SECTION PWC
POWER WINDOW CONTROL SYSTEM

CONTENTS

PRECAUTION

PRECAUTIONS

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

INFOID:0000000012219109

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

WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:0000000012183514

- 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.

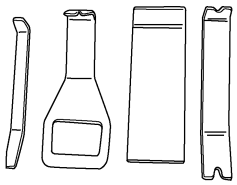
PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000012183515

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

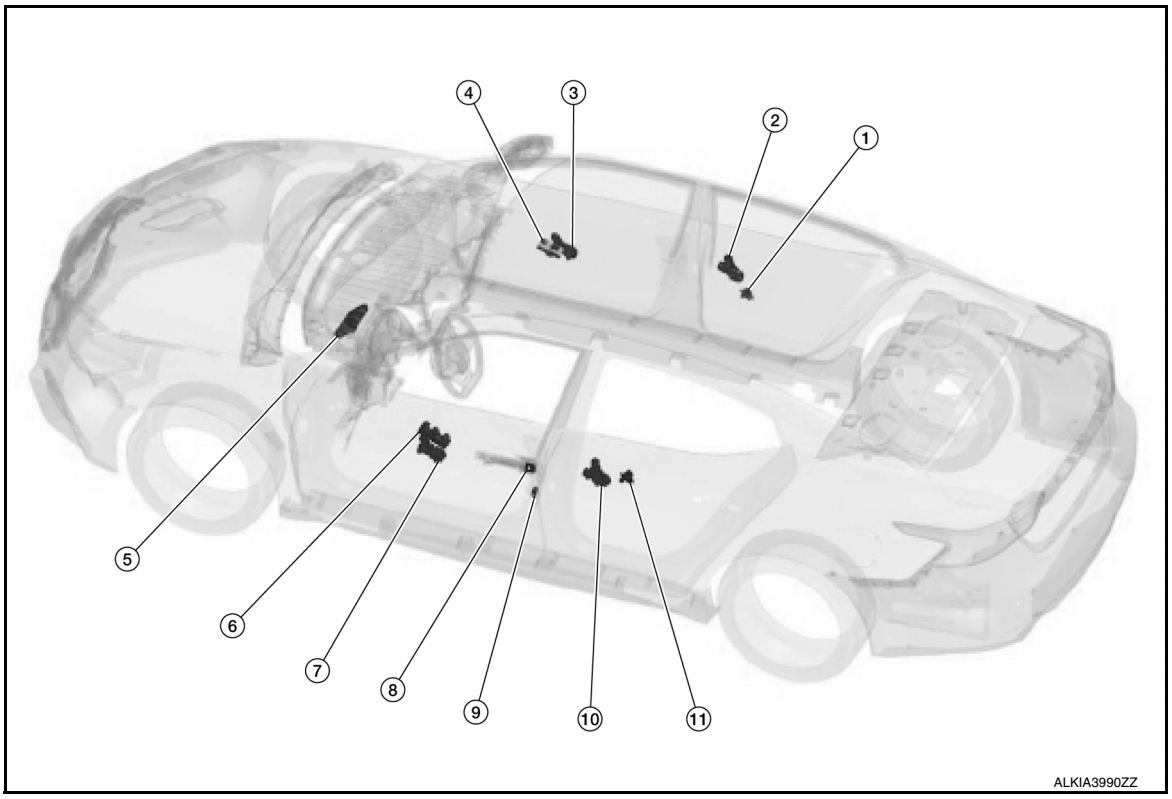
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000012183439

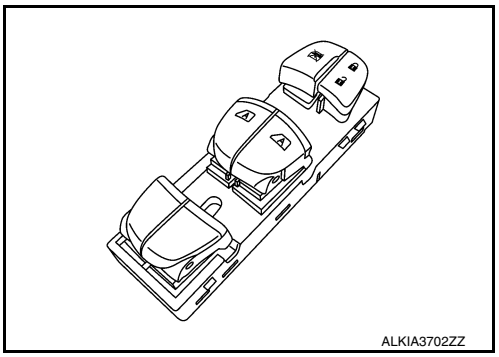


No.	Part	Function
1.	Rear power window switch RH	Refer to PWC-7, "Rear Power Window Switch".
2.	Rear power window motor RH	Refer to PWC-7, "Power Window Motor".
3.	Front power window motor RH	Refer to PWC-7, "Power Window Motor".
4.	Power window and door lock/unlock switch RH	Refer to PWC-7, "Power Window and Door Lock/Unlock Switch RH".
5.	BCM	• Supplies power to the window switches. • Controls retained power. • Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
6.	Main power window and door lock/unlock switch	Refer to PWC-7, "Main Power Window and Door Lock/Unlock Switch".
7.	Front power window motor LH	Refer to PWC-7, "Power Window Motor".
8.	Front door lock assembly LH (key cylinder switch)	Transmits operation condition of door key cylinder switch to main power window and door lock/unlock switch.
9.	Front door switch LH	• Detects door open/close condition and transmits to BCM. • Refer to DLK-17, "Front Door Switch".
10.	Rear power window motor LH	Refer to PWC-7, "Power Window Motor".
11.	Rear power window switch LH	Refer to PWC-7, "Rear Power Window Switch".

Main Power Window and Door Lock/Unlock Switch

INFOID:0000000012183440

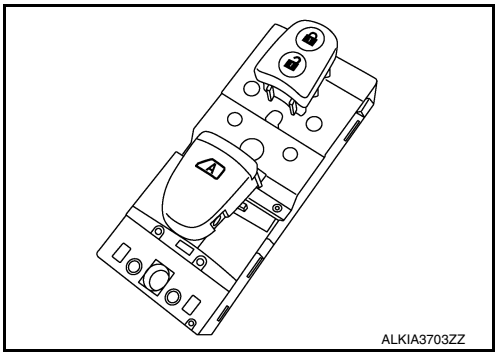
- Main power window and door lock/unlock switch controls all power windows.
- Main power window and door lock/unlock switch integrates UP/DOWN switch, power window lock switch, and door lock/unlock switch.
- Main power window and door lock/unlock switch controls power window lock function and AUTO UP/DOWN function.
- Receives encoder pulse signal and then controls anti-pinch system.


ALKIA3702ZZ

Power Window and Door Lock/Unlock Switch RH

INFOID:0000000012183441

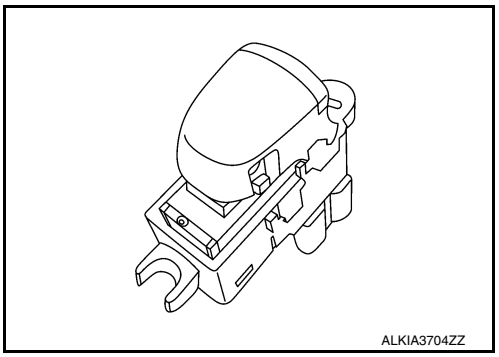
- Power window and door lock/unlock switch RH transmits AUTO UP/DOWN signal to front power window motor RH.
- Receives AUTO UP/DOWN signal from BCM and then transmits to front power window motor RH.
- Receives encoder pulse signal and then controls anti-pinch system.


ALKIA3703ZZ

Rear Power Window Switch

INFOID:0000000012183442

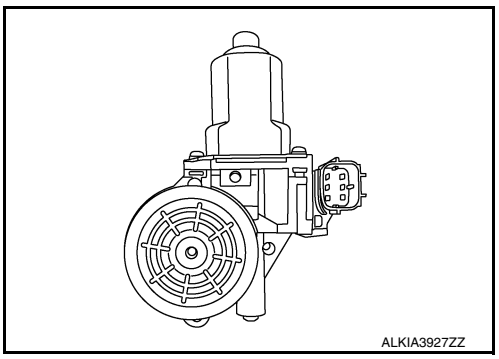
- Each power window switch transmits UP/DOWN signal to each motor.
- Each power window switch transmits UP/DOWN signal from main power window and door lock/unlock switch to each motor.


