SECTION PWC
POWER WINDOW CONTROL SYSTEM

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000012549677

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

WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:0000000012549678

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:

- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

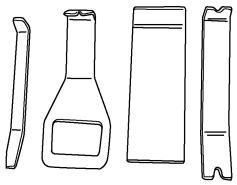
PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000012549679

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

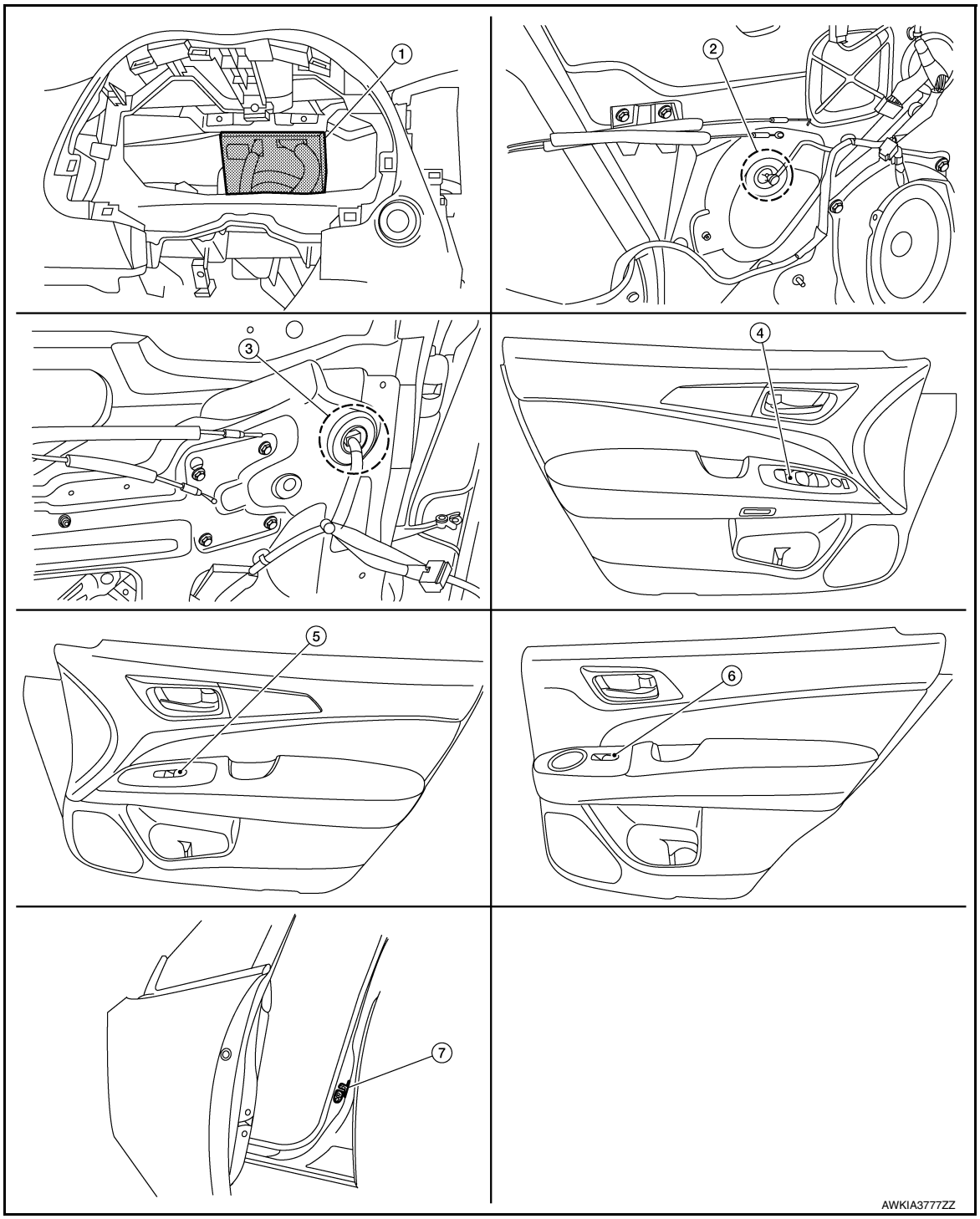
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim tool set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012549680



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

Component Description

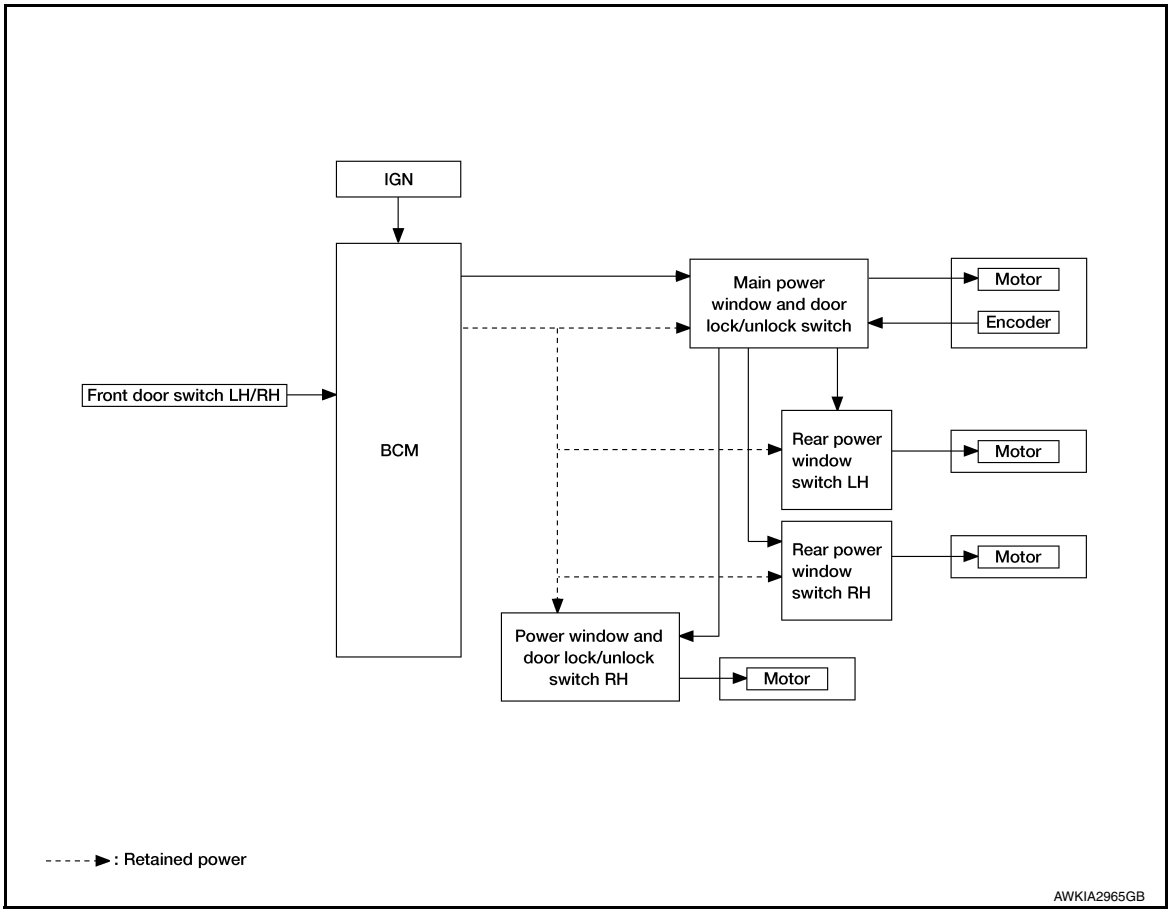
INFOID:0000000012549681

Component	Function
BCM	• Supplies power to the window switches. • Controls retained power.
Main power window and door lock/unlock switch	Directly controls all power window motors.
Power window and door lock/unlock switch RH	Controls power window motor of passenger door.
Rear power window switch	Controls right and left power window motors for the rear doors.
Power window motor	• Integrates the ENCODER and WINDOW MOTOR. • Starts operating with signals from each power window switch. • Transmits power window motor rotation as a pulse signal to power window switch.
Front door switch LH/RH	Detects door open/close condition and transmits it to the BCM.

SYSTEM

System Diagram

INFOID:0000000012549682



System Description

INFOID:0000000012549683

POWER WINDOW OPERATION

- Power window system is activated by the power window switch when the ignition switch is in the ON position or during the retained power operation after ignition switch turns OFF.
- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- Power window lock switch can lock all power windows other than driver seat.
- All power windows open when pressing Intelligent Key unlock button for 3 seconds.
- Power window serial link transmits the signals from power window main switch to each power window switch.

POWER WINDOW AUTO-OPERATION

- AUTO-DOWN operation can be performed when the front power window motor LH turns to AUTO.
- Encoder continues detecting the movement of power window motor and output the encoder pulse signal to power window switch while power window motor is operating.
- Power window motor is operable in case encoder is malfunctioning.
- AUTO-DOWN function does not operate if encoder is malfunctioning.

RETAINED POWER OPERATION

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

Retained Power Function Cancel Conditions

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

POWER WINDOW LOCK FUNCTION

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

KEYLESS POWER WINDOW DOWN FUNCTION

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

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

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

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012927027

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

APPLICATION ITEM
CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION
BCM can perform the following functions.

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

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000012927028

CAUTION:

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

DATA MONITOR

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

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000012549687

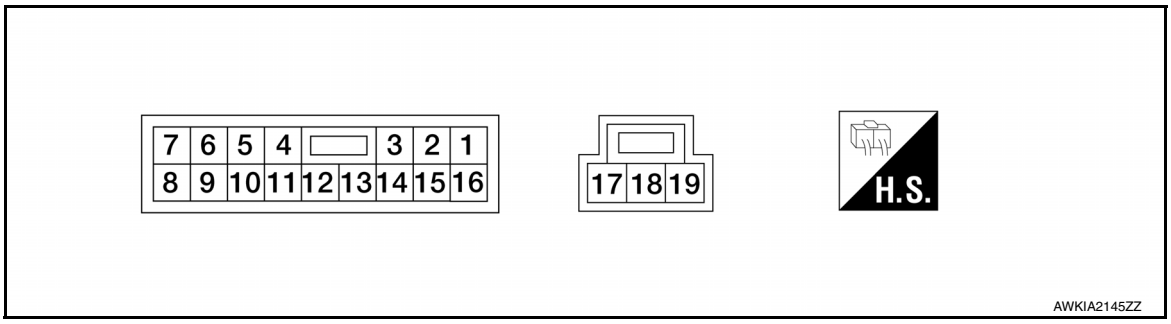
ECU	Reference
BCM	BCS-31, "Reference Value"
	BCS-50, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

POWER WINDOW MAIN SWITCH

Reference Value

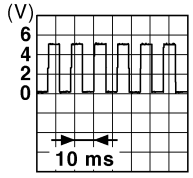
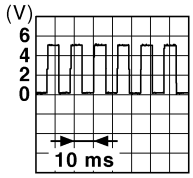
INFOID:0000000012549688

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
1 (B)	Ground	Ground	—	—	0
2 (Y)	16	Front power window motor RH DOWN signal	Output	When front RH switch in power window main switch is operated DOWN.	Battery voltage
4 (SB)	12	Encoder pulse signal 2	Input	When power window motor operates.	 JMKIA0070GB
5 (Y)	12	Encoder pulse signal 1	Input	When power window motor operates.	 JMKIA0070GB
6 (L)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
7 (V)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (LG)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage

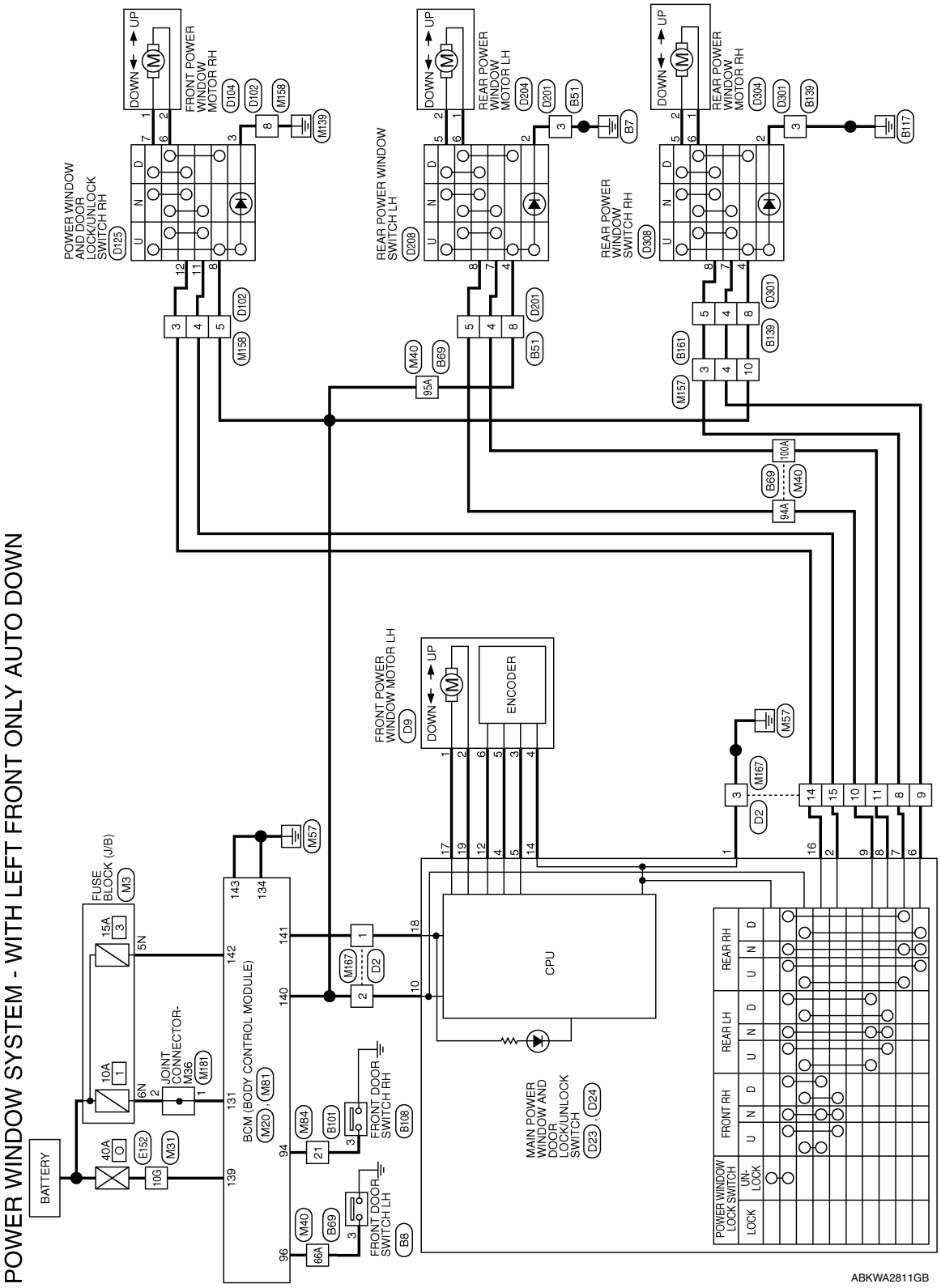
Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
9 (SB)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage
10 (BR)	Ground	RAP signal	Input	IGN SW ON	Battery voltage
				Within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

