SECTION **PWC**

# POWER WINDOW CONTROL SYSTEM

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# PRECAUTION

## PRECAUTIONS

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

*INFOID:0000000012876114*

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 mainte- nance 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 har- ness 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:0000000012876115*

- 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:0000000012876116

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

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

# SYSTEM DESCRIPTION

## COMPONENT PARTS

### Component Parts Location

ALKIA3692ZZ
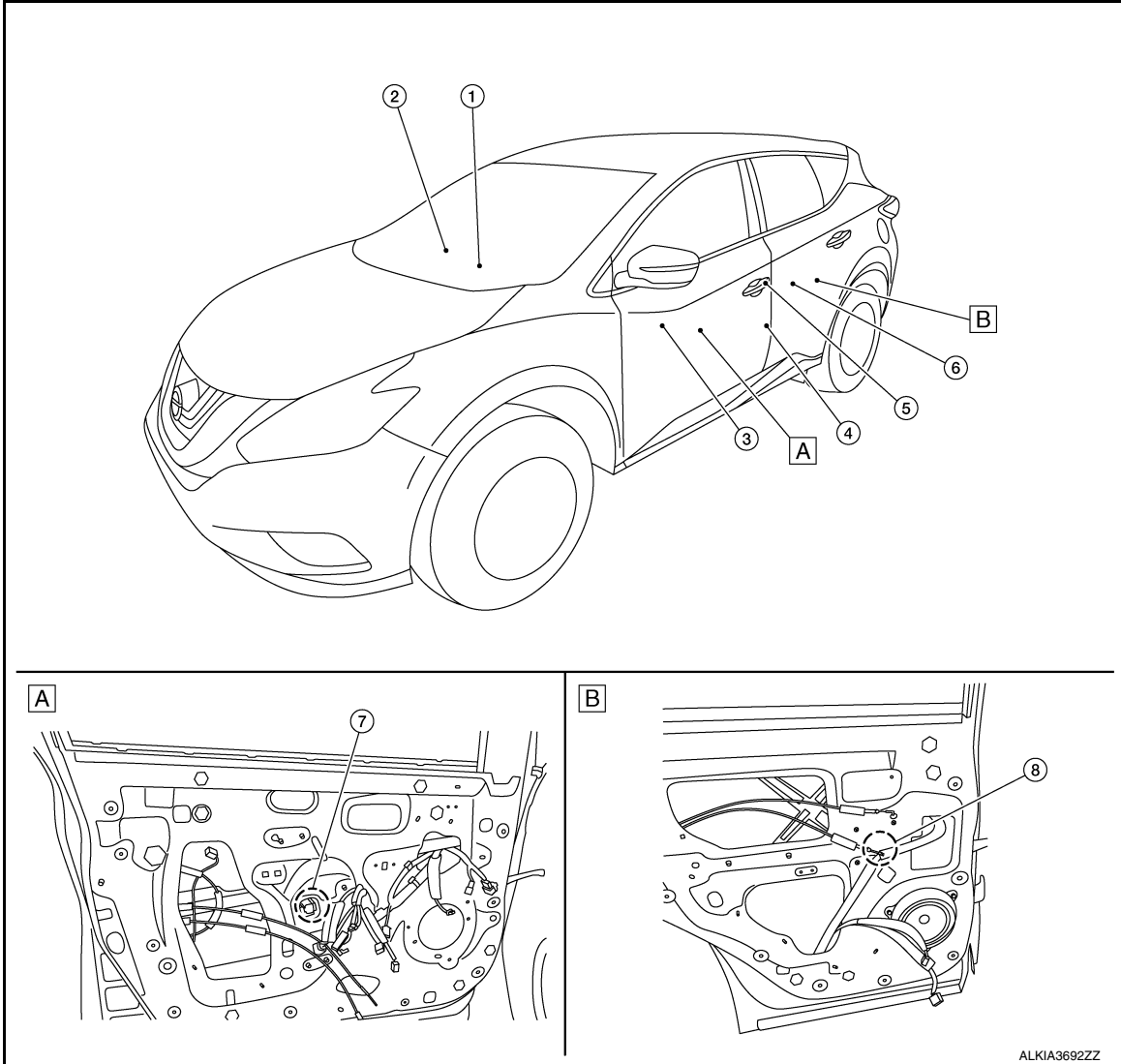
A. View with front door finisher removed    B. View with rear door finisher removed

| No. | Part | Function |
|-----|------|----------|
| 1. | BCM | • Supplies power to the window switches.<br>• Controls retained power.<br>• Refer to BCS-4, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location. |
| 2. | Power window and door lock/unlock switch RH | Refer to PWC-7, "Power Window and Door Lock/Unlock Switch RH" |
| 3. | Main power window and door lock/unlock switch | Refer to PWC-7, "Main Power Window and Door Lock/Unlock Switch" |
| 4. | Front door switch LH | Detects door open/close condition and transmits to BCM. Refer to DLK-22, "Front Door Switch". |
| 5. | 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. |
| 6. | Rear power window switch LH | Refer to PWC-7, "Rear Power Window Switch" |

# COMPONENT PARTS

< SYSTEM DESCRIPTION >

| No. | Part | Function |
|-----|------|----------|
| 7. | Front power window motor LH | Refer to PWC-7, "Power Window Motor" |
| 8. | Rear power window motor LH | Refer to PWC-7, "Power Window Motor" |

## Main Power Window and Door Lock/Unlock Switch

*INFOID:0000000012876118*

- 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, AUTO UP/DOWN function.
- Receives encoder pulse signal and then controls anti-pinch system.

ALKIA4327ZZ
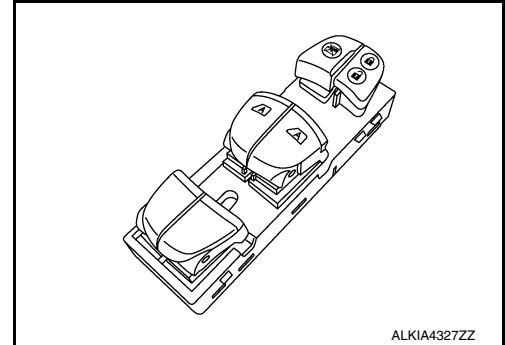
## Power Window and Door Lock/Unlock Switch RH

*INFOID:0000000012876119*

- 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
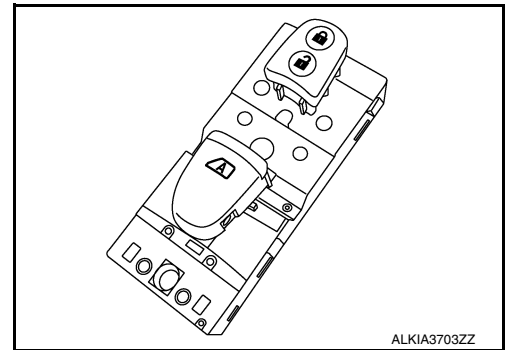
## Rear Power Window Switch

*INFOID:0000000012876120*

- 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
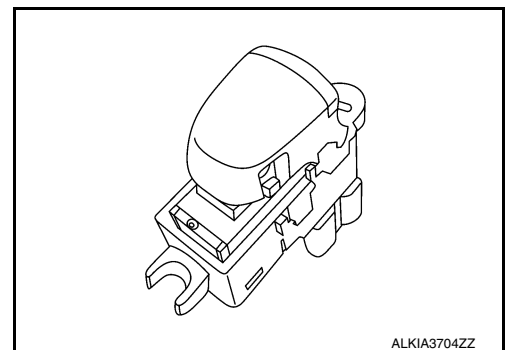
## Power Window Motor

*INFOID:0000000012876121*

- 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.

