

SECTION **PWC**

POWER WINDOW CONTROL SYSTEM

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

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

INFOID:000000011537175

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

WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:000000011537176

- 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

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PREPARATION

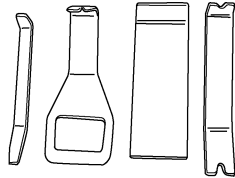
PREPARATION

Special Service Tool

INFOID:000000011537177

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

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



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COMPONENT PARTS

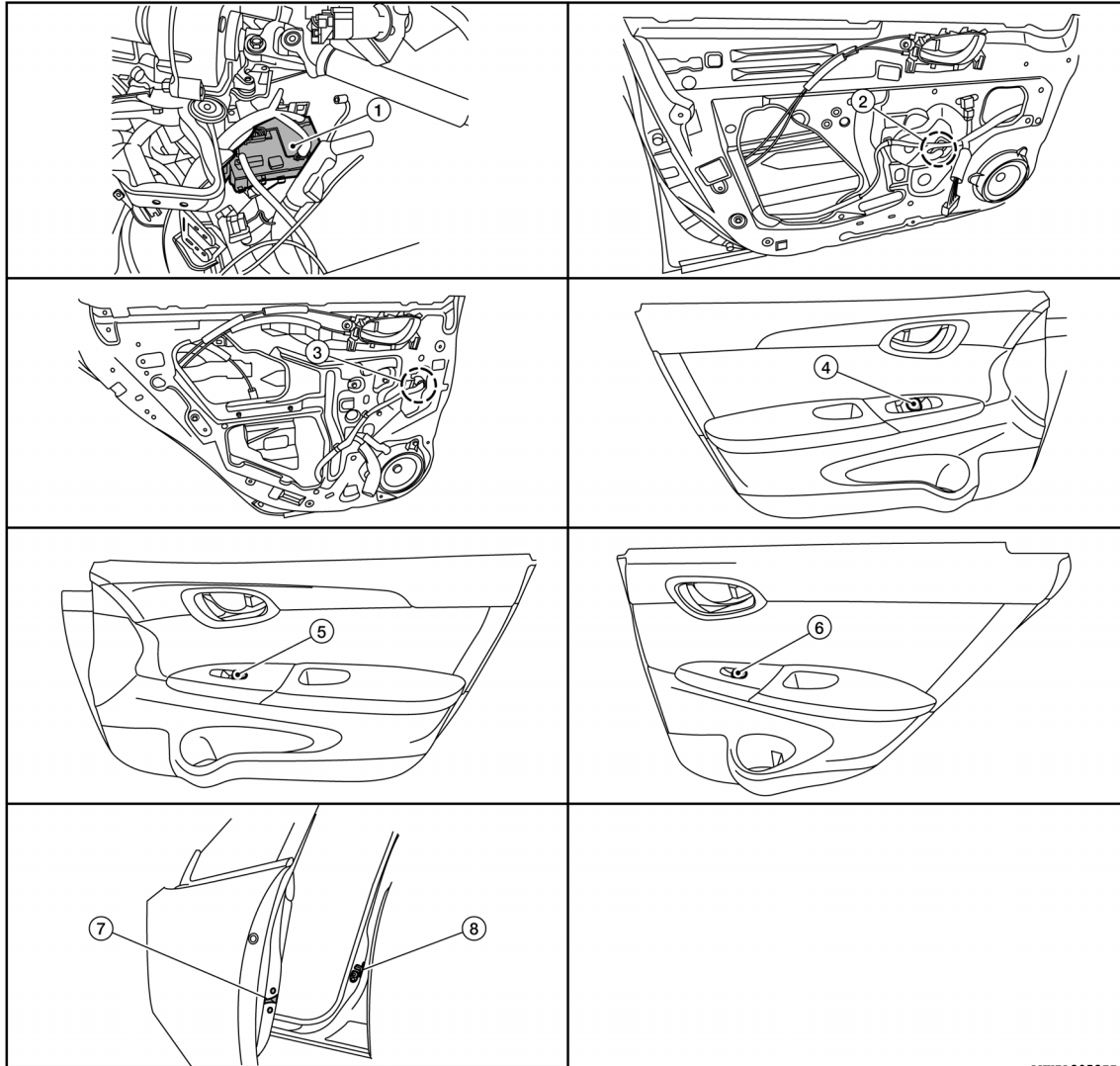
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000011537178



AWKIA2052ZZ

1. BCM (view under instrument panel on the left side of the vehicle)
2. Front power window motor LH (RH similar) (view with front door finisher removed)
3. Rear power window motor LH (RH similar) (view with rear door finisher removed)
4. Main power window and door lock/unlock switch
5. Power window and door lock/unlock switch RH
6. Rear power window switch RH (LH similar)
7. Front door lock assembly LH (key cylinder switch)
8. Front door switch LH (RH similar)

Component Description

INFOID:0000000011537179

FRONT POWER WINDOW LH ANTI-PINCH SYSTEM

COMPONENT PARTS

< SYSTEM DESCRIPTION >

| Component | Function |
|---|--|
| BCM | <ul style="list-style-type: none"> • Supplies power to power window switches. • Controls retained power. |
| Front power window motor LH | <ul style="list-style-type: none"> • Integrates the ENCODER POWER and WINDOW MOTOR. • Starts operating with signals from main power window and door lock/unlock switch. • Transmits power window motor rotation as a pulse signal to main power window and door lock/unlock switch. |
| Front power window motor RH | Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH. |
| Main power window and door lock/unlock switch | <ul style="list-style-type: none"> • Directly controls all power window motor of all doors. • Controls anti-pinch operation of front power window LH. |
| Power window and door lock/unlock switch RH | Controls front power window motor RH. |
| Rear power window switch | Controls rear power window motors LH and RH. |
| Rear power window motor | Starts operating with signals from main power window and door lock/unlock switch & rear power window switch. |
| Front door switch LH or RH | Detects door open/close condition and transmits to BCM. |

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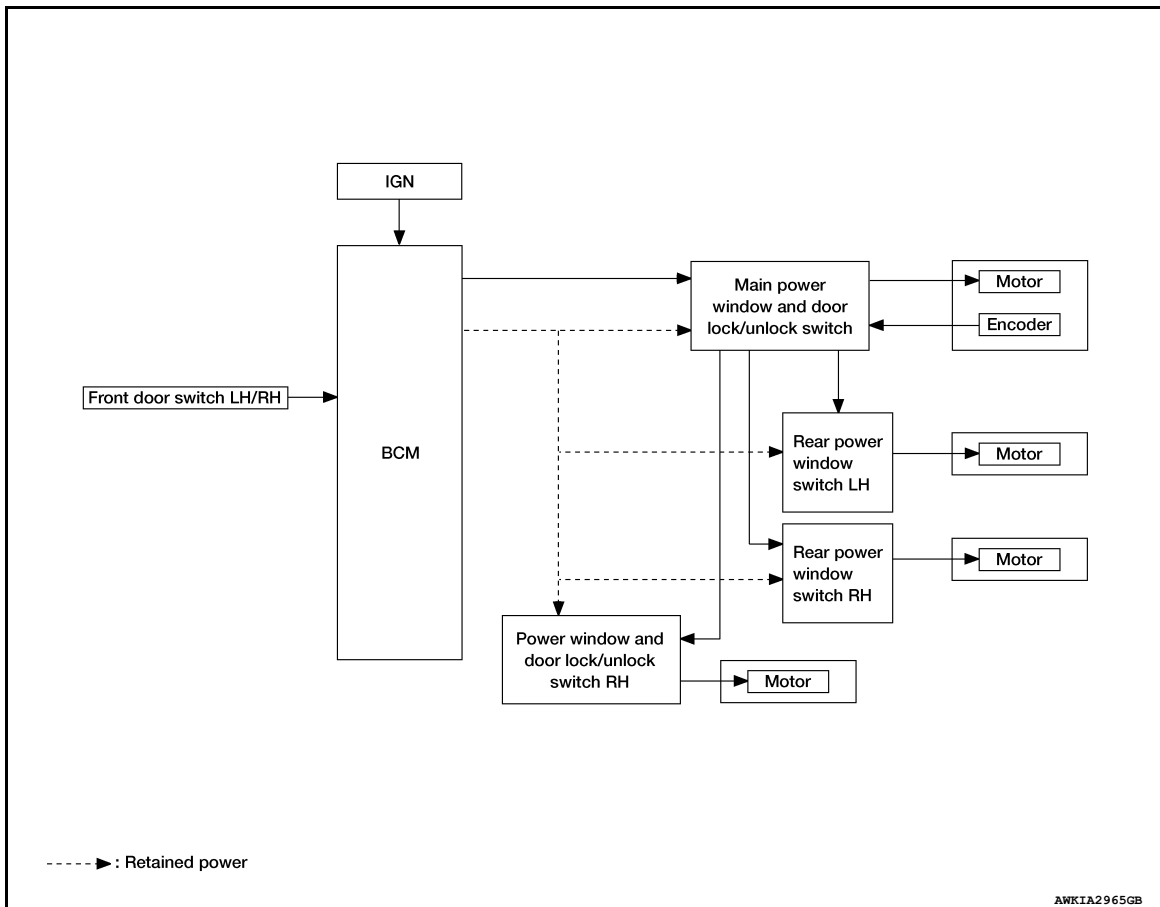
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SYSTEM