ALKIA3704ZZ

Power Window Motor

INFOID:0000000012183443

- Integrates the encoder for front power windows.
- Starts operation according to signals from each power window switch.
- Transmits each power window motor rotation as a pulse signal to each power window switch.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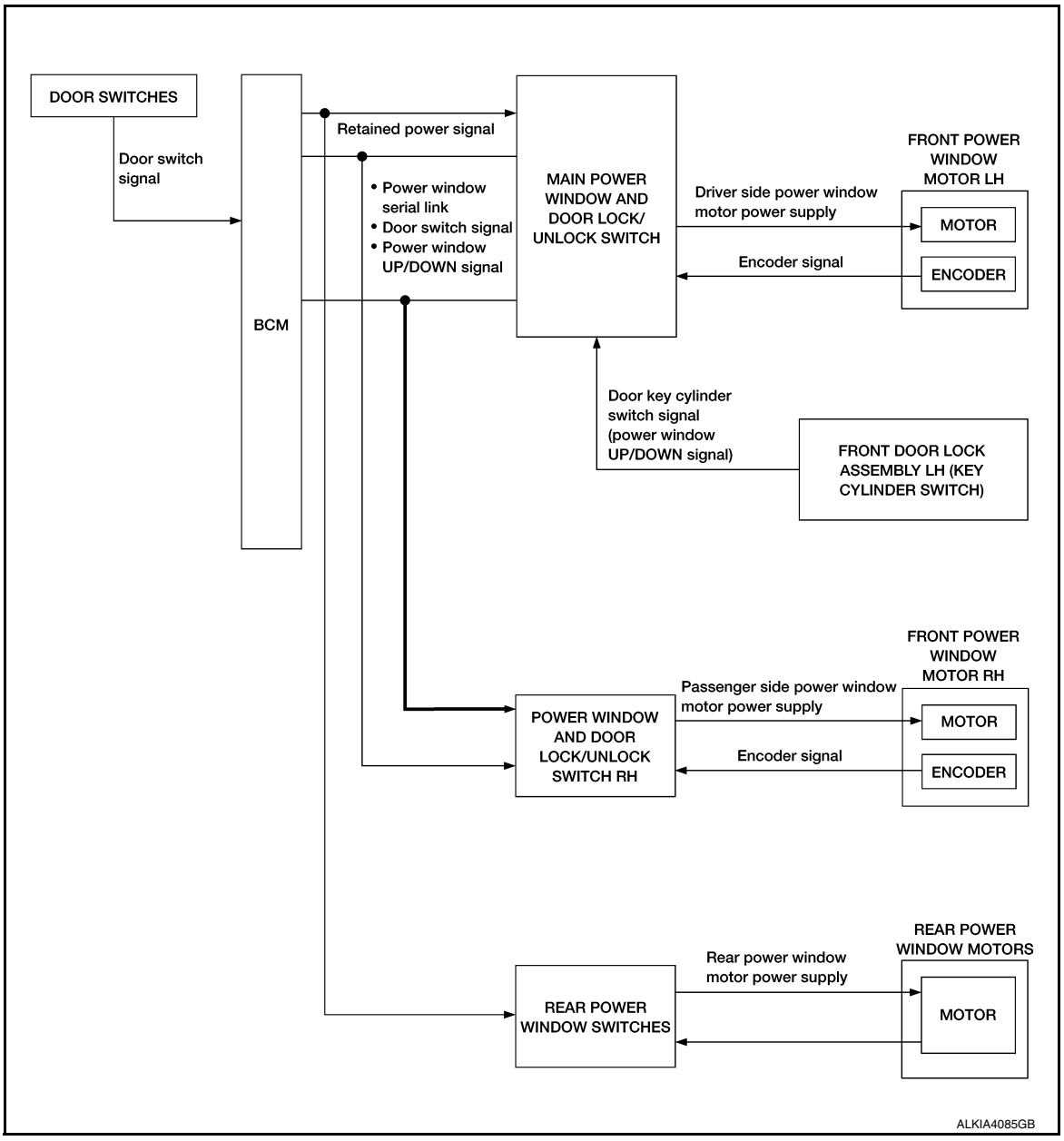
SYSTEM

System Description

INFOID:0000000012183444

SYSTEM DIAGRAM



POWER WINDOW OPERATION

- Power window system is activated by the power window switches when the ignition switch is in the ON position or during the retained power operation after ignition switch turns OFF.
- Main power window and door lock/unlock switch can open/close door glass.
- Front and rear power window switches can open/close the corresponding door glass.
- Power window lock switch can lock all power windows other than driver front.
- Front 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 each power window motor turns to AUTO.
- Encoder continues detecting the movement of power window motor and outputs the encoder pulse signal to power window switch while power window motor is operating.

- Power window switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully open/closed position.
- Power window motor is operable in case encoder is malfunctioning.
- AUTO function does not operate if encoder is malfunctioning.

POWER WINDOW SERIAL LINK

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 signals mentioned below are 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.
- Door switch signal.
  The signals mentioned below are 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 the power window system to operate for 45 seconds even after the ignition switch is turned OFF.

Retained Power Function Cancel Conditions:

- Front door CLOSED (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 main power window and door lock/unlock switch shuts off when power window lock switch is ON. This inhibits power window switch operation except with the main power window and door lock/unlock switch.

ANTI-PINCH OPERATION

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

Operation Condition

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

NOTE:

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

DOOR KEY CYLINDER SWITCH OPERATION

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

Operation Condition

- Ignition switch is 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

Front 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 is activated, keyless power window down function cannot be operated.

Fail-safe

INFOID:0000000012183445

FAIL-SAFE CONTROL

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

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

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

INFOID:0000000012228397

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			×	×			
Trunk	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×			

FREEZE FRAME DATA (FFD)

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

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

NOTE:

*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:

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

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000012228398

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:0000000012183448

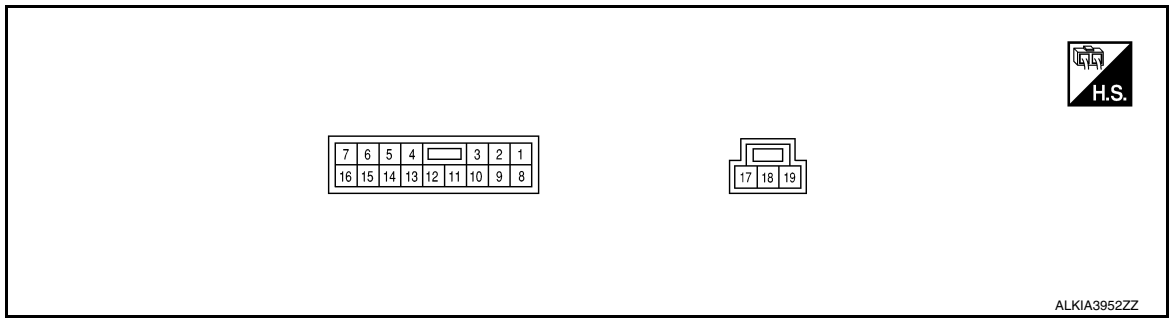
ECU	Reference
BCM	BCS-31, "Reference Value"
	BCS-51, "Fail Safe"
	BCS-52, "DTC Inspection Priority Chart"
	BCS-53, "DTC Index"

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

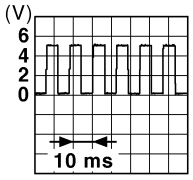
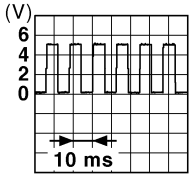
Reference Value

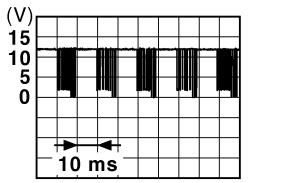
INFOID:0000000012183449

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
1 (B)	Ground	Ground	Output	—	0
3 (P)	Ground	Door lock actuator signal	Output	—	—
4 (R)	12 (B)	Encoder pulse signal 2	Input	When power window motor operates	 JMKIA0070GB
5 (BG)	12 (B)	Encoder pulse signal 1	Input	When power window motor operates	 JMKIA0070GB
6 (SB)	Ground	Rear power window motor RH DOWN signal.	Output	When rear power window switch RH is operated DOWN	Battery voltage
7 (V)	Ground	Rear power window motor RH UP signal.	Output	When rear power window switch RH is operated UP	Battery voltage
8 (L)	Ground	Rear power window motor LH DOWN signal.	Output	When rear power window switch LH is operated DOWN	Battery voltage
9 (Y)	Ground	Rear power window motor LH UP signal.	Output	When rear power window switch LH is operated UP	Battery voltage
10 (BR)	Ground	Ignition switch power supply	Input	Ignition switch ON	Battery voltage
				Other than above	0

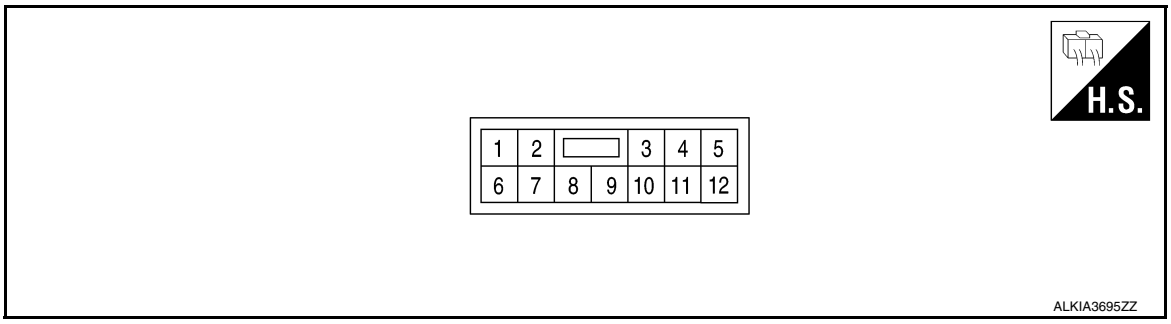
Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
11 (P)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window operating	 JPMIA0013GB
12 (B)	Ground	Encoder ground	—	—	0
14 (LG)	Ground	Encoder power supply	Output	When ignition is ON or power window timer operates	Battery voltage
15 (G)	Ground	Door lock actuator signal	Output	—	Battery voltage
17 (W)	19 (R)	Main power window and door lock/unlock switch UP signal	Output	When main power window and door lock/unlock switch is operated UP	Battery voltage
18 (LG)	Ground	Battery power supply	Input	—	Battery voltage
19 (R)	17 (W)	Main power window and door lock/unlock switch UP signal	Output	When main power window and door lock/unlock switch is operated DOWN	Battery voltage

