

SECTION **PWC**

POWER WINDOW CONTROL SYSTEM

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000003507880

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred) as much as possible when the customer brings the vehicle in.

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

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.IDENTIFY THE MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"

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.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:000000004756700

When battery negative terminal is disconnected, initialization is necessary.

If any of the following operations are performed, initialization is necessary as well as when battery negative terminal is disconnected.

- Power supply to the power window control unit is cut off by the removal of battery terminal or the battery fuse is blown.
- Disconnection and connection of power window control unit harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of rear power window control unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

The operations as per the following cannot be performed while initialization is not complete.

- AUTO-UP operation
- Anti-pinch function
- Door key cylinder switch power window function

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:000000004756701

INITIALIZATION PROCEDURE

1. Disconnect battery negative terminal or power window control unit connector. Reconnect it after a minute or more.
2. Turn ignition switch ON.
3. Operate power window switch to fully open door glass. (This operation is unnecessary if door glass is already fully open.)
4. Pull and hold power window switch UP (AUTO-UP operation). Even after door glass stops at the fully closed position, pull the switch for 2 seconds or more.
5. Initialization procedure is complete.
6. Inspect anti-pinch function.

CHECK ANTI-PINCH FUNCTION

1. Fully open door glass.
 2. Place a piece of wood near the fully closed position.
 3. Close door glass completely using AUTO-UP.
- Check that door glass lowers approximately 150 mm (5.9 in) without pinching piece of wood and stops.
 - Check that door glass does not rise when operating power window main switch while lowering.

CAUTION:

- Perform initialization when AUTO-UP operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when initialization is performed.
- Never check with hands or other body parts because they may be pinched. Never get pinched.
- It may switch to the fail-safe mode if open/close operation is performed continuously without fully closing door glass. Perform initialization in the above situation. Refer to [PWC-88, "Fail Safe"](#).
- Finish initialization. Otherwise, the next operation cannot be done.

1. AUTO-UP operation
2. Anti-pinch function
3. Door key cylinder switch power window function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000004756702

When the control unit is replaced, initialization is necessary.

If any of the following operations are performed, initialization is necessary as well as when the control unit is disconnected.

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

- Power supply to the power window control unit is cut off by the removal of battery terminal or the battery fuse is blown.
- Disconnection and connection of power window control unit harness connector.
- Removal and installation of motor from regulator assembly.
- Disconnection and connection of battery negative terminal.
- Removal and installation of rear power window control unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

The following specified operations cannot be performed while initialization is not complete.

- AUTO-UP operation
- Anti-pinch function
- Door key cylinder switch power window function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:000000004756703

INITIALIZATION PROCEDURE

1. Disconnect battery negative terminal or power window control unit connector. Reconnect it after a minute or more.
2. Turn ignition switch ON.
3. Operate power window switch to fully open door glass. (This operation is unnecessary if door glass is already fully open.)
4. Pull and hold power window switch UP (AUTO-UP operation). Even after door glass stops at the fully closed position, pull the switch for 2 seconds or more.
5. Initialization procedure is complete.
6. Inspect anti-pinch function.

CHECK ANTI-PINCH FUNCTION

1. Fully open door glass.
 2. Place a piece of wood near the fully closed position.
 3. Close door glass completely using AUTO-UP.
- Check that door glass lowers approximately 150 mm (5.9 in) without pinching piece of wood and stops.
 - Check that door glass does not rise when operating power window main switch while lowering.

CAUTION:

- **Perform initialization when AUTO-UP operation or anti-pinch function does not operate normally.**
 - **Check that AUTO-UP operates before inspection when initialization is performed.**
 - **Never check with hands or other body parts because they may be pinched. Never get pinched.**
 - **It may switch to the fail-safe mode if open/close operation is performed continuously without fully closing. Perform initialization in the above situation. Refer to [PWC-88, "Fail Safe"](#).**
 - **Finish initialization. Otherwise, the next operation cannot be done.**
1. **AUTO-UP operation**
 2. **Anti-pinch function**
 3. **Door key cylinder switch power window function**

POWER WINDOW SYSTEM

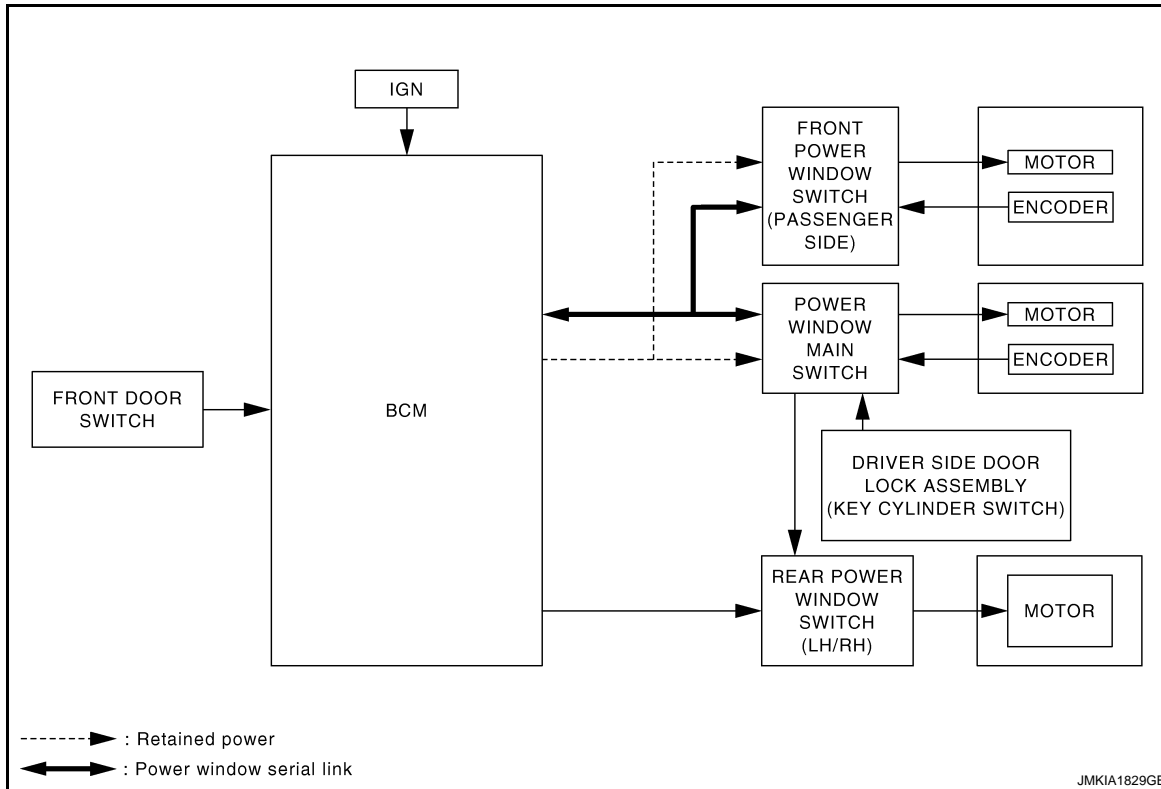
< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS

POWER WINDOW SYSTEM

System Diagram

INFOID:000000003507885



System Description

INFOID:000000004756704

POWER WINDOW SYSTEM

- Power window system is operable during the retained power operation timer after turning ignition switch OFF.
- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- AUTO UP/DOWN operation can be performed when front power window switch turns to AUTO.
- Power window lock switch can lock all power windows other than driver seat.
- Power window serial link transmits the signals from power window main switch to front power window switch (passenger side).
- If door glass receives resistance that is the specified value or more while power window of front seat is in AUTO-UP operation, power window of front seat operates in the reverse direction.
- Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5seconds or more to OPEN or CLOSE from power window when ignition switch OFF.
- Front power windows open when pressing Intelligent Key unlock button for 3 seconds.

POWER WINDOW AUTO-OPERATION

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

RETAINED POWER OPERATION

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POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

Retained power operation is an additional power supply function that enables power window system to operate for 45 seconds after ignition switch turns OFF.

RETAINED POWER FUNCTION CANCEL CONDITIONS

- Front door CLOSE (door switch OFF) → OPEN (door switch ON).
- When ignition switch turns ON again.
- When timer times out. (45 seconds)

POWER WINDOW LOCK FUNCTION

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

POWER WINDOW SERIAL LINK

- Front power window switches and BCM transmit and receive the power window serial link.
- Power window serial link transmits the power window main switch operation signals and IGN signal to power window main switch module, front power window switch (passenger side) module.

ANTI-PINCH OPERATION

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

OPERATION CONDITION

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

NOTE:

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

DOOR KEY CYLINDER SWITCH POWER WINDOW FUNCTION

Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5 seconds or more to OPEN or CLOSE-front power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating.

OPERATION CONDITION

- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1.5 seconds or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to UNLOCK position for 1.5 seconds or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION

Front power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3* seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.

The power window opening stops when the following operations are performed.

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

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

Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUPPORT". Refer to [DLK-61, "INTELLIGENT KEY : CONSULT-III Function \(BCM - INTELLIGENT KEY\)"](#).

NOTE:

Use CONSULT-III to change settings.

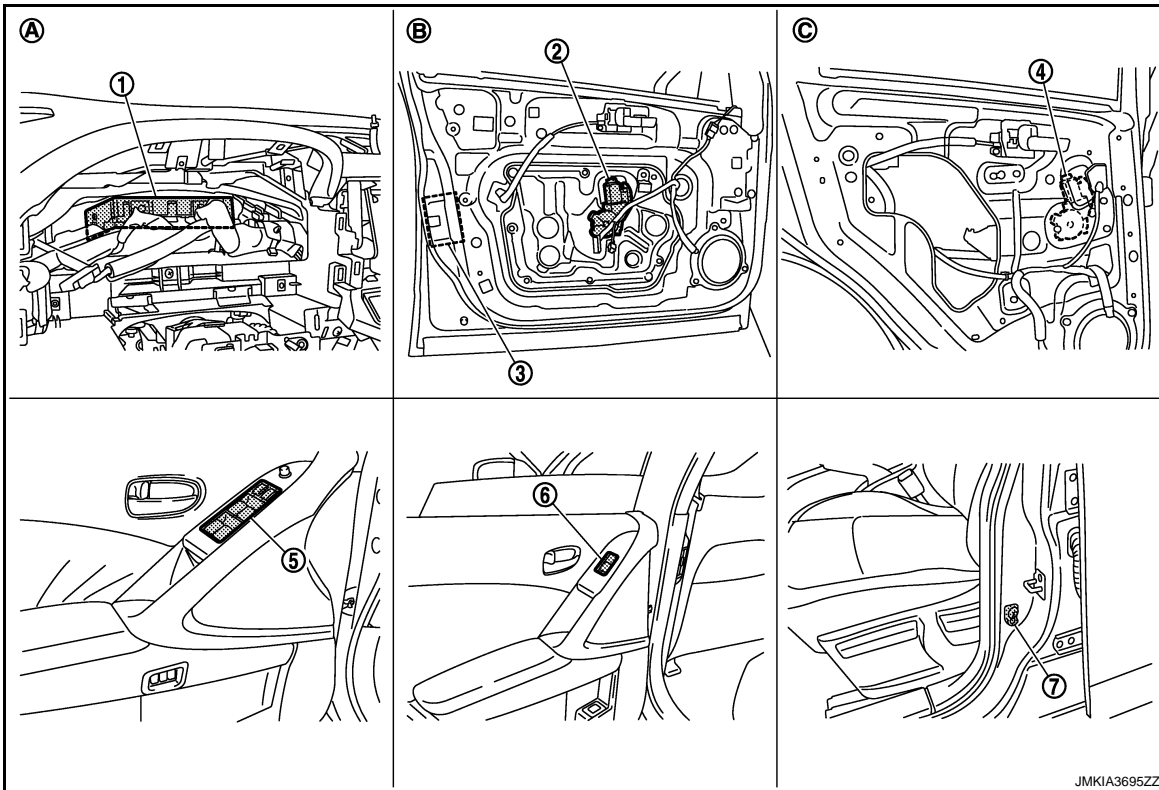
MODE 1 (3 sec) / MODE 2 (OFF) / MODE 3 (5 sec)

POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000003507887



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|---|---|--|
| 1. BCM M118, M119, M122, M123 | 2. Front power window motor (driver side) D7 | 3. Front door lock assembly (driver side) Door key cylinder switch D9 |
| 4. Rear power window motor LH D82 | 5. Power window main switch D5, D6 | 6. Rear power window switch LH D83 |
| 7. Front door switch (driver side) B34 | | |
| A. Behind the combination meter | B. View with front door finisher removed. | C. View with rear door finisher removed. |

Component Description

INFOID:000000003507888

| Component | Function |
|--|---|
| BCM | <ul style="list-style-type: none"> Supplies power to power window switch Controls retained power function |
| Power window main switch | <ul style="list-style-type: none"> Directly controls all power window motor of all doors Controls anti-pinch operation of power window |
| Front power window switch (passenger side) | <ul style="list-style-type: none"> Controls power window motor of front passenger side door Controls anti-pinch operation of power window |
| Rear power window switch (LH & RH) | Controls power window motor of rear right and left doors |
| Front power window motor (driver side) | <ul style="list-style-type: none"> Integrates the encoder and power window motor Starts operating with signals from power window main switch Outputs front power window motor (driver side) rotation as a pulse signal to power window main switch |
| Front power window motor (passenger side) | <ul style="list-style-type: none"> Integrates the encoder and power window motor Starts operating with signals from power window main switch & front power window switch (passenger side) Outputs front power window motor (passenger side) rotation as a pulse signal to front power window switch (passenger side) |

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POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

| Component | Function |
|--|--|
| Rear power window motor (LH & RH) | Starts operating with signals from power window main switch & rear power window switch (LH & RH) |
| Front door lock assembly (driver side) Door Key cylinder switch | Transmits operation condition of Key cylinder switch to power window |
| Front door switch | Door open/close condition and transmits to BCM |

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000003657641

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

| Diagnosis mode | Function Description |
|--------------------------|---|
| Work Support | Changes the setting for each system function. |
| Self Diagnostic Result | Displays the diagnosis results judged by BCM. |
| CAN Diag Support Monitor | Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual. |
| Data Monitor | The BCM input/output signals are displayed. |
| Active Test | The signals used to activate each device are forcibly supplied from BCM. |
| Ecu Identification | The BCM part number is displayed. |
| Configuration | <ul style="list-style-type: none"> Read and save the vehicle specification. Write the vehicle specification when replacing BCM. |

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

x: Applicable item

| System | Sub system selection item | Diagnosis mode | | |
|---|-----------------------------|----------------|--------------|-------------|
| | | Work Support | Data Monitor | Active Test |
| 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*1 | x | x | x |
| Exterior lamp | HEAD LAMP | x | x | x |
| Wiper and washer | WIPER | x*2 | x | x |
| Turn signal and hazard warning lamps | FLASHER | x | x | x |
| — | AIR CONDITONER*3 | | | |
| <ul style="list-style-type: none"> Intelligent Key system Engine start system | INTELLIGENT KEY | x | x | x |
| Combination switch | COMB SW | | x | |
| Body control system | BCM | x | | |
| NVIS - NATS | IMMU | | x | x |
| Interior room lamp battery saver | BATTERY SAVER | x | x | x |
| Back door opener system | TRUNK | | x | x |
| Vehicle security system | THEFT ALM | x | x | x |
| RAP system | RETAINED PWR | | x | |
| Signal buffer system | SIGNAL BUFFER | | x | x |
| TPMS | TPMS (AIR PRESSURE MONITOR) | x | x | x |

NOTE:

- *1: At models with Intelligent Key system this item is displayed, but is not used.
- *2: At models with rain sensor this mode is displayed, but is not used.