WIRING DIAGRAM

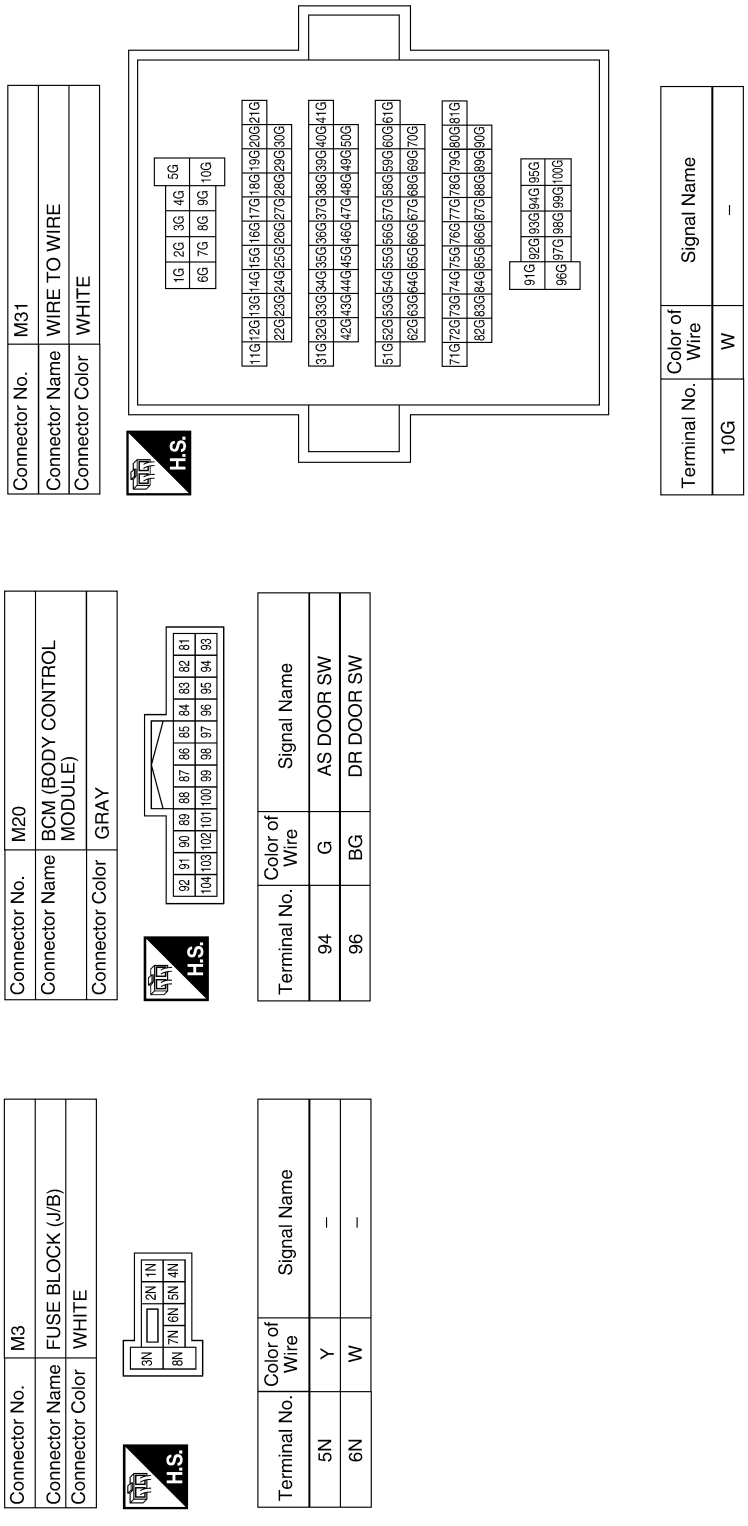
POWER WINDOW SYSTEM

Wiring Diagram - With Left Front Only Auto Down

INFOID:0000000012549689



POWER WINDOW SYSTEM CONNECTORS - WITH LEFT FRONT ONLY AUTO DOWN



ABKIA4757GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
21	G	–

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	B	GND 2
139	W	BAT POWER F/L
140	BR	P/W POWER SUPPLY IGN
141	Y	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND 1

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

	1A	2A	3A	4A	5A
	6A	7A	8A	9A	10A

11A	12A	13A	14A	15A	16A	17A	18A	19A	20A	21A
	22A	23A	24A	25A	26A	27A	28A	29A	30A	
31A	32A	33A	34A	35A	36A	37A	38A	39A	40A	41A
	42A	43A	44A	45A	46A	47A	48A	49A	50A	
51A	52A	53A	54A	55A	56A	57A	58A	59A	60A	61A
	62A	63A	64A	65A	66A	67A	68A	69A	70A	
71A	72A	73A	74A	75A	76A	77A	78A	79A	80A	81A
	82A	83A	84A	85A	86A	87A	88A	89A	90A	

91A	92A	93A	94A	95A
	96A	97A	98A	99A	100A

Terminal No.	Color of Wire	Signal Name
66A	BG	–
94A	SB	–
95A	BR	–
100A	LG	–

ABKIA4758GB

Connector No.	M157
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
3	V	–
4	L	–
10	BR	–

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
3	R	–
4	Y	–
5	BR	– (WITH LEFT FRONT ONLY AUTO DOWN)
8	B	–

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	BR	–
3	B	–
8	V	–
9	L	–
10	SB	–
11	LG	–
14	R	–
15	Y	–

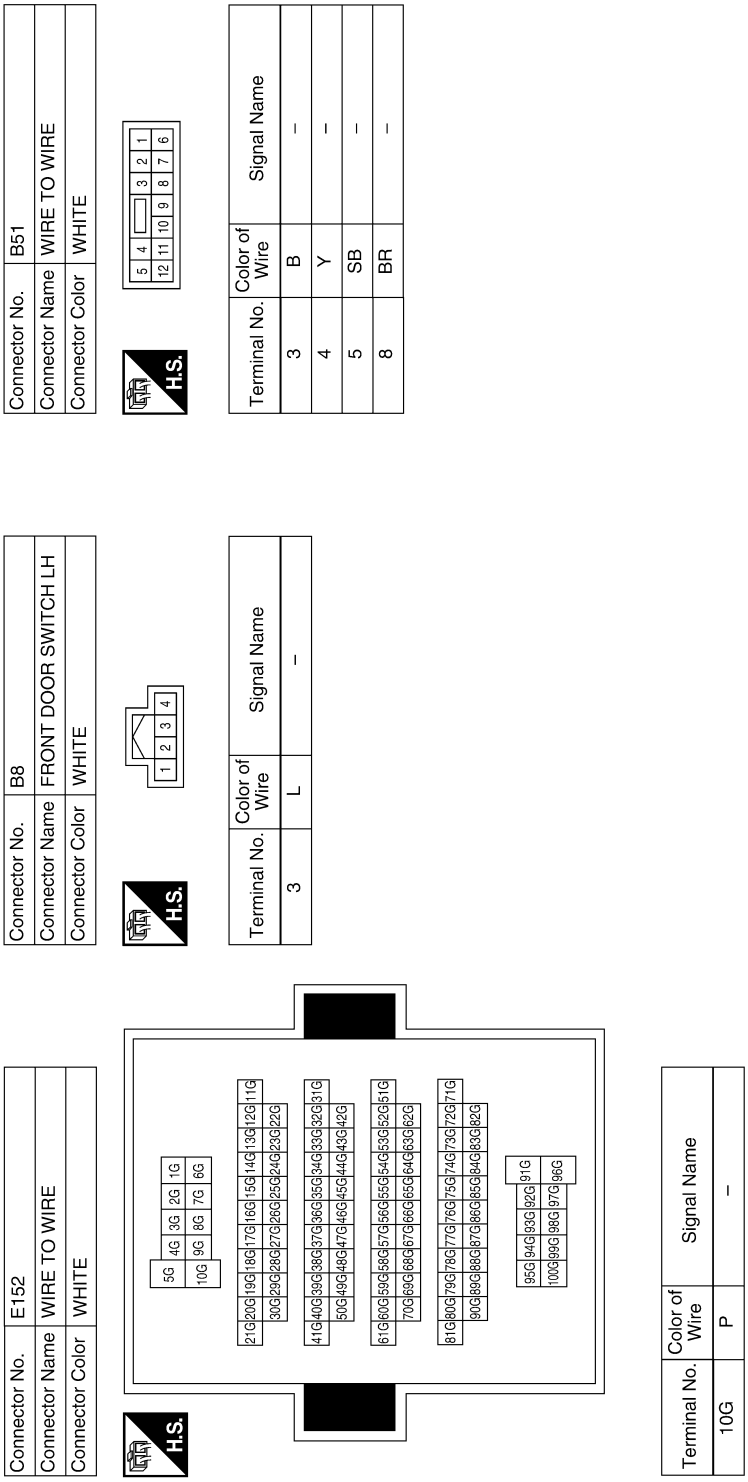
Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

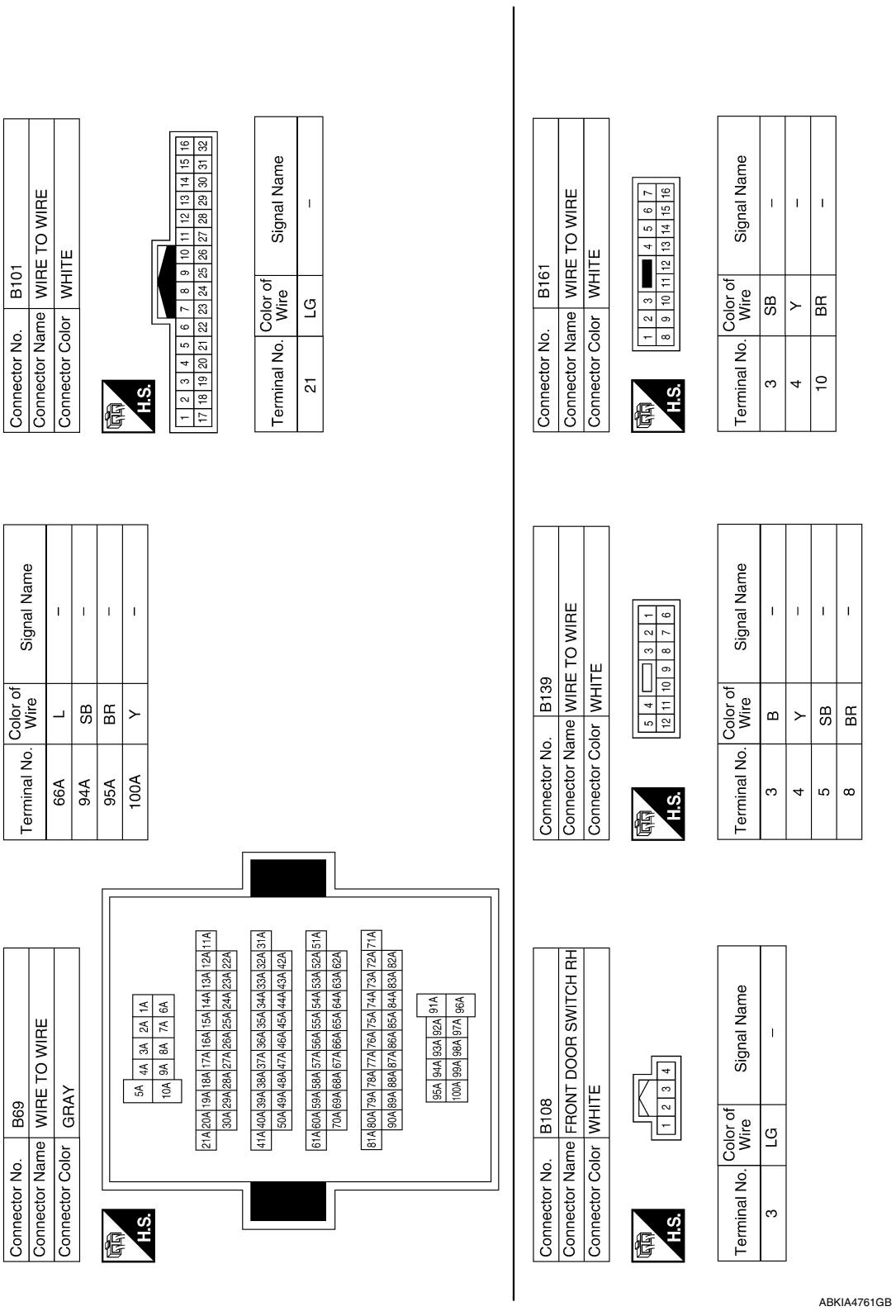
4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

ABKIA4759GB



ABKIA4760GB



ABKIA4761GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	BR	–
3	B	–
8	V	–
9	L	–
10	SB	–
11	LG	–
14	R	–
15	Y	–

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

H.S.

2		1
6	5	4	3

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	L	–
3	Y	–
4	LG	–
5	SB	–
6	BR	–

Connector No.	D23
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONT ONLY AUTO DOWN)
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	Y	MOTOR AS DOWN
3	–	–
4	SB	ENCODER SIG-2 (ULP)

Terminal No.	Color of Wire	Signal Name
5	Y	ENCODER SIG-1 (DLP)
6	L	MOTOR RR DOWN
7	V	MOTOR RR UP
8	LG	MOTOR RL DOWN
9	SB	MOTOR RL UP
10	BR	IGN
11	–	–
12	BR	ENCODER GND
13	–	–
14	LG	ENCODER +
15	–	–
16	R	MOTOR AS UP

Connector No.	D24
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE

H.S.

17	18	19

Terminal No.	Color of Wire	Signal Name
17	Y	MOTOR DR UP
18	Y	B+
19	L	MOTOR DR DOWN

ABKIA6404GB

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name
3	SB	–
4	Y	–
5	BR	–
8	B	–

Connector No.	D104
Connector Name	FRONT POWER WINDOW MOTOR RH (WITH LEFT FRONT ONLY AUTO DOWN)
Connector Color	WHITE

H.S.

2		1
6	5	4	3

Terminal No.	Color of Wire	Signal Name
1	V	–
2	LG	–

Connector No.	D125
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT ONLY AUTO DOWN)
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
3	B	–
6	LG	–
7	V	–
8	BR	–
11	Y	–
12	SB	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
3	B	–
4	Y	–
5	SB	–
8	BR	–

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

H.S.

2		1
6	5	4	3

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	V	–

Connector No.	D208
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Color	WHITE

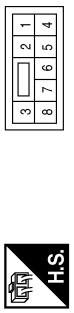
H.S.

