

# 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:000000009014373

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

**WARNING:**

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

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

**WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least 3 minutes before performing any service.

#### Precaution for Work

INFOID:000000009014374

- 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 >

[LH FRONT ONLY AUTO DOWN]

## PREPARATION

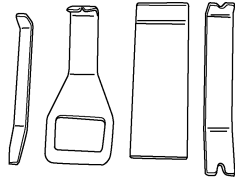
### PREPARATION

#### Special Service Tool

INFOID:000000008942199

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

| Tool number<br>(Kent-Moore No.)<br>Tool name | Description              |
|--|--------------------------|
| —<br>(J-46534)<br>Trim tool set              | Removing trim components |



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# COMPONENT PARTS

< SYSTEM DESCRIPTION >

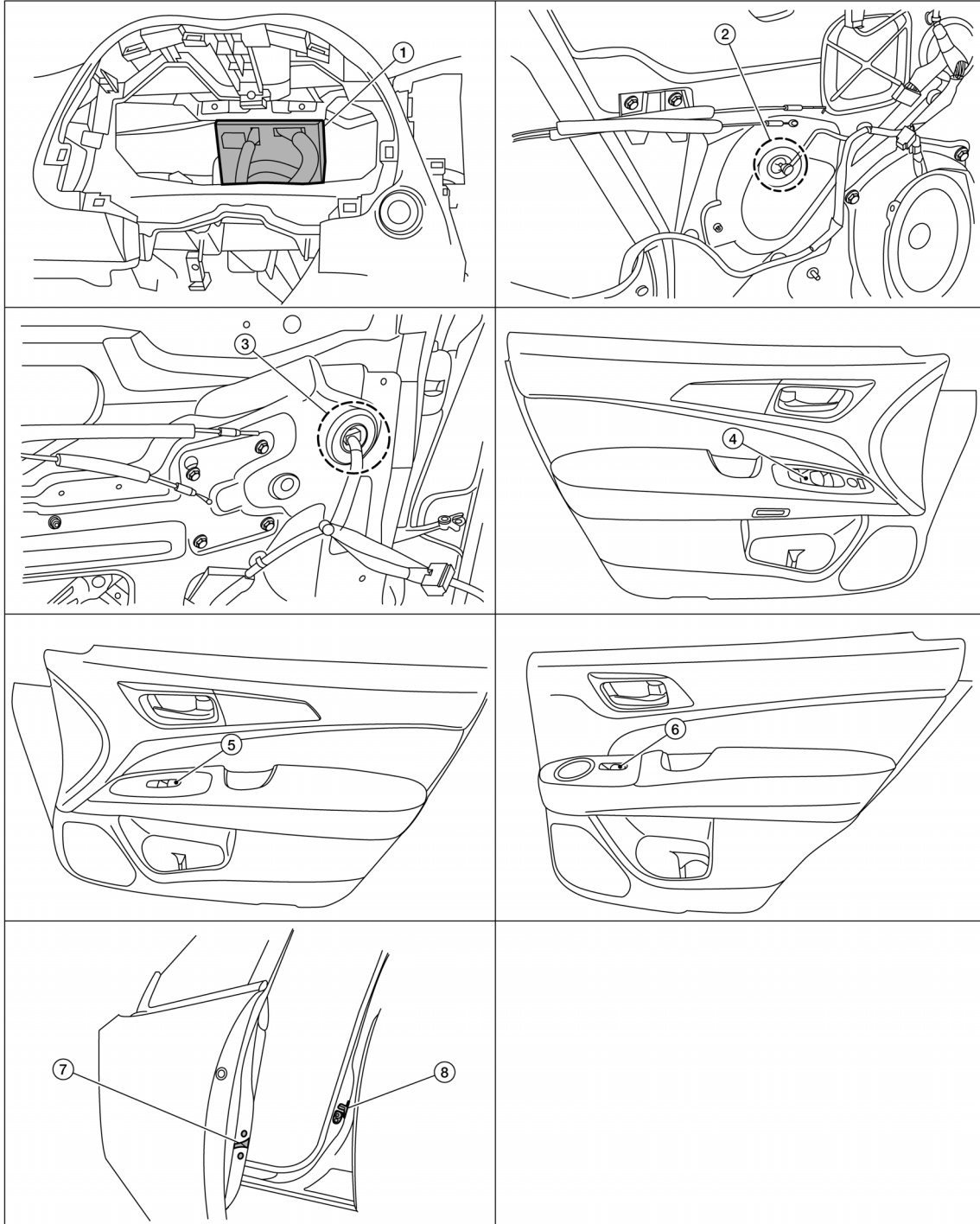
[LH FRONT ONLY AUTO DOWN]

## SYSTEM DESCRIPTION

### COMPONENT PARTS

#### Component Parts Location

INFOID:000000008511433



AWKIA2058ZZ

1. BCM (view with the combination meter removed)

2. Front power window motor LH (RH similar) (view with front door finisher removed)

3. Rear power window motor LH (RH similar) (view with rear door finisher removed)



# COMPONENT PARTS

< SYSTEM DESCRIPTION >

[LH FRONT ONLY AUTO DOWN]

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

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## Component Description

INFOID:000000008511434

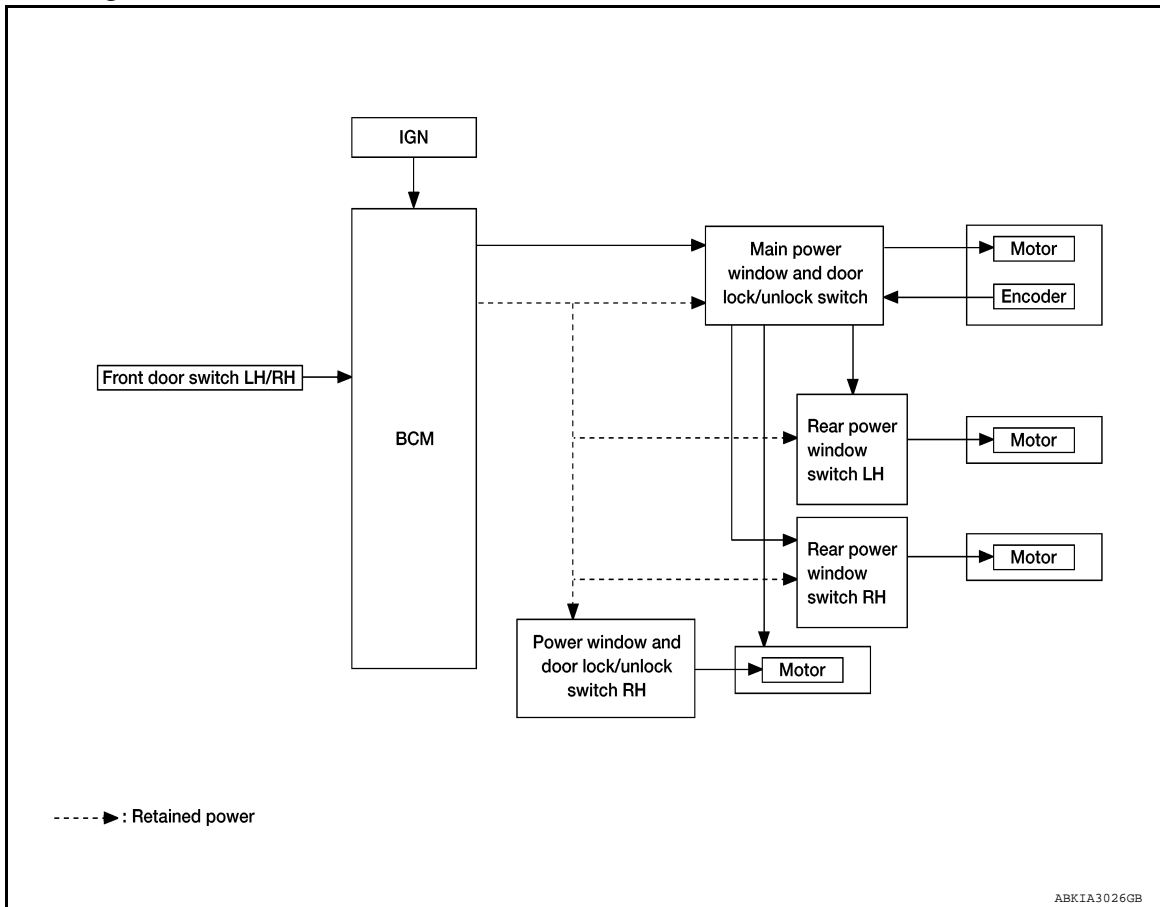
| Component   | Function  |
|---|---|
| BCM   | <ul style="list-style-type: none"> <li>Supplies power to the window switches.</li> <li>Controls retained power.</li> </ul>  |
| Main power window and door lock/unlock switch       | Directly controls all power window motors.  |
| Power window and door lock/unlock switch RH         | Controls power window motor of passenger door.  |
| Rear power window switch                            | Controls right and left power window motors for the rear doors.   |
| Power window motor                                  | <ul style="list-style-type: none"> <li>Integrates the ENCODER and WINDOW MOTOR.</li> <li>Starts operating with signals from each power window switch.</li> <li>Transmits power window motor rotation as a pulse signal to power window switch.</li> </ul> |
| Front door lock assembly (door key cylinder switch) | Transmits operation condition of door key cylinder switch to power window main switch.  |
| Front door switch LH/RH                             | Detects door open/close condition and transmits it to the BCM.  |

**PWC**

## SYSTEM

### System Diagram

INFOID:000000008511435



### System Description

INFOID:000000008511436

#### POWER WINDOW OPERATION

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

#### POWER WINDOW AUTO-OPERATION

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

#### RETAINED POWER OPERATION

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

#### Retained Power Function Cancel Conditions

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

# SYSTEM

< SYSTEM DESCRIPTION >

[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW LOCK FUNCTION

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

## DOOR KEY CYLINDER SWITCH OPERATION

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

Operation Condition

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

## KEYLESS POWER WINDOW DOWN FUNCTION

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

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

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

## Fail-safe

INFOID:000000008511437

## 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
- 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)

< SYSTEM DESCRIPTION >

[LH FRONT ONLY AUTO DOWN]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000008843167

### 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          | <ul style="list-style-type: none"> <li>The vehicle specification can be read and saved.</li> <li>The vehicle specification can be written when replacing BCM.</li> </ul> |
| CAN Diag Support Mntr  | The result of transmit/receive diagnosis of CAN communication is displayed.  |

### SYSTEM APPLICATION

BCM can perform the following functions.

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

### RETAINED PWR

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH FRONT ONLY AUTO DOWN]

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000008843168

## 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. |

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[LH FRONT ONLY AUTO DOWN]

## ECU DIAGNOSIS INFORMATION

### BCM (BODY CONTROL MODULE)

#### List of ECU Reference

INFOID:000000008511440

| ECU | Reference   |
|-----|---|
| BCM | <a href="#">BCS-28, "Reference Value"</a>               |
|     | <a href="#">BCS-48, "Fail Safe"</a>                     |
|     | <a href="#">BCS-48, "DTC Inspection Priority Chart"</a> |
|     | <a href="#">BCS-50, "DTC Index"</a>                     |

# POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

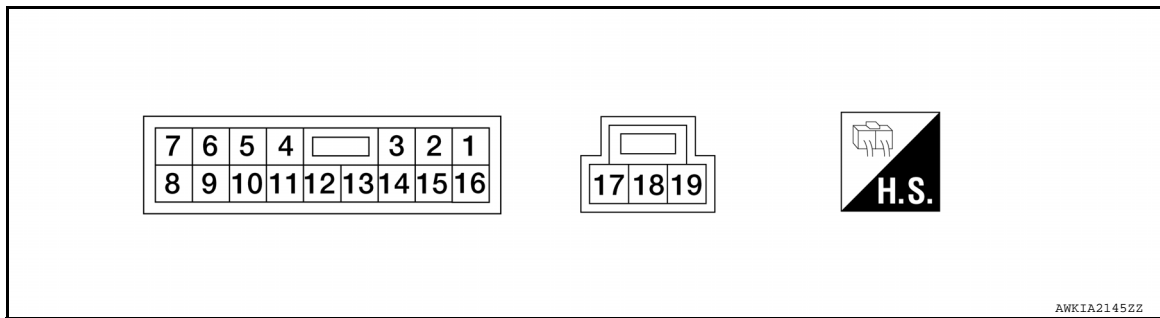
[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000008844085

### TERMINAL LAYOUT



### PHYSICAL VALUES

#### MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

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

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# POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH FRONT ONLY AUTO DOWN]

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



# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH FRONT ONLY AUTO DOWN]

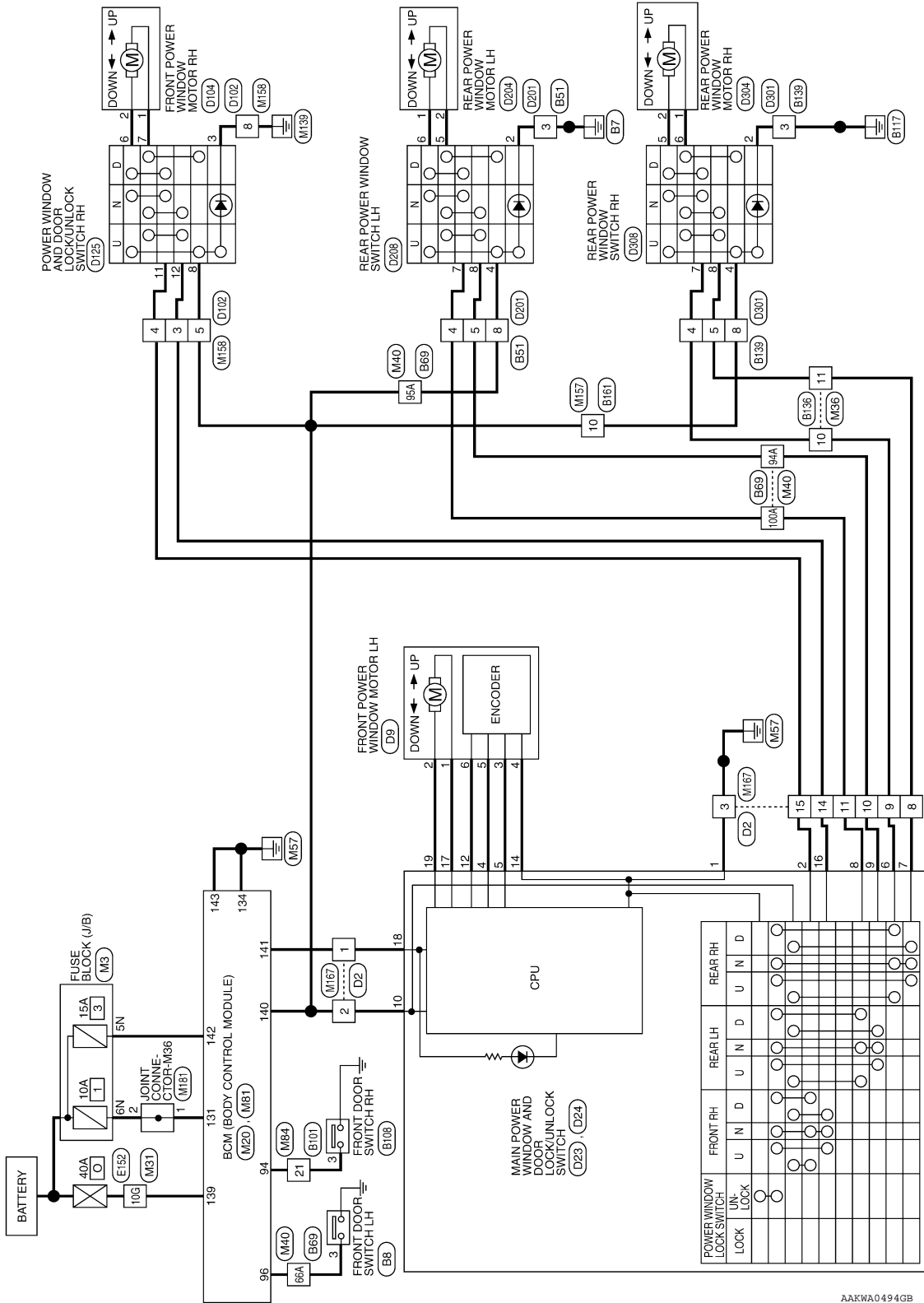
## WIRING DIAGRAM

### POWER WINDOW SYSTEM

Wiring Diagram - With Left Front Only Auto Down

INFOID:000000008511445

POWER WINDOW SYSTEM - WITH LEFT FRONT ONLY AUTO DOWN



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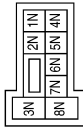
# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