ALKIA3705ZZ
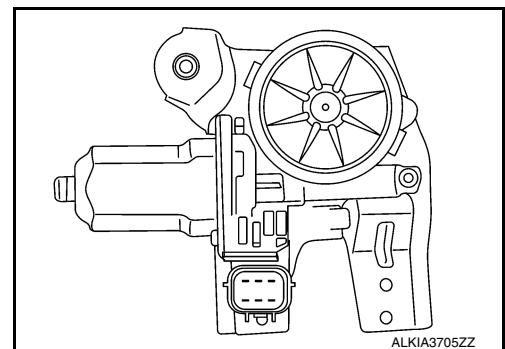
# SYSTEM

## System Description

INFOID:0000000012876122

### SYSTEM DIAGRAM



ALKIA3826GB
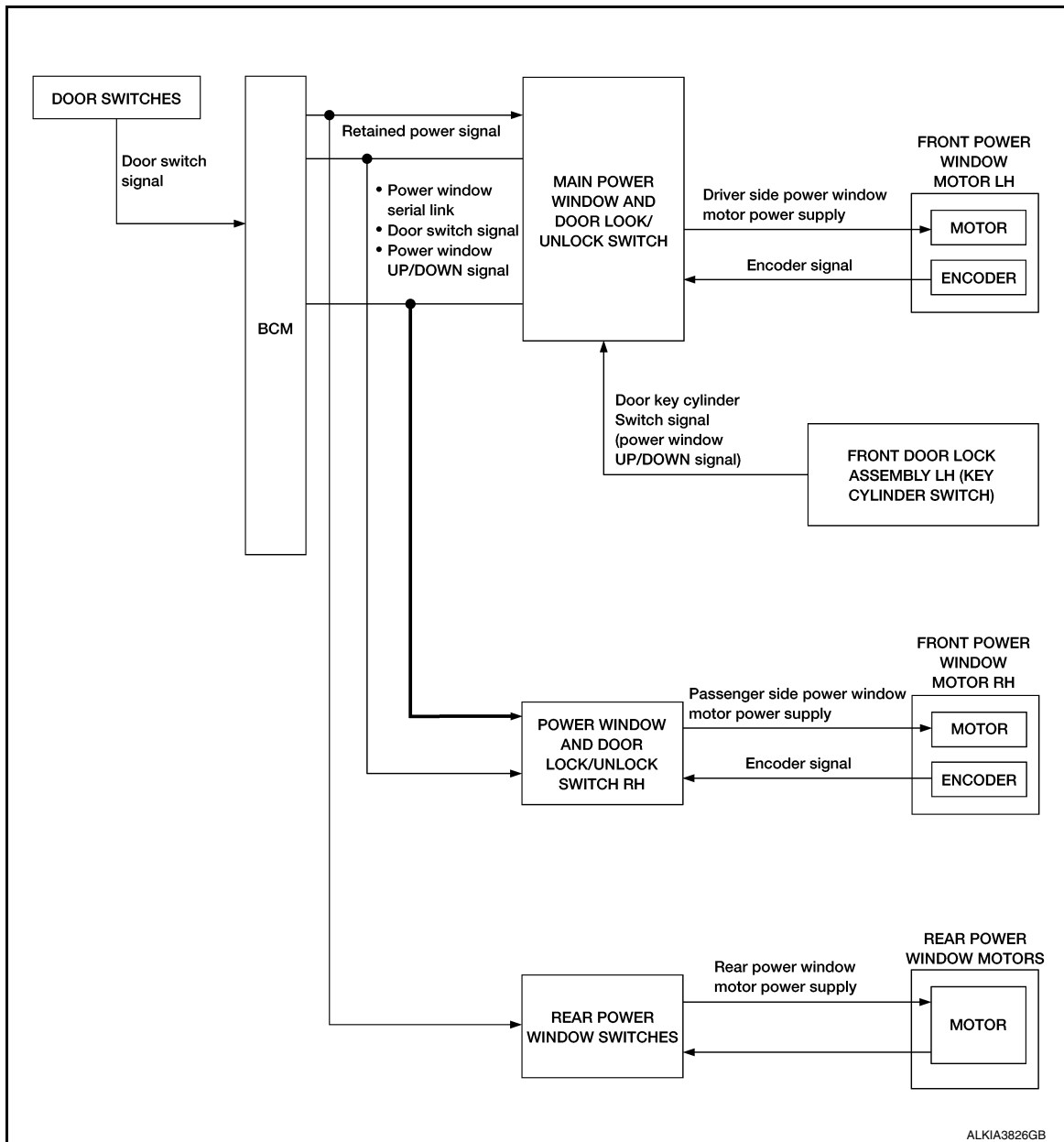
### POWER WINDOW OPERATION
- Power window system is activated by the power window switches when the ignition switch is in the ON position or during the retained power operation after ignition switch turns OFF.
- Main power window and door lock/unlock switch can open/close door glass.
- Front and rear 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 output the encoder pulse signal to power window switch while power window motor is operating.

# SYSTEM

< SYSTEM DESCRIPTION >

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

## 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 signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch, power window and door lock/unlock switch RH.
- 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 the power window system to operate for 45 seconds even after the 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 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 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 controls to lower 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 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

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:

# SYSTEM

< SYSTEM DESCRIPTION >

• 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

### FAIL-SAFE CONTROL

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

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

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

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

# DIAGNOSIS SYSTEM (BCM)
## COMMON ITEM

## COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000013387421

### 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.<br>• 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 | 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 | | | × | | | | |
| Signal buffer system | SIGNAL BUFFER | | | × | × | | | |
| TPMS | AIR PRESSURE MONITOR | | × | × | × | | | |

### FREEZE FRAME DATA (FFD)

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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:0000000013387422*

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:0000000012876126

| ECU | Reference |
|---|---|
| BCM | BCS-30, "Reference Value" |
| | BCS-50, "Fail Safe" |
| | BCS-51, "DTC Inspection Priority Chart" |
| | BCS-52, "DTC Index" |

# MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

## Reference Value

INFOID:0000000012876127

### TERMINAL LAYOUT
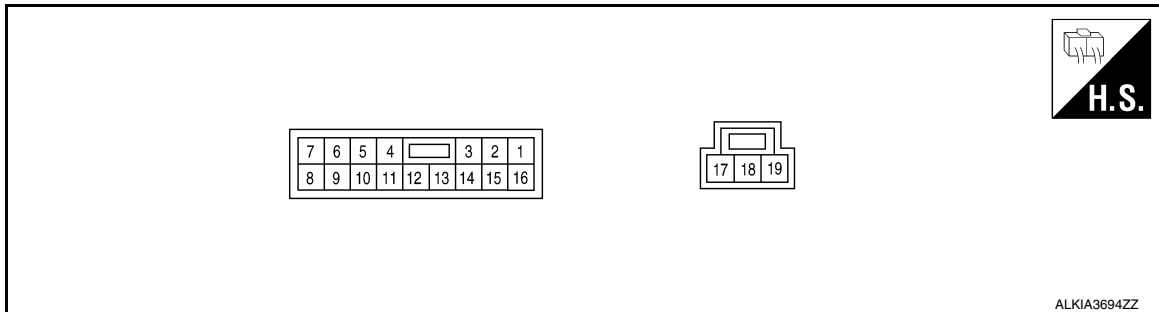


ALKIA3694ZZ

### PHYSICAL VALUES
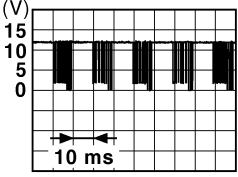
| Terminal No. (wire color) | | Description | | Condition | Voltage (Approx.) |
|---|---|---|---|---|---|
| + | - | Signal name | Input/ Output | | |
| 1 (B) | Ground | Ground | Output | — | 0 |
| 3 (BR) | Ground | Door lock actuator signal | Output | — | — |
| 4 (R) | 12 (Y) | Encoder pulse signal 2 | Input | When power window motor operates | <br>JMKIA0070GB |
| 5 (Y) | 12 (Y) | Encoder pulse signal 1 | Input | When power window motor operates | <br>JMKIA0070GB |
| 6 (L) | 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 (LG) | Ground | Rear power window motor LH DOWN signal. | Output | When rear power window switch LH is operated DOWN | Battery voltage |
| 9 (SB) | 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 (Y/L) | Ground | Power window serial link | Input/ Output | IGN SW ON or power window operating. | 
(V) 15 10 5 0
10 ms
JPMIA0013GB |
| 12 (Y) | Ground | Encoder ground | — | — | 0 |
| 14 (P) | Ground | Encoder power supply | Output | When ignition is ON or power window timer operates. | Battery voltage |
| 15 (L/W) | Ground | Door lock actuator signal | Output | — | Battery voltage |
| 17 (G) | 19 (Y) | 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 (Y) | Ground | Battery power supply | Input | — | Battery voltage |
| 19 (Y) | 17 (G) | 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
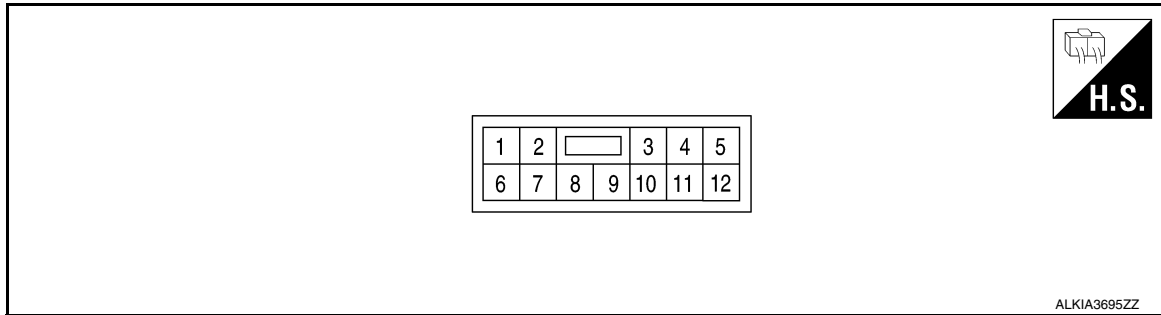
### TERMINAL LAYOUT



ALKIA3695ZZ

### PHYSICAL VALUES

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

# POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< ECU DIAGNOSIS INFORMATION >

| Terminal No. (wire color) | | Description | | Condition | Voltage (Approx.) |
|---|---|---|---|---|---|
| + | - | Signal name | Input/ Output | | |
| 11 (G) | 12 (G) | Assistant window switch UP signal | Output | When power window and door lock/unlock switch RH is operated UP | Battery voltage |
| 12 (G) | 11 (G) | 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:0000000012876129*



AAKWA1392GB

## POWER WINDOW SYSTEM CONNECTORS

| Connector No. | M31 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 5G | L | – |

| Connector No. | M19 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |
| Connector Color | BLACK |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 54 | W | PW LIN |

| Connector No. | M20 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH24FGY-NH |
| Connector Color | GRAY |

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

| Connector No. | M3 |
|---|---|
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | CS06FW-M2 |
| Connector Color | WHITE |

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

| Connector No. | M4 |
|---|---|
| Connector Name | FUSE BLOCK (J/B) |
| Connector Type | NS16FW-CS |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 9P | L | – |

| Connector No. | M18 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |
| Connector Color | GREEN |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 26 | L | SHORTING INPUT |
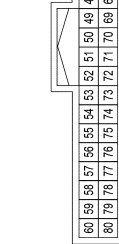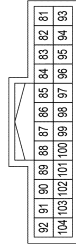
AAKIA3349GB

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 9 | V | BAT FRONT DOOR |
| 10 | L | |
| 11 | BR | |

**Connector No.** M168
**Connector Name** WIRE TO WIRE
**Connector Type** TH40MW-CS15
**Connector Color** WHITE

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 4C | W | – |
| 9C | L | – |
| 10C | V | – |
| 11C | LG | – |
| 12C | SB | – |
| 13C | Y | – |
| 14C | BR | – |
| 15C | B | – |

**Connector No.** M175
**Connector Name** JOINT CONNECTOR-M22
**Connector Type** BJ30FW
**Connector Color** WHITE

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 23 | BG | – |
| 25 | BG | – |

| | | |
|---|---|---|
| 142 | Y | BAT FRONT DOOR |
| 143 | GR | GND1 |

**Connector No.** M84
**Connector Name** WIRE TO WIRE
**Connector Type** TH32FW-NH
**Connector Color** WHITE

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 32 | G | – |

**Connector No.** M91
**Connector Name** WIRE TO WIRE
**Connector Type** TH40MW-CS15
**Connector Color** WHITE

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 4B | W | – |
| 13B | Y | – |
| 15B | B | – |

**Connector No.** M157
**Connector Name** WIRE TO WIRE
**Connector Type** NS16FW-CS
**Connector Color** WHITE

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|

**Connector No.** M40
**Connector Name** WIRE TO WIRE
**Connector Type** TH80FDGY-CS16-TM4
**Connector Color** GRAY

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 76A | BG | – |
| 97A | LG | – |
| 98A | SB | – |
| 99A | BR | – |

**Connector No.** M81
**Connector Name** BCM (BODY CONTROL MODULE)
**Connector Type** FEA09FW-FHA6-SA
**Connector Color** WHITE