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

- *3: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

| CONSULT screen item | Indication/Unit | Description | |
|---------------------|---|--|--|
| Vehicle Speed | km/h | Vehicle speed of the moment a particular DTC is detected | |
| Odo/Trip Meter | km | Total mileage (Odometer value) of the moment a particular DTC is detected | |
| Vehicle Condition | SLEEP>LOCK | Power position status of the moment a particular DTC is detected | While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK") |
| | SLEEP>OFF | | While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".) |
| | LOCK>ACC | | While turning power supply position from "LOCK" to "ACC" |
| | ACC>ON | | While turning power supply position from "ACC" to "IGN" |
| | RUN>ACC | | While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.) |
| | CRANK>RUN | | While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it) |
| | RUN>URGENT | | While turning power supply position from "RUN" to "ACC" (Emergency stop operation) |
| | ACC>OFF | | While turning power supply position from "ACC" to "OFF" |
| | OFF>LOCK | | While turning power supply position from "OFF" to "LOCK" |
| | OFF>ACC | | While turning power supply position from "OFF" to "ACC" |
| | ON>CRANK | | While turning power supply position from "IGN" to "CRANKING" |
| | OFF>SLEEP | | While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode |
| | LOCK>SLEEP | | While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode |
| | LOCK | | Power supply position is "LOCK" (Ignition switch OFF with steering is locked.) |
| | OFF | | Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.) |
| | ACC | | Power supply position is "ACC" (Ignition switch ACC) |
| | ON | | Power supply position is "IGN" (Ignition switch ON with engine stopped) |
| ENGINE RUN | Power supply position is "RUN" (Ignition switch ON with engine running) | | |
| CRANKING | Power supply position is "CRANKING" (At engine cranking) | | |
| IGN Counter | 0 - 39 | The number of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> The number is 0 when a malfunction is detected now. The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. | |

RETAINED PWR

RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)

INFOID:000000003507890

Data monitor

| Monitor Item | Description |
|--------------|---|
| DOOR SW-DR | Indicates [ON/OFF] condition of driver side door switch. |
| DOOR SW-AS | Indicates [ON/OFF] condition of passenger side door switch. |

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000004756729

1.CHECK FUSE AND FUSIBLE LINK

1. Turn ignition switch OFF.
2. Check that the following fuse and fusible link are not blown.

| Terminal No. | Signal name | Fuse and fusible link No. |
|--------------|----------------------|---------------------------|
| 1 | Battery power supply | L(40A) |
| 11 | | 10 (10A) |

Is the fuse fusing?

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

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connectors.
2. Check voltage between BCM harness connector and ground.

| (+) | | (-) | Voltage (Approx.) |
|-----------|----------|--------|-------------------|
| BCM | | | |
| Connector | Terminal | Ground | Battery voltage |
| M118 | 1 | | |
| M119 | 11 | | |

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M119 | 13 | | Existed |

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Repair or replace harness.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000004756730

1.CHECK POWER SUPPLY

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

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

| (+) | | (-) | Voltage (V) (Approx.) |
|--------------------------|----------|--------|--------------------------|
| Power window main switch | | | |
| Connector | Terminal | Ground | Battery voltage |
| D5 | 10 | | |
| D6 | 19 | | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

| BCM | | Power window main switch | | Continuity |
|-----------|----------|--------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M118 | 2 | D6 | 19 | Existed |
| | 3 | D5 | 10 | |

4. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| M118 | 2 | | Not existed |
| | 3 | | |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96, "Exploded View"](#).

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

| Power window main switch | | Ground | Continuity |
|--------------------------|----------|--------|------------|
| Connector | Terminal | | |
| D6 | 17 | | Existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000004756731

1.CHECK POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Turn ignition switch ON.
4. Check voltage between front power window switch (passenger side) harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

| (+) | | (-) | Voltage (V) (Approx.) |
|--|----------|--------|--------------------------|
| Front power window switch (passenger side) | | | |
| Connector | Terminal | Ground | Battery voltage |
| D45 | 10 | | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

| BCM | | Front power window switch (passenger side) | | Continuity |
|-----------|----------|--|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M118 | 2 | D45 | 10 | Existed |

4. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| M118 | 2 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96, "Exploded View"](#).

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between front power window switch (passenger side) harness connector and ground.

| Front power window switch (passenger side) | | Ground | Continuity |
|--|----------|--------|------------|
| Connector | Terminal | | |
| D45 | 11 | | Existed |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000004756732

1.CHECK POWER SUPPLY

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

| (+) | | (-) | Voltage (V) (Approx.) |
|--------------------------|----------|--------|--------------------------|
| Rear power window switch | | | |
| Connector | Terminal | Ground | Battery voltage |
| LH | D83 | | |
| RH | D103 | | |

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

| BCM | | Rear power window switch | | Continuity |
|-----------|----------|--------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M118 | 3 | LH | D83 | Existed |
| | | RH | D103 | |

4. Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| M118 | 3 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96. "Exploded View"](#).

NO >> Repair or replace harness.

REAR POWER WINDOW SWITCH

< COMPONENT DIAGNOSIS >

REAR POWER WINDOW SWITCH

Description

INFOID:000000004756733

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

Component Function Check

INFOID:000000004756734

1. CHECK REAR POWER WINDOW SWITCH FUNCTION

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

Is the inspection result normal?

- YES >> Rear power window switch is OK.
 NO >> Refer to [PWC-17, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004756735

1. CHECK REAR POWER WINDOW SWITCH INPUT SIGNAL

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

| (+) | | Terminal | (-) | Condition | Voltage (V) (Approx.) | |
|--------------------------|------|----------|--------|-----------|--------------------------|-----------------|
| Rear power window switch | | | | | | |
| Connector | | | | | | |
| LH | D83 | 2 | Ground | UP | Battery voltage | |
| | | 3 | | DOWN | 0 | |
| | | | | UP | 0 | |
| | | | | | DOWN | Battery voltage |
| RH | D103 | | | | 2 | |
| | | 3 | | DOWN | 0 | |
| | | | | UP | 0 | |
| | | | | | DOWN | |

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW SWITCH CIRCUIT

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

| Power window main switch | | Rear power window switch | | | Continuity |
|--------------------------|----------|--------------------------|----------|---|------------|
| Connector | Terminal | Connector | Terminal | | |
| D5 | 1 | LH | D83 | 2 | Existed |
| | 3 | | | 3 | |
| | 5 | RH | D103 | 3 | |
| | 7 | | | 2 | |

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

REAR POWER WINDOW SWITCH

< COMPONENT DIAGNOSIS >

| Power window main switch | | Ground | Continuity |
|--------------------------|----------|--------|-------------|
| Connector | Terminal | | |
| D5 | 1 | | Not existed |
| | 3 | | |
| | 5 | | |
| | 7 | | |

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-114, "Removal and Installation"](#).

NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-18, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window switch. Refer to [PWC-114, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

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

>> INSPECTION END

Component Inspection

INFOID:000000004756736

1. CHECK REAR POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect rear power window switch connector.
3. Check rear power window switch terminals.

| Rear power window switch | Terminal | | Rear power window switch condition | Continuity |
|--------------------------|----------|---|------------------------------------|------------|
| D83 (LH) D103 (RH) | 1 | 5 | UP | Existed |
| | 3 | 4 | | |
| | 3 | 4 | NEUTRAL | |
| | 2 | 5 | | |
| | 1 | 4 | DOWN | |
| | 2 | 5 | | |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace rear power window switch. Refer to [PWC-114, "Removal and Installation"](#).

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:000000004756737

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

DRIVER SIDE : Component Function Check

INFOID:000000004756738

1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) OPERATION

Check front power window motor (driver side) operation with power window main switch.

Is the inspection result normal?

- YES >> Front power window motor (driver side) is OK.
 NO >> Refer to [PWC-19, "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:000000004756739

1. CHECK POWER WINDOW MOTOR (DRIVER SIDE) INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect front power window motor (driver side) connector.
- Turn ignition switch ON.
- Check voltage between power window motor (driver side) harness connector and ground.

| (+) | | (-) | Condition | Voltage (V) (Approx.) |
|-----------|----------|--------|-------------------------------|--------------------------|
| Connector | Terminal | | | |
| D7 | 1 | Ground | Power window main switch UP | 0 |
| | | | Power window main switch DOWN | Battery voltage |
| | 2 | | Power window main switch UP | Battery voltage |
| | | | Power window main switch DOWN | 0 |

Is the inspection result normal?

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

2. CHECK POWER WINDOW MOTOR CIRCUIT

- Turn ignition switch OFF.
- Disconnect power window main switch connector.
- Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

| Power window main switch | | Front power window motor (driver side) | | Continuity |
|--------------------------|----------|--|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D5 | 8 | D7 | 2 | Existed |
| | 11 | | 1 | |

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

| Power window main switch | | Ground | Continuity |
|--------------------------|----------|--------|-------------|
| Connector | Terminal | | |
| D5 | 8 | | Not existed |
| | 11 | | |

Is the inspection result normal?

- YES >> Replace power window main switch. Refer to [PWC-114, "Removal and Installation"](#).
 NO >> Repair or replace harness.

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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

3. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side).

Refer to [PWC-20, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power window motor (driver side). Refer to [GW-20, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

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

>> INSPECTION END

DRIVER SIDE : Component Inspection

INFOID:000000004756740

1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

1. Turn ignition switch OFF.
2. Disconnect front power window motor (driver side) connector.
3. Check motor operate by connecting the battery voltage directly to front power window motor (driver side) terminals.

| Front power window motor (driver side) | | | Motor condition |
|--|----------|-----|-----------------|
| Connector | Terminal | | |
| | (+) | (-) | |
| D7 | 1 | 2 | DOWN |
| | 2 | 1 | UP |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window motor (driver side). Refer to [GW-20, "Removal and Installation"](#).

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000004756741

Door glass moves UP/DOWN by receiving the signal from power window main switch or front power window switch (passenger side).

PASSENGER SIDE : Component Function Check

INFOID:000000004756742

1. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) OPERATION

Check front power window motor (passenger side) operation with power window main switch or front power window switch (passenger side).

Is the inspection result normal?

YES >> Power window motor (passenger side) is OK.

NO >> Refer to [PWC-20, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000004756743

1. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) INPUT SIGNAL

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

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

| (+) | | (-) | Condition | Voltage (V) (Approx.) |
|---|----------|--------|-----------|--------------------------|
| Front power window motor (passenger side) | | | | |
| Connector | Terminal | | | |
| D46 | 1 | Ground | UP | Battery voltage |
| | | | DOWN | 0 |
| | 2 | | UP | 0 |
| | | | DOWN | Battery voltage |

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) CIRCUIT

- Turn ignition switch OFF.
- Disconnect front power window switch (passenger side) connector.
- Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

| Front power window switch (passenger side) | | Front power window motor (passenger side) | | Continuity |
|--|----------|---|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D45 | 9 | D46 | 1 | Existed |
| | 8 | | 2 | |

- Check continuity between front power window switch (passenger side) harness connector and ground.

| Front power window switch (passenger side) | | Ground | Continuity |
|--|----------|--------|-------------|
| Connector | Terminal | | |
| D45 | 9 | | Not existed |
| | 8 | | |

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). [PWC-114, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).

Refer to [PWC-21, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (passenger side). Refer to [GW-20, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

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

>> INSPECTION END

PASSENGER SIDE : Component Inspection

INFOID:000000004756744

1.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

- Turn ignition switch OFF.
- Disconnect front power window motor (passenger side) connector.
- Check motor operate by connecting the battery voltage directly to front power window motor (passenger side) terminals.

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

| Front power window motor (passenger side) | | | Motor condition |
|---|----------|-----|-----------------|
| Connector | Terminal | | |
| | (+) | (-) | |
| D46 | 2 | 1 | DOWN |
| | 1 | 2 | UP |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window motor (passenger side). Refer to [GW-20. "Removal and Installation"](#).