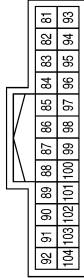
[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW SYSTEM - WITH LEFT FRONT ONLY AUTO DOWN

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



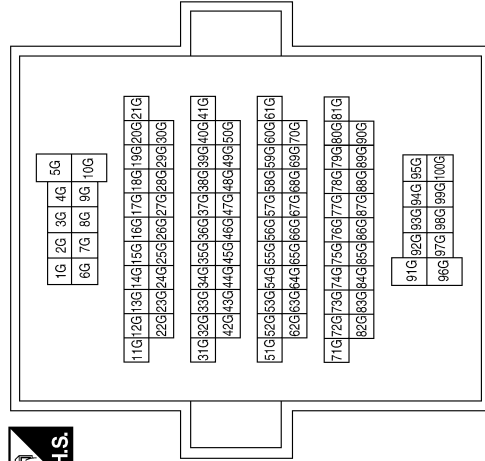
|                 |                           |
|-----------------|---------------------------|
| Connector No.   | M20                       |
| Connector Name  | BCM (BODY CONTROL MODULE) |
| Connector Color | GRAY                      |



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

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

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



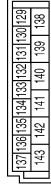
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10G          | W             | -           |

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

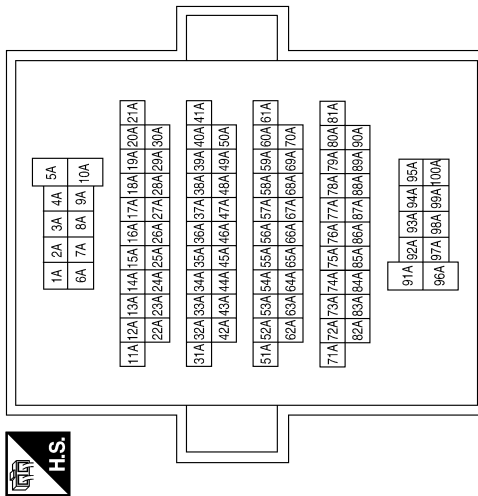
[LH FRONT ONLY AUTO DOWN]

|                 |                              |
|-----------------|------------------------------|
| Connector No.   | M81                          |
| Connector Name  | BCM<br>(BODY CONTROL MODULE) |
| Connector Color | WHITE                        |



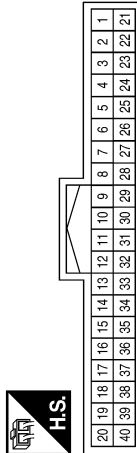
| Terminal No. | Color of Wire | Signal Name           |
|--------------|---------------|-----------------------|
| 131          | W             | BAT BCM FUSE          |
| 134          | B             | GND 2                 |
| 139          | W             | BAT POWER F/L         |
| 140          |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

|                 |              |
|-----------------|--------------|
| Connector No.   | M40          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



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

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|-----------------|--------------|
| Connector No.   | M36          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10           | L             | -           |
| 11           | V             | -           |

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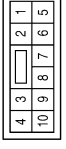
PWC

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >


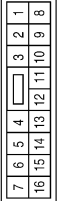
[LH FRONT ONLY AUTO DOWN]

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


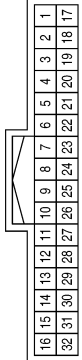
| Terminal No. | Color of Wire | Signal Name                       |
|--------------|---------------|-----------------------------------|
| 3            | R             | -                                 |
| 4            | Y             | -                                 |
| 5            | BR            | -(WITHOUT INTELLIGENT KEY SYSTEM) |
| 8            | B             | -                                 |

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

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10           | BR            | -           |

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|-----------------|--------------|
| Connector No.   | M154         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |


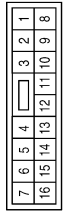
| Terminal No. | Color of Wire | Signal Name |
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| 21           | G             | -           |

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




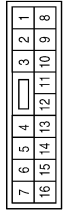

| Terminal No. | Color of Wire | Signal Name |
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| 1            | W             | -           |
| 2            | W             | -           |

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

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

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

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

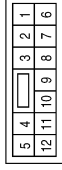
AAKIA0879GB

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

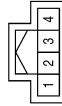
[LH FRONT ONLY AUTO DOWN]

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| Connector No.   | B51          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



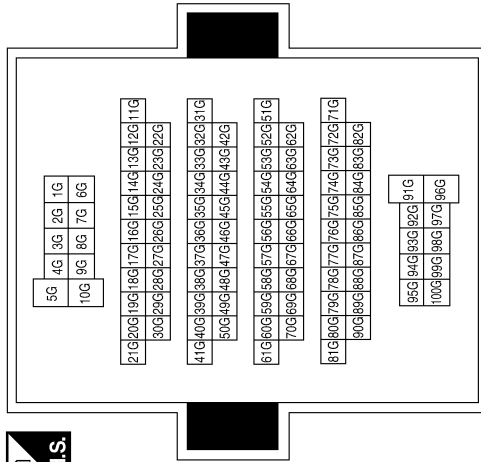
| Terminal No. | Color of Wire | Signal Name |
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| 3            | B             | -           |
| 4            | Y             | -           |
| 5            | SB            | -           |
| 8            | BR            | -           |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3            | L             | -           |

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| Connector No.   | E152         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
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| 10G          | P             | -           |

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AAKIA0880GB

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH FRONT ONLY AUTO DOWN]

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|-----------------|--------------|
| Connector No.   | B101         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |

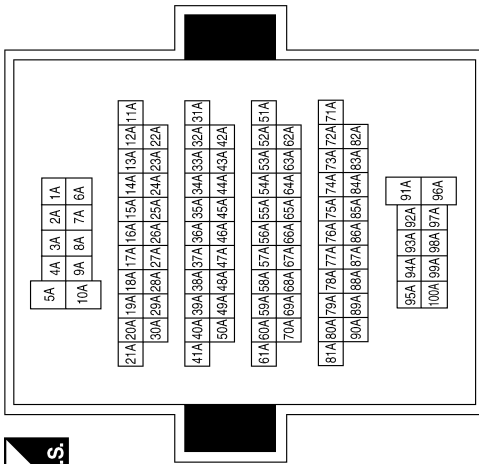


|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27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

|              |               |             |
|--------------|---------------|-------------|
| Terminal No. | Color of Wire | Signal Name |
| 21           | LG            | -           |

|              |               |             |
|--------------|---------------|-------------|
| Terminal No. | Color of Wire | Signal Name |
| 66A          | L             | -           |
| 94A          | SB            | -           |
| 95A          | BR            | -           |
| 100A         | Y             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | B69          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



|                 |              |
|-----------------|--------------|
| Connector No.   | B139         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



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

|                 |              |
|-----------------|--------------|
| Connector No.   | B136         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



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

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

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



|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

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


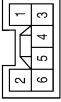
AAKIA0881GB

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >


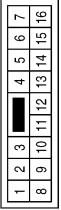
[LH FRONT ONLY AUTO DOWN]

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


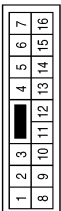
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | Y             | -           |
| 2            | L             | -           |
| 3            | Y             | -           |
| 4            | LG            | -           |
| 5            | SB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

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


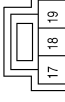
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | Y             | -           |
| 2            | BR            | -           |
| 3            | B             | -           |
| 8            | V             | -           |
| 9            | L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

|                 |              |
|-----------------|--------------|
| Connector No.   | B161         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10           | BR            | -           |



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

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

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

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

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

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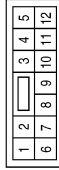


# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

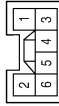
[LH FRONT ONLY AUTO DOWN]

|                 |   |
|-----------------|---|
| Connector No.   | D125  |
| Connector Name  | POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH |
| Connector Color | WHITE                                       |



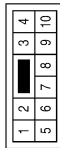
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3            | B             | -           |
| 6            | LG            | -           |
| 7            | V             | -           |
| 8            | BR            | -           |
| 11           | Y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

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | V             | -           |
| 2            | LG            | -           |
| 3            | -             | -           |
| 4            | -             | -           |
| 5            | -             | -           |
| 6            | -             | -           |

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



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

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | -             | -           |
| 2            | B             | -           |
| 3            | -             | -           |
| 4            | BR            | -           |
| 5            | V             | -           |
| 6            | LG            | -           |
| 7            | Y             | -           |
| 8            | SB            | -           |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | LG            | -           |
| 2            | V             | -           |
| 3            | -             | -           |
| 4            | -             | -           |
| 5            | -             | -           |
| 6            | -             | -           |

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



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

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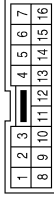


# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH FRONT ONLY AUTO DOWN]

|                 |              |
|-----------------|--------------|
| Connector No.   | E26          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 14           | Y/R           | -           |
| 15           | GR            | -           |

|                 |                                |
|-----------------|--------------------------------|
| Connector No.   | E25                            |
| Connector Name  | INTELLIGENT KEY WARNING BUZZER |
| Connector Color | BROWN                          |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | Y/R           | -           |
| 3            | GR            | -           |

|                 |       |
|-----------------|-------|
| Connector No.   | E3    |
| Connector Name  | HORN  |
| Connector Color | BLACK |



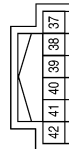
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | G             | -           |
| 2            | B             | -           |

|                 |  |
|-----------------|--|
| Connector No.   | E124   |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | BLACK  |



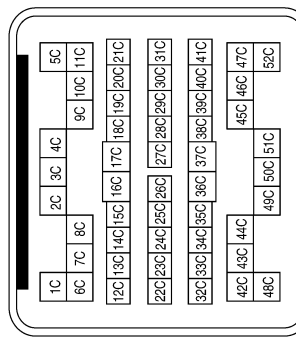
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 59           | B             | GND (POWER) |

|                 |  |
|-----------------|--|
| Connector No.   | E122   |
| Connector Name  | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE  |



| Terminal No. | Color of Wire | Signal Name     |
|--------------|---------------|-----------------|
| 38           | B             | GND (SIGNAL)    |
| 39           | L             | CAN-H           |
| 40           | P             | CAN-L           |
| 45           | G/W           | ANTI THEFT HORN |

|                 |              |
|-----------------|--------------|
| Connector No.   | E41          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | GRAY         |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 14C          | P             | -           |
| 24C          | W/R           | -           |

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PWC

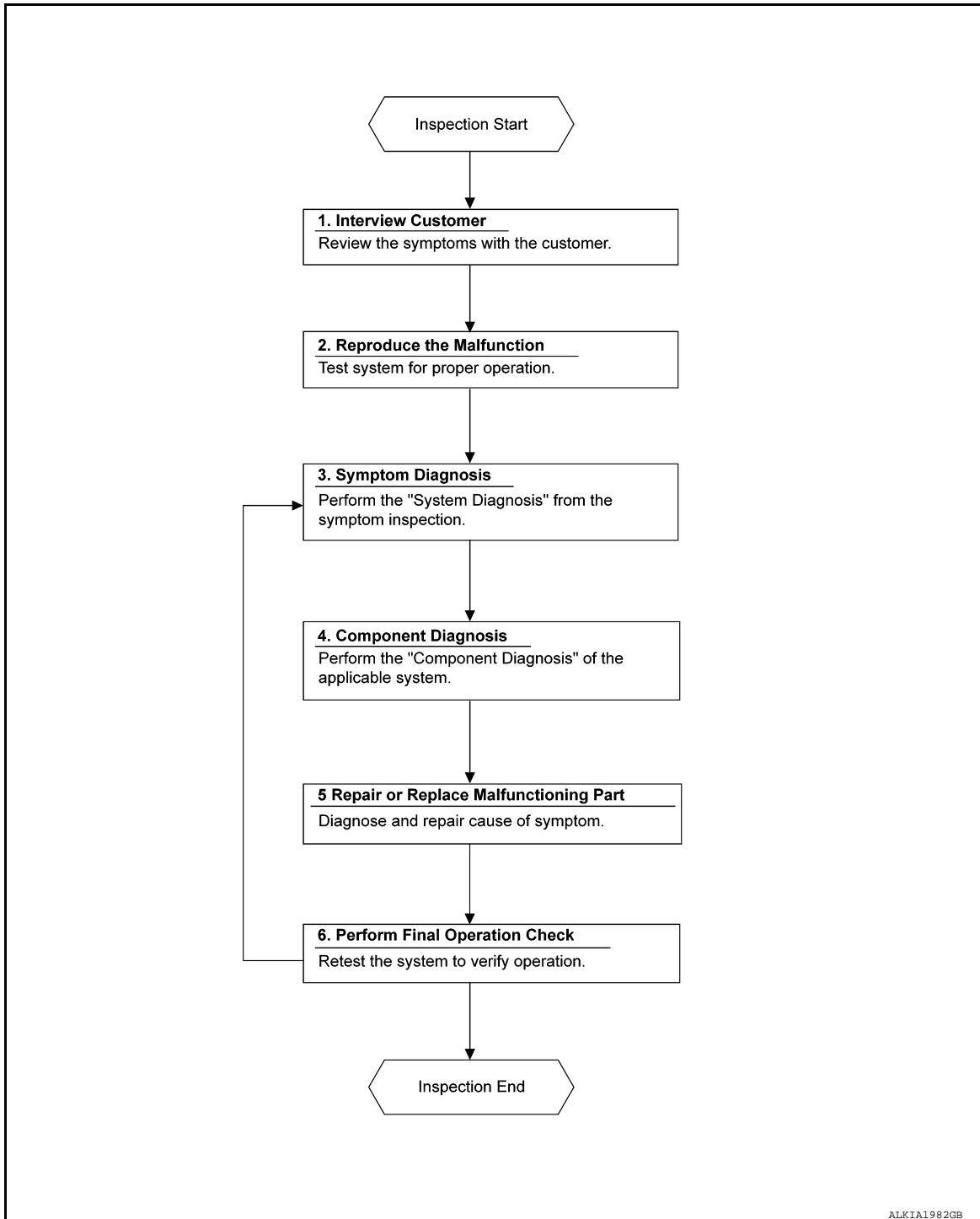
**BASIC INSPECTION**

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000008511446

OVERALL SEQUENCE



DETAILED FLOW

**1. OBTAIN INFORMATION ABOUT SYMPTOM**

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

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH FRONT ONLY AUTO DOWN]

>> GO TO 2.

## 2. CONFIRM THE SYMPTOM

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

>> GO TO 3.

## 3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

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

>> GO TO 4.