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 131 | W | BAT BCM FUSE |
| 134 | GR | GND2 |
| 139 | L | BAT POWER F/L |
| 140 | BR | P/W POWER SUPPLY IGN |
| 141 | Y | P/W POWER SUPPLY BAT |

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## Connector B101

| Connector No. | B101 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH32MW-NH |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 32 | V | - |

## Connector B108

| Connector No. | B108 |
|---|---|
| Connector Name | FRONT DOOR SWITCH RH |
| Connector Type | TH04FW-NH |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 3 | V | - |
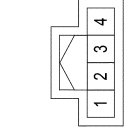
## Connector B139

| Connector No. | B139 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NS12FW-CS |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | BR | - |
| 4 | Y | - |
| 5 | SB | - |
| 12 | B | - |
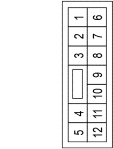
## Connector B51

| Connector No. | B51 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NS12FW-CS |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | BR | - |
| 4 | Y | - |
| 5 | SB | - |
| 12 | B | - |
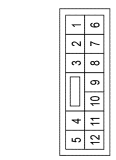
## Connector B69

| Connector No. | B69 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MDGY-CS16-TM4 |
| Connector Color | GRAY |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 76A | O | - |
| 97A | SB | - |
| 98A | Y | - |
| 99A | BR | - |
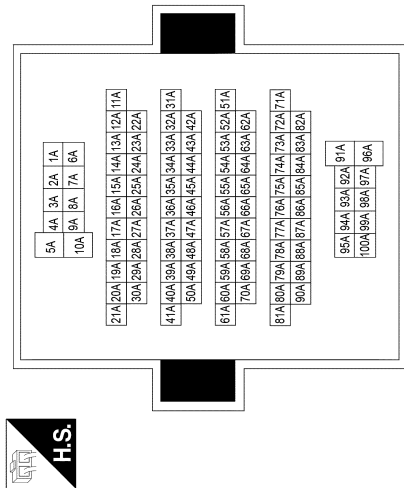
## Connector E152

| Connector No. | E152 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 5G | P | - |
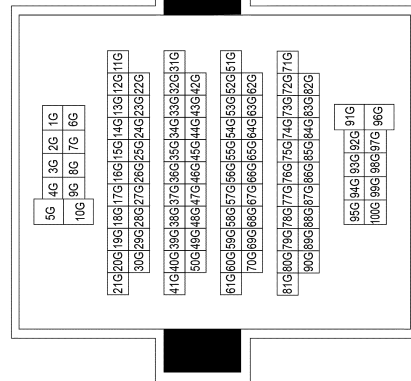
## Connector B8

| Connector No. | B8 |
|---|---|
| Connector Name | FRONT DOOR SWITCH LH |
| Connector Type | TH04FW-NH |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 3 | O | - |
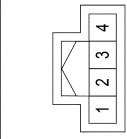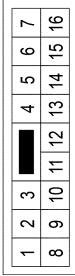
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| Connector No. | D9 |
| Connector Name | FRONT POWER WINDOW MOTOR LH |
| Connector Type | RS06FG |
| Connector Color | GREEN |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | G | DR UP |
| 2 | P | VCC |
| 3 | Y | DR DN |
| 4 | Y | GND |
| 5 | Y | OUTPUT1 |
| 6 | R | OUTPUT2 |

| Connector No. | D14 |
| Connector Name | FRONT DOOR LOCK ASSEMBLY LH |
| Connector Type | E06FGY-RS |
| Connector Color | GRAY |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 4 | B | – |
| 5 | L/W | – |
| 6 | BR | – |

| Connector No. | D7 |
| Connector Name | MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH |
| Connector Type | NS16FW-CS |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | B | GND |
| 2 | – | – |
| 3 | BR | D LOCK ACTR DR |
| 4 | R | ENCODER SIG2 |
| 5 | Y | ENCODER SIG1 |
| 6 | L | RR DN |
| 7 | V | RR UP |
| 8 | LG | RL DN |
| 9 | SB | RL UP |
| 10 | BR | IGN |
| 11 | Y/L | COM |
| 12 | Y | ENCODER GND |
| 13 | – | – |
| 14 | P | ENCODER + |
| 15 | L/W | D LOCK ACTR DR |
| 16 | – | – |

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

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 17 | G | DR UP |
| 18 | Y | BAT |
| 19 | Y | DR_DN |

| Connector No. | B161 |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16MW-CS |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 9 | SB | – |
| 10 | Y | – |
| 11 | BR | – |

| Connector No. | D3 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH40FW-CS15 |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 4C | Y/L | – |
| 9C | L | – |
| 10C | V | – |
| 11C | LG | – |
| 12C | SB | – |
| 13C | Y | – |
| 14C | BR | – |
| 15C | B | – |
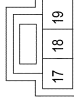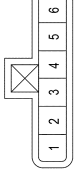
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| Connector No. | D203 |
|---|---|
| Connector Name | REAR POWER WINDOW SWITCH LH |
| Connector Type | NS08FW-CS |
| Connector Color | WHITE |

H.S.
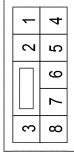
| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 2 | B | – |
| 4 | R/Y | – |
| 5 | V | – |
| 6 | LG | – |
| 7 | Y | – |
| 8 | SB | – |

| Connector No. | D204 |
|---|---|
| Connector Name | REAR POWER WINDOW MOTOR LH |
| Connector Type | RS06FG |
| Connector Color | GREEN |

H.S.

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | LG | – |
| 3 | V | – |

| Connector No. | D105 |
|---|---|
| Connector Name | POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH |
| Connector Type | NS12FW-CS |
| Connector Color | WHITE |

H.S.
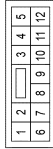
| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | – | – |
| 2 | – | – |
| 3 | Y/L | COM |
| 4 | B | ENCODER GND |
| 5 | L/W | ENCODER + |
| 6 | – | – |
| 7 | B | GND |
| 8 | Y | BAT |
| 9 | P | ENCODER SIG1 |
| 10 | R | ENCODER SIG2 |
| 11 | G | AS UP |
| 12 | G | AS DN |

| Connector No. | D201 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NS12MW-CS |
| Connector Color | WHITE |

H.S.

