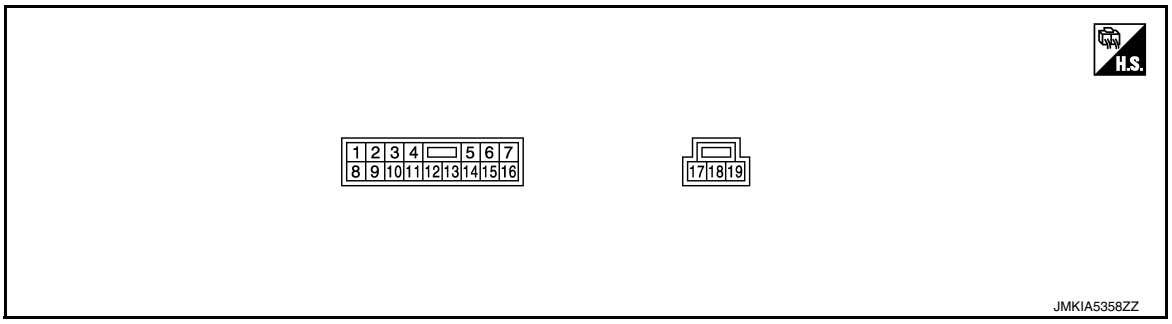
ECU	Reference
BCM	BCS-41, "Reference Value"
	BCS-63, "Fail-safe"
	BCS-63, "DTC Inspection Priority Chart"
	BCS-64, "DTC Index"

POWER WINDOW MAIN SWITCH

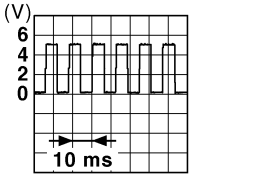
Reference Value

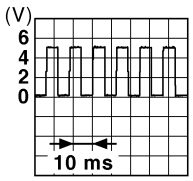
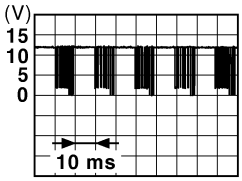
INFOID:0000000012409676

TERMINAL LAYOUT



PHYSICAL VALUES

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

Terminal No. (wire color)		Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output		
10 (GR)	Ground	Retained power signal	Input	Ignition switch ON	9 – 16
				Within 45 seconds after ignition switch is turned to OFF.	9 – 16
				When driver side or passenger side door is opened during retained power operation.	0 – 1
11 (Y)	Ground	Front power window motor (driver side) DOWN signal	Output	When front LH switch in power window main switch is in DOWN operation.	9 – 16
13 (GR)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	 JMKIA0070GB
14 (R)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power window timer operating.	 JPMIA0013GB
15 (G)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	9 – 16
17 (B)	Ground	Ground	—	—	0 – 1
19 (Y)	Ground	Battery power supply	Input	—	9 – 16

Fail-safe

INFOID:0000000012409677

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.

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

- Auto-up operation
- Anti-pinch function

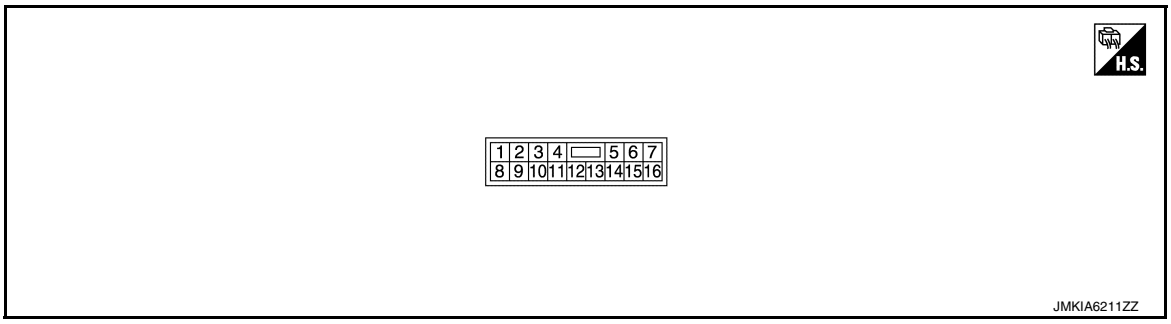
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window main switch or front power window switch (passenger side) front power window motor (driver side/passenger side).

FRONT POWER WINDOW SWITCH

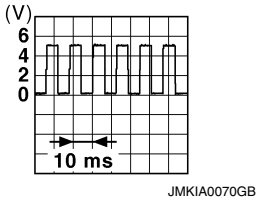
Reference Value

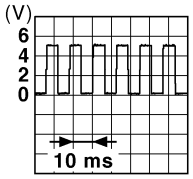
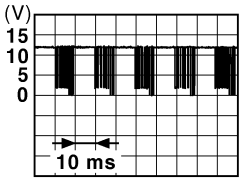
INFOID:0000000012409678

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (wire color)		Description		Condition	Voltage (V)
+	–	Signal name	Input/ Output		
3 (GR)	Ground	Encoder ground	—	—	0 – 1
4 (G)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	9 – 16
8 (L)	Ground	Front power window motor (passenger side) UP signal	Output	When front power window switch (passenger side) is in UP operation.	9 – 16
9 (LG)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front power window switch (passenger side) is in DOWN operation.	9 – 16
10 (V)	Ground	Battery power supply	Input	—	9 – 16
11 (B)	Ground	Ground	—	—	0 – 1
12 (P)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	

Terminal No. (wire color)		Description		Condition	Voltage (V)
+	–	Signal name	Input/ Output		
15 (R)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	 JMKIA0070GB
16 (W)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power window timer operating.	 JPMIA0013GB

Fail-safe

INFOID:0000000012409679

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.

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.
- Auto-up operation
- Anti-pinch function

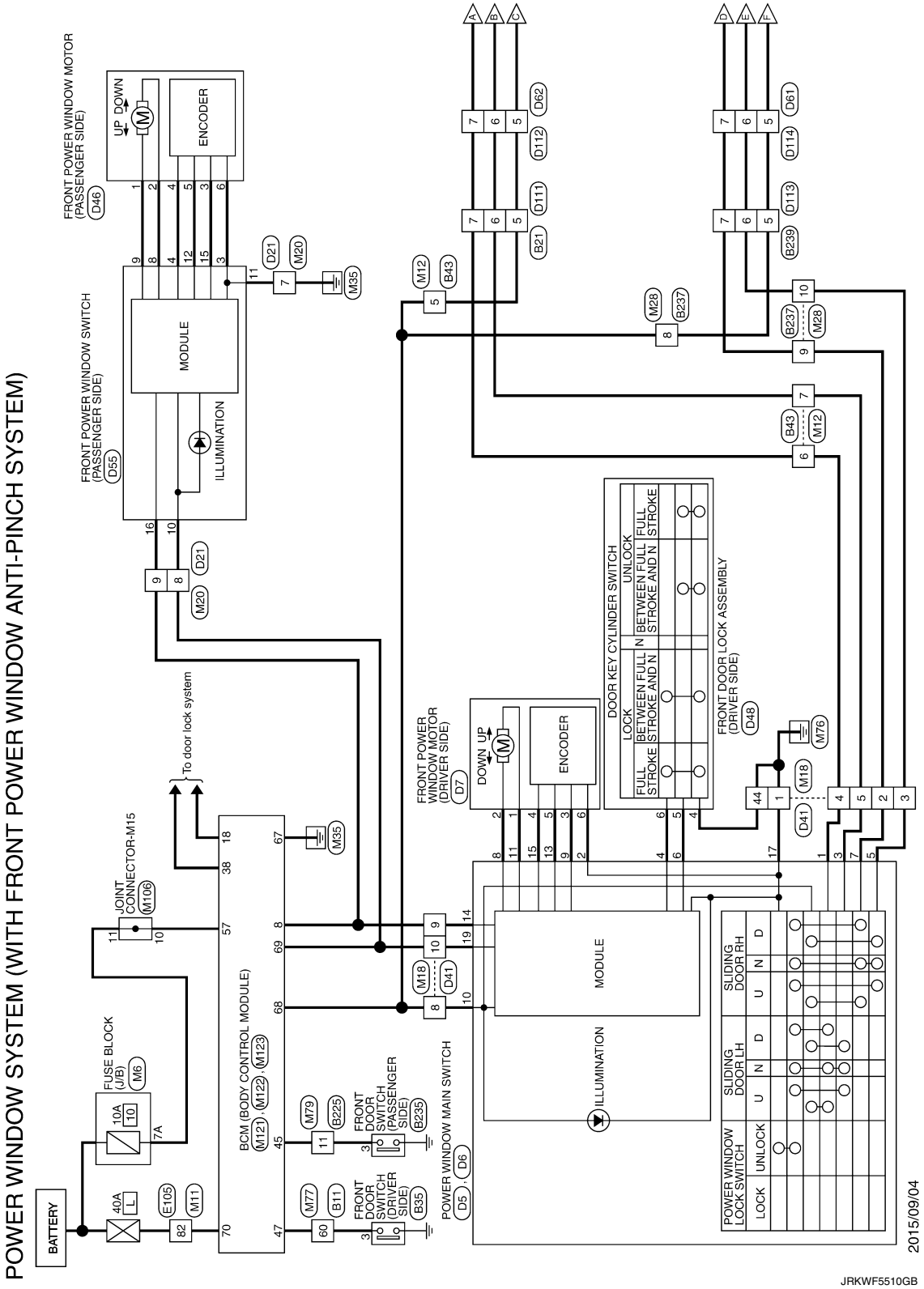
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window main switch or front power window switch (passenger side) front power window motor (driver side/passenger side).

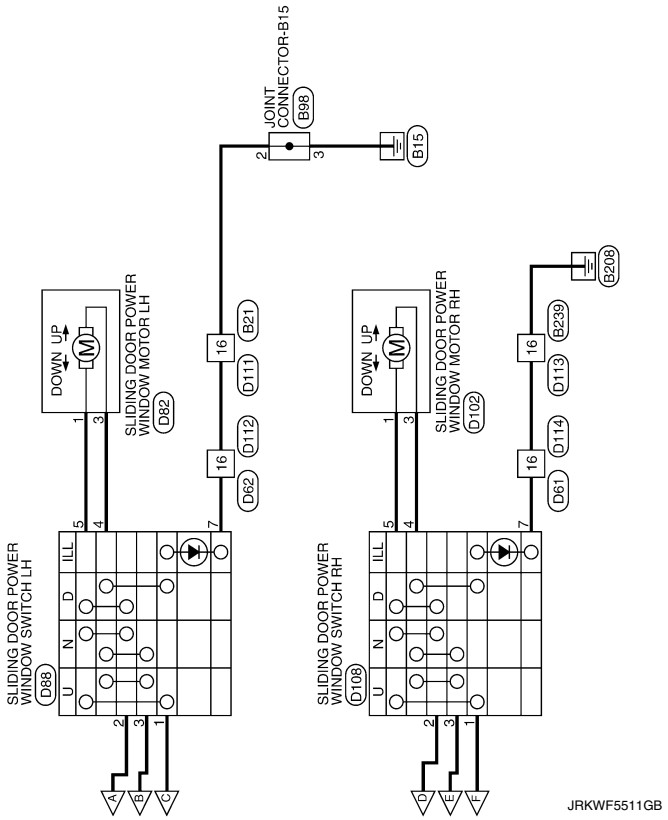
WIRING DIAGRAM

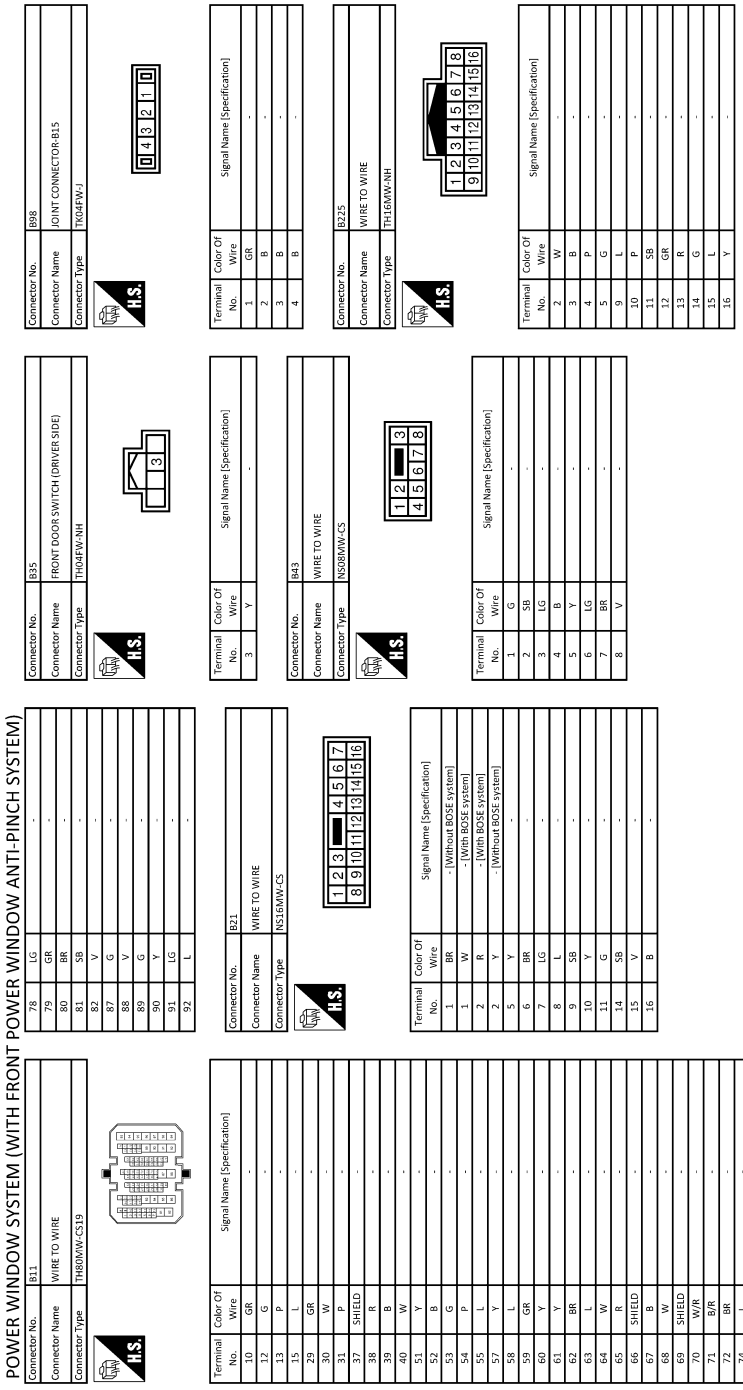
POWER WINDOW SYSTEM

Wiring Diagram

INFOID:0000000012409680




JOINT CONNECTOR-B15
B98
B15
B208
SLIDING DOOR POWER WINDOW MOTOR LH
D82
SLIDING DOOR POWER WINDOW MOTOR RH
D102
SLIDING DOOR POWER WINDOW SWITCH LH
D88
SLIDING DOOR POWER WINDOW SWITCH RH
D108
DOWN
UP
ILL
D
N
U
B21
D111
D112
D62
B239
D113
D114
D61
JRKWF5511GB



