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:0000000010427840

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

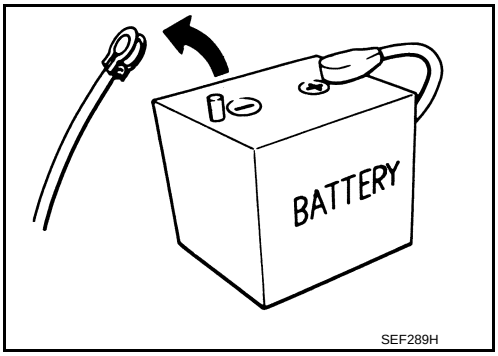
Always observe the following items for preventing accidental activation.

- **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:0000000010503265

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the intelligent key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing “How to disconnect 12V battery terminal” described below.
  NOTE:
  Some ECUs operate for a certain fixed time even after ignition switch is turned OFF and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
  NOTE:
  If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.
- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
  NOTE:
  The removal of 12V battery may cause a DTC detection error.



HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to instruction described below.

1. Open the hood.
2. Turn ignition switch to the ON position.
3. Turn ignition switch to the OFF position with the driver side door opened.
4. Get out of the vehicle and close the driver side door.

5. Wait at least 3 minutes. For vehicle with the engine listed below, remove the battery terminal after a lapse of the specified time.

D4D engine	: 20 minutes
HRA2DDT	: 12 minutes
K9K engine	: 4 minutes
M9R engine	: 4 minutes
R9M engine	: 4 minutes
V9X engine	: 4 minutes

CAUTION:
While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.

6. Remove 12V battery terminal.

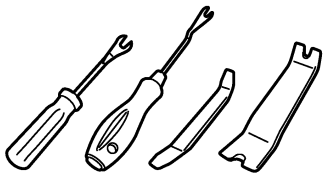
CAUTION:
After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000010286474

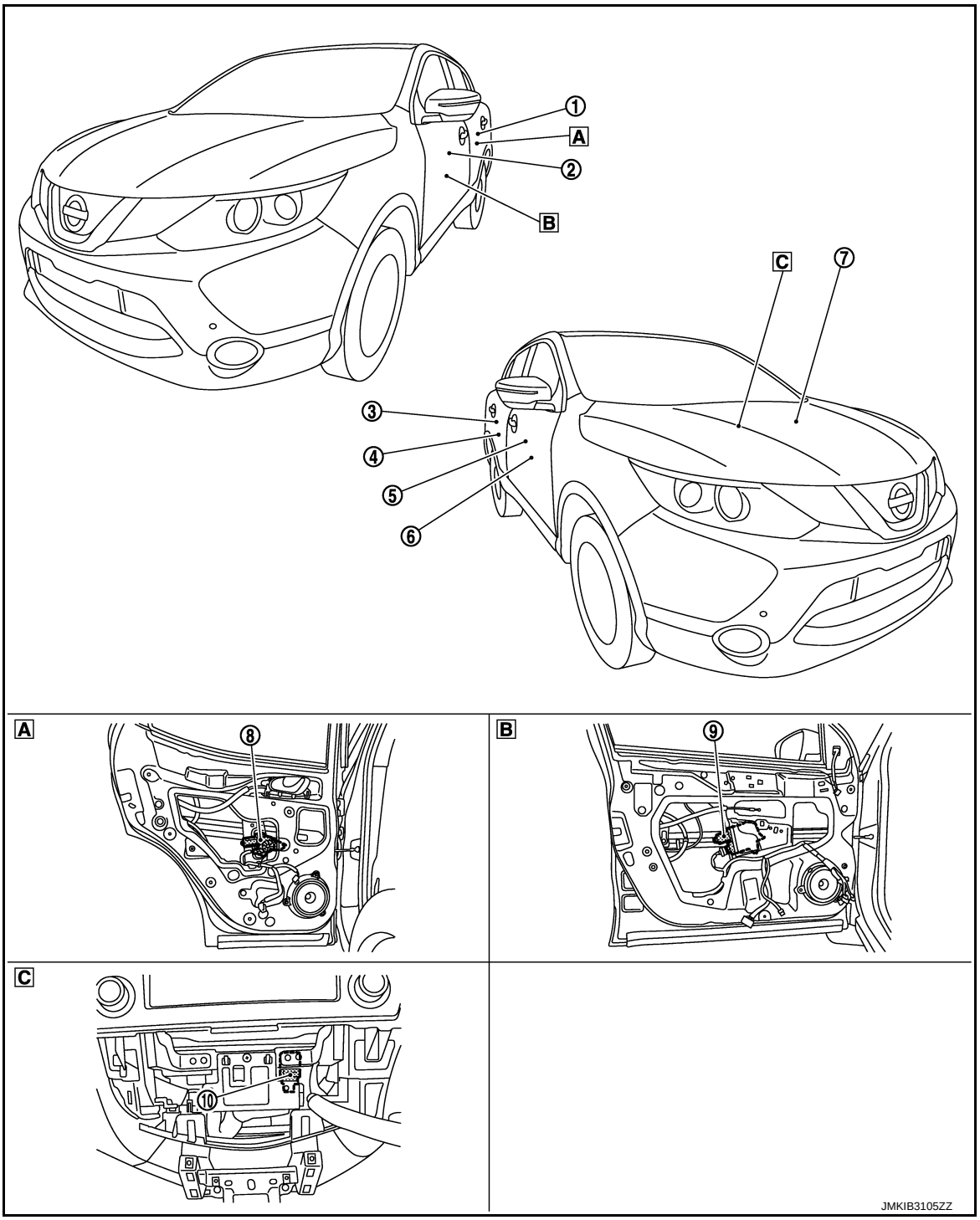
Tool name	Description
Remover tool  JMKIA3050ZZ	Removes the clips, pawls and metal clips

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000010286475



A View with rear door finisher LH removed

B View with front door finisher (driver side) removed

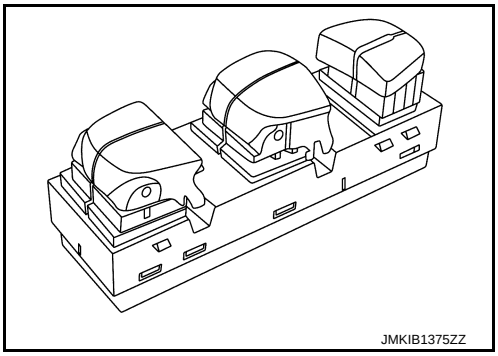
C View with A/C control removed

No.	Component parts	Function
①	Rear power window switch LH	Refer to PWC-8, "Rear Power Window Switch"
②	Power window main switch	Refer to PWC-8, "Power Window Main Switch"
③	Rear power window switch RH	Refer to PWC-8, "Rear Power Window Switch"
④	Rear power window motor RH	Refer to PWC-9, "Rear Power Window Motor"
⑤	Front power window switch (Passenger side)	Refer to PWC-8, "Front Power Window Switch (Passenger side)"
⑥	Front power window motor (Passenger side)	Refer to PWC-9, "Front Power Window Motor"
⑦	BCM	• Controls power window relay • Refer to BCS-6, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location
⑧	Rear power window motor LH	Refer to PWC-9, "Rear Power Window Motor"
⑨	Front power window motor (driver side)	Refer to PWC-9, "Front Power Window Motor"
⑩	Power window relay	Supplies power supply to power window switch

Power Window Main Switch

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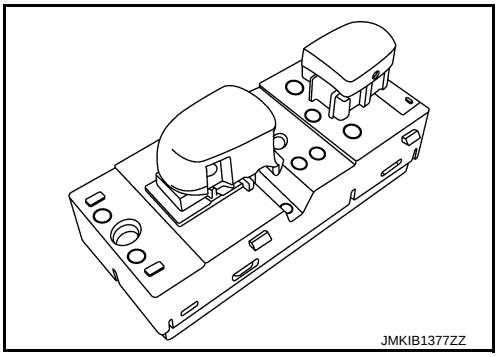
- Power window main switch controls all power windows.
- Power window main switch integrates UP/DOWN switch, power window lock switch, and door lock/unlock switch.
- Power window main switch controls power window lock function, AUTO UP/DOWN function, and anti-pinch function.


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Front Power Window Switch (Passenger side)

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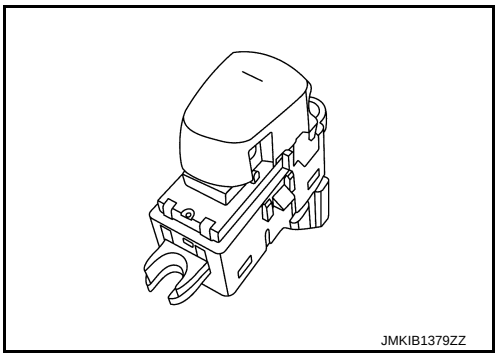
- Front power window switch (passenger side) transmits UP/DOWN signal to front power window motor (passenger side).
- Front power window switch (passenger side) transmits UP/DOWN signal from power window main switch to front power window motor (passenger side).


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Rear Power Window Switch

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- Each power window switch transmits UP/DOWN signal to each motor.
- Each power window switch transmits UP/DOWN signal from power window main switch to each power window motor.

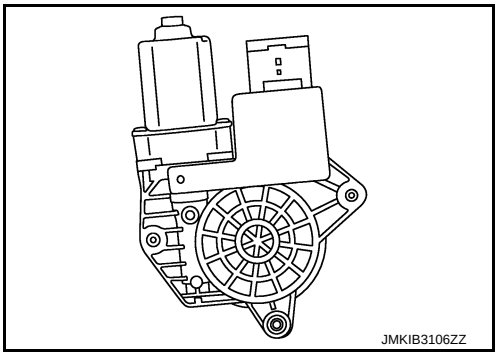

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Front Power Window Motor

INFOID:0000000010286478

DRIVER SIDE
- Integrates the encoder and power window motor (driver side).
- Front power window motor (driver side) starts operation according to signals from power window main switch.
- Transmits front power window motor (driver side) rotation as a pulse signal to power window main switch.