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | R/Y | – |
| 4 | Y | – |
| 5 | SB | – |
| 12 | B | – |

| Connector No. | D101 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH40FW-CS15 |
| Connector Color | WHITE |

H.S.
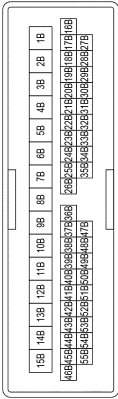
| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 4B | Y/L | – |
| 13B | Y | – |
| 15B | B | – |

| Connector No. | D104 |
|---|---|
| Connector Name | FRONT POWER WINDOW MOTOR RH |
| Connector Type | RS06FG |
| Connector Color | GREEN |

H.S.

| Terminal No. | Color of Wire | Signal Name |
|---|---|---|
| 1 | G | UP |
| 2 | L/W | VCC |
| 3 | G | DN |
| 4 | B | GND |
| 5 | P | OUTPUT1 |
| 6 | R | OUTPUT2 |

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**H.S.**

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

| Terminal No. | Color of Wire | Signal Name |
| --- | --- | --- |
| 1 | LG | – |
| 3 | V | – |

**H.S.**

| Connector No. | D301 |
| --- | --- |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS12MW-CS |
| Connector Color | WHITE |

| Terminal No. | Color of Wire | Signal Name |
| --- | --- | --- |
| 1 | G/B | – |
| 4 | R/Y | – |
| 5 | SB | – |
| 12 | B | – |
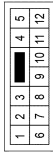
**H.S.**

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

| Terminal No. | Color of Wire | Signal Name |
| --- | --- | --- |
| 2 | B | – |
| 4 | G/B | – |
| 5 | V | – |
| 6 | LG | – |
| 7 | R/Y | – |
| 8 | SB | – |
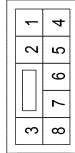
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# BASIC INSPECTION
## DIAGNOSIS AND REPAIR WORKFLOW
### Work Flow

INFOID:0000000012876130

OVERALL SEQUENCE

```
                    ┌─────────────────────┐
                    │   Inspection Start   │
                    └─────────────────────┘
                              │
                              ▼
              ┌──────────────────────────────────┐
              │ 1. Interview Customer             │
              │ Review the symptoms with the      │
              │ customer.                         │
              └──────────────────────────────────┘
                              │
                              ▼
              ┌──────────────────────────────────┐
              │ 2. Reproduce the Malfunction      │
              │ Test system for proper operation. │
              └──────────────────────────────────┘
                              │
                              ▼
              ┌──────────────────────────────────┐
              │ 3. Symptom Diagnosis              │
              │ Perform the "System Diagnosis"    │
              │ from the symptom inspection.      │
              └──────────────────────────────────┘
                              │
                              ▼
              ┌──────────────────────────────────┐
              │ 4. Component Diagnosis            │
              │ Perform the "Component Diagnosis" │
              │ of the applicable system.        │
              └──────────────────────────────────┘
                              │
                              ▼
              ┌──────────────────────────────────┐
              │ 5 Repair or Replace               │
              │   Malfunctioning Part             │
              │ Diagnose and repair cause of      │
              │ symptom.                         │
              └──────────────────────────────────┘
                              │
                              ▼
              ┌──────────────────────────────────┐
              │ 6. Perform Final Operation Check  │
              │ Retest the system to verify       │
              │ operation.                       │
              └──────────────────────────────────┘
                              │
                              ▼
                    ┌─────────────────────┐
                    │   Inspection End     │
                    └─────────────────────┘
```

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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 on the vehicle that the customer describes.
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 TERMI-NAL

## Description

*INFOID:0000000012876131*

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:0000000012876132*

### 1.SYSTEM INITIALIZATION

Perform system initialization. Refer to .

>> GO TO 2.

### 2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to .

>> Inspection End.

# ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

## Description

INFOID:0000000012876133

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:0000000012876134

## 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

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 can not be performed under the non-initialized condition:
• Auto-up operation
• Anti-pinch function

## Work Procedure

## 1.STEP 1

1. Turn ignition switch ON.
2. Open the window not less than half way.
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:0000000012876137*

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 can not be performed under the non-initialized condition:
- Auto-up operation
- Anti-pinch function

## Work Procedure

*INFOID:0000000012876138*

## 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 (5.9 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:0000000013356387*

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.

| Signal name | Fuse and fusible link No. |
|---|---|
| Fusible link battery power | L (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. 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 : Diagnosis Procedure

*INFOID:0000000012876140*

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

## 1. CHECK POWER SUPPLY

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch connectors D7 and D8.
3. Turn ignition switch ON.
4. Check voltage between main power window and door lock/unlock switch harness connectors D7, D8, 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 M81.
3. Check continuity between BCM harness connector M81 and main power window and door lock/unlock switch harness connectors D7 and D8.

| BCM | | Main power window and door lock/unlock switch | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M81 | 140 | D7 | 10 | Yes |
| | 141 | D8 | 18 | |

4. Check continuity between BCM harness connector M81 and ground.

| BCM | | | Continuity |
|---|---|---|---|
| Connector | Terminal | Ground | |
| M81 | 140 | | No |
| | 141 | | |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "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 D7 and ground.

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

Is the inspection result normal?

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

## 4.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

## FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

*INFOID:0000000012876141*

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 D105.
3. Turn ignition switch ON.
4. Check voltage between power window and door lock/unlock switch RH harness connector D105 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 M81.
3. Check continuity between BCM harness connector M81 and power window and door lock/unlock switch RH harness connector D105.

| BCM | | Power window and door lock/unlock switch RH | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M81 | 141 | D105 | 8 | Yes |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "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 D105 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-42, "Intermittent Incident".

>> Inspection End.

## REAR POWER WINDOW SWITCH

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## REAR POWER WINDOW SWITCH : Diagnosis Procedure

*INFOID:0000000012876142*

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 D203 and rear power window switch RH connector D303.
3. Turn ignition switch ON.
4. Check voltage between rear power window switch harness connectors D203, D303, and ground.

| (+) | | | (−) | Voltage (Approx.) |
|---|---|---|---|---|
| Rear power window switch | | | | |
| Connector | | Terminal | | |
| LH | D203 | 4 | 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 M81.
3. Check continuity between BCM harness connector M81 and rear power window switch harness connectors D203 and D303.

| BCM | | Rear power window switch | | | Continuity |
|---|---|---|---|---|---|
| Connector | Terminal | Connector | | Terminal | |
| M81 | 140 | LH | D203 | 4 | Yes |
| | | RH | D303 | | |

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "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 connectors D203, D303, and ground.

| Rear power window switch | | | | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| LH | D203 | 2 | Ground | Yes |
| RH | D303 | | | |

Is the inspection result normal?

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

## 4.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> Inspection End.

# POWER WINDOW MOTOR

## DRIVER SIDE

### DRIVER SIDE : Component Function Check

*INFOID:0000000012876143*

## 1. CHECK POWER WINDOW MOTOR CIRCUIT

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

<u>Is the inspection result normal?</u>

YES >> Front power window motor LH is OK.
NO >> Refer to PWC-36, "DRIVER SIDE : Diagnosis Procedure".

### DRIVER SIDE : Diagnosis Procedure

*INFOID:0000000012876144*

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 D9.
3. Turn ignition switch ON.
4. Check voltage between front power window motor LH harness connector D9 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 |
| | 3 | | | UP | 0 |
| | | | | DOWN | Battery voltage |

<u>Is the inspection result normal?</u>

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 D8.
3. Check continuity between main power window and door lock/unlock switch harness connector D8 and front power window motor LH harness connector D9.

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

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

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

<u>Is the inspection result normal?</u>

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

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:0000000012876145*

## 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:0000000012876146*

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 D104.
3. Turn ignition switch ON.
4. Check voltage between front power window motor RH harness connector D104 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 |
| | 3 | | | 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 D105.
3. Check continuity between power window and door lock/unlock switch RH harness connector D105 and front power window motor RH harness connector D104.