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

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

## 5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

## 6. FINAL CHECK

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

Are the malfunctions corrected?

YES >> Inspection End.

NO >> GO TO 3.

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PWC

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY AND GROUND CIRCUIT

#### BCM

#### BCM : Diagnosis Procedure

INFOID:000000008847040

Regarding Wiring Diagram information, refer to [BCS-53, "Wiring Diagram"](#).

### 1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

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

### 2. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

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

### 3. CHECK GROUND CIRCUIT

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

| BCM       |          | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal |        |            |
| M81       | 134      | —      | Yes        |
|           | 143      |        |            |

Is the inspection result normal?

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

## POWER WINDOW MAIN SWITCH

### POWER WINDOW MAIN SWITCH : Description

INFOID:000000008843979

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:000000008843980

Main Power Window And Door Lock/unlock Switch

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

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

Is the inspection result normal?

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

## POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000008843981

Regarding Wiring Diagram information, refer to [PWC-17. "Wiring Diagram - With Left Front Only Auto Down"](#).

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

### 1. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

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

### 2. CHECK HARNESS CONTINUITY

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

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

4. Check continuity between BCM connector M81 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M81           | 140      |        | Ground     |
|               | 141      |        |            |

Is the inspection result normal?

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

### 3. CHECK GROUND CIRCUIT

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

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PWC

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

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

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

Is the inspection result normal?

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

## 4. CHECK BCM OUTPUT SIGNAL

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

| Terminals     |          |        | Voltage<br>(Approx.) |
|---------------|----------|--------|----------------------|
| (+)           |          | (-)    |                      |
| BCM connector | Terminal | Ground |                      |
| M81           | 140      |        | Ground               |
|               | 141      |        |                      |
|               |          |        |                      |

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).
- NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

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

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

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

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).
- NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-62, "Removal and Installation"](#).

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

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-62, "Removal and Installation"](#).

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

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

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-62, "Removal and Installation"](#).

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

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

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-62, "Removal and Installation"](#).

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:000000008843982

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

1. Check main power window and door lock/unlock switch D12.

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

2. Check continuity between main power window and door lock/unlock switch D12 (power window lock switch) (Lock operation).

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

3. Check continuity between main power window and door lock/unlock switch D12 (power window lock switch) (Unlock operation).



# POWER SUPPLY AND GROUND CIRCUIT

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[LH FRONT ONLY AUTO DOWN]

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

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-62. "Removal and Installation"](#).

## FRONT POWER WINDOW SWITCH

### FRONT POWER WINDOW SWITCH : Description

INFOID:000000008843984

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

### FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:000000008843985

#### Power Window And Door Lock/unlock Switch RH

##### 1. CHECK POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.

NO >> Refer to [PWC-33. "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

### FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000008843986

Regarding Wiring Diagram information, refer to [PWC-17. "Wiring Diagram - With Left Front Only Auto Down"](#).

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

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

NO >> GO TO 2.

## 2. CHECK HARNESS CONTINUITY

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

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

4. Check continuity between BCM connector M81 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M81           | 140      |        | No         |

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the harness or connectors.

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

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

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

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

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

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace the harness or connectors.

## 4. CHECK BCM OUTPUT SIGNAL

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

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

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

Check power window and door lock/unlock switch RH.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

Refer to [PWC-35. "FRONT POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49. "Intermittent Incident"](#).  
NO >> Replace power window and door lock/unlock switch RH. Refer to [PWC-63. "Removal and Installation"](#).

## FRONT POWER WINDOW SWITCH : Component Inspection

INFOID:000000008843987

### COMPONENT INSPECTION

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

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

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

Is the inspection result normal?

- YES >> Power window and door lock/unlock switch RH is OK.  
NO >> Replace power window and door lock/unlock switch RH. Refer to [PWC-63. "Removal and Installation"](#).

## REAR POWER WINDOW SWITCH

### REAR POWER WINDOW SWITCH : Description

INFOID:000000008843988

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

### REAR POWER WINDOW SWITCH : Component Function Check

INFOID:000000008843989

PWC

#### Rear Power Window Switch

#### 1. CHECK REAR POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

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

### REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000008843990

Regarding Wiring Diagram information, refer to [PWC-17. "Wiring Diagram - With Left Front Only Auto Down"](#).

#### Rear Power Window Switch Power Supply Circuit Check

#### 1. CHECK POWER SUPPLY CIRCUIT

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

| Terminal                              |          | Terminal | (-)    | Condition          | Voltage<br>(Approx.) |
|---------------------------------------|----------|----------|--------|--------------------|----------------------|
| (+)                                   |          |          |        |                    |                      |
| Rear power window<br>switch connector | Terminal | 4        | Ground | Ignition switch ON | Battery voltage      |
| LH                                    | D208     |          |        |                    |                      |
| RH                                    | D308     |          |        |                    |                      |

Is the inspection result normal?

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

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

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

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

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

| Main power window and door lock/unlock<br>switch connector | Terminal | Ground | Continuity |
|--|----------|--------|------------|
| D23  | 8        | Ground | No         |
|  | 9        |        |            |

Is the inspection result normal?

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

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

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

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

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

| Main power window and door lock/un-<br>lock switch connector | Terminal | Ground | Continuity |
|--|----------|--------|------------|
| D23  | 6        | Ground | No         |
|  | 7        |        |            |

Is the inspection result normal?

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

## 4. CHECK HARNESS CONTINUITY

# POWER SUPPLY AND GROUND CIRCUIT

[LH FRONT ONLY AUTO DOWN]

## < DTC/CIRCUIT DIAGNOSIS >

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

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

3. Check continuity between BCM connector and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M81           | 140      |        | No         |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness or connectors.

## 5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-37, "REAR POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace rear power window switch. Refer to [PWC-64, "Removal and Installation"](#).

## REAR POWER WINDOW SWITCH : Component Inspection

INFOID:000000008843991

### COMPONENT INSPECTION

#### 1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

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

Rear power window switch LH

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

Rear power window switch RH

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to [PWC-64, "Removal and Installation"](#).

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW MOTOR DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008843992

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

### DRIVER SIDE : Component Function Check

INFOID:000000008843993

#### 1. CHECK FRONT POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Refer to [PWC-38, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008843994

Regarding Wiring Diagram information, refer to [PWC-17, "Wiring Diagram - With Left Front Only Auto Down"](#).

#### Front Power Window Motor LH Circuit Check

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

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

##### 2. CHECK HARNESS CONTINUITY

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

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

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

# POWER WINDOW MOTOR

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[LH FRONT ONLY AUTO DOWN]

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-62, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 3. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to [PWC-39, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace front power window motor LH. Refer to [PWC-62, "Removal and Installation"](#).

## DRIVER SIDE : Component Inspection

INFOID:000000008843995

### COMPONENT INSPECTION

#### 1. CHECK FRONT POWER WINDOW MOTOR LH

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

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 1        | 2   | UP              |
| 2        | 1   | DOWN            |

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to [GW-14, "Removal and Installation"](#).

## PASSENGER SIDE

PWC

### PASSENGER SIDE : Description

INFOID:000000008843997

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

### PASSENGER SIDE : Component Function Check

INFOID:000000008843998

#### 1. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Refer to [PWC-39, "PASSENGER SIDE : Diagnosis Procedure"](#).

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008843999

Regarding Wiring Diagram information, refer to [PWC-17, "Wiring Diagram - With Left Front Only Auto Down"](#).

Front Power Window Motor RH Circuit Check

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

1. Turn ignition switch OFF.

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

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

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

Is the inspection result normal?

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

## 2. CHECK HARNESS CONTINUITY

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

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

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

| Power window and door lock/unlock switch RH connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D125  | 6        |        |            |
|   | 7        |        |            |

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-63, "Removal and Installation"](#).  
 NO >> Repair or replace the harness or connectors.

## 3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.  
 Refer to [PWC-40, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).  
 NO >> Replace front power window motor RH. Refer to [GW-14, "Removal and Installation"](#).

## PASSENGER SIDE : Component Inspection

INFOID:000000008844000

### COMPONENT INSPECTION

### COMPONENT INSPECTION

#### 1. CHECK FRONT POWER WINDOW MOTOR RH

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



# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 1        | 2   | UP              |
| 2        | 1   | DOWN            |

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace front power window motor RH. Refer to [GW-14, "Removal and Installation"](#).

## REAR LH

### REAR LH : Description

INFOID:000000008844001

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

### REAR LH : Component Function Check

INFOID:000000008844002

#### 1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to [PWC-41, "REAR LH : Diagnosis Procedure"](#)

### REAR LH : Diagnosis Procedure

INFOID:000000008844003

Regarding Wiring Diagram information, refer to [PWC-17, "Wiring Diagram - With Left Front Only Auto Down"](#).

#### Rear Power Window Motor LH Circuit Check

##### 1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

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

PWC

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

##### 2. CHECK HARNESS CONTINUITY

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

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

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

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

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

Is the inspection result normal?

- YES >> Check rear power window switch LH. Refer to [PWC-42, "REAR LH : Component Inspection"](#).
- NO >> Repair or replace the harness or connectors.

## 3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-42, "REAR LH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).
- NO >> Replace rear power window motor LH. Refer to [GW-18, "Removal and Installation"](#).

## REAR LH : Component Inspection

INFOID:000000008844004

### COMPONENT INSPECTION

#### 1. CHECK REAR POWER WINDOW MOTOR LH

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

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 2        | 1   | UP              |
| 1        | 2   | DOWN            |

Is the inspection result normal?

- YES >> Rear power window motor LH is OK.
- NO >> Replace rear power window motor LH. Refer to [GW-18, "Removal and Installation"](#).

## REAR RH

### REAR RH : Description

INFOID:000000008844005

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

### REAR RH : Component Function Check

INFOID:000000008844006

#### 1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

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

### REAR RH : Diagnosis Procedure

INFOID:000000008844007

Regarding Wiring Diagram information, refer to [PWC-17, "Wiring Diagram - With Left Front Only Auto Down"](#).

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## Rear Power Window Motor RH Circuit Check

### 1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

### 2. CHECK HARNESS CONTINUITY

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

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

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

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

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to [PWC-43, "REAR RH : Component Inspection"](#).

NO >> Repair or replace harness or connectors.

### 3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-43, "REAR RH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace rear power window motor RH. Refer to [GW-18, "Removal and Installation"](#).

## REAR RH : Component Inspection

INFOID:000000008844008

### COMPONENT INSPECTION

#### 1. CHECK REAR POWER WINDOW MOTOR RH

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

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 1        | 2   | DOWN            |
| 2        | 1   | UP              |

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace rear power window motor RH. Refer to [GW-18, "Removal and Installation"](#).

# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## ENCODER DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008844009

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

### DRIVER SIDE : Component Function Check

INFOID:000000008844010

#### 1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to [PWC-45, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008844011

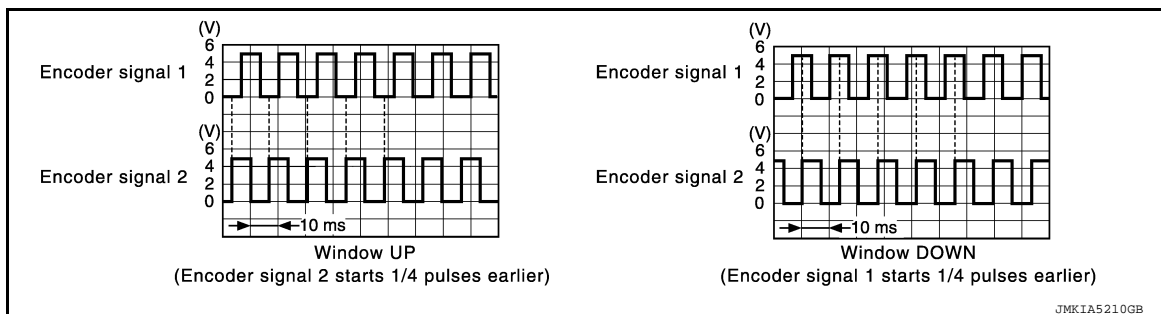
Regarding Wiring Diagram information, refer to [PWC-17, "Wiring Diagram - With Left Front Only Auto Down"](#).

#### Encoder Circuit Check

#### 1. CHECK ENCODER OPERATION

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

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



Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 2.

#### 2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

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

# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

| Terminal                              |          |        | Voltage<br>(Approx.) |
|---------------------------------------|----------|--------|----------------------|
| (+)                                   | (-)      |        |                      |
| Front power window motor LH connector | Terminal |        |                      |
| D9                                    | 4        | Ground | 10                   |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3. CHECK HARNESS CONTINUITY 1

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

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

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

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-62. "Removal and Installation"](#).

NO >> Repair or replace harness or connectors.

### 4. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

### 5. CHECK HARNESS CONTINUITY 2

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between main power window and door lock/unlock switch connector D12 and front power window motor LH connector D9.

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

Is the inspection result normal?

YES >> Check main power window and door lock/unlock switch. Refer to [PWC-32. "POWER WINDOW MAIN SWITCH : Component Inspection"](#).

NO >> Repair or replace the harness or connectors.

### 6. CHECK HARNESS CONTINUITY 3

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

# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

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

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

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

Is the inspection result normal?

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

PWC

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## DOOR SWITCH

### Component Function Check

INFOID:000000008847041

#### 1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL, 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   | Driver side door    | Open   | On     |
|              |                     | Closed | Off    |
| DOOR SW-AS   | Passenger side door | 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-48. "Diagnosis Procedure"](#).

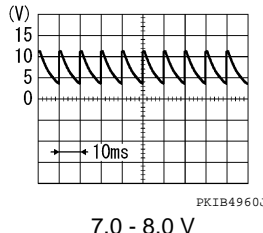
### Diagnosis Procedure

INFOID:000000008847042

Regarding Wiring Diagram information, refer to [DLK-72. "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.

| (+)            |      | Terminal | (-)    | Signal<br>(Reference value)   |
|----------------|------|----------|--------|---|
| Door switch    |      |          |        |   |
| Connector      |      | 3        | Ground |  |
| Driver side    | B8   |          |        |   |
| Passenger side | B108 |          |        |   |
| Rear LH        | B18  |          |        |   |
| Rear RH        | B116 |          |        |   |

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 >

[LH FRONT ONLY AUTO DOWN]

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

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

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

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 3.CHECK DOOR SWITCH

Refer to [PWC-49, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to [DLK-310, "Removal and Installation"](#).

## 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-49, "Intermittent Incident"](#).

>> Inspection End.

## Component Inspection

INFOID:000000008847043

PWC

## 1.CHECK DOOR SWITCH

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

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunction door switch. Refer to [DLK-310, "Removal and Installation"](#).

# POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

---

## POWER WINDOW LOCK SWITCH

### Description

INFOID:000000008844017

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

### Component Function Check

INFOID:000000008844018

#### 1. CHECK POWER WINDOW LOCK SIGNAL

---

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

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-62. "Removal and Installation"](#).
- NO >> Check condition of harness and connector.

## SYMPTOM DIAGNOSIS

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

#### Diagnosis Procedure

INFOID:000000008511486

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

Check BCM power supply and ground circuit.

[BCS-78, "Removal and Installation"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

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

Check power window switch power supply and ground circuit.

Refer to [PWC-29, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 1.

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PWC

# DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

---

## DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008511487

#### 1. CHECK DRIVER SIDE POWER WINDOW MOTOR

---

Check driver side power window motor.

Refer to [PWC-38, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CONFIRM THE OPERATION

---

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 1.

# FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## 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:000000008511488

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

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

Refer to [PWC-33. "FRONT POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49. "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:000000008511489

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

Replace power window and door lock/unlock switch RH.

Refer to [PWC-62. "Removal and Installation"](#).

>> Inspection End.

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

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

INFOID:000000008511490

### 1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR- CUIT

Check power window and door lock/unlock switch RH power supply and ground circuit.

Refer to [PWC-33. "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.

Refer to [PWC-33. "FRONT POWER WINDOW SWITCH : 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-49. "Intermittent Incident"](#).

NO >> GO TO 1.

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PWC

## REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

### 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:000000008511491

#### 1. CHECK REAR POWER WINDOW SWITCH LH CIRCUIT

Check rear power window switch LH circuit.

Refer to [PWC-35, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "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:000000008511492

#### 1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to [PWC-62, "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:000000008511493

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

Check rear power window switch power supply and ground circuit.

Refer to [PWC-35, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-41, "REAR LH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 1.

## REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

### 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:000000008511494

#### 1. CHECK REAR POWER WINDOW SWITCH RH CIRCUIT

Check rear power window switch RH circuit.

Refer to [PWC-35, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "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:000000008511495

#### 1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to [PWC-62, "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:000000008511496

PWC

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

Check rear power window switch power supply and ground circuit.

Refer to [PWC-35, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-42, "REAR RH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 1.

# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000008511497

## 1. CHECK ENCODER (DRIVER SIDE) CIRCUIT

---

Check encoder (driver side) circuit.

Refer to [PWC-45, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2. CONFIRM THE OPERATION

---

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 1.



# POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

### Diagnosis Procedure

INFOID:000000008511502

#### 1. CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-168. "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-49. "Intermittent Incident"](#).

NO >> GO TO 1.

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PWC

# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

### Diagnosis Procedure

INFOID:000000008511503

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

---

Check front door lock assembly LH (door key cylinder switch).

Refer to [DLK-189. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 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-49. "Intermittent Incident"](#).

NO >> Inspection End.

# KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008511504

#### 1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [DLK-236, "Diagnosis Procedure"](#).

#### 2.CHECK POWER WINDOW OPERATION

Check power window operation.

In the inspection result normal?

YES >> GO TO 3.

NO >> Refer to [PWC-29, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

#### 3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 1.

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PWC

## POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

---

## POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

### Diagnosis Procedure

INFOID:000000008511505

#### 1. REPLACE POWER WINDOW MAIN SWITCH

---

Replace power window main switch. Refer to [PWC-62, "Removal and Installation"](#).

>> Inspection End.

# POWER WINDOW SWITCH DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

[LH FRONT ONLY AUTO DOWN]

## POWER WINDOW SWITCH DOES NOT ILLUMINATE

### DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000008511506

#### 1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.  
Refer to [PWC-62. "Removal and Installation"](#).

>> Inspection End.

### PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008511507

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

Replace power window and door lock/unlock switch RH.  
Refer to [PWC-62. "Removal and Installation"](#).

>> Inspection End.

### REAR LH

REAR LH : Diagnosis Procedure

INFOID:000000008511508

#### 1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.  
Refer to [PWC-62. "Removal and Installation"](#).

>> Inspection End.

### REAR RH

REAR RH : Diagnosis Procedure

INFOID:000000008511509

#### 1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.  
Refer to [PWC-62. "Removal and Installation"](#).

>> Inspection End.

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PWC

# MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY AUTO DOWN]

## REMOVAL AND INSTALLATION

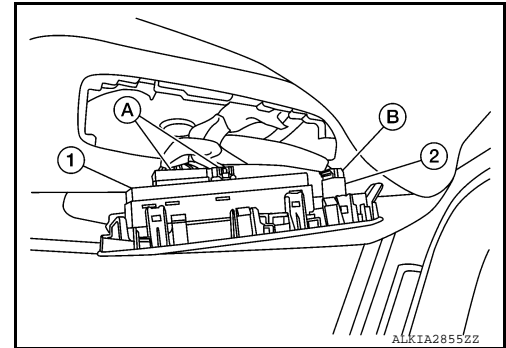
### MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

#### Removal and Installation

INFOID:000000008511510

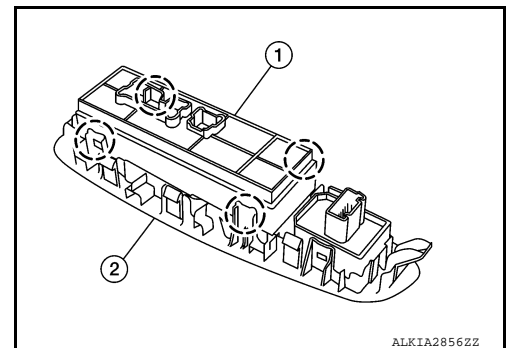
#### REMOVAL

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



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

○: Pawl



#### INSTALLATION

Installation is in the reverse order of removal.

#### NOTE:

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

# POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY AUTO DOWN]

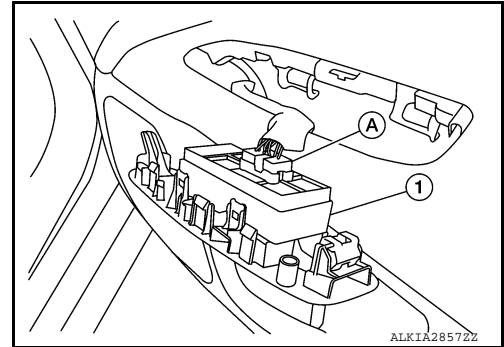
## POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

### Removal and Installation

INFOID:000000008511511

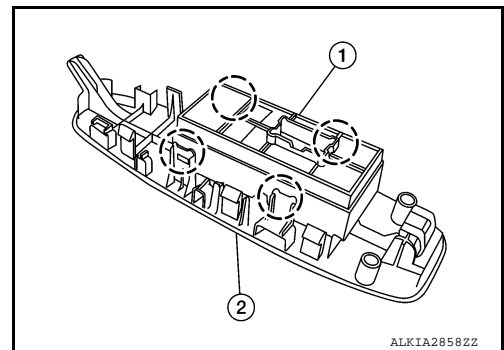
#### REMOVAL

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



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

○: Pawl



#### INSTALLATION

Installation is in the reverse order of removal.

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# REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

[LH FRONT ONLY AUTO DOWN]

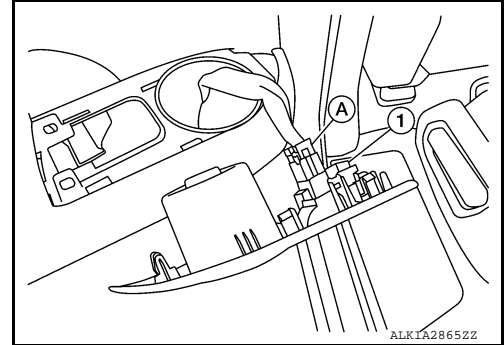
## REAR POWER WINDOW SWITCH

### Removal and Installation

INFOID:000000008511512

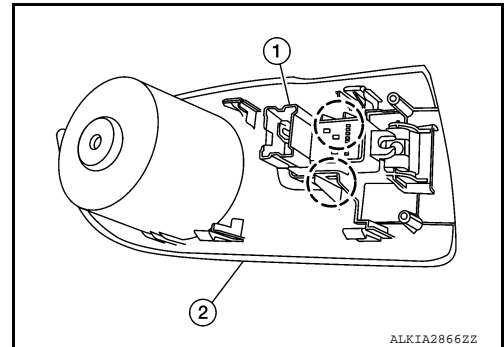
#### REMOVAL

1. Remove the rear door cup holder mat.
2. Remove the rear power window switch from the rear door finisher using a suitable tool.
3. Disconnect the harness connector (A) from the rear power window switch (1).



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

○: Pawl



#### INSTALLATION

Installation is in the reverse order of removal.



PRECAUTION

PRECAUTIONS

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

INFOID:000000009014375

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

**WARNING:**

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

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

**WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least 3 minutes before performing any service.

Precaution for Work

INFOID:000000009014376

- 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.

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# PREPARATION

< PREPARATION >

[LH & RH FRONT AUTO UP/DOWN]

## PREPARATION

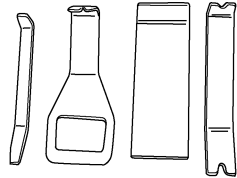
### PREPARATION

#### Special Service Tool

INFOID:000000008942203

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

| Tool number<br>(Kent-Moore No.)<br>Tool name | Description              |
|--|--------------------------|
| —<br>(J-46534)<br>Trim tool set              | Removing trim components |



AWJIA0483ZZ

# COMPONENT PARTS

< SYSTEM DESCRIPTION >

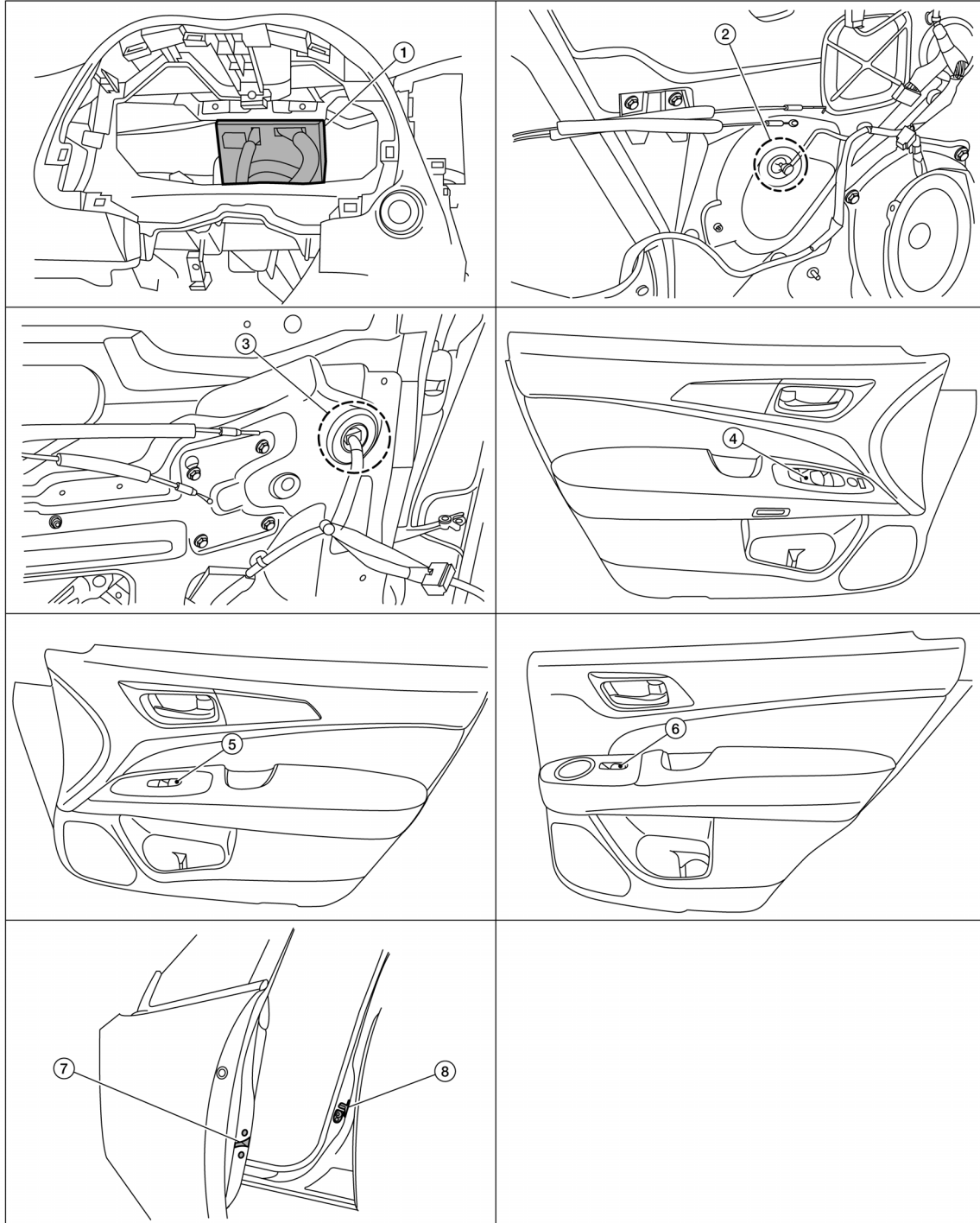
[LH & RH FRONT AUTO UP/DOWN]

## SYSTEM DESCRIPTION

### COMPONENT PARTS

#### Component Parts Location

INFOID:000000008843867



1. BCM (view with the combination meter removed)

2. Front power window motor LH (RH similar) (view with front door finisher removed)

3. Rear power window motor LH (RH similar) (view with rear door finisher removed)

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## COMPONENT PARTS

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

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

### Component Description

INFOID:000000008843868

| Component   | Function  |
|---|---|
| BCM   | <ul style="list-style-type: none"> <li>Supplies power to the window switches.</li> <li>Controls retained power.</li> </ul>  |
| Main power window and door lock/unlock switch       | Directly controls all power window motors.  |
| Power window and door lock/unlock switch RH         | Controls power window motor of passenger door.  |
| Rear power window switch                            | <ul style="list-style-type: none"> <li>Controls anti-pinch operation of power window.</li> <li>Controls right and left power window motors for the rear doors.</li> </ul>   |
| Power window motor                                  | <ul style="list-style-type: none"> <li>Integrates the CPU and WINDOW MOTOR.</li> <li>Starts operating with signals from each power window switch.</li> <li>Transmits power window motor rotation as a pulse signal to power window switch.</li> <li>Controls anti-pinch operation for all windows.</li> </ul> |
| Front door lock assembly (door key cylinder switch) | Transmits operation condition of door key cylinder switch to power window main switch.  |
| Front door switch LH/RH                             | Detects door open/close condition and transmits it to the BCM.  |

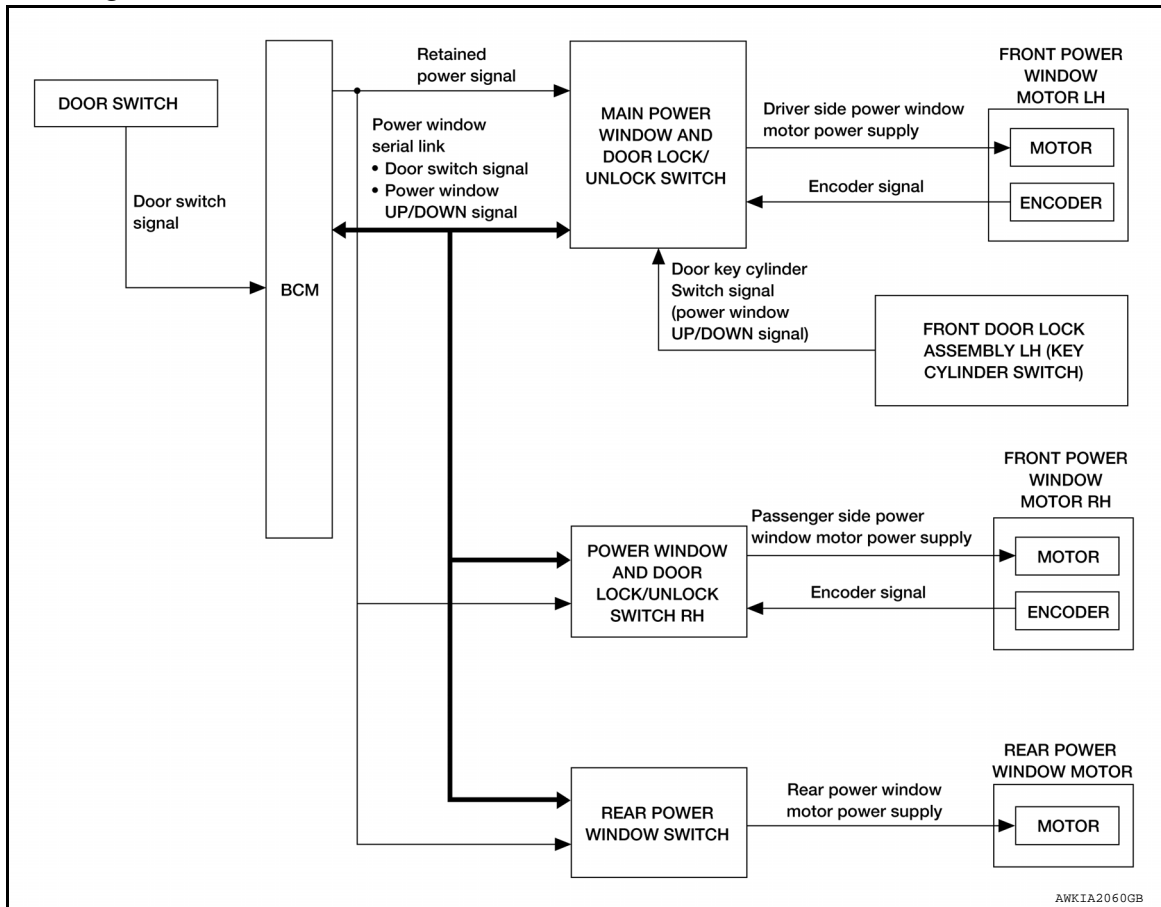
# SYSTEM

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

## SYSTEM

### System Diagram



### System Description

INFOID:000000008843870

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#### POWER WINDOW OPERATION

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

#### POWER WINDOW AUTO-OPERATION

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

#### POWER WINDOW SERIAL LINK

Power window main switch, front power window switch (passenger side) and BCM transmit and receive the signal by power window serial link.