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

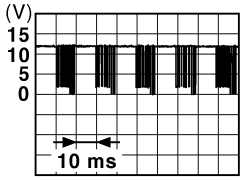
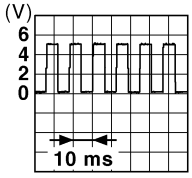
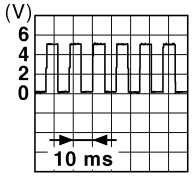
Reference Value

INFOID:0000000012183450

TERMINAL LAYOUT



PHYSICAL VALUES

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

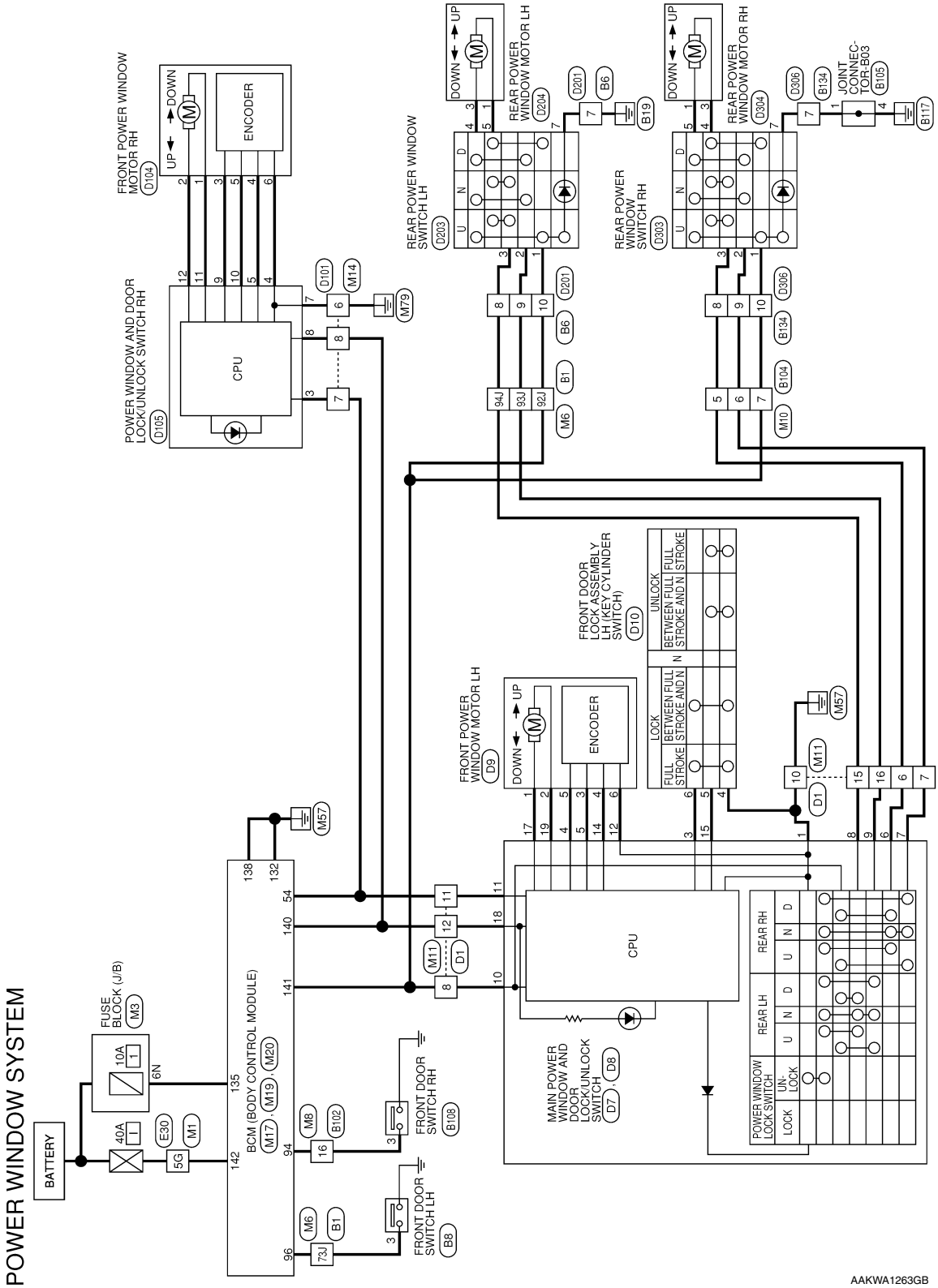
Terminal No. (Wire color)		Description		Condition	Voltage (Approx.)
+	-	Signal name	Input/ Output		
11 (Y)	12 (V)	Assistant window switch UP signal	Output	When power window and door lock/unlock switch RH is operated UP	Battery voltage
12 (V)	11 (Y)	Assistant window switch DOWN signal	Output	When power window and door lock/unlock switch RH is operated DOWN	Battery voltage