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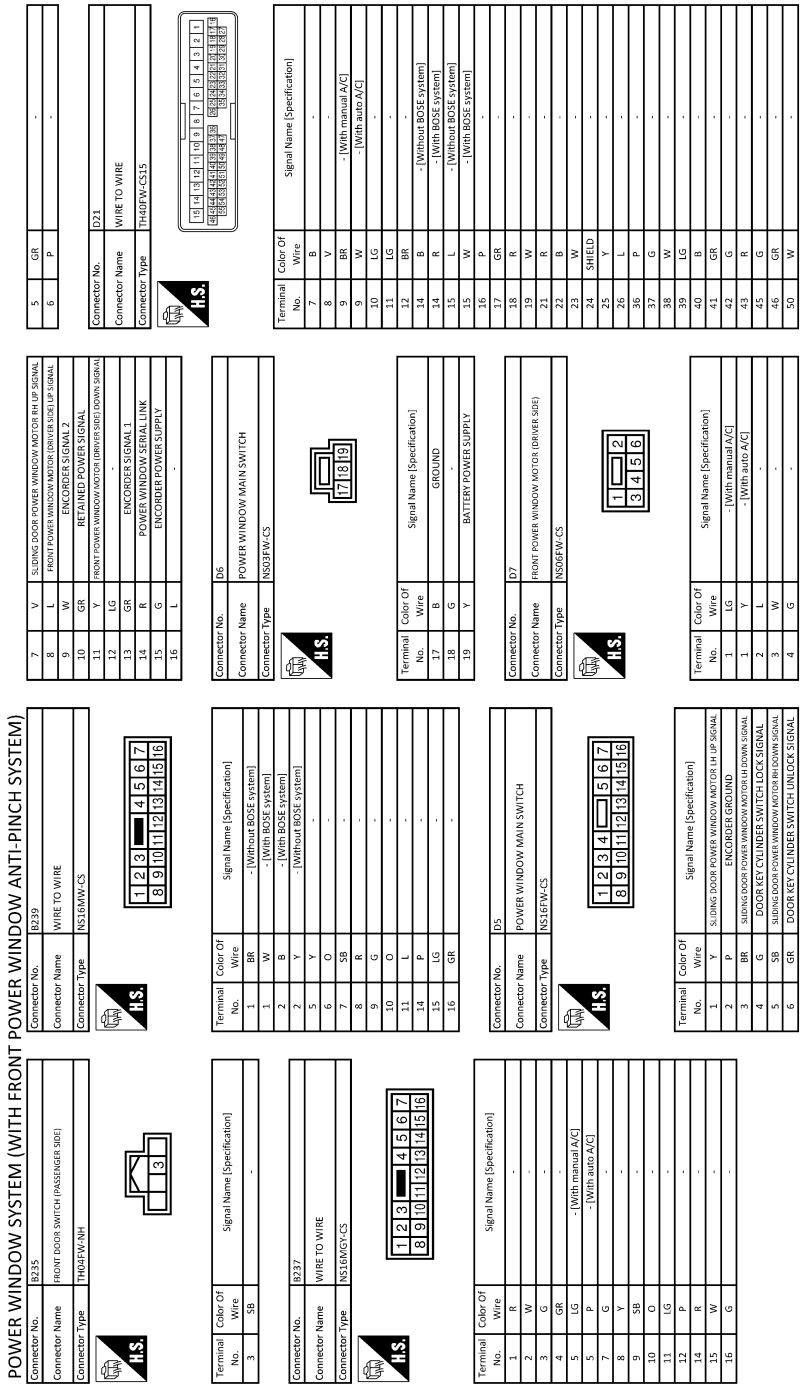
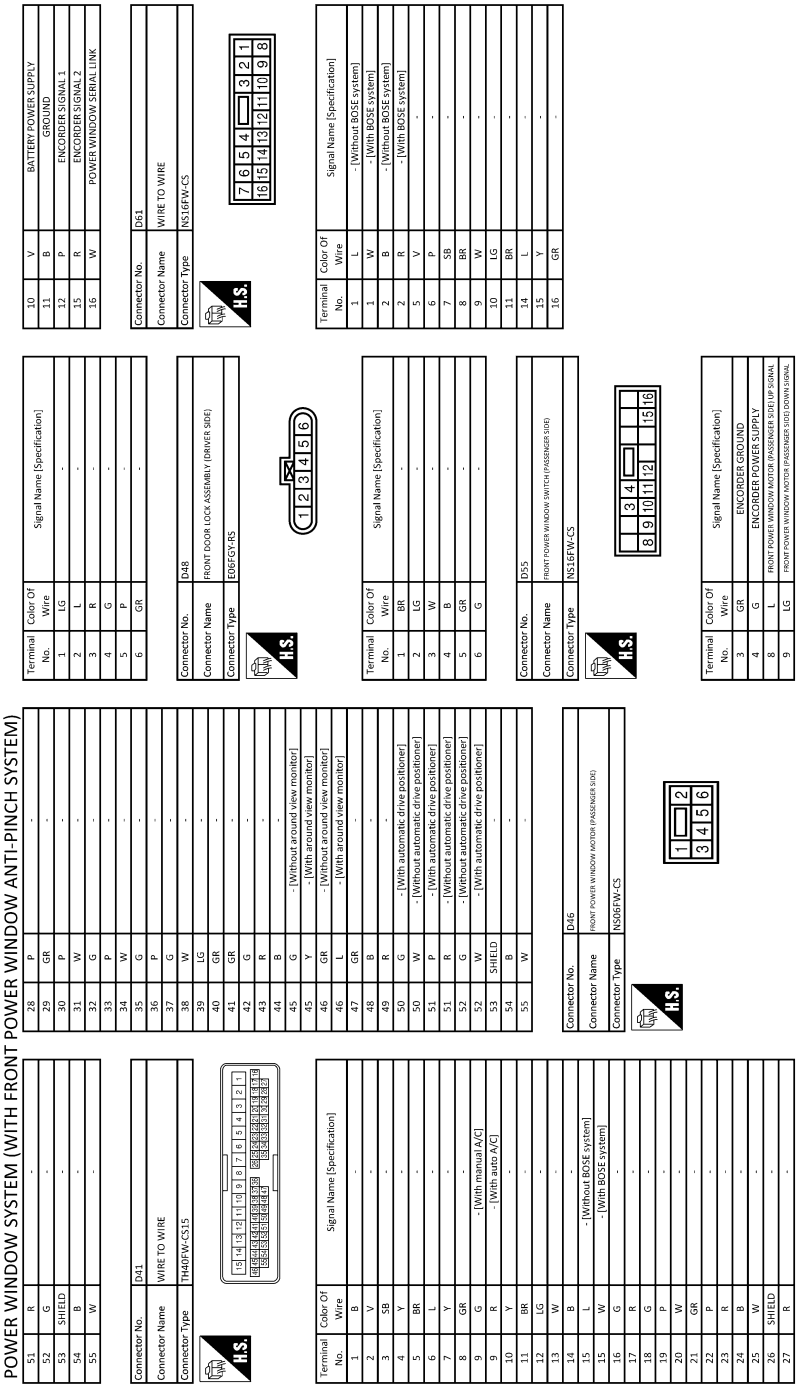


JRKWF5513GB



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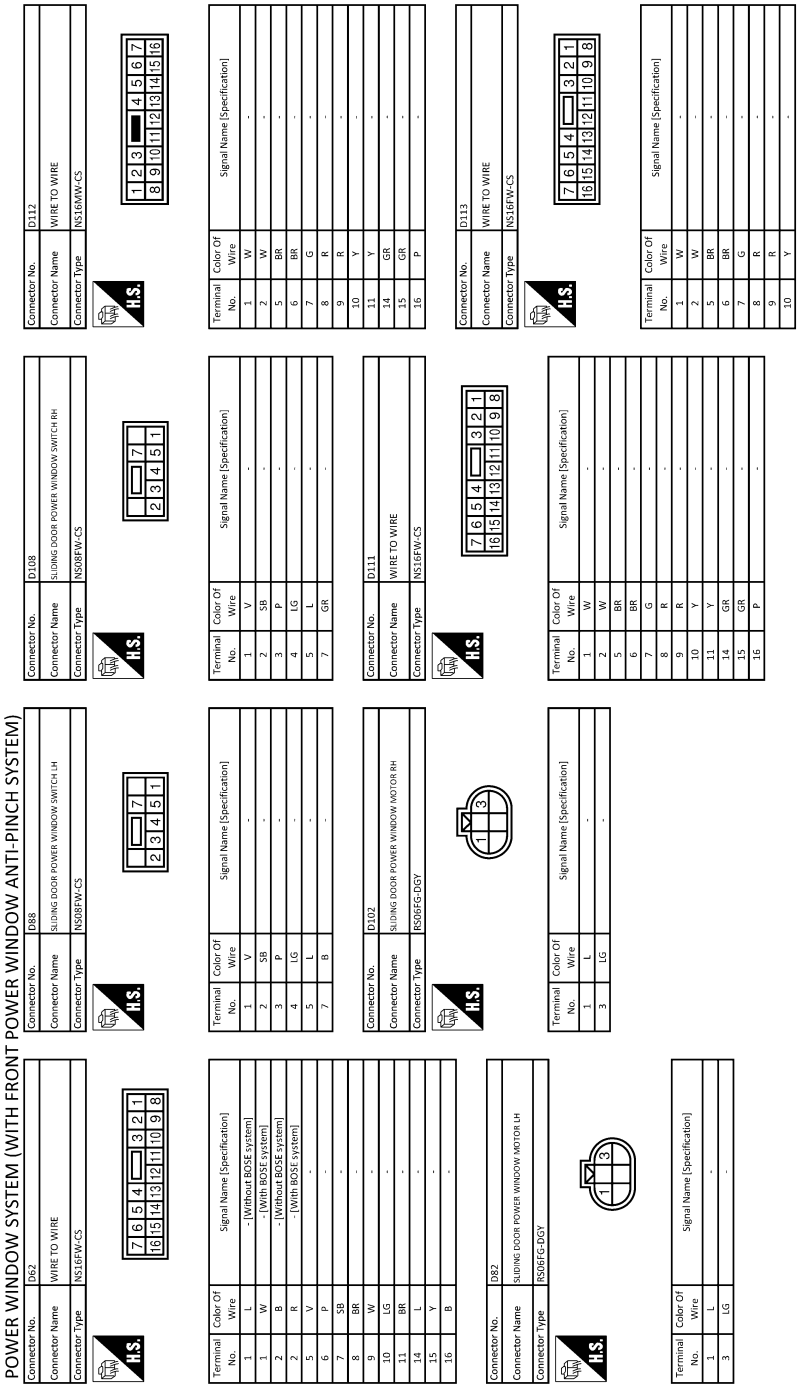