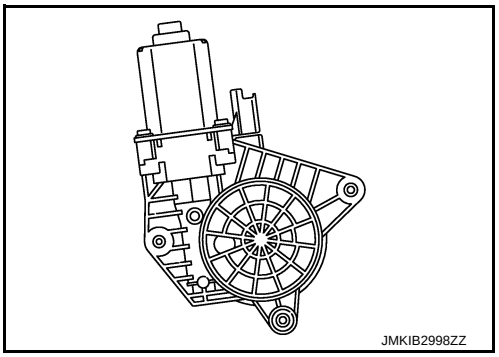
PASSENGER SIDE
- Front power window motor (passenger side) starts operation according to signals from power window main switch or front power window switch (passenger side).


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Rear Power Window Motor

INFOID:0000000010339807

- Starts operation according to signals from power window main switch or each power window switches.

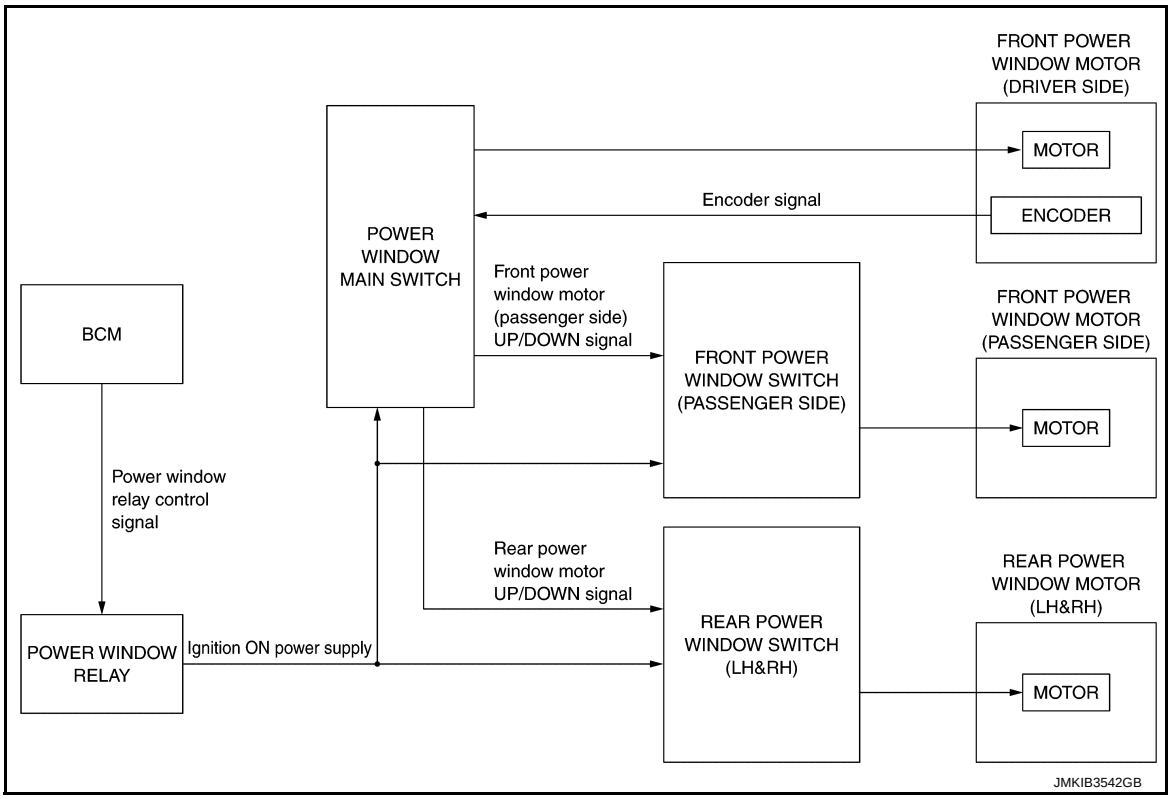

JMKIB2998ZZ

SYSTEM

System Description

INFOID:0000000010286479

SYSTEM DIAGRAM



POWER WINDOW OPERATION

- BCM controls the power window relay, and controls the ignition ON power source supplied to each power window switch.
- Power window system is activated by power window switch when ignition switch turns ON.
- Power window main switch opens/closes all door glass.
- Front and rear 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 (FRONT DRIVER SIDE)

- 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 signal while power window motor is operating.
- Power window switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case encoder is malfunctioning.

POWER WINDOW LOCK

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

ANTI-PINCH SYSTEM (FRONT DRIVER SIDE)

- Pinch foreign material in the door glass during AUTO-UP operation, and it is the anti-pinch function that lowers the door glass 120 – 150 mm (4.7 – 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 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 signal if foreign material is trapped in the door glass.

- Power window main switch controls to lower the window glass for 120 – 150 mm (4.7 – 5.9 in) after it detects encoder signal frequency change.

OPERATION CONDITION

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

NOTE:

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

Fail Safe

INFOID:0000000010286481

FAIL-SAFE CONTROL

Power window main switch to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Power window main switch 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 detected for more than the specified time during glass open/close operation
Both pulse sensors malfunction	When both pulse signals are not detected for more than the specified time during glass open/close operation.
Pulse direction malfunction	When the pulse signal detected during glass open/close operation continues in the condition that the drive direction of power window motor is operating in the opposite direction for the specified time or longer
Glass recognition position malfunction	When it detects the error between glass fully closed position in power window main switch memory and actual fully closed position during glass open/close operation is more than the specified value.

It changes to condition before initialization and the following functions do not operate when power window main switch to fail-safe control.

- Auto-up operation
- Anti-pinch function

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

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000010286482

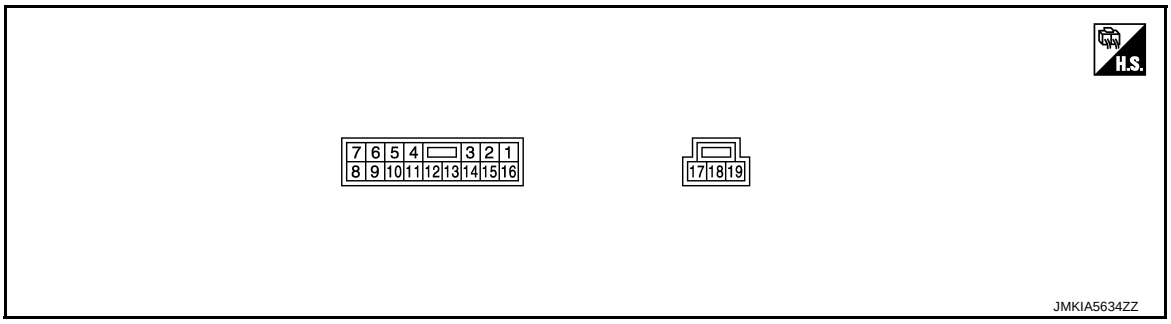
ECU	Reference
BCM	BCS-63, "Reference Value"
	BCS-87, "Fail-safe"
	BCS-88, "DTC Inspection Priority Chart"
	BCS-89, "DTC Index"

POWER WINDOW MAIN SWITCH

Reference Value

INFOID:0000000010286483

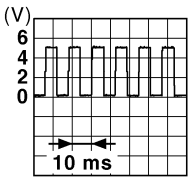
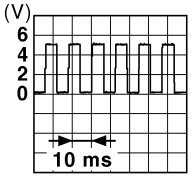
TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW MAIN SWITCH

LHD models

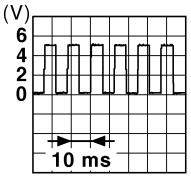
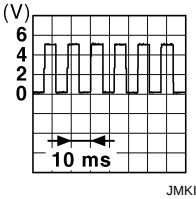
Terminal No. (Wire color)		Description		Condition	Voltage
+	-	Signal name	Input/ Output		
1 (B)	Ground	Ground	—	—	0 - 1 V
2 (GR)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front RH switch in power window main switch is DOWN at operated.	9 - 16 V
4 (P)	Ground	Encoder signal 2	Input	When front power window motor (driver side) operates.	 JMKIA0070GB
5 (W)	Ground	Encoder signal 1	Input	When front power window motor (driver side) operates.	 JMKIA0070GB
6 (P)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is DOWN at operated.	9 - 16 V
7 (LG)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is UP at operated.	9 - 16 V
8 (Y)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is DOWN at operated.	9 - 16 V
9 (G)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is UP at operated.	9 - 16 V

Terminal No. (Wire color)		Description		Condition	Voltage
+	-	Signal name	Input/ Output		
10 (SB)	Ground	Ignition ON power supply	Input	Ignition switch ON	9 - 16 V
				Other than above	0 - 1 V
12 (LG)	Ground	Encoder ground	—	—	0 - 1 V
14 (G)	Ground	Encoder power supply	Output	Ignition switch ON	9 - 16 V
16 (V)	Ground	Front power window motor (passenger side) UP signal	Output	When front RH switch in power window main switch is UP at operated.	9 - 16 V
17 (R)	Ground	Front power window motor (driver side) UP signal	Output	When front LH switch in power window main switch is UP at operated.	9 - 16 V
18 (R)	Ground	Battery power supply	Input	—	9 - 16 V
19 (GR)	Ground	Front power window motor (driver side) DOWN signal	Output	When front LH switch in power window main switch is DOWN at operated.	9 - 16 V

PHYSICAL VALUES

POWER WINDOW MAIN SWITCH

RHD models

Terminal No. (Wire color)		Description		Condition	Voltage
+	-	Signal name	Input/ Output		
1 (B)	Ground	Ground	—	—	0 - 1 V
2 (GR)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front LH switch in power window main switch is DOWN at operated.	9 - 16 V
4 (P)	Ground	Encoder signal 2	Input	When front power window motor (driver side) operates.	 JMKIA0070GB
5 (W)	Ground	Encoder signal 1	Input	When front power window motor (driver side) operates.	 JMKIA0070GB
6 (Y)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is DOWN at operated.	9 - 16 V
7 (LG)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is UP at operated.	9 - 16 V

Terminal No. (Wire color)		Description		Condition	Voltage
+	-	Signal name	Input/ Output		
8 (G)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is DOWN at operated.	9 - 16 V
9 (R)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is UP at operated.	9 - 16 V
10 (L)	Ground	Ignition ON power supply	Input	Ignition switch ON	9 - 16 V
				Other than above	0 - 1 V
12 (LG)	Ground	Encoder ground	—	—	0 - 1 V
14 (G)	Ground	Encoder power supply	Output	Ignition switch ON	9 - 16 V
16 (GR)	Ground	Front power window motor (passenger side) UP signal	Output	When front LH switch in power window main switch is UP at operated.	9 - 16 V
17 (R)	Ground	Front power window motor (driver side) UP signal	Output	When front RH switch in power window main switch is UP at operated.	9 - 16 V
18 (R)	Ground	Battery power supply	Input	—	9 - 16 V
19 (GR)	Ground	Front power window motor (driver side) DOWN signal	Output	When front RH switch in power window main switch is DOWN at operated.	9 - 16 V

Fail Safe

INFOID:0000000010286539

FAIL-SAFE CONTROL

Power window main switch to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Power window main switch 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 detected for more than the specified time during glass open/close operation
Both pulse sensors malfunction	When both pulse signals are not detected for more than the specified time during glass open/close operation.
Pulse direction malfunction	When the pulse signal detected during glass open/close operation continues in the condition that the drive direction of power window motor is operating in the opposite direction for the specified time or longer
Glass recognition position malfunction	When it detects the error between glass fully closed position in power window main switch memory and actual fully closed position during glass open/close operation is more than the specified value.