WIRING DIAGRAM

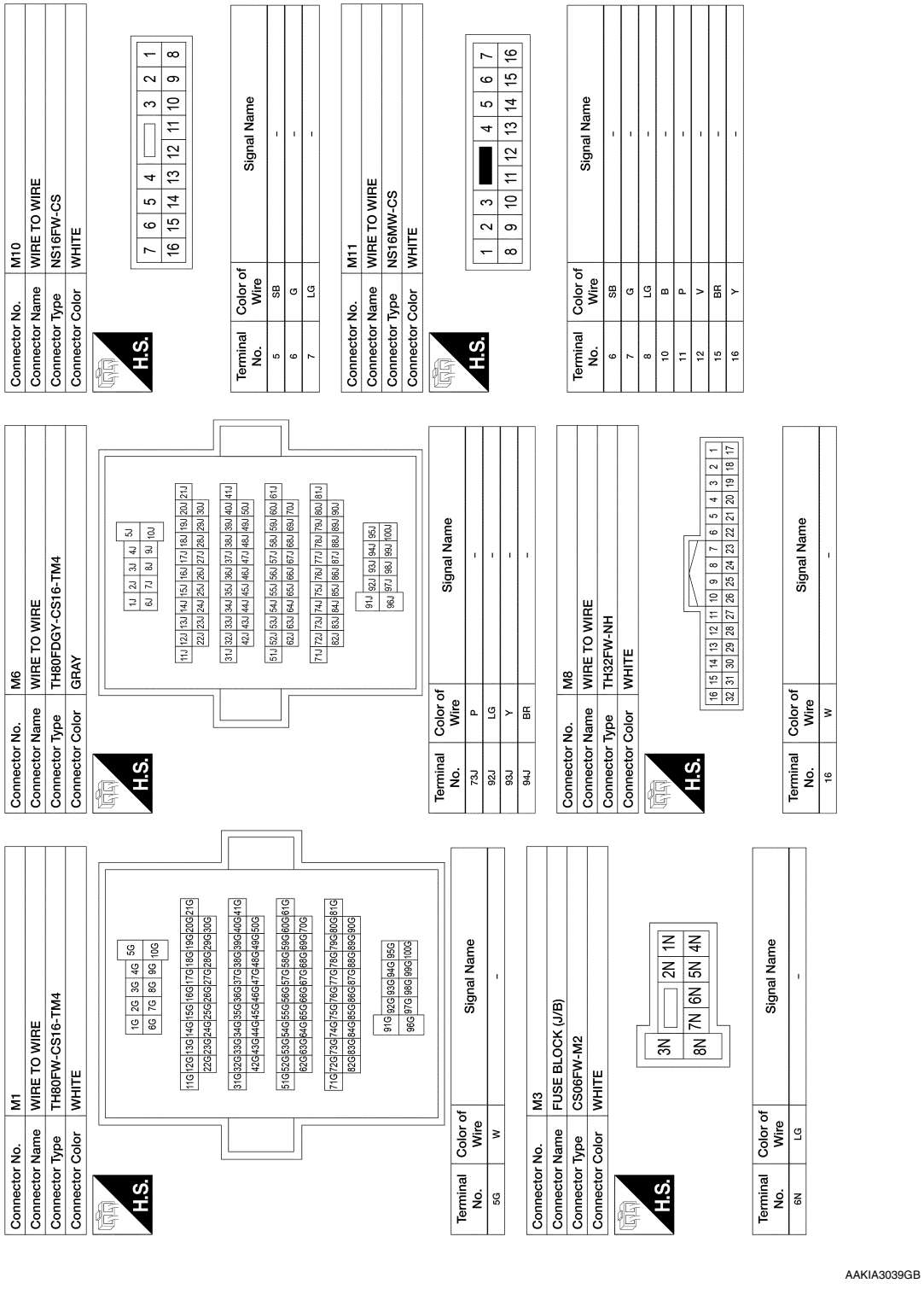
POWER WINDOW SYSTEM

Wiring Diagram

INFOID:0000000012183451



POWER WINDOW SYSTEM CONNECTORS



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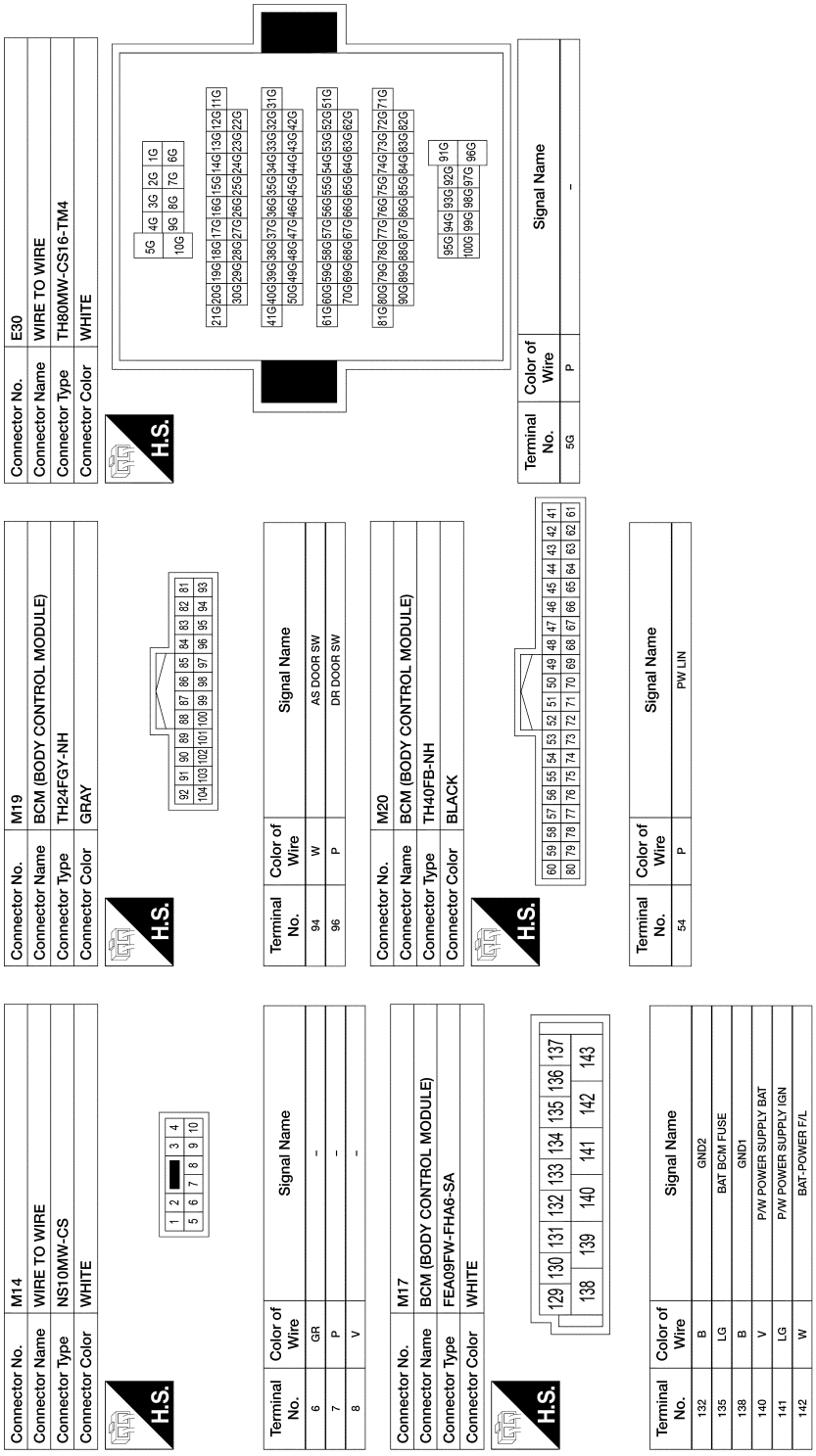
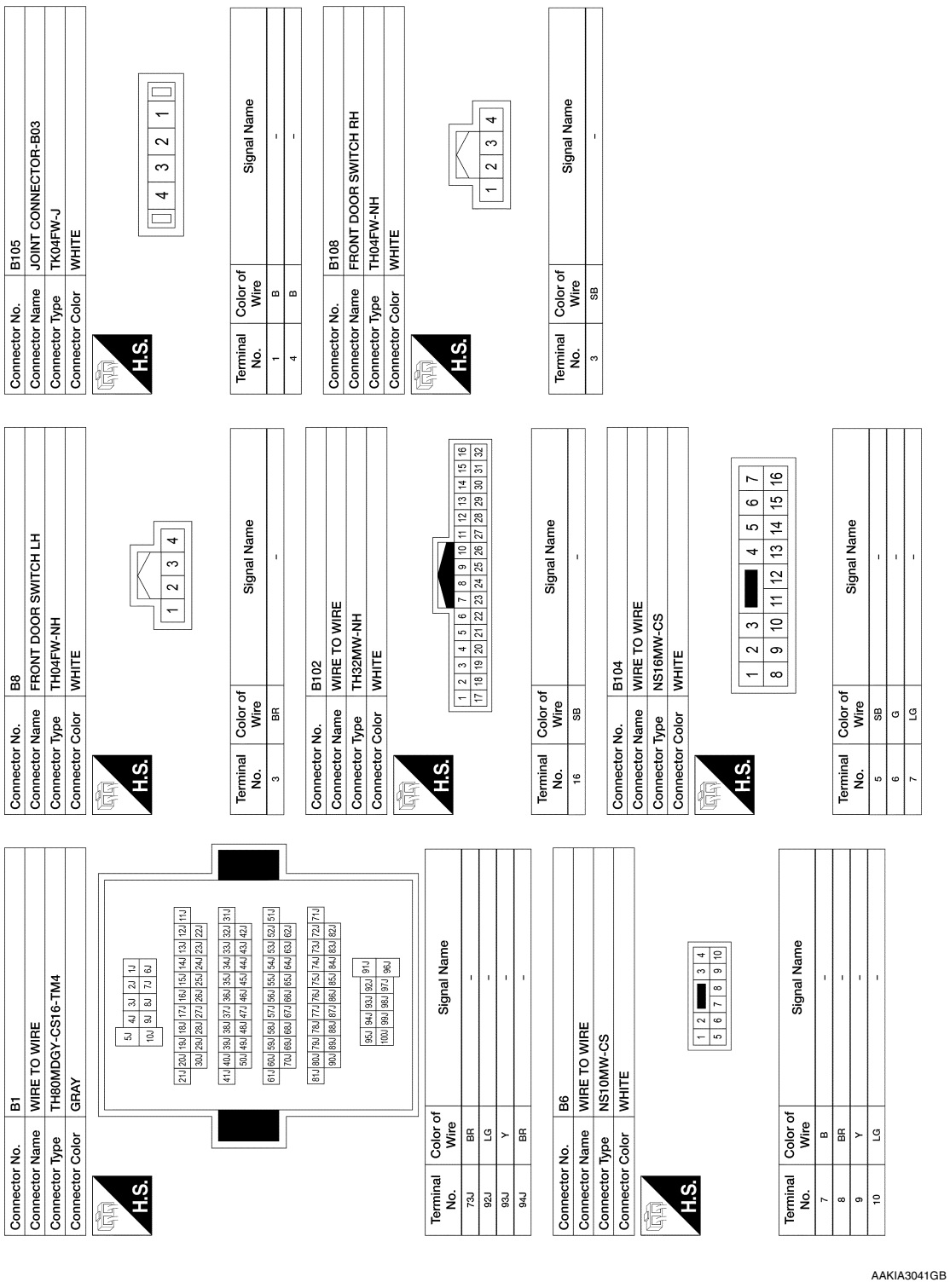


AAKIA3040GB



AAKIA3041GB

Connector No.	B134
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS
Connector Color	WHITE

H.S.

1	2		3	4
5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name
7	B	–
8	SB	–
9	G	–
10	LG	–

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
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
6	SB	–
7	V	–
8	BR	–
10	B	–
11	P	–
12	LG	–
15	L	–
16	Y	–

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
Connector Type	NS16FW-CS
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
3	P	D LOCK ACTR DR
4	R	ENCODER SIG2
5	BG	ENCODER SIG1
6	SB	RR DN
7	V	RR UP
8	L	RL DN
9	Y	RL UP
10	BR	IGN
11	P	COM
12	B	ENCODER GND
14	LG	ENCODER+
15	G	D LOCK ACTR DR

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
Connector Type	NS03FW-CS
Connector Color	WHITE

H.S.

17	18	19

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

Connector No.	D9
Connector Name	FRONT POWER WINDOW MOTOR LH
Connector Type	TB06F2-1V-LC
Connector Color	WHITE

H.S.