System Diagram

INFOID:000000011537180

FRONT POWER WINDOW LH ANTI-PINCH SYSTEM



System Description

INFOID:000000011537181

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH INPUT/OUTPUT SIGNAL CHART

| Item | Input signal to main power window and door lock/unlock switch | Main power window and door lock/unlock switch function | Actuator |
|---|---|--|--------------------------|
| Encoder | Encoder pulse signal | Power window control | Front power window motor |
| Main power window and door lock/unlock switch | Front power window motor LH UP/DOWN signal | | |
| Power window and door lock/unlock switch RH | Front power window motor RH UP/DOWN signal | | |
| BCM | RAP signal | | |
| Rear power window switch | Rear power window motor UP/DOWN signal | | Rear power window motor |

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 is turned OFF.
- Main power window and door lock/unlock switch can open/close all windows.
- Front & rear power window switches can open/close the corresponding windows.
- Power window lock switch can lock all power windows other than driver seat.

SYSTEM

< SYSTEM DESCRIPTION >

- If door glass receives resistance that is more than the specified value and the power window is in the AUTO-UP operation (Front LH), power window will move in the reverse direction (Anti-Pinch Function).

POWER WINDOW AUTO-OPERATION (FRONT LH)

- AUTO UP/DOWN operation can be performed when main power window and door lock/unlock switch turns to AUTO.
- Encoder continues detecting the movement of power window motor and transmits to main power window and door lock/unlock switch as the encoder pulse signal while power window motor is operating.
- Main power window and door lock/unlock switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case encoder is malfunctioning.

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.
- When timer time passes. (45 seconds)
- AUTO function does not operate if encoder is malfunctioning.

POWER WINDOW LOCK FUNCTION

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

ANTI-PINCH OPERATION (FRONT LH)

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

OPERATION CONDITION

- When 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.

Fail-safe

INFOID:000000011537182

FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in the 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. |

SYSTEM

< SYSTEM DESCRIPTION >

| Malfunction | Malfunction condition |
|---|---|
| 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.

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000011897346

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"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM. |
| CAN DIAG SUPPORT MNTR | The result of transmit/receive diagnosis of CAN communication is displayed. |

SYSTEM APPLICATION

BCM can perform the following functions.

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

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000011897745

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. |

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011897746

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"> The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM. |
| CAN DIAG SUPPORT MNTR | The result of transmit/receive diagnosis of CAN communication is displayed. |

SYSTEM APPLICATION

BCM can perform the following functions.

| System | Sub System | Direct Diagnostic Mode | | | | | | |
|--------------------------------------|----------------------|------------------------|------------------------|--------------|-------------|--------------|---------------|-----------------------|
| | | ECU Identification | Self Diagnostic Result | Data Monitor | Active Test | Work support | Configuration | CAN DIAG SUPPORT MNTR |
| Door lock | DOOR LOCK | | | x | x | x | | |
| Rear window defogger | REAR DEFOGGER | | | x | x | | | |
| Warning chime | BUZZER | | | x | x | | | |
| Interior room lamp timer | INT LAMP | | | x | x | x | | |
| Remote keyless entry system | MULTI REMOTE ENT | | | x | x | x | | |
| Exterior lamp | HEAD LAMP | | | x | x | x | | |
| Wiper and washer | WIPER | | | x | x | x | | |
| Turn signal and hazard warning lamps | FLASHER | | | x | x | | | |
| Air conditioner | AIR CONDITIONER | | | x | | | | |
| Combination switch | COMB SW | | | x | | | | |
| BCM | BCM | x | x | | | x | x | x |
| Immobilizer | IMMU | | x | | x | x | | |
| Interior room lamp battery saver | BATTERY SAVER | | | x | x | x | | |
| Trunk open | TRUNK | | | x | | | | |
| RAP system | RETAINED PWR | | | x | | x | | |
| Signal buffer system | SIGNAL BUFFER | | | x | | | | |
| TPMS | AIR PRESSURE MONITOR | | x | x | x | x | | |
| Panic alarm system | PANIC ALARM | | | | x | | | |

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000011897747

DATA MONITOR

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

WORK SUPPORT

| Support Item | Setting | Description |
|------------------|---------|-------------|
| RETAINED PWR SET | MODE3 | 2 min |
| | MODE2 | OFF |
| | MODE1* | 45 sec |

*: Initial setting

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

List of ECU Reference

INFOID:0000000011537187

WITH INTELLIGENT KEY SYSTEM

| ECU | Reference |
|-----|---|
| BCM | BCS-29. "Reference Value" |
| | BCS-46. "Fail-safe" |
| | BCS-48. "DTC Inspection Priority Chart" |
| | BCS-49. "DTC Index" |

WITHOUT INTELLIGENT KEY SYSTEM

| ECU | Reference |
|-----|--|
| BCM | BCS-101. "Reference Value" |
| | BCS-112. "Fail-safe" |
| | BCS-113. "DTC Inspection Priority Chart" |
| | BCS-113. "DTC Index" |

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POWER WINDOW MAIN SWITCH

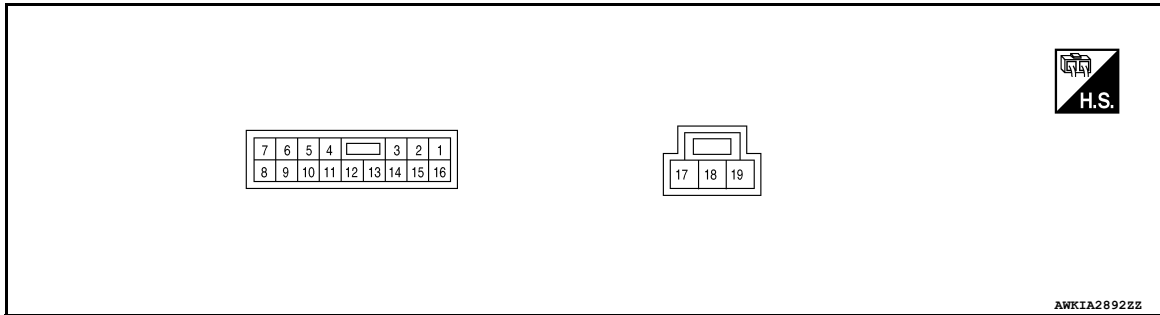
< ECU DIAGNOSIS INFORMATION >

POWER WINDOW MAIN SWITCH

Reference Value

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TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

| Terminal No. (Wire color) | | Description | | Condition | Voltage (V) |
|------------------------------|--------|---|------------------|---|---|
| + | - | Signal name | Input/ Output | | |
| 1 (B) | Ground | Ground | — | — | 0 – 1 |
| 2 (GR) | Ground | Front power window motor (passenger side) DOWN signal | Output | When front RH switch in power window main switch is DOWN at operated. | Battery voltage |
| 4 (P) | Ground | Encoder pulse signal 2 | Input | When front power window motor (driver side) operates. | <p style="text-align: right; font-size: small;">JMKIA0070GB</p> |
| 5 (W) | Ground | Encoder pulse signal 1 | Input | When front power window motor (driver side) operates. | <p style="text-align: right; font-size: small;">JMKIA0070GB</p> |
| 6 (P) | Ground | Rear power window motor RH DOWN signal | Output | When rear RH switch in power window main switch is DOWN at operated. | Battery voltage |
| 7 (LG) | Ground | Rear power window motor RH UP signal | Output | When rear RH switch in power window main switch is UP at operated. | Battery voltage |
| 8 (Y) | Ground | Rear power window motor LH DOWN signal | Output | When rear LH switch in power window main switch is DOWN at operated. | Battery voltage |
| 9 (G) | Ground | Rear power window motor LH UP signal | Output | When rear LH switch in power window main switch is UP at operated. | Battery voltage |

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

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

Fail Safe

INFOID:000000011537189

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. |

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

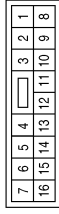
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window main switch or front power window motor (driver side).