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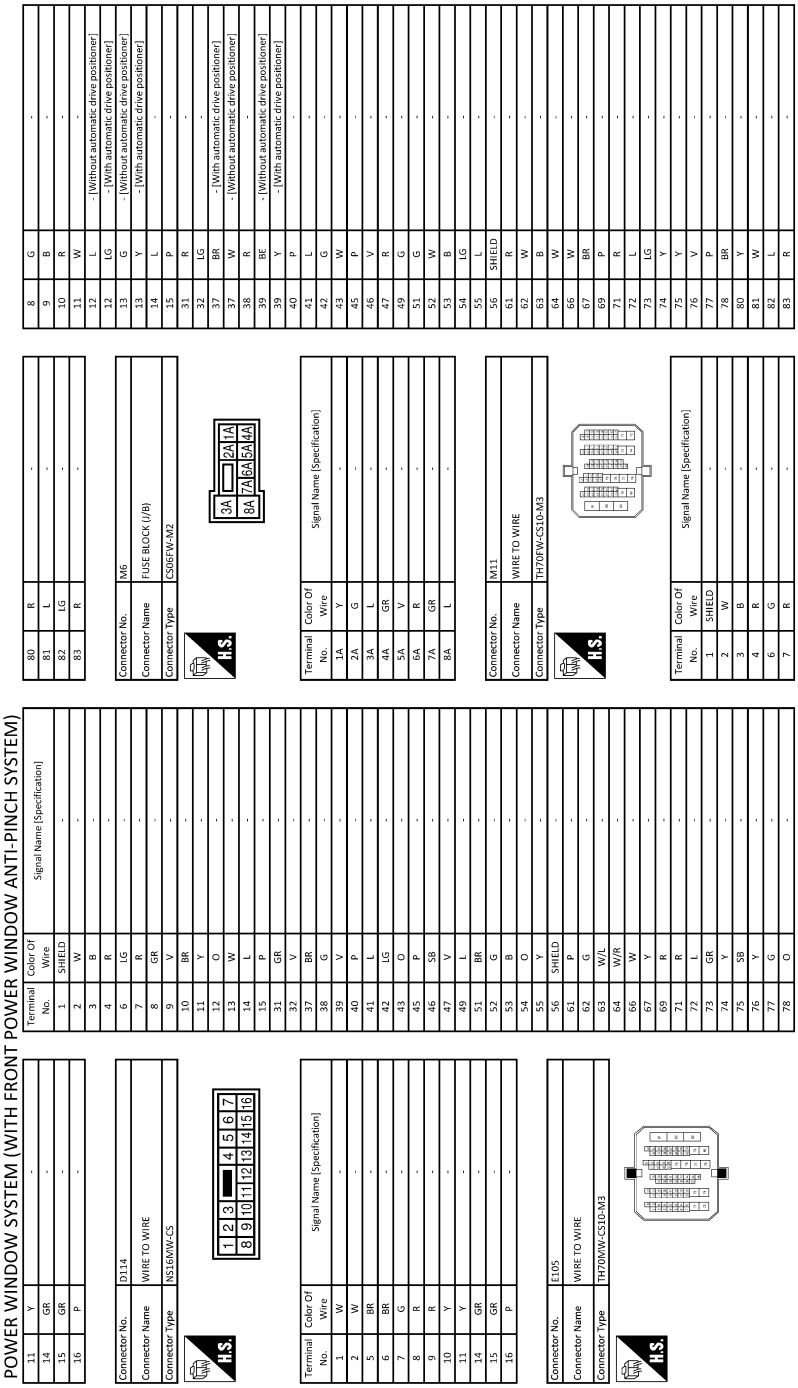
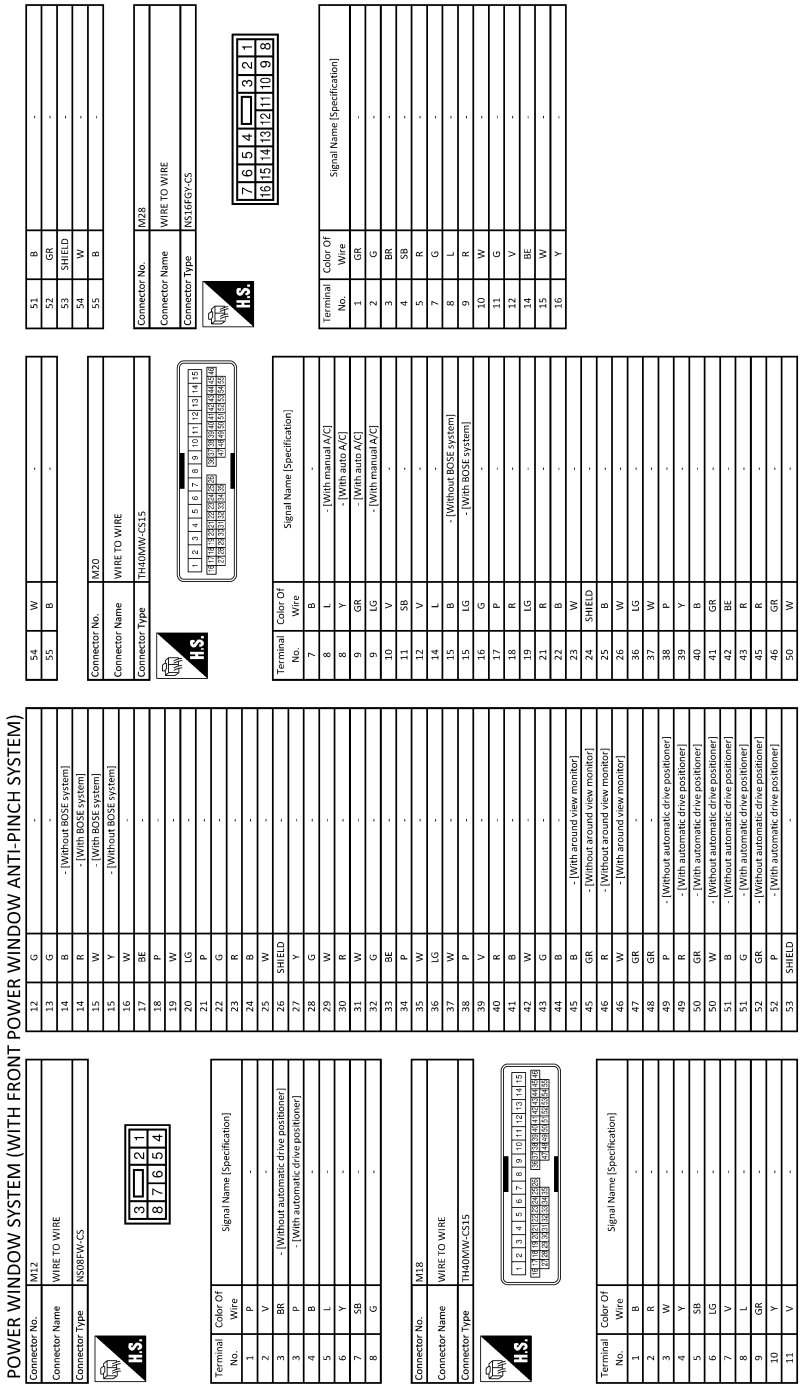


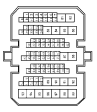
JRKWF5516GB



JRKWF5517GB

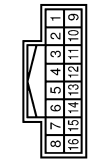
POWER WINDOW SYSTEM (WITH FRONT POWER WINDOW ANTI-PINCH SYSTEM)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19



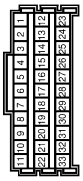
Terminal No.	Color Of Wire	Signal Name [Specification]
10	P	-
12	BE	-
13	W	-
15	R	-
29	W	-
30	P	-
31	BE	-
37	SHIELD	-
38	B	- [Without around view monitor]
38	W	- [With around view monitor]
39	B	- [With around view monitor]
39	W	- [Without around view monitor]
40	R	-
51	LG	-
52	B	-
53	BE	-
54	P	-
55	L	-
57	Y	-
58	L	-
59	BE	-
60	G	-
61	LG	-
62	SB	-
63	BE	-
64	R	-
65	G	-
66	SHIELD	-
67	B	-
68	W	-
69	SHIELD	-
70	B	-
71	W	-
72	G	-
74	GR	-
75	G	-
77	W	-
78	R	-
79	W	-
80	G	-
81	L	-
82	W	-
87	V	-
88	LG	-
89	GR	-
90	R	- [With automatic drive positioner]
90	Y	- [Without automatic drive positioner]
91	LG	-
92	BR	-

Connector No.	M79
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



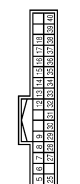
Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-
3	B	-
4	P	-
5	BR	-
9	L	-
10	P	-
11	W	-
12	R	-
13	BE	-
14	W	-
15	G	-
16	P	-

Connector No.	M106
Connector Name	JOINT CONNECTOR-M15
Connector Type	BJ30FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	L	-
5	L	-
6	L	-
8	GR	-
9	Y	-
10	Y	-
11	Y	-
12	R	-
14	R	-
15	R	-
17	Y	-
18	Y	-
19	Y	-
20	Y	-
21	G	- [Without automatic drive positioner]
21	Y	- [With automatic drive positioner]
22	G	- [Without automatic drive positioner]
22	Y	- [With automatic drive positioner]
23	GR	-
25	GR	-
26	V	-
27	V	-
28	V	-
29	SB	-
30	BE	-
31	SB	-
32	SB	-
33	BE	-

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH

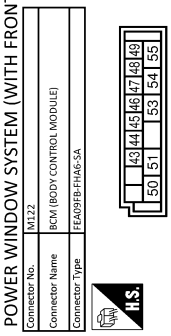


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	REAR WINDOW DEF RELAY CONT
2	R	COMBI SW INPUT 5
3	G	COMBI SW INPUT 4
4	BE	COMBI SW INPUT 3
5	G	COMBI SW INPUT 2
6	W	COMBI SW INPUT 1
7	W	KEY CYL UNLOCK SW
8	GR	PW SW COMM [With automatic slide door]
8	Y	KEY CYL LOCK SW [Without automatic slide door]
9	GR	STOP LAMP SW 1
12	GR	DOOR LK & UNLK SW LOCK
13	BR	DOOR LK & UNLK SW UNLOCK
14	L	OPTICAL SENS
15	W	REAR WINDOW DEF SW
16	Y	DIMMER
17	O	SENS PWR SPLY
18	R	RECEIV/SENS GND
21	GR	NATS ANT AMP.
23	W	SECURITY IND CONT
25	P	NATS ANT AMP.
27	O	A/C ON
28	BR	BLOWER FAN ON
29	P	HAZARD SW
30	L	BK DOOR OPNR SW
31	G	DR DOOR UNLK SENS
32	R	COMBI SW OUTPUT 5
33	W	COMBI SW OUTPUT 4
34	P	COMBI SW OUTPUT 3
35	GR	COMBI SW OUTPUT 2
36	R	COMBI SW OUTPUT 1
37	G	DETENT SW
38	BE	RECEIVER COMM
39	L	CAN-H
40	P	CAN-L

JRKWF5518GB

POWER WINDOW SYSTEM (WITH FRONT POWER WINDOW ANTI-PINCH SYSTEM)

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FB-FHA6-SA



Terminal No.	Color Of Wire	Signal Name [Specification]
43	P	Bk DOOR SW
44	GR	REAR WIPER STOP POSITION
45	W	PASS DOOR SW
46	R	SL DOOR RH SW
47	G	DR DOOR SW
48	BE	SL DOOR LH SW
49	B	LUGGAGE LAMP CONT
50	V	SELECT UNLK RELAY CONT
51	G	BACK DOOR REQ SW
53	BR	BK DOOR OPEN
54	R	REAR WIPER OUTPUT
55	G	SL DOOR LH UNLK CONT

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA

Terminal No.	Color Of Wire	Signal Name [Specification]
56	P	INT ROOM LAMP PWR SPLY
57	Y	BAT
58	O	AIR BAG
59	SB	PASS DOOR UNLK OUTPUT
60	V	TURN SIG LH OUTPUT
61	G	TURN SIG RH OUTPUT
62	W	STEP LAMP CONT
63	R	INT ROOM LAMP CONT
64	W	CRANK REQ
65	V	ALL DOOR LOCK OUTPUT
66	G	DR DOOR UNLK OUTPUT
67	B	GROUND
68	L	PW PWR SPLY (IGN)
69	P	PW PWR SPLY (BAT)
70	L	BAT

JRKWF5519GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000012409681

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

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

>> GO TO 3.

3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH “SYMPTOM DIAGNOSIS”

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

>> GO TO 4.

4.IDENTIFY MALFUNCTIONING PARTS WITH “DTC/CIRCUIT DIAGNOSIS”

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

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

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

Is the malfunctioning part repaired or replaced?

YES >> Trouble diagnosis is completed.
NO >> GO TO 3.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

Description

INFOID:0000000012409682

When the battery negative terminal is disconnected, the initialization is necessary for normal operation of power window system. Refer to PWC-34, "Work Procedure".

CAUTION:

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

- **Auto-up operation**
- **Anti-pinch function**

Work Procedure

INFOID:0000000012409683

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-36, "Description".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-37, "Description".

>> END

ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW SWITCH

Description

INFOID:0000000012409684

When the power window main switch or front power window switch (passenger side) replaced, the initialization in necessary for normal operation of power window system. Refer to PWC-35, "Work Procedure".

CAUTION:

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

- **Auto-up operation**
- **Anti-pinch function**

Work Procedure

INFOID:0000000012409685

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-36, "Description".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-37, "Description".

>> END

SYSTEM INITIALIZATION

Description

INFOID:0000000012409686

If any of the following operations are performed, the initialization is necessary for normal operation of power window system. Refer to PWC-36, "Work Procedure".

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

CAUTION:

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

- **Auto-up operation**
- **Anti-pinch function**

Work Procedure

INFOID:0000000012409687

1.STEP 1

1. Close the door.
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 2 seconds or more.
5. Check that AUTO-UP function operates normally.

>> GO TO 2.

2.STEP 2

Check anti-pinch function. Refer to PWC-37, "Description".

>> END

CHECK ANTI-PINCH FUNCTION

Description

INFOID:0000000012409688

If any of the following operations are performed, the initialization is necessary for normal operation of anti-pinch function. Refer to PWC-37, "Work Procedure".

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

Work Procedure

INFOID:0000000012409689

1.CHECK ANTI-PINCH FUNCTION

1. Close the door.
2. Fully open the door window.
3. Place a piece of wood near fully closed position.
4. Close door glass completely with AUTO-UP.
5. Check the following conditions.

- Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that glass does not rise not when operating the power window main switch or front power window switch (passenger side) while lowering.

CAUTION:

- **Perform initial setting when AUTO-UP operation or anti-pinch function does not operate normally.**
- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **Do not check with hands and other body parts because they may be pinched. Do not get pinched.**

>> END

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012409690

1.CHECK POWER SUPPLY

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

(+)		(–)	Condition		Voltage (V)
Power window main switch					
Connector	Terminal				
D5	10	Ground	Ignition switch	ON	9 – 16
D6	19			OFF	

Is the inspection result normal?

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

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M123	68	D5	10	Existed
	69	D6	19	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	68		Not existed
	69		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D6	17		Existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:0000000012409691

1.CHECK POWER SUPPLY

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

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

Is the inspection result normal?

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

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M123	69	D55	10	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	69		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D55	11		Existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace harness.

SLIDING DOOR POWER WINDOW SWITCH

SLIDING DOOR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012409692

1.CHECK POWER SUPPLY

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

(+)			(–)	Voltage (V)
Sliding door power window switch				
Connector		Terminal		
LH	D88	1	Ground	9 – 16
RH	D108			

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Sliding door power window switch			Continuity
Connector	Terminal	Connector		Terminal	
M123	68	LH	D88	1	Existed
		RH	D108		

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	68		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".
NO >> Repair or replace harness.

SLIDING DOOR POWER WINDOW SWITCH

Component Function Check

INFOID:0000000012409693

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-41, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012409694

1. CHECK SLIDING DOOR POWER WINDOW SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW SWITCH CIRCUIT

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

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

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

Sliding door power window switch			Ground	Continuity
Connector		Terminal		
LH	D88	2	Ground	Not existed
		3		
RH	D108	2		
		3		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".
NO >> Repair or replace harness.

3. CHECK SLIDING DOOR POWER WINDOW SWITCH

Check sliding door power window switch.
Refer to PWC-42, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> Replace sliding door power window switch. Refer to PWC-71, "Removal and Installation".

Component Inspection

INFOID:0000000012409695

1. CHECK SLIDING DOOR POWER WINDOW SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace sliding door power window switch. Refer to PWC-71, "Removal and Installation".

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000012409696

1. CHECK FUNCTION

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

Is the inspection result normal?

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

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012409697

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

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

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

Is the inspection result normal?

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

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

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

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

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

Front power window motor (driver side)		Ground	Continuity
Connector	Terminal		
D7	1		Not existed
	2		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012409698

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-44, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012409699

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

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

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

Is the inspection result normal?

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

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

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

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

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

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

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-70, "Removal and Installation".
NO >> Repair or replace harness.