2		1
6	5	4	3

Terminal No.	Color of Wire	Signal Name
1	W	UP
2	R	DN
3	BG	OUTPUT1
4	LG	VCC
5	R	OUTPUT2
6	B	GND

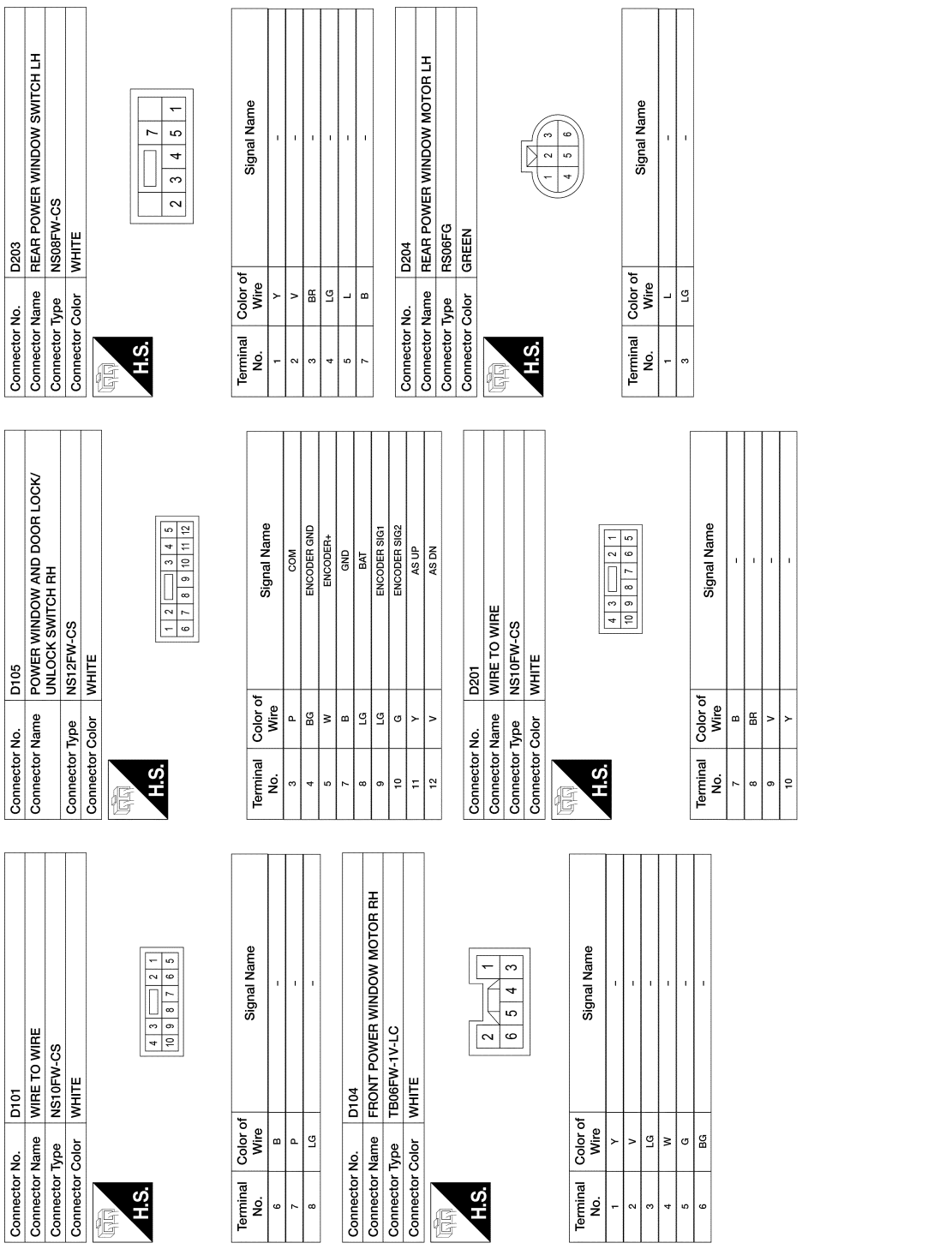
Connector No.	D10
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Type	E06FGY-RS
Connector Color	GRAY

H.S.

1	2	3	4	5	6

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

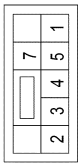
AAKIA3042GB



AAKIA3263GB

Connector No.	D303
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS
Connector Color	WHITE

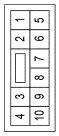
H.S.



Terminal No.	Color of Wire	Signal Name
1	Y	–
2	V	–
3	BR	–
4	LG	–
5	L	–
7	B	–

Connector No.	D306
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE

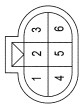
H.S.



Terminal No.	Color of Wire	Signal Name
7	B	–
8	BR	–
9	V	–
10	Y	–

Connector No.	D304
Connector Name	REAR POWER WINDOW MOTOR RH
Connector Type	RS06FG
Connector Color	GREEN

H.S.



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

AAKIA3264GB

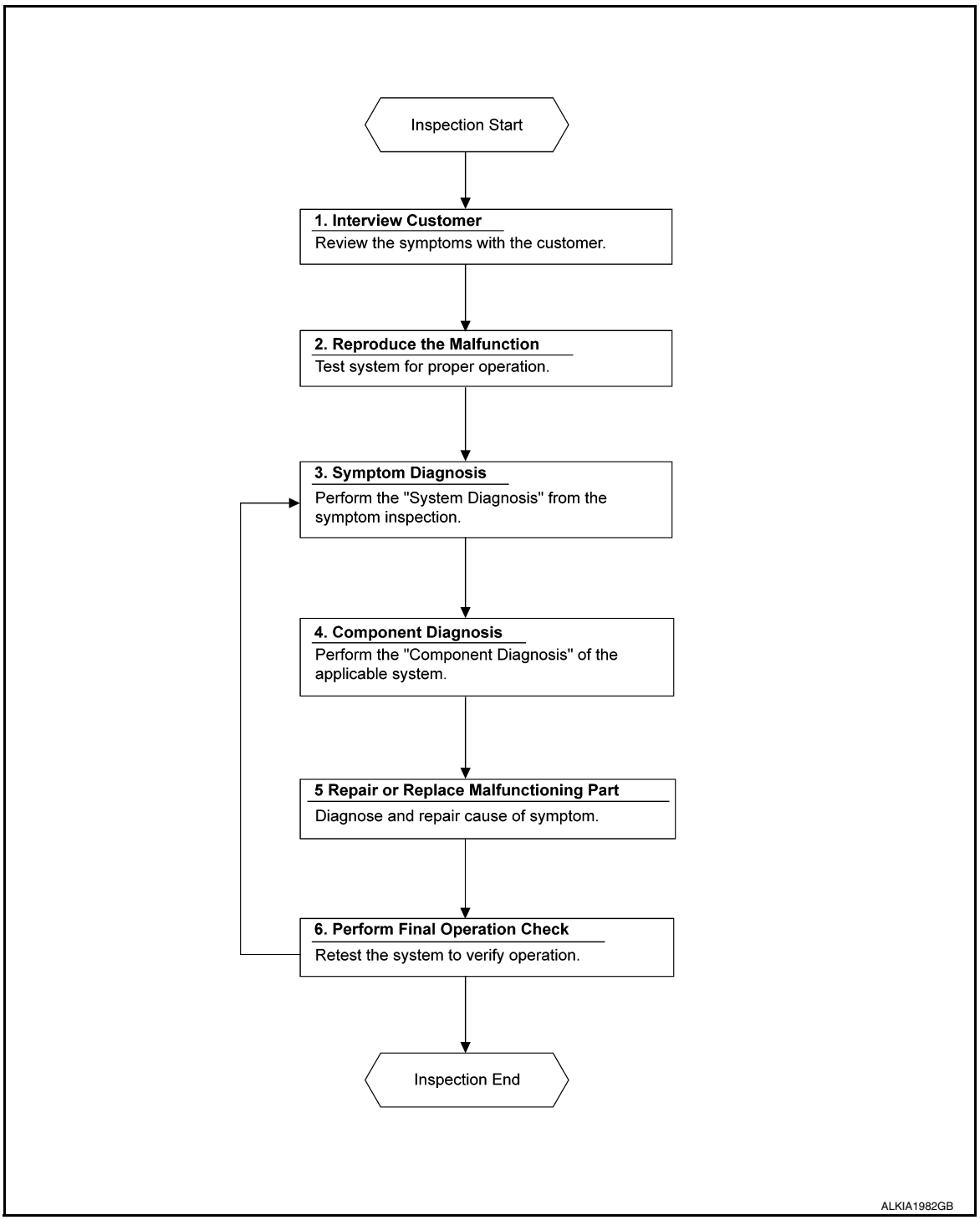
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000012183452

OVERALL SEQUENCE



DETAILED FLOW

1. INTERVIEW CUSTOMER

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

>> GO TO 2.

2. REPRODUCE THE MALFUNCTION

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

>> GO TO 3.

3. 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. COMPONENT DIAGNOSIS

Perform the diagnosis with Component Diagnosis of the applicable system.

>> GO TO 5.

5. REPAIR OR REPLACE THE MALFUNCTIONING PART

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. PERFORM FINAL OPERATIONAL 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:0000000012183453

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:0000000012183454

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-30, "Work Procedure".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-31, "Work Procedure".