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

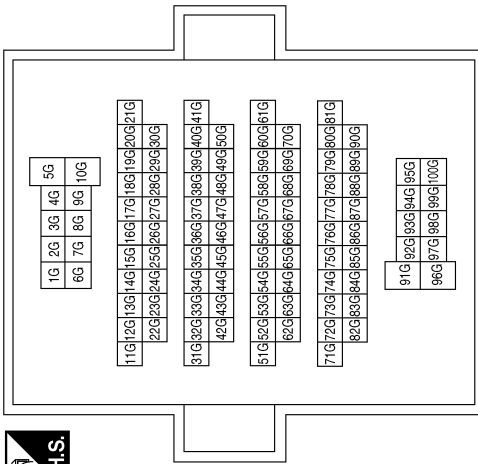
POWER WINDOW SYSTEM CONNECTORS

| | |
|-----------------|--------------|
| Connector No. | M5 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |

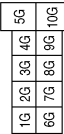


| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | Y | - |
| 13 | LG | - |
| 14 | L | - |

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

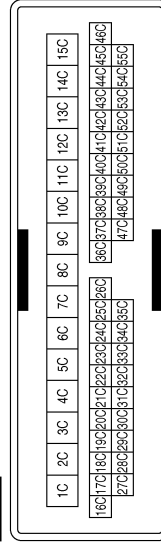


| | |
|-----------------|--------------|
| Connector No. | M2 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 7C | R | - |
| 8C | P | - |
| 9C | LG | - |
| 10C | Y | - |
| 11C | W | - |
| 12C | BR | - |
| 13C | B | - |
| 14C | L | - |
| 15C | G | - |

| | |
|-----------------|--------------|
| Connector No. | M13 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| | |
|-----------------|--------------|
| Connector No. | M8 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | R | - |
| 5 | P | - |
| 11 | L | - |

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POWER WINDOW SYSTEM

< WIRING DIAGRAM >

| | |
|-----------------|--|
| Connector No. | M20 |
| Connector Name | BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM) |
| Connector Color | WHITE |

| | | | | | | | | |
|----|----|----|----|----|----|----|----|----|
| 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 |
| 70 | 69 | 68 | 67 | 66 | 65 | | | |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------------------------------|
| 63 | O | BATTERY (FUSE) |
| 65 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (RAP) |
| 69 | G | POWER WINDOW POWER SUPPLY (BATTERY) |
| 70 | Y | BATTERY (F/L) |

| | |
|-----------------|--------------|
| Connector No. | M74 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1A | 2A | 3A | 4A | 5A | 6A | 7A | 8A | 9A | 10A | 11A | 12A | 13A | 14A | 15A |
| 16A | 17A | 18A | 19A | 20A | 21A | 22A | 23A | 24A | 25A | 26A | 27A | 28A | 29A | 30A |
| 31A | 32A | 33A | 34A | 35A | 36A | 37A | 38A | 39A | 40A | 41A | 42A | 43A | 44A | 45A |
| 46A | 47A | 48A | 49A | 50A | 51A | 52A | 53A | 54A | 55A | | | | | |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 12A | B | - |
| 13A | W | - |
| 14A | BR | - |
| 15A | L | - |

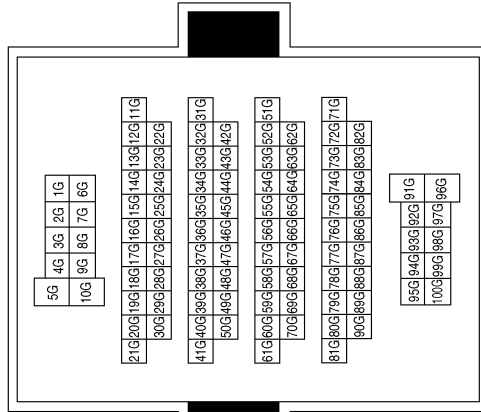
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|-----------------|---|
| Connector No. | M85 |
| Connector Name | BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM) |
| Connector Color | WHITE |

| | | | | | | | | |
|----|----|----|----|----|----|----|----|----|
| 80 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 |
| 95 | 94 | 93 | 92 | 91 | 90 | | | |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------------------------------|
| 88 | O | BATTERY (FUSE) |
| 90 | Y | BATTERY (F/L) |
| 91 | G | POWER WINDOW POWER SUPPLY (BATTERY) |
| 92 | L | POWER WINDOW POWER SUPPLY (RAP) |
| 93 | B | GND (POWER) |

| | |
|-----------------|--------------|
| Connector No. | E4 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| | |
|-----------------|--------------|
| Connector No. | B4 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



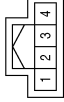
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|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | | | | | |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | Y | - |
| 13 | R | - |
| 14 | L | - |

POWER WINDOW SYSTEM

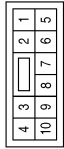
< WIRING DIAGRAM >

| | |
|-----------------|----------------------|
| Connector No. | B21 |
| Connector Name | FRONT DOOR SWITCH LH |
| Connector Color | WHITE |



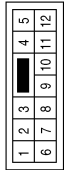
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | Y | - |

| | |
|-----------------|--------------|
| Connector No. | B20 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | L | - |
| 9 | BR | - |
| 10 | P | - |

| | |
|-----------------|--------------|
| Connector No. | B8 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



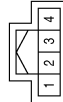
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | BR | - |
| 5 | P | - |
| 11 | L | - |

| | |
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| Connector No. | B31 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



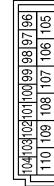
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | L | - |
| 9 | R | - |
| 10 | Y | - |

| | |
|-----------------|----------------------|
| Connector No. | B28 |
| Connector Name | FRONT DOOR SWITCH RH |
| Connector Color | WHITE |



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

| | |
|-----------------|---|
| Connector No. | B24 |
| Connector Name | BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM) |
| Connector Color | BLACK |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 98 | Y | DOOR SW (DR) |
| 100 | R | DOOR SW (AS) |

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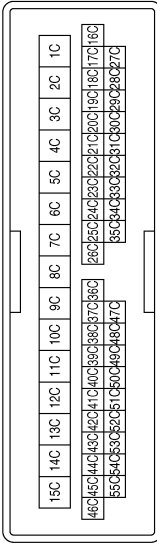
PWC

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 9C | LG | - |
| 10C | P | - |
| 11C | V | - |
| 12C | GR | - |
| 13C | B | - |
| 14C | SB | - |
| 15C | R | - |

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



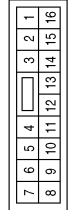
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 7C | G | - |
| 8C | Y | - |

| Connector No. | B57 |
|-----------------|--|
| Connector Name | BCM (BODY CONTROL MODULE) (WITHOUT INTELLIGENT KEY SYSTEM) |
| Connector Color | BLACK |



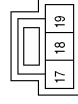
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 45 | R | DOOR SW (AS) |
| 46 | Y | DOOR SW (DR) |

| Connector No. | D5 |
|-----------------|---|
| Connector Name | MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 1 | B | GND |
| 2 | GR | MOTOR AS DOWN |
| 4 | P | ENCODER SIG-2 |
| 5 | W | ENCODER SIG-1 |
| 6 | P | MOTOR RR DOWN |
| 7 | LG | MOTOR RR UP |
| 8 | Y | MOTOR RL DOWN |
| 9 | G | MOTOR RL UP |
| 10 | SB | IGN |
| 12 | LG | ENCODER GND |
| 14 | G | ENCODER + |
| 16 | V | MOTOR AS UP |

| Connector No. | D11 |
|-----------------|---|
| Connector Name | MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 17 | O | MOTOR DR UP |
| 18 | R | BAT (BCM) |
| 19 | GR | MOTOR DR DOWN |