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

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

| Power window and door lock/unlock switch RH | | 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:0000000012876147*

### 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:0000000012876148*

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 D204.
3. Turn ignition switch ON.
4. Check voltage between rear power window motor LH harness connector D204 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-24, "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 D203.
3. Check continuity between rear power window switch LH harness connector D203 and rear power window motor LH harness connector D204.

| Rear power window switch LH | | Rear power window motor LH | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| D203 | 5 | D204 | 3 | Yes |
| | 6 | | 1 | |

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

| Rear power window switch LH | | Ground | Continuity |
| --- | --- | --- | --- |
| Connector | Terminal | | |
| D203 | 5 | | No |
| | 6 | | |

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:0000000012876149

### 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:0000000012876150

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 D304.
3. Turn ignition switch ON.
4. Check voltage between rear power window motor RH harness connector D304 and ground.

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

Is the inspection result normal?

  YES    >> Replace rear power window motor RH. Refer to GW-24, "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 D303.
3. Check continuity between rear power window switch RH harness connector D303 and rear power window motor RH harness connector D304.

| Rear power window switch RH | | Rear power window motor RH | | Continuity |
| --- | --- | --- | --- | --- |
| Connector | Terminal | Connector | Terminal | |
| D303 | 6 | D304 | 1 | Yes |
| | 5 | | 3 | |

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

| Rear power window switch RH | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| D303 | 6 | | No |
| | 5 | | |

Is the inspection result normal?

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

# ENCODER
## DRIVER SIDE

### DRIVER SIDE : Component Function Check

*INFOID:0000000012876151*

#### 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:0000000012876152*

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 D7 and ground with oscilloscope.

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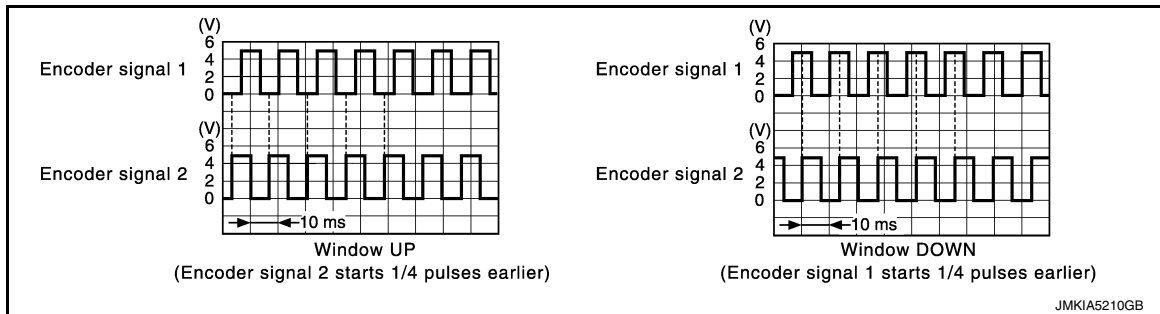


Window UP
(Encoder signal 2 starts 1/4 pulses earlier)

Window DOWN
(Encoder signal 1 starts 1/4 pulses earlier)

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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 D7 and front power window motor LH connector D9.
3. Check continuity between main power window and door lock/unlock switch harness connector D7 and front power window motor LH harness connector D9.

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

# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

4. Check continuity between main power window and door lock/unlock switch harness connector D7 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 D7.
2. Turn ignition switch ON.
3. Check voltage between front power window motor LH harness connector D9 and ground.

| (+) | | (−) | Voltage (Approx.) |
|---|---|---|---|
| Front power window motor LH | | | |
| Connector | Terminal | | |
| D9 | 2 | 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 D7.
3. Check continuity between main power window and door lock/unlock switch harness connector D7 and front power window motor LH harness connector D9.

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

4. Check continuity between main power window and door lock/unlock switch harness connector D7 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 D9 and ground.

| Front power window motor LH | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| D9 | 4 | | 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 D7.
2.  Check continuity between main power window and door lock/unlock switch harness connector D7 and front power window motor LH harness connector D9.

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

3.  Check continuity between main power window and door lock/unlock switch harness connector D7 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:0000000012876153

## 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:0000000012876154

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 D105 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 signal |
| Encoder signal 2 | | 10 | | |
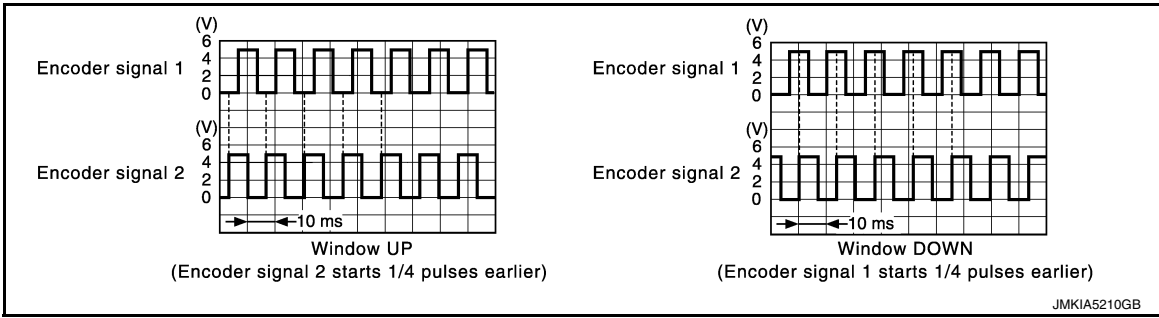
Window UP
(Encoder signal 2 starts 1/4 pulses earlier)

Window DOWN
(Encoder signal 1 starts 1/4 pulses earlier)

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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 D105 and power window and door lock/unlock switch motor RH connector D104.
3. Check continuity between power window and door lock/unlock switch RH harness connector D105 and front power window motor RH harness connector D104.

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

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

| Power window and door lock/unlock switch RH | | | Continuity |
|---|---|---|---|
| Connector | Terminal | Ground | No |
| D105 | 9 | | |
| | 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 D105.
2. Turn ignition switch ON.
3. Check voltage between front power window motor RH connector D104 and ground.

| (+) | | (−) | Voltage (Approx.) |
|---|---|---|---|
| Front power window motor RH | | | |
| Connector | Terminal | | |
| D104 | 2 | 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 D105.
3. Check continuity between power window and door lock/unlock switch RH harness connector D105 and power window and door lock/unlock motor RH harness connector D104.

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

4. Check continuity between power window and door lock/unlock switch RH harness connector D105 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 D104 and ground.

| Front power window motor RH | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| D104 | 4 | | 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 D105.
2. Check continuity between power window and door lock/unlock switch RH harness connector D105 and front power window motor RH harness connector D104.