>> Inspection End.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

Description

INFOID:0000000012183455

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:0000000012183456

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to PWC-30, "Work Procedure".

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to PWC-31, "Work Procedure".

>> Inspection End.

SYSTEM INITIALIZATION

Description

INFOID:0000000012183457

The initialization is necessary for normal operation of power window system if any of the following operations are performed:
- 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 main power window and door lock/unlock 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 main power window and door lock/unlock 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 cannot be performed under the non-initialized condition:
- Auto-up operation
- Anti-pinch function

Work Procedure

INFOID:0000000012183458

1.STEP 1

1. Turn ignition switch ON.
2. Open the window not less than halfway.
3. Pull up on the power window switch to close the window completely. Continue to hold the power window switch up for 3 or more seconds.
4. Check that AUTO-UP function operates normally.

>> GO TO 2.

2.STEP 2

Check anti-pinch function. Refer to PWC-31, "Work Procedure".

>> Inspection End.

CHECK ANTI-PINCH FUNCTION

Description

INFOID:0000000012183459

The initialization is necessary for normal operation of power window system if any of the following operations are performed:
- 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 main power window and door lock/unlock 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 main power window and door lock/unlock 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 cannot be performed under the non-initialized condition:
- Auto-up operation
- Anti-pinch function

Work Procedure

INFOID:0000000012183460

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 function.
- Check the following conditions:

- Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that glass does not rise when operating the main power window and door lock/unlock 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:0000000012436026

Regarding Wiring Diagram information, refer to BCS-56, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

Check if the following BCM fuses or fusible link are blown.

Signal name	Fuse and fusible link No.
Fusible link battery power	I (40A)
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. Turn ignition switch OFF.
2. Disconnect BCM connector M17.
3. Check voltage between BCM harness connector M17 and ground.

Terminals			Voltage (Approx.)
(+)		(–)	
BCM		Ground	
Connector	Terminal		
M17	135		Battery voltage
	142		

Is the measurement normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector M17 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	138		Yes
	132		

Is the inspection result normal?

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

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000012183462

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1.CHECK POWER SUPPLY

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

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

Is the inspection result normal?

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

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Main power window and door lock/unlock switch		Continuity
Connector	Terminal	Connector	Terminal	
M17	140	D8	18	Yes
	141	D7	10	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	140		No
	141		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:0000000012183463

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1.CHECK POWER SUPPLY

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

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

Is the inspection result normal?

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

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Power window and door lock/unlock switch RH		Continuity
Connector	Terminal	Connector	Terminal	
M17	140	D105	8	Yes

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:0000000012183464

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1.CHECK POWER SUPPLY

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

(+)			(–)	Voltage (Approx.)
Rear power window switch				
Connector		Terminal		
LH	D203	1	Ground	Battery voltage
RH	D303			

Is the inspection result normal?

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

2.CHECK POWER SUPPLY CIRCUIT

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

BCM		Rear power window switch		Continuity
Connector	Terminal	Connector	Terminal	
M17	141	LH D203	1	Yes
		RH D303		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

Rear power window switch			Ground	Continuity
Connector		Terminal		
LH	D203	7		Yes
RH	D303			

Is the inspection result normal?

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000012183465

1.CHECK POWER WINDOW MOTOR CIRCUIT

Check front power window motor LH operation with 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-36, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012183466

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1.CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to GW-19, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER WINDOW MOTOR CIRCUIT

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

Main power window and door lock/unlock switch		Front power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D8	17	D9	1	Yes
	19		2	

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

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012183467

1. CHECK POWER WINDOW MOTOR 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 RH.

Is the inspection result normal?

YES >> Front power window motor RH is OK.
NO >> Refer to PWC-37, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012183468

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1. CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (Approx.)
Front power window motor RH					
Connector	Terminal				
D104	1	Ground	Power window and door lock/unlock switch RH	UP	Battery voltage
				DOWN	0
	2			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> Replace front power window motor RH. Refer to GW-19, "Removal and Installation".
NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

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

Power window and door lock/unlock switch RH		Front power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D105	11	D104	1	Yes
	12		2	

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

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

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-68, "Removal and Installation".
NO >> Repair or replace harness.

REAR LH

REAR LH : Component Function Check

INFOID:0000000012183469

1.CHECK POWER WINDOW MOTOR 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-38, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

INFOID:0000000012183470

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1.CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (Approx.)
Rear power window motor LH					
Connector	Terminal				
D204	3	Ground	Rear power window switch LH	UP	Battery voltage
				DOWN	0
	1			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> Replace rear power window motor LH. Refer to GW-25, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER WINDOW MOTOR CIRCUIT

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

Rear power window switch LH		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D203	4	D204	3	Yes
	5		1	

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

Rear power window switch LH		Ground	Continuity
Connector	Terminal		
D203	4		No
	5		

Is the inspection result normal?

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

REAR RH

REAR RH : Component Function Check

INFOID:0000000012183471

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check rear power window motor RH operation with 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-39, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000012183472

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (Approx.)
Rear power window motor RH					
Connector	Terminal				
D304	1	Ground	Rear power window switch RH	UP	Battery voltage
				DOWN	0
	3			UP	Battery voltage
				DOWN	0

Is the inspection result normal?

YES >> Replace rear power window motor RH. Refer to GW-25, "Removal and Installation".
NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

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

Rear power window switch RH		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D303	5	D304	1	Yes
	4		3	

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

Rear power window switch RH		Ground	Continuity
Connector	Terminal		
D303	5		No
	4		

Is the inspection result normal?

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

ENCODER
DRIVER SIDE

DRIVER SIDE : Component Function Check

INFOID:0000000012183473

1.CHECK ENCODER

Check that driver side door glass performs AUTO open/close operation normally by main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Encoder is OK.
NO >> Refer to PWC-41, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

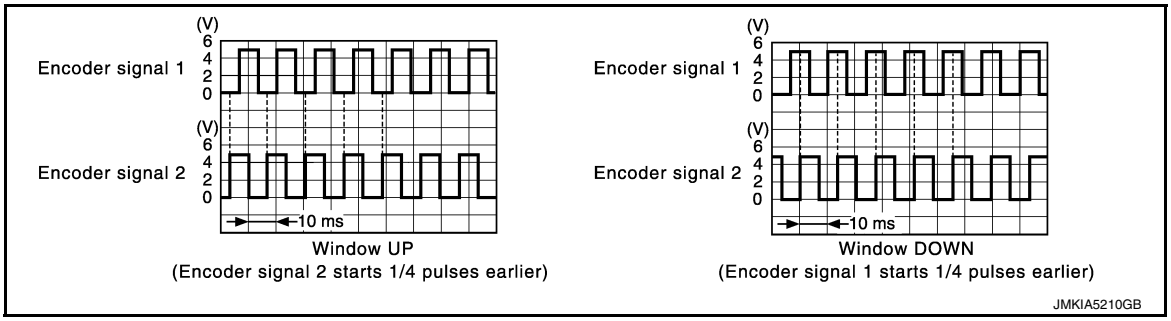
INFOID:0000000012183474

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1.CHECK ENCODER SIGNAL

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

Signal name	(+)		(–)	Signal (Reference value)
	Main power window and door lock/unlock switch			
	Connector	Terminal		
Encoder signal 1	D7	5	Ground	Refer to following signals
Encoder signal 2		4		



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".
NO >> GO TO 2.

2.CHECK ENCODER SIGNAL CIRCUIT

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

Main power window and door lock/unlock switch		Front power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D7	4	D9	5	Yes
	5		3	

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

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

Is the inspection result normal?

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

3.CHECK ENCODER POWER SUPPLY

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

(+)		(–)	Voltage (Approx.)
Front power window motor LH			
Connector	Terminal		
D9	4	Ground	Battery voltage

Is the inspection result normal?

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

4.CHECK ENCODER POWER SUPPLY CIRCUIT

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

Main power window and door lock/unlock switch		Front power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D7	14	D9	4	Yes

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

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".
NO >> Repair or replace harness.

5.CHECK GROUND CIRCUIT 1

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

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

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to GW-19, "Removal and Installation".

NO >> GO TO 6.

6.CHECK GROUND CIRCUIT 2

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

Main power window and door lock/unlock switch		Front power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D7	12	D9	6	Yes

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

Main power window and door lock/unlock switch		Ground	Continuity
Connector	Terminal		
D7	12		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Component Function Check

INFOID:0000000012183475

1.CHECK ENCODER

Check that passenger side door glass performs AUTO open/close operation normally by main power window and door lock/unlock switch or power window and door lock/unlock switch RH.

Is the inspection result normal?