3		2	1
8	7	6	5	4

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

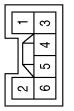
ABKIA6400GB

Connector No.	D308
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Color	WHITE



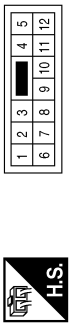
Terminal No.	Color of Wire	Signal Name
2	B	–
4	BR	–
5	V	–
6	LG	–
7	Y	–
8	SB	–

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



Terminal No.	Color of Wire	Signal Name
1	LG	–
2	V	–

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



Terminal No.	Color of Wire	Signal Name
3	B	–
4	Y	–
5	SB	–
8	BR	–

ABKIA6401GB

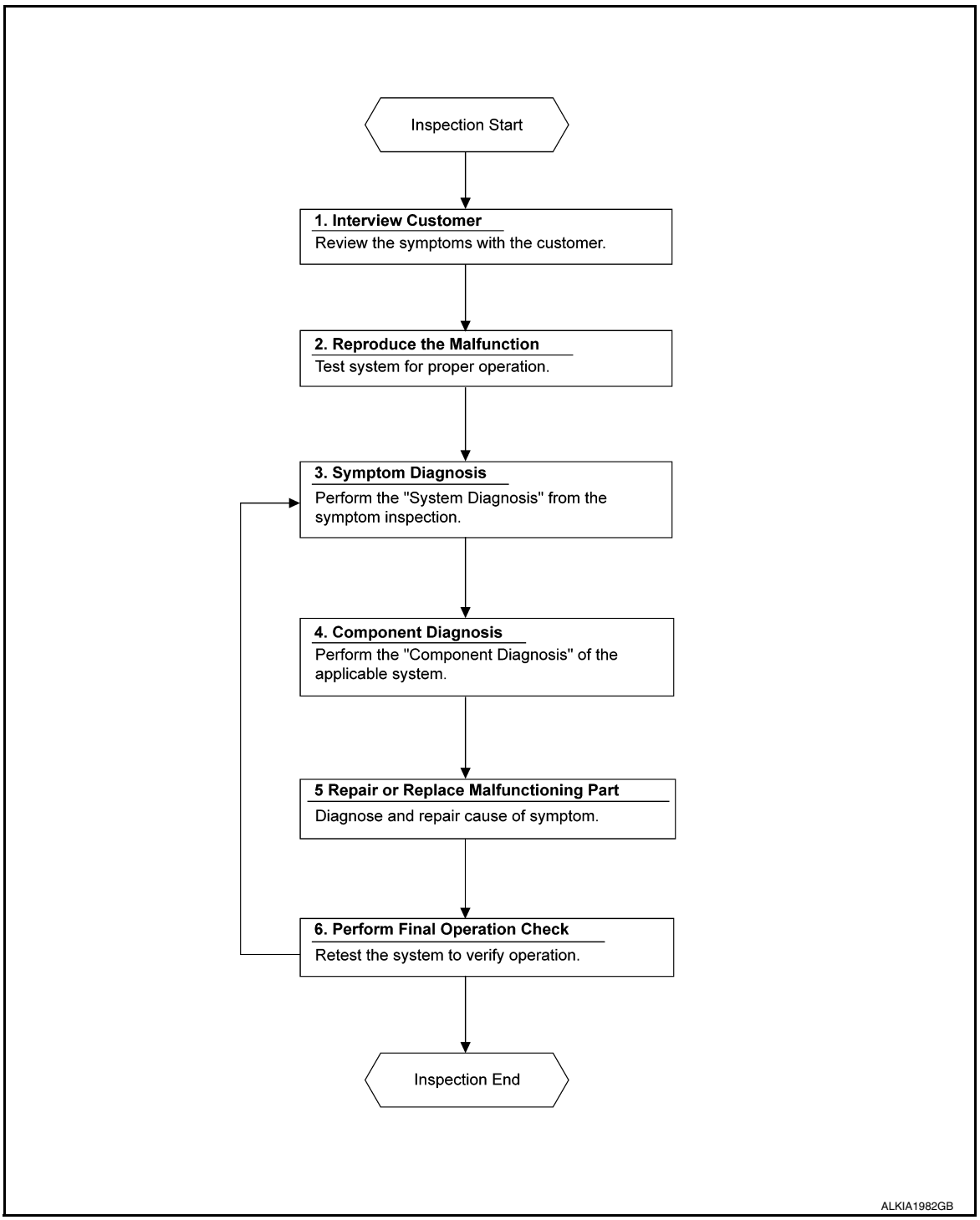
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000012549690

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2. CONFIRM THE SYMPTOM

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

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

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

>> GO TO 4.

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

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

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

Are the malfunctions corrected?

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

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000012927034

Regarding Wiring Diagram information, refer to BCS-55, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M81.
2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M81	131	—	Battery voltage
	139		

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M81	134	—	Yes
	143		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness or connectors.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000012549692

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

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000012549693

Main Power Window And Door Lock/unlock Switch

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

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

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.
NO >> Refer to PWC-29, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012549694

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

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

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connectors D23, D24 and ground.

Terminal			
(+)		(–)	Voltage (Approx.)
Main power window and door lock/unlock switch	Terminal		
D23	10	Ground	Battery voltage
D24	18		

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M81	140	D23	10	Yes
	141	D24	18	

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	140		No
	141		

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

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

3. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	1		Yes

Is the inspection result normal?

YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5.
YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6.
YES >> Check main power window and door lock/unlock switch output signal (front power window switch LH) GO TO 7.
YES >> Check main power window and door lock/unlock switch output signal (front power window switch RH) GO TO 8.
NO >> Repair or replace the harness or connectors.

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M81 and ground.

Terminals			Voltage (Approx.)
(+)		(–)	
BCM connector	Terminal		
M81	140	Ground	Battery voltage
	141		

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D23 and ground.

Terminal			Window switch position (rear LH)	Voltage (Approx.)
(+)		(–)		
Main power window and door lock/unlock switch connector	Terminal			
D23	9	Ground	UP	Battery voltage
			DOWN	0
	8		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D23 and ground.

Terminal			Window switch position (rear RH)	Voltage (Approx.)
(+)		(–)		
Main power window and door lock/unlock switch connector	Terminal			
D23	7	Ground	UP	Battery voltage
			DOWN	0
	6		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D24 and ground.

Terminal			Window switch position (front LH)	Voltage (Approx.)
(+)		(–)		
Main power window and door lock/unlock switch connector	Terminal			
D24	17	Ground	UP	Battery voltage
			DOWN	0
	19		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch D23 and ground.

Terminal			Window switch position (front RH)	Voltage (Approx.)
(+)		(–)		
Main power window and door lock/unlock switch connector	Terminal			
D23	16	Ground	UP	Battery voltage
			DOWN	0
	2		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:0000000012549695

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

1. Check main power window and door lock/unlock switch D23.

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

2. Check continuity between main power window and door lock/unlock switch D23 (power window lock switch) (Lock operation).

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

3. Check continuity between main power window and door lock/unlock switch D23 (power window lock switch) (Unlock operation).

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

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:0000000012549696

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

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012549697

Power Window And Door Lock/unlock Switch RH

1. CHECK POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.
NO >> Refer to PWC-33, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012549698

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

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

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

1. Turn ignition switch ON.
2. Check voltage between power window and door lock/unlock switch RH connector D125 and ground.

Terminal			Voltage (Approx.)
(+)		(–)	
Power window and door lock/unlock switch RH connector	Terminal		
D125	8	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
3. Check continuity between BCM connector M81 and power window and door lock/unlock switch RH connector D125.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M81	140	D125	8	Yes

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	140		No

Is the inspection result normal?

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

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

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and power window and door lock/unlock switch RH.
3. Check continuity between main power window and door lock/unlock switch connector D23 and power window and door lock/unlock switch RH connector D125.

Main power window and door lock/unlock switch connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
D23	2	D125	11	Yes
	16		12	

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	2		No
	16		

Is the inspection result normal?

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

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M81 and ground.

Terminals			Voltage (Approx.)
(+)		(–)	
BCM connector	Terminal		
M81	140	Ground	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

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

Check power window and door lock/unlock switch RH.

Refer to PWC-35, "FRONT POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace power window and door lock/unlock switch RH. Refer to PWC-62, "Removal and Installation".

FRONT POWER WINDOW SWITCH : Component Inspection

INFOID:0000000012549699

COMPONENT INSPECTION

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

Check power window and door lock/unlock switch RH D125.

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

Is the inspection result normal?

YES >> Power window and door lock/unlock switch RH is OK.
NO >> Replace power window and door lock/unlock switch RH. Refer to PWC-62, "Removal and Installation".

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Description

INFOID:0000000012549700

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

REAR POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012549701

Rear Power Window Switch

1. CHECK REAR POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

YES >> Rear power window switch power supply and ground circuit are OK.
NO >> Refer to PWC-35, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012549702

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Rear Power Window Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

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

Terminal				Condition	Voltage (Approx.)
(+)			(–)		
Rear power window switch connector		Terminal			
LH	D208	4	Ground	Ignition switch ON	Battery voltage
RH	D308				

Is the inspection result normal?

YES >> GO TO 2 (Rear power window switch LH).
YES >> GO TO 3 (Rear power window switch RH).
NO >> GO TO 4.

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

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

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch LH connector	Terminal	Continuity
D23	8	D208	7	Yes
	9		8	

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	8		No
	9		

Is the inspection result normal?

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

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

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

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity
D23	6	D308	7	Yes
	7		8	

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	6		No
	7		

Is the inspection result normal?

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

4. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity
M81	140	LH	D208	4	Yes
		RH	D308		

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M81	140		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.
Refer to PWC-37, "REAR POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace rear power window switch. Refer to PWC-63, "Removal and Installation".

REAR POWER WINDOW SWITCH : Component Inspection

INFOID:0000000012549703

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

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

Is the inspection result normal?

YES >> Rear power window switch is OK.
NO >> Replace rear power window switch. Refer to PWC-63, "Removal and Installation".

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012549704

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

DRIVER SIDE : Component Function Check

INFOID:0000000012549705

1. CHECK FRONT POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor LH is OK.
NO >> Refer to PWC-38, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012549706

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Front Power Window Motor LH Circuit Check

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

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

Terminal			Main power window and door lock/unlock switch condition	Voltage (Approx.)
(+)		(–)		
Front power window motor LH connector	Terminal			
D9	1	Ground	UP	Battery voltage
			DOWN	0
	2		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch.
3. Check continuity between main power window and door lock/unlock switch connector D24 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D24	19	D9	2	Yes
	17		1	

4. Check continuity between main power window and door lock/unlock switch connector D24 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D24	19		No
	17		

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.
Refer to PWC-39, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

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

NO >> Replace front power window motor LH. Refer to GW-18, "Removal and Installation".

DRIVER SIDE : Component Inspection

INFOID:0000000012549707

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

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

Terminal		Motor condition
(+)	(–)	
1	2	UP
2	1	DOWN

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to GW-18, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012549708

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

PASSENGER SIDE : Component Function Check

INFOID:0000000012549709

1. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor RH is OK.

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

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012549710

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Front Power Window Motor RH Circuit Check

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

1. Turn ignition switch OFF.

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

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

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH.
3. Check continuity between power window and door lock/unlock switch RH connector D125 and front power window motor RH connector D104.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D125	6	D104	2	Yes
	7		1	

4. Check continuity between power window and door lock/unlock switch connector D125 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D125	6	Ground	No
	7		

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-62, "Removal and Installation".
NO >> Repair or replace the harness or connectors.

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.
Refer to PWC-40, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace front power window motor RH. Refer to GW-14, "Removal and Installation".

PASSENGER SIDE : Component Inspection

INFOID:0000000012549711

COMPONENT INSPECTION

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

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

Terminal		Motor condition
(+)	(–)	
1	2	UP
2	1	DOWN

Is the inspection result normal?

YES >> Power window motor is OK.
NO >> Replace front power window motor RH. Refer to GW-14, "Removal and Installation".

REAR LH

REAR LH : Description

INFOID:0000000012549712

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

REAR LH : Component Function Check

INFOID:0000000012549713

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.
NO >> Refer to PWC-41, "REAR LH : Diagnosis Procedure"

REAR LH : Diagnosis Procedure

INFOID:0000000012549714

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Rear Power Window Motor LH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

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

Terminal			Window condition	Voltage (Approx.)
(+)		(–)		
Rear power window motor LH connector	Terminal			
D204	2	Ground	UP	Battery voltage
			DOWN	0
	1		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH.
3. Check continuity between rear power window switch LH connector D208 and rear power window motor LH connector D204.

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D208	6	D204	1	Yes
	5		2	

4. Check continuity between rear power window switch LH connector D208 and ground.

Rear power window switch LH connector	Terminal	Ground	Continuity
D208	6		No
	5		

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to PWC-37, "REAR POWER WINDOW SWITCH : Component Inspection".
NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to PWC-42, "REAR LH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace rear power window motor LH. Refer to GW-19, "Removal and Installation".

REAR LH : Component Inspection

INFOID:0000000012549715

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

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

Terminal		Motor condition
(+)	(–)	
2	1	UP
1	2	DOWN

Is the inspection result normal?

YES >> Rear power window motor LH is OK.
NO >> Replace rear power window motor LH. Refer to GW-19, "Removal and Installation".

REAR RH

REAR RH : Description

INFOID:0000000012549716

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

REAR RH : Component Function Check

INFOID:0000000012549717

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Power window motor is OK.
NO >> Refer to PWC-42, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000012549718

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Rear Power Window Motor RH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

Terminal			Rear power window switch RH condition	Voltage (Approx.)
(+)		(–)		
Rear power window motor RH connector	Terminal			
D304	2	Ground	UP	Battery voltage
			DOWN	0
	1		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH.
3. Check continuity between rear power window switch RH connector D308 and rear power window motor RH connector D304.

Rear power window switch RH connector	Terminal	Rear power window motor RH connector	Terminal	Continuity
D308	5	D304	2	Yes
	6		1	

4. Check continuity between rear power window switch RH connector D308 and ground.

Rear power window switch RH connector	Terminal	Ground	Continuity
D308	5		No
	6		

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to PWC-37, "REAR POWER WINDOW SWITCH : Component Inspection".
NO >> Repair or replace harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to PWC-43, "REAR RH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace rear power window motor RH. Refer to GW-19, "Removal and Installation".

REAR RH : Component Inspection

INFOID:0000000012549719

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

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

Terminal		Motor condition
(+)	(–)	
1	2	DOWN
2	1	UP

Is the inspection result normal?

YES >> Power window motor is OK.
NO >> Replace rear power window motor RH. Refer to GW-19, "Removal and Installation".

ENCODER
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012549720

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

DRIVER SIDE : Component Function Check

INFOID:0000000012549721

1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.
NO >> Refer to PWC-45, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012549722

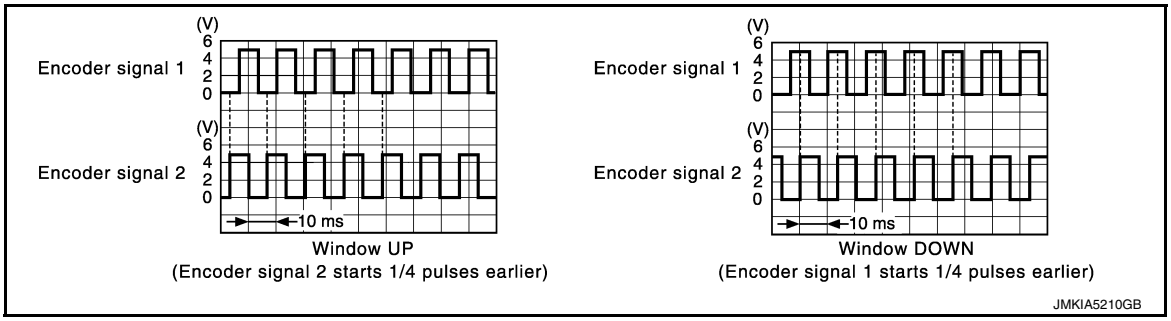
Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

Encoder Circuit Check

1. CHECK ENCODER OPERATION

1. Connect front power window motor LH.
2. Turn ignition switch ON.
3. Check signal between main power window and door lock/unlock switch connector D23 and ground with oscilloscope.

Signal name	Terminals			Signal (Reference value)
	(+)		(–)	
	Main power window and door lock/unlock switch connector	Terminal		
Encoder signal 1	D23	5	Ground	Refer to following signal
Encoder signal 2		4		



Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

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

Terminal			Voltage (Approx.)
(+)		(–)	
Front power window motor LH connector	Terminal		
D9	4	Ground	10

Is the inspection result normal?

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

3. CHECK HARNESS CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D23 and front power window motor connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D23	14	D9	4	Yes

4. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	14		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".
NO >> Repair or replace harness or connectors.

4. CHECK GROUND CIRCUIT

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

Front power window motor LH connector	Terminal	Ground	Continuity
D9	6		Yes

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between main power window and door lock/unlock switch connector D23 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D23	12	D9	6	Yes

Is the inspection result normal?

YES >> Check main power window and door lock/unlock switch. Refer to PWC-32, "POWER WINDOW MAIN SWITCH : Component Inspection".
NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between main power window D23 and door lock/unlock switch connector and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D23	5	D9	3	Yes
	4		5	

3. Check continuity between main power window and door lock/unlock switch connector D23 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D23	5		No
	4		

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to GW-14, "Removal and Installation".
NO >> Repair or replace harness or connectors.

DOOR SWITCH

Component Function Check

INFOID:0000000012549723

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR SW-DR, DOOR SW-AS in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
DOOR SW-DR	Driver side door	Open	On
		Closed	Off
DOOR SW-AS	Passenger side door	Open	On
		Closed	Off

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to PWC-48, "Diagnosis Procedure".