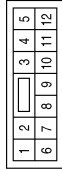
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POWER WINDOW SYSTEM

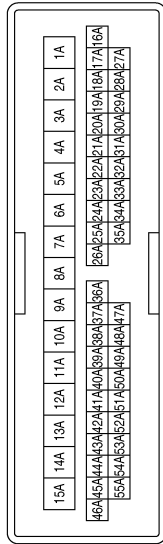
< WIRING DIAGRAM >

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 7 | R | - |
| 8 | L | - |
| 11 | GR | - |
| 12 | V | - |

| Connector No. | D104 |
|-----------------|---|
| Connector Name | POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH |
| Connector Color | WHITE |



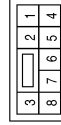
| Connector No. | D101 |
|-----------------|--------------|
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | B | - |
| 6 | O | - |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 12A | B | - |
| 13A | V | - |
| 14A | GR | - |
| 15A | L | - |

| Connector No. | D203 |
|-----------------|-----------------------------|
| Connector Name | REAR POWER WINDOW SWITCH LH |
| Connector Color | WHITE |



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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | BR | - |
| 5 | R | - |
| 6 | L | - |
| 7 | Y | - |
| 8 | G | - |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | L | - |
| 9 | BR | - |
| 10 | Y | - |

| Connector No. | D105 |
|-----------------|-----------------------------|
| Connector Name | FRONT POWER WINDOW MOTOR RH |
| Connector Color | GREEN |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | O | - |
| 3 | R | - |

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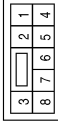
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POWER WINDOW SYSTEM

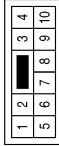
< WIRING DIAGRAM >

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| Connector No. | D303 |
| Connector Name | REAR POWER WINDOW SWITCH RH |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | BR | - |
| 5 | R | - |
| 6 | L | - |
| 7 | Y | - |
| 8 | G | - |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4 | L | - |
| 9 | BR | - |
| 10 | Y | - |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | R | - |
| 3 | G | - |

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



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | R | - |
| 3 | G | - |

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

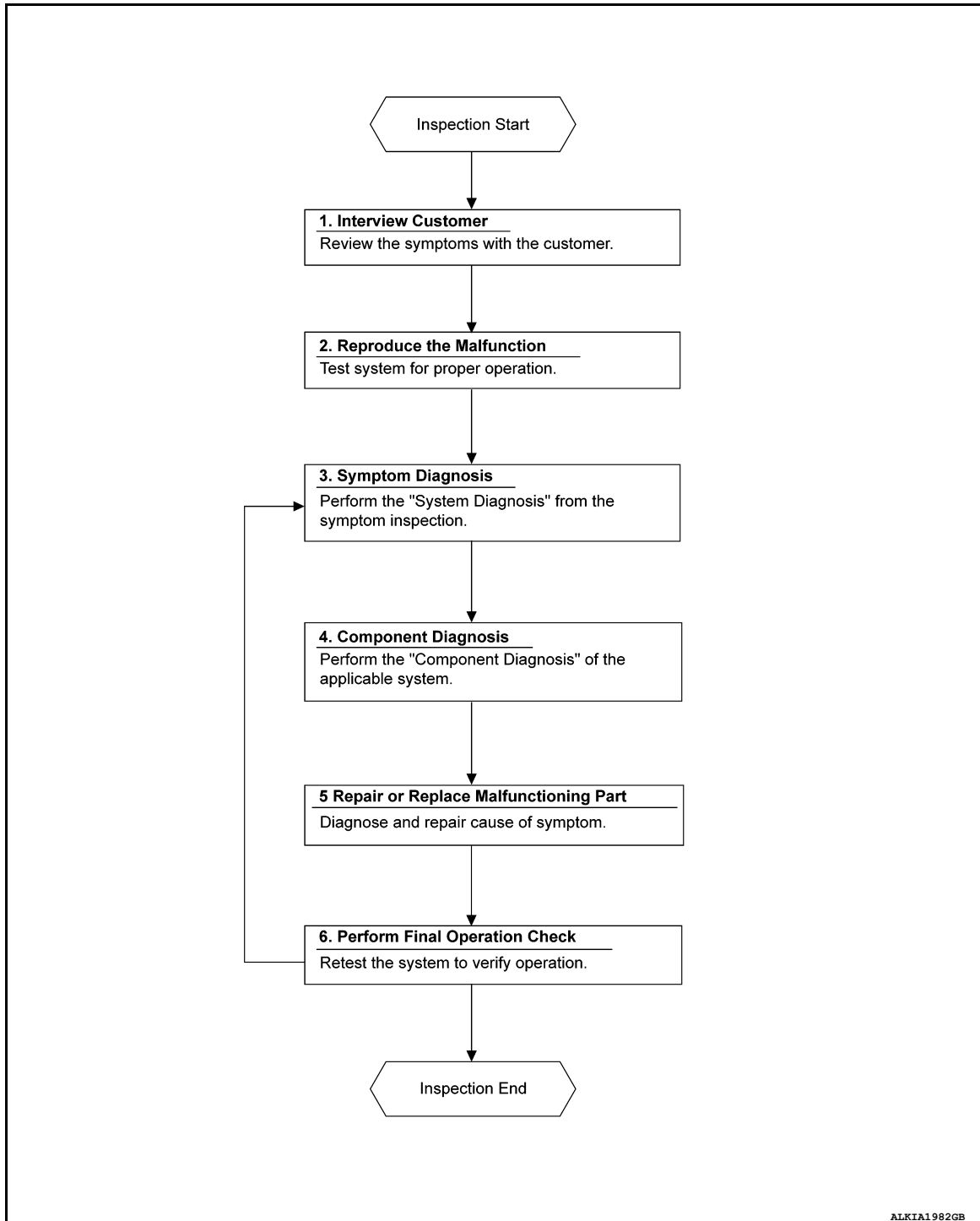
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000011537191

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.

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

>> 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

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

Description

INFOID:0000000011537192

When the battery negative 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:0000000011537193

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to [PWC-29. "Work Procedure"](#).

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to [PWC-30. "Work Procedure"](#).

>> END

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ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN SWITCH

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MAIN SWITCH

Description

INFOID:000000011537194

When the power window main switch is replaced, 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:000000011537195

1.SYSTEM INITIALIZATION

Perform system initialization. Refer to [PWC-29. "Work Procedure"](#).

>> GO TO 2.

2.CHECK ANTI-PINCH FUNCTION

Check anti-pinch function. Refer to [PWC-30. "Work Procedure"](#).

>> END

SYSTEM INITIALIZATION

< BASIC INSPECTION >

SYSTEM INITIALIZATION

Description

INFOID:0000000011537196

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

- Disconnection and connection of battery cable from negative terminal.
- When power window main switch replaced.
- Electric power supply to power window main switch or power window motor (driver side) is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc.
- Disconnection and connection of power window main switch harness connector.
- Removal of power window motor (driver side) from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of glass.
- Removal and installation of door glass run.

CAUTION:

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

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

Work Procedure

INFOID:0000000011537197

1. STEP 1

1. Turn ignition switch ON.
2. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
3. Operate the power window switch in the UP position (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 2 seconds or more.
4. Release the switch and check that AUTO-UP function operates normally.

>> GO TO 2.

2. STEP 2

Check anti-pinch function. Refer to [PWC-30. "Work Procedure"](#).

>> END

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ANTI-PINCH INSPECTION

< BASIC INSPECTION >

ANTI-PINCH INSPECTION

Description

INFOID:000000011537198

If any of the following operations are performed, the initialization is necessary for normal operation of anti-pinch function.

- Disconnection and connection of battery cable from negative terminal.
- When power window main switch replaced.
- Electric power supply to power window main switch or power window motor (driver side) is interrupted by blown fuse or disconnection and connection of the negative terminal of battery, etc.
- Disconnection and connection of power window main switch harness connector.
- Removal of power window motor (driver side) from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of glass.
- Removal and installation of door glass run.

Work Procedure

INFOID:000000011537199

1. CHECK ANTI-PINCH FUNCTION

1. Fully open the door window.
2. Place a piece of wood near fully closed position.
3. Close door glass completely with AUTO-UP.
4. 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.**

>> END

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM)

BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:000000011897751

Regarding Wiring Diagram information, refer to [BCS-51, "Wiring Diagram"](#).