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

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

# SYSTEM

## < SYSTEM DESCRIPTION >

## [LH & RH FRONT AUTO UP/DOWN]

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

- Front passenger side door window operation signal.
- Retained power operation signal.

### RETAINED POWER OPERATION

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

#### Retained Power Function Cancel Conditions

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

### POWER WINDOW LOCK FUNCTION

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

### ANTI-PINCH OPERATION

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

#### Operation Condition

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

#### **NOTE:**

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

### DOOR KEY CYLINDER SWITCH OPERATION

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

#### Operation Condition

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

### KEYLESS POWER WINDOW DOWN FUNCTION

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

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

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

### Fail-safe

INFOID:000000008843871

### FAIL-SAFE CONTROL

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

# SYSTEM

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

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

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

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

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

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# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000008849986

### 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          | <ul style="list-style-type: none"> <li>The vehicle specification can be read and saved.</li> <li>The vehicle specification can be written when replacing BCM.</li> </ul> |
| CAN Diag Support Mntr  | The result of transmit/receive diagnosis of CAN communication is displayed.  |

### SYSTEM APPLICATION

BCM can perform the following functions.

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

### RETAINED PWR



# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LH & RH FRONT AUTO UP/DOWN]

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000008849987

## 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. |

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT AUTO UP/DOWN]

## ECU DIAGNOSIS INFORMATION

### BCM (BODY CONTROL MODULE)

#### List of ECU Reference

INFOID:000000008843874

| ECU | Reference   |
|-----|---|
| BCM | <a href="#">BCS-28, "Reference Value"</a>               |
|     | <a href="#">BCS-48, "Fail Safe"</a>                     |
|     | <a href="#">BCS-48, "DTC Inspection Priority Chart"</a> |
|     | <a href="#">BCS-50, "DTC Index"</a>                     |

# POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

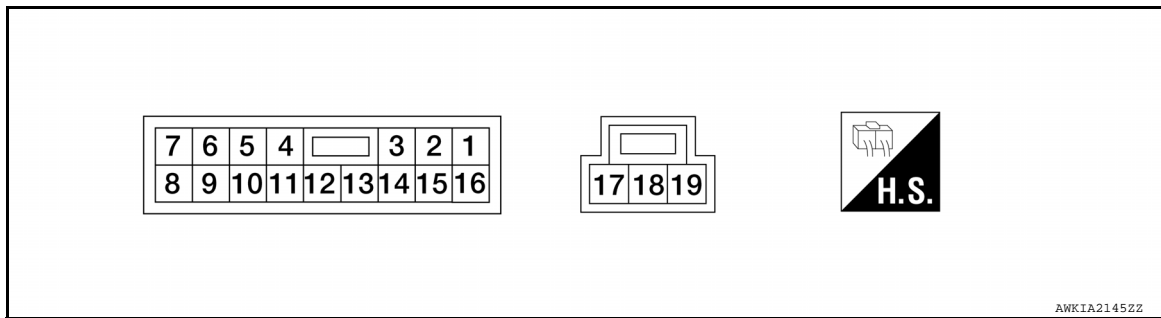
[LH & RH FRONT AUTO UP/DOWN]

## POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000008852604

### TERMINAL LAYOUT



### PHYSICAL VALUES

#### MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

| Terminal No. |        | Description                            |              | Condition   | Voltage (Approx.)   |
|--------------|--------|--|--------------|---|---|
| +            | -      | Signal name                            | Input/Output |   |   |
| 1 (B)        | Ground | Ground                                 | —            | —   | 0   |
| 4 (SB)       | 12     | Encoder pulse signal 2                 | Input        | When power window motor operates.                                 | <p style="text-align: right; font-size: small;">JMKIA0070GB</p> |
| 5 (Y)        | 12     | Encoder pulse signal 1                 | Input        | When power window motor operates.                                 | <p style="text-align: right; font-size: small;">JMKIA0070GB</p> |
| 6 (L)        | Ground | Rear power window motor RH DOWN signal | Output       | When rear RH switch in power window main switch is operated DOWN. | Battery voltage   |
| 7 (V)        | Ground | Rear power window motor RH UP signal   | Output       | When rear RH switch in power window main switch is operated UP.   | Battery voltage   |
| 8 (LG)       | Ground | Rear power window motor LH DOWN signal | Output       | When rear LH switch in power window main switch is operated DOWN. | Battery voltage   |
| 9 (SB)       | Ground | Rear power window motor LH UP signal   | Output       | When rear LH switch in power window main switch is operated UP.   | Battery voltage   |

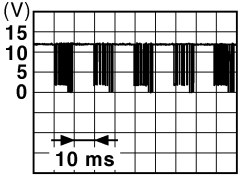
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# POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT AUTO UP/DOWN]

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

## Fail Safe

INFOID:000000008850368

### FAIL-SAFE CONTROL

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

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

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

- Auto-up operation

# POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT AUTO UP/DOWN]

- 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.

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# FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

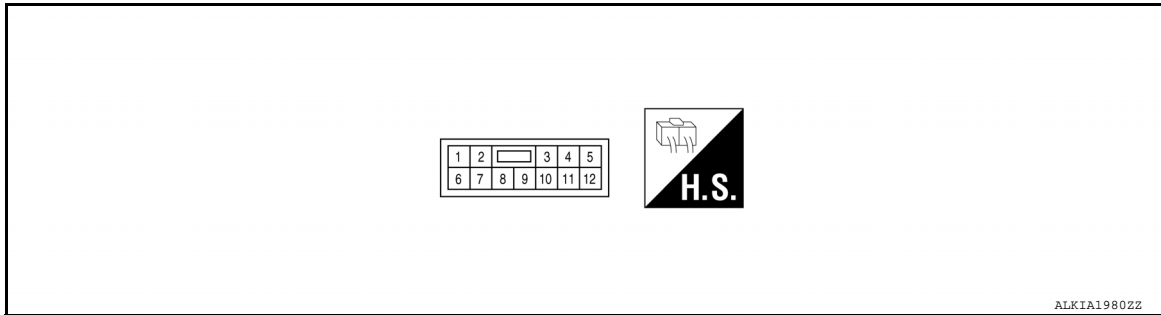
[LH & RH FRONT AUTO UP/DOWN]

## FRONT POWER WINDOW SWITCH

Reference Value

INFOID:000000008852605

### TERMINAL LAYOUT



### PHYSICAL VALUES

#### POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

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

# FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH & RH FRONT AUTO UP/DOWN]

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

## Fail Safe

INFOID:000000008850370

### FAIL-SAFE CONTROL

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

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

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

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

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

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# POWER WINDOW SYSTEM

[LH & RH FRONT AUTO UP/DOWN]

< WIRING DIAGRAM >

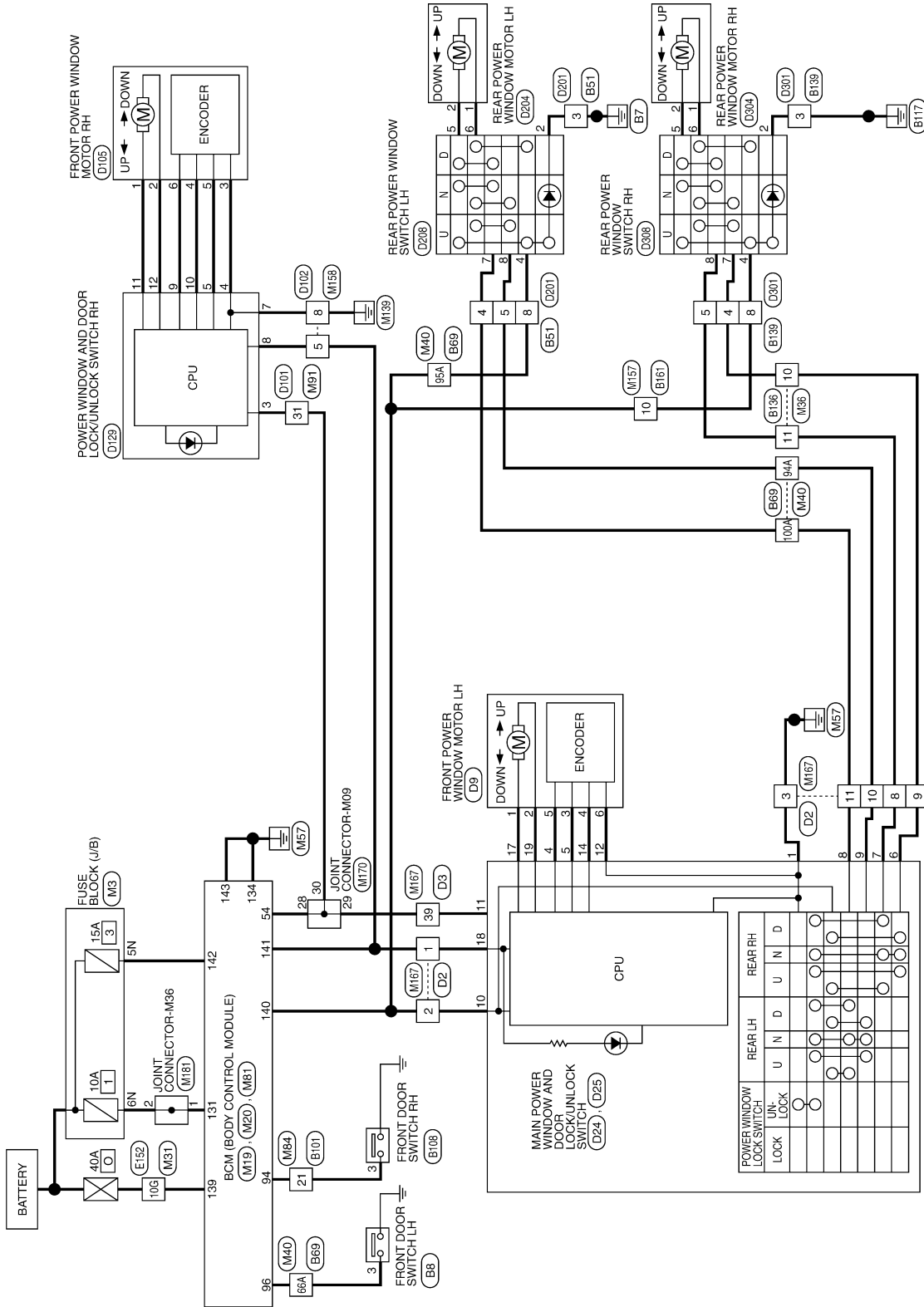
## WIRING DIAGRAM

### POWER WINDOW SYSTEM

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

INFOID:000000008843879

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



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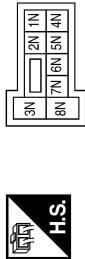
# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT AUTO UP/DOWN]

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

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

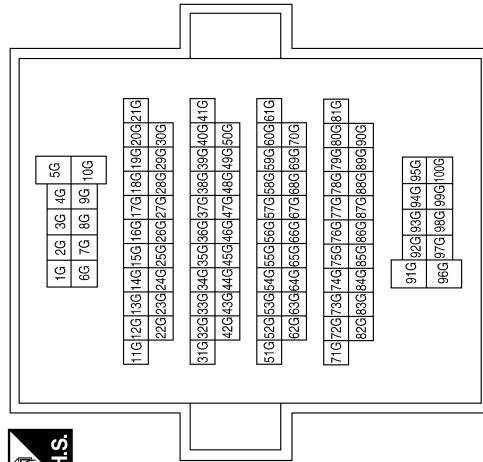


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|-----------------|---------------------------|
| Connector No.   | M20                       |
| Connector Name  | BCM (BODY CONTROL MODULE) |
| Connector Color | GRAY                      |

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

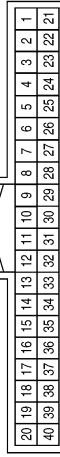
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 94           | G             | AS DOOR SW  |
| 96           | BG            | DR DOOR SW  |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10G          | W             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | M36          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10           | L             | -           |
| 11           | V             | -           |

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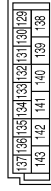
PWC

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT AUTO UP/DOWN]

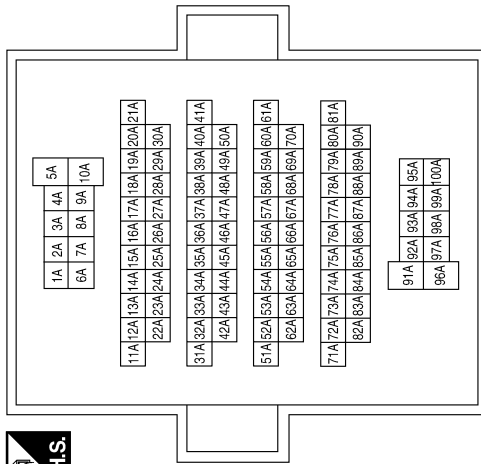
|                 |                           |
|-----------------|---------------------------|
| Connector No.   | M81                       |
| Connector Name  | BCM (BODY CONTROL MODULE) |
| Connector Color | WHITE                     |



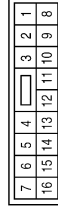
| Terminal No. | Color of Wire | Signal Name          |
|--------------|---------------|----------------------|
| 131          | W             | BAT BCM FUSE         |
| 134          | B             | GND 2                |
| 139          | W             | BAT POWER F/L        |
| 140          | BR 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

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

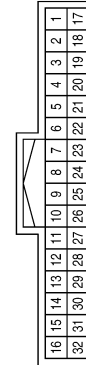
|                 |              |
|-----------------|--------------|
| Connector No.   | M40          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