SLIDING DOOR LH

SLIDING DOOR LH : Component Function Check

INFOID:0000000012409700

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-45, "SLIDING DOOR LH : Diagnosis Procedure".

SLIDING DOOR LH : Diagnosis Procedure

INFOID:0000000012409701

1.CHECK SLIDING DOOR POWER WINDOW MOTOR LH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Replace sliding door power window motor LH.
NO >> GO TO 2.

2.CHECK SLIDING DOOR POWER WINDOW MOTOR LH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace sliding door power window switch LH. Refer to PWC-71, "Removal and Installation".
NO >> Repair or replace harness.

SLIDING DOOR RH

SLIDING DOOR RH : Component Function Check

INFOID:0000000012409702

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-46, "SLIDING DOOR RH : Diagnosis Procedure".

SLIDING DOOR RH : Diagnosis Procedure

INFOID:0000000012409703

1. CHECK SLIDING DOOR POWER WINDOW MOTOR RH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Replace sliding door power window motor RH.
NO >> GO TO 2.

2. CHECK SLIDING DOOR POWER WINDOW MOTOR RH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace sliding door power window switch RH. Refer to PWC-71, "Removal and Installation".
NO >> Repair or replace harness.

ENCODER CIRCUIT
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000012409704

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-47, "DRIVER SIDE : Diagnosis Procedure".

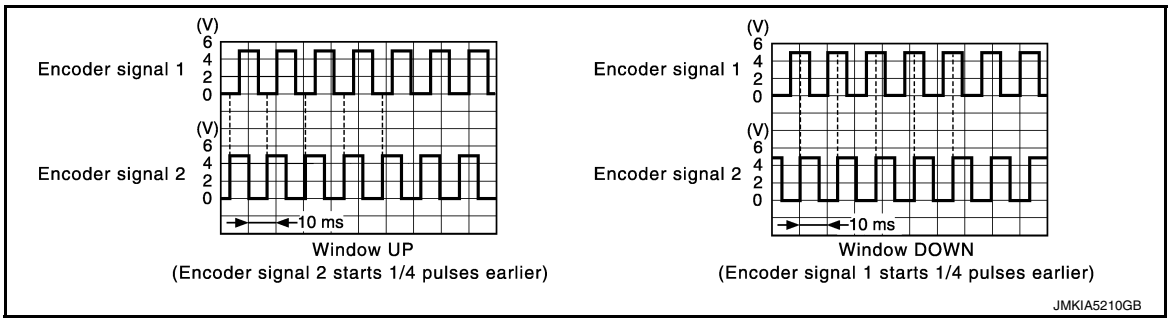
DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012409705

1.CHECK ENCODER PULSE SIGNAL

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

(+)		(-)	Signal (Reference value)
Power window main switch			
Connector	Terminal		
D5	9	Ground	Refer to the following signal
	13		



Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".
NO >> GO TO 2.

2.CHECK ENCODER SIGNAL CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4.CHECK ENCODER POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK ENCODER GROUND CIRCUIT 1

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

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

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6.CHECK ENCODER GROUND CIRCUIT 2

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	2		Existed

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-29, "Removal and Installation".
NO >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012409706

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-49, "PASSENGER SIDE : Diagnosis Procedure".

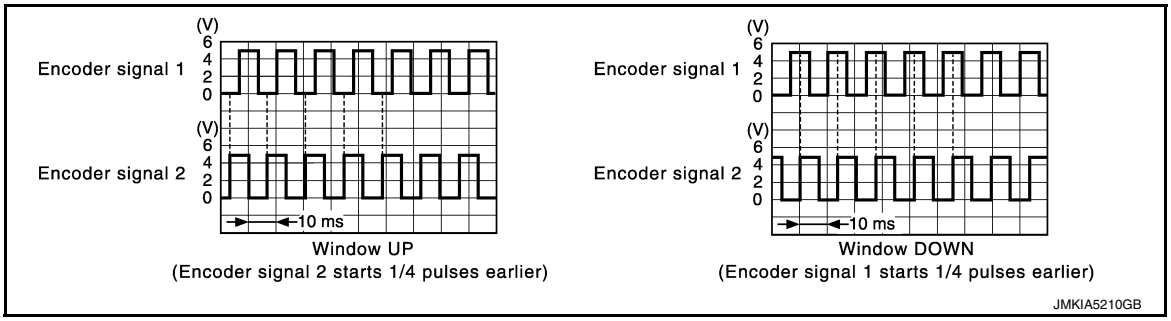
PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012409707

1.CHECK ENCODER PULSE SIGNAL

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

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



Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-70, "Removal and Installation".
NO >> GO TO 2.

2.CHECK ENCODER SIGNAL CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK ENCODER POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK ENCODER POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-70, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK ENCODER GROUND CIRCUIT 1

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

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

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK ENCODER GROUND CIRCUIT 2

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

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

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to GW-29, "Removal and Installation".
NO >> Replace front power window switch (passenger side). Refer to PWC-70, "Removal and Installation".

DOOR KEY CYLINDER SWITCH

Component Function Check

INFOID:0000000012409708

1.CHECK FUNCTION

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

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

Is the inspection result normal?

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

Diagnosis Procedure

INFOID:0000000012409709

1.CHECK DOOR KEY CYLINDER SWITCH SIGNAL

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

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

Is the inspection result normal?

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

2.CHECK DOOR KEY CYLINDER SWITCH CIRCUIT

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

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

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	4		Not existed
	6		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly (driver side) (key cylinder switch).
Refer to PWC-53, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> Replace front door lock assembly (driver side) (key cylinder switch).

Component Inspection

INFOID:0000000012409710

COMPONENT INSPECTION

1.CHECK DOOR KEY CYLINDER SWITCH

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

Front door lock assembly (driver side) (key cylinder switch)		Key position	Continuity
Terminal			
5	4	Unlock	Existed
		Neutral / Lock	Not existed
6		Lock	Existed
		Neutral / Unlock	Not existed

Is the inspection result normal?

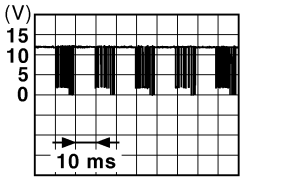
YES >> INSPECTION END
NO >> Replace front door lock assembly (driver side) (key cylinder switch).

POWER WINDOW SERIAL LINK
POWER WINDOW MAIN SWITCH
POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012409711

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

(+)		(–)	Signal (Reference value)
Power window main switch			
Connector	Terminal		
D5	14	Ground	

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Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".
NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

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

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M121	8		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".

NO >> Repair or replace harness.

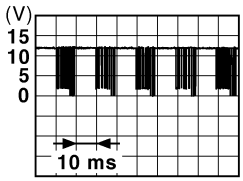
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:0000000012409712

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

(+)		(–)	Signal (Reference value)
Front power window switch (passenger side)			
Connector	Terminal		
D55	16	Ground	

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Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-70, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-70, "Removal and Installation".

NO >> Repair or replace harness.

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

INFOID:0000000012409713

1.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to BCS-92, "Diagnosis Procedure".

Is the inspection result normal?

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

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

Check power window main switch power supply and ground circuit.
Refer to PWC-38, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

3.CHECK POWER WINDOW MAIN SWITCH SERIAL LINK CIRCUIT

Check power window main switch serial link circuit.
Refer to PWC-54, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012409714

1.CHECK DRIVER SIDE POWER WINDOW MOTOR

Check front power window motor (driver side).
Refer to PWC-43, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

2.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-70, "Removal and Installation".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

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

INFOID:0000000012409715

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

Check front power window switch (passenger side) power supply and ground circuit.
Refer to PWC-39, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).
Refer to PWC-44, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

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

INFOID:0000000012409716

1.REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).
Refer to PWC-70, "Removal and Installation"

>> INSPECTION END

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012409717

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

Check front power window switch (passenger side) serial link circuit.
Refer to PWC-55, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE

WHEN POWER WINDOW MAIN AND SLIDING DOOR LH POWER WINDOW SWITCHES ARE OPERATED

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

INFOID:0000000012409718

1. CHECK SLIDING DOOR POWER WINDOW SWITCH LH

Check sliding door power window switch LH.
Refer to PWC-41, "Component Function Check".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW MOTOR LH

Check sliding door power window motor LH.
Refer to PWC-45, "SLIDING DOOR LH : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN SLIDING DOOR LH POWER WINDOW SWITCH IS OPERATED

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

INFOID:0000000012409719

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

Check sliding door power window switch LH power supply and ground circuit.
Refer to PWC-39, "SLIDING DOOR POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW SWITCH LH

Check sliding door power window switch LH.
Refer to PWC-41, "Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012409720

1.CHECK SLIDING DOOR POWER WINDOW SWITCH LH

Check sliding door power window switch LH.
Refer to PWC-41, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE

WHEN POWER WINDOW MAIN AND SLIDING DOOR RH POWER WINDOW SWITCHES ARE OPERATED

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

INFOID:0000000012409721

1. CHECK SLIDING DOOR POWER WINDOW SWITCH RH

Check sliding door power window switch RH.
Refer to PWC-41, "Component Function Check".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW MOTOR RH

Check sliding door power window motor RH.
Refer to PWC-45, "SLIDING DOOR RH : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN SLIDING DOOR RH POWER WINDOW SWITCH IS OPERATED

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

INFOID:0000000012409722

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

Check sliding door power window switch RH power supply and ground circuit.
Refer to PWC-39, "SLIDING DOOR POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW SWITCH RH

Check sliding door power window switch RH.
Refer to PWC-41, "Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012409723

1.CHECK SLIDING DOOR POWER WINDOW SWITCH RH

Check sliding door power window switch RH.
Refer to PWC-41, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012409724

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-36, "Description".

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2. CHECK ENCODER CIRCUIT (DRIVER SIDE)

Check encoder circuit (driver side). Refer to PWC-47, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012409725

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-36, "Description".

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2. CHECK ENCODER CIRCUIT (PASSENGER SIDE)

Check encoder circuit (passenger side). Refer to PWC-49, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

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

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012409726

1.CHECK POWER WINDOW AUTO OPERATION

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-63, "DRIVER SIDE : Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012409727

1.CHECK POWER WINDOW AUTO OPERATION

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-63, "PASSENGER SIDE : Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Diagnosis Procedure

INFOID:0000000012409728

1.CHECK FRONT DOOR SWITCH

Check front door switch.
Refer to DLK-247, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Diagnosis Procedure

INFOID:0000000012409729

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-36, "Description".

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

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

Check driver side door lock assembly (door key cylinder switch).
Refer to PWC-52, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012409730

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent key button?

YES >> GO TO 2.
NO >> Refer to DLK-44, "REMOTE KEYLESS ENTRY FUNCTION : System Description".

2.CHECK POWER WINDOW OPERATION

Check power window operation.

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

YES >> GO TO 3.
NO >> Refer to PWC-56, "Diagnosis Procedure".

3.CHECK “PW DOWN SET” SETTING IN “WORK SUPPORT”

Check “PW DOWN SET” setting in “WORK SUPPORT”.
Refer to DLK-95, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Set “PW DOWN SET” setting in “WORK SUPPORT”.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000012409731

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-70, "Removal and Installation".

>> INSPECTION END

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012409732

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.
Refer to PWC-70, "Removal and Installation".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012409733

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).
Refer to PWC-70, "Removal and Installation".

>> INSPECTION END

SLIDING DOOR LH

SLIDING DOOR LH : Diagnosis Procedure

INFOID:0000000012409734

1. REPLACE SLIDING DOOR POWER WINDOW SWITCH LH

Replace sliding door power window switch LH.
Refer to PWC-71, "Removal and Installation".

>> INSPECTION END

SLIDING DOOR RH

SLIDING DOOR RH : Diagnosis Procedure

INFOID:0000000012409735

1. REPLACE SLIDING DOOR POWER WINDOW SWITCH RH

Replace sliding door power window switch RH.
Refer to PWC-71, "Removal and Installation".

>> INSPECTION END

REMOVAL AND INSTALLATION

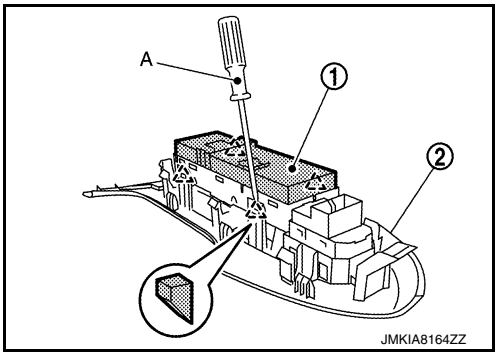
POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:0000000012409736

REMOVAL

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



: Pawl

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

INSTALLATION

Note the following, and then install in the reverse order of removal.

NOTE:
If power window main switch or front power window (passenger side) is replaced or is removed, it is necessary to perform the initialization procedure.
Refer to PWC-36, "Description".

SLIDING DOOR POWER WINDOW SWITCH

Removal and Installation

INFOID:0000000012409737

REMOVAL

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

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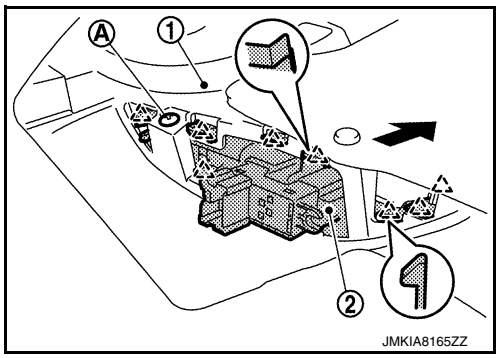

3. Remove power window switch (1) from power window switch finisher (2) using a remover tool (A).

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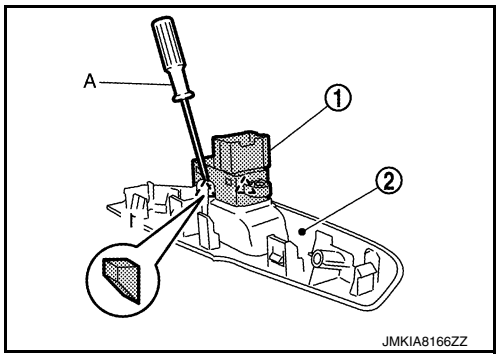


INSTALLATION

Install in the reverse order of removal.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000013055096

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

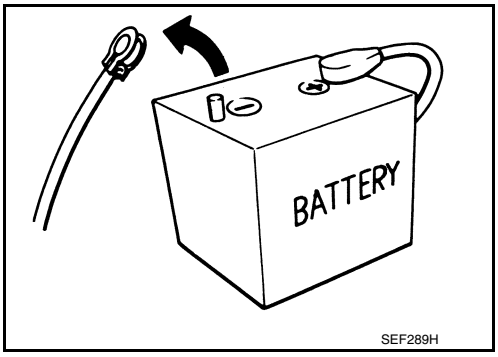
Precautions for Removing Battery Terminal

INFOID:0000000013055088

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

D4D engine	: 20 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		
V9X engine	: 4 minutes		
YD25DDTi	: 2 minutes		



NOTE:

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

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
  - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
  - Driving for 30 minutes or more on a steep slope.