1. CHECK FUSES AND FUSIBLE LINK

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

| Terminal No. | Signal name | Fuses and fusible link No. |
|--------------|----------------------|----------------------------|
| 88 | Battery power supply | 12 (10A) |
| 90 | | G (40A) |

Is the fuse 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 M85.
2. Check voltage between BCM connector M85 and ground.

| BCM | | Ground | Voltage |
|-----------|----------|--------|-----------------|
| Connector | Terminal | | |
| M85 | 88 | — | Battery voltage |
| | 90 | | |

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M85 and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M85 | 93 | — | Yes |

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair harness or connector.

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM)

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:000000011897754

Regarding Wiring Diagram information, refer to [BCS-115, "Wiring Diagram"](#).

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POWER SUPPLY AND GROUND CIRCUIT

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1. CHECK FUSES AND FUSIBLE LINK

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

| Terminal No. | Signal name | Fuses and fusible link No. |
|--------------|---------------------------|----------------------------|
| 63 | Battery power supply | 12 (10A) |
| 70 | | G (40A) |
| 11 | Ignition switch ACC or ON | 18 (10A) |

Is the fuse blown?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connectors.
3. Check voltage between BCM connector and ground.

| BCM | | Ground | Ignition switch position | | |
|-----------|----------|--------|--------------------------|-----------------|-----------------|
| Connector | Terminal | | OFF | ACC | ON |
| M20 | 63 | — | Battery voltage | Battery voltage | Battery voltage |
| | 70 | | 0 V | Battery voltage | Battery voltage |
| M21 | 11 | — | 0 V | Battery voltage | Battery voltage |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M20 | 65 | — | Yes |

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000011537202

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

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000011537203

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-33. "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000011537204

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram"](#).

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 D5, D11 and ground.

| Terminal | | Voltage (Approx.) |
|---|----------|----------------------|
| (+) | (-) | |
| Main power window and door lock/unlock switch | Terminal | Ground |
| D5 | 10 | |
| D11 | 18 | |
| | | Battery voltage |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM, 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.

With Intelligent Key system

| BCM connector | Terminal | Main power window and door lock/unlock switch connector | Terminal | Continuity |
|---------------|----------|---|----------|------------|
| M85 | 92 | D5 | 10 | Yes |
| | 91 | D11 | 18 | |

Without Intelligent Key system

| BCM connector | Terminal | Main power window and door lock/unlock switch connector | Terminal | Continuity |
|---------------|----------|---|----------|------------|
| M20 | 68 | D5 | 10 | Yes |
| | 69 | D11 | 18 | |

4. Check continuity between BCM connector M85 or M20 and ground.

With Intelligent Key system

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M85 | 91 | | Ground |
| | 92 | | |

Without Intelligent Key system

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| M20 | 68 | | Ground |
| | 69 | | |

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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POWER SUPPLY AND GROUND CIRCUIT

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3. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D5 | 1 | | Yes |

Is the inspection result normal?

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

4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M85 or M20 and ground.

With Intelligent Key system

| Terminals | | | Voltage (Approx.) |
|---------------|----------|--------|-------------------|
| (+) | | (-) | |
| BCM connector | Terminal | | |
| M85 | 91 | Ground | Battery voltage |
| | 92 | | |

Without Intelligent Key system

| Terminals | | | Voltage (Approx.) |
|---------------|----------|--------|-------------------|
| (+) | | (-) | |
| BCM connector | Terminal | | |
| M20 | 68 | Ground | Battery voltage |
| | 69 | | |

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).
- NO >> Replace BCM. Refer to [BCS-76, "Removal and Installation"](#) (with Intelligent Key) or [BCS-133, "Removal and Installation"](#) (without Intelligent Key).

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 D5 and ground.

| Terminal | | Window switch position (rear LH) | Voltage (Approx.) |
|---|----------|----------------------------------|-------------------|
| (+) | | | |
| Main power window and door lock/unlock switch connector | Terminal | | |
| D5 | 9 | UP | Battery voltage |
| | | DOWN | 0 |
| | 8 | UP | 0 |
| | | DOWN | Battery voltage |

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-69, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

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 D5 and ground.

| Terminal | | (-) | Window switch position (rear RH) | Voltage (Approx.) |
|---|----------|--------|----------------------------------|-------------------|
| (+) | | | | |
| Main power window and door lock/unlock switch connector | Terminal | | | |
| D5 | 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-40, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-69, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

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 D11 and ground.

| Terminal | | (-) | Window switch position (front LH) | Voltage (Approx.) |
|---|----------|--------|-----------------------------------|-------------------|
| (+) | | | | |
| Main power window and door lock/unlock switch connector | Terminal | | | |
| D11 | 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-40, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-69, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

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 D5 and ground.

POWER SUPPLY AND GROUND CIRCUIT

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| Terminal | | (-) | Window switch position (front RH) | Voltage (Approx.) |
|----------|----------|--------|-----------------------------------|-------------------|
| (+) | Terminal | | | |
| D5 | 16 | Ground | UP | Battery voltage |
| | | | DOWN | 0 |
| | 2 | | UP | 0 |
| | | | DOWN | Battery voltage |

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

NO >> Replace main power window and door lock/unlock switch. Refer to [PWC-69, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:000000011537205

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

1. Check main power window and door lock/unlock switch D5.

| 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 D5 (power window lock switch) (Lock operation).

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

3. Check continuity between main power window and door lock/unlock switch D5 (power window lock switch) (Unlock operation).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

| Terminal | Main power window and door lock/unlock switch condition | Continuity |
|----------|---|------------|
| 8 | Rear LH | UP |
| 6 | Rear RH | |
| 2 | Front RH | |
| 8 | Rear LH | NEUTRAL |
| 9 | Rear RH | |
| 7 | Front RH | |
| 6 | Front RH | DOWN |
| 2 | Rear LH | |
| 16 | Rear RH | |
| 9 | Front RH | |
| 7 | Rear LH | |
| 16 | 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-69, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

POWER WINDOW MAIN SWITCH : Special Repair Requirement

INFOID:000000011537206

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-29, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-30, "Work Procedure"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [PWC-32, "POWER WINDOW MAIN SWITCH : Component Function Check"](#).

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

INFOID:000000011537207

- 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:000000011537208

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-37, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000011537209

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram"](#).

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 D104 and ground.

| Terminal | | Voltage (Approx.) |
|---|----------|----------------------|
| (+) | (-) | |
| Power window and door lock/unlock switch RH connector | Terminal | |
| D104 | 8 | Battery voltage |

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
3. Check continuity between BCM connector M85 or M20 and power window and door lock/unlock switch RH connector D104.

With Intelligent Key system

| BCM connector | Terminal | Power window and door lock/unlock switch RH connector | Terminal | Continuity |
|---------------|----------|---|----------|------------|
| M85 | 92 | D104 | 8 | Yes |

Without Intelligent Key system

| BCM connector | Terminal | Power window and door lock/unlock switch RH connector | Terminal | Continuity |
|---------------|----------|---|----------|------------|
| M20 | 68 | D104 | 8 | Yes |

4. Check continuity between BCM connector M85 or M20 and ground.

| BCM | | Ground | Continuity |
|--------------------------------------|----------|--------|------------|
| Connector | Terminal | | |
| M85 (with Intelligent Key system) | 92 | | No |
| M20 (without Intelligent Key system) | 68 | | |

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 D5 and power window and door lock/unlock switch RH connector D104.

| Main power window and door lock/unlock switch connector | Terminal | Power window and door lock/unlock switch RH connector | Terminal | Continuity |
|---|----------|---|----------|------------|
| D5 | 2 | D104 | 11 | Yes |
| | 16 | | 12 | |

4. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

POWER SUPPLY AND GROUND CIRCUIT

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| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D5 | 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 M85 or M20 and ground.

| BCM | | Ground | Voltage (Approx.) |
|--------------------------------------|----------|--------|-------------------|
| Connector | Terminal | | Battery voltage |
| M85 (with Intelligent Key system) | 92 | | |
| M20 (without Intelligent Key system) | 68 | | |

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

NO >> Replace BCM. Refer to [BCS-76, "Removal and Installation"](#) (with Intelligent Key) or [BCS-133, "Removal and Installation"](#) (without Intelligent Key).

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

Check power window and door lock/unlock switch RH.

Refer to [PWC-39, "FRONT POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

NO >> Replace power window and door lock/unlock switch RH. Refer to [PWC-70, "Removal and Installation"](#).