It changes to condition before initialization and the following functions do not operate when power window main switch to fail-safe control.

- Auto-up operation
- Anti-pinch function

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

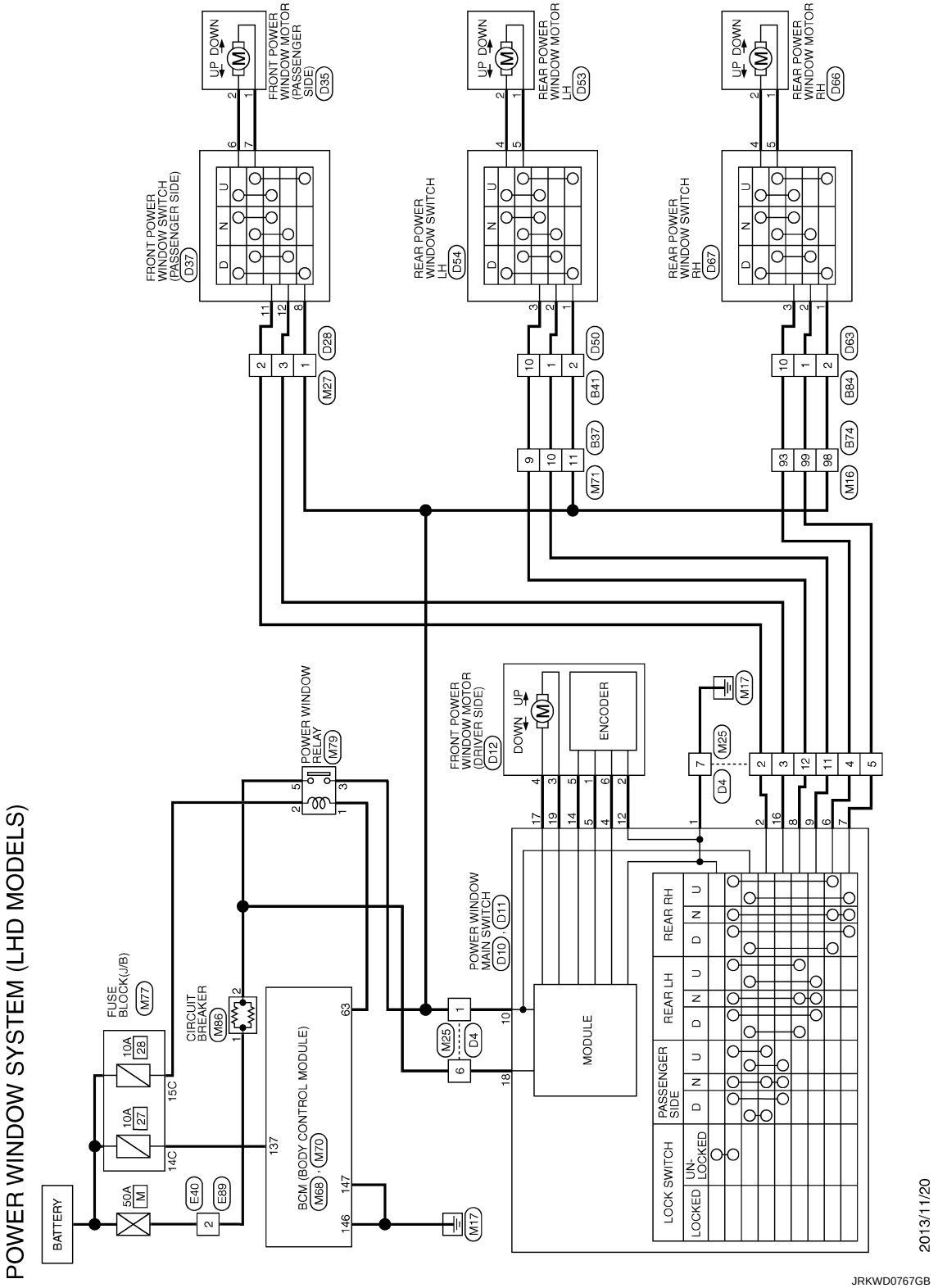
WIRING DIAGRAM

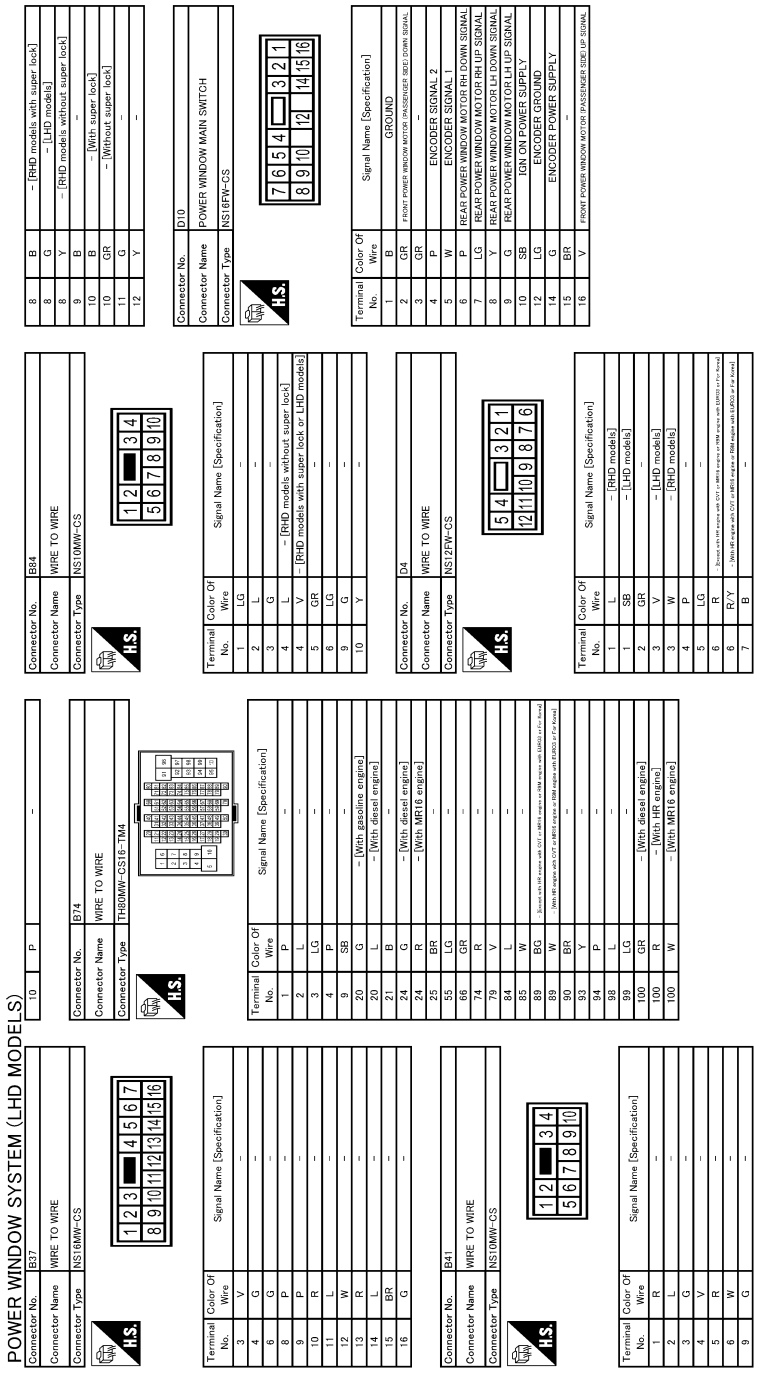
POWER WINDOW SYSTEM

LHD

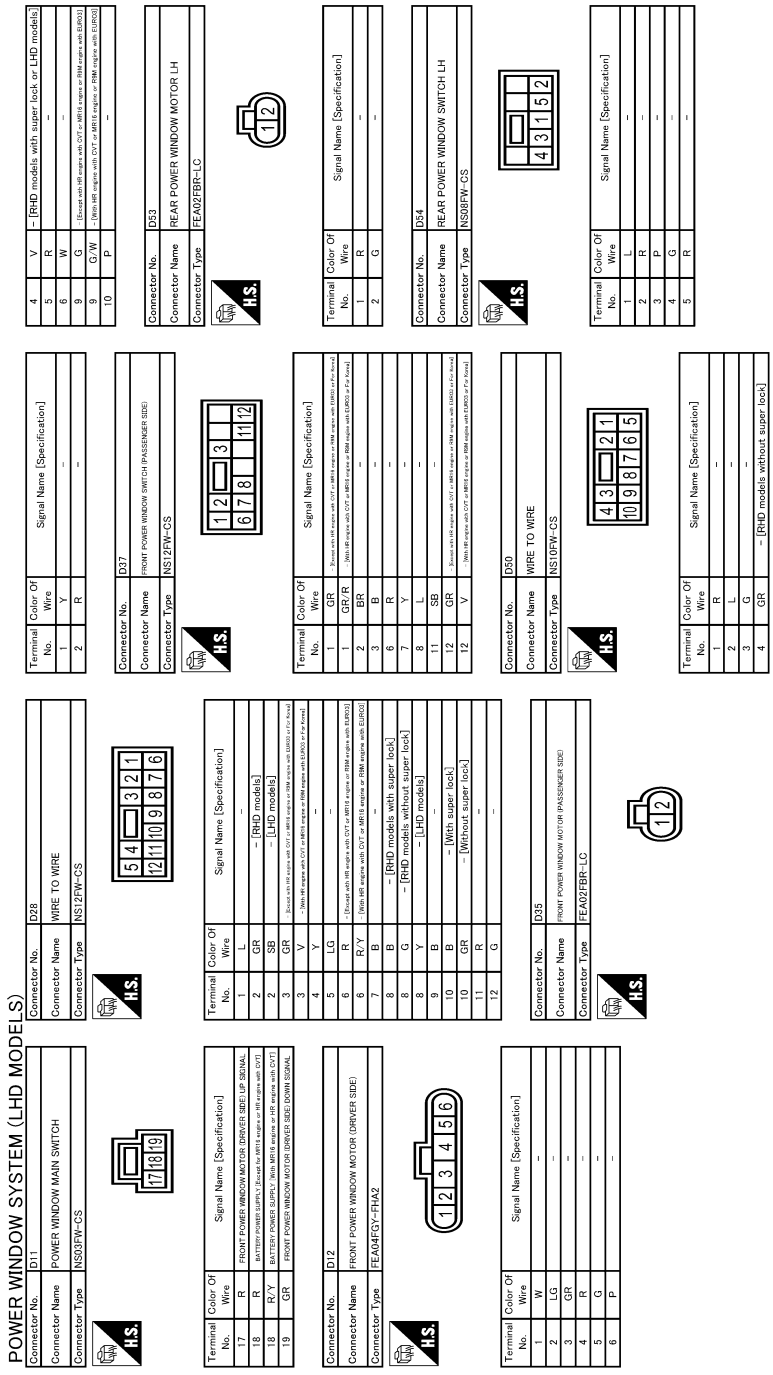
LHD : Wiring Diagram

INFOID:0000000010286485





JRKWE4033GB



JRKWE4034GB

POWER WINDOW SYSTEM (LHD MODELS)

Connector No.	D63
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	–
2	L	–
3	G	–
4	GR	– [RHD models without super lock]
4	V	– [RHD models with super lock or LHD models]
5	GR	–
6	LG	–
9	G	– [Except with MR engine with CVT or MR16 engine or RR4 engine with EURO5]
9	G/W	– [With MR engine with CVT or MR16 engine or RR4 engine with EURO5]
10	Y	–

Connector No.	D67
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS

H.S.

4	3	1	5	2

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	–
2	BR	–
3	Y	–
4	G	–
5	R	–

Connector No.	E40
Connector Name	WIRE TO WIRE
Connector Type	L02FB-MC

H.S.

1	2