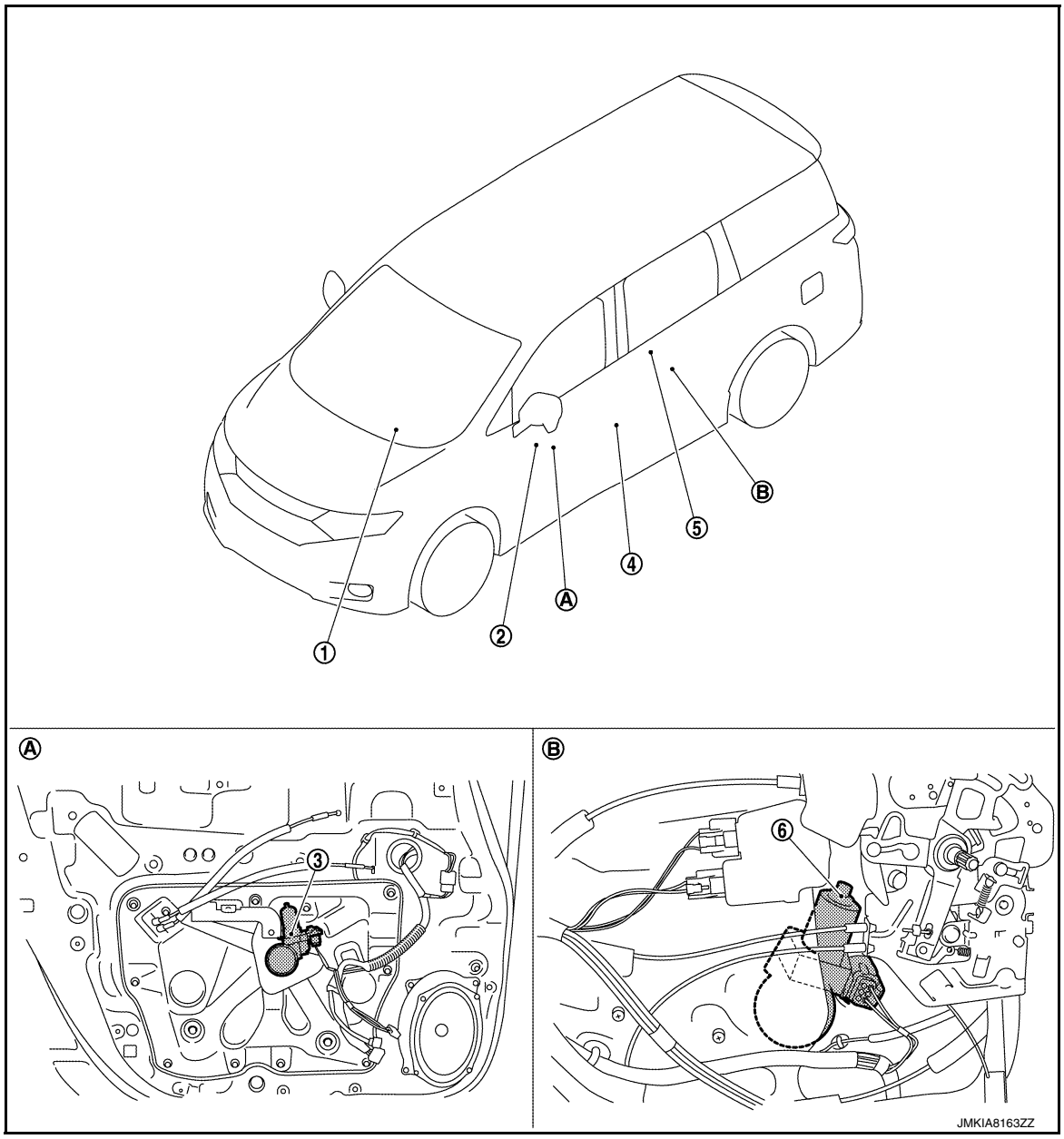
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
  NOTE:
  If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.
- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
  NOTE:
  The removal of 12V battery may cause a DTC detection error.

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012409740



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

No.	Component parts	Description
1.	BCM	• Supplies power supply to power window switch. • Controls retained power. Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
2.	Power window main switch	Refer to PWC-75, "Power Window Main Switch".
3.	Front power window motor (driver side)	Refer to PWC-75, "Front Power Window Motor (Driver Side)".
4.	Front door switch (driver side)	Detects door open/close condition and transmits to BCM. Refer to DLK-28, "Front Door Switch".

No.	Component parts	Description
5.	Sliding door power window switch LH	Refer to PWC-75, "Sliding Door Power Window Switch".
6.	Sliding door power window motor LH	Refer to PWC-75, "Sliding Door Power Window Motor".

Power Window Main Switch

INFOID:0000000012409741

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

Front Power Window Motor (Driver Side)

INFOID:0000000012409742

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

Sliding Door Power Window Switch

INFOID:0000000012409743

Controls power window motor of sliding door.

Sliding Door Power Window Motor

INFOID:0000000012409744

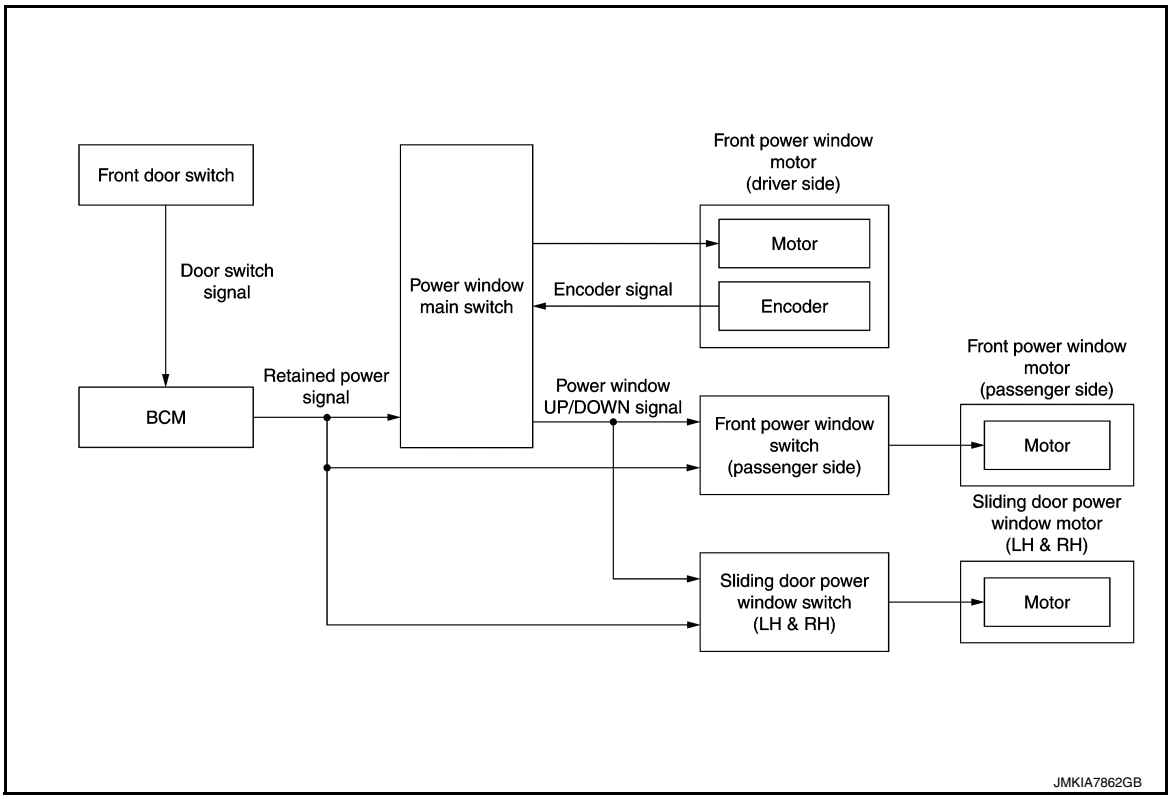
Operates with signals from power window main switch and sliding door power window switch.

SYSTEM

System Description

INFOID:0000000012409745

SYSTEM DIAGRAM



DESCRIPTION

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

Power Window AUTO-Operation

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

Retained Power Operation

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

Retained Power Cancel Conditions

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

Power Window Lock Function

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

Anti-Pinch System

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

Operation Condition

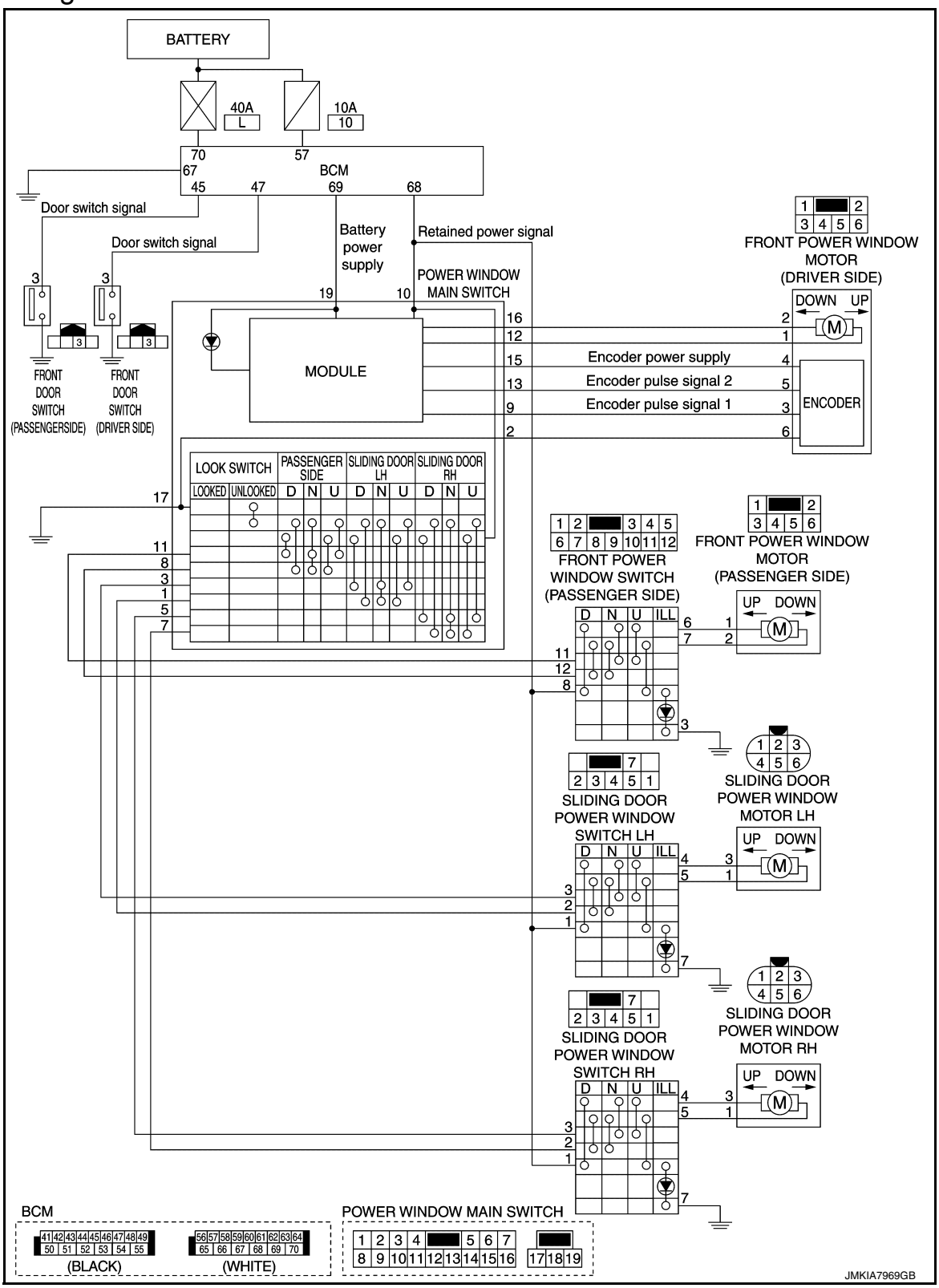
When front door glass (driver side) AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed).

NOTE:

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

Circuit Diagram

INFOID:0000000012409746



Fail-safe

INFOID:0000000012409747

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.

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.
- Auto-up operation
- Anti-pinch function

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

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012409748

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

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

NOTE:

*: For models with automatic air conditioning control system, this diagnosis mode is not used.

FREEZE FRAME DATA (FFD)

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (LOCK)]
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode [Power supply position is OFF (OFF)]
	LOCK>ACC		While turning power supply position from OFF (LOCK) to ACC
	ACC>ON		While turning power supply position from ACC to ON
	RUN>ACC		While turning power supply position from RUN to ACC (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from CRANK to RUN
	RUN>URGENT		While turning power supply position from RUN to ACC (Emergency stop operation)
	ACC>OFF		While turning power supply position from ACC to OFF (OFF)
	OFF>LOCK		While turning power supply position from OFF (OFF) to OFF (LOCK)
	OFF>ACC		While turning power supply position from OFF (OFF) to ACC
	ON>CRANK		While turning power supply position from ON to CRANK
	OFF>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (OFF)] to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode [Power supply position is OFF (LOCK)] to low power consumption mode
	LOCK		Power supply position is OFF (LOCK)
	OFF		Power supply position is OFF (OFF)
	ACC		Power supply position is ACC
	ON		Power supply position is ON
	ENGINE RUN		Power supply position is RUN
	CRANKING		Power supply position is CRANK
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:

*: Refer to the following for details of the power supply position.