REAR LH

REAR LH : Description

INFOID:000000004756745

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

REAR LH : Component Function Check

INFOID:000000004756746

1.CHECK REAR POWER WINDOW MOTOR LH OPERATION

Check rear power window motor LH operation with power window main switch or rear power window switch LH.

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to [PWC-22. "REAR LH : Diagnosis Procedure"](#)

REAR LH : Diagnosis Procedure

INFOID:000000004756747

1.CHECK REAR POWER WINDOW MOTOR LH INPUT SIGNAL

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

| (+) | | (-) | Condition | Voltage (V) (Approx.) |
|-----------|----------|--------|-----------|--------------------------|
| Connector | Terminal | | | |
| D82 | 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 REAR POWER WINDOW MOTOR LH CIRCUIT

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

| Rear power window switch LH | | Rear power window motor LH | | Continuity |
|-----------------------------|----------|----------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D83 | 4 | D82 | 3 | Existed |
| | 5 | | 1 | |

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

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

| Rear power window switch LH | | Ground | Continuity |
|-----------------------------|----------|--------|-------------|
| Connector | Terminal | | |
| D83 | 4 | | Not existed |
| | 5 | | |

Is the inspection result normal?

- YES >> Replace rear power window switch LH. Refer to [PWC-114, "Removal and Installation"](#).
 NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-23, "REAR LH : Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
 NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

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

>> INSPECTION END

REAR LH : Component Inspection

INFOID:000000004756748

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

- Turn ignition switch OFF.
- Disconnect rear power window motor LH connector.
- Check motor operate by connecting the battery voltage directly to rear power window motor LH terminals.

| Rear power window motor LH | | | Motor condition |
|----------------------------|----------|-----|-----------------|
| Connector | Terminal | | |
| | (+) | (-) | |
| D82 | 3 | 1 | DOWN |
| | 1 | 3 | UP |

Is the inspection result normal?

- YES >> INSPECTION END
 NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

REAR RH

REAR RH : Description

INFOID:000000004756749

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

REAR RH : Component Function Check

INFOID:000000004756750

1. CHECK REAR POWER WINDOW MOTOR RH OPERATION

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

Is the inspection result normal?

- YES >> Rear power window motor RH is OK.
 NO >> Refer to [PWC-24, "REAR RH : Diagnosis Procedure"](#).

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

REAR RH : Diagnosis Procedure

INFOID:000000004756751

1. CHECK REAR POWER WINDOW MOTOR RH INPUT SIGNAL

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

| (+) | | (-) | Condition | Voltage (V) (Approx.) |
|-----------|----------|--------|-----------|--------------------------|
| Connector | Terminal | | | |
| D102 | 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 REAR POWER WINDOW MOTOR RH CIRCUIT

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

| Rear power window switch RH | | Rear power window motor RH | | Continuity |
|-----------------------------|----------|----------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D103 | 4 | D102 | 3 | Existed |
| | 5 | | 1 | |

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

| Rear power window switch RH | | Ground | Continuity |
|-----------------------------|----------|--------|-------------|
| Connector | Terminal | | |
| D103 | 4 | | Not existed |
| | 5 | | |

Is the inspection result normal?

- YES >> Replace rear power window switch RH. Refer to [PWC-114, "Removal and Installation"](#).
NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to [PWC-25, "REAR RH : Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace rear power window motor RH. Refer to [GW-25, "Removal and Installation"](#).

4. CHECK INTERMITTENT INCIDENT

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

>> INSPECTION END

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

REAR RH : Component Inspection

INFOID:000000004756752

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

1. Turn ignition switch OFF.
2. Disconnect rear power window motor RH connector.
3. Check motor operation by connecting the battery voltage directly to rear power window motor RH terminals.

| Rear power window motor RH | | | Motor condition |
|----------------------------|----------|-----|-----------------|
| Connector | Terminal | | |
| | (+) | (-) | |
| D102 | 3 | 1 | DOWN |
| | 1 | 3 | UP |

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace rear power window motor RH. Refer to [GW-25. "Removal and Installation"](#).

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ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

ENCODER CIRCUIT DRIVER SIDE

DRIVER SIDE : Description

INFOID:000000004756753

Detects condition of the front power window motor (driver side) operation and transmits to power window main switch as the pulse signal.

DRIVER SIDE : Component Function Check

INFOID:000000004756754

1. CHECK ENCODER OPERATION

Check driver side door glass perform AUTO open/close operation normally by power window main switch.

Is the inspection result normal?

YES >> Encoder is OK.

NO >> Refer to [PWC-26. "DRIVER SIDE : Diagnosis Procedure"](#).

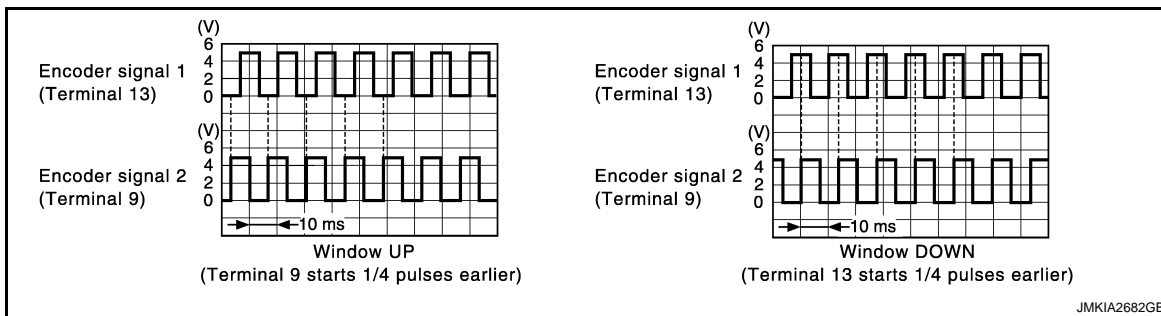
DRIVER SIDE : Diagnosis Procedure

INFOID:000000004756755

1. CHECK ENCODER SIGNAL

1. Turn ignition switch ON.
2. Check signal between power window main switch harness connector and ground using oscilloscope.

| (+) | | (-) | Signal (Reference value) |
|--------------------------|----------|--------|-----------------------------|
| Power window main switch | | | |
| Connector | Terminal | Ground | Refer to following signal |
| D5 | 9 | | |
| | 13 | | |



Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-114. "Removal and Installation"](#).

NO >> GO TO 2.

2. CHECK ENCODER SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector and front power window motor (driver side) connector.
3. Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

| Power window main switch | | Front power window motor (driver side) | | Continuity |
|--------------------------|----------|---|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D5 | 9 | D7 | 3 | Existed |
| | 13 | | 5 | |

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

ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

| Power window main switch | | Ground | Continuity |
|--------------------------|----------|--------|-------------|
| Connector | Terminal | | |
| D5 | 9 | | Not existed |
| | 13 | | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY

1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Check voltage between front power window motor (driver side) harness connector and ground.

| (+) | | (-) | Voltage (V) (Approx.) |
|--|----------|--------|--------------------------|
| Connector | Terminal | | |
| Front power window motor (driver side) | | Ground | Battery voltage |
| D7 | 4 | | |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK ENCODER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

| Power window main switch | | Front power window motor (driver side) | | Continuity |
|--------------------------|----------|--|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D5 | 15 | D7 | 4 | Existed |

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

| Power window main switch | | Ground | Continuity |
|--------------------------|----------|--------|-------------|
| Connector | Terminal | | |
| D5 | 15 | | Not existed |

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-114, "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

| Power window main switch | | Front power window motor (driver side) | | Continuity |
|--------------------------|----------|--|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D5 | 2 | D7 | 6 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK GROUND CIRCUIT 2

ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

1. Connect power window main switch connector.
2. Check continuity between power window main switch harness connector and ground.

| Power window main switch | | Ground | Continuity |
|--------------------------|----------|--------|------------|
| Connector | Terminal | | |
| D5 | 2 | | Existed |

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to [GW-20. "Removal and Installation"](#).

NO >> Replace power window main switch. Refer to [PWC-114. "Removal and Installation"](#).

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000004756756

Detects condition of the front power window motor (passenger side) operation and transmits to front power window switch (passenger side) as the pulse signal.

PASSENGER SIDE : Component Function Check

INFOID:000000004756757

1.CHECK ENCODER OPERATION

Check passenger side door glass perform AUTO open/close operation normally by power window main switch or front power window switch (passenger side).

Is the inspection result normal?

YES >> Encoder is OK.

NO >> Refer to [PWC-28. "PASSENGER SIDE : Diagnosis Procedure"](#).

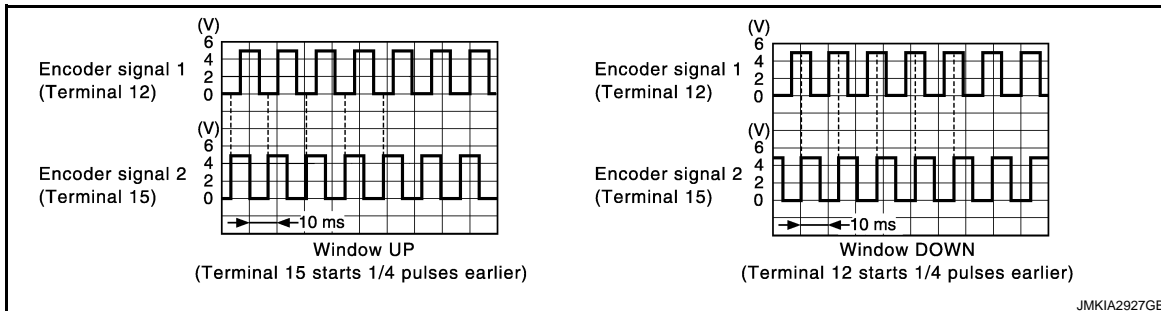
PASSENGER SIDE : Diagnosis Procedure

INFOID:000000004756758

1.CHECK ENCODER SIGNAL

1. Turn ignition switch ON.
2. Check signal between front power window switch (passenger side) harness connector and ground using oscilloscope.

| (+) | | (-) | Signal (Reference value) |
|--|----------|--------|-----------------------------|
| Front power window switch (passenger side) | | | |
| Connector | Terminal | | |
| D45 | 12 | Ground | Refer to following signal |
| | 15 | | |



JMKIA2927GB

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to [PWC-114. "Removal and Installation"](#).

NO >> GO TO 2.

2.CHECK ENCODER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

2. Disconnect front power window switch (passenger side) connector and front power window motor (passenger side) connector.
3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

| Front power window switch (passenger side) | | Front power window motor (passenger side) | | Continuity |
|--|----------|---|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D45 | 12 | D46 | 5 | Existed |
| | 15 | | 3 | |

4. Check continuity between front power window switch (passenger side) harness connector and ground.

| Front power window switch (passenger side) | | Ground | Continuity |
|--|----------|--------|-------------|
| Connector | Terminal | | |
| D45 | 12 | | Not existed |
| | 15 | | |

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY

1. Connect front power window switch (passenger side) connector.
2. Turn ignition switch ON.
3. Check voltage between front power window motor (passenger side) harness connector and ground.

| (+) | | (-) | Voltage (V) (Approx.) |
|---|----------|--------|--------------------------|
| Front power window motor (passenger side) | | | |
| Connector | Terminal | | |
| D46 | 4 | Ground | Battery voltage |

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK ENCODER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

| Front power window switch (passenger side) | | Front power window motor (passenger side) | | Continuity |
|--|----------|---|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D45 | 4 | D46 | 4 | Existed |

4. Check continuity between front power window switch (passenger side) harness connector and ground.

| Front power window switch (passenger side) | | Ground | Continuity |
|--|----------|--------|-------------|
| Connector | Terminal | | |
| D45 | 4 | | Not existed |

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to [PWC-114. "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.

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ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

2. Disconnect front power window switch (passenger side) connector.
3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

| Front power window switch (passenger side) | | Front power window motor (passenger side) | | Continuity |
|--|----------|---|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| D45 | 3 | D46 | 6 | Existed |

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

1. Connect front power window switch (passenger side) connector.
2. Check continuity between front power window switch (passenger side) harness connector and ground.

| Front power window switch (passenger side) | | Ground | Continuity |
|--|----------|--------|------------|
| Connector | Terminal | | |
| D45 | 3 | | Existed |

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to [GW-20, "Removal and Installation"](#).

NO >> Replace front power window switch (passenger side). Refer to [PWC-114, "Removal and Installation"](#).

POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

POWER WINDOW SERIAL LINK

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:000000004756759

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

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

- Keyless power window down signal

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

- Front passenger side door window operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:000000004756760

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

With CONSULT-III

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to [DLK-59, "DOOR LOCK : CONSULT-III Function \(BCM - DOOR LOCK\)"](#).

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

Is the inspection result normal?

YES >> Power window serial link is OK.

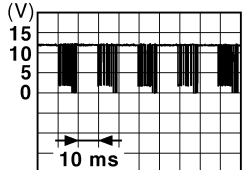
NO >> Refer to [PWC-31, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000004756761

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check signal between power window main switch harness connector and ground.

| (+) | | (-) | Signal (Reference value) |
|-----------|----------|--------|---|
| Connector | Terminal | | |
| D5 | 14 | Ground |  <p>JPMA0013GB</p> |

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

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POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

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

| (+) | | (-) | Voltage (V) (Approx.) |
|--------------------------|----------|--------|--------------------------|
| Power window main switch | | | |
| Connector | Terminal | Ground | Battery voltage |
| D5 | 14 | | |

Is the measurement value within the specification?

YES >> Replace power window main switch. Refer to [PWC-114, "Removal and Installation"](#).

NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

| BCM | | Power window main switch | | Continuity |
|-----------|----------|--------------------------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M123 | 132 | D5 | 14 | Existed |

4. Check continuity between BCM connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| M123 | 132 | | Not existed |

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96, "Exploded View"](#).

NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

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

>> INSPECTION END

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Description

INFOID:000000004756762

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

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

- Keyless power window down signal

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

- Front passenger side door window operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Component Function

Check

INFOID:000000004756763

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to [DLK-59, "DOOR LOCK : CONSULT-III Function \(BCM - DOOR LOCK\)"](#).

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

Is the inspection result normal?

YES >> Power window serial link is OK.

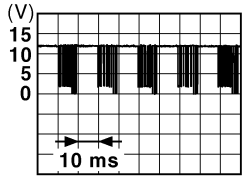
NO >> Refer to [PWC-33, "FRONT POWER WINDOW SWITCH \(PASSENGER SIDE\) : Diagnosis Procedure"](#).

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000004756764

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- Turn ignition switch ON.
- Check signal between front power window switch (passenger side) harness connector and ground.

| (+) | | (-) | Signal (Reference value) |
|-----------|----------|--------|--|
| Connector | Terminal | | |
| D45 | 16 | Ground |  <p style="text-align: right;">JPMA0013GB</p> |

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to [PWC-114, "Removal and Installation"](#).

NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK SIGNAL

- Turn ignition switch OFF.
- Disconnect front power window switch (passenger side) connector.
- Turn ignition switch ON.
- Check voltage between front power window switch (passenger side) harness connector and ground.

| (+) | | (-) | Voltage (V) (Approx.) |
|-----------|----------|--------|--------------------------|
| Connector | Terminal | | |
| D45 | 16 | Ground | Battery voltage |

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-114, "Removal and Installation"](#).

NO >> GO TO 3.

3. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector.
- Check continuity between BCM connector and front power window switch (passenger side) connector.

POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

| BCM | | Front power window switch (passenger side) | | Continuity |
|-----------|----------|--|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| M123 | 132 | D45 | 16 | Existed |

4. Check continuity between BCM connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|-------------|
| Connector | Terminal | | |
| M123 | 132 | | Not existed |

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-96. "Exploded View"](#).
- NO >> Repair or replace harness.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004756221

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

| Monitor Item | Condition | Value/Status |
|----------------|---|----------------------------------|
| FR WIPER HI | Other than front wiper switch HI | Off |
| | Front wiper switch HI | On |
| FR WIPER LOW | Other than front wiper switch LO | Off |
| | Front wiper switch LO | On |
| FR WASHER SW | Front washer switch OFF | Off |
| | Front washer switch ON | On |
| FR WIPER INT | Other than front wiper switch INT/AUTO | Off |
| | Front wiper switch INT/AUTO | On |
| FR WIPER STOP | Front wiper is not in STOP position | Off |
| | Front wiper is in STOP position | On |
| INT VOLUME | Wiper intermittent dial is in a dial position 1 - 7 | Wiper intermittent dial position |
| RR WIPER ON | Other than rear wiper switch ON | Off |
| | Rear wiper switch ON | On |
| RR WIPER INT | Other than rear wiper switch INT | Off |
| | Rear wiper switch INT | On |
| RR WASHER SW | Rear washer switch OFF | Off |
| | Rear washer switch ON | On |
| RR WIPER STOP | Rear wiper is in STOP position | Off |
| | Rear wiper is not in STOP position | On |
| TURN SIGNAL R | Other than turn signal switch RH | Off |
| | Turn signal switch RH | On |
| TURN SIGNAL L | Other than turn signal switch LH | Off |
| | Turn signal switch LH | On |
| TAIL LAMP SW | Other than lighting switch 1ST and 2ND | Off |
| | Lighting switch 1ST or 2ND | On |
| HI BEAM SW | Other than lighting switch HI | Off |
| | Lighting switch HI | On |
| HEAD LAMP SW 1 | Other than lighting switch 2ND | Off |
| | Lighting switch 2ND | On |
| HEAD LAMP SW 2 | Other than lighting switch 2ND | Off |
| | Lighting switch 2ND | On |
| PASSING SW | Other than lighting switch PASS | Off |
| | Lighting switch PASS | On |
| AUTO LIGHT SW | Other than lighting switch AUTO | Off |
| | Lighting switch AUTO | On |
| FR FOG SW | Front fog lamp switch OFF | Off |
| | Front fog lamp switch ON | On |

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Monitor Item | Condition | Value/Status |
|---|---|--------------|
| RR FOG SW | NOTE: The item is indicated, but not monitored. | Off |
| DOOR SW-DR | Driver door closed | Off |
| | Driver door opened | On |
| DOOR SW-AS | Passenger door closed | Off |
| | Passenger door opened | On |
| DOOR SW-RR | Rear RH door closed | Off |
| | Rear RH door opened | On |
| DOOR SW-RL | Rear LH door closed | Off |
| | Rear LH door opened | On |
| DOOR SW-BK | Back door closed | Off |
| | Back door opened | On |
| CDL LOCK SW | Other than power door lock switch LOCK | Off |
| | Power door lock switch LOCK | On |
| CDL UNLOCK SW | Other than power door lock switch UNLOCK | Off |
| | Power door lock switch UNLOCK | On |
| KEY CYL LK-SW | Other than driver door key cylinder LOCK position | Off |
| | Driver door key cylinder LOCK position | On |
| KEY CYL UN-SW | Other than driver door key cylinder UNLOCK position | Off |
| | Driver door key cylinder UNLOCK position | On |
| KEY CYL SW-TR | NOTE: The item is indicated, but not monitored. | Off |
| HAZARD SW | Hazard switch is OFF | Off |
| | Hazard switch is ON | On |
| REAR DEF SW | Rear window defogger switch OFF | Off |
| NOTE: At model with BOSE audio system this item is not monitored. | Rear window defogger switch ON | On |
| TR CANCEL SW | NOTE: The item is indicated, but not monitored. | Off |
| TR/BD OPEN SW | Back door opener switch OFF | Off |
| | While the back door opener switch is turned ON | On |
| TRNK/HAT MNTR | NOTE: The item is indicated, but not monitored. | Off |
| RKE-LOCK | LOCK button of the key is not pressed | Off |
| | LOCK button of the key is pressed | On |
| RKE-UNLOCK | UNLOCK button of the key is not pressed | Off |
| | UNLOCK button of the key is pressed | On |
| RKE-TR/BD | BACK DOOR OPEN button of the key is not pressed | Off |
| | BACK DOOR OPEN button of the key is pressed | On |
| RKE-PANIC | PANIC button of the key is not pressed | Off |
| | PANIC button of the key is pressed | On |
| RKE-P/W OPEN | UNLOCK button of the key is not pressed | Off |
| | UNLOCK button of the key is pressed and held | On |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Monitor Item | Condition | Value/Status | |
|----------------|--|--------------|---|
| RKE-MODE CHG | LOCK/UNLOCK button of the key is not pressed and held simultaneously | Off | A |
| | LOCK/UNLOCK button of the key is pressed and held simultaneously | On | B |
| OPTICAL SENSOR | Bright outside of the vehicle | Close to 5 V | C |
| | Dark outside of the vehicle | Close to 0 V | |
| REQ SW -DR | Driver door request switch is not pressed | Off | D |
| | Driver door request switch is pressed | On | |
| REQ SW -AS | Passenger door request switch is not pressed | Off | E |
| | Passenger door request switch is pressed | On | |
| REQ SW -RR | NOTE: The item is indicated, but not monitored. | Off | F |
| REQ SW -RR | NOTE: The item is indicated, but not monitored. | Off | G |
| REQ SW -BD/TR | Back door request switch is not pressed | Off | H |
| | Back door request switch is pressed | On | |
| PUSH SW | Push-button ignition switch (push switch) is not pressed | Off | I |
| | Push-button ignition switch (push switch) is pressed | On | |
| IGN RLY2 -F/B | Ignition switch in OFF or ACC position | Off | J |
| | Ignition switch in ON position | On | |
| ACC RLY -F/B | NOTE: The item is indicated, but not monitored. | Off | K |
| CLUCH SW | NOTE: The item is indicated, but not monitored. | Off | L |
| BRAKE SW 1 | The brake pedal is depressed when No. 7 fuse is blown | Off | M |
| | The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal | On | |
| BRAKE SW 2 | The brake pedal is not depressed | Off | N |
| | Stop lamp switch 1 signal circuit is normal | On | |
| DETE/CANCL SW | Selector lever in P position | Off | O |
| | Selector lever in any position other than P | On | |
| SFT PN/N SW | Selector lever in any position other than P and N | Off | P |
| | Selector lever in P or N position | On | |
| S/L -LOCK | Steering is unlocked | Off | Q |
| | Steering is locked | On | |
| S/L -UNLOCK | Steering is locked | Off | R |
| | Steering is unlocked | On | |
| S/L RELAY-F/B | Ignition switch in OFF or ACC position | Off | S |
| | Ignition switch in ON position | On | |
| UNLK SEN -DR | Driver door is unlocked | Off | T |
| | Driver door is locked | On | |
| PUSH SW -IPDM | Push-button ignition switch (push-switch) is not pressed | Off | U |
| | Push-button ignition switch (push-switch) is pressed | On | |
| IGN RLY1 -F/B | Ignition switch in OFF or ACC position | Off | V |
| | Ignition switch in ON position | On | |
| DETE SW -IPDM | Selector lever in any position other than P | Off | W |
| | Selector lever in P position | On | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Monitor Item | Condition | Value/Status |
|----------------|---|-----------------------------------|
| SFT PN -IPDM | Selector lever in any position other than P and N | Off |
| | Selector lever in P or N position | On |
| SFT P -MET | Selector lever in any position other than P | Off |
| | Selector lever in P position | On |
| SFT N -MET | Selector lever in any position other than N | Off |
| | Selector lever in N position | On |
| ENGINE STATE | Engine stopped | Stop |
| | While the engine stalls | Stall |
| | At engine cranking | Crank |
| | Engine running | Run |
| S/L LOCK-IPDM | Steering is unlocked | Off |
| | Steering is locked | On |
| S/L UNLK-IPDM | Steering is locked | Off |
| | Steering is unlocked | On |
| S/L RELAY-REQ | Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK. | Off |
| | Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK. | On |
| VEH SPEED 1 | While driving | Equivalent to speedometer reading |
| VEH SPEED 2 | While driving | Equivalent to speedometer reading |
| DOOR STAT-DR | Driver door is locked | LOCK |
| | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Driver door is unlocked | UNLOCK |
| DOOR STAT-AS | Passenger door is locked | LOCK |
| | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Passenger door is unlocked | UNLOCK |
| ID OK FLAG | Steering is locked | Reset |
| | Steering is unlocked | Set |
| PRMT ENG STRT | The engine start is prohibited | Reset |
| | The engine start is permitted | Set |
| PRMT RKE STRT | NOTE: The item is indicated, but not monitored. | Reset |
| KEY SW -SLOT | The key is not inserted into key slot | Off |
| | The key is inserted into key slot | On |
| RKE OPE COUN1 | During the operation of the key | Operation frequency of the key |
| RKE OPE COUN2 | NOTE: The item is indicated, but not monitored. | — |
| CONFIRM ID ALL | The key ID that the key slot receives is not recognized by any key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by any key ID registered to BCM. | Done |
| CONFIRM ID4 | The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the fourth key ID registered to BCM. | Done |

BCM (BODY CONTROL MODULE)