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	–
2	GR	–

Connector No.	D66
Connector Name	REAR POWER WINDOW MOTOR RH
Connector Type	FEA02FBR-LC

H.S.

1	2

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	–
2	G	–

Connector No.	E89
Connector Name	WIRE TO WIRE
Connector Type	M04FW-LC

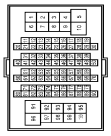
H.S.

2	1
4	3

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

Connector No.	M16
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	–
2	P	–
3	SB	–
4	P	–
9	SB	–
20	G	–
21	B	–
24	G	– [Without MR16 engine]
24	R	– [With MR16 engine]
25	BR	–
55	LG	–
86	GR	–
74	R	–
79	V	–
84	L	–
85	W	–

89	GR	–
90	BR	–
93	Y	–
94	P	–
98	L	–
99	LG	–
100	R	–

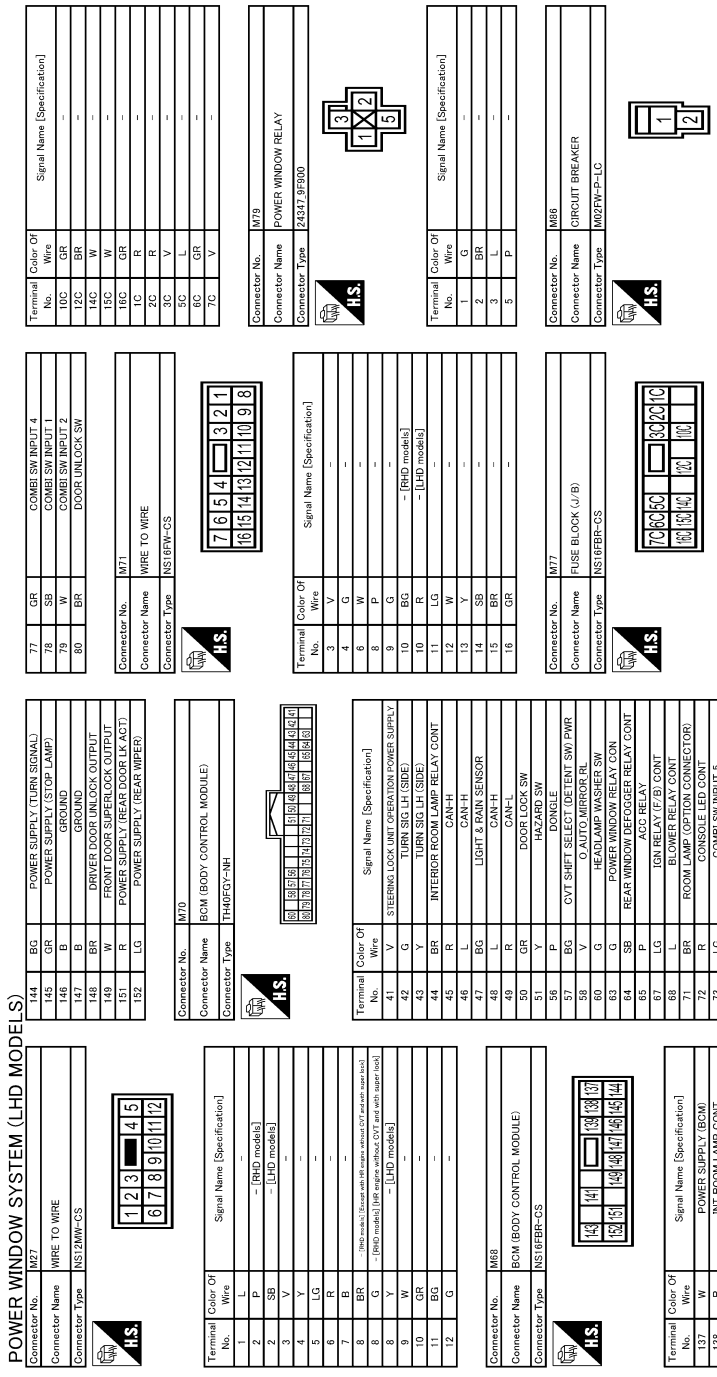
Connector No.	M25
Connector Name	WIRE TO WIRE
Connector Type	NS12MW-CS

H.S.

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	–
2	P	– [RHD models]
2	SB	– [LHD models]
3	V	–
4	Y	–
5	LG	–
6	P	–
7	B	–
8	BR	– [LHD models]
8	Y	– [RHD models]
9	W	–
10	GR	–
11	R	–
12	G	–

JRKWE4035GB



JRKWE4036GB

POWER WINDOW SYSTEM (LHD MODELS)

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	–
2	P	– [LHD models]
2	R	– [RHD models]