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

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

## 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

Regarding Wiring Diagram information, refer to DLK-75, "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 | | | |
| Front RH | B108 | | | |
| Rear LH | B18 | 3 | Ground | |
| Rear RH | B116 | | | |



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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

< DTC/CIRCUIT DIAGNOSIS >

| Door switch | | | BCM | | Continuity |
|---|---|---|---|---|---|
| Connector | Terminal | | Connector | Terminal | |
| Front LH | B8 | | | 96 | |
| Front RH | B108 | 3 | M20 | 94 | Yes |
| Rear LH | B18 | | | 82 | |
| Rear RH | B116 | | | 93 | |

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

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

Is the inspection result normal?

 YES >> Replace BCM. Refer to BCS-79, "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-332, "Removal and Installation".

## 4.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

 >> Inspection End.

## Component Inspection

INFOID:0000000013456249

## 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-332, "Removal and Installation".

# DOOR KEY CYLINDER SWITCH

## Component Function Check

## 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

Regarding Wiring Diagram information, refer to DLK-64, "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 | | |
| D14 | 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 | D14 | 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 | | |
| D14 | 4 | | Yes |

Is the inspection result normal?

YES   >> GO TO 4.

NO   >> Repair or replace harness.

## 4.CHECK DOOR KEY CYLINDER SWITCH

Refer to DLK-218, "Component Inspection".

Is the inspection result normal?

YES   >> GO TO 5.

NO   >> Replace front door lock assembly LH. Refer to DLK-319, "DOOR LOCK : Removal and Installation".

## 5.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

  >> Inspection End.

## Component Inspection

INFOID:0000000013356400

## 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 |
|---|---|---|---|---|
| Terminal | | | | |
| 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-319, "DOOR LOCK : Removal and Installation".

# POWER WINDOW SERIAL LINK
## POWER WINDOW MAIN SWITCH

### POWER WINDOW MAIN SWITCH : Description

*INFOID:0000000012876158*

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:0000000012876159*

## 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check "CDL LOCK SW ", "CDL UNLOCK SW" in "DATA MONITOR" mode of "BCM (DOOR LOCK)" 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-50, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

### POWER WINDOW MAIN SWITCH : Diagnosis Procedure

*INFOID:0000000012876160*

Regarding Wiring Diagram information, refer to PWC-19, "Wiring Diagram".
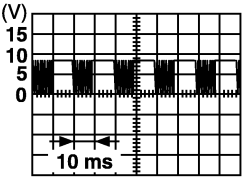
Power Window Serial Link Check

## 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Remove key and close front door LH and RH.
2. Check signal between BCM connector M19 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 | | |
| M19 | 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 connector M19 and main power window and door lock/unlock switch harness connector D7.
3. Check continuity between BCM connector M19 and main power window and door lock/unlock switch connector D7.

| BCM connector | Terminal | Main power window and door lock/unlock switch connector | Terminal | Continuity |
|---|---|---|---|---|
| M19 | 54 | D7 | 11 | Yes |

4. Check continuity between BCM connector M19 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---|---|---|---|
| M19 | 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:0000000012876161

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:0000000012876162

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

Check "CDL LOCK SW ", "CDL UNLOCK SW" in "DATA MONITOR" mode of "" 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-52, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

## FRONT POWER WINDOW SWITCH : Diagnosis Procedure
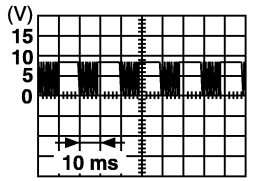
*INFOID:0000000012876163*

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 connector M19 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 | | |
| M19 | 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 connector M19.
3. Check continuity between BCM connector M19 and power window and door lock/unlock switch RH connector D105.

| BCM connector | Terminal | Power window and door lock/unlock switch RH connector | Terminal | Continuity |
|---|---|---|---|---|
| M19 | 54 | D105 | 3 | Yes |

4. Check continuity between BCM connector M19 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---|---|---|---|
| M19 | 54 | | No |

Is the inspection result normal?

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

NO   >> Repair or replace the harness or connectors.

# SYMPTOM DIAGNOSIS
## POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH

### Diagnosis Procedure

*INFOID:0000000012876164*

**1.**CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
BCS-72, "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 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-42, "Intermittent Incident".
NO      >> GO TO 1.

# DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

## Diagnosis Procedure

*INFOID:0000000012876165*

## 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   &gt;&gt; GO TO 2.
NO   &gt;&gt; Repair or replace the malfunctioning parts.

## 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES   &gt;&gt; Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO   &gt;&gt; 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:0000000012876166*

### 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-42, "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:0000000012876167*

### 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:0000000012876168*

### 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-42, "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:0000000012876169*

### 1. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "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:0000000012876170*

### 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:0000000012876171*

### 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-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-42, "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:0000000012876172

### 1. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "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:0000000012876173

### 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:0000000012876174

### 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-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-42, "Intermittent Incident".
NO >> GO TO 1.

# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY

## DRIVER SIDE

### DRIVER SIDE : Diagnosis Procedure
*INFOID:0000000012876175*

## 1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
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-42, "Intermittent Incident".
NO >> GO TO 1.

## PASSENGER SIDE

### PASSENGER SIDE : Diagnosis Procedure
*INFOID:0000000012876176*

## 1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
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-42, "Intermittent Incident".
NO >> GO TO 1.

## REAR LH

### REAR LH : Diagnosis Procedure
*INFOID:0000000012876177*

## 1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to PWC-30, "Work Procedure".

Is the inspection result normal?

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

## 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

# REAR RH

## REAR RH : Diagnosis Procedure

INFOID:0000000012876178

## 1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-30, "Work Procedure".

Is the inspection result normal?

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

## 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

# ANTI-PINCH FUNCTION DOES NOT OPERATE

## Diagnosis Procedure

*INFOID:0000000012876179*

## 1.CHECK POWER WINDOW AUTO OPERATION

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

<u>Is the inspection result normal?</u>

YES    >> GO TO 2.
NO     >> Refer to <u>PWC-59, "DRIVER SIDE : Diagnosis Procedure"</u> (driver side), <u>PWC-59, "PASSENGER SIDE : Diagnosis Procedure"</u> (passenger side), <u>PWC-59, "REAR LH : Diagnosis Procedure"</u> (rear LH), <u>PWC-60, "REAR RH : Diagnosis Procedure"</u> (rear RH).

## 2.CONFIRM THE OPERATION

Confirm the operation again.

<u>Is the inspection result normal?</u>

YES    >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.
NO     >> GO TO 1.

# POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

## Diagnosis Procedure

*INFOID:0000000012876180*

## 1.CHECK DOOR SWITCH

Check door switch.
Refer to DLK-202, "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-42, "Intermittent Incident".
NO >> GO TO 1.

# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

## Diagnosis Procedure

*INFOID:0000000012876181*

### 1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
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-210, "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-42, "Intermittent Incident".
  NO    >> GO TO 1.

# KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

## Diagnosis Procedure

*INFOID:000000012876182*

## 1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to DLK-219, "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-42, "Intermittent Incident".
NO >> GO TO 1.

# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

## Diagnosis Procedure

*INFOID:0000000012876183*

## 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:0000000012876184*

### 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:0000000012876185*

### 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:0000000012876186*

### 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:0000000012876187*

### 1.REPLACE REAR POWER WINDOW SWITCH RH

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

>> Inspection End.

# REMOVAL AND INSTALLATION

## MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

### Removal and Installation
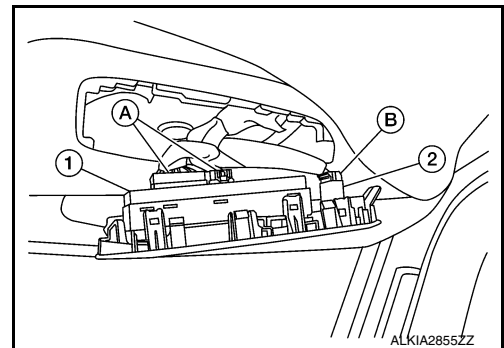
INFOID:0000000012876188

REMOVAL

1. Pull armrest in direction shown (◀) then starting at rear release main power window and door lock/unlock switch finisher (1) pawls using a suitable tool (A).
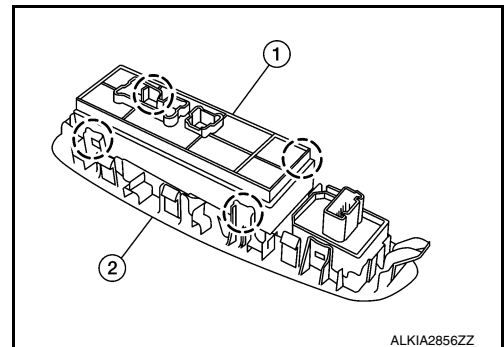   ⇦: Front
   ⌒: Pawl

   
   ALJIA1664ZZ
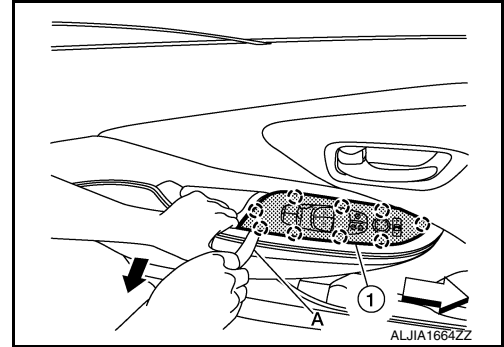
2. Disconnect the harness connectors (A) from the main power window and door lock/unlock switch (1) and harness connector (B) from the door mirror remote control switch (2) and remove.

   
   ALKIA2855ZZ

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

   
   ALKIA2856ZZ

INSTALLATION
Installation is in the reverse order of removal.
**NOTE:**
When main power window and door lock/unlock switch is removed or replaced, it is necessary to perform initialization procedure. Refer to PWC-30, "Description".

# POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

## Removal and Installation

INFOID:000000012876189

### REMOVAL

1. Pull armrest in direction shown (⬅) then starting at rear release power window and door lock/unlock switch RH finisher (1) pawls using a suitable tool (A).
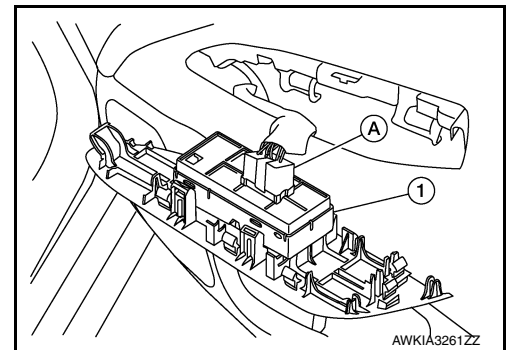   ⇦: Front
   ⌒: Pawl
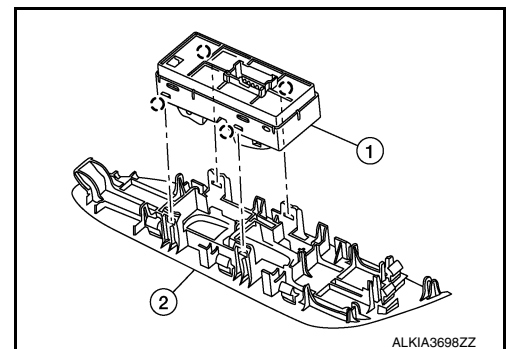   **NOTE:**
   LH shown; RH similar.



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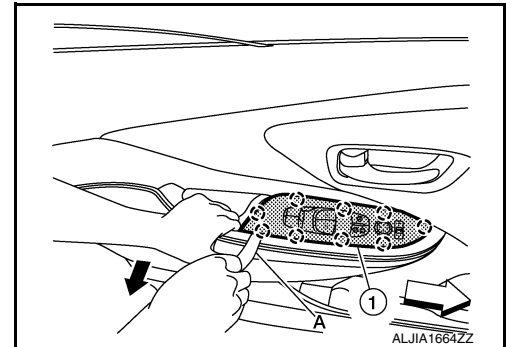
2. Disconnect the harness connector (A) from the power window and door lock/unlock switch RH (1) and remove.



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



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### INSTALLATION
Installation is in the reverse order of removal.
**NOTE:**
When power window and door lock/unlock switch RH is removed or replaced, it is necessary to perform initialization procedure. Refer to PWC-30, "Description".

# REAR POWER WINDOW SWITCH

## Removal and Installation

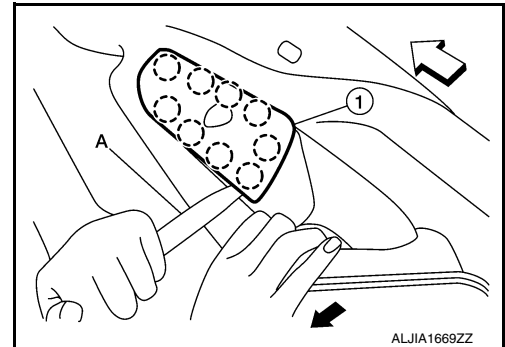### REMOVAL

1. Pull armrest in direction shown (⬅) then starting at rear release rear power window switch finisher (1) pawls using a suitable tool (A).
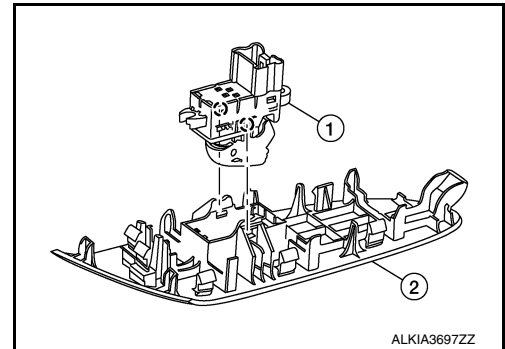   ⇦: Front
   ⌒: Pawl



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2. Disconnect the harness connector from the rear power window switch and remove.
3. Release the pawls then separate the rear power window switch (1) from the switch finisher (2).
   ⌒: Pawl



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### INSTALLATION
Installation is in the reverse order of removal.