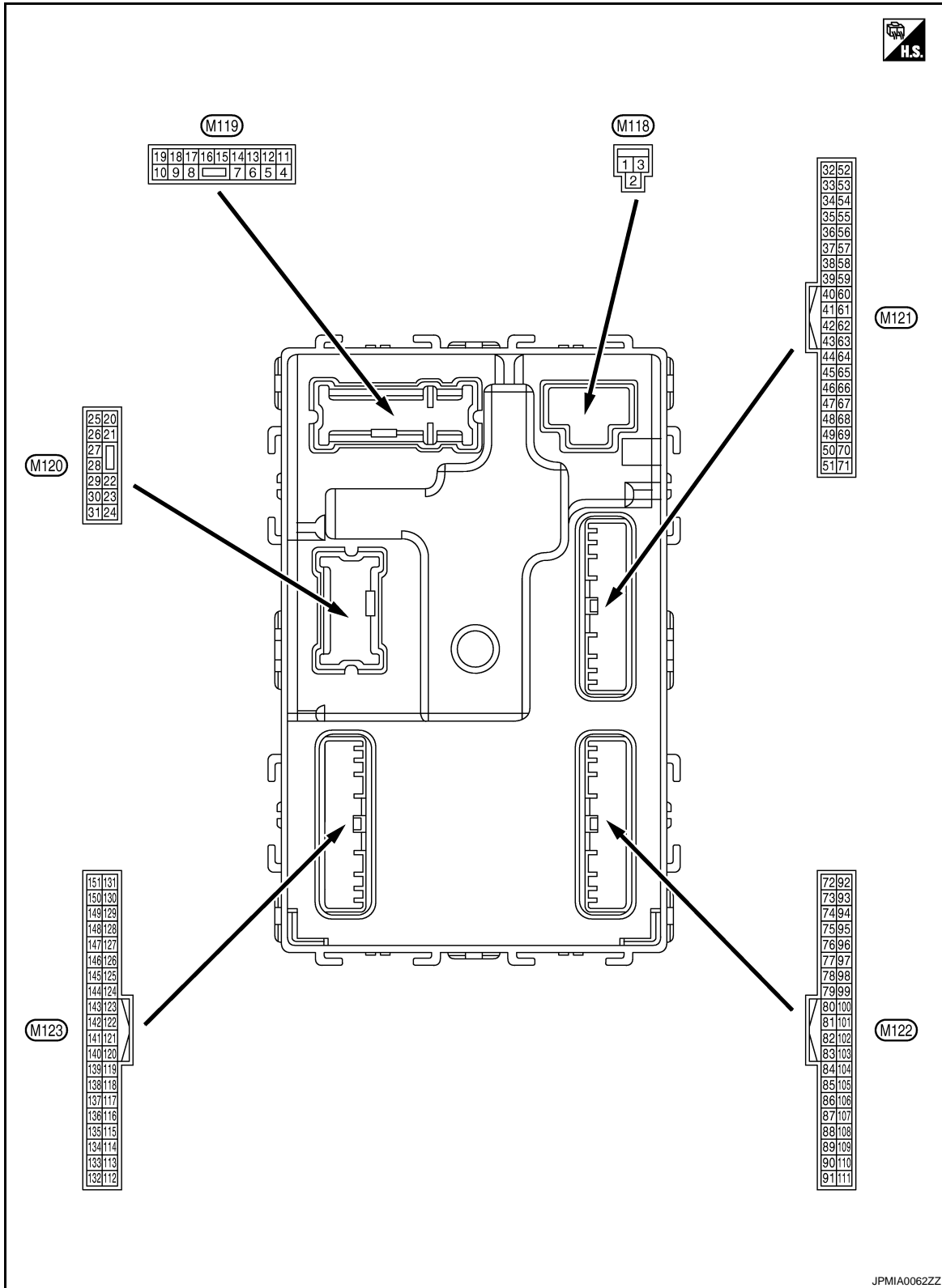
< ECU DIAGNOSIS >

| Monitor Item | Condition | Value/Status | |
|--------------|---|-------------------------------|-----|
| CONFIRM ID3 | The key ID that the key slot receives is not recognized by the third key ID registered to BCM. | Yet | A |
| | The key ID that the key slot receives is recognized by the third key ID registered to BCM. | Done | B |
| CONFIRM ID2 | The key ID that the key slot receives is not recognized by the second key ID registered to BCM. | Yet | C |
| | The key ID that the key slot receives is recognized by the second key ID registered to BCM. | Done | |
| CONFIRM ID1 | The key ID that the key slot receives is not recognized by the first key ID registered to BCM. | Yet | D |
| | The key ID that the key slot receives is recognized by the first key ID registered to BCM. | Done | |
| TP 4 | The ID of fourth key is not registered to BCM | Yet | E |
| | The ID of fourth key is registered to BCM | Done | |
| TP 3 | The ID of third key is not registered to BCM | Yet | F |
| | The ID of third key is registered to BCM | Done | |
| TP 2 | The ID of second key is not registered to BCM | Yet | G |
| | The ID of second key is registered to BCM | Done | |
| TP 1 | The ID of first key is not registered to BCM | Yet | H |
| | The ID of first key is registered to BCM | Done | |
| AIR PRESS FL | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of front LH tire | I |
| AIR PRESS FR | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of front RH tire | J |
| AIR PRESS RR | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of rear RH tire | |
| AIR PRESS RL | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of rear LH tire | |
| ID REGST FL1 | ID of front LH tire transmitter is registered | Done | PWC |
| | ID of front LH tire transmitter is not registered | Yet | |
| ID REGST FR1 | ID of front RH tire transmitter is registered | Done | L |
| | ID of front RH tire transmitter is not registered | Yet | |
| ID REGST RR1 | ID of rear RH tire transmitter is registered | Done | M |
| | ID of rear RH tire transmitter is not registered | Yet | |
| ID REGST RL1 | ID of rear LH tire transmitter is registered | Done | N |
| | ID of rear LH tire transmitter is not registered | Yet | |
| WARNING LAMP | Tire pressure indicator OFF | Off | O |
| | Tire pressure indicator ON | On | |
| BUZZER | Tire pressure warning alarm is not sounding | Off | P |
| | Tire pressure warning alarm is sounding | On | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

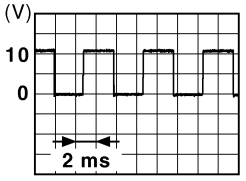
TERMINAL LAYOUT



PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

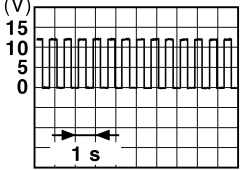
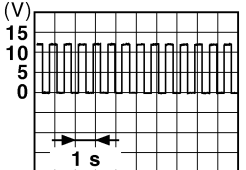
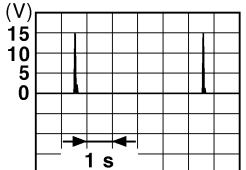
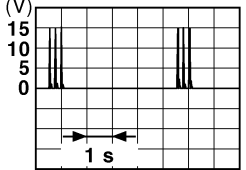
< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|---|---|--|
| + | - | Signal name | Input/ Output | | | |
| 1 (W) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 2 (GR) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | Battery voltage |
| 3 (L) | Ground | P/W power supply (RAP) | Output | Ignition switch ON | | Battery voltage |
| 4 (P) | Ground | Interior room lamp power supply | Output | Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) | | 0 V |
| | | | | Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) | | Battery voltage |
| 5 (G) | Ground | Passenger door UN- LOCK | Output | Passenger door | UNLOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 7 (W) | Ground | Step lamp | Output | Step lamp | ON | 0 V |
| | | | | | OFF | Battery voltage |
| 8 (V) | Ground | All doors LOCK | Output | All doors | LOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than LOCK (Actuator is not activated) | 0 V |
| 9 (G) | Ground | Driver door UNLOCK | Output | Driver door | UNLOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 10 (P) | Ground | Rear RH door and rear LH door UN- LOCK | Output | Rear RH door and rear LH door | UNLOCK (Actuator is activated) | Battery voltage |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 11 (LG) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 13 (B) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 14 (O) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | OFF | 0 V |
| | | | | | ON | <p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: right; font-size: small;">JSNIA0010GB</p> |
| 15 (L) | Ground | ACC indicator lamp | Output | Ignition switch | OFF | Battery voltage |
| | | | | | ACC | 0.2 V |
| | | | | | ON | 0 V |

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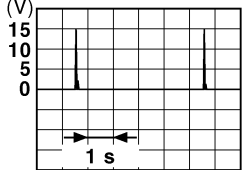
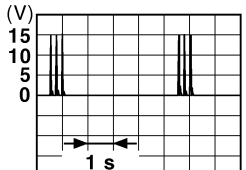
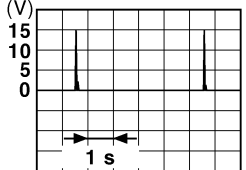
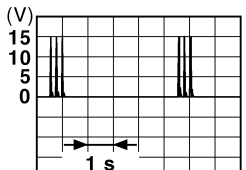
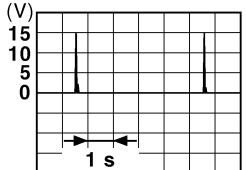
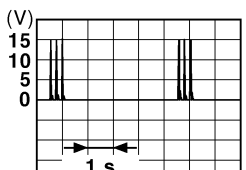
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--------------------------|------------------|--|---|
| + | - | Signal name | Input/ Output | | |
| 17 (G) | Ground | Turn signal RH | Output | Turn signal switch OFF | 0 V |
| | | | | Ignition switch ON Turn signal switch RH |  6.5 V PKID0926E |
| 18 (BR) | Ground | Turn signal LH | Output | Turn signal switch OFF | 0 V |
| | | | | Ignition switch ON Turn signal switch LH |  6.5 V PKID0926E |
| 19 (Y) | Ground | Room lamp timer control | Output | Interior room lamp | OFF |
| | | | | ON | Battery voltage |
| 23 (BR) | Ground | Back door open | Output | Back door | OPEN (Back door opener actuator is activated) |
| | | | | Other than OPEN (Back door opener actuator is not activated) | Battery voltage |
| 26 (G) | Ground | Rear wiper | Output | Rear wiper | OFF (Stopped) |
| | | | | ON (Operated) | Battery voltage |
| 34*1 (B) | Ground | Luggage room antenna (-) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |
| | | | | When Intelligent Key is not in the passenger compartment |  JMkia0062GB |
| | | | | | When Intelligent Key is not in the passenger compartment |
| | | | | |  JMkia0063GB |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

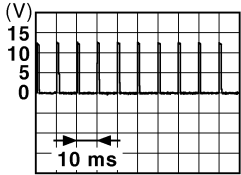
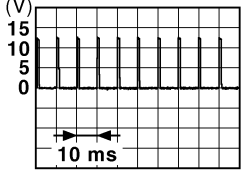
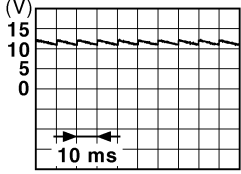
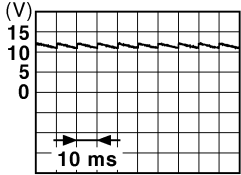
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-----------------------------------|------------------|--|---|-----------------|
| | | Signal name | Input/ Output | | | |
| + | - | | | | | |
| 35*1 (W) | Ground | Luggage room antenna (+) | Output | Ignition switch OFF |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> | |
| | | | | When Intelligent Key is not in the passenger compartment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 38*1 (L) | Ground | Rear bumper antenna (-) | Output | When the back door request switch is operated with ignition switch OFF |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> | |
| | | | | When Intelligent Key is not in the antenna detection area |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 39*1 (BR) | Ground | Rear bumper antenna (+) | Output | When the back door request switch is operated with ignition switch OFF |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> | |
| | | | | When Intelligent Key is not in the antenna detection area |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 47 (L) | Ground | Ignition relay (IPDM E/R) control | Output | Ignition switch | OFF or ACC | Battery voltage |
| | | | | ON | 0 V | |

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|-------------------------------|--|---|
| + | - | Signal name | Input/ Output | | | |
| 52 (R) | Ground | Starter relay control | Output | Ignition switch ON | When selector lever is in P or N position | Battery voltage |
| | | | | | When selector lever is not in P or N position | 0.3 V |
| | | | | Ignition switch OFF | 0 V | |
| 61*1 (R) | Ground | Back door request switch | Input | Back door re- quest switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) |  <p style="text-align: right; font-size: small;">JPMIA0016GB</p> |
| | | | | | | 1.0 V |
| 64*1 (GR) | Ground | Warning buzzer | Output | Warning buzzer | Sounding | 0 V |
| | | | | | Not sounding | Battery voltage |
| 65 (O) | Ground | Rear wiper stop posi- tion | Input | Rear wiper | In stop position |  <p style="text-align: right; font-size: small;">JPMIA0016GB</p> |
| | | | | | | 1.0 V |
| | | | | | | |
| 66 (Y) | Ground | Back door switch | Input | Back door switch | OFF (When back door closes) |  <p style="text-align: right; font-size: small;">JPMIA0011GB</p> |
| | | | | | 11.8 V | |
| | | | | | | 0 V |
| 67 (LG) | Ground | Back door opener switch | Input | Back door opener switch | Pressed | 0 V |
| | | | | | Not pressed |  <p style="text-align: right; font-size: small;">JPMIA0011GB</p> |
| | | | | | | 11.8 V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|--|---|
| + | - | Signal name | Input/ Output | | |
| 68 (W) | Ground | Rear RH door switch | Input | Rear RH door switch | <p style="text-align: right;">JPMIA0011GB</p> <p style="text-align: center;">11.8 V</p> |
| | | | | OFF (When rear RH door closes) | 0 V |
| 69 (R) | Ground | Rear LH door switch | Input | Rear LH door switch | <p style="text-align: right;">JPMIA0011GB</p> <p style="text-align: center;">11.8 V</p> |
| | | | | OFF (When rear LH door closes) | 0 V |
| 72*1 (B) | Ground | Room antenna 2 (-) (Center console) | Output | Ignition switch OFF | <p style="text-align: right;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is in the passenger compartment | <p style="text-align: right;">JMKIA0063GB</p> |

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BCM (BODY CONTROL MODULE)

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| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|---|---|
| + | - | Signal name | Input/ Output | | |
| 73*1 (W) | Ground | Room antenna 2 (+) (Center console) | Output | Ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the passenger compart- ment | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 74*1 (Y) | Ground | Passenger door an- tenna (-) | Output | When the pas- senger door re- quest switch is operated with ig- nition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the antenna detection area | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 75*1 (LG) | Ground | Passenger door an- tenna (+) | Output | When the pas- senger door re- quest switch is operated with ig- nition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the antenna detection area | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

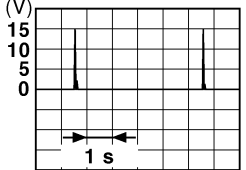
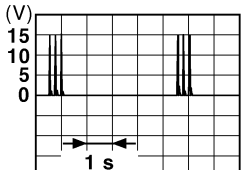
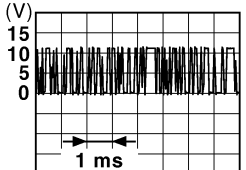
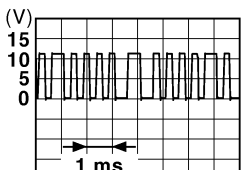
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|--|---|
| + | - | Signal name | Input/ Output | | |
| 76*1 (V) | Ground | Driver door antenna (-) | Output | When Intelligent Key is in the antenna detection area | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When the driver door request switch is operat- ed with ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 77*1 (P) | Ground | Driver door antenna (+) | Output | When Intelligent Key is in the antenna detection area | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When the driver door request switch is operat- ed with ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 78*1 (R) | Ground | Room antenna 1 (-) (Instrument panel) | Output | Ignition switch OFF | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the passenger compart- ment | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |