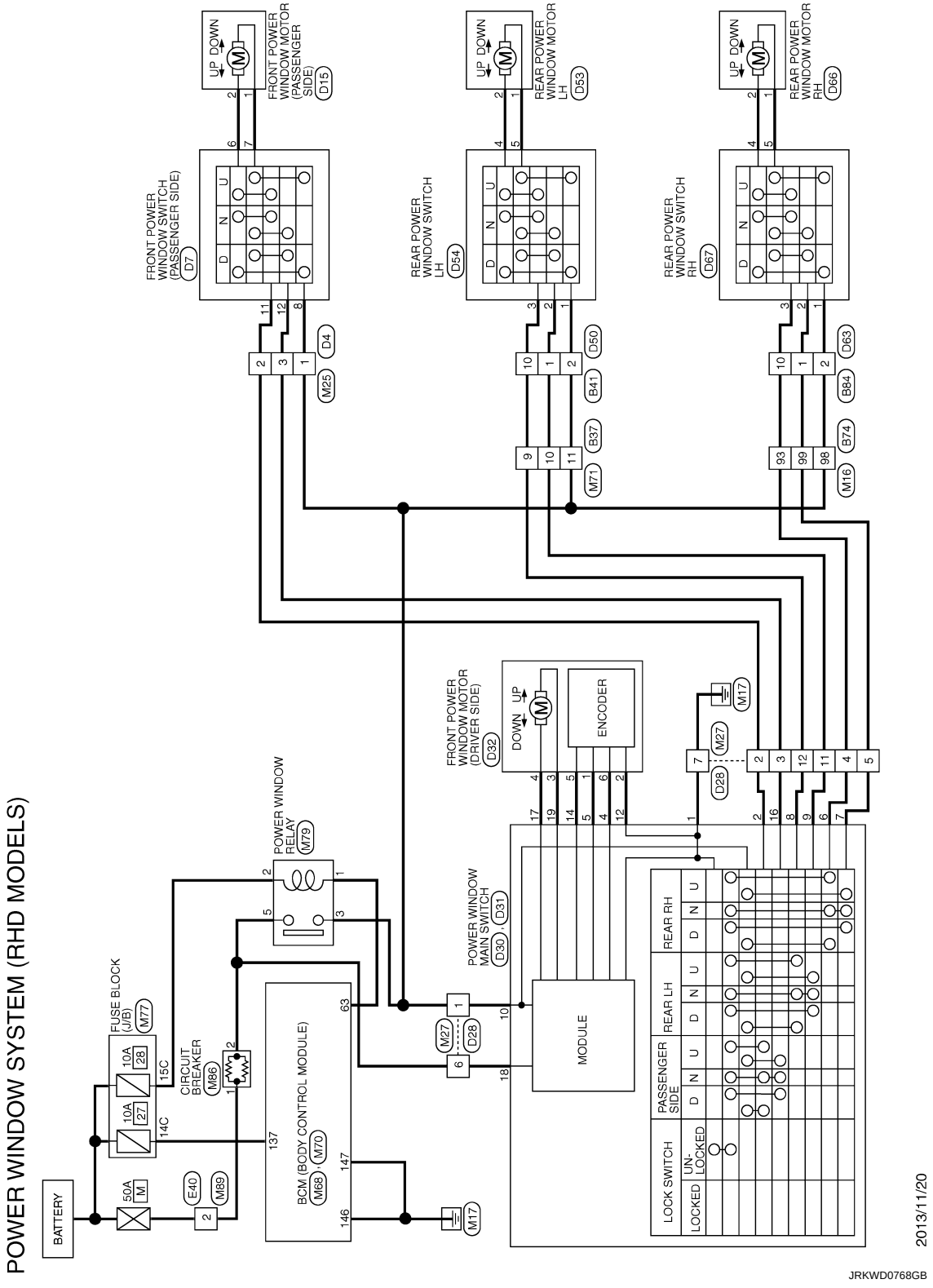
JRKWE4037GB

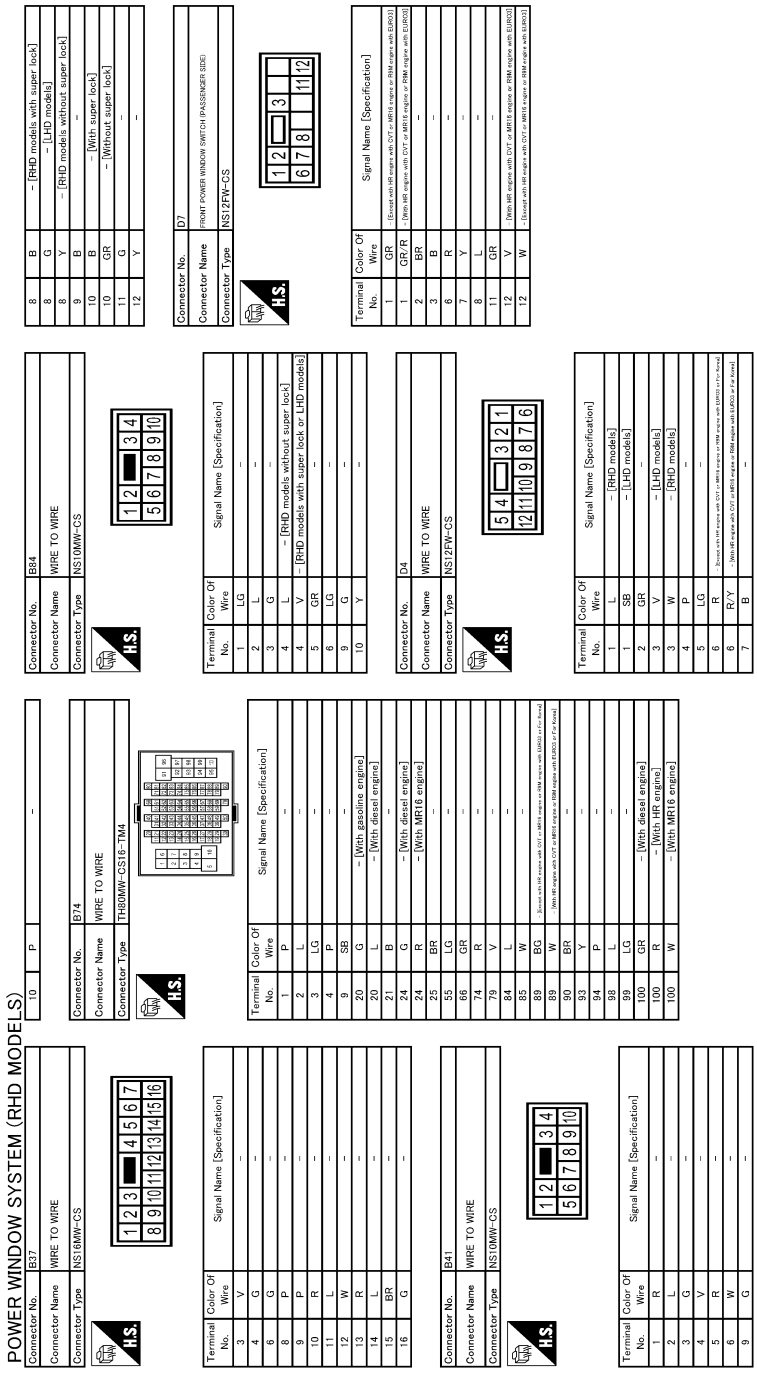
RHD

< WIRING DIAGRAM >

RHD : Wiring Diagram

INFOID:0000000010431779





JRKWE4038GB

POWER WINDOW SYSTEM (RHD MODELS)

Connector No.	D15
Connector Name	FRONT POWER WINDOW MOTOR (PASSENGER SIDE)
Connector Type	FEA02FBR-LC



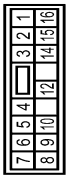
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	–
2	R	–

Connector No.	D28
Connector Name	WIRE TO WIRE
Connector Type	NS12FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	–
2	GR	– [RHD models]
2	SB	– [LHD models]
3	GR	– [Except with HR engine and CVT or MR18 engine or RR4 engine with EURO5 or For Korea]
3	V	– [With HR engine and CVT or MR18 engine or RR4 engine with EURO5 or For Korea]
4	Y	–
5	LG	–
6	R	– [Except with HR engine with CVT or MR16 engine or RR4 engine with EURO5]
6	R/Y	– [With HR engine with CVT or MR16 engine or RR4 engine with EURO5]
7	B	–
8	B	– [RHD models with super lock]
8	G	– [RHD models without super lock]
8	Y	– [LHD models]
9	B	–
10	B	– [With super lock]
10	GR	– [Without super lock]
11	R	–
12	G	–

Connector No.	D30
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS



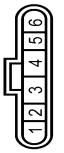
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	GR	FRONT POWER WINDOW MOTOR PASSENGER SIDE DOWN SIGNAL
3	GR	–
4	P	ENCODER SIGNAL 2
5	W	ENCODER SIGNAL 1
6	Y	REAR POWER WINDOW MOTOR RH DOWN SIGNAL
7	LG	REAR POWER WINDOW MOTOR RH UP SIGNAL
8	G	REAR POWER WINDOW MOTOR LH DOWN SIGNAL
9	R	REAR POWER WINDOW MOTOR LH UP SIGNAL
10	L	IGN ON POWER SUPPLY
12	LG	ENCODER GROUND
14	G	ENCODER POWER SUPPLY
15	BR	–
16	GR	–
16	V	–

Connector No.	D31
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS03FW-CS



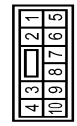
Terminal No.	Color Of Wire	Signal Name [Specification]
17	R	Front power window motor (driver side) UP signal
18	R	–
18	R/Y	–
19	GR	Front power window motor (driver side) DOWN signal

Connector No.	D32
Connector Name	FRONT POWER WINDOW MOTOR (DRIVER SIDE)
Connector Type	FEA04FGY-FHA2



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	–
2	LG	–
3	GR	–
4	R	–
5	G	–
6	P	–

Connector No.	D50
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



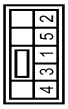
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	–
2	L	–
3	G	–
4	GR	– [RHD models without super lock]
4	V	– [RHD models with super lock or LHD models]
5	R	–
6	W	–
9	G	[Except with HR engine with CVT or MR16 engine or RR4 engine with EURO5]
9	G/W	[With HR engine with CVT or MR16 engine or RR4 engine with EURO5]
10	P	–

Connector No.	D53
Connector Name	REAR POWER WINDOW MOTOR LH
Connector Type	FEA02FBR-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	–
2	G	–

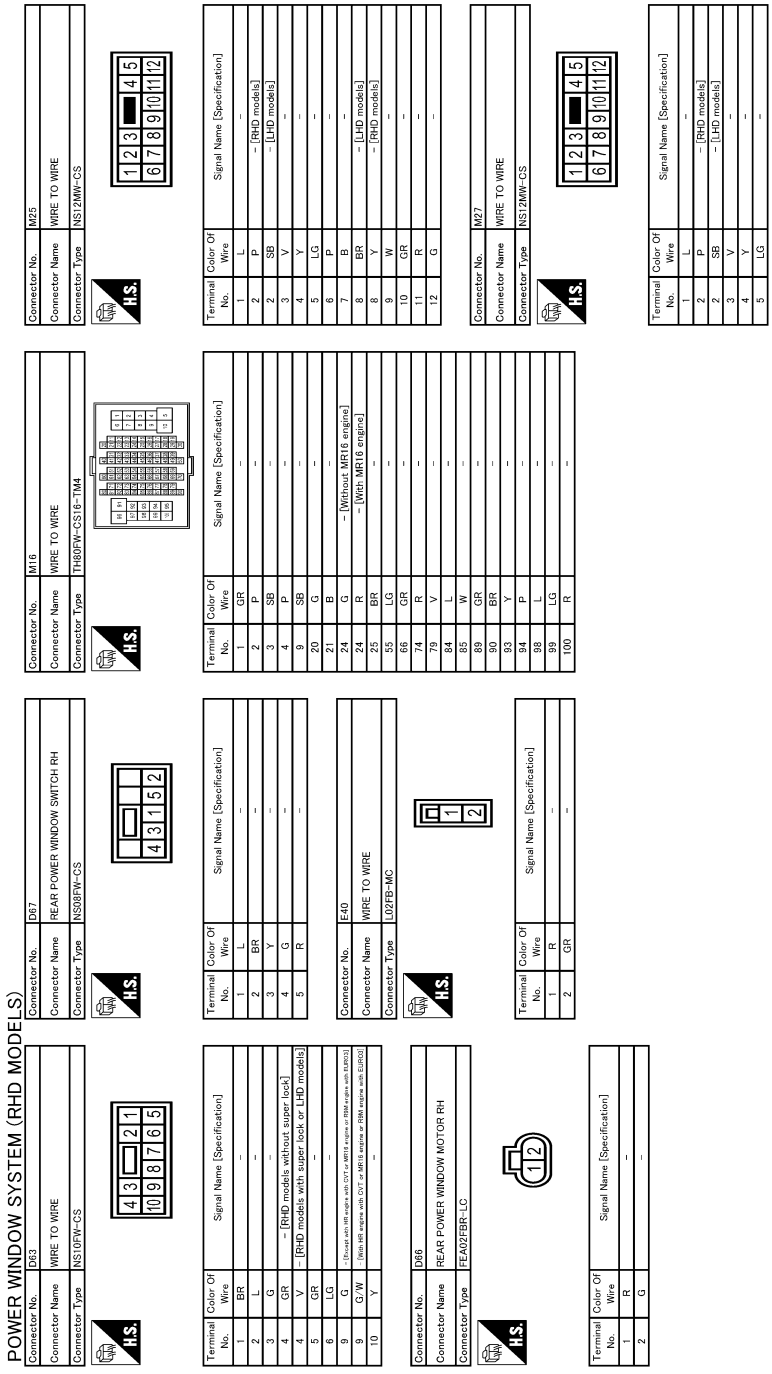
Connector No.	D54
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08FW-CS