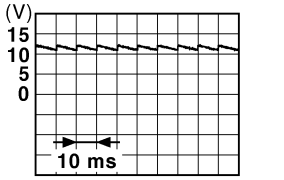
Diagnosis Procedure

INFOID:0000000012549724

Regarding Wiring Diagram information, refer to PWC-17, "Wiring Diagram - With Left Front Only Auto Down".

1.CHECK DOOR SWITCH INPUT SIGNAL

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

(+)			(–)	Signal (Reference value)
Door switch				
Connector		Terminal		
Driver side	B8	3	Ground	 JPMIA0011GB 11.8 V
Passenger side	B108			

Is the inspection result normal?

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

2.CHECK DOOR SWITCH CIRCUIT

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

Door switch			BCM		Continuity
Connector		Terminal	Connector	Terminal	
Driver side	B8	3	M20	96	Yes
Passenger side	B108			94	

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

Door switch			Ground	Continuity
Connector		Terminal		
Driver side	B8	3		No
Passenger side	B108			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to PWC-49, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace malfunctioning door switch. Refer to DLK-284, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012549725

1.CHECK DOOR SWITCH

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

Door switch		Condition		Continuity
Terminal				
3	Ground contact is part of the switch.	Door switch	Pressed	No
			Released	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace malfunction door switch. Refer to DLK-284, "Removal and Installation".

POWER WINDOW LOCK SWITCH

Description

INFOID:0000000012549726

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

Component Function Check

INFOID:0000000012549727

1. CHECK POWER WINDOW LOCK SIGNAL

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-61, "Removal and Installation".

NO >> Check condition of harness and connector.

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH

Diagnosis Procedure

INFOID:0000000012549728

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
BCS-81, "Removal and Installation".

Is the inspection result normal?

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

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

Check power window switch power supply and ground circuit.
Refer to PWC-29, "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 result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012549729

1.CHECK DRIVER SIDE POWER WINDOW MOTOR

Check driver side power window motor.
Refer to PWC-38, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012549730

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

Check power window and door lock/unlock switch RH circuit.
Refer to PWC-33, "FRONT POWER WINDOW SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

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

INFOID:0000000012549731

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

Replace power window and door lock/unlock switch RH.
Refer to PWC-62, "Removal and Installation".

>> Inspection End.

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:0000000012549732

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

Check power window and door lock/unlock switch RH power supply and ground circuit.
Refer to PWC-33, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.
Refer to PWC-39, "PASSENGER SIDE : 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 result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012549733

1.CHECK REAR POWER WINDOW SWITCH LH CIRCUIT

Check rear power window switch LH circuit.
Refer to PWC-35, "REAR POWER WINDOW SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "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:0000000012549734

1.REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.
Refer to PWC-63, "Removal and Installation".

>> Inspection End.

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:0000000012549735

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

Check rear power window switch power supply and ground circuit.
Refer to PWC-35, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to PWC-41, "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 result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000012549736

1. CHECK REAR POWER WINDOW SWITCH RH CIRCUIT

Check rear power window switch RH circuit.
Refer to PWC-35, "REAR POWER WINDOW SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure

INFOID:0000000012549737

1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.
Refer to PWC-63, "Removal and Installation".

>> Inspection End.

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:0000000012549738

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

Check rear power window switch power supply and ground circuit.
Refer to PWC-35, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to PWC-42, "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 result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012549739

1. CHECK ENCODER (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit.
Refer to PWC-45, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Diagnosis Procedure

INFOID:0000000012549740

1.CHECK DOOR SWITCH

Check door switch.
Refer to PWC-48, "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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012549742

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to DLK-236, "Diagnosis Procedure".

2.CHECK POWER WINDOW OPERATION

Check power window operation.

In the inspection result normal?

YES >> GO TO 3.
NO >> Refer to PWC-29, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000012549743

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-61, "Removal and Installation".

>> Inspection End.

POWER WINDOW SWITCH DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012549744

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.
Refer to PWC-61, "Removal and Installation".

>> Inspection End.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012549745

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

Replace power window and door lock/unlock switch RH.
Refer to PWC-62, "Removal and Installation".

>> Inspection End.

REAR LH

REAR LH : Diagnosis Procedure

INFOID:0000000012549746

1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.
Refer to PWC-63, "Removal and Installation".

>> Inspection End.

REAR RH

REAR RH : Diagnosis Procedure

INFOID:0000000012549747

1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.
Refer to PWC-63, "Removal and Installation".

>> Inspection End.

REMOVAL AND INSTALLATION

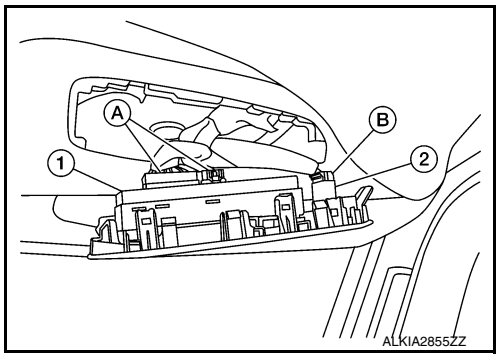
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Removal and Installation

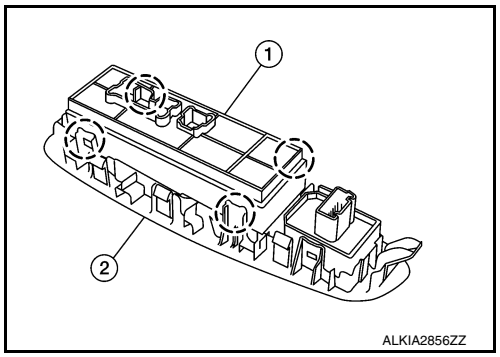
INFOID:0000000012549748

REMOVAL

1. Remove the main power window and door lock/unlock switch from the front door finisher using a suitable tool.
2. Disconnect the harness connectors (A) from the main power window and door lock/unlock switch (1) and harness connector (B) from the mirror control switch (2).



3. Release the pawls, then separate the main power window and door lock/unlock switch (1) from the switch finisher (2).
   ◌: Pawl



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-26, "Work Flow".

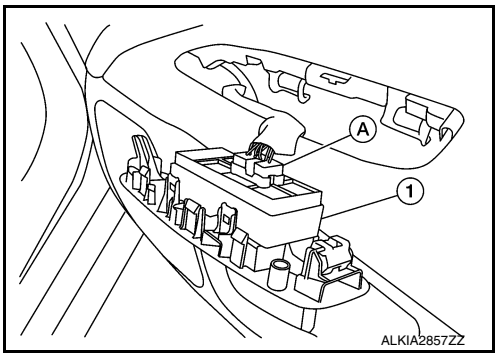
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Removal and Installation

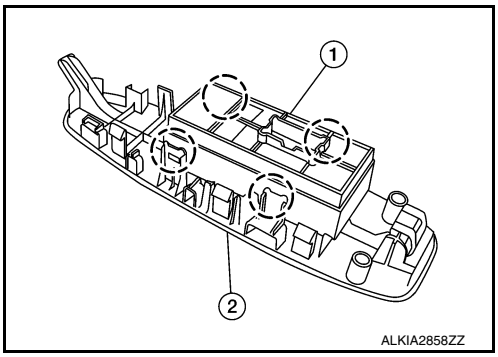
INFOID:0000000012549749

REMOVAL

1. Remove the power window and door lock/unlock switch (RH) from the front door finisher using a suitable tool.
2. Disconnect the harness connector (A) from the power window and door lock/unlock switch (RH) (1).



3. Release four pawls, then separate power window and door lock/unlock switch (RH) (1) from switch finisher (2).
   ◌: Pawl



INSTALLATION

Installation is in the reverse order of removal.

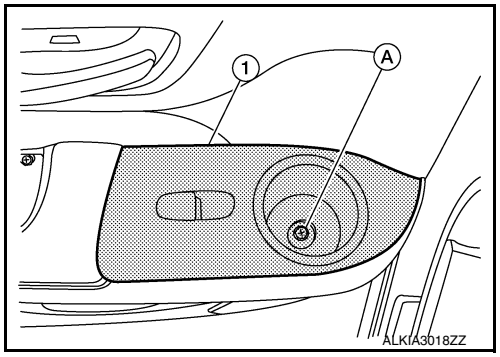
REAR POWER WINDOW SWITCH

Removal and Installation

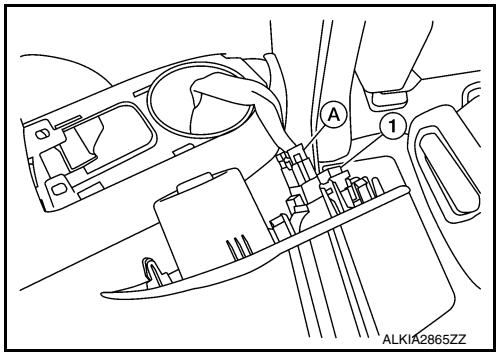
INFOID:0000000012549750

REMOVAL

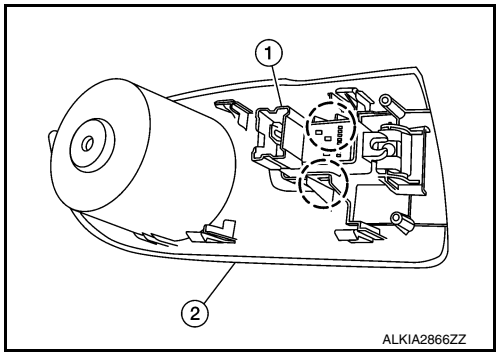
1. Remove the rear door cup holder mat.
2. Remove the rear power window switch finisher screw (A) and the rear power window switch finisher (1) from the rear door finisher using a suitable tool.



3. Disconnect the harness connector (A) from the rear power window switch (1).



4. Release the two pawls, then separate the rear power window switch (1) from the switch finisher (2).
   ◌: Pawl



INSTALLATION

Installation is in the reverse order of removal.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000012549751

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

WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:0000000012549752

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:

- Water soluble dirt:

- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.

- Oily dirt:

- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

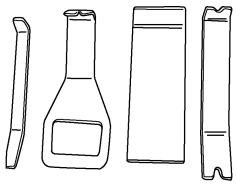
PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000012549753

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

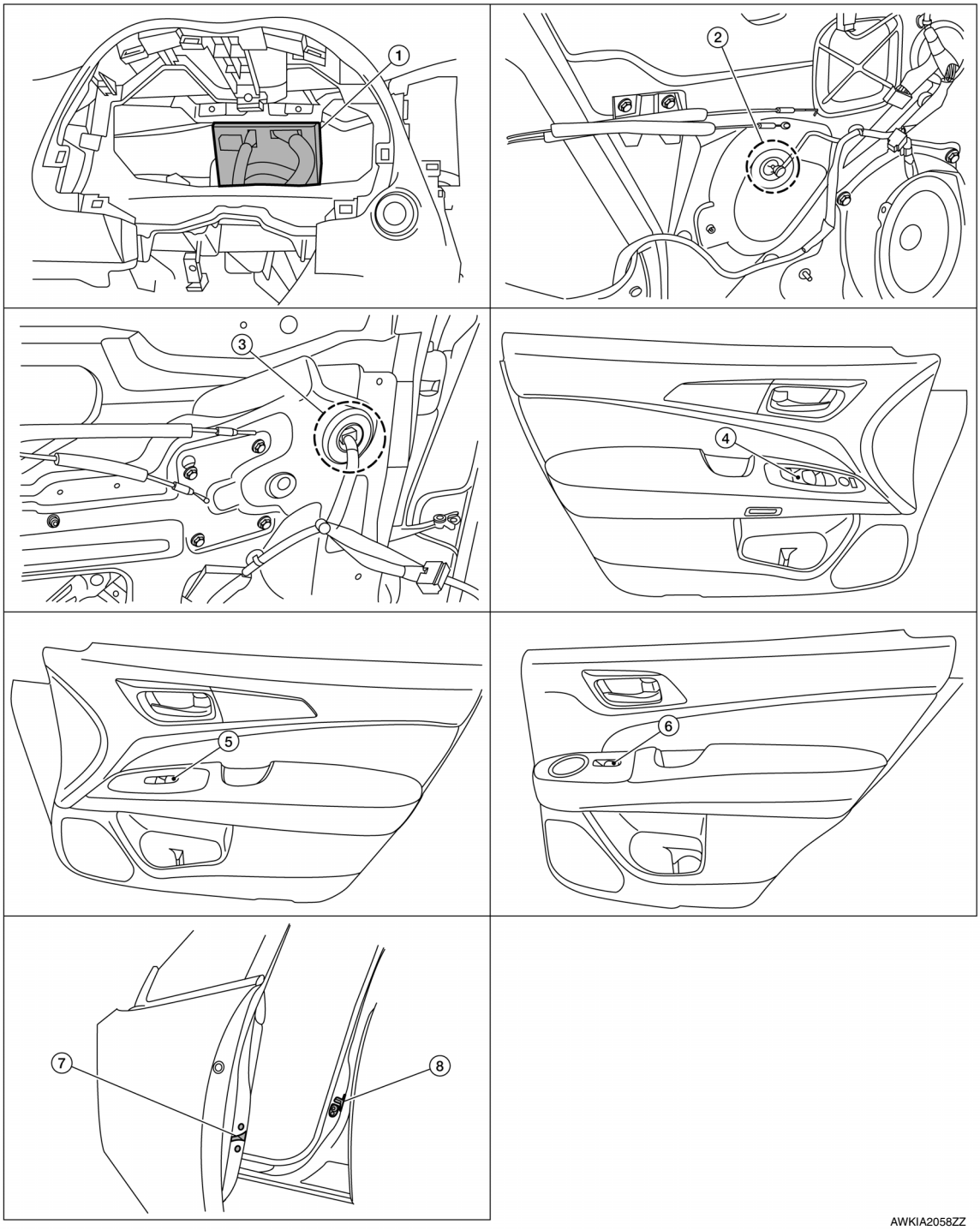
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim tool set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012549754



AWKIA2058ZZ

1. BCM (view with the combination meter removed)
2. Front power window motor LH (RH similar) (view with front door finisher removed)
3. Rear power window motor LH (RH similar) (view with rear door finisher removed)

4. Main power window and door lock/unlock switch
5. Power window and door lock/unlock switch RH
6. Rear power window switch LH (RH similar)
7. Front door lock assembly LH (key cylinder switch)
8. Front door switch LH (RH similar)