YES >> Encoder is OK.
NO >> Refer to PWC-43, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

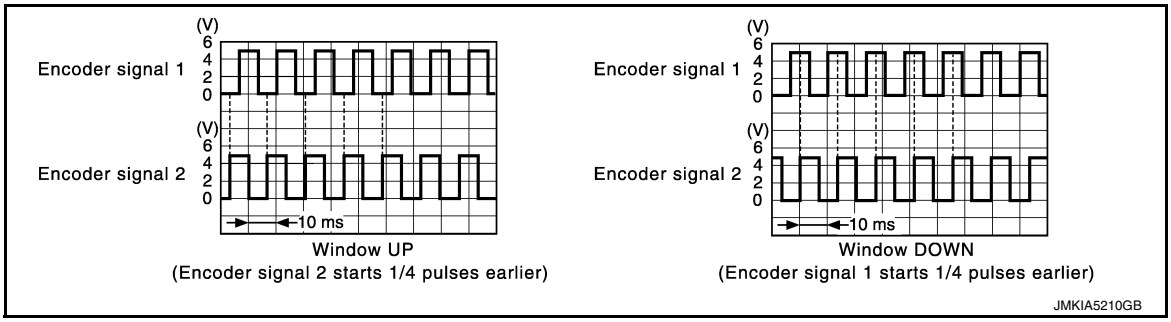
INFOID:0000000012183476

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

1.CHECK ENCODER SIGNAL

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

Signal name	(+)		(–)	Signal (Reference value)
	Power window and door lock/unlock switch RH			
	Connector	Terminal		
Encoder signal 1	D105	9	Ground	Refer to following signals
Encoder signal 2		10		



Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-68, "Removal and Installation".

NO >> GO TO 2.

2.CHECK ENCODER SIGNAL CIRCUIT

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

Power window and door lock/unlock switch RH		Front power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D105	9	D104	3	Yes
	10		5	

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY

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

(+)		(–)	Voltage (Approx.)
Power window and door lock/unlock switch RH			
Connector	Terminal		
D104	4	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK ENCODER POWER SUPPLY CIRCUIT

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

Power window and door lock/unlock switch RH		Front power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D105	5	D104	4	Yes

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

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

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-68, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK GROUND CIRCUIT 1

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

Front power window motor RH		Ground	Continuity
Connector	Terminal		
D104	6		Yes

Is the inspection result normal?

YES >> Replace front power window motor RH. Refer to GW-19, "Removal and Installation".

NO >> GO TO 6.

6. CHECK GROUND CIRCUIT 2

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

Power window and door lock/unlock switch RH		Front power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D105	4	D104	6	Yes

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

Power window and door lock/unlock switch RH		Ground	Continuity
Connector	Terminal		
D105	4		No

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-68, "Removal and Installation".

NO >> Repair or replace harness.

DOOR SWITCH

Component Function Check

INFOID:0000000012436027

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “DOOR SW-DR”, “DOOR SW-AS”, “DOOR SW-RL” or “DOOR SW-RR” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
DOOR SW-DR	Front door LH	Open	On
		Closed	Off
DOOR SW-AS	Front door RH	Open	On
		Closed	Off
DOOR SW-RL	Rear door LH	Open	On
		Closed	Off
DOOR SW-RR	Rear door RH	Open	On
		Closed	Off

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to PWC-46, "Diagnosis Procedure".

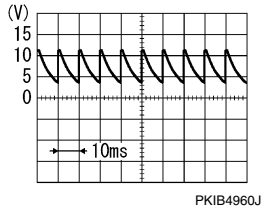
Diagnosis Procedure

INFOID:0000000012436028

Regarding Wiring Diagram information, refer to DLK-51, "Wiring Diagram".

1.CHECK DOOR SWITCH INPUT SIGNAL

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

(+)			(–)	Signal (Reference value)
Door switch				
Connector		Terminal		
Front LH	B8	3	Ground	
Front RH	B108			
Rear LH	B18			
Rear RH	B116			

PKIB4960J

7.0 - 8.0 V

Is the inspection result normal?

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

2.CHECK DOOR SWITCH CIRCUIT

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

Door switch			BCM		Continuity
Connector		Terminal	Connector	Terminal	
Front LH	B8	3	M19	96	Yes
Front RH	B108			94	
Rear LH	B18			82	
Rear RH	B116			93	

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

Door switch			Ground	Continuity
Connector		Terminal		
Front LH	B8	3	Ground	No
Front RH	B108			
Rear LH	B18			
Rear RH	B116			

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to PWC-47, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace malfunctioning door switch. Refer to DLK-197, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012436029

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 malfunctioning door switch. Refer to DLK-197, "Removal and Installation".

DOOR KEY CYLINDER SWITCH

Component Function Check

INFOID:0000000012436030

1.CHECK FUNCTION

CONSULT
1. Select “DOOR LOCK” of “BCM”.
2. Select “KEY CYL LK-SW” or “KEY CYL UN-SW” in “Data Monitor” mode.
3. Check that the function operates normally according to the following conditions:

Monitor Item	Condition		Status
KEY CYL LK-SW	Driver side door key cylinder	Lock	ON
		Neutral / Unlock	OFF
KEY CYL UN-SW		Unlock	ON
		Neutral / Lock	OFF

Is the inspection result normal?

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

Diagnosis Procedure

INFOID:0000000012436031

Regarding Wiring Diagram information, refer to DLK-42, "Wiring Diagram".

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly LH connector.
3. Check voltage between front door lock assembly LH harness connector and ground.

(+)		(–)	Voltage (Approx.)
Front door lock assembly LH			
Connector	Terminal		
D10	5	Ground	5 V
	6		

Is the inspection result normal?

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

2.CHECK DOOR KEY CYLINDER SWITCH SIGNAL CIRCUIT

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

Main power window and door lock/unlock switch		Front door lock assembly LH		Continuity
Connector	Terminal	Connector	Terminal	
D7	3	D10	6	Yes
	15		5	

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

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

Front door lock assembly LH		Ground	Continuity
Connector	Terminal		
D10	4		Yes

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH

Refer to PWC-49, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly LH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".

5.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000012436032

1.CHECK DOOR KEY CYLINDER SWITCH

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly LH connector.
3. Check continuity between front door lock assembly LH terminals.

Front door lock assembly LH		Condition		Continuity
Terminals				
5	4	Driver side door key cylinder	Unlock	Yes
			Neutral / Lock	No
6			Lock	Yes
			Neutral / Unlock	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace front door lock assembly LH. Refer to DLK-179, "DOOR LOCK : Removal and Installation".

POWER WINDOW SERIAL LINK
POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000012183480

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 signals mentioned below are 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:0000000012183481

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check “CDL LOCK SW ” or “CDL UNLOCK SW” in “Data Monitor” mode of “BCM (DOOR LOCK)” with CONSULT. Refer to BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Power window serial link is OK.
NO >> Refer to PWC-50, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

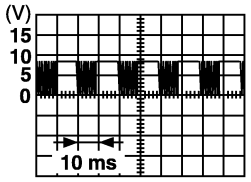
INFOID:0000000012183482

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

Power Window Serial Link Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

Terminal			Signal (Reference value)
(+)		(–)	
BCM	Terminal		
M20	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 harness connector and main power window and door lock/unlock switch harness connector.

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M20	54	D7	11	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M20	54		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".
NO >> Repair or replace harness or connectors.

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:0000000012183483

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 signals mentioned below are 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:0000000012183484

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

Check “CDL LOCK SW ” or “CDL UNLOCK SW” in “Data Monitor” mode of “” with CONSULT. Refer to BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Power window serial link is OK.
NO >> Refer to PWC-52, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

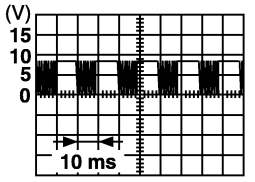
INFOID:0000000012183485

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".

Power Window Serial Link Check

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

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

Terminal			Signal (Reference value)
(+)		(–)	
BCM connector	Terminal		
M20	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 harness connector and power window and door lock/unlock switch RH harness connector.

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M20	54	D105	3	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M20	54		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".

NO >> Repair or replace the harness or connectors.

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH

Diagnosis Procedure

INFOID:0000000012183486

1.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to BCS-82, "Removal and Installation".

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 POWER SUPPLY AND GROUND CIRCUIT

Check main power window and door lock/unlock switch power supply and ground circuit.
Refer to PWC-32, "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-41, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012183487

1.CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.
Refer to PWC-36, "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-41, "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:0000000012183488

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

Check power window and door lock/unlock switch RH serial link circuit.

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-41, "Intermittent Incident".
NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

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

INFOID:0000000012183489

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

Replace power window and door lock/unlock switch RH.
Refer to PWC-68, "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:0000000012183490

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-34, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.
Refer to PWC-37, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "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:0000000012183491

1. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "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:0000000012183492

1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.
Refer to PWC-69, "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:0000000012183493

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

Check rear power window switch power supply and ground circuit.
Refer to PWC-34, "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-38, "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-41, "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:0000000012183494

1.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "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:0000000012183495

1.REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.
Refer to PWC-69, "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:0000000012183496

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

Check rear power window switch power supply and ground circuit.
Refer to PWC-34, "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-39, "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-41, "Intermittent Incident".
NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012183497

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure and confirm operation.
Refer to PWC-30, "Work Procedure".

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 2.

2. CHECK ENCODER (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit.
Refer to PWC-41, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

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

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012183498

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure and confirm operation.
Refer to PWC-30, "Work Procedure".

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 2.