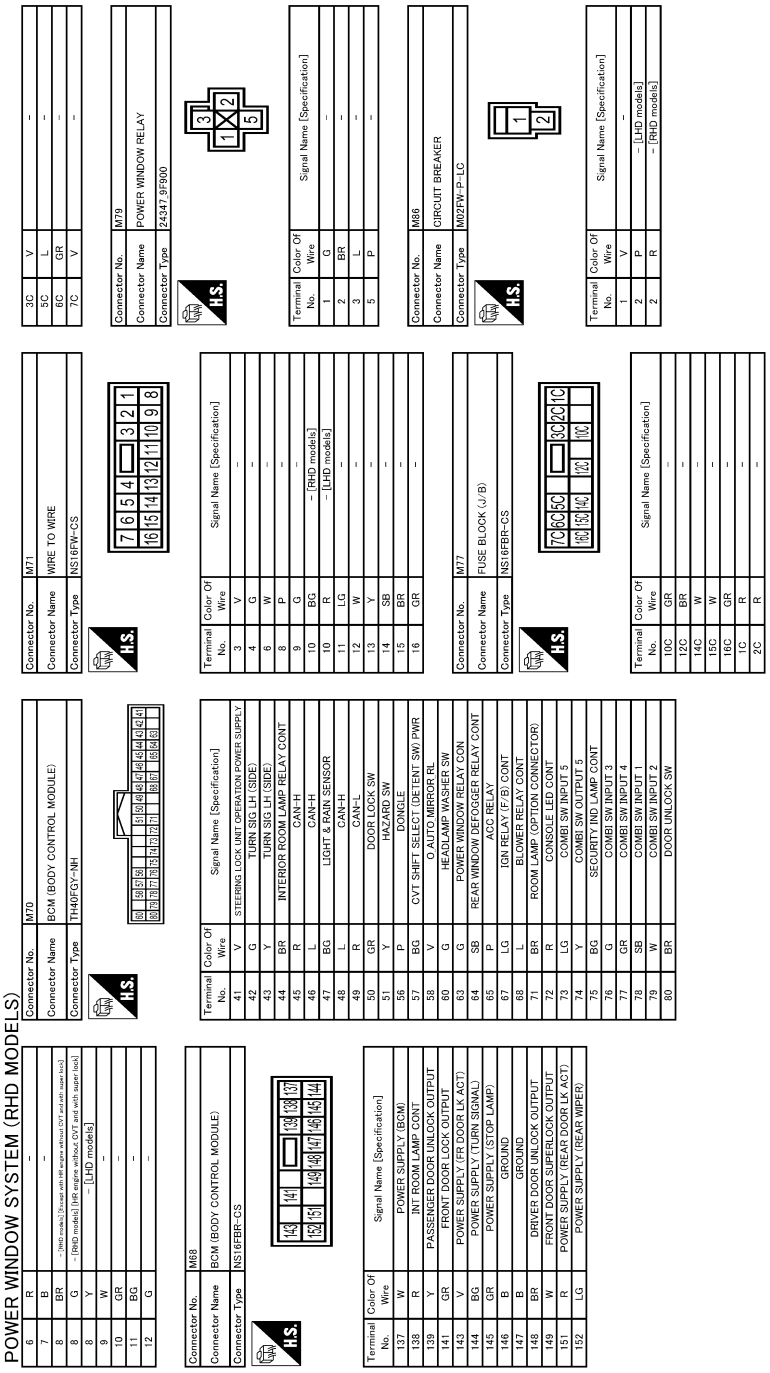
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	–
2	R	–
3	P	–
4	G	–
5	R	–

JRKWE4039GB

POWER WINDOW SYSTEM (RHD MODELS)



JRKWE4040GB



JRKWE4041GB

POWER WINDOW SYSTEM (RHD MODELS)

Connector No.	M89
Connector Name	WIRE TO WIRE
Connector Type	L02MB-MC

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	V	-

JRKWE4042GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000010286486

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred) as much 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 and then identify where to start performing the diagnosis based on possible causes and symptoms.

>> GO TO 4.

4.IDENTIFY THE MALFUNCTIONING PARTS WITH “COMPONENT DIAGNOSIS”

Perform the diagnosis with “Component diagnosis” of the applicable system.

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

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

Are the malfunctions corrected?

YES >> INSPECTION END
NO >> GO TO 3.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

Description

INFOID:0000000010286487

When the battery negative terminal is disconnected, the initialization is necessary for normal operation of power window system. Refer to PWC-29, "Work Procedure".

CAUTION:

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

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

Work Procedure

INFOID:0000000010286488

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-31, "Description".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-32, "Description".

>> END

ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN SWITCH

Description

INFOID:0000000010286489

When the control unit replaced, the initialization in necessary for normal operation of power window system. Refer to PWC-30, "Work Procedure".

CAUTION:

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

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

Work Procedure

INFOID:0000000010286490

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-31, "Description".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-32, "Description".

>> END

SYSTEM INITIALIZATION

Description

INFOID:0000000010286491

If any of the following operations are performed, the initialization is necessary for normal operation of power window system. Refer to PWC-31, "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 cannot be performed under the non-initialized condition.

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

Work Procedure

INFOID:0000000010286492

1.STEP 1

1. Turn ignition switch ON.
2. Operate power window main switch to fully open the front door glass (driver side).

- This operation is unnecessary if the front door glass (driver side) is already fully open.

3. Continue pulling the power window main switch UP (AUTO-UP operation). Even after front door glass (driver side) stops at fully closed position, keep pulling the switch for 2 seconds or more.
4. Check that AUTO-UP function operates normally.

>> GO TO 2.

2.STEP 2

Check anti-pinch function. Refer to PWC-32, "Description".

>> END

ANTI-PINCH INSPECTION

Description

INFOID:0000000010286493

If any of the following operations are performed, the initialization is necessary for normal operation of anti-pinch function. Refer to PWC-32, "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:0000000010286494

1. CHECK ANTI-PINCH FUNCTION

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

- Check that front door glass (driver side) lowers for 120 – 150 mm (4.7 – 5.9 in) without pinching piece of wood and stops.
- Check that front door glass (driver side) 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:0000000010286495

LHD MODELS

1.CHECK FUSE AND FUSIBLE LINK

1. Turn ignition switch OFF.
2. Check that any of the following fuse and fusible link is fusing.

Signal name	Fuse and fusible link No.
Battery power supply	28 (10A)
	M (50A)

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the applicable circuit. And then replace the fuse or fusible link.

2.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY 1

1. Disconnect power window main switch connector.
2. Check voltage between power window main switch harness connector and ground.

(+)		(–)	Voltage
Power window main switch			
Connector	Terminal		
D11	18	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 4.

3.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY 2

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

(+)		(–)	Voltage
Power window main switch			
Connector	Terminal		
D10	10	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 10.
NO >> GO TO 6.

4.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT 1

1. Disconnect circuit breaker connector.
2. Check voltage between circuit breaker harness connector and ground.

(+)		(–)	Voltage
Circuit breaker			
Connector	Terminal		
M86	1	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT 2

Check continuity between circuit breaker harness connector and power window main switch harness connector.

Circuit breaker		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M86	2	D11	18	Existed

Is the inspection result normal?

YES >> Replace circuit breaker.
NO >> Repair or replace harness.

6.CHECK POWER WINDOW RELAY POWER SUPPLY

1. Turn ignition switch to OFF, and then wait for 3 minutes with driver door open.
   NOTE:
   - Even after ignition switch is OFF, power is supplied to accessories for a certain amount of time by the AUTO ACC function.
   - When vehicle is operated while on standby, power may be supplied to accessories.
2. Disconnect power window relay connector.
3. Check voltage between power window relay harness connector and ground.

(+)		(–)	Voltage
Power window relay			
Connector	Terminal		
M79	2	Ground	9 - 16 V
	5		

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace harness.

7.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT 3

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

Power window relay		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M79	3	D10	10	Existed

Is the inspection result normal?

YES >> GO TO 8.
NO >> Repair or replace harness.

8.CHECK POWER WINDOW RELAY GROUND CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between power window relay harness connector and BCM harness connector.

Power window relay		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M79	1	M70	63	Existed

Is the inspection result normal?

YES >> GO TO 9.
NO >> Repair or replace harness.

9.CHECK POWER WINDOW RELAY

Check power window relay. Refer to PWC-56, "Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident"
NO >> Replace power window relay.

10. CHECK POWER WINDOW MAIN SWITCH 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		
D10	1		Existed

Is the inspection result normal?