Component Description

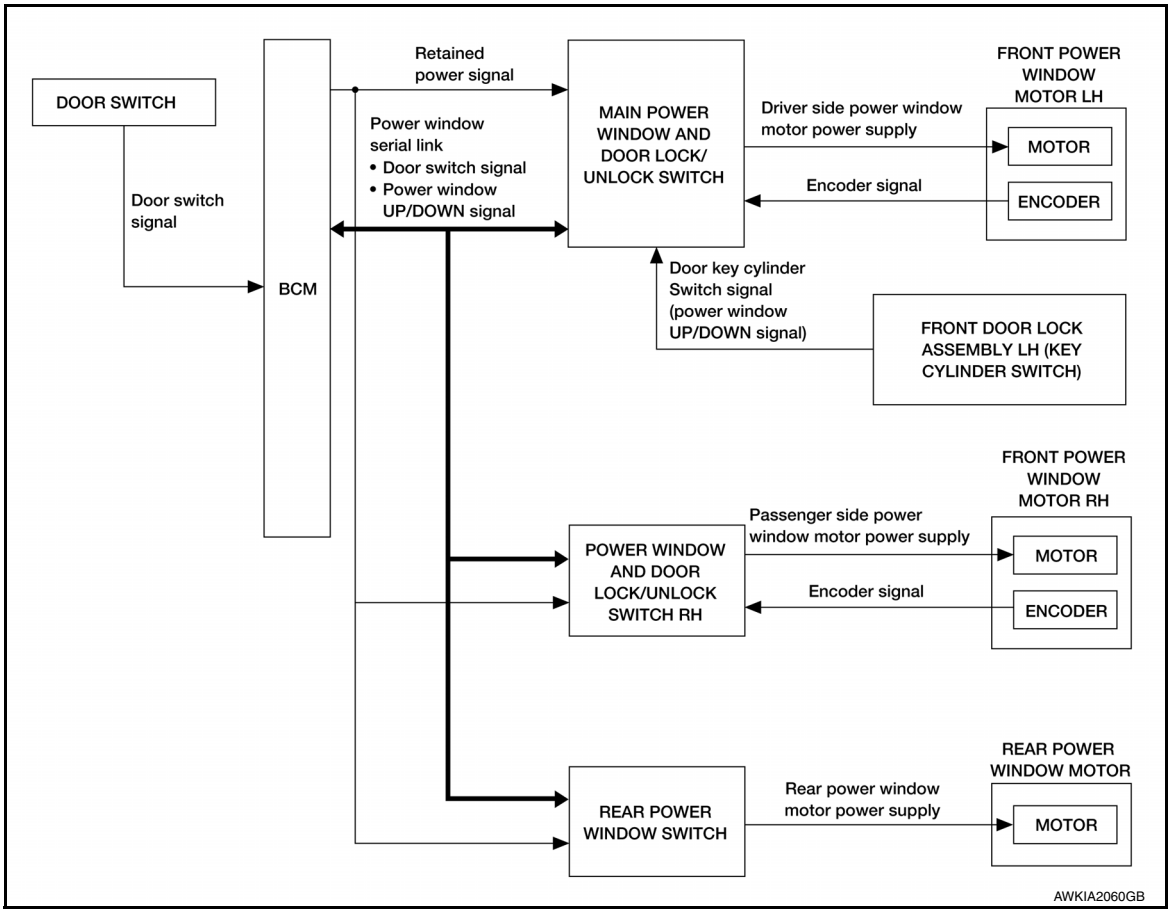
INFOID:0000000012549755

Component	Function
BCM	• Supplies power to the window switches. • Controls retained power.
Main power window and door lock/unlock switch	Directly controls all power window motors.
Power window and door lock/unlock switch RH	Controls power window motor of passenger door.
Rear power window switch	Controls right and left power window motors for the rear doors.
Power window motor	• Integrates the CPU and WINDOW MOTOR. • Starts operating with signals from each power window switch. • Transmits power window motor rotation as a pulse signal to power window switch. • Controls anti-pinch operation for front windows LH and RH.
Front door lock assembly (door key cylinder switch)	Transmits operation condition of door key cylinder switch to power window main switch.
Front door switch LH/RH	Detects door open/close condition and transmits it to the BCM.

SYSTEM

System Diagram

INFOID:0000000012549756



System Description

INFOID:0000000012549757

POWER WINDOW OPERATION

- Power window system is activated by the power window switch when the ignition switch is in the ON position or during the retained power operation after ignition switch turns OFF.
- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- Power window lock switch can lock all power windows other than driver seat.
- All power windows open when pressing Intelligent Key unlock button for 3 seconds.
- If door glass receives resistance that is more than the specified value and the power window is in the AUTO-UP operation, power window will move in the reverse direction (Anti-Pinch Function).

POWER WINDOW AUTO-OPERATION

- AUTO-UP/DOWN operation can be performed when front power window motor turns to AUTO.
- Power window switch reads the changes of the CPU signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case of CPU malfunctioning.
- AUTO function does not operate if the CPU is malfunctioning.

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.

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

- Keyless power window down signal.
- Door switch signal.

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side).
- Front passenger side door window operation signal.
- Retained power operation signal.

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

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

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

ANTI-PINCH OPERATION
- Pinch foreign material in the door glass during Auto-Up operation, and it is the anti-pinch that lowers the door glass 150 mm (5.9 in) or 2 seconds when detected.
- CPU continues detecting the movement of power window motor and transmits to the power window switch as the CPU signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of CPU 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) or 2 seconds after it detects CPU 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 second or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, it stops when key position is moved to N (NEUTRAL) when operating.

Operation Condition
- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1 second or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to UNLOCK position for 1 second or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION
All power windows open when the unlock button on Intelligent Key is activated and pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed. The power window opening stops when the following operations are performed.
- When the unlock button is pressed for more than 15 seconds.
- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

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

Fail-safe
INFOID:0000000012549758

FAIL-SAFE CONTROL
Window system switches to fail-safe control when a malfunction is detected in the CPU during UP and DOWN operation. Switches to fail-safe control when an error beyond the regulation value is detected between the fully closed position and the actual position of the glass.

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

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

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

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000012927038

CAUTION:

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

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions.

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

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000012927039

CAUTION:

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

DATA MONITOR

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

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000012549761

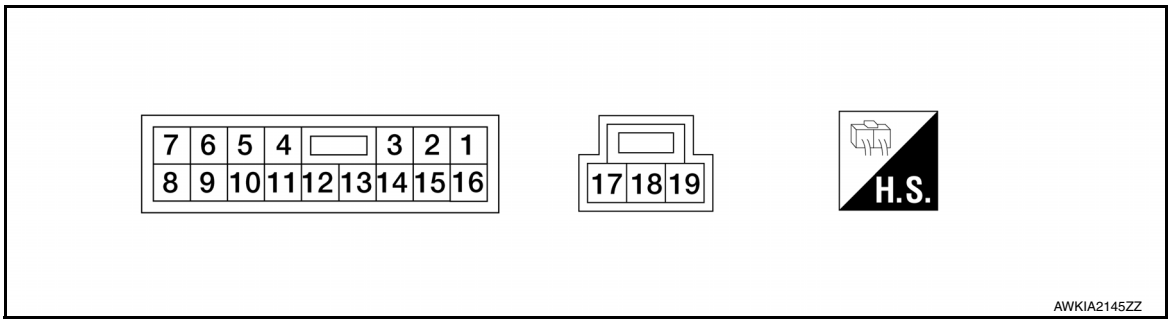
ECU	Reference
BCM	BCS-31, "Reference Value"
	BCS-50, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"

POWER WINDOW MAIN SWITCH

Reference Value

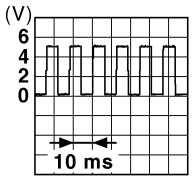
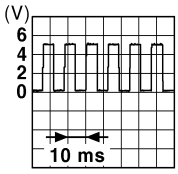
INFOID:0000000012549762

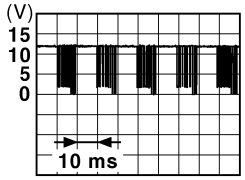
TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

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

Terminal No.		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
10 (BR)	Ground	RAP signal	Input	IGN SW ON	Battery voltage
				Within 45 second after ignition switch is turned to OFF.	Battery voltage
				When front LH or RH door is opened during retained power operation.	0
11 (Y)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	 JPMIA0013GB
12 (BR)	Ground	Encoder ground	—	—	0
14 (LG)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
15 (SB)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral → Unlocked)	5 → 0
17 (Y)	19	Front door power window motor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
18 (Y)		Battery power supply	Input	—	Battery voltage
19 (L)	17	Front door power window motor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage

Fail Safe

INFOID:0000000012549763

FAIL-SAFE CONTROL

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

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

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

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

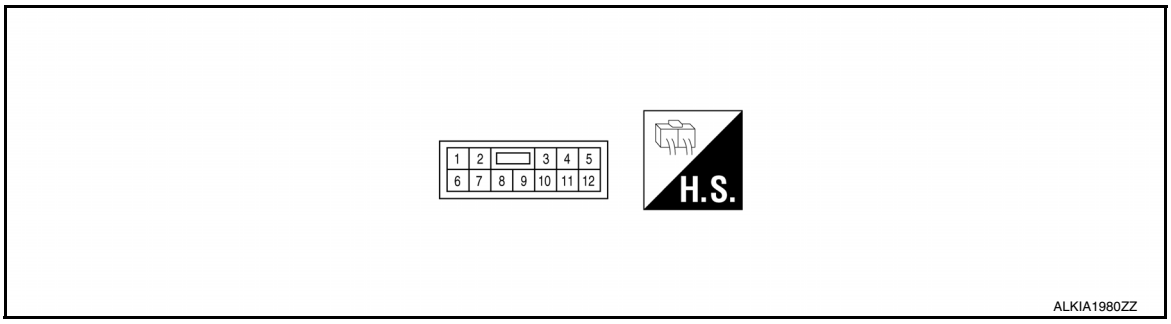
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

FRONT POWER WINDOW SWITCH

Reference Value

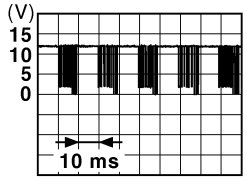
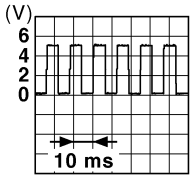
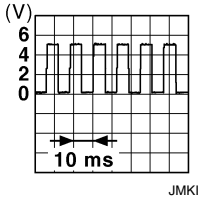
INFOID:0000000012549764

TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Terminal No.		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
3 (Y)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	 JPMIA0013GB
4 (LG)	Ground	Encoder ground	—	—	0
5 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10
7 (B)	Ground	Ground	—	—	0
8 (BR)	Ground	Battery power supply	Input	—	Battery voltage
9 (V)	4	Encoder pulse signal 1	Input	When power window motor operates.	 JMKIA0070GB
10 (W)	4	Encoder pulse signal 2	Input	When power window motor operates.	 JMKIA0070GB

Terminal No.		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
11 (L)	12	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
12 (BR)	11	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage

Fail Safe

INFOID:0000000012549765

FAIL-SAFE CONTROL

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

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

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

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

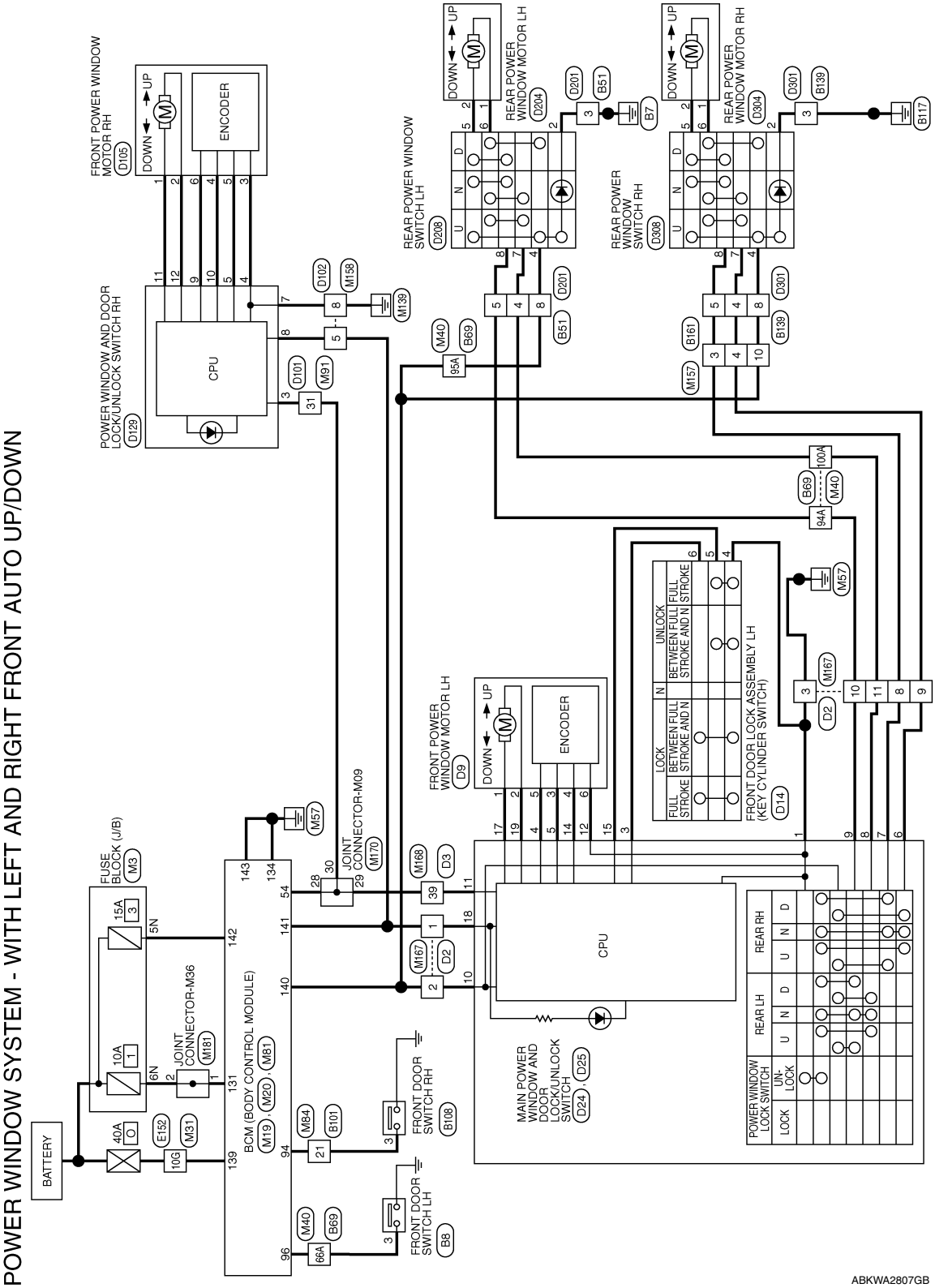
WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram - With Left & Right Front Auto Up/Down

INFOID:0000000012549766

POWER WINDOW SYSTEM - WITH LEFT AND RIGHT FRONT AUTO UP/DOWN



POWER WINDOW SYSTEM CONNECTORS - WITH LEFT AND RIGHT FRONT AUTO UP/DOWN

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

H.S.

3N	2N	1N
8N	7N	6N	5N	4N

Terminal No.	Color of Wire	Signal Name
5N	Y	–
6N	W	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
54	W	PW LIN/COM

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

H.S.

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

Terminal No.	Color of Wire	Signal Name
94	G	AS DOOR SW
96	BG	DR DOOR SW

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1G	2G	3G	4G	5G
6G	7G	8G	9G	10G

11G	12G	13G	14G	15G	16G	17G	18G	19G	20G	21G
22G	23G	24G	25G	26G	27G	28G	29G	30G		

31G	32G	33G	34G	35G	36G	37G	38G	39G	40G	41G
42G	43G	44G	45G	46G	47G	48G	49G	50G		

51G	52G	53G	54G	55G	56G	57G	58G	59G	60G	61G
62G	63G	64G	65G	66G	67G	68G	69G	70G		

71G	72G	73G	74G	75G	76G	77G	78G	79G	80G	81G
82G	83G	84G	85G	86G	87G	88G	89G	90G		

91G	92G	93G	94G	95G
96G	97G	98G	99G	100G

Terminal No.	Color of Wire	Signal Name
10G	W	–

ABKIA4749GB

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

1A	2A	3A	4A	5A
6A	7A	8A	9A	10A

11A	12A	13A	14A	15A	16A	17A	18A	19A	20A	21A
	22A	23A	24A	25A	26A	27A	28A	29A	30A	
31A	32A	33A	34A	35A	36A	37A	38A	39A	40A	41A
	42A	43A	44A	45A	46A	47A	48A	49A	50A	
51A	52A	53A	54A	55A	56A	57A	58A	59A	60A	61A
	62A	63A	64A	65A	66A	67A	68A	69A	70A	
71A	72A	73A	74A	75A	76A	77A	78A	79A	80A	81A
	82A	83A	84A	85A	86A	87A	88A	89A	90A	

91A	92A	93A	94A	95A
96A	97A	98A	99A	100A

Terminal No.	Color of Wire	Signal Name
66A	BG	–
94A	SB	–
95A	BR	–
100A	LG	–

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

H.S.