FRONT POWER WINDOW SWITCH : Component Inspection

INFOID:000000011537210

PWC

COMPONENT INSPECTION

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

Check power window and door lock/unlock switch RH D104.

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

Is the inspection result normal?

YES >> Power window and door lock/unlock switch RH is OK.

NO >> Replace power window and door lock/unlock switch RH. Refer to [PWC-70, "Removal and Installation"](#).

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Description

INFOID:000000011537211

- BCM supplies power.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- 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:000000011537212

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-40. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000011537213

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram"](#).

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 D203 or D303 and ground.

| Terminal | | Terminal | Condition | Voltage (Approx.) |
|------------------------------------|------|----------|-----------|--------------------|
| (+) | | | | |
| Rear power window switch connector | | 6 | Ground | Ignition switch ON |
| LH | D203 | | | |
| RH | D303 | | | |

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 D5 and rear power window switch LH connector D203.

| Main power window and door lock/unlock switch connector | Terminal | Rear power window switch LH connector | Terminal | Continuity |
|---|----------|---------------------------------------|----------|------------|
| D5 | 8 | D203 | 7 | Yes |
| | 9 | | 4 | |

4. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D5 | 8 | Ground | No |
| | 9 | | |

Is the inspection result normal?

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

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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 D5 and rear power window switch RH connector D303.

| Main power window and door lock/unlock switch connector | Terminal | Rear power window switch RH connector | Terminal | Continuity |
|---|----------|---------------------------------------|----------|------------|
| D5 | 6 | D303 | 7 | Yes |
| | 7 | | 4 | |

4. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D5 | 6 | | No |
| | 7 | | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the harness or connectors.

4. CHECK HARNESS CONTINUITY

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

With Intelligent Key system

| BCM connector | Terminal | Rear power window switch connector | | Terminal | Continuity |
|---------------|----------|------------------------------------|------|----------|------------|
| M85 | 92 | LH | D203 | 6 | Yes |
| | | RH | D303 | | |

Without Intelligent Key system

| BCM connector | Terminal | Rear power window switch connector | | Terminal | Continuity |
|---------------|----------|------------------------------------|------|----------|------------|
| M20 | 68 | LH | D203 | 6 | Yes |
| | | RH | D303 | | |

3. Check continuity between BCM connector M85 or M20 and ground.

| BCM | | Ground | Continuity |
|--------------------------------------|----------|--------|------------|
| Connector | Terminal | | |
| M85 (with Intelligent Key system) | 92 | | No |
| M20 (without Intelligent Key system) | 68 | | |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-76. "Removal and Installation"](#) (with Intelligent Key) or [BCS-133. "Removal and Installation"](#) (without Intelligent Key).

NO >> Repair or replace harness or connectors.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-42. "REAR POWER WINDOW SWITCH : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

NO >> Replace rear power window switch. Refer to [PWC-71. "Removal and Installation"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

REAR POWER WINDOW SWITCH : Component Inspection

INFOID:000000011537214

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

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

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to [PWC-71. "Removal and Installation"](#).

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000011537215

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

DRIVER SIDE : Component Function Check

INFOID:0000000011537216

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-43, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000011537217

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram"](#).

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 D8 and ground.

| Terminal (+) | | Terminal (-) | Main power window and door lock/unlock switch condition | Voltage (Approx.) |
|---------------------------------------|----------|--------------|---|-------------------|
| Front power window motor LH connector | Terminal | | | |
| D8 | 1 | Ground | UP | Battery voltage |
| | | | DOWN | 0 |
| | 3 | | 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 D11 and front power window motor LH connector D8.

| Main power window and door lock/unlock switch connector | Terminal | Front power window motor LH connector | Terminal | Continuity |
|---|----------|---------------------------------------|----------|------------|
| D11 | 17 | D8 | 1 | Yes |
| | 19 | | 3 | |

4. Check continuity between main power window and door lock/unlock switch connector D11 and ground.

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D11 | 17 | | No |
| | 19 | | |

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-69, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to [PWC-44, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

NO >> Replace front power window motor LH. Refer to [GW-16, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

DRIVER SIDE : Component Inspection

INFOID:000000011537218

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to power window motor D8.

| Terminal | | Motor condition |
|----------|-----|-----------------|
| (+) | (-) | |
| 1 | 3 | UP |
| 3 | 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-16, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

DRIVER SIDE : Special Repair Requirement

INFOID:000000011537219

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-29, "Work Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to [PWC-30, "Work Procedure"](#).

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to [PWC-43, "DRIVER SIDE : Component Function Check"](#).

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000011537220

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 >

PASSENGER SIDE : Component Function Check

INFOID:000000011537221

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-45. "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000011537222

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram"](#).

Front Power Window Motor RH Circuit Check

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

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

| Terminal | | Front power window motor RH condition | Voltage (V) (Approx.) |
|---------------------------------------|----------|---------------------------------------|-----------------------|
| (+) | (-) | | |
| Front power window motor RH connector | Terminal | | |
| D105 | 3 | 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 power window and door lock/unlock switch RH.
3. Check continuity between power window and door lock/unlock switch RH connector D104 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 |
|---|----------|---------------------------------------|----------|------------|
| D104 | 6 | D105 | 1 | Yes |
| | 7 | | 3 | |

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

| Power window and door lock/unlock switch RH connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D104 | 6 | Ground | No |
| | 7 | | |

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to [PWC-70. "Removal and Installation"](#).
- NO >> Repair or replace the harness or connectors.

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to [PWC-46, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

NO >> Replace front power window motor RH. Refer to [GW-16, "Removal and Installation"](#).

PASSENGER SIDE : Component Inspection

INFOID:000000011537223

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 |
|----------|-----|-----------------|
| (+) | (-) | |
| 3 | 1 | UP |
| 1 | 3 | DOWN |

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace front power window motor RH. Refer to [GW-16, "Removal and Installation"](#).

REAR LH

REAR LH : Description

INFOID:000000011537224

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:000000011537225

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-46, "REAR LH : Diagnosis Procedure"](#)

REAR LH : Diagnosis Procedure

INFOID:000000011537226

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram"](#).

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.

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Terminal | | Window condition | Voltage (Approx.) |
|--------------------------------------|----------|------------------|-------------------|
| (+) | (-) | | |
| Rear power window motor LH connector | Terminal | | |
| D204 | 1 | UP | Battery voltage |
| | | DOWN | 0 |
| | 3 | UP | 0 |
| | | DOWN | Battery voltage |

Is the inspection result normal?

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

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect rear power window switch LH.
- Check continuity between rear power window switch LH connector D203 and rear power window motor LH connector D204.

| Rear power window switch LH connector | Terminal | Rear power window motor LH connector | Terminal | Continuity |
|---------------------------------------|----------|--------------------------------------|----------|------------|
| D203 | 5 | D204 | 1 | Yes |
| | 8 | | 3 | |

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

| Rear power window switch LH connector | Terminal | Ground | Continuity |
|---------------------------------------|----------|--------|------------|
| D203 | 5 | Ground | No |
| | 8 | | |

Is the inspection result normal?

- YES >> Replace rear power window switch LH. Refer to [PWC-71, "Removal and Installation"](#).
NO >> Repair or replace the harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to [PWC-47, "REAR LH : Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).
NO >> Replace rear power window motor LH. Refer to [GW-21, "Removal and Installation"](#).

REAR LH : Component Inspection

INFOID:0000000011537227

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 |
|----------|-----|-----------------|
| (+) | (-) | |
| 3 | 1 | DOWN |
| 1 | 3 | UP |

Is the inspection result normal?

- YES >> Rear power window motor LH is OK.
NO >> Replace rear power window motor LH. Refer to [GW-21, "Removal and Installation"](#).

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

REAR RH

REAR RH : Description

INFOID:000000011537228

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:000000011537229

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-48. "REAR RH : Diagnosis Procedure"](#).

REAR RH : Diagnosis Procedure

INFOID:000000011537230

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram"](#).

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 | 1 | UP | Battery voltage |
| | | DOWN | 0 |
| | 3 | 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 D303 and rear power window motor RH connector D304.

| Rear power window switch RH connector | Terminal | Rear power window motor RH connector | Terminal | Continuity |
|---------------------------------------|----------|--------------------------------------|----------|------------|
| D303 | 5 | D304 | 1 | Yes |
| | 8 | | 3 | |

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

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

| Rear power window switch RH connector | Terminal | Ground | Continuity |
|---------------------------------------|----------|--------|------------|
| D303 | 5 | | |
| | 8 | | |

Is the inspection result normal?