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

RHD MODELS

1. CHECK FUSE AND FUSIBLE LINK

1. Turn ignition switch OFF.
2. Check that any of the following fuse and fusible link is fusing.

Signal name	Fuse and fusible link No.
Battery power supply	28 (10A)
	M (50A)

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair the applicable circuit. And then replace the fuse or fusible link.

2. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY 1

1. Disconnect power window main switch connector.
2. Check voltage between power window main switch harness connector and ground.

(+)		(–)	Voltage
Power window main switch			
Connector	Terminal		
D31	18	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 3.
NO >> GO TO 4.

3. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY 2

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

(+)		(–)	Voltage
Power window main switch			
Connector	Terminal		
D30	10	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 10.
NO >> GO TO 6.

4. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT 1

1. Disconnect circuit breaker connector.
2. Check voltage between circuit breaker harness connector and ground.

(+)		(–)	Voltage
Circuit breaker			
Connector	Terminal		
M86	1	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT 2

Check continuity between circuit breaker harness connector and power window main switch harness connector.

Circuit breaker		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M86	2	D31	18	Existed

Is the inspection result normal?

YES >> Replace circuit breaker.
NO >> Repair or replace harness.

6.CHECK POWER WINDOW RELAY POWER SUPPLY

1. Turn ignition switch to OFF, and then wait for 3 minutes with driver door open.
   NOTE:
   - Even after ignition switch is OFF, power is supplied to accessories for a certain amount of time by the AUTO ACC function.
   - When vehicle is operated while on standby, power may be supplied to accessories.
2. Disconnect power window relay connector.
3. Check voltage between power window relay harness connector and ground.

(+)		(–)	Voltage
Power window relay			
Connector	Terminal		
M79	2	Ground	9 - 16 V
	5		

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace harness.

7.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT 3

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

Power window relay		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M79	3	D30	10	Existed

Is the inspection result normal?

YES >> GO TO 8.
NO >> Repair or replace harness.

8.CHECK POWER WINDOW RELAY GROUND CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between power window relay harness connector and BCM harness connector.

Power window relay		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M79	1	M70	63	Existed

Is the inspection result normal?

YES >> GO TO 9.
NO >> Repair or replace harness.

9.CHECK POWER WINDOW RELAY

Check power window relay. Refer to PWC-56, "Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident"
NO >> Replace power window relay.

10.CHECK POWER WINDOW MAIN SWITCH 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		
D30	1		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:0000000010286496

LHD MODELS

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) 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
Front power window switch (passenger side)			
Connector	Terminal		
D37	8	Ground	9 - 16 V

Is the inspection result normal?

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

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

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

Power window relay		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M79	3	D37	8	Existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> Repair or replace harness.

RHD MODELS

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) 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
Front power window switch (passenger side)			
Connector	Terminal		
D7	8	Ground	9 - 16 V

Is the inspection result normal?

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

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

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

Power window relay		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M79	3	D7	8	Existed

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> Repair or replace harness.

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000010286497

1.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY

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

(+)			(–)	Voltage
Rear power window switch				
Connector		Terminal		
LH	D54	1	Ground	9 - 16 V
RH	D67			

Is the inspection result normal?

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

2.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY CIRCUIT

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

Power window relay		Rear power window switch			Continuity
Connector	Terminal	Connector		Terminal	
M79	3	LH	D54	1	Existed
		RH	D67		

Is the inspection result normal?

YES >> Intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Component Function Check

INFOID:0000000010325681

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-40, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010286498

LHD MODELS

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
Front power window switch (passenger side)					
Connector	Terminal				
D37	11	Ground	Power window main switch (passenger side switch)	UP	0 - 1 V
				DOWN	9 - 16 V
	12			UP	9 - 16 V
				DOWN	0 - 1 V

Is the inspection result normal?

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

2. CHECK FRONT WINDOW SWITCH (PASSENGER SIDE) 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 switch (passenger side) harness connector.

Power window main switch		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D10	2	D37	11	Existed
	16		12	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D10	2		Not existed
	16		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : 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-42, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace front power window switch (passenger side). Refer to PWC-68, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

RHD MODELS

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
Front power window switch (passenger side)					
Connector	Terminal				
D7	11	Ground	Power window main switch (passenger side switch)	UP	0 - 1 V
				DOWN	9 - 16 V
	12			UP	9 - 16 V
				DOWN	0 - 1 V

Is the inspection result normal?

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

2. CHECK FRONT WINDOW SWITCH (PASSENGER SIDE) 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 switch (passenger side) harness connector.

Power window main switch		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D30	2	D7	11	Existed
	16		12	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D30	2		Not existed
	16		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : 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-42, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace front power window switch (passenger side). Refer to PWC-68, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer toGI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010286499

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) Terminal		Condition	Continuity
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-68, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Removal and Installation".

REAR POWER WINDOW SWITCH

Component Function Check

INFOID:0000000010325682

1. CHECK FUNCTION

Check rear power window motor (LH/RH) operation with rear power window switch (LH/RH) and power window main switch (rear LH/RH switch).

Is the inspection result normal?

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

Diagnosis Procedure

INFOID:0000000010286500

1. CHECK REAR POWER WINDOW SWITCH INPUT SIGNAL

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

(+)			(–)	Condition		Voltage
Rear power window switch						
Connector		Terminal				
LH	D54	2	Ground	Power window main switch (rear LH switch)	UP	9 - 16 V
					DOWN	0 - 1 V
		3			UP	0 - 1 V
					DOWN	9 - 16 V
RH	D67	2		Power window main switch (rear RH switch)	UP	9 - 16 V
					DOWN	0 - 1 V
		3			UP	0 - 1 V
					DOWN	9 - 16 V

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW 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 rear power window switch harness connector.

Power window main switch		Rear power window switch			Continuity
Connector	Terminal	Connector		Terminal	
D10 (LHD models) D30 (RHD models)	8	LH	D54	3	Existed
	9			2	
	6	RH	D67	3	
	7			2	

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

Power window main switch			
Connector	Terminal		Continuity
D10 (LHD models) D30 (RHD models)	8	Ground	Not existed
	9		
	6		
	7		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : Removal and Installation".
NO >> Repair or replace harness.

3.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.
Refer to PWC-44, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace rear power window switch. Refer to PWC-69, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000010286501

1.CHECK REAR POWER WINDOW SWITCH

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

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace rear power window switch. Refer to PWC-69, "Removal and Installation".

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000010325683

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-45, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000010286502

LHD MODELS

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
Front power window motor (driver side)					
Connector	Terminal				
D12	3	Ground	Power window main switch	UP	0 - 1 V
				DOWN	9 - 16 V
	4			UP	9 - 16 V
				DOWN	0 - 1 V

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-26, "Disassembly and Assembly".
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 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	
D11	17	D12	4	Existed
	19		3	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D11	17		Not existed
	19		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : Removal and Installation".
NO >> Repair or replace harness.

RHD MODELS

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
Front power window motor (driver side)					
Connector	Terminal				
D32	3	Ground	Power window main switch	UP	0 - 1 V
				DOWN	9 - 16 V
	4			UP	9 - 16 V
				DOWN	0 - 1 V

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-26, "Disassembly and Assembly".
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 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	
D31	17	D32	4	Existed
	19		3	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D31	17		Not existed
	19		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000010325684

1. CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-46, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000010286503

LHD MODELS

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
Front power window motor (passenger side)					
Connector	Terminal				
D35	1	Ground	Front power window switch (passenger side)	UP	9 - 16 V
				DOWN	0 - 1 V
	2			UP	0 - 1 V
				DOWN	9 - 16 V

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to GW-26, "Disassembly and Assembly".

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 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	
D37	6	D35	2	Existed
	7		1	

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

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D37	6		Not existed
	7		

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-68, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Removal and Installation".

NO >> Repair or replace harness.

RHD MODELS

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
Front power window motor (passenger side)					
Connector	Terminal				
D15	1	Ground	Front power window switch (passenger side)	UP	9 - 16 V
				DOWN	0 - 1 V
	2			UP	0 - 1 V
				DOWN	9 - 16 V

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to GW-26, "Disassembly and Assembly".

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 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	
D7	6	D15	2	Existed
	7		1	

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

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D7	6		Not existed
	7		

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-68, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Removal and Installation".

NO >> Repair or replace harness.

REAR LH

REAR LH : Component Function Check

INFOID:0000000010325685

1.CHECK FUNCTION

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

Is the inspection result normal?

YES >> INSPECTION END

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

REAR LH : Diagnosis Procedure

INFOID:0000000010286504

1.CHECK REAR POWER WINDOW MOTOR LH INPUT SIGNAL

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

(+)		(–)	Condition		Voltage
Rear power window motor LH					
Connector	Terminal				
D53	1	Ground	Rear power window switch LH	UP	9 - 16 V
				DOWN	0 - 1 V
	2			UP	0 - 1 V
				DOWN	9 - 16 V

Is the inspection result normal?

YES >> Replace rear power window motor LH. Refer to GW-30, "Disassembly and Assembly".
NO >> GO TO 2.

2. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Rear power window switch LH		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D54	4	D53	2	Existed
	5		1	

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

Rear power window switch LH		Ground	Continuity
Connector	Terminal		
D54	4		Not existed
	5		

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-69, "Removal and Installation".
NO >> Repair or replace harness.

REAR RH

REAR RH : Component Function Check

INFOID:0000000010325686

1. CHECK FUNCTION

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

Is the inspection result normal?

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

REAR RH : Diagnosis Procedure

INFOID:0000000010286505

1. CHECK REAR POWER WINDOW MOTOR RH INPUT SIGNAL

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

(+)		(–)	Condition		Voltage
Rear power window motor RH					
Connector	Terminal				
D66	1	Ground	Rear power window switch RH	UP	9 - 16 V
				DOWN	0 - 1 V
	2			OP	0 - 1 V
				DOWN	9 - 16 V

Is the inspection result normal?

YES >> Replace rear power window motor RH. Refer to GW-30, "Disassembly and Assembly".
NO >> GO TO 2.