- OFF (OFF, LOCK): Ignition switch OFF
- ACC: Ignition switch ACC
- IGN: Ignition switch ON with engine stopped
- RUN: Ignition switch ON with engine running
- CRANK: At engine cranking

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

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

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

RETAIND PWR

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

Anti-pinch)

INFOID:0000000012409749

DATA MONITOR

NOTE:

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

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

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000012409750

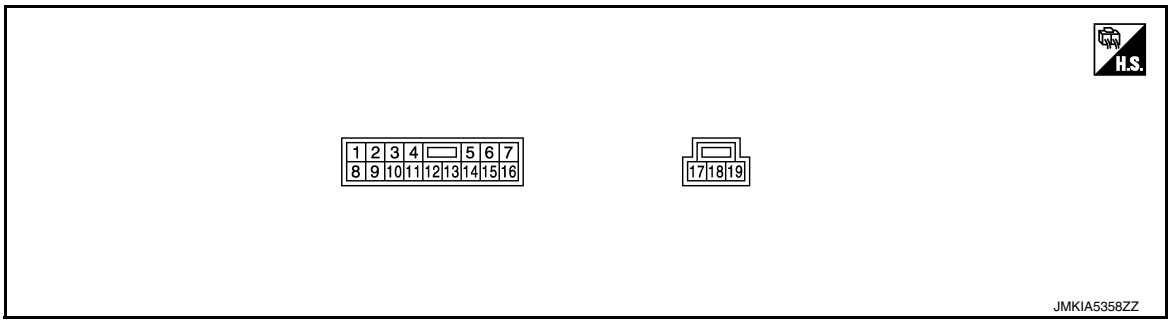
ECU	Reference
BCM	BCS-41, "Reference Value"
	BCS-63, "Fail-safe"
	BCS-63, "DTC Inspection Priority Chart"
	BCS-64, "DTC Index"

POWER WINDOW MAIN SWITCH

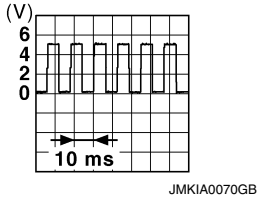
Reference Value

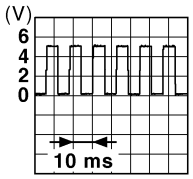
INFOID:0000000012409751

TERMINAL LAYOUT



PHYSICAL VALUES

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

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

Fail-safe

INFOID:0000000012409752

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.

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.
- Auto-up operation
- Anti-pinch function

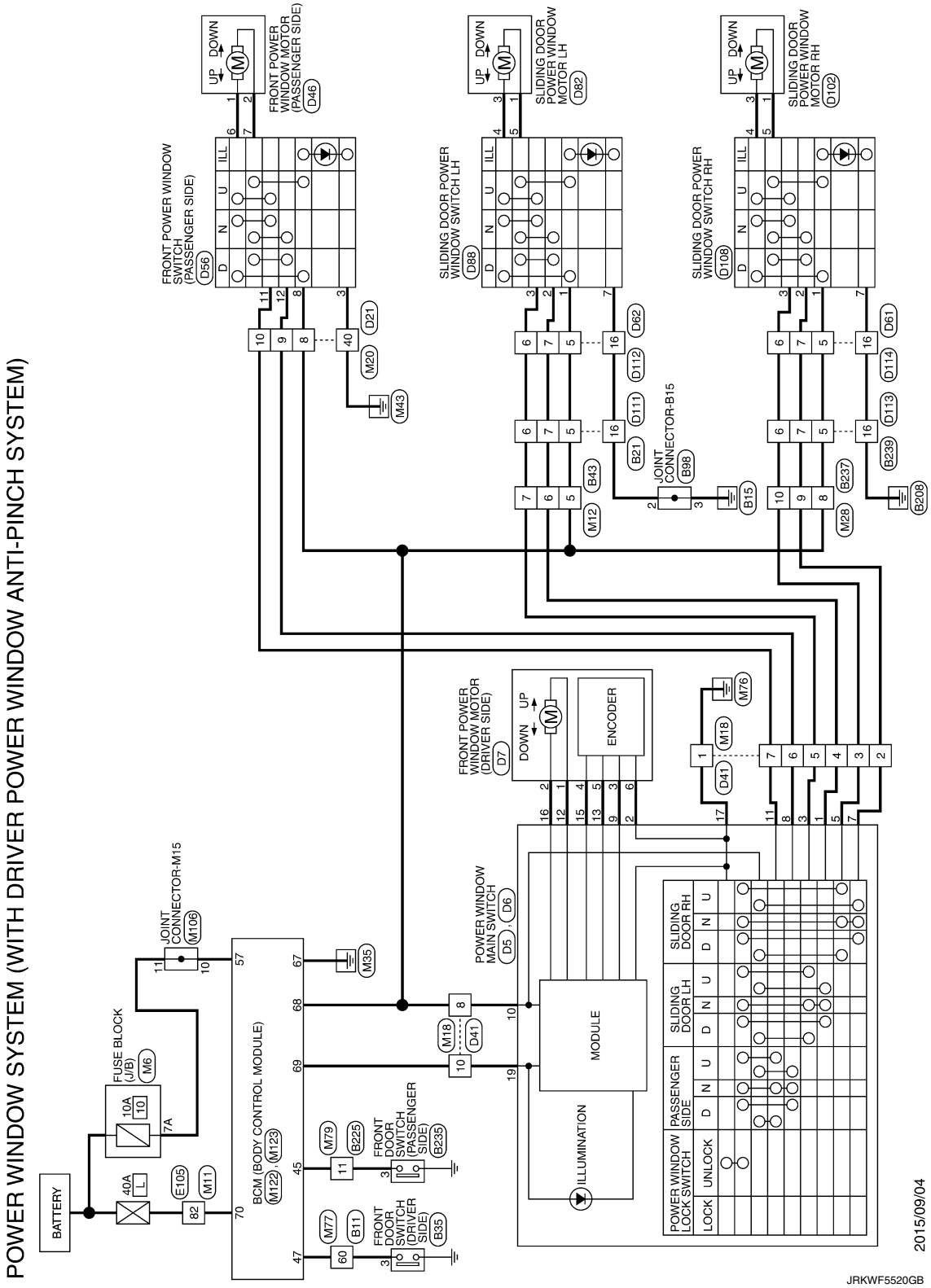
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window main switch or front power window motor (driver side).

WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram

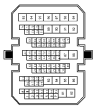
INFOID:0000000012409753



POWER WINDOW SYSTEM (WITH DRIVER POWER WINDOW ANTI-PINCH SYSTEM)

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS19

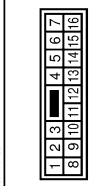
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
10	GR	-
12	G	-
13	P	-
15	L	-
29	GR	-
30	W	-
31	P	-
37	SHIELD	-
38	R	-
39	B	-
40	W	-
51	Y	-
52	B	-
53	G	-
54	P	-
55	L	-
57	Y	-
58	L	-
59	GR	-
60	Y	-
61	Y	-
62	BR	-
63	L	-
64	W	-
65	R	-
66	SHIELD	-
67	B	-
68	W	-
69	SHIELD	-
70	W/R	-
71	B/R	-
72	BR	-
74	L	-
75	SB	-
77	V	-
78	LG	-
79	GR	-
80	BR	-
81	SB	-
82	V	-
87	G	-
88	V	-
89	G	-
90	Y	-
91	LG	-
92	L	-

Connector No.	B21
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	- [Without BOSE system]
1	W	- [With BOSE system]
2	R	- [With BOSE system]
2	Y	- [Without BOSE system]
5	Y	-
6	BR	-
7	LG	-
8	L	-
9	SB	-
10	Y	-
11	G	-
14	SB	-
15	V	-
16	B	-

Connector No.	B35
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	TH04FW-NH

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
3	Y	-

Connector No.	B43
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	SB	-
3	LG	-
4	B	-
5	Y	-
6	LG	-
7	BR	-
8	V	-

Connector No.	B98
Connector Name	JOINT CONNECTOR-B15
Connector Type	TK04FW-J

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	B	-
3	B	-
4	B	-

Connector No.	B225
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
3	B	-
4	P	-
5	G	-
9	L	-
10	P	-
11	SB	-
12	GR	-
13	R	-
14	G	-
15	L	-
16	Y	-

JRKWF5521GB

POWER WINDOW SYSTEM (WITH DRIVER POWER WINDOW ANTI-PINCH SYSTEM)

Connector No.	B235
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	TH04FW-NH

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	-

Connector No.	B237
Connector Name	WIRE TO WIRE
Connector Type	NS16MGY-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	G	-
4	GR	-
5	LG	- [With manual A/C]
5	P	- [With auto A/C]
7	G	-
8	Y	-
9	SB	-
10	O	-
11	LG	-
12	P	-
14	R	-
15	W	-
16	G	-

Connector No.	B239
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	- [Without BOSE system]
1	W	- [With BOSE system]
2	B	- [With BOSE system]
2	Y	- [Without BOSE system]
5	Y	-
6	O	-
7	SB	-
8	R	-
9	G	-
10	O	-
11	L	-
14	P	-
15	LG	-
16	GR	-

Connector No.	D5
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	SLIDING DOOR POWER WINDOW MOTOR LH UP SIGNAL
2	P	ENCORDER GROUND
3	BR	SLIDING DOOR POWER WINDOW MOTOR LH DOWN SIGNAL
4	G	DOOR KEY CYLINDER SWITCH LOCK SIGNAL
5	SB	SLIDING DOOR POWER WINDOW MOTOR RH DOWN SIGNAL
6	GR	DOOR KEY CYLINDER SWITCH UNLOCK SIGNAL

7	V	SLIDING DOOR POWER WINDOW MOTOR RH UP SIGNAL
8	L	FRONT POWER WINDOW MOTOR [DRIVER SIDE] UP SIGNAL
9	W	ENCORDER SIGNAL 2
10	GR	RETAINED POWER SIGNAL
11	Y	FRONT POWER WINDOW MOTOR [DRIVER SIDE] DOWN SIGNAL
12	LG	-
13	GR	ENCORDER SIGNAL 1
14	R	POWER WINDOW SERIAL LINK
15	G	ENCORDER POWER SUPPLY
16	L	-

Connector No.	D6
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS03FW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
17	B	GROUND
18	G	-
19	Y	BATTERY POWER SUPPLY

Connector No.	D7
Connector Name	FRONT POWER WINDOW MOTOR (DRIVER SIDE)
Connector Type	NS06FW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With manual A/C]
1	Y	- [With auto A/C]
2	L	-
3	W	-
4	G	-

5	GR	-
6	P	-

Connector No.	D21
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
7	B	-
8	V	-
9	BR	- [With manual A/C]
9	W	- [With auto A/C]
10	LG	-
11	LG	-
12	BR	-
14	B	- [Without BOSE system]
14	R	- [With BOSE system]
15	L	- [Without BOSE system]
15	W	- [With BOSE system]
16	P	-
17	GR	-
18	R	-
19	W	-
21	R	-
22	B	-
23	W	-
24	SHIELD	-
25	Y	-
26	L	-
36	P	-
37	G	-
38	W	-
39	LG	-
40	B	-
41	GR	-
42	G	-
43	R	-
45	G	-
46	GR	-
50	W	-

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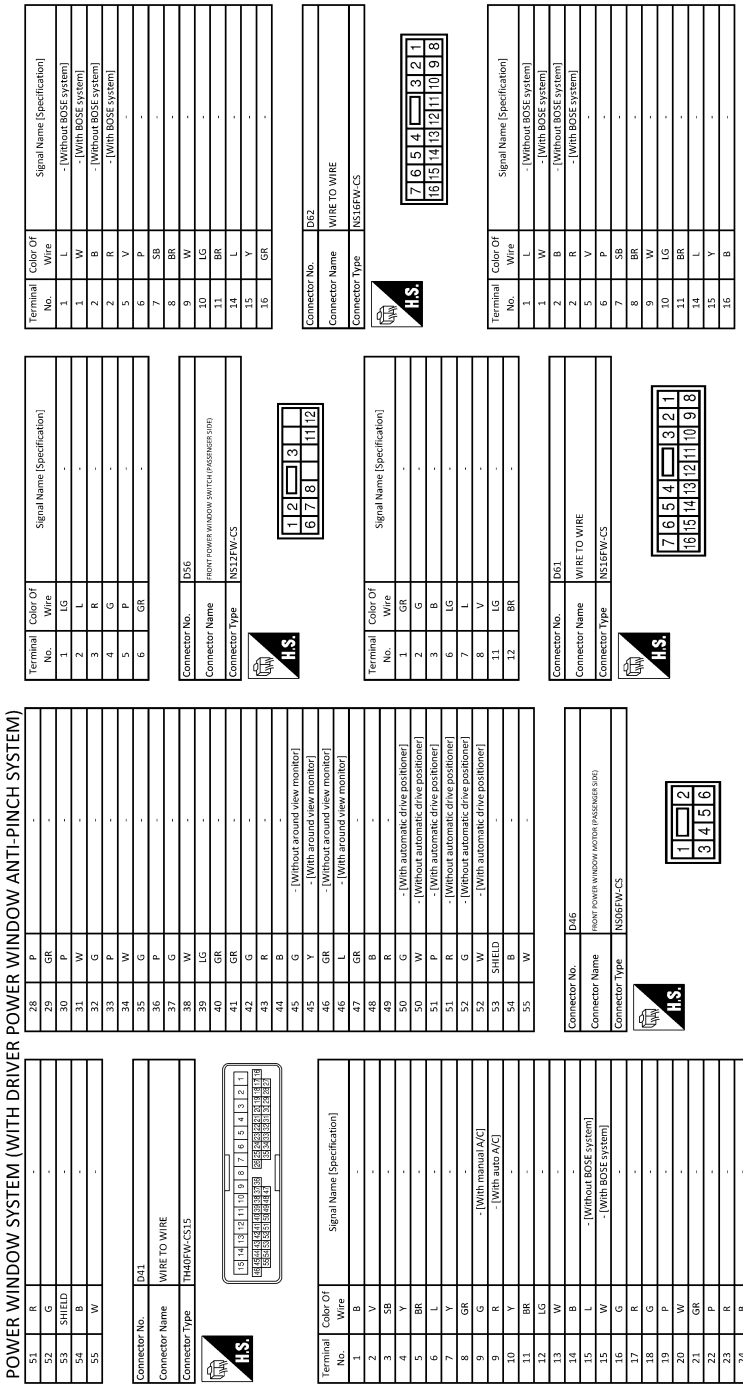