137	136	135	134	133	132	131	130	129
145	142	141	140	139	138			

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	B	GND 2
139	W	BAT POWER F/L
140	BR	P/W POWER SUPPLY IGN
141	Y	P/W POWER SUPPLY BAT
142	Y	BAT FRONT DOOR
143	B	GND 1

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
21	G	–

Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
31	W	–

Connector No.	M157
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
3	V	–
4	L	–
10	BR	–

ABKIA4750GB

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
5	Y	– (WITH LEFT AND RIGHT FRONT AUTO UP/DOWN)
8	B	–

Connector No.	M167
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	BR	–
3	B	–

Terminal No.	Color of Wire	Signal Name
8	V	–
9	L	–
10	SB	–
11	LG	–

Connector No.	M168
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name
39	W	–

Connector No.	M170
Connector Name	JOINT CONNECTOR-M09
Connector Color	WHITE

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
28	W	–
29	W	–
30	W	–

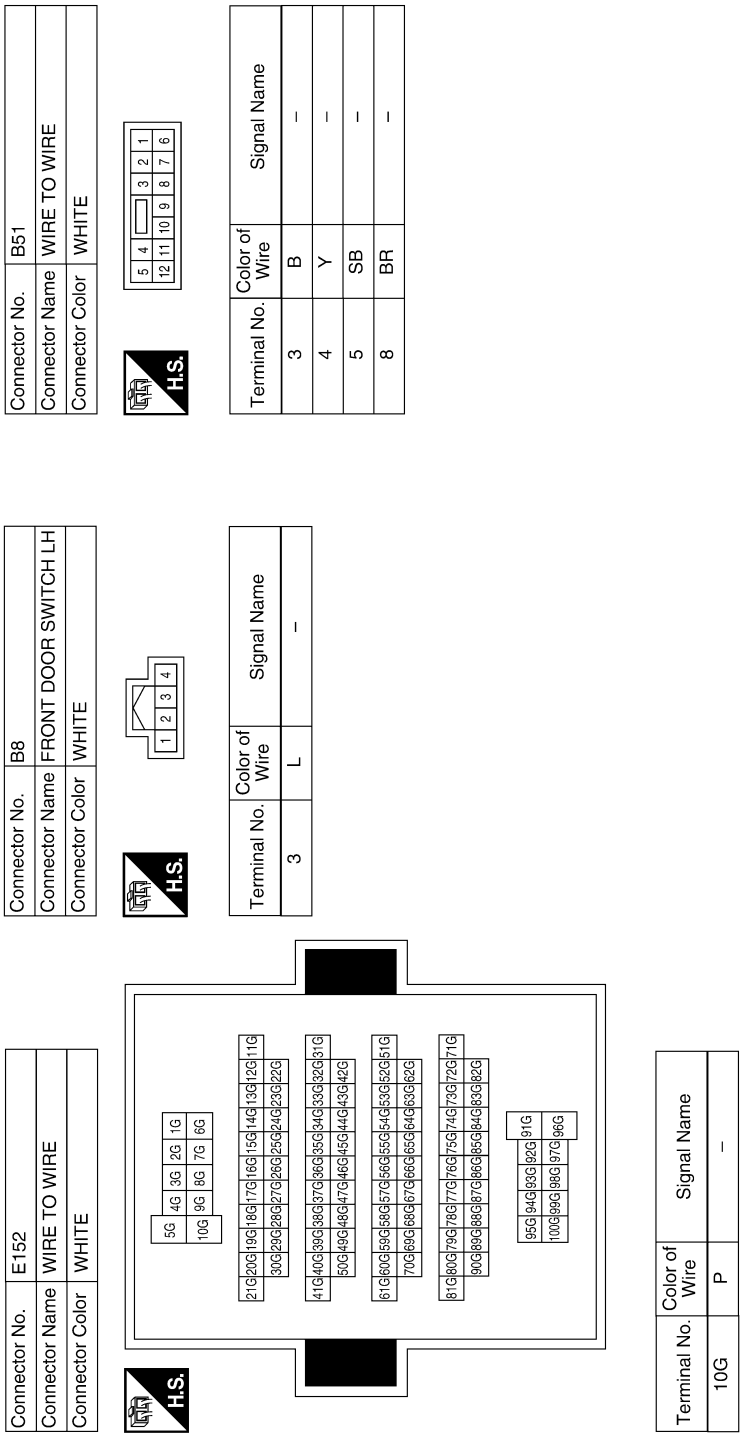
Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

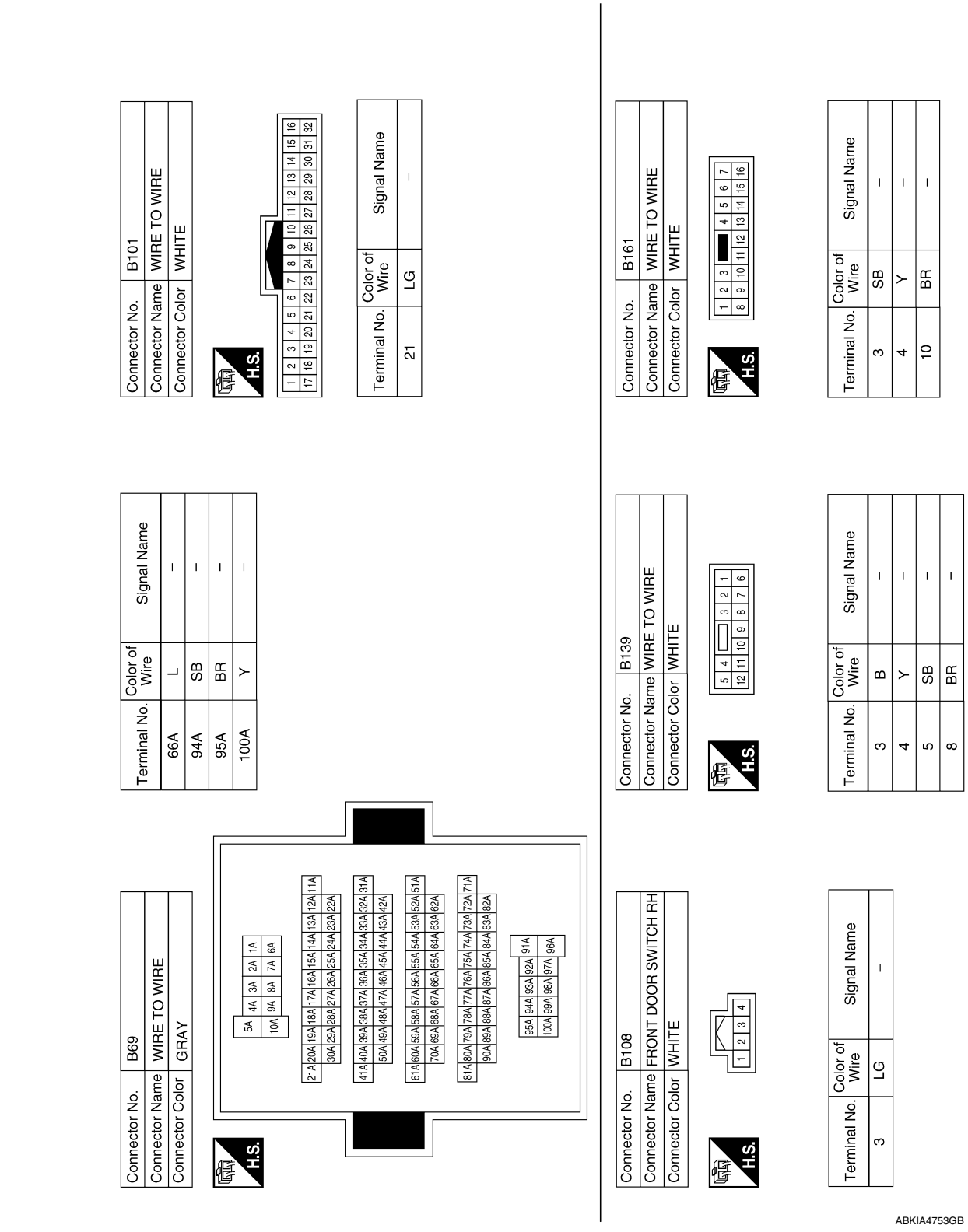
4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

ABKIA4751GB



ABKIA4752GB


Connector No. B101
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Terminal No. Color of Wire Signal Name
21 LG –
Connector No. B161
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
1 2 3 4 5 6 7
8 9 10 11 12 13 14 15 16
Terminal No. Color of Wire Signal Name
3 SB –
4 Y –
10 BR –
Connector No. B69
Connector Name WIRE TO WIRE
Connector Color GRAY
H.S.
5A 4A 3A 2A 1A
10A 9A 8A 7A 6A
21A 20A 19A 18A 17A 16A 15A 14A 13A 12A 11A
30A 29A 28A 27A 26A 25A 24A 23A 22A
41A 40A 39A 38A 37A 36A 35A 34A 33A 32A 31A
50A 49A 48A 47A 46A 45A 44A 43A 42A
61A 60A 59A 58A 57A 56A 55A 54A 53A 52A 51A
70A 69A 68A 67A 66A 65A 64A 63A 62A
81A 80A 79A 78A 77A 76A 75A 74A 73A 72A 71A
90A 89A 88A 87A 86A 85A 84A 83A 82A
95A 94A 93A 92A 91A
100A 99A 98A 97A 96A
Terminal No. Color of Wire Signal Name
66A L –
94A SB –
95A BR –
100A Y –
Connector No. B139
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
5 4 3 2 1
12 11 10 9 8 7 6
Terminal No. Color of Wire Signal Name
3 B –
4 Y –
5 SB –
8 BR –
Connector No. B108
Connector Name FRONT DOOR SWITCH RH
Connector Color WHITE
H.S.
1 2 3 4
Terminal No. Color of Wire Signal Name
3 LG –
ABKIA4753GB

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	BR	–
3	B	–
8	V	–
9	L	–
10	SB	–
11	LG	–

Connector No.	D3
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
39	Y	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	L	–
3	Y	–
4	LG	–
5	SB	–
6	BR	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
4	B	–
5	SB	–
6	BR	–

Connector No.	D24
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
17	Y	MOTOR DR UP
18	Y	B+
19	L	MOTOR DR DOWN

ABKIA4754GB

Connector No.	D25
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT AND RIGHT FRONT AUTO UP/DOWN)
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	B	GND
2	–	–
3	BR	KEY CYL LOCK
4	SB	ENCODER SIG-2 (ULP)

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

4	3		2	1
10	9	8	7	6	5

Terminal No.	Color of Wire	Signal Name
5	BR	–
8	B	–

Terminal No.	Color of Wire	Signal Name
5	Y	ENCODER SIG-1 (DLP)
6	L	MOTOR RR DOWN
7	V	MOTOR RR UP
8	LG	MOTOR RL DOWN
9	SB	MOTOR RL UP
10	BR	IGN
11	Y	COM
12	BR	ENCODER GND
13	–	–
14	LG	ENCODER +
15	SB	UNLOCK CDL
16	–	–

Connector No.	D105
Connector Name	FRONT POWER WINDOW MOTOR RH (WITH LEFT AND RIGHT FRONT AUTO UP/DOWN)
Connector Color	WHITE

H.S.

2			1
6	5	4	3

Terminal No.	Color of Wire	Signal Name
1	L	–
2	BR	–
3	LG	–
4	W	–
5	BG	–
6	V	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
31	Y	–

Connector No.	D129
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT FRONT AUTO UP/DOWN)
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	–	–
2	–	–
3	Y	COM
4	LG	ENCODER
5	BG	ENCODER +
6	–	–
7	B	GND
8	BR	BAT
9	V	ENCODER SIG1
10	W	ENCODER SIG2
11	L	MOTOR UP
12	BR	MOTOR DOWN

ABKIA6403GB

Connector No.	D208
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Color	WHITE

H.S.

3		2	1
8	7	6	5	4

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

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

H.S.

2		1
6	5	4	3

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	V	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
3	B	–
4	Y	–
5	SB	–
8	BR	–

Connector No.	D308
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Color	WHITE

H.S.

3		2	1
8	7	6	5	4

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

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

H.S.

2		1
6	5	4	3

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	V	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
3	B	–
4	Y	–
5	SB	–
8	BR	–

ABKIA6402GB

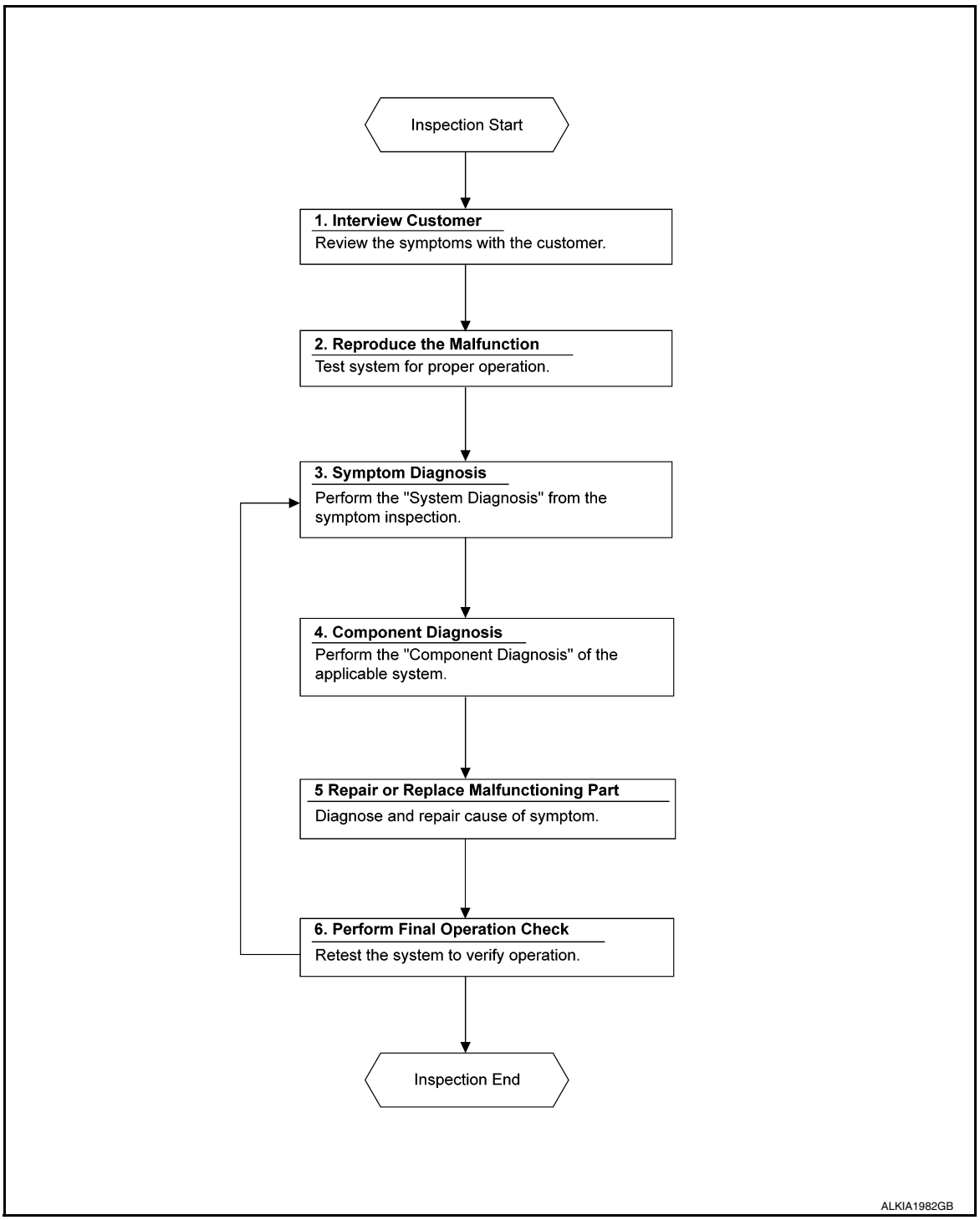
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000012549767

OVERALL SEQUENCE



DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2. CONFIRM THE SYMPTOM

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

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

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

>> GO TO 4.

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

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

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

Are the malfunctions corrected?