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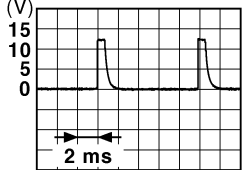
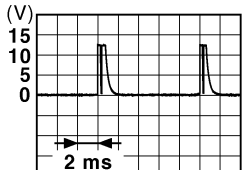
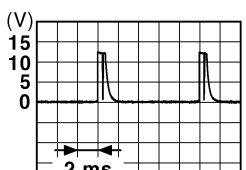
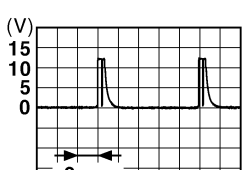
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|---|------------------|--|---|---|
| + | - | Signal name | Input/ Output | | | |
| 79*1 (G) | Ground | Room antenna 1 (+) (Instrument panel) | Output | Ignition switch OFF |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> | |
| | | | | When Intelligent Key is not in the passenger compart- ment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 80 (SB) | Ground | NATS antenna amp (built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 81 (O) | Ground | NATS antenna amp (built in key slot) | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 82 (BR) | Ground | Ignition relay [fuse block (J/B)] control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | ON | Battery voltage | |
| 83 (P) | Ground | Remote keyless entry receiver communica- tion | Input/ Output | During waiting | |  <p style="text-align: right; font-size: small;">JMKIA0064GB</p> |
| | | | | When operating either button on the key |  <p style="text-align: right; font-size: small;">JMKIA0065GB</p> | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

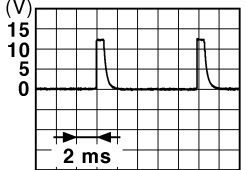
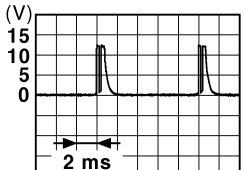
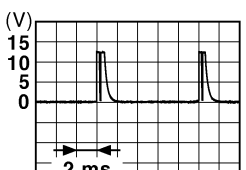
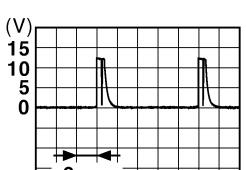

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|-----------------------|--|
| | | Signal name | Input/ Output | | |
| + | - | | | | |
| 87 (R) | Ground | Combination switch INPUT 5 | Input | Combination switch | All switches OFF (Wiper intermittent dial 4) <div style="text-align: right;">  <p>1.4 V</p> </div> |
| | | | | Combination switch | Front fog lamp switch ON (Wiper intermittent dial 4) <div style="text-align: right;">  <p>1.3 V</p> </div> |
| | | | | Combination switch | Rear wiper switch ON (Wiper intermittent dial 4) <div style="text-align: right;">  <p>1.3 V</p> </div> |
| | | | | Combination switch | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7 <div style="text-align: right;">  <p>1.3 V</p> </div> |

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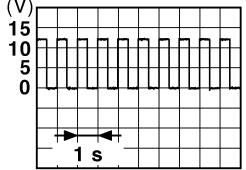
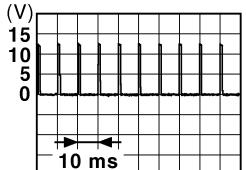
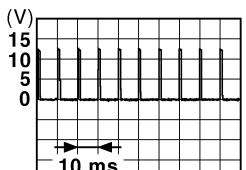
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--|------------------|---|--|--|
| + | - | Signal name | Input/ Output | | | |
| 88 (GR) | Ground | Combination switch INPUT 3 | Input | Combination switch | All switches OFF (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMIA0041GB</p> <p style="text-align: center;">1.4 V</p> |
| | | | | | Lighting switch HI (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMIA0036GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMIA0037GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Rear washer switch ON (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMIA0039GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 |  <p style="text-align: right; font-size: small;">JPMIA0040GB</p> <p style="text-align: center;">1.3 V</p> |
| 89 (BR) | Ground | Push-button ignition switch (push switch) | Input | Push-button igni- tion switch (push switch) | Pressed | 0 V |
| | | | | | Not pressed | Battery voltage |
| 90 (P) | Ground | CAN - L | Input/ Output | — | — | |
| 91 (L) | Ground | CAN - H | Input/ Output | — | — | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | | |
|------------------------------|--------|--|------------------|----------------------------------|---------------------------|---|-------|
| + | - | Signal name | Input/ Output | | | | |
| 92 (R)*1 (L)*2 | Ground | Key slot illumination | Output | Key slot illumination | OFF | 0 V | |
| | | | | | Blinking |  <p style="text-align: right; font-size: small;">JPMIA0015GB</p> | 6.5 V |
| | | | | | ON | Battery voltage | |
| 93 (L) | Ground | ON indicator lamp | Output | Ignition switch | OFF or ACC | Battery voltage | |
| | | | | | ACC | 0.2 V | |
| | | | | | ON | 0 V | |
| 95 (L) | Ground | ACC relay control | Output | Ignition switch | OFF | 0 V | |
| | | | | | ACC or ON | Battery voltage | |
| 96 (Y) | Ground | Control device (de- tention switch) power supply | Output | — | Battery voltage | | |
| 97 (O) | Ground | Steering lock condi- tion No. 1 | Input | Steering lock | LOCK status | 0 V | |
| | | | | | UNLOCK status | Battery voltage | |
| 98 (L) | Ground | Steering lock condi- tion No. 2 | Input | Steering lock | LOCK status | Battery voltage | |
| | | | | | UNLOCK status | 0 V | |
| 99 (V) | Ground | Selector lever P posi- tion switch | Input | Selector lever | P position | 0 V | |
| | | | | | Any position other than P | Battery voltage | |
| 100*1 (P) | Ground | Passenger door re- quest switch | Input | Passenger door request switch | ON (Pressed) | 0 V | |
| | | | | | OFF (Not pressed) |  <p style="text-align: right; font-size: small;">JPMIA0016GB</p> | 1.0 V |
| 101*1 (W) | Ground | Driver door request switch | Input | Driver door re- quest switch | ON (Pressed) | 0 V | |
| | | | | | OFF (Not pressed) |  <p style="text-align: right; font-size: small;">JPMIA0016GB</p> | 1.0 V |
| 102 (Y) | Ground | Blower fan motor re- lay control | Output | Ignition switch | OFF or ACC | 0 V | |
| | | | | | ON | Battery voltage | |
| 103 (L) | Ground | Remote keyless entry receiver power sup- ply | Output | Ignition switch OFF | Battery voltage | | |

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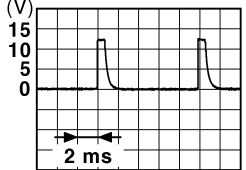
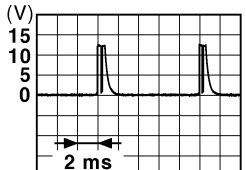

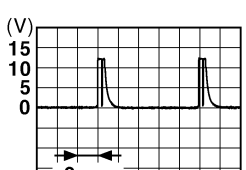

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|------------------------------------|------------------|---|-------------------------|--|
| + | - | Signal name | Input/ Output | | | |
| 106 (Y) | Ground | Steering lock unit power supply | Output | Ignition switch | OFF or ACC 0 V ON | |
| 107 (O) | Ground | Combination switch INPUT 1 | Input | Combination switch (Wiper intermittent dial 4) | All switches OFF | <p style="text-align: center;">1.4 V</p> |
| | | | | | Turn signal switch LH | <p style="text-align: center;">1.3 V</p> |
| | | | | | Turn signal switch RH | <p style="text-align: center;">1.3 V</p> |
| | | | | | Front wiper switch LO | <p style="text-align: center;">1.3 V</p> |
| | | | | | Front washer switch ON | <p style="text-align: center;">1.3 V</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

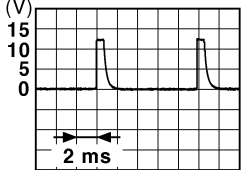

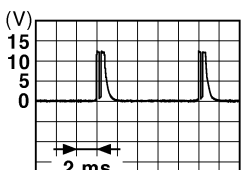
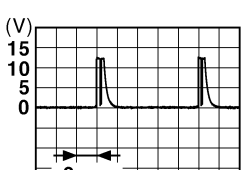
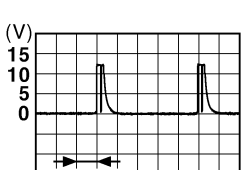
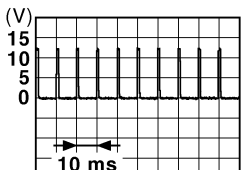
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|-----------------------|--|--|
| | | Signal name | Input/ Output | | | |
| + | - | | | | | |
| 108 (P) | Ground | Combination switch INPUT 4 | Input | Combination switch | All switches OFF (Wiper intermittent dial 4) |  1.4 V |
| | | | | | Lighting switch AUTO (Wiper intermittent dial 4) |  1.3 V |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4) |  1.3 V |
| | | | | | Rear wiper switch INT (Wiper intermittent dial 4) |  1.3 V |
| | | | | | Any of the conditions below with all switches OFF |  1.3 V |

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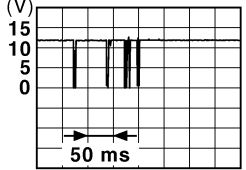
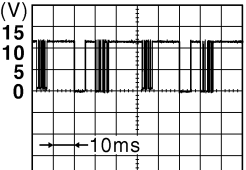
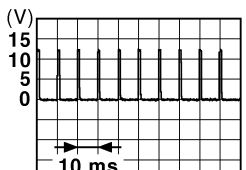
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|--|---------------------------------|--|
| + | - | Signal name | Input/ Output | | | |
| 109 (SB) | Ground | Combination switch INPUT 2 | Input | Combination switch (Wiper intermittent dial 4) | All switches OFF |  <p style="text-align: right; font-size: small;">JPMIA0041GB</p> <p style="text-align: center;">1.4 V</p> |
| | | | | | Lighting switch PASS |  <p style="text-align: right; font-size: small;">JPMIA0037GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Lighting switch 2ND |  <p style="text-align: right; font-size: small;">JPMIA0036GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Front wiper switch INT/ AUTO |  <p style="text-align: right; font-size: small;">JPMIA0038GB</p> <p style="text-align: center;">1.3 V</p> |
| | | | | | Front wiper switch HI |  <p style="text-align: right; font-size: small;">JPMIA0040GB</p> <p style="text-align: center;">1.3 V</p> |
| 110 (G) | Ground | Hazard switch | Input | Hazard switch | ON | 0 V |
| | | | | | OFF |  <p style="text-align: right; font-size: small;">JPMIA0012GB</p> <p style="text-align: center;">1.1 V</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

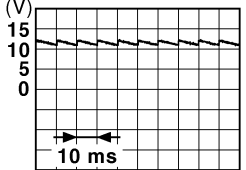
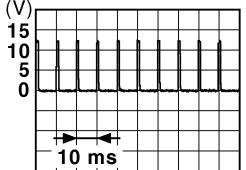
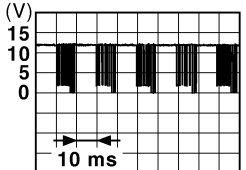
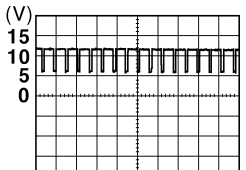
| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--|------------------|--|---|---|
| + | - | Signal name | Input/ Output | | | |
| 111 (LG) | Ground | Steering lock unit communication | Input/ Output | Steering lock | LOCK status | Battery voltage |
| | | | | | LOCK or UNLOCK |  <p style="text-align: right; font-size: small;">JMKIA0066GB</p> |
| | | | | | For 15 seconds after UN- LOCK | Battery voltage |
| | | | | 15 seconds or later after UNLOCK | 0 V | |
| 112 (R) | Ground | Rain sensor serial link | Input/ Output | Ignition switch ON |  <p style="text-align: right; font-size: small;">JPMIA0156GB</p> | |
| | | | | | 8.7 V | |
| 113*3 (O) | Ground | Optical sensor | Input | Ignition switch ON | When bright outside of the vehicle | Close to 5 V |
| | | | | When dark outside of the vehicle | Close to 0 V | |
| 116 (GR) | Ground | Stop lamp switch 1 | Input | — | Battery voltage | |
| 118 (L) | Ground | Stop lamp switch 2 | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is de- pressed) | Battery voltage |
| 119*1 (W) | Ground | Front door lock as- sembly driver side (Unlock sensor) | Input | Driver door | LOCK status (unlock sen- sor switch OFF) |  <p style="text-align: right; font-size: small;">JPMIA0012GB</p> |
| | | | | | UNLOCK status (unlock sensor switch ON) | 0 V |
| 121 (Y) | Ground | Key slot switch | Input | When the key is inserted into key slot | Battery voltage | |
| | | | | When the key is not inserted into key slot | 0 V | |
| 122 (R) | Ground | ACC feedback | Input | Ignition switch | OFF | 0 V |
| | | | | ACC or ON | Battery voltage | |
| 123 (G) | Ground | IGN feedback | Input | Ignition switch | OFF or ACC | 0 V |
| | | | | ON | Battery voltage | |