2. CHECK ENCODER (PASSENGER SIDE) CIRCUIT

Check encoder (passenger side) circuit.
Refer to PWC-43, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

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

ANTI-PINCH FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012183501

1.CHECK POWER WINDOW AUTO OPERATION

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

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-59, "DRIVER SIDE : Diagnosis Procedure" (driver side) and PWC-59, "PASSENGER SIDE : Diagnosis Procedure" (passenger side).

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

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

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Diagnosis Procedure

INFOID:0000000012183502

1.CHECK DOOR SWITCH

Check door switch.
Refer to PWC-46, "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-41, "Intermittent Incident".
NO >> GO TO 1.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Diagnosis Procedure

INFOID:0000000012183503

1.PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure and confirm operation.
Refer to PWC-30, "Work Procedure".

Is the inspection result normal?

YES >> Inspection End.
NO >> GO TO 2.

2.CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)

Check front door lock assembly LH (key cylinder switch).
Refer to DLK-109, "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-41, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000012183504

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to DLK-111, "Diagnosis Procedure".

2.CHECK POWER WINDOW OPERATION

Check power window operation.

In the inspection result normal?

YES >> GO TO 3.
NO >> Refer to PWC-32, "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-41, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000012183505

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

Replace main power window and door lock/unlock switch. Refer to PWC-67, "Removal and Installation".

>> Inspection End.

POWER WINDOW SWITCH DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000012183506

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

Replace main power window and door lock/unlock switch.
Refer to PWC-67, "Removal and Installation".

>> Inspection End.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000012183507

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

Replace power window and door lock/unlock switch RH.
Refer to PWC-68, "Removal and Installation".

>> Inspection End.

REAR LH

REAR LH : Diagnosis Procedure

INFOID:0000000012183508

1.REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.
Refer to PWC-69, "Removal and Installation".

>> Inspection End.

REAR RH

REAR RH : Diagnosis Procedure

INFOID:0000000012183509

1.REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.
Refer to PWC-69, "Removal and Installation".

>> Inspection End.

PERIODIC MAINTENANCE

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

INFOID:0000000012183516

BASIC INSPECTION

1.INSPECTION START

1. Check the service history.
2. Check the following parts.

- Fuse/circuit breaker blown.
- Poor connection, open or short circuit of harness connector.
- Battery voltage.

Is the inspection result normal?

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

REMOVAL AND INSTALLATION

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

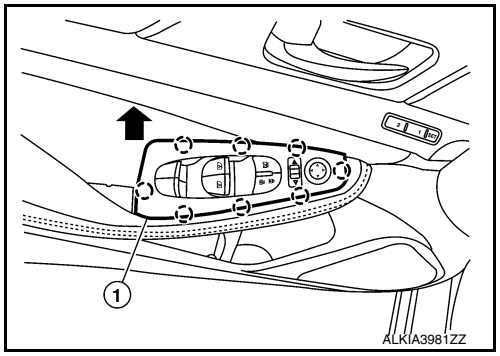
Removal and Installation

INFOID:0000000012183517

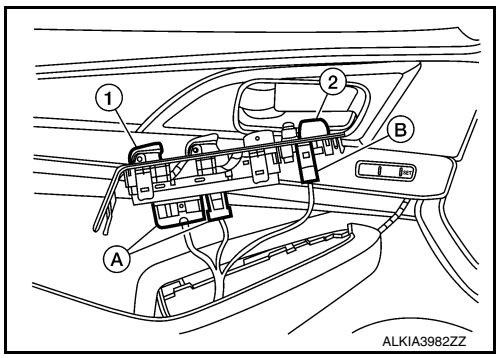
REMOVAL

1. Release pawls using a suitable tool and the remove main power window and door lock/unlock switch finisher (1) upward in direction shown (⬅).

: Pawl

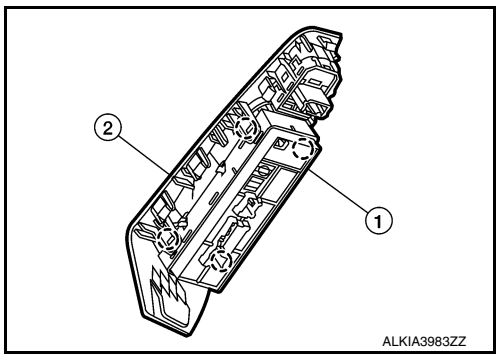


2. Disconnect the harness connectors (A) from the main power window and door lock/unlock switch (1) and harness connector (B) from the door mirror remote control switch (2) and remove.



3. Release pawls, then remove 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:

Whenever the main power window and door lock/unlock switch is disconnected from the harness connector, it is necessary to perform the initialization procedure. Refer to PWC-29, "Description".

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

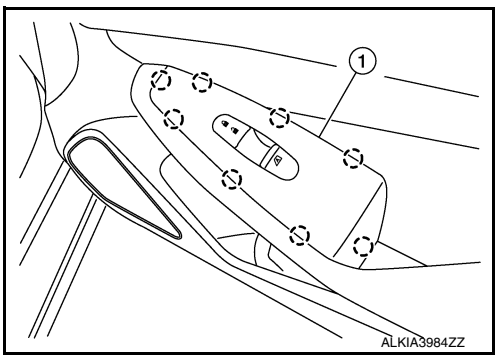
Removal and Installation

INFOID:0000000012183518

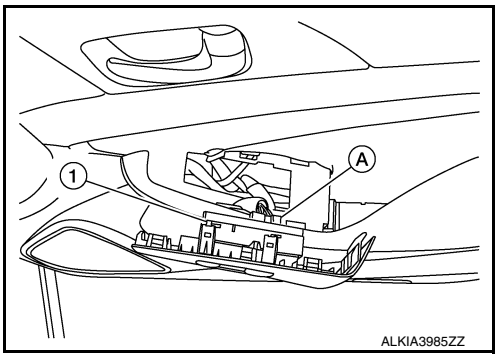
REMOVAL

1. Release pawls using a suitable tool and remove power window and door lock/unlock switch finisher (RH) (1).

: Pawl

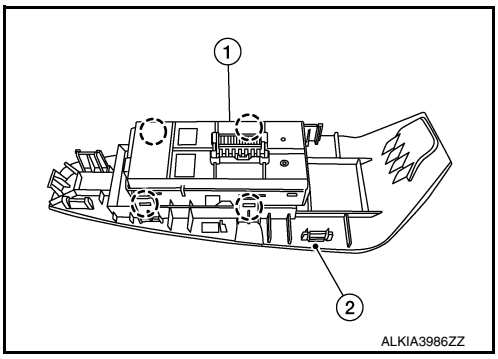


2. Disconnect the harness connector (A) from the power window and door lock/unlock switch RH (1) and remove.



3. Release pawls, then remove power window and door lock/unlock switch RH (1) from switch finisher (2).

: Pawl



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

Whenever the power window and door lock/unlock switch is disconnected from the harness connector, it is necessary to perform the initialization procedure. Refer to PWC-29, "Description".

REAR POWER WINDOW SWITCH

Removal and Installation

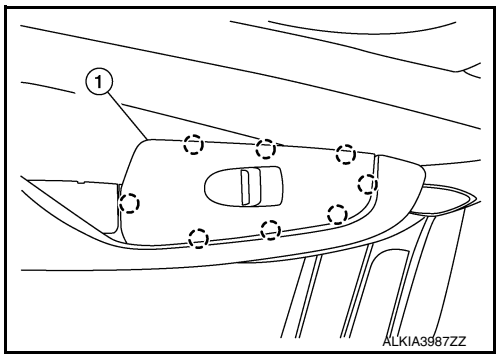
INFOID:0000000012183519

REMOVAL

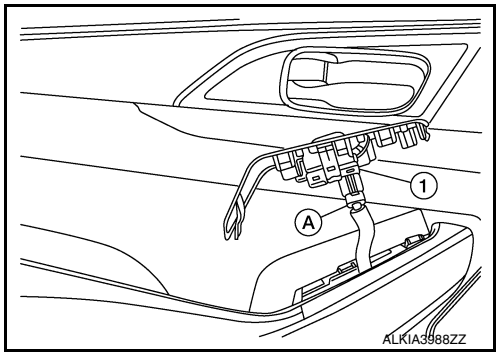
1. Release pawls using a suitable tool and then remove the rear power window switch finisher (1).

: Pawl

NOTE:
LH shown; RH similar

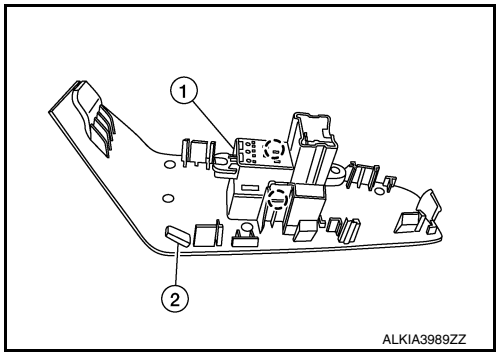


2. Disconnect power window switch harness connector (A) from rear power window switch (1).



3. Release pawls, then remove rear power window switch (1) from rear power window switch finisher (2).

: Pawl



INSTALLATION

Installation is in the reverse order of removal.