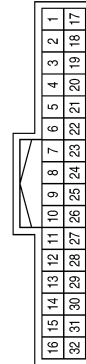
|                 |              |
|-----------------|--------------|
| Connector No.   | M157         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



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



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



|              |    |               |    |             |   |
|--------------|----|---------------|----|-------------|---|
| Terminal No. | 10 | Color of Wire | BR | Signal Name | - |
|--------------|----|---------------|----|-------------|---|

|              |    |               |   |             |   |
|--------------|----|---------------|---|-------------|---|
| Terminal No. | 31 | Color of Wire | W | Signal Name | - |
|--------------|----|---------------|---|-------------|---|

|              |    |               |   |             |   |
|--------------|----|---------------|---|-------------|---|
| Terminal No. | 21 | Color of Wire | G | Signal Name | - |
|--------------|----|---------------|---|-------------|---|

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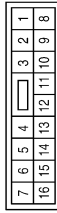
# POWER WINDOW SYSTEM

[LH & RH FRONT AUTO UP/DOWN]

< WIRING DIAGRAM >

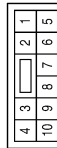
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8            | V             | -           |
| 9            | L             | -           |
| 10           | SB            | -           |
| 11           | LG            | -           |
| 12           | BR            | -           |

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



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

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



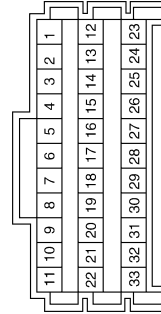
| Terminal No. | Color of Wire | Signal Name                     |
|--------------|---------------|---------------------------------|
| 5            | Y             | - (WITH INTELLIGENT KEY SYSTEM) |
| 8            | B             | -                               |

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



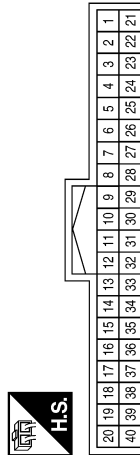
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | W             | -           |
| 2            | W             | -           |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 28           | W             | -           |
| 29           | W             | -           |
| 30           | W             | -           |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 39           | W             | -           |

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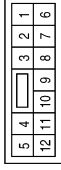
PWC

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

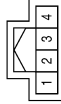
[LH & RH FRONT AUTO UP/DOWN]

|                 |              |
|-----------------|--------------|
| Connector No.   | B51          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



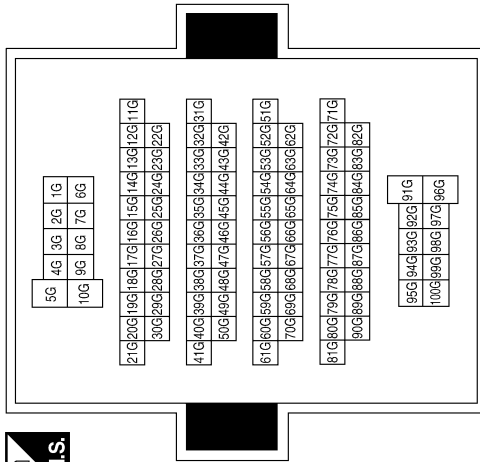
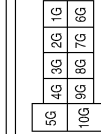
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3            | B             | -           |
| 4            | Y             | -           |
| 5            | SB            | -           |
| 8            | BR            | -           |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3            | L             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | E152         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10G          | P             | -           |

# POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH & RH FRONT AUTO UP/DOWN]

|                 |              |
|-----------------|--------------|
| Connector No.   | B101         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |

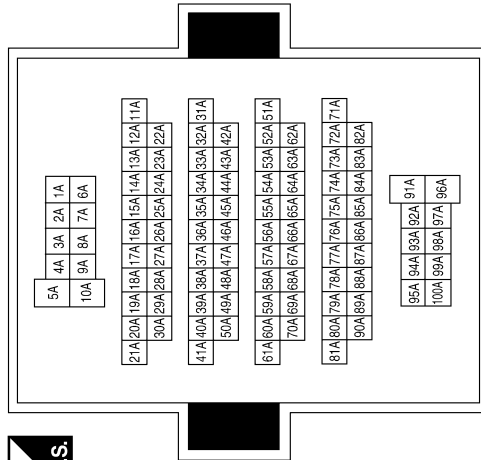


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|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |

|              |    |               |    |             |   |
|--------------|----|---------------|----|-------------|---|
| Terminal No. | 21 | Color of Wire | LG | Signal Name | - |
|--------------|----|---------------|----|-------------|---|

|              |               |             |
|--------------|---------------|-------------|
| Terminal No. | Color of Wire | Signal Name |
| 66A          | L             | -           |
| 94A          | SB            | -           |
| 95A          | BR            | -           |
| 100A         | Y             | -           |

|                 |              |
|-----------------|--------------|
| Connector No.   | B69          |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



|                 |              |
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| Connector No.   | B139         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



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

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|-----------------|--------------|
| Connector No.   | B136         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



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

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



|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
|---|---|---|---|

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

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

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

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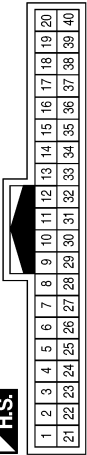
PWC

# POWER WINDOW SYSTEM

[LH & RH FRONT AUTO UP/DOWN]


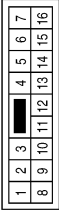
< WIRING DIAGRAM >

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


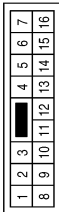
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 39           | Y             | -           |

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



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

|                 |              |
|-----------------|--------------|
| Connector No.   | B161         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10           | BR            | -           |

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

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

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

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



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# POWER WINDOW SYSTEM

[LH & RH FRONT AUTO UP/DOWN]

< WIRING DIAGRAM >


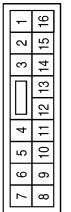
|                 |              |
|-----------------|--------------|
| Connector No.   | D101         |
| Connector Name  | WIRE TO WIRE |
| Connector Color | WHITE        |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 31           | Y             | -           |


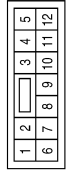
| Terminal No. | Color of Wire | Signal Name   |
|--------------|---------------|---------------|
| 7            | V             | MOTOR RR UP   |
| 8            | LG            | MOTOR RL DOWN |
| 9            | SB            | MOTOR RL UP   |
| 10           | BR            | IGN           |
| 12           | BR            | ENCODER GND   |
| 14           | LG            | ENCODER +     |

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



| Terminal No. | Color of Wire | Signal Name         |
|--------------|---------------|---------------------|
| 1            | B             | GND                 |
| 4            | SB            | ENCODER SIG-2 (ULP) |
| 5            | Y             | ENCODER SIG-1 (DLP) |
| 6            | L             | MOTOR RR DOWN       |

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


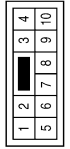
| Terminal No. | Color of Wire | Signal Name  |
|--------------|---------------|--------------|
| 4            | LG            | ENCODER      |
| 5            | BG            | ENCODER +    |
| 7            | B             | GND          |
| 8            | BR            | BAT          |
| 9            | V             | ENCODER SIG1 |
| 10           | W             | ENCODER SIG2 |
| 11           | L             | MOTOR UP     |
| 12           | BR            | MOTOR DOWN   |

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

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

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

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

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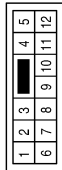
PWC

# POWER WINDOW SYSTEM

[LH & RH FRONT AUTO UP/DOWN]

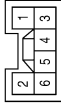
< WIRING DIAGRAM >

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



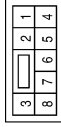
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3            | B             | -           |
| 4            | Y             | -           |
| 5            | SB            | -           |
| 8            | BR            | -           |

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



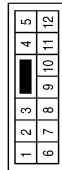
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | LG            | -           |
| 2            | V             | -           |
| 3            | -             | -           |
| 4            | -             | -           |
| 5            | -             | -           |
| 6            | -             | -           |

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



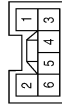
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | -             | -           |
| 2            | B             | -           |
| 3            | -             | -           |
| 4            | BR            | -           |
| 5            | V             | -           |
| 6            | LG            | -           |
| 7            | Y             | -           |
| 8            | SB            | -           |

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



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

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | LG            | -           |
| 2            | V             | -           |
| 3            | -             | -           |
| 4            | -             | -           |
| 5            | -             | -           |
| 6            | -             | -           |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1            | -             | -           |
| 2            | B             | -           |
| 3            | -             | -           |
| 4            | BR            | -           |
| 5            | V             | -           |
| 6            | LG            | -           |
| 7            | Y             | -           |
| 8            | SB            | -           |

AAKIA0892GB



# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

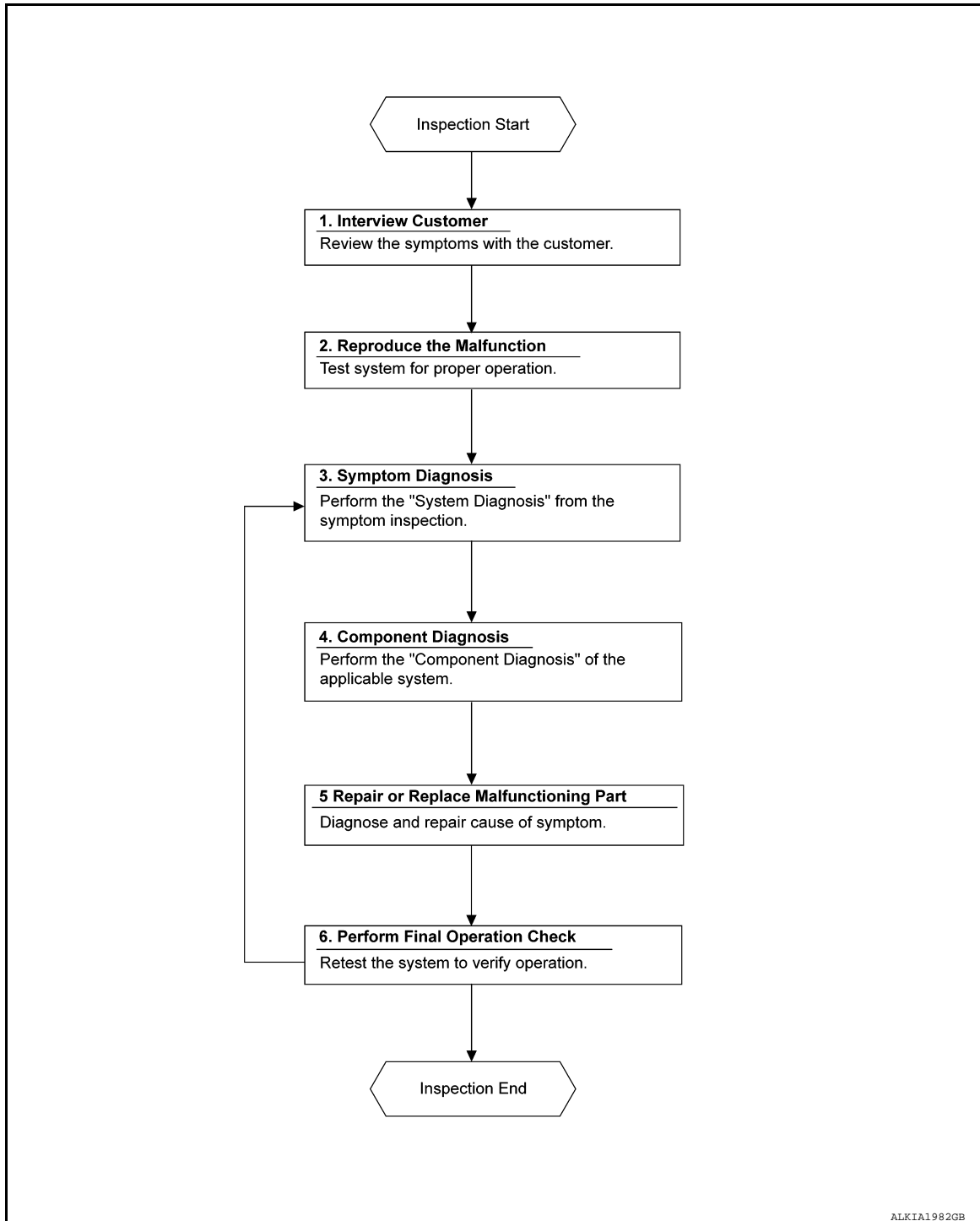
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000008929700

#### OVERALL SEQUENCE



#### DETAILED FLOW

##### 1. OBTAIN INFORMATION ABOUT SYMPTOM

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

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
L  
M  
N  
O  
P

PWC

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

---

>> GO TO 2.

## 2. CONFIRM THE SYMPTOM

---

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

>> GO TO 3.

## 3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH SYMPTOM DIAGNOSIS

---

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

>> GO TO 4.

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

---

Perform the diagnosis with Component diagnosis of the applicable system.

>> GO TO 5.

## 5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS

---

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

## 6. FINAL CHECK

---

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

Are the malfunctions corrected?

YES >> Inspection End.

NO >> GO TO 3.

## ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

### Description

INFOID:000000008843881

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:000000008843882

#### 1. SYSTEM INITIALIZATION

Perform system initialization. Refer to [PWC-93. "Work Procedure"](#).

>> GO TO 2.

#### 2. CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to [PWC-94. "Work Procedure"](#).

>> Inspection End.

A  
B  
C  
D  
E  
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H  
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O  
P

PWC

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

---

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### Description

INFOID:000000008843883

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:000000008843884

#### 1.SYSTEM INITIALIZATION

---

Perform system initialization. Refer to [PWC-93. "Work Procedure"](#).

>> GO TO 2.

#### 2.CHECK ANTI-PINCH FUNCTION

---

Check anti-pinch function. Refer to [PWC-94. "Work Procedure"](#).

>> Inspection End.

# SYSTEM INITIALIZATION

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

## SYSTEM INITIALIZATION

### Description

INFOID:000000008843885

If any of the following operations are performed, the initialization is necessary for normal operation of power window system.

- When control unit replaced.
- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnection and connection of the negative battery terminal.
- Removal and installation of regulator assembly.
- Power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or if the battery fuse is blown.
- Disconnection and connection of power window main switch harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

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

- Auto-up operation
- Anti-pinch function

### Work Procedure

INFOID:000000008843886

#### 1. STEP 1

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

>> GO TO 2.

#### 2. STEP 2

Check anti-pinch function. Refer to [PWC-94, "Work Procedure"](#).

>> Inspection End.

A  
B  
C  
D  
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F  
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P

PWC

# CHECK ANTI-PINCH FUNCTION

< BASIC INSPECTION >

[LH & RH FRONT AUTO UP/DOWN]

## CHECK ANTI-PINCH FUNCTION

### Description

INFOID:000000008843887

If any of the following operations are performed, the initialization is necessary for normal operation of power window system.

- When control unit is replaced.
- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnection and connection of the negative battery terminal.
- Removal and installation of regulator assembly.
- Power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or if the battery fuse is blown.
- Disconnection and connection of power window main switch harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

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

- Auto-up operation
- Anti-pinch function

### Work Procedure

INFOID:000000008843888

#### 1. CHECK ANTI-PINCH FUNCTION

- Fully open the door window.
- Place a piece of wood near fully closed position.
- Close door glass completely with AUTO-UP.
- Check the following conditions
  - Check that glass lowers for approximately 150 mm (5.91 in.) without pinching piece of wood and stops.
  - Check that glass does not rise not when operating the power window main switch while lowering.