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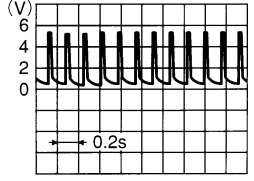
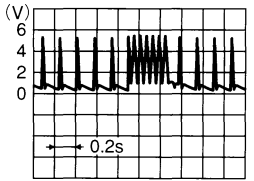
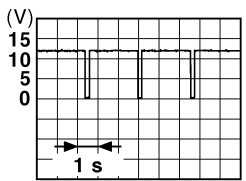
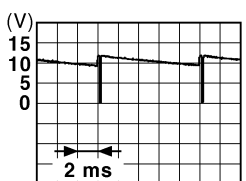
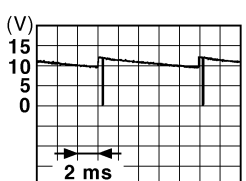
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--|------------------|--|---|
| | | Signal name | Input/ Output | | |
| + | - | | | | |
| 124 (R) | Ground | Passenger door switch | Input | Passenger door switch |  <p style="text-align: right; font-size: small;">JPMIA0011GB</p> <p style="text-align: center;">11.8 V</p> |
| | | | | OFF (When passenger door closes) | ON (When passenger door opens) |
| 130*4 (BR) | Ground | Rear window defogger switch | Input | Ignition switch ON |  <p style="text-align: right; font-size: small;">JPMIA0012GB</p> <p style="text-align: center;">1.1 V</p> |
| | | | | Rear window defogger switch OFF | Rear window defogger switch ON |
| 132 (G) | Ground | Power window switch communication | Input/ Output | Ignition switch ON |  <p style="text-align: right; font-size: small;">JPMIA0013GB</p> <p style="text-align: center;">10.2 V</p> |
| | | | | Ignition switch OFF or ACC | Battery voltage |
| 133 (W) | Ground | Push-button ignition switch illumination | Output | Push-button ignition switch illumination | <p style="text-align: center;">NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.</p>  <p style="text-align: right; font-size: small;">JPMIA0159GB</p> |
| | | | | ON (When tail lamps OFF) | 9.5 V |
| | | | | ON (When tail lamps ON) | |
| | | | | OFF | 0 V |
| 137 (P) | Ground | Receiver and sensor ground | Input | Ignition switch ON | 0 V |
| 138 (V) | Ground | Receiver and sensor power supply | Output | Ignition switch | OFF |
| | | | | ACC or ON | 5.0 V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|--------------------------------------|------------------|--|--|
| | | Signal name | Input/ Output | | |
| + | - | | | | |
| 139*5 (O) | Ground | Tire pressure receiver communication | Input/ Output | Ignition switch ON | Standby state  |
| | | | | When receiving the signal from the transmitter  | |
| 140 (GR) | Ground | Selector lever P/N position | Input | Selector lever | P or N position Battery voltage |
| | | | | Except P and N positions | 0 V |
| 141 (O) | Ground | Security indicator | Output | Security indicator | ON 0 V |
| | | | | Blinking  | 11.3 V |
| | | | | OFF | Battery voltage |
| 142 (L) | Ground | Combination switch OUTPUT 5 | Output | Combination switch (Wiper intermittent dial 4) | All switches OFF 0 V |
| | | | | Lighting switch 1ST |  |
| | | | | Lighting switch HI | |
| | | | | Lighting switch 2ND | |
| Turn signal switch RH | 10.7 V | | | | |
| 143 (W) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | All switches OFF (Wiper intermittent dial 4) 0 V |
| | | | | Front wiper switch HI (Wiper intermittent dial 4) |  |
| | | | | Rear wiper switch INT (Wiper intermittent dial 4) | |
| | | | | Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 | |

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | | |
|------------------------------|--------|---|------------------|---|--|--------|--------|
| + | - | Signal name | Input/ Output | | | | |
| 144 (P) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | All switches OFF (Wiper intermittent dial 4) | 0 V | |
| | | | | | Front washer switch ON (Wiper intermittent dial 4) | | |
| | | | | | Rear wiper switch ON (Wiper intermittent dial 4) | | |
| | | | | | Rear washer switch ON (Wiper intermittent dial 4) | | |
| | | | | | Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | | 10.7 V |
| 145 (V) | Ground | Combination switch OUTPUT 3 | Output | Combination switch (Wiper intermit- tent dial 4) | All switches OFF | 0 V | |
| | | | | | Front wiper switch INT/ AUTO | | |
| | | | | | Front wiper switch LO | | |
| | | | | | Lighting switch AUTO | | 10.7 V |
| 146 (Y) | Ground | Combination switch OUTPUT 4 | Output | Combination switch (Wiper intermit- tent dial 4) | All switches OFF | 0 V | |
| | | | | | Front fog lamp switch ON | | |
| | | | | | Lighting switch 2ND | | |
| | | | | | Lighting switch PASS | | |
| | | | | | Turn signal switch LH | | 10.7 V |
| 149*5 (W) | Ground | Tire pressure warn- ing check switch | Input | Ignition switch ON | | 11.8 V | |
| | | | | | | | |
| 150 (SB) | Ground | Driver door switch | Input | Driver door switch | OFF (When driver door closes) | | 11.8 V |
| | | | | | ON (When driver door opens) | 0 V | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|------------------------------------|------------------|----------------------|---------------|--------------------|
| + | - | Signal name | Input/ Output | | | |
| 151 (G) | Ground | Rear window defogger relay control | Output | Rear window defogger | Active | 0 V |
| | | | | | Not activated | Battery voltage |

NOTE:

- *1: With Intelligent Key system
- *2: Without Intelligent Key system
- *3: With auto light system
- *4: Without BOSE audio system
- *5: With TPMS

Wiring Diagram - BCM -

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UP TO VIN: JN8AZ18U*9W100000, JN8AZ18W*9W200000 (EXCEPT FOR MEXICO),

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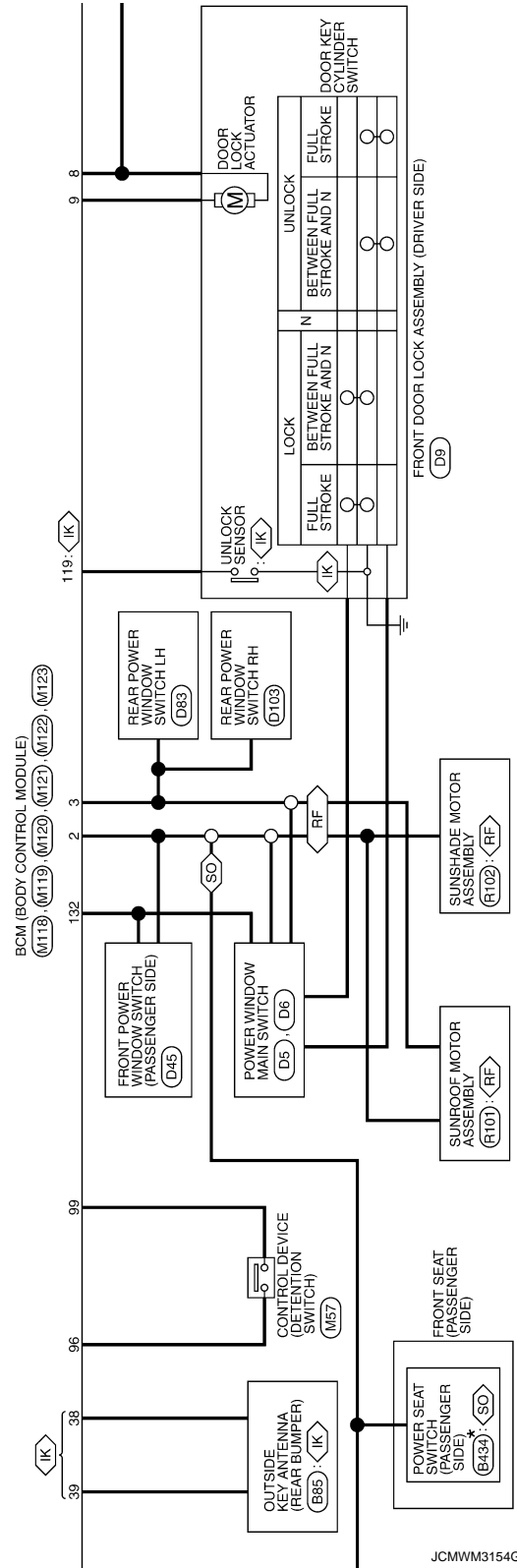
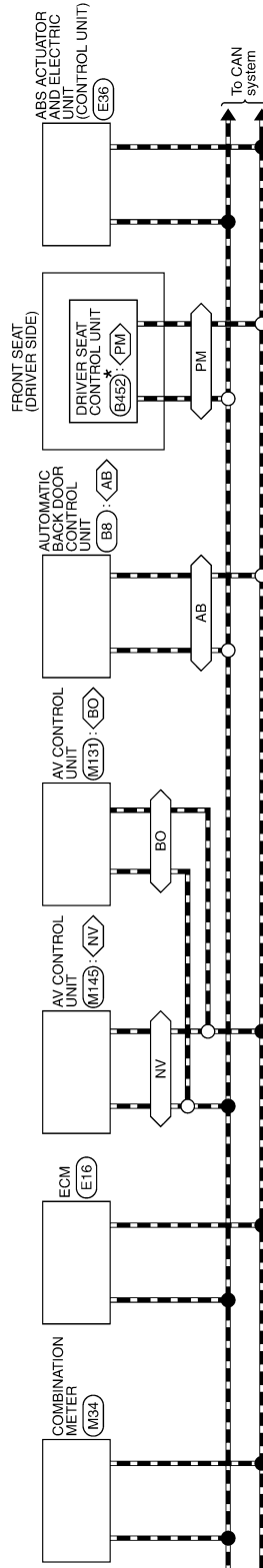
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

- ◊ IK : With Intelligent Key
- ◊ NV : With navigation system
- ◊ BC : With BOSE system without navigation system
- ◊ FE : With sunroof
- ◊ PM : With automatic drive positioner
- ◊ SO : With power seat without automatic drive positioner
- ◊ AB : With automatic back door

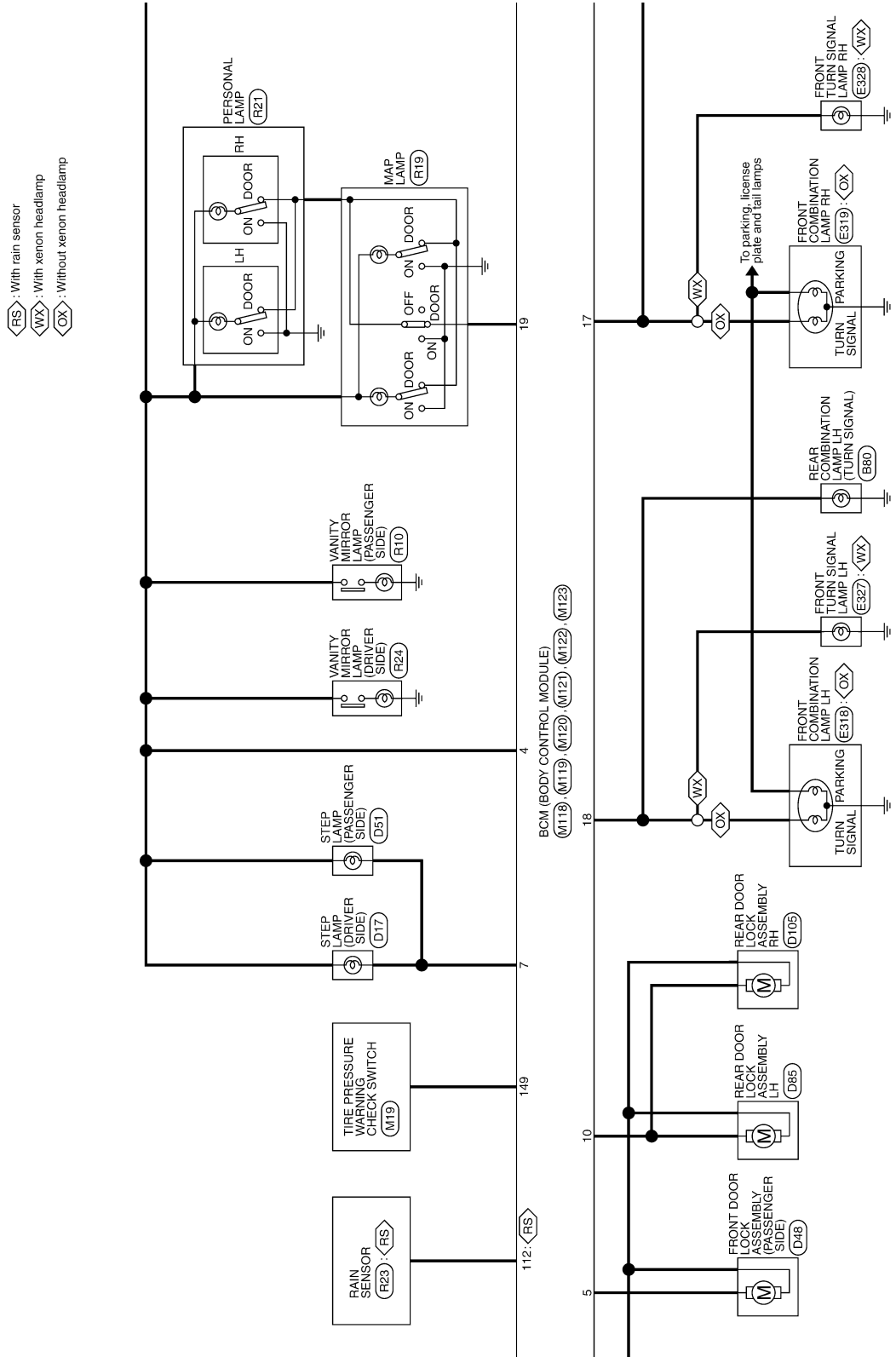
*: This connector is not shown in "Harness Layout".