- YES >> Replace rear power window switch RH. Refer to [PWC-71, "Removal and Installation"](#).
 NO >> Repair or replace harness or connectors.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

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

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).
 NO >> Replace rear power window motor RH. Refer to [GW-21, "Removal and Installation"](#).

REAR RH : Component Inspection

INFOID:0000000011537231

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 |
|----------|-----|-----------------|
| (+) | (-) | |
| 3 | 1 | DOWN |
| 1 | 3 | UP |

Is the inspection result normal?

- YES >> Power window motor is OK.
 NO >> Replace rear power window motor RH. Refer to [GW-21, "Removal and Installation"](#).

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ENCODER

< DTC/CIRCUIT DIAGNOSIS >

ENCODER DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000011537232

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:0000000011537233

1. CHECK ENCODER OPERATION

Check front door glass LH perform AUTO open/close 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-50. "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000011537234

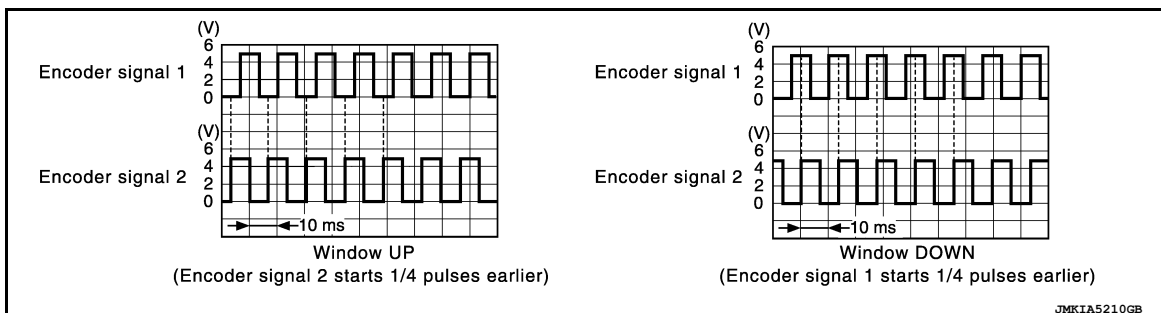
Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram"](#).

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 D5 and ground with oscilloscope.

| Terminals | | Signal (Reference value) |
|---|----------|-----------------------------|
| (+) | (-) | |
| Main power window and door lock/unlock switch connector | Terminal | Refer to following signal |
| D5 | 4 | |
| | 5 | |
| | Ground | |



Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-40. "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 D8 and ground.

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

| Terminal | | Voltage (Approx.) |
|---------------------------------------|----------|----------------------|
| (+) | (-) | |
| Front power window motor LH connector | Terminal | Battery voltage |
| D8 | 2 | |

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 D5 and front power window motor connector D8.

| Main power window and door lock/ unlock switch connector | Terminal | Front power window motor LH connector | Terminal | Continuity |
|---|----------|--|----------|------------|
| D5 | 14 | D8 | 2 | Yes |

4. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

| Main power window and door lock/unlock switch con- nector | Terminal | Ground | Continuity |
|--|----------|--------|------------|
| D5 | 14 | | No |

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-69, "Removal and Installation"](#). After that, refer to [PWC-29, "Work Procedure"](#).

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 D8 and ground.

| Front power window motor LH connector | Terminal | Ground | Continuity |
|---------------------------------------|----------|--------|------------|
| D8 | 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 D5 and front power window motor LH connector D8.

| Main power window and door lock/un- lock switch connector | Terminal | Front power window motor LH connector | Terminal | Continuity |
|--|----------|--|----------|------------|
| D5 | 12 | D8 | 6 | Yes |

Is the inspection result normal?

YES >> Check main power window and door lock/unlock switch. Refer to [PWC-36, "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.

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

2. Check continuity between main power window D5 and door lock/unlock switch connector and front power window motor LH connector D8.

| Main power window and door lock/unlock switch connector | Terminal | Front power window motor LH connector | Terminal | Continuity |
|---|----------|---------------------------------------|----------|------------|
| D5 | 4 | D8 | 5 | Yes |
| | 5 | | 4 | |

3. Check continuity between main power window and door lock/unlock switch connector D5 and ground.

| Main power window and door lock/unlock switch connector | Terminal | Ground | Continuity |
|---|----------|--------|------------|
| D5 | 4 | Ground | No |
| | 5 | | |

Is the inspection result normal?

- YES >> Replace front power window motor LH. Refer to [GW-16. "Removal and Installation"](#). After that, refer to [PWC-29. "Work Procedure"](#).
NO >> Repair or replace harness or connectors.

DRIVER SIDE : Special Repair Requirement

INFOID:000000011537235

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [PWC-29. "Work Procedure"](#).

Is the inspection result normal?

- YES >> Inspection end.
NO >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH WITH INTELLIGENT KEY

WITH INTELLIGENT KEY : Component Function Check

INFOID:000000011537236

1. CHECK FUNCTION

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

| Monitor item | Condition | | Status |
|--------------|---------------|--------|--------|
| DOOR SW-DR | Front door LH | Open | ON |
| | | Closed | OFF |
| DOOR SW-AS | Front door RH | Open | ON |
| | | Closed | OFF |

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to [PWC-53, "WITH INTELLIGENT KEY : Diagnosis Procedure"](#).

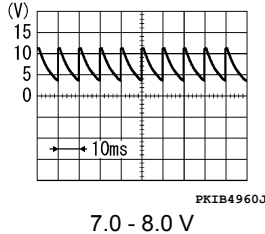
WITH INTELLIGENT KEY : Diagnosis Procedure

INFOID:000000011537237

Regarding Wiring Diagram information, refer to [PWC-18, "Wiring Diagram"](#).

1. CHECK DOOR SWITCH INPUT SIGNAL

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

| (+) | | | (-) | Signal (Reference value) |
|----------------------|----------|---|--------|---|
| Door switch | | | | |
| Connector | Terminal | | Ground |  |
| Front door switch LH | B21 | 3 | | |
| Front door switch RH | B28 | 3 | | |

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.

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DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| Door switch | | BCM | | Continuity |
|----------------------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| Front door switch LH | B21 | B24 | 98 | Yes |
| Front door switch RH | B28 | | 100 | |

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

| Door switch | | Ground | Continuity |
|----------------------|----------|--------|------------|
| Connector | Terminal | | |
| Front door switch LH | B21 | 3 | No |
| Front door switch RH | B28 | | |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-76. "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK DOOR SWITCH

Refer to [PWC-54. "WITH INTELLIGENT KEY : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-40. "Intermittent Incident"](#).

>> Inspection End.

WITH INTELLIGENT KEY : Component Inspection

INFOID:0000000011537238

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 | | | | | |
| Front door switch LH | 3 | Ground part of door switch | Door switch | Pressed | No |
| | | | | Released | Yes |
| Front door switch RH | 3 | Ground part of door switch | Door switch | Pressed | No |
| | | | | Released | Yes |

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunction door switch.

WITHOUT INTELLIGENT KEY

WITHOUT INTELLIGENT KEY : Description

INFOID:0000000011537239

Detects door open/close condition.

WITHOUT INTELLIGENT KEY : Component Function Check

INFOID:0000000011537240

1.CHECK FUNCTION

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

④ With CONSULT

Check door switches DOOR SW-DR, DOOR SW-AS in Data Monitor mode with CONSULT.

| Monitor item | Condition |
|--------------|------------------------|
| DOOR SW-DR | CLOSE → OPEN: OFF → ON |
| DOOR SW-AS | |

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to [PWC-55. "WITHOUT INTELLIGENT KEY : Diagnosis Procedure"](#).

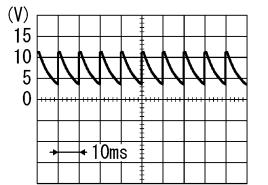
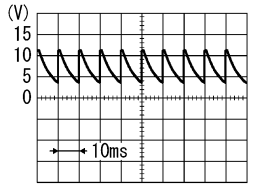
WITHOUT INTELLIGENT KEY : Diagnosis Procedure

INFOID:000000011537241

Regarding Wiring Diagram information, refer to [PWC-18. "Wiring Diagram"](#).

1. CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check signal between BCM connector and ground with oscilloscope.

| Terminals | | Door condition | Voltage (V) (Approx.) |
|---------------|----------|----------------|--|
| (+) | (-) | | |
| BCM connector | Terminal | | |
| B57 | 45 | OPEN | 0 |
| | | CLOSE |  7.0 - 8.0 V |
| | 46 | OPEN | 0 |
| | | CLOSE |  7.0 - 8.0 V |

Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 2

2. CHECK DOOR SWITCH CIRCUIT

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

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DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

| BCM connector | Terminal | Door switch connector | Terminal | Continuity |
|---------------|----------|-----------------------|----------|------------|
| B57 | 45 | B28 (Front RH) | 3 | Yes |
| | 46 | B21 (Front LH) | | |

3. Check continuity between BCM connector and ground.

| BCM connector | Terminal | Ground | Continuity |
|---------------|----------|--------|------------|
| B57 | 45 | Ground | No |
| | 46 | | |

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness between BCM and door switch.

3.CHECK DOOR SWITCH

Refer to [PWC-56, "WITHOUT INTELLIGENT KEY : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4

NO >> Replace malfunctioning door switch.

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-40, "Intermittent Incident"](#).

>> Inspection End.

WITHOUT INTELLIGENT KEY : Component Inspection

INFOID:000000011537242

1.CHECK DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect door switch connector.
3. Check door switch.

| Terminal | | Door switch condition | Continuity |
|-------------|----------------------------|-----------------------|------------|
| Door switch | | | |
| 3 | Ground part of door switch | Pressed | No |
| | | Released | Yes |

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace malfunctioning door switch.

POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW LOCK SWITCH

Description

INFOID:0000000011537243

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:0000000011537244

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-69. "Removal and Installation"](#). After that, refer to [PWC-29. "Work Procedure"](#).
- NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:0000000011537245

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.
Refer to [PWC-29. "Work Procedure"](#).

Is the inspection result normal?

- YES >> Inspection end.
- NO >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

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POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH POWER WINDOW MAIN SWITCH

Diagnosis Procedure

INFOID:0000000011537246

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

Refer to [BCS-69, "Diagnosis Procedure"](#) (with Intelligent Key) or [BCS-126, "Diagnosis Procedure"](#) (without Intelligent Key).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

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

Check power window main switch power supply and ground circuit.

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000011537247

1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side).

Refer to [PWC-43, "DRIVER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

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FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

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

INFOID:000000011537248

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to [PWC-37, "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 (PASSENGER SIDE)

Check front power window motor (passenger side).

Refer to [PWC-45, "PASSENGER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. REPLACE POWER WINDOW MAIN SWITCH

-
- Replace power window main switch.
 - Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

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

INFOID:000000011537249

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

Check front power window switch (passenger side) power supply and ground circuit.

Refer to [PWC-37, "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 SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to [PWC-37, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. REPLACE POWER WINDOW MAIN SWITCH

-
- Replace power window main switch.
 - Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000011537250

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to [PWC-37. "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

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REAR LH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

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

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

INFOID:000000011537251

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to [PWC-40, "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-46, "REAR LH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. REPLACE POWER WINDOW MAIN SWITCH

-
- Replace power window main switch.
 - Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure

INFOID:000000011537252

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

Check rear power window switch LH power supply and ground circuit.

Refer to [PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to [PWC-40, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. REPLACE POWER WINDOW MAIN SWITCH

-
- Replace power window main switch.
 - Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000011537253

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to [PWC-40. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

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REAR RH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

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

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

INFOID:000000011537254

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to [PWC-40. "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-48. "REAR RH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. REPLACE POWER WINDOW MAIN SWITCH

-
- Replace power window main switch.
 - Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure

INFOID:000000011537255

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

Check rear power window switch RH power supply and ground circuit.

Refer to [PWC-40. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to [PWC-40. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. REPLACE POWER WINDOW MAIN SWITCH

-
- Replace power window main switch.
 - Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

WHEN POWER WINDOW MAIN SWITCH IS OPERATED

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000011537256

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to [PWC-40. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40. "Intermittent Incident"](#).

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000011537257

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to [PWC-29, "Work Procedure"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to [PWC-50, "DRIVER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000011537258

1. CHECK POWER WINDOW AUTO OPERATION

Check AUTO operation when anti-pinch function does not operate.
Refer to [PWC-66, "Diagnosis Procedure"](#).

Is the inspection result normal?

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

2. REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

- YES >> INSPECTION END
- NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

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POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:000000011537259

1. REPLACE POWER WINDOW MAIN SWITCH

- Replace power window main switch.
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Removal and Installation

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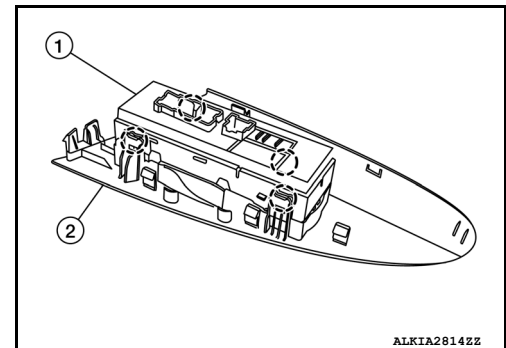
REMOVAL

1. Release the pawls using a suitable tool and lift the main power window and door lock/unlock switch and finisher as an assembly and remove.
2. Disconnect the harness connector from the main power window and door lock/unlock switch.
3. Release the four pawls (two on each side) using a suitable tool, then separate the main power window and door lock/unlock switch (1) from the main power window and door lock switch finisher (2).

○: Pawl

CAUTION:

Do not bend back the pawls on the switch finisher too far or breakage may occur.



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

When the main power window and door lock/unlock switch is disconnected from the harness connector it is necessary to perform the initialization procedure. Refer to [PWC-29, "Work Procedure"](#).

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POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< REMOVAL AND INSTALLATION >

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Removal and Installation

INFOID:000000011537261

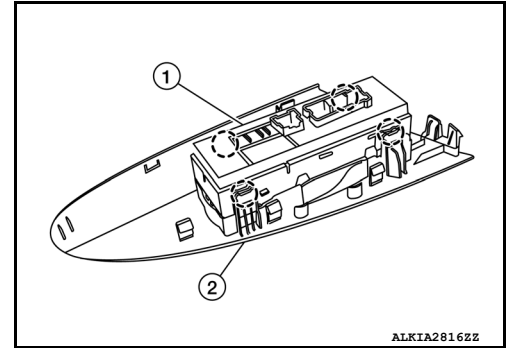
REMOVAL

1. Release the pawls using a suitable tool and lift the power window and door lock/unlock switch RH and finisher as an assembly and remove.
2. Disconnect the harness connector from the power window and door lock/unlock switch RH.
3. Release the four pawls (two on each side) using a suitable tool, then separate the main power window and door lock/unlock switch RH (1) from the main power window and door lock switch RH finisher (2).

○: Pawl

CAUTION:

Do not bend back the pawls on the switch finisher too far or breakage may occur.



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INSTALLATION

Installation is in the reverse order of removal.

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

REAR POWER WINDOW SWITCH

Removal and Installation

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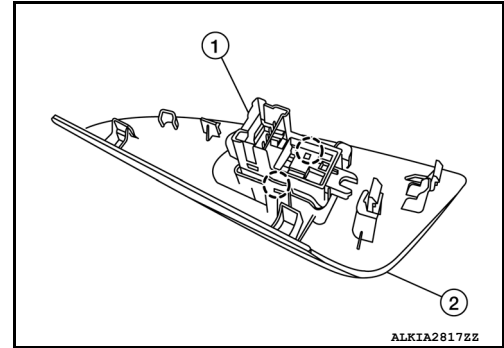
REMOVAL

1. Release the pawls using a suitable tool and lift the rear power window switch and finisher as an assembly and remove
2. Disconnect the harness connector from the rear power window switch.
3. Release the pawl (one on each side) using a suitable tool, then separate the rear power window switch (1) from the rear power switch finisher (2).

○: Pawl

CAUTION:

Do not bend back the pawls on the switch finisher too far or breakage may occur.



INSTALLATION

Installation is in the reverse order of removal.

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