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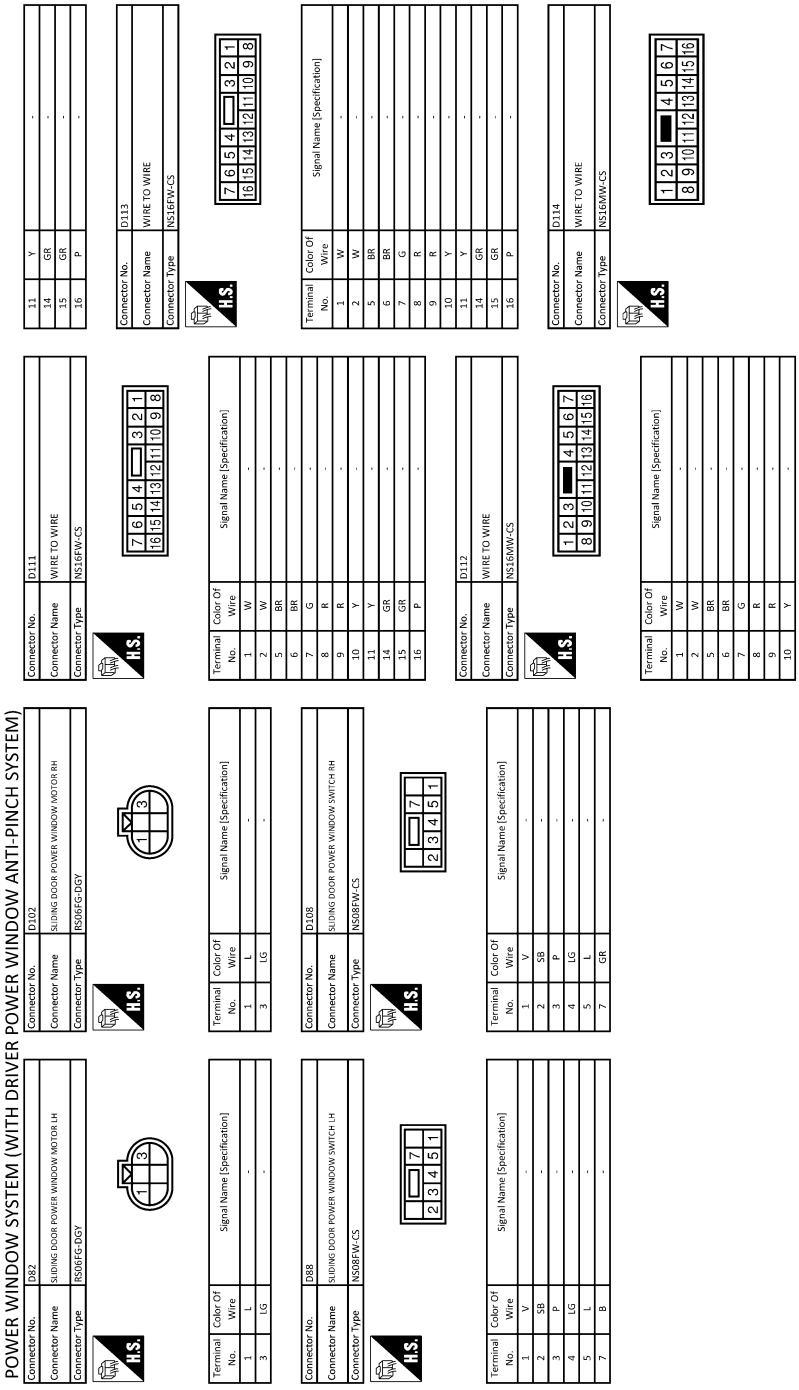

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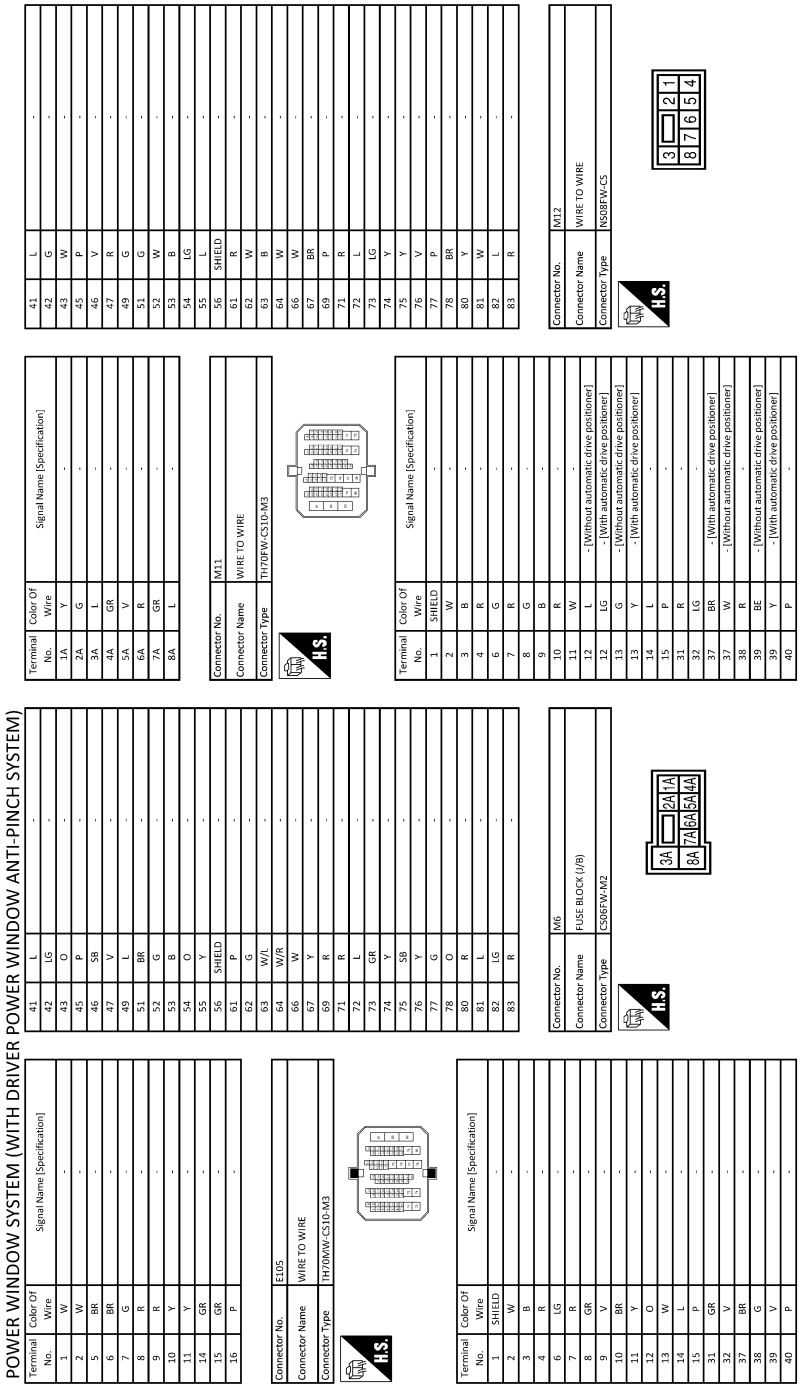


JRKWF5525GB

POWER WINDOW SYSTEM (WITH DRIVER POWER WINDOW ANTI-PINCH SYSTEM)

Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-
3	BR	- [Without automatic drive positioner]
4	P	- [With automatic drive positioner]
5	B	-
6	L	-
7	Y	-
8	SB	-
8	G	-

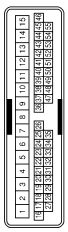
Connector No.	M18
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	R	-
3	W	-
4	Y	-
5	SB	-
6	LG	-
7	V	-
8	L	-
9	GR	-
10	Y	-
11	V	-
12	G	-
13	G	-
14	B	- [Without BOSE system]
14	R	- [With BOSE system]
15	W	- [With BOSE system]
15	Y	- [Without BOSE system]
16	W	-
17	BE	-
18	P	-
19	W	-
20	LG	-
21	P	-
22	G	-
23	R	-
24	B	-
25	W	-
26	SHIELD	-
27	Y	-
28	G	-
29	W	-
30	R	-
31	W	-
32	G	-
33	BE	-
34	P	-
35	W	-
36	LG	-
37	W	-
38	P	-
39	V	-
40	R	-
41	B	-
42	W	-
43	G	-
44	B	-
45	B	- [With around view monitor]
45	GR	- [Without around view monitor]
46	R	- [Without around view monitor]
46	W	- [With around view monitor]
47	GR	-
48	GR	-
49	P	- [Without automatic drive positioner]
49	R	- [With automatic drive positioner]
50	GR	- [With automatic drive positioner]
50	W	- [Without automatic drive positioner]
51	B	- [Without automatic drive positioner]
51	G	- [With automatic drive positioner]
52	GR	- [Without automatic drive positioner]
52	P	- [With automatic drive positioner]
53	SHIELD	-
54	W	-
55	B	-

Connector No.	M20
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
7	B	-
8	L	- [With manual A/C]
8	Y	- [With auto A/C]
9	GR	- [With auto A/C]
9	LG	- [With manual A/C]
10	V	-
11	SB	-
12	V	-
14	L	-
15	B	- [Without BOSE system]
15	LG	- [With BOSE system]
16	G	-
17	P	-
18	R	-
19	LG	-
21	R	-
22	B	-
23	W	-
24	SHIELD	-
25	B	-
26	W	-
36	LG	-
37	W	-
38	P	-
39	Y	-
40	B	-
41	GR	-
42	BE	-
43	R	-
45	R	-
46	GR	-
50	W	-
51	B	-
52	GR	-
53	SHIELD	-
54	W	-

55	B	-

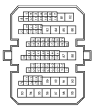
Connector No.	M28
Connector Name	WIRE TO WIRE
Connector Type	NS16FGY-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	G	-
3	BR	-
4	SB	-
5	R	-
7	G	-
8	L	-
9	R	-
10	W	-
11	G	-
12	V	-
14	BE	-
15	W	-
16	Y	-

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS19

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
10	P	-
12	BE	-
13	W	-

JRKWF5526GB

POWER WINDOW SYSTEM (WITH DRIVER POWER WINDOW ANTI-PINCH SYSTEM)

15	R	-
29	W	-
30	P	-
31	BE	-
37	SHIELD	-
38	B	- [Without around view monitor]
38	W	- [With around view monitor]
39	B	- [With around view monitor]
39	W	- [Without around view monitor]
40	R	-
51	LG	-
52	B	-
53	BE	-
54	P	-
55	L	-
57	Y	-
58	L	-
59	BE	-
60	G	-
61	LG	-
62	SB	-
63	BE	-
64	R	-
65	G	-
66	SHIELD	-
67	B	-
68	W	-
69	SHIELD	-
70	B	-
71	W	-
72	G	-
74	GR	-
75	G	-
77	W	-
78	R	-
79	W	-
80	G	-
81	L	-
82	V	-
87	V	-
88	LG	-
89	GR	-
90	R	- [With automatic drive positioner]
90	Y	- [Without automatic drive positioner]
91	LG	-
92	BR	-

Connector No.	M79
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NHH

H.S.

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

Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-
3	B	-
4	P	-
5	BR	-
9	L	-
10	P	-
11	W	-
12	R	-
13	BE	-
14	W	-
15	G	-
16	P	-

Connector No.	M106
Connector Name	JOINT CONNECTOR-M15
Connector Type	BJ30FW

H.S.

11 10 9 8 7 6 5 4 3 2 1
22 21 20 19 18 17 16 15 14 13 12
33 32 31 30 29 28 27 26 25 24 23

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	L	-
5	L	-
6	L	-
8	GR	-
9	Y	-
10	Y	-
11	Y	-
12	R	-
14	R	-
15	R	-
17	Y	-
18	Y	-
19	Y	-
20	Y	-
21	G	- [Without automatic drive positioner]
21	Y	- [With automatic drive positioner]
22	G	- [Without automatic drive positioner]
22	Y	- [With automatic drive positioner]
23	GR	-
25	GR	-
26	V	-
27	V	-
28	V	-
29	SB	-
30	BE	-
31	SB	-
32	SB	-
33	BE	-

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FB-FHA6-SA

H.S.

43 44 45 46 47 48 49
50 51 53 54 55

Terminal No.	Color Of Wire	Signal Name [Specification]
43	P	-
44	GR	BK DOOR SW
45	W	REAR WIPER STOP POSITION
46	R	PASS DOOR SW
47	G	SL DOOR RH SW
48	BE	DR DOOR SW
49	B	SL DOOR LH SW
50	V	LUGGAGE LAMP CONT
51	G	SELECT UNLK RELAY CONT
53	BR	BACK DOOR REQ SW
54	R	BK DOOR OPEN
55	G	REAR WIPER OUTPUT

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA

H.S.

56 57 58 59 60 61 62 63 64
65 66 67 68 69 70

Terminal No.	Color Of Wire	Signal Name [Specification]
56	P	INT ROOM LAMP PWR SPLY
57	Y	BAT
58	O	AIR BAG
59	SB	PASS DOOR UNLK OUTPUT
60	V	TURN SIG LH OUTPUT
61	G	TURN SIG RH OUTPUT
62	W	STEP LAMP CONT
63	R	INT ROOM LAMP CONT
64	W	CRANK REQ
65	V	ALL DOOR LOCK OUTPUT
66	G	DR DOOR UNLK OUTPUT
67	B	GROUND
68	L	PW PWR SPLY (IGN)
69	P	PW PWR SPLY (BAT)
70	L	BAT

55	G	SL DOOR LH UNLK CONT

JRKWF5527GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000012409754

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

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

>> GO TO 3.

3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH “SYMPTOM DIAGNOSIS”

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

>> GO TO 4.

4.IDENTIFY MALFUNCTIONING PARTS WITH “DTC/CIRCUIT DIAGNOSIS”

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

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

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

Is the malfunctioning part repaired or replaced?

YES >> Trouble diagnosis is completed.
NO >> GO TO 3.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

Description

INFOID:0000000012409755

When the battery negative terminal is disconnected, the initialization is necessary for normal operation of power window system. Refer to PWC-95, "Work Procedure".

CAUTION:

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

- **Auto-up operation**
- **Anti-pinch function**

Work Procedure

INFOID:0000000012409756

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-97, "Description".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-98, "Description".