#### **CAUTION:**

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

>> Inspection End.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY AND GROUND CIRCUIT

#### BCM

#### BCM : Diagnosis Procedure

INFOID:000000008851173

Regarding Wiring Diagram information, refer to [BCS-53, "Wiring Diagram"](#).

### 1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

### 2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M81.

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness or connectors.

### 3. CHECK GROUND CIRCUIT

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

| BCM       |          | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal |        |            |
| M81       | 134      | —      | Yes        |
|           | 143      |        |            |

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connectors.

### POWER WINDOW MAIN SWITCH

#### POWER WINDOW MAIN SWITCH : Description

INFOID:000000008844021

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:000000008844022

Main Power Window And Door Lock/unlock Switch

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

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

Is the inspection result normal?

- YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.  
NO >> Refer to [PWC-96, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

## POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000008844023

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

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

### 1. CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

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

### 2. CHECK HARNESS CONTINUITY

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

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

4. Check continuity between BCM connector M81 and ground.

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

Is the inspection result normal?

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

### 3. CHECK GROUND CIRCUIT

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



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

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

Is the inspection result normal?

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

## 4. CHECK BCM OUTPUT SIGNAL

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

| Terminals     |          | Voltage (Approx.) |
|---------------|----------|-------------------|
| (+)           | (-)      |                   |
| BCM connector | Terminal | Battery voltage   |
| M81           | 140      |                   |
|               | 141      |                   |

Is the measurement value within the specification?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).
- NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

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

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

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

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).
- NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-99, "POWER WINDOW MAIN SWITCH : Special Repair Requirement"](#).

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

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

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

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#).

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

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

| Terminal  |          | (-)    | Window switch position (front LH) | Voltage (Approx.) |
|---|----------|--------|-----------------------------------|-------------------|
| (+)   | Terminal |        |                                   |                   |
| Main power window and door lock/unlock switch connector |          |        |                                   |                   |
| D25   | 17       | Ground | UP                                | Battery voltage   |
|   |          |        | DOWN                              | 0                 |
|   | 19       |        | UP                                | 0                 |
|   |          |        | DOWN                              | Battery voltage   |

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#).

## POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:000000008844024

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

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

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

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

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

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

| Terminal | Main power window and door lock/unlock switch condition | Continuity |
|----------|---|------------|
| 9        | Rear LH   | UP         |
| 7        | Rear RH   |            |
| 8        | Rear LH   | NEUTRAL    |
| 3        | Rear RH   |            |
| 9        | Rear LH   | DOWN       |
| 6        | Rear RH   |            |

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-99, "POWER WINDOW MAIN SWITCH : Special Repair Requirement"](#).

## POWER WINDOW MAIN SWITCH : Special Repair Requirement

INFOID:000000008844025

PWC

### 1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

### 2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-94, "Work Procedure"](#).

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to [PWC-111, "DRIVER SIDE : Component Function Check"](#).

## FRONT POWER WINDOW SWITCH

### FRONT POWER WINDOW SWITCH : Description

INFOID:000000008844026

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

### FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:000000008844027

Power Window And Door Lock/unlock Switch RH

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## 1. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

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

Is the inspection result normal?

- YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.  
NO >> Refer to [PWC-100, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

## FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000008844028

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

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

## 1. CHECK POWER SUPPLY CIRCUIT

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

| Terminal  |          | Voltage<br>(Approx.) |
|---|----------|----------------------|
| (+)   | (-)      |                      |
| Power window and door lock/unlock switch RH connector | Terminal |                      |
| D129  | 8        | Battery voltage      |

Is the inspection result normal?

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

## 2. CHECK HARNESS CONTINUITY

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

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

- Check continuity between BCM connector M81 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M81           | 141      |        | No         |

Is the inspection result normal?

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

## 3. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).  
NO >> Repair or replace the harness or connectors.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## 4. CHECK BCM OUTPUT SIGNAL

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

| Terminals     |          | Voltage<br>(Approx.) |
|---------------|----------|----------------------|
| (+)           | (-)      |                      |
| BCM connector | Terminal |                      |
| M81           | 141      | Battery voltage      |

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).  
NO >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

## FRONT POWER WINDOW SWITCH : Special Repair Requirement

INFOID:000000008844029

### 1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.  
Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

### 2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.  
Refer to [PWC-94, "Work Procedure"](#).

Is the inspection result normal?

- YES >> Inspection end.  
NO >> Refer to [PWC-113, "PASSENGER SIDE : Component Function Check"](#).

## REAR POWER WINDOW SWITCH

### REAR POWER WINDOW SWITCH : Description

INFOID:000000008844030

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

### REAR POWER WINDOW SWITCH : Component Function Check

INFOID:000000008844031

Rear Power Window Switch

#### 1. CHECK REAR POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

- YES >> Rear power window switch power supply and ground circuit are OK.  
NO >> Refer to [PWC-101, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

### REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000008844032

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

Rear Power Window Switch Power Supply Circuit Check

#### 1. CHECK POWER SUPPLY CIRCUIT

Check voltage between rear power window switch connector and ground.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

| Terminal                              |          | Terminal | (-)    | Condition          | Voltage<br>(Approx.) |
|---------------------------------------|----------|----------|--------|--------------------|----------------------|
| (+)                                   |          |          |        |                    |                      |
| Rear power window<br>switch connector | Terminal | 4        | Ground | Ignition switch ON | Battery voltage      |
| LH                                    | D208     |          |        |                    |                      |
| RH                                    | D308     |          |        |                    |                      |

Is the inspection result normal?

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

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

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

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

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

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D25   | 8        |        |            |
|   | 9        |        |            |

Is the inspection result normal?

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

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

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

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

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

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D25   | 6        |        |            |
|   | 7        |        |            |

Is the inspection result normal?

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

## 4. CHECK HARNESS CONTINUITY

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

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

3. Check continuity between BCM connector M81 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M81           | 140      |        | No         |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace the harness or connectors.

## 5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-103, "REAR POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace rear power window switch. Refer to [PWC-139, "Removal and Installation"](#).

## REAR POWER WINDOW SWITCH : Component Inspection

INFOID:000000008844033

### COMPONENT INSPECTION

#### 1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH D208.

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

Is the inspection result normal?

YES >> Rear power window switch LH is OK.

NO >> Replace rear power window switch. Refer to [PWC-139, "Removal and Installation"](#).

#### 2. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH D308.

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

Is the inspection result normal?

YES >> Rear power window switch RH is OK.

NO >> Replace rear power window switch. Refer to [PWC-139, "Removal and Installation"](#).

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## POWER WINDOW MOTOR DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008844034

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

### DRIVER SIDE : Component Function Check

INFOID:000000008844035

#### 1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

- YES >> Front power window motor LH is OK.
- NO >> Refer to [PWC-104, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008844036

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

#### Front Power Window Motor LH Circuit Check

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

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

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

Is the inspection result normal?

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

##### 2. CHECK HARNESS CONTINUITY

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

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

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



# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D24   | 17       |        | Ground     |
|   | 19       |        |            |

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).

NO >> Repair or replace the harness or connectors.

## 3. CHECK POWER WINDOW MOTOR

Check front power window motor LH.

Refer to [PWC-105, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace power window motor LH. Refer to [GW-14, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).

## DRIVER SIDE : Component Inspection

INFOID:000000008844037

### COMPONENT INSPECTION

#### 1. CHECK FRONT POWER WINDOW MOTOR LH

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

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 2        | 1   | DOWN            |
| 1        | 2   | UP              |

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to [GW-14, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).

## DRIVER SIDE : Special Repair Requirement

INFOID:000000008844038

#### 1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

#### 2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-94, "Work Procedure"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-111, "DRIVER SIDE : Component Function Check"](#).

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008844039

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

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## PASSENGER SIDE : Component Function Check

INFOID:000000008844040

### 1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Refer to [PWC-106, "PASSENGER SIDE : Diagnosis Procedure"](#).

## PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008844041

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

### Front Power Window Motor RH Circuit Check

#### 1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2. CHECK HARNESS CONTINUITY

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

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

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

| Power window and door lock/unlock switch RH connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D129  | 11       |        | Ground     |
|   | 12       |        |            |

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-138, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).

NO >> Repair or replace harness or connectors.

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## 3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to [PWC-107, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace front power window motor RH. Refer to [GW-14, "Removal and Installation"](#). After that, refer to [PWC-94, "Work Procedure"](#).

## PASSENGER SIDE : Component Inspection

INFOID:000000008844042

### COMPONENT INSPECTION

#### 1. CHECK FRONT POWER WINDOW MOTOR RH

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

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 1        | 2   | UP              |
| 2        | 1   | DOWN            |

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Replace front power window motor RH. Refer to [GW-14, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).

## PASSENGER SIDE : Special Repair Requirement

INFOID:000000008844043

#### 1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

#### 2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-94, "Work Procedure"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-113, "PASSENGER SIDE : Component Function Check"](#).

## REAR LH

### REAR LH : Description

INFOID:000000008844044

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

### REAR LH : Component Function Check

INFOID:000000008844045

#### 1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to [PWC-108, "REAR LH : Diagnosis Procedure"](#)

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# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## REAR LH : Diagnosis Procedure

INFOID:000000008844046

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

### Power Window Motor Circuit Check

#### 1. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

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

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

Is the measurement value within the specification?

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

#### 2. CHECK HARNESS CONTINUITY

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

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

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

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

Is the inspection result normal?

- YES >> Check rear power window switch LH. Refer to [PWC-103, "REAR POWER WINDOW SWITCH : Component Inspection"](#).  
 NO >> Repair or replace the harness or connectors.

#### 3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.  
 Refer to [PWC-108, "REAR LH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).  
 NO >> Replace rear power window motor LH. Refer to [GW-18, "Removal and Installation"](#).

## REAR LH : Component Inspection

INFOID:000000008844047

### COMPONENT INSPECTION

# POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## 1. CHECK REAR POWER WINDOW MOTOR LH

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

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 1        | 2   | DOWN            |
| 2        | 1   | UP              |

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Replace rear power window motor LH. Refer to [GW-18, "Removal and Installation"](#).

## REAR RH

### REAR RH : Description

INFOID:000000008844048

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

### REAR RH : Component Function Check

INFOID:000000008844049

## 1. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Refer to [PWC-109, "REAR RH : Diagnosis Procedure"](#).

## REAR RH : Diagnosis Procedure

INFOID:000000008844050

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

### Rear Power Window Motor RH Circuit Check

## 1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

| Terminal   |     | Rear power window switch RH condition | Voltage (Approx.) |
|--|-----|---------------------------------------|-------------------|
| (+)  | (-) |                                       |                   |
| Rear power window motor RH connector<br><br>D304 | 2   | UP                                    | Battery voltage   |
|  |     | DOWN                                  | 0                 |
|  | 1   | UP                                    | 0                 |
|  |     | DOWN                                  | Battery voltage   |

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

## 2. CHECK HARNESS CONTINUITY

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

# POWER WINDOW MOTOR

[LH & RH FRONT AUTO UP/DOWN]

## < DTC/CIRCUIT DIAGNOSIS >

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

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

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

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

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to [PWC-103, "REAR POWER WINDOW SWITCH : Component Inspection"](#).

NO >> Repair or replace the harness or connectors.

### 3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-110, "REAR RH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Replace rear power window motor RH. Refer to [GW-18, "Removal and Installation"](#).

## REAR RH : Component Inspection

INFOID:000000008844051

### COMPONENT INSPECTION

#### 1. CHECK REAR POWER WINDOW MOTOR RH

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

| Terminal |     | Motor condition |
|----------|-----|-----------------|
| (+)      | (-) |                 |
| 1        | 2   | DOWN            |
| 2        | 1   | UP              |

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Replace rear power window motor RH. Refer to [GW-18, "Removal and Installation"](#).

# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## ENCODER DRIVER SIDE

### DRIVER SIDE : Description

INFOID:000000008844052

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

### DRIVER SIDE : Component Function Check

INFOID:000000008844053

#### 1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

- YES >> Encoder operation is OK.
- NO >> Refer to [PWC-111, "DRIVER SIDE : Diagnosis Procedure"](#).

### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008844054

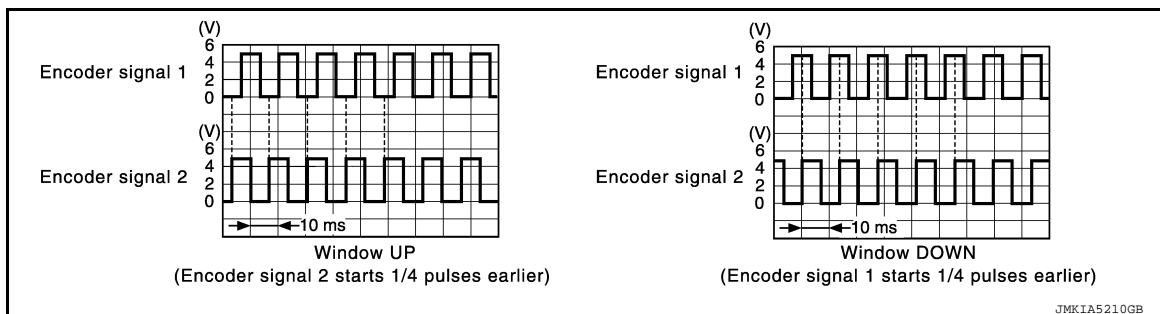
Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

#### Encoder Circuit Check

#### 1. CHECK ENCODER OPERATION

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

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



Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).
- NO >> GO TO 2.

#### 2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

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

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# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

| Terminal                              |          | Voltage<br>(Approx.) |
|---------------------------------------|----------|----------------------|
| (+)                                   | (-)      |                      |
| Front power window motor LH connector | Terminal |                      |
| D9                                    | 4        | Ground               |
|                                       |          | 10                   |

Is the measurement value within the specification?

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

### 3. CHECK HARNESS CONTINUITY 1

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

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

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

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

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).  
 NO >> Repair or replace the harness or connectors.

### 4. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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

### 5. CHECK HARNESS CONTINUITY 2

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

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

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).  
 NO >> Repair or replace the harness or connectors.

### 6. CHECK HARNESS CONTINUITY 3

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



# ENCODER

## < DTC/CIRCUIT DIAGNOSIS >

## [LH & RH FRONT AUTO UP/DOWN]

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

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

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

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

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to [GW-14, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).

NO >> Repair or replace the harness or connectors.

## PASSENGER SIDE

### PASSENGER SIDE : Description

INFOID:000000008844055

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

### PASSENGER SIDE : Component Function Check

INFOID:000000008844056

#### 1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to [PWC-113, "PASSENGER SIDE : Diagnosis Procedure"](#).

### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008844057

Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

#### 1. CHECK ENCODER SIGNAL

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

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

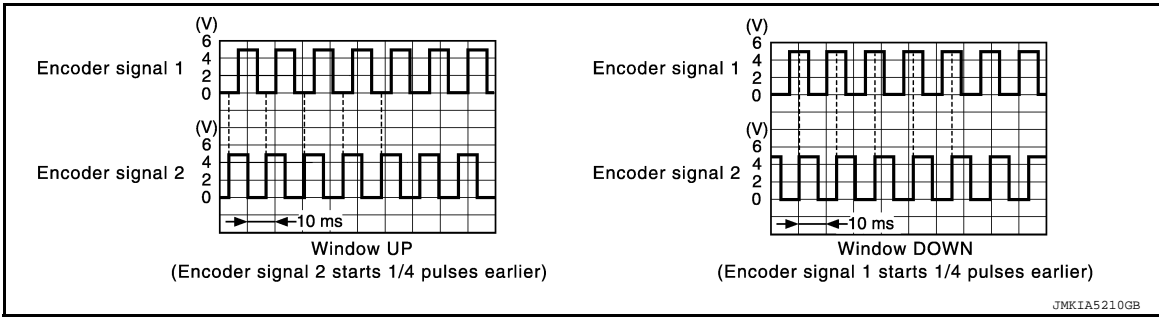
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# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]



Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).
- NO >> GO TO 2.