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

Description

INFOID:0000000012549768

When the negative battery terminal is disconnected, the initialization is necessary for normal operation of power window system.

CAUTION:

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

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

Work Procedure

INFOID:0000000012549769

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-92, "Work Procedure".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-93, "Work Procedure".

>> Inspection End.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

Description

INFOID:0000000012549770

When the negative battery terminal is disconnected, the initialization is necessary for normal operation of power window system.

CAUTION:

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

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

Work Procedure

INFOID:0000000012549771

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-92, "Work Procedure".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-93, "Work Procedure".

>> Inspection End.

SYSTEM INITIALIZATION

Description

INFOID:0000000012549772

If any of the following operations are performed, the initialization is necessary for normal operation of power window system.
- When control unit replaced.
- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnection and connection of the negative battery terminal.
- Removal and installation of regulator assembly.
- Power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or if the battery fuse is blown.
- Disconnection and connection of power window main switch harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

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

Work Procedure

INFOID:0000000012549773

1.STEP 1

1. Disconnect battery negative terminal or power main switch connector. Reconnect it after a minute or more.
2. Turn ignition switch ON.
3. Operate the power window switch to fully open the window. (This operation is not necessary if the window is already fully open).
4. Continue pulling the power window switch UP (AUTO-UP operation). Even after the glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
5. Retest the AUTO-UP function operation.

>> GO TO 2.

2.STEP 2

Check anti-pinch function. Refer to PWC-93, "Work Procedure".

>> Inspection End.

CHECK ANTI-PINCH FUNCTION

Description

INFOID:0000000012549774

If any of the following operations are performed, the initialization is necessary for normal operation of power window system.
- When control unit is replaced.
- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnection and connection of the negative battery terminal.
- Removal and installation of regulator assembly.
- Power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or if the battery fuse is blown.
- Disconnection and connection of power window main switch harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

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

Work Procedure

INFOID:0000000012549775

1.CHECK ANTI-PINCH FUNCTION

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

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

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.**

>> Inspection End.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000012927040

Regarding Wiring Diagram information, refer to BCS-55, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M81.
2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M81	131	—	Battery voltage
	139		

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M81	134	—	Yes
	143		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness or connectors.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000012549777

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

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000012549778

Main Power Window And Door Lock/unlock Switch

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

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

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.
NO >> Refer to PWC-95, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012549779

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

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

1. CHECK POWER SUPPLY CIRCUIT

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

Terminal			Voltage (Approx.)
(+)		(–)	
Main power window and door lock/unlock switch connector	Terminal		
D25	10	Ground	Battery voltage
D24	18		

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M81	140	D25	10	Yes
	141	D24	18	

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	140		No
	141		

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch.
3. Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D25	1		Yes

Is the inspection result normal?

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

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M81 and ground.

Terminals			Voltage (Approx.)
(+)		(–)	
BCM connector	Terminal		
M81	140	Ground	Battery voltage
	141		

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch connector D25 and ground.

Terminal			Window switch position (rear LH)	Voltage (Approx.)
(+)		(–)		
Main power window and door lock/unlock switch connector	Terminal			
D25	9	Ground	UP	Battery voltage
			DOWN	0
	8		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-98, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch connector D25 and ground.

Terminal			Window switch position (rear RH)	Voltage (Approx.)
(+)		(–)		
Main power window and door lock/unlock switch connector	Terminal			
D25	7	Ground	UP	Battery voltage
			DOWN	0
	6		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

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

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-98, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".

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

1. Connect main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check voltage between main power window and door lock/unlock switch connector D24 and ground.

Terminal			Window switch position (front LH)	Voltage (Approx.)
(+)		(–)		
Main power window and door lock/unlock switch connector	Terminal			
D24	17	Ground	UP	Battery voltage
			DOWN	0
	19		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

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

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-98, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:0000000012549780

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

1. Check main power window and door lock/unlock switch D25.

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

2. Check continuity between main power window and door lock/unlock switch D25 (power window lock switch). (Lock operation).

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

3. Check continuity between main power window and door lock/unlock switch D25 (power window lock switch). (Unlock operation).

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

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-98, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".

POWER WINDOW MAIN SWITCH : Special Repair Requirement

INFOID:0000000012549781

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.
Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> Inspection end.
NO >> Refer to PWC-110, "DRIVER SIDE : Component Function Check".

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:0000000012549782

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

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012549783

Power Window And Door Lock/unlock Switch RH

1. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

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

Is the inspection result normal?

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.
NO >> Refer to PWC-99, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012549784

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

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

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between power window and door lock/unlock switch RH connector D129 and ground.

Terminal			Voltage (Approx.)
(+)		(–)	
Power window and door lock/unlock switch RH connector	Terminal		
D129	8	Ground	Battery voltage

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and power window and door lock/unlock switch RH.
3. Check continuity between BCM connector M81 and power window and door lock/unlock switch RH connector D129.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M81	141	D129	8	Yes

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	141		No

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH.
3. Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH	Terminal	Ground	Continuity
D129	7		Yes

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the harness or connectors.

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M81 and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
BCM connector	Terminal		
M81	141	Ground	Battery voltage

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

FRONT POWER WINDOW SWITCH : Special Repair Requirement

INFOID:0000000012549785

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.
Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> Inspection end.
NO >> Refer to PWC-112, "PASSENGER SIDE : Component Function Check".

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Description

INFOID:0000000012549786

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

REAR POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012549787

Rear Power Window Switch

1. CHECK REAR POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

YES >> Rear power window switch power supply and ground circuit are OK.
NO >> Refer to PWC-100, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012549788

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Rear Power Window Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between rear power window switch connector and ground.

Terminal				Condition	Voltage (Approx.)
(+)			(–)		
Rear power window switch connector		Terminal			
LH	D208	4	Ground	Ignition switch ON	Battery voltage
RH	D308				

Is the inspection result normal?

YES >> GO TO 2 (Rear power window switch LH).
YES >> GO TO 3 (Rear power window switch RH).
NO >> GO TO 4.

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

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and rear power window switch LH.
3. Check continuity between main power window and door lock/unlock switch connector D25 and rear power window switch LH connector D208.

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch LH connector	Terminal	Continuity
D25	8	D208	7	Yes
	9		8	

4. Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D25	8	Ground	No
	9		

Is the inspection result normal?

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

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

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and rear power window switch RH.
3. Check continuity between main power window and door lock/unlock switch connector D25 and rear power window switch RH connector D308.

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity
D25	6	D308	7	Yes
	7		8	

4. Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D25	6	Ground	No
	7		

Is the inspection result normal?

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

4. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity
M81	140	LH	D208	4	Yes
		RH	D308		

3. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	140		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace the harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.
Refer to PWC-102, "REAR POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace rear power window switch. Refer to PWC-138, "Removal and Installation".

REAR POWER WINDOW SWITCH : Component Inspection

INFOID:0000000012549789

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH D208.

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

Is the inspection result normal?

YES >> Rear power window switch LH is OK.
NO >> Replace rear power window switch. Refer to PWC-138, "Removal and Installation".

2. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH D308.

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

Is the inspection result normal?

YES >> Rear power window switch RH is OK.
NO >> Replace rear power window switch. Refer to PWC-138, "Removal and Installation".

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012549790

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

DRIVER SIDE : Component Function Check

INFOID:0000000012549791

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor LH is OK.
NO >> Refer to PWC-103, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012549792

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Front Power Window Motor LH Circuit Check

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

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

Terminal			Main power window and door lock/unlock switch condition	Voltage (Approx.)
(+)		(–)		
Power window motor LH connector	Terminal			
D9	1	Ground	UP	Battery voltage
			DOWN	0
	2		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D24 and front power window motor connector LH D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D24	17	D9	1	Yes
	19		2	

4. Check continuity between main power window and door lock/unlock switch connector D24 and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D24	17	Ground	No
	19		

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".
NO >> Repair or replace the harness or connectors.

3. CHECK POWER WINDOW MOTOR

Check front power window motor LH.
Refer to PWC-104, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace power window motor LH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

DRIVER SIDE : Component Inspection

INFOID:0000000012549793

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

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

Terminal		Motor condition
(+)	(–)	
2	1	DOWN
1	2	UP

Is the inspection result normal?

YES >> Front power window motor LH is OK.
NO >> Replace front power window motor LH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

DRIVER SIDE : Special Repair Requirement

INFOID:0000000012549794

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.
Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> Inspection End.
NO >> Refer to PWC-110, "DRIVER SIDE : Component Function Check".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012549795

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

PASSENGER SIDE : Component Function Check

INFOID:0000000012549796

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor RH is OK.
NO >> Refer to PWC-105, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012549797

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Front Power Window Motor RH Circuit Check

1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH.
3. Turn ignition switch ON.
4. Check voltage between front power window motor RH connector D105 and ground.

Terminal			Front power window motor RH condition	Voltage (Approx.)
(+)		(–)		
Front power window motor RH connector	Terminal			
D105	1	Ground	UP	Battery voltage
			DOWN	0
	2		UP	0
			DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH.
3. Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	11	D105	1	Yes
	12		2	

4. Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D129	11		No
	12		

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".
NO >> Repair or replace harness or connectors.

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.
Refer to PWC-106, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace front power window motor RH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-93, "Work Procedure".

PASSENGER SIDE : Component Inspection

INFOID:0000000012549798

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

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

Terminal		Motor condition
(+)	(–)	
1	2	UP
2	1	DOWN

Is the inspection result normal?

YES >> Front power window motor RH is OK.
NO >> Replace front power window motor RH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

PASSENGER SIDE : Special Repair Requirement

INFOID:0000000012549799

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.
Refer to PWC-93, "Work Procedure".

Is the inspection result normal?

YES >> Inspection End.
NO >> Refer to PWC-112, "PASSENGER SIDE : Component Function Check".

REAR LH

REAR LH : Description

INFOID:0000000012549800

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

REAR LH : Component Function Check

INFOID:0000000012549801

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.
NO >> Refer to PWC-107, "REAR LH : Diagnosis Procedure"

REAR LH : Diagnosis Procedure

INFOID:0000000012549802

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Power Window Motor Circuit Check

1. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

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

Terminal			Window condition	Voltage (Approx.)
(+)		(–)		
Rear power window motor LH connector	Terminal			
D204	2	Ground	UP	Battery voltage
			DOWN	0
	1		UP	0
			DOWN	Battery voltage

Is the measurement value within the specification?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH.
3. Check continuity between rear power window switch LH connector D208 and rear power window motor LH connector D204.

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D208	5	D204	2	Yes
	6		1	

4. Check continuity between rear power window switch LH connector D208 and ground.

Rear power window switch LH connector	Terminal	Ground	Continuity
D208	5		No
	6		

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to PWC-102, "REAR POWER WINDOW SWITCH : Component Inspection".
NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to PWC-107, "REAR LH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace rear power window motor LH. Refer to GW-19, "Removal and Installation".

REAR LH : Component Inspection

INFOID:0000000012549803

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

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

Terminal		Motor condition
(+)	(–)	
1	2	DOWN
2	1	UP

Is the inspection result normal?

YES >> Rear power window motor LH is OK.
NO >> Replace rear power window motor LH. Refer to GW-19, "Removal and Installation".

REAR RH

REAR RH : Description

INFOID:0000000012549804

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

REAR RH : Component Function Check

INFOID:0000000012549805

1. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor RH is OK.
NO >> Refer to PWC-108, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000012549806

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Rear Power Window Motor RH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

Terminal			Rear power window switch RH condition	Voltage (Approx.)
(+)		(–)		
Rear power window motor RH connector	Terminal			
D304	2	Ground	UP	Battery voltage
			DOWN	0
	1		UP	0
			DOWN	Battery voltage

Is the measurement value within the specification?

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

2. CHECK HARNESS CONTINUITY

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

3. Check continuity between rear power window switch RH connector D308 and rear power window motor RH connector D304.

Rear power window switch RH connector	Terminal	Rear power window motor RH connector	Terminal	Continuity
D308	5	D304	2	Yes
	6		1	

4. Check continuity between rear power window switch RH connector D308 and ground.

Rear power window switch RH connector	Terminal	Ground	Continuity
D308	5		No
	6		

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to PWC-102, "REAR POWER WINDOW SWITCH : Component Inspection".
NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to PWC-109, "REAR RH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace rear power window motor RH. Refer to GW-19, "Removal and Installation".

REAR RH : Component Inspection

INFOID:0000000012549807

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

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

Terminal		Motor condition
(+)	(–)	
1	2	DOWN
2	1	UP

Is the inspection result normal?

YES >> Rear power window motor RH is OK.
NO >> Replace rear power window motor RH. Refer to GW-19, "Removal and Installation".

ENCODER
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000012549808

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

DRIVER SIDE : Component Function Check

INFOID:0000000012549809

1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.
NO >> Refer to PWC-110, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012549810

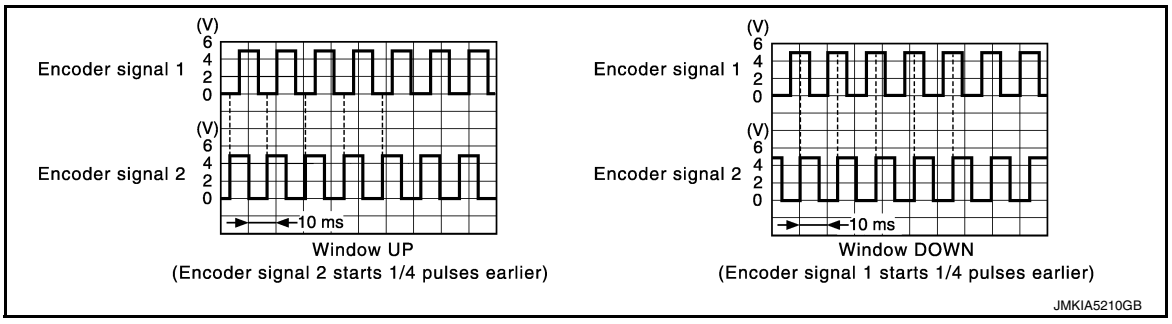
Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Encoder Circuit Check

1. CHECK ENCODER OPERATION

1. Turn ignition switch ON.
2. Check signal between main power window and door lock/unlock switch connector D25 and ground with oscilloscope.

Signal name	Terminals			Signal (Reference value)
	(+)		(–)	
	Main power window and door lock/unlock switch connector	Terminal		
Encoder signal 1	D25	5	Ground	Refer to following signal
Encoder signal 2		4		



Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

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

Terminal			Voltage (Approx.)
(+)		(–)	
Front power window motor LH connector	Terminal		
D9	4	Ground	10

Is the measurement value within the specification?

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

3. CHECK HARNESS CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D25 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D25	14	D9	4	Yes

4. Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D25	14		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".
NO >> Repair or replace the harness or connectors.

4. CHECK GROUND CIRCUIT

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

Front power window motor LH connector	Terminal	Ground	Continuity
D9	6		Yes

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between main power window and door lock/unlock switch connector D25 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D25	12	D9	6	Yes

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".
NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

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

2. Check continuity between main power window and door lock/unlock switch connector D25 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D25	5	D9	3	Yes
	4		5	

3. Check continuity between main power window and door lock/unlock switch connector D25 and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D25	5		No
	4		

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

NO >> Repair or replace the harness or connectors.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000012549811

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

PASSENGER SIDE : Component Function Check

INFOID:0000000012549812

1.CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to PWC-112, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

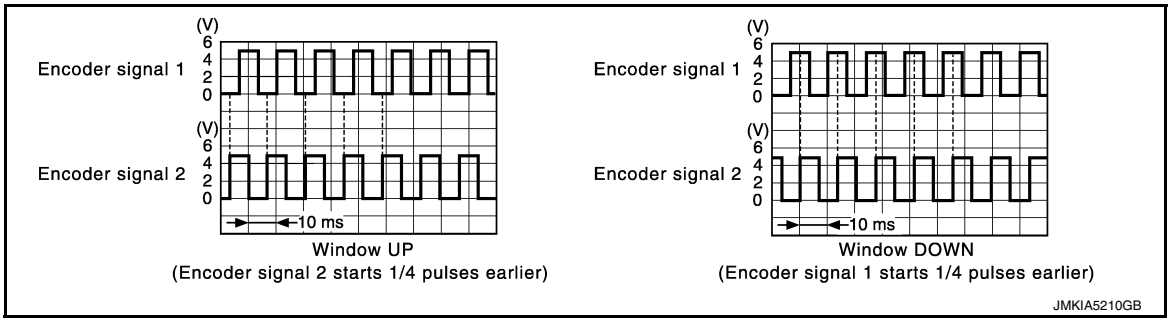
INFOID:0000000012549813

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

1. CHECK ENCODER SIGNAL

1. Connect front power window motor RH.
2. Turn ignition switch ON.
3. Check signal between power window and door lock/unlock switch RH connector D129 and ground with oscilloscope.