>> END

ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN SWITCH

Description

INFOID:0000000012409757

When the power window main switch replaced, the initialization in necessary for normal operation of power window system. Refer to PWC-96, "Description".

CAUTION:

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

- **Auto-up operation**
- **Anti-pinch function**

Work Procedure

INFOID:0000000012409758

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-97, "Description".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-98, "Description".

>> END

SYSTEM INITIALIZATION

Description

INFOID:0000000012409759

If any of the following operations are performed, the initialization is necessary for normal operation of power window system. Refer to PWC-97, "Work Procedure".

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

CAUTION:

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

- **Auto-up operation**
- **Anti-pinch function**

Work Procedure

INFOID:0000000012409760

1.STEP 1

1. Close the door.
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 2 seconds or more.
5. Check that AUTO-UP function operates normally.

>> GO TO 2.

2.STEP 2

Check anti-pinch function. Refer to PWC-98, "Description".

>> END

CHECK ANTI-PINCH FUNCTION

Description

INFOID:0000000012409761

If any of the following operations are performed, the initialization is necessary for normal operation of anti-pinch function. Refer to PWC-98, "Work Procedure".

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

Work Procedure

INFOID:0000000012409762

1.CHECK ANTI-PINCH FUNCTION

1. Close the door.
2. Fully open the door window.
3. Place a piece of wood near fully closed position.
4. Close door glass completely with AUTO-UP.
5. Check the following conditions.

- Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that glass does not rise not when operating the power window main switch while lowering.

CAUTION:

- **Perform initial setting when AUTO-UP operation or anti-pinch function does not operate normally.**
- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **Do not check with hands and other body parts because they may be pinched. Do not get pinched.**

>> END

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012409763

1.CHECK POWER SUPPLY

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

(+)		(-)	Condition		Voltage (V)
Power window main switch					
Connector	Terminal				
D5	10	Ground	Ignition switch	ON	9 – 16
D6	19			OFF	

Is the inspection result normal?

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

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M123	68	D5	10	Existed
	69	D6	19	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	68		Not existed
	69		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D6	17		Existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:0000000012409764

1.CHECK POWER SUPPLY

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

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

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	68		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".
NO >> Repair or replace harness.

SLIDING DOOR POWER WINDOW SWITCH

SLIDING DOOR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012409765

1.CHECK POWER SUPPLY

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

(+)			(-)	Voltage (V)
Sliding door power window switch				
Connector		Terminal		
LH	D88	1	Ground	9 – 16
RH	D108			

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Sliding door power window switch			Continuity
Connector	Terminal	Connector		Terminal	
M123	68	LH	D88	1	Existed
		RH	D108		

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	68		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".
NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Component Function Check

INFOID:0000000012409766

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-102, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012409767

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

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

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

Is the inspection result normal?

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

2. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-126, "Removal and Installation".
NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-103, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> Replace front power window switch (passenger side). Refer to PWC-126, "Removal and Installation".

Component Inspection

INFOID:0000000012409768

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

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

Front power window switch (passenger side)		Condition	Continuity
Terminal			
8	7	UP	Existed
11	6		
11	6	NEUTRAL	
12	7		
8	6	DOWN	
12	7		

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace front power window switch (passenger side). Refer to PWC-126, "Removal and Installation".

SLIDING DOOR POWER WINDOW SWITCH

Component Function Check

INFOID:0000000012409769

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-104, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000012409770

1. CHECK SLIDING DOOR POWER WINDOW SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW SWITCH CIRCUIT

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

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

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

Sliding door power window switch			Ground	Continuity
Connector		Terminal		
LH	D88	2	Ground	Not existed
		3		
RH	D108	2		
		3		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-126, "Removal and Installation".
NO >> Repair or replace harness.

3. CHECK SLIDING DOOR POWER WINDOW SWITCH

Check sliding door power window switch.
Refer to PWC-105, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> Replace sliding door power window switch. Refer to PWC-127, "Removal and Installation".

Component Inspection

INFOID:0000000012409771

1. CHECK SLIDING DOOR POWER WINDOW SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace sliding door power window switch. Refer to PWC-127, "Removal and Installation".

POWER WINDOW MOTOR
DRIVER SIDE
DRIVER SIDE : Component Function Check

INFOID:0000000012409772

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-106, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012409773

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

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

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

Is the inspection result normal?

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

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

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

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

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

Front power window motor (driver side)		Ground	Continuity
Connector	Terminal		
D7	1		Not existed
	2		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-126, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012409774

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-107, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012409775

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

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

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

Is the inspection result normal?

YES >> Replace front power window motor (passenger side).
NO >> GO TO 2.

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

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

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

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

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

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-126, "Removal and Installation".
NO >> Repair or replace harness.

SLIDING DOOR LH

SLIDING DOOR LH : Component Function Check

INFOID:0000000012409776

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-108, "SLIDING DOOR LH : Diagnosis Procedure".

SLIDING DOOR LH : Diagnosis Procedure

INFOID:0000000012409777

1.CHECK SLIDING DOOR POWER WINDOW MOTOR LH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Replace sliding door power window motor LH.
NO >> GO TO 2.

2.CHECK SLIDING DOOR POWER WINDOW MOTOR LH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace sliding door power window switch LH. Refer to PWC-127, "Removal and Installation".
NO >> Repair or replace harness.

SLIDING DOOR RH

SLIDING DOOR RH : Component Function Check

INFOID:0000000012409778

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-109, "SLIDING DOOR RH : Diagnosis Procedure".

SLIDING DOOR RH : Diagnosis Procedure

INFOID:0000000012409779

1. CHECK SLIDING DOOR POWER WINDOW MOTOR RH INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Replace sliding door power window motor RH.
NO >> GO TO 2.

2. CHECK SLIDING DOOR POWER WINDOW MOTOR RH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace sliding door power window switch RH. Refer to PWC-127, "Removal and Installation".
NO >> Repair or replace harness.

ENCODER CIRCUIT

Component Function Check

INFOID:0000000012409780

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-110, "Diagnosis Procedure".

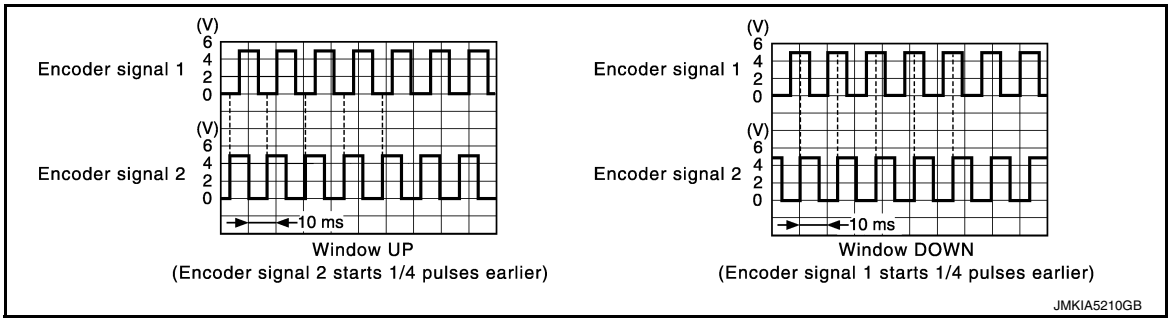
Diagnosis Procedure

INFOID:0000000012409781

1.CHECK ENCODER PULSE SIGNAL

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

(+)		(-)	Signal (Reference value)
Power window main switch			
Connector	Terminal		
D5	9	Ground	Refer to the following signal
	13		



Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-126, "Removal and Installation".
NO >> GO TO 2.

2.CHECK ENCODER SIGNAL CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY

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

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

Is the inspection result normal?

YES >> GO TO 5.
NO >> GO TO 4.

4.CHECK ENCODER POWER SUPPLY CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-126, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK ENCODER GROUND CIRCUIT 1

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

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

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

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6.CHECK ENCODER GROUND CIRCUIT 2

1. Connect power window main switch connector.

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	2		Existed

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-29, "Removal and Installation".
NO >> Replace power window main switch. Refer to PWC-126, "Removal and Installation".

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

INFOID:0000000012409782

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to BCS-92, "Diagnosis Procedure".

Is the inspection result normal?

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

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

Check power window main switch power supply and ground circuit.
Refer to PWC-99, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012409783

1.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side).
Refer to PWC-106, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

2.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-126, "Removal and Installation".

Is the inspection result normal?

YES >> INSPECTION END
NO >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

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

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

INFOID:0000000012409784

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-102, "Component Function Check".

Is the inspection result normal?

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

2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).
Refer to PWC-107, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

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

INFOID:0000000012409785

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

Check front power window switch (passenger side) power supply and ground circuit.
Refer to PWC-100, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-102, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012409786

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-102, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

SLIDING DOOR LH POWER WINDOW DOES NOT OPERATE

WHEN POWER WINDOW MAIN AND SLIDING DOOR LH POWER WINDOW SWITCHES ARE OPERATED

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

INFOID:0000000012409787

1. CHECK SLIDING DOOR POWER WINDOW SWITCH LH

Check sliding door power window switch LH.
Refer to PWC-104, "Component Function Check".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW MOTOR LH

Check sliding door power window motor LH.
Refer to PWC-108, "SLIDING DOOR LH : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN SLIDING DOOR LH POWER WINDOW SWITCH IS OPERATED

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

INFOID:0000000012409788

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

Check sliding door power window switch LH power supply and ground circuit.
Refer to PWC-100, "SLIDING DOOR POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW SWITCH LH

Check sliding door power window switch LH.
Refer to PWC-104, "Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012409789

1.CHECK SLIDING DOOR POWER WINDOW SWITCH LH

Check sliding door power window switch LH.
Refer to PWC-104, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

SLIDING DOOR RH POWER WINDOW DOES NOT OPERATE

WHEN POWER WINDOW MAIN AND SLIDING DOOR RH POWER WINDOW SWITCHES ARE OPERATED

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

INFOID:0000000012409790

1. CHECK SLIDING DOOR POWER WINDOW SWITCH RH

Check sliding door power window switch RH.
Refer to PWC-104, "Component Function Check".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW MOTOR RH

Check sliding door power window motor RH.
Refer to PWC-108, "SLIDING DOOR RH : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN SLIDING DOOR RH POWER WINDOW SWITCH IS OPERATED

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

INFOID:0000000012409791

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

Check sliding door power window switch RH power supply and ground circuit.
Refer to PWC-100, "SLIDING DOOR POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2. CHECK SLIDING DOOR POWER WINDOW SWITCH RH

Check sliding door power window switch RH.
Refer to PWC-104, "Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012409792

1.CHECK SLIDING DOOR POWER WINDOW SWITCH RH

Check sliding door power window switch RH.
Refer to PWC-104, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

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

Diagnosis Procedure

INFOID:0000000012409793

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-97, "Description".

Is the inspection result normal?

YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK ENCODER CIRCUIT

Check encoder circuit.
Refer to PWC-110, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

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

Diagnosis Procedure

INFOID:0000000012409794

1.CHECK POWER WINDOW AUTO OPERATION

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-121, "Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000012409795

1.CHECK FRONT DOOR SWITCH

Check front door switch.
Refer to DLK-247, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000012409796

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to PWC-126, "Removal and Installation".

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012409797

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.
Refer to PWC-126, "Removal and Installation".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012409798

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).
Refer to PWC-126, "Removal and Installation".

>> INSPECTION END

SLIDING DOOR LH

SLIDING DOOR LH : Diagnosis Procedure

INFOID:0000000012409799

1. REPLACE SLIDING DOOR POWER WINDOW SWITCH LH

Replace sliding door power window switch LH.
Refer to PWC-127, "Removal and Installation".

>> INSPECTION END

SLIDING DOOR RH

SLIDING DOOR RH : Diagnosis Procedure

INFOID:0000000012409800

1. REPLACE SLIDING DOOR POWER WINDOW SWITCH RH

Replace sliding door power window switch RH.
Refer to PWC-127, "Removal and Installation".

>> INSPECTION END

REMOVAL AND INSTALLATION

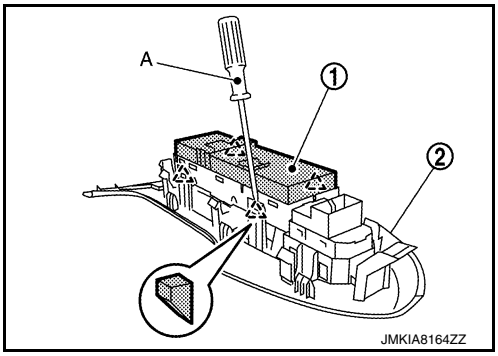
POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:0000000012409801

REMOVAL

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



: Pawl

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

INSTALLATION

Note the following, and then install in the reverse order of removal.

NOTE:
If power window main switch is replaced or is removed, it is necessary to perform the initialization procedure. Refer to PWC-97, "Description".

SLIDING DOOR POWER WINDOW SWITCH

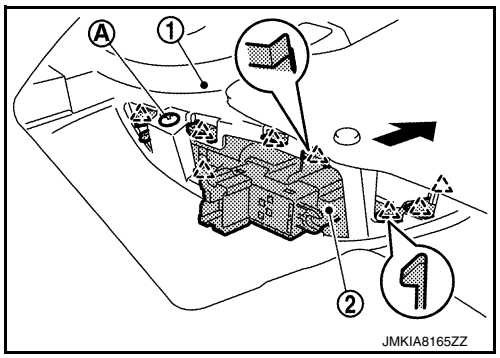
Removal and Installation

INFOID:0000000012409802

REMOVAL

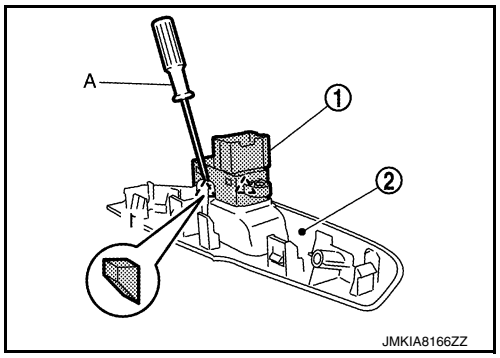
1. Remove sliding door finisher. Refer to INT-17, "Removal and Installation".
2. Remove screw (A), disconnect pawls from sliding door finisher (1), and then remove power window switch finisher (2).

: Pawl



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

: Pawl



INSTALLATION

Install in the reverse order of removal.