## 2. CHECK FRONT POWER WINDOW MOTOR RH POWER SUPPLY

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

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

Is the inspection result normal?

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

## 3. CHECK HARNESS CONTINUITY 1

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

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

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

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

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).
- NO >> Repair or replace the harness or connectors.

## 4. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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

# ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## 5. CHECK HARNESS CONTINUITY 2

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

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

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-138, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).
- NO >> Repair or replace the harness or connectors.

## 6. CHECK HARNESS CONTINUITY 3

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

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

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

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

Is the inspection result normal?

- YES >> Replace front power window motor RH. Refer to [GW-14, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).
- NO >> Repair or replace the harness or connectors.

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PWC

# DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## DOOR SWITCH

### Component Function Check

INFOID:000000008851174

#### 1.CHECK FUNCTION

1. Select DOOR LOCK of BCM using CONSULT.
2. Select DOOR SW-DR, DOOR SW-AS, DOOR SW-RL, 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   | Driver side door    | Open   | On     |
|              |                     | Closed | Off    |
| DOOR SW-AS   | Passenger side door | 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-116. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008851175

Regarding Wiring Diagram information, refer to [DLK-72. "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.

| (+)            |      | Terminal | (-)    | Signal<br>(Reference value) |
|----------------|------|----------|--------|-----------------------------|
| Door switch    |      |          |        |                             |
| Connector      |      |          |        |                             |
| Driver side    | B8   | 3        | Ground |                             |
| Passenger side | B108 |          |        |                             |
| Rear LH        | B18  |          |        |                             |
| Rear RH        | B116 |          |        |                             |

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 >

[LH & RH FRONT AUTO UP/DOWN]

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

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

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

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 3.CHECK DOOR SWITCH

Refer to [PWC-117, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch. Refer to [DLK-310, "Removal and Installation"](#).

## 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-49, "Intermittent Incident"](#).

>> Inspection End.

## Component Inspection

INFOID:000000008851176

PWC

## 1.CHECK DOOR SWITCH

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

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunction door switch. Refer to [DLK-310, "Removal and Installation"](#).

# POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

---

## POWER WINDOW LOCK SWITCH

### Description

INFOID:000000008929695

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

### Component Function Check

INFOID:000000008929696

#### 1. CHECK POWER WINDOW LOCK SIGNAL

---

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

##### Does power window lock operate?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-118, "Special Repair Requirement"](#).
- NO >> Check condition of harness and connector.

### Special Repair Requirement

INFOID:000000008929697

#### 1. PERFORM INITIALIZATION PROCEDURE

---

Perform initialization procedure.

Refer to [PWC-91, "Work Procedure"](#).

##### Is the inspection result normal?

- YES >> Inspection end.
- NO >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

# POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## POWER WINDOW SERIAL LINK

### POWER WINDOW MAIN SWITCH

#### POWER WINDOW MAIN SWITCH : Description

INFOID:0000000008852669

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:0000000008852670

##### 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [BCS-15. "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-119. "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

#### POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000008852671

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Regarding Wiring Diagram information, refer to [PWC-80. "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

#### Power Window Serial Link Check

##### 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

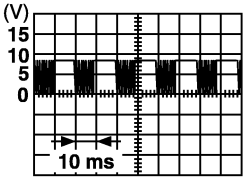
1. Remove Intelligent Key, and close front door LH and RH.
2. Check signal between BCM connector and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".
3. Check that signals which are shown in the figure below can be detected during 10 second just after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

# POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

| Terminal      |          | Signal<br>(Reference value) |
|---------------|----------|-----------------------------|
| (+)           | (-)      |                             |
| BCM connector | Terminal |                             |
| M81           | 54       | Ground                      |



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Is the inspection result normal?

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

## 2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

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

- Check continuity between BCM connector M81 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M81           | 54       |        | No         |

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).  
 NO >> Repair or replace harness or connectors.

## FRONT POWER WINDOW SWITCH

### FRONT POWER WINDOW SWITCH : Description

INFOID:000000008852672

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:000000008852673

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

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [BCS-15, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).



# POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

| 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-121, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

## FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000008852674

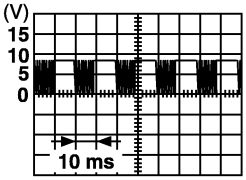
Regarding Wiring Diagram information, refer to [PWC-80, "Wiring Diagram - With Left & Right Front Auto Up/Down"](#).

### Power Window Serial Link Check

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

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

| Terminal      |          | Signal<br>(Reference value) |
|---------------|----------|-----------------------------|
| (+)           | (-)      |                             |
| BCM connector | Terminal |                             |
| M81           | 54       | Ground                      |



PIIA1297E

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> GO TO 2.

#### 2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

| BCM connector | Terminal | Power window and door lock/unlock switch RH connector | Terminal | Continuity |
|---------------|----------|---|----------|------------|
| M81           | 54       | D129  | 3        | Yes        |

4. Check continuity between BCM connector M81 and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M81           | 54       |        | No         |

Is the inspection result normal?

## POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

- 
- YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-137, "Removal and Installation"](#). After that, refer to [PWC-93, "Work Procedure"](#).
- NO >> Repair or replace the harness or connectors.

## SYMPTOM DIAGNOSIS

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

#### Diagnosis Procedure

INFOID:000000008851180

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

Check BCM power supply and ground circuit.  
Refer to [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

Check main power window and door lock/unlock switch.  
Refer to [PWC-98, "POWER WINDOW MAIN SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check power window switch main power supply and ground circuit.  
Refer to [PWC-96, "POWER WINDOW MAIN SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH SERIAL CIRCUIT

Check main power window and door lock/unlock switch serial circuit.  
Refer to [PWC-119, "POWER WINDOW MAIN SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

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PWC

## DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

---

## DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008851181

#### 1. CHECK FRONT POWER WINDOW MOTOR LH

---

Check front power window motor LH.

Refer to [PWC-104, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

# FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008851182

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

Check power window and door lock/unlock switch RH.

Refer to [PWC-99, "FRONT POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK CIRCUIT

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

Refer to [PWC-120, "FRONT POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit.

Refer to [PWC-106, "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

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PWC

# REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

---

## REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008851183

#### 1. CHECK REAR POWER WINDOW SWITCH LH

---

Check rear power window switch LH.

Refer to [PWC-101, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK REAR POWER WINDOW MOTOR LH

---

Check rear power window motor LH.

Refer to [PWC-107, "REAR LH : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

# REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008851184

#### 1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to [PWC-101, "REAR POWER WINDOW SWITCH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-109, "REAR RH : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

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PWC

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

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

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

### Diagnosis Procedure

INFOID:000000008851185

#### 1. PERFORM INITIALIZATION PROCEDURE

---

Perform initialization procedure.

Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK DOOR WINDOW SLIDING PART

---

- A foreign material adheres to window glass or glass run rubber.
- Glass run rubber wear or deformation.
- Sash is tilted too much or not enough.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CHECK ENCODER CIRCUIT

---

Check encoder circuit.

Refer to [PWC-111, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.



**ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)**  
< SYMPTOM DIAGNOSIS > **[LH & RH FRONT AUTO UP/DOWN]**

**ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)**

Diagnosis Procedure

INFOID:000000008851186

**1. PERFORM INITIALIZATION PROCEDURE**

Perform initialization procedure.  
Refer to [PWC-93. "Work Procedure"](#).

Is the inspection result normal?

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

**2. CHECK DOOR WINDOW SLIDING PART**

- A foreign material adheres to window glass or glass run rubber.
- Glass run rubber wear or deformation.
- Sash is tilted too much or not enough.

Is the inspection result normal?

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

**3. CHECK ENCODER CIRCUIT**

Check encoder circuit.  
Refer to [PWC-113. "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-49. "Intermittent Incident"](#).
- NO >> Repair or replace the malfunctioning parts.

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PWC

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

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

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

### Diagnosis Procedure

INFOID:000000008851187

#### 1. PERFORM INITIALIZATION PROCEDURE

---

Perform initialization procedure.

Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK ENCODER

---

Check encoder.

Refer to [PWC-111, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (PASSENGER SIDE)

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (PASSENGER SIDE)

### Diagnosis Procedure

INFOID:000000008851188

#### 1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2. CHECK ENCODER

Check encoder.

Refer to [PWC-113, "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

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PWC

# POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

### Diagnosis Procedure

INFOID:000000008851189

#### 1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to [PWC-116, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning parts.

# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

### Diagnosis Procedure

INFOID:000000008851191

#### 1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to [PWC-93, "Work Procedure"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 2.

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

Check front door lock assembly LH (door key cylinder switch).

Refer to [DLK-189, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

#### 3. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49, "Intermittent Incident"](#).

NO >> GO TO 1.

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PWC

# KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

---

## KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

### Diagnosis Procedure

INFOID:000000008851192

#### 1. CHECK INTELLIGENT KEY FUNCTION

---

Check Intelligent Key function.

Refer to [DLK-201. "Component Function Check"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-49. "Intermittent Incident"](#).

NO >> Replace BCM. Refer to [BCS-78. "Removal and Installation"](#).

# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

### Diagnosis Procedure

INFOID:000000008851190

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

Replace main power window and door lock/unlock switch.

Refer to [PWC-137. "Removal and Installation"](#). After that, [PWC-93. "Work Procedure"](#).

>> INSPECTION END

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PWC

# POWER WINDOW SWITCH DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

[LH & RH FRONT AUTO UP/DOWN]

## POWER WINDOW SWITCH DOES NOT ILLUMINATE

### DRIVER SIDE

#### DRIVER SIDE : Diagnosis Procedure

INFOID:000000008931692

#### 1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

Refer to [PWC-137. "Removal and Installation"](#).

>> Inspection End.

### PASSENGER SIDE

#### PASSENGER SIDE : Diagnosis Procedure

INFOID:000000008931693

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

Replace power window and door lock/unlock switch RH.

Refer to [PWC-138. "Removal and Installation"](#).

>> Inspection End.

### REAR LH

#### REAR LH : Diagnosis Procedure

INFOID:000000008931694

#### 1. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to [PWC-139. "Removal and Installation"](#).

>> Inspection End.

### REAR RH

#### REAR RH : Diagnosis Procedure

INFOID:000000008931695

#### 1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to [PWC-139. "Removal and Installation"](#).

>> Inspection End.



# MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT AUTO UP/DOWN]

## REMOVAL AND INSTALLATION

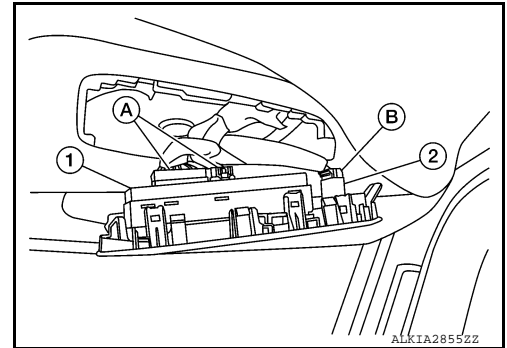
### MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

#### Removal and Installation

INFOID:000000008843975

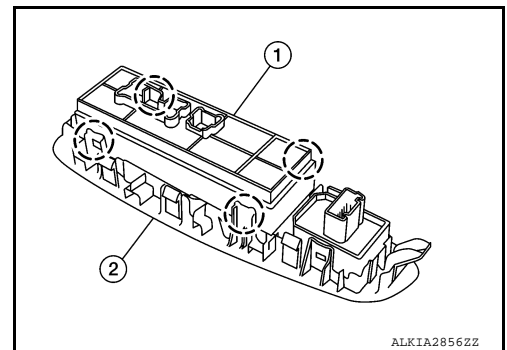
#### REMOVAL

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



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

⊖: Pawl



#### INSTALLATION

Installation is in the reverse order of removal.

#### NOTE:

When the main power window and door lock/unlock switch is removed or replaced, it is necessary to perform the initialization procedure. Refer to [PWC-89, "Work Flow"](#).

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PWC

# POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT AUTO UP/DOWN]

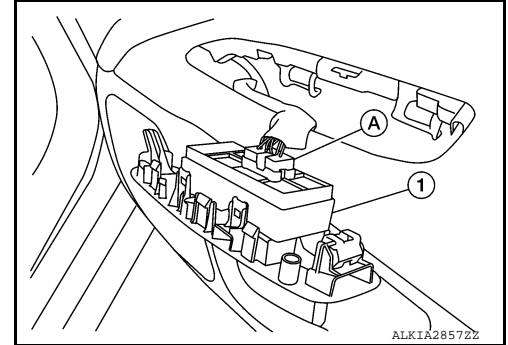
## POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

### Removal and Installation

INFOID:000000008843976

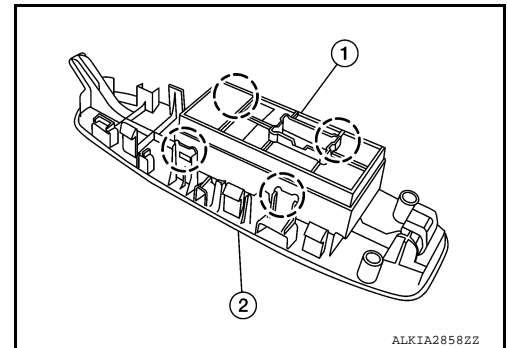
#### REMOVAL

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



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

○: Pawl



#### INSTALLATION

Installation is in the reverse order of removal.

# REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

[LH & RH FRONT AUTO UP/DOWN]

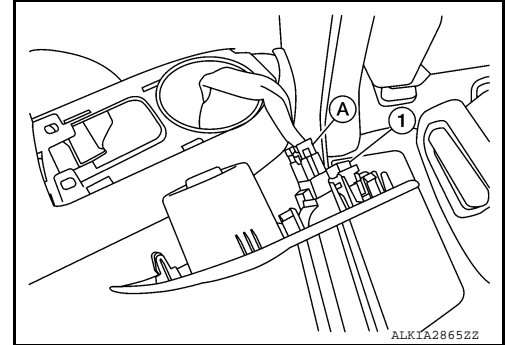
## REAR POWER WINDOW SWITCH

### Removal and Installation

INFOID:000000008843977

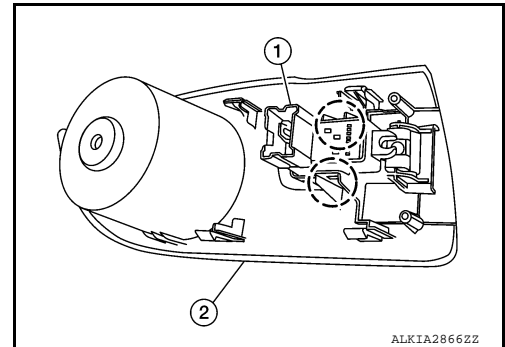
#### REMOVAL

1. Remove the rear door cup holder mat.
2. Remove the rear power window switch from the rear door finisher using a suitable tool.
3. Disconnect the harness connector (A) from the rear power window switch (1).



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

(○): Pawl



#### INSTALLATION

Installation is in the reverse order of removal.

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PWC