2.CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

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

Rear power window switch RH		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D67	4	D66	2	Existed
	5		1	

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

Rear power window switch RH		Ground	Continuity
Connector	Terminal		
D67	4		Not existed
	5		

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-69, "Removal and Installation".
NO >> Repair or replace harness.

ENCODER CIRCUIT

Component Function Check

INFOID:0000000010325687

1.CHECK FUNCTION

Check that front door glass (driver side) 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-51, "Diagnosis Procedure".

Diagnosis Procedure

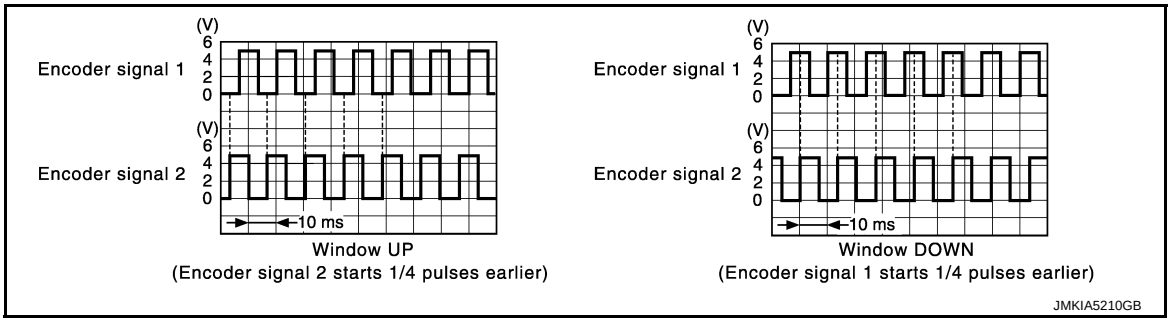
INFOID:0000000010286506

LHD MODELS

1.CHECK ENCODER SIGNAL

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

(+)		(–)	Signal (Reference value)
Power window main switch			
Connector	Terminal		
D10	4	Ground	Refer to following signal
	5		



Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : 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	
D10	4	D12	6	Existed
	5		1	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D10	4		Not existed
	5		

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
Front power window motor (driver side)			
Connector	Terminal		
D12	5	Ground	9 - 16 V

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	
D10	14	D12	5	Existed

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D10	14		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : 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	
D10	12	D12	2	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 connector and ground.

Power window main switch		Ground	Continuity
Connector	Terminal		
D10	12		Existed

Is the inspection result normal?

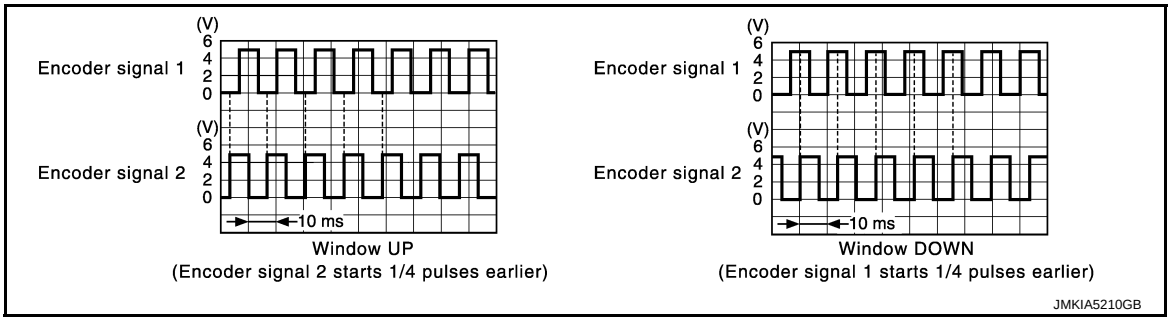
YES >> Replace front power window motor (driver side). Refer to GW-26, "Disassembly and Assembly".
NO >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : Removal and Installation".

RHD MODELS

1.CHECK ENCODER SIGNAL

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

(+)		(–)	Signal (Reference value)
Power window main switch			
Connector	Terminal		
D30	4	Ground	Refer to following signal
	5		



Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : 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	
D30	4	D32	6	Existed
	5		1	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D30	4		Not existed
	5		

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
Front power window motor (driver side)			
Connector	Terminal		
D32	5	Ground	9 - 16 V

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	
D30	14	D32	5	Existed

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D30	14		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : 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	
D30	12	D32	2	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 connector and ground.

Power window main switch		Ground	Continuity
Connector	Terminal		
D30	12		Existed

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-26, "Disassembly and Assembly".
NO >> Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : Removal and Installation".

POWER WINDOW RELAY

Component Function Check

INFOID:0000000010325688

1.CHECK FUNCTION

Operate the power window switch to check whether the power window system operate or not.

Is the inspection result normal?

YES >> INSPECTION END
NO >> Refer to PWC-56, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000010286540

1.CHECK POWER WINDOW RELAY

1. Turn ignition switch OFF.
2. Remove power window relay.
3. Check the continuity between power window relay terminals.

Terminals		Condition	Continuity
3	5	12V direct current between terminals 1 and 2	Existed
		No current supply	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace power window relay.

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Diagnosis Procedure

INFOID:0000000010286507

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to BCS-128, "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-33, "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 inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000010286508

1.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side).
Refer to PWC-45, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

FRONT PASSENGER SIDE POWER WINDOW 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:0000000010286509

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-40, "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-46, "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 inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "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:0000000010286510

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

Is the inspection result normal?

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

2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-40, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000010286511

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).
Refer to PWC-43, "Component Function Check".

Is the inspection result normal?

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

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED

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

INFOID:0000000010286512

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.
Refer to PWC-43, "Component Function Check".

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to PWC-48, "REAR LH : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure

INFOID:0000000010286513

1. CHECK REAR POWER WINDOW SWITCH LH POWER SUPPLY AND GROUND CIRCUIT

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

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.
Refer to PWC-43, "Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000010286514

1.CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.
Refer to PWC-43, "Component Function Check".

Is the inspection result normal?

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

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED

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

INFOID:0000000010286515

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.
Refer to PWC-43, "Component Function Check".

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to PWC-49, "REAR RH : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure

INFOID:0000000010286516

1. CHECK REAR POWER WINDOW SWITCH RH POWER SUPPLY AND GROUND CIRCUIT

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

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.
Refer to PWC-43, "Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000010286517

1.CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.
Refer to PWC-43, "Component Function Check".

Is the inspection result normal?

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

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

Diagnosis Procedure

INFOID:0000000010286518

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-31, "Description".

Is the inspection result normal?

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

2.CHECK ENCODER CIRCUIT

Check encoder circuit.
Refer to PWC-51, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

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

Diagnosis Procedure

INFOID:0000000010286519

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-31, "Description".

Is the inspection result normal?

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

2.CHECK ENCODER CIRCUIT

Check encoder circuit.
Refer to PWC-51, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000010286520

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-68, "POWER WINDOW MAIN SWITCH : Removal and Installation".

>> INSPECTION END

REMOVAL AND INSTALLATION

FRONT POWER WINDOW SWITCH

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Removal and Installation

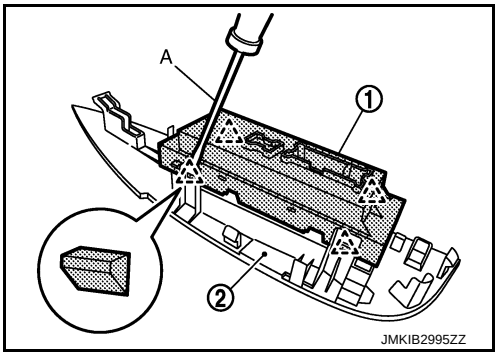
INFOID:0000000010286521

CAUTION:
Never bend the pawl of power window main switch finisher.

REMOVAL

1. Disconnect the battery negative terminal. Refer to PG-155, "Removal and Installation".
2. Remove power window main switch finisher. Refer to INT-12, "FRONT DOOR FINISHER : Removal and Installation".
3. Remove power window main switch ① from power window main switch finisher ② using remover tool (A).

: Pawl



INSTALLATION
Note the following items, 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-31, "Description".

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Removal and Installation

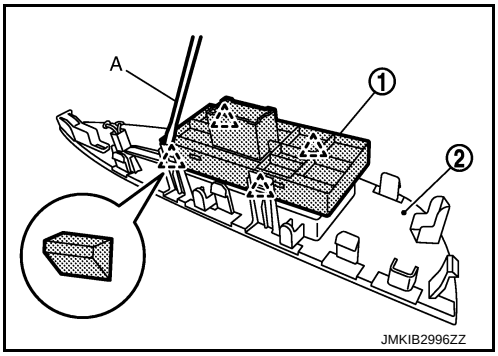
INFOID:0000000010286550

CAUTION:
Never bend the pawl of front power window switch (passenger side) finisher.

REMOVAL

1. Remove front power window switch (passenger side) finisher. Refer to INT-12, "FRONT DOOR FINISHER : Removal and Installation".
2. Remove front power window switch (passenger side) ① from front power window switch (passenger side) finisher ② using remover tool (A).

: Pawl



INSTALLATION
Install in the reverse order of removal.

REAR POWER WINDOW SWITCH

Removal and Installation

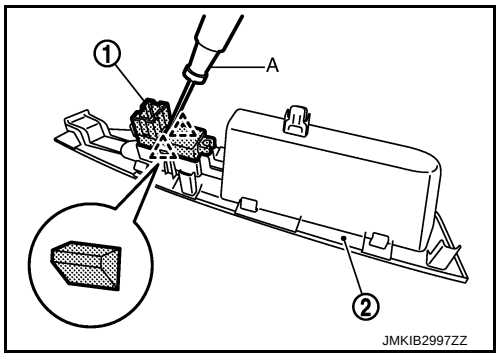
INFOID:0000000010286547

CAUTION:
Never bend the pawl of rear power window switch finisher.

REMOVAL

1. Remove rear power window switch finisher. Refer to INT-15, "REAR DOOR FINISHER : Removal and Installation".
2. Remove rear power window switch ① from rear power window switch finisher ② using remover tool (A).

△ : Pawl



INSTALLATION

Install in the reverse order of removal.