Signal name	Terminals			Signal (Reference value)
	(+)		(–)	
	Power window and door lock/unlock switch RH connector	Terminal		
Encoder signal 1	D129	9	Ground	Refer to following signal
Encoder signal 2		10		



Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR RH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window motor RH connector D105 and ground.

Terminal			Voltage (Approx.)
(+)		(–)	
Front power window motor RH connector	Terminal		
D105	5	Ground	10

Is the inspection result normal?

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

3. CHECK HARNESS CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect power window and door lock/unlock switch RH and front power window motor RH.
3. Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	5	D105	5	Yes

4. Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D129	5		No

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".
NO >> Repair or replace the harness or connectors.

4. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH.
3. Check continuity between front power window motor RH connector D105 and ground.

Front power window motor RH connector	Terminal	Ground	Continuity
D105	3		Yes

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

1. Disconnect power window and door lock/unlock switch RH.
2. Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	4	D105	3	Yes

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

NO >> Repair or replace the harness or connectors.

6. CHECK HARNESS CONTINUITY 3

1. Disconnect power window and door lock/unlock switch RH.
2. Check continuity between power window and door lock/unlock switch RH connector D129 and front power window motor RH connector D105.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D129	9	D105	6	Yes
	10		4	

3. Check continuity between power window and door lock/unlock switch RH connector D129 and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D129	9		No
	10		

Is the inspection result normal?

YES >> Replace front power window motor RH. Refer to GW-14, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

NO >> Repair or replace the harness or connectors.

DOOR SWITCH

Component Function Check

INFOID:0000000012549814

1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR SW-DR, DOOR SW-AS in DATA MONITOR mode.
3. Check that the function operates normally according to the following conditions.

Monitor item	Condition		Status
DOOR SW-DR	Driver side door	Open	On
		Closed	Off
DOOR SW-AS	Passenger side door	Open	On
		Closed	Off

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to PWC-115, "Diagnosis Procedure".

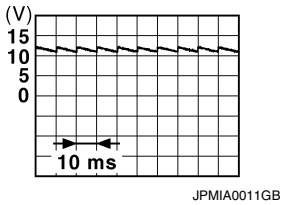
Diagnosis Procedure

INFOID:0000000012549815

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

1.CHECK DOOR SWITCH INPUT SIGNAL

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

(+)			(–)	Signal (Reference value)
Door switch				
Connector		Terminal		
Driver side	B8	3	Ground	 JPMIA0011GB 11.8 V
Passenger side	B108			

Is the inspection result normal?

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

2.CHECK DOOR SWITCH CIRCUIT

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

Door switch			BCM		Continuity
Connector		Terminal	Connector	Terminal	
Driver side	B8	3	M20	96	Yes
Passenger side	B108			94	

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

Door switch			Ground	Continuity
Connector		Terminal		
Driver side	B8	3		No
Passenger side	B108			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-81, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to PWC-116, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace malfunctioning door switch. Refer to DLK-284, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-47, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012549816

1.CHECK DOOR SWITCH

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

Door switch		Condition		Continuity
Terminal				
3	Ground contact is part of the switch.	Door switch	Pressed	No
			Released	Yes

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace malfunction door switch. Refer to DLK-284, "Removal and Installation".

POWER WINDOW LOCK SWITCH

Description

INFOID:0000000012549817

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

Component Function Check

INFOID:0000000012549818

1. CHECK POWER WINDOW LOCK SIGNAL

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

Does power window lock operate?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-117, "Special Repair Requirement".
NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:0000000012549819

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-90, "Work Procedure".

Is the inspection result normal?

YES >> Inspection end.
NO >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".

POWER WINDOW SERIAL LINK
POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000012549820

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.
The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH
- Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH
- Front door window RH operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000012549821

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check (“CDL LOCK SW ”, “CDL UNLOCK SW”) in “DATA MONITOR” mode for “POWER DOOR LOCK SYSTEM” with CONSULT. Refer to BCS-16, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Power window serial link is OK.
NO >> Refer to PWC-118, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

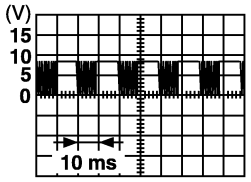
INFOID:0000000012549822

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Power Window Serial Link Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

Terminal			Signal (Reference value)
(+)		(–)	
BCM connector	Terminal		
M81	54	Ground	 PIIA1297E

Is the inspection result normal?

YES >> Power window serial link is OK.
NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and main power window and door lock/unlock switch.
3. Check continuity between BCM connector M81 and main power window and door lock/unlock switch connector D25.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M81	54	D25	11	Yes

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	54		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-136, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".
NO >> Repair or replace harness or connectors.

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:0000000012549823

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.
The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH
- Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH
- Front door window RH operation signal
- Power window control by key cylinder switch signal
- Retained power operation signal
- Power window lock switch signal

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:0000000012549824

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

Check (“CDL LOCK SW ”, “CDL UNLOCK SW”) in “DATA MONITOR” mode for “POWER DOOR LOCK SYSTEM” with CONSULT. Refer to BCS-16, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Power window serial link is OK.
NO >> Refer to PWC-120, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

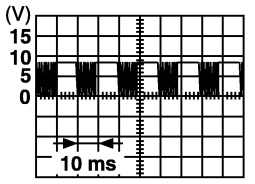
INFOID:0000000012549825

Regarding Wiring Diagram information, refer to PWC-79, "Wiring Diagram - With Left & Right Front Auto Up/Down".

Power Window Serial Link Check

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

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

Terminal			Signal (Reference value)
(+)		(–)	
BCM connector	Terminal		
M81	54	Ground	

PIIA1297E

Is the inspection result normal?

YES >> Power window serial link is OK.
NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM.
3. Check continuity between BCM connector M81 and power window and door lock/unlock switch RH connector D129.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M81	54	D129	3	Yes

4. Check continuity between BCM connector M81 and ground.

BCM connector	Terminal	Ground	Continuity
M81	54		No

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-137, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

NO >> Repair or replace the harness or connectors.

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH

Diagnosis Procedure

INFOID:0000000012549826

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to BCS-74, "Diagnosis Procedure".

Is the inspection result normal?

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

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

Check main power window and door lock/unlock switch.
Refer to PWC-97, "POWER WINDOW MAIN SWITCH : Component Inspection".

Is the inspection result normal?

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

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

Check power window switch main power supply and ground circuit.
Refer to PWC-95, "POWER WINDOW MAIN SWITCH : Component Function Check".

Is the inspection result normal?

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

4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH SERIAL CIRCUIT

Check main power window and door lock/unlock switch serial circuit.
Refer to PWC-118, "POWER WINDOW MAIN SWITCH : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012549827

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.
Refer to PWC-103, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012549828

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

Check power window and door lock/unlock switch RH.
Refer to PWC-99, "FRONT POWER WINDOW SWITCH : Component Function Check".

Is the inspection result normal?

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

2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK CIRCUIT

Check power window and door lock/unlock switch RH serial link circuit.
Refer to PWC-119, "FRONT POWER WINDOW SWITCH : Component Function Check".

Is the inspection result normal?

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

3. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.
Refer to PWC-105, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012549829

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.
Refer to PWC-100, "REAR POWER WINDOW SWITCH : Component Function Check".

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to PWC-106, "REAR LH : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012549830

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.
Refer to PWC-100, "REAR POWER WINDOW SWITCH : Component Function Check".

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to PWC-108, "REAR RH : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

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

Diagnosis Procedure

INFOID:0000000012549831

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

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

2. CHECK DOOR WINDOW SLIDING PART

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

Is the inspection result normal?

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

3. CHECK ENCODER CIRCUIT

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

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

Diagnosis Procedure

INFOID:0000000012549832

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

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

2. CHECK DOOR WINDOW SLIDING PART

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

Is the inspection result normal?

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

3. CHECK ENCODER CIRCUIT

Check encoder circuit.
Refer to PWC-112, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

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

Diagnosis Procedure

INFOID:0000000012549833

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

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

2. CHECK ENCODER

Check encoder.
Refer to PWC-110, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

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

Diagnosis Procedure

INFOID:0000000012549834

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

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

2. CHECK ENCODER

Check encoder.
Refer to PWC-112, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000012549835

1. CHECK FRONT DOOR SWITCH

Check front door switch.
Refer to PWC-115, "Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Repair or replace the malfunctioning parts.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Diagnosis Procedure

INFOID:0000000012549836

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-92, "Work Procedure".

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 2.

2.CHECK FRONT DOOR LOCK ASSEMBLY LH (DOOR KEY CYLINDER SWITCH)

Check front door lock assembly LH (door key cylinder switch).
Refer to DLK-189, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012549837

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.
Refer to DLK-201, "Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-47, "Intermittent Incident".
NO >> Replace BCM. Refer to BCS-81, "Removal and Installation".

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000012549838

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

Replace main power window and door lock/unlock switch.
Refer to PWC-136, "Removal and Installation". After that, PWC-92, "Work Procedure".

>> INSPECTION END

POWER WINDOW SWITCH DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012549839

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.
Refer to PWC-136, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

>> Inspection End.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012549840

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

Replace power window and door lock/unlock switch RH.
Refer to PWC-137, "Removal and Installation". After that, refer to PWC-92, "Work Procedure".

>> Inspection End.

REAR LH

REAR LH : Diagnosis Procedure

INFOID:0000000012549841

1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.
Refer to PWC-138, "Removal and Installation".

>> Inspection End.

REAR RH

REAR RH : Diagnosis Procedure

INFOID:0000000012549842

1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.
Refer to PWC-138, "Removal and Installation".

>> Inspection End.

REMOVAL AND INSTALLATION

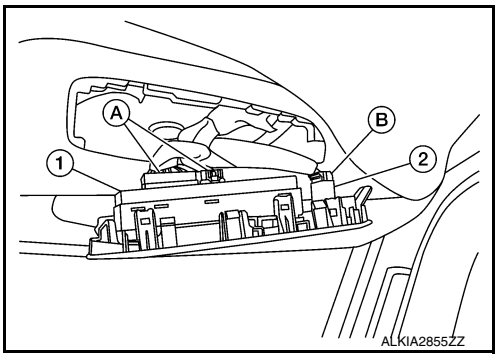
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Removal and Installation

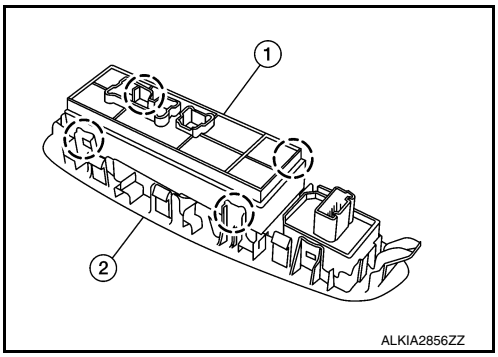
INFOID:0000000012549843

REMOVAL

1. Remove the main power window and door lock/unlock switch from the front door finisher using a suitable tool.
2. Disconnect the harness connectors (A) from the main power window and door lock/unlock switch (1) and harness connector (B) from the mirror control switch (2).



3. Release the pawls, then separate the main power window and door lock/unlock switch (1) from the switch finisher (2).
   ◌: Pawl



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-92, "Description".

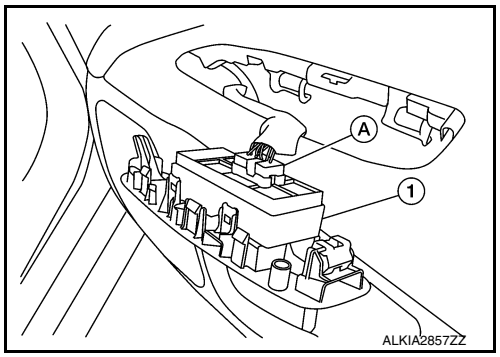
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Removal and Installation

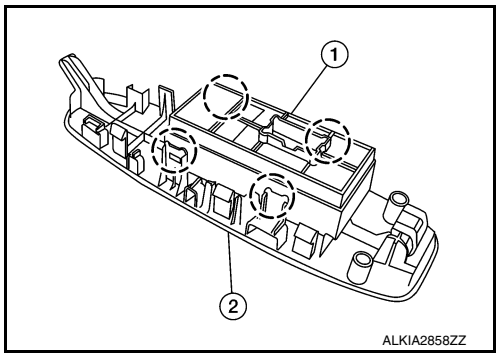
INFOID:0000000012549844

REMOVAL

1. Remove the power window and door lock/unlock switch (RH) from the front door finisher using a suitable tool.
2. Disconnect the harness connector (A) from the power window and door lock/unlock switch (RH) (1).



3. Release four pawls, then separate power window and door lock/unlock switch (RH) (1) from switch finisher (2).
   ( ): Pawl



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the power window and door lock/unlock switch (RH) is removed or replaced, it is necessary to perform the initialization procedure. Refer to PWC-92, "Description".

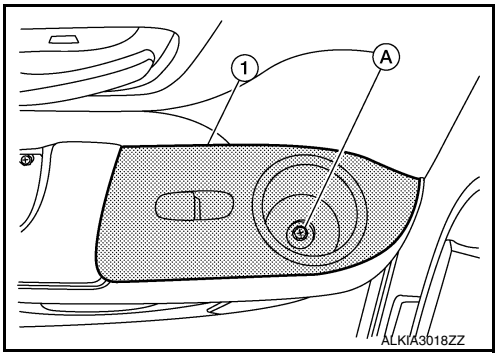
REAR POWER WINDOW SWITCH

Removal and Installation

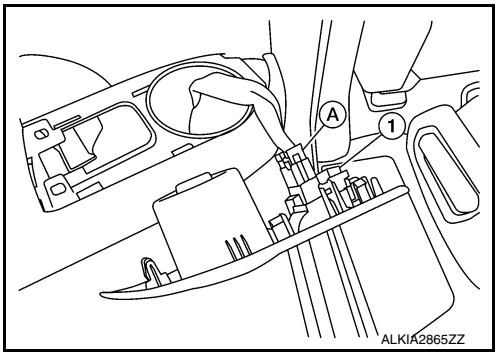
INFOID:0000000012549845

REMOVAL

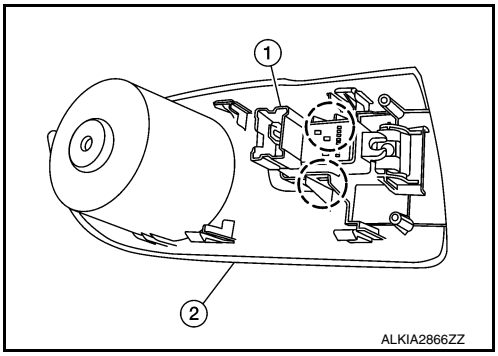
1. Remove the rear door cup holder mat.
2. Remove the rear power window switch finisher screw (A) and the rear power window switch finisher (1) from the rear door finisher using a suitable tool.



3. Disconnect the harness connector (A) from the rear power window switch (1).



4. Release the two pawls, then separate the rear power window switch (1) from the switch finisher (2).
   ◌: Pawl



INSTALLATION

Installation is in the reverse order of removal.