JCMWWM3154G

BCM (BODY CONTROL MODULE)

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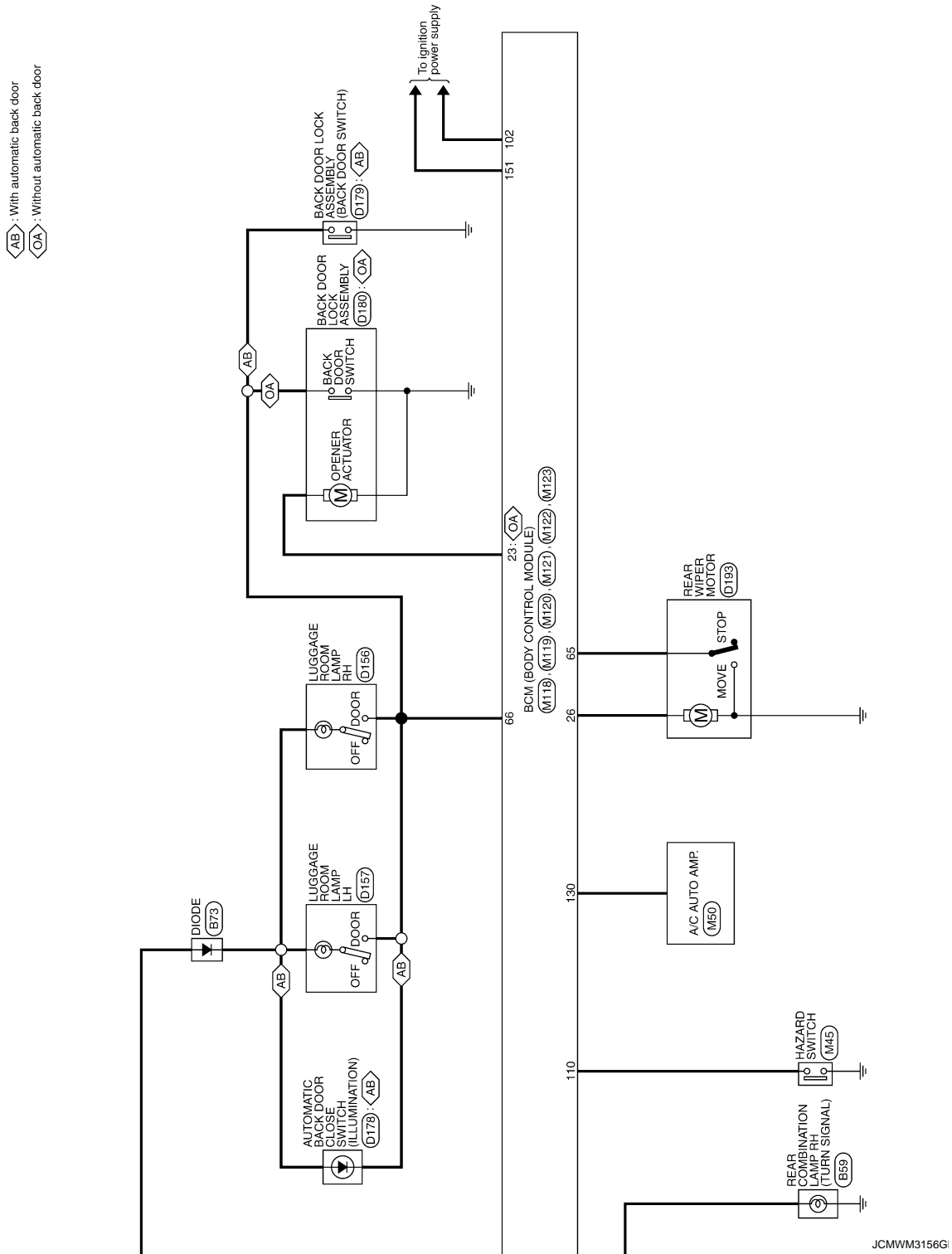
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BCM (BODY CONTROL MODULE)

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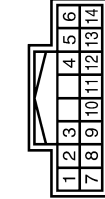


BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE) (TYPE A)

| | |
|----------------|--------------------|
| Connector No. | M103 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | Y | OUTPUT 4 |
| 5 | V | OUTPUT 3 |
| 7 | GR | INPUT 3 |
| 8 | L | OUTPUT 5 |
| 9 | SB | INPUT 2 |
| 10 | P | INPUT 4 |
| 11 | O | INPUT 1 |
| 12 | W | OUTPUT 1 |
| 13 | R | INPUT 5 |
| 14 | P | OUTPUT 2 |



| | |
|----------------|---------------------------|
| Connector No. | M120 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS12FW-CS |



| | |
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| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FB-LC |



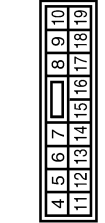
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 1 | W | BAT (F/L) |
| 2 | GR | POWER WINDOW POWER SUPPLY (BAT) |
| 3 | L | POWER WINDOW POWER SUPPLY (RAP) |

| | |
|----------------|---------------------------|
| Connector No. | M121 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FGY-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 34 | B | LUGGAGE ROOM ANTI- |
| 35 | W | LUGGAGE ROOM ANTI+ |
| 38 | L | REAR BUMPER ANTI- |
| 39 | BR | REAR BUMPER ANTI+ |
| 47 | L | IGN RELAY /PDM E/R CONT |
| 52 | R | STARTER RELAY CONT |
| 61 | R | BACK DOOR OPENER REQUEST SW |
| 64 | GR | REQUEST SW BUZZER |
| 65 | O | REAR WIPER STOP POSITION |
| 66 | Y | BACK DOOR SW |
| 67 | LG | BACK DOOR OPENER SW |

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------------|
| 4 | P | INTERIOR ROOM LAMP POWER SUPPLY |
| 5 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 7 | W | STEP LAMP OUTPUT |
| 8 | V | ALL DOOR FUEL LID LOCK OUTPUT |
| 9 | G | DRIVER DOOR FUEL LID UNLOCK OUTPUT |
| 10 | P | REAR DOOR UNLOCK OUTPUT |
| 11 | LG | BAT (FUSE) |
| 13 | B | GND |
| 14 | O | PUSH-BUTTON IGNITION SW ILL GND |
| 15 | L | ACC IND |
| 17 | G | TURN SIGNAL RH |

| | | |
|----|---|-----------------|
| 68 | W | REAR RH DOOR SW |
| 69 | R | REAR LH DOOR SW |

| | | |
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| 18 | BR | TURN SIGNAL LH |
| 19 | Y | ROOM LAMP TIMER CONTROL |

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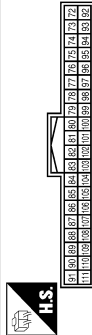
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BCM (BODY CONTROL MODULE)

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BCM (BODY CONTROL MODULE) (TYPE A)

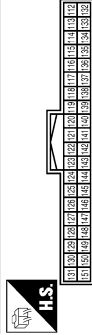
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|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 72 | B | ROOM ANT2- |
| 73 | W | ROOM ANT2+ |
| 74 | Y | PASSENGER DOOR ANT- |
| 75 | LG | PASSENGER DOOR ANT+ |
| 76 | V | DRIVER DOOR ANT- |
| 77 | P | DRIVER DOOR ANT+ |
| 78 | R | ROOM ANT1- |
| 79 | G | ROOM ANT1+ |
| 80 | SB | IMMOBI ANTENNA CONTROL |
| 81 | O | IMMOBI ANTENNA SIGNAL |
| 82 | BR | IGN RELAY (F/B) CONT |

| | | |
|-----|----|---------------------------------------|
| 83 | P | KEYLESS ENTRY RECEIVER SIGNAL |
| 87 | R | COMBI SW INPUT 5 |
| 88 | GR | COMBI SW INPUT 3 |
| 89 | BR | PUSH SW |
| 90 | P | CAN-L |
| 91 | L | CAN-H |
| 92 | R | KEY SLOT ILL[With Intelligent Key] |
| 93 | L | KEY SLOT ILL[Without Intelligent Key] |
| 94 | L | ON IND |
| 95 | L | ACC RELAY CONT |
| 96 | Y | A/T DEVICE POWER SUPPLY |
| 97 | O | S/L CONDITION 1 |
| 98 | L | S/L CONDITION 2 |
| 99 | V | SHIFT P |
| 100 | P | PASSENGER DOOR REQUEST SW |
| 101 | W | DRIVER DOOR REQUEST SW |
| 102 | Y | BLOWER FAN MOTOR RELAY CONT |
| 103 | L | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 106 | Y | S/L POWER SUPPLY |
| 107 | O | COMBI SW INPUT 1 |
| 108 | P | COMBI SW INPUT 4 |
| 109 | SB | COMBI SW INPUT 2 |
| 110 | G | HAZARD SW |
| 111 | LG | S/L COMM |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 112 | R | RAIN SENSOR SERIAL LINK |
| 113 | O | OPTICAL SENSOR |
| 116 | GR | FUSE CHECK |
| 118 | L | STOP LAMP SW |
| 119 | W | DR DOOR UNLOCK SENSOR |
| 121 | Y | KEY SLOT SW |
| 122 | R | ACC F/B |
| 123 | G | IGN F/B |
| 124 | R | PASSENGER DOOR SW |
| 130 | BR | REAR DEFOGGER SW |
| 132 | G | POWER WINDOW SW COMM |

| | | |
|-----|----|-----------------------------------|
| 133 | W | PUSH-BUTTON IGNITION SW ILL POWER |
| 137 | P | RECEIVER SENSOR GND |
| 138 | V | RECEIVER SENSOR POWER SUPPLY |
| 139 | O | TIRE PRESS RECEIVER SIGNAL |
| 140 | GR | SHIFT N/P |
| 141 | O | SECURITY INDICATOR OUTPUT |
| 142 | L | COMBI SW OUTPUT 5 |
| 143 | W | COMBI SW OUTPUT 1 |
| 144 | P | COMBI SW OUTPUT 2 |
| 145 | V | COMBI SW OUTPUT 3 |
| 146 | Y | COMBI SW OUTPUT 4 |
| 149 | W | TIRE PRESS WARNING CHECK SW |
| 150 | SB | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFOGGER RELAY |

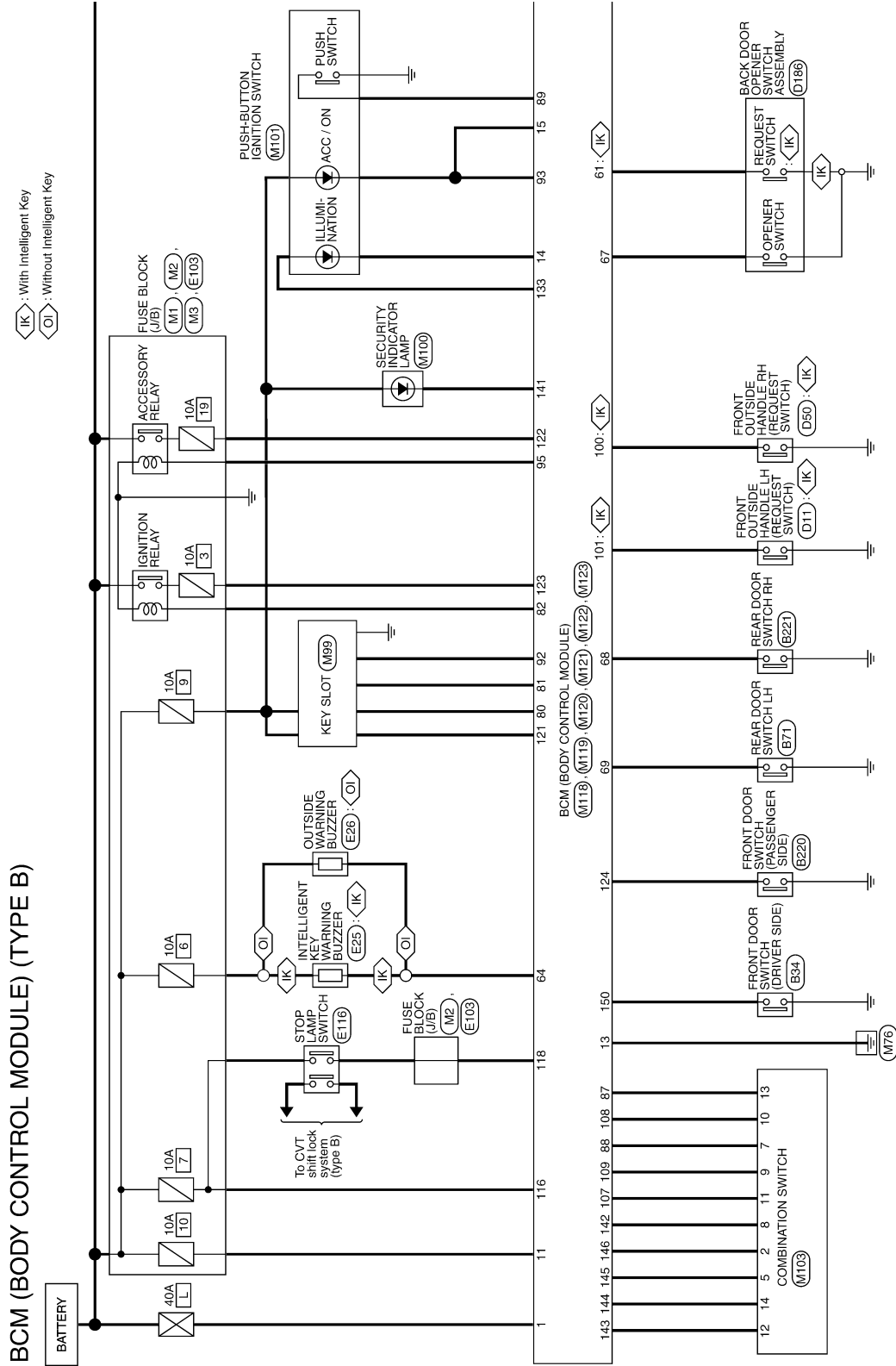
JCMW3158G

FROM VIN: JN8AZ18U*9W10001, JN8AZ18W*9W20001 (EXCEPT FOR MEXICO),

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

JN8AZ18U*9W710001, JN8AZ18W*9W810001 (FOR MEXICO)



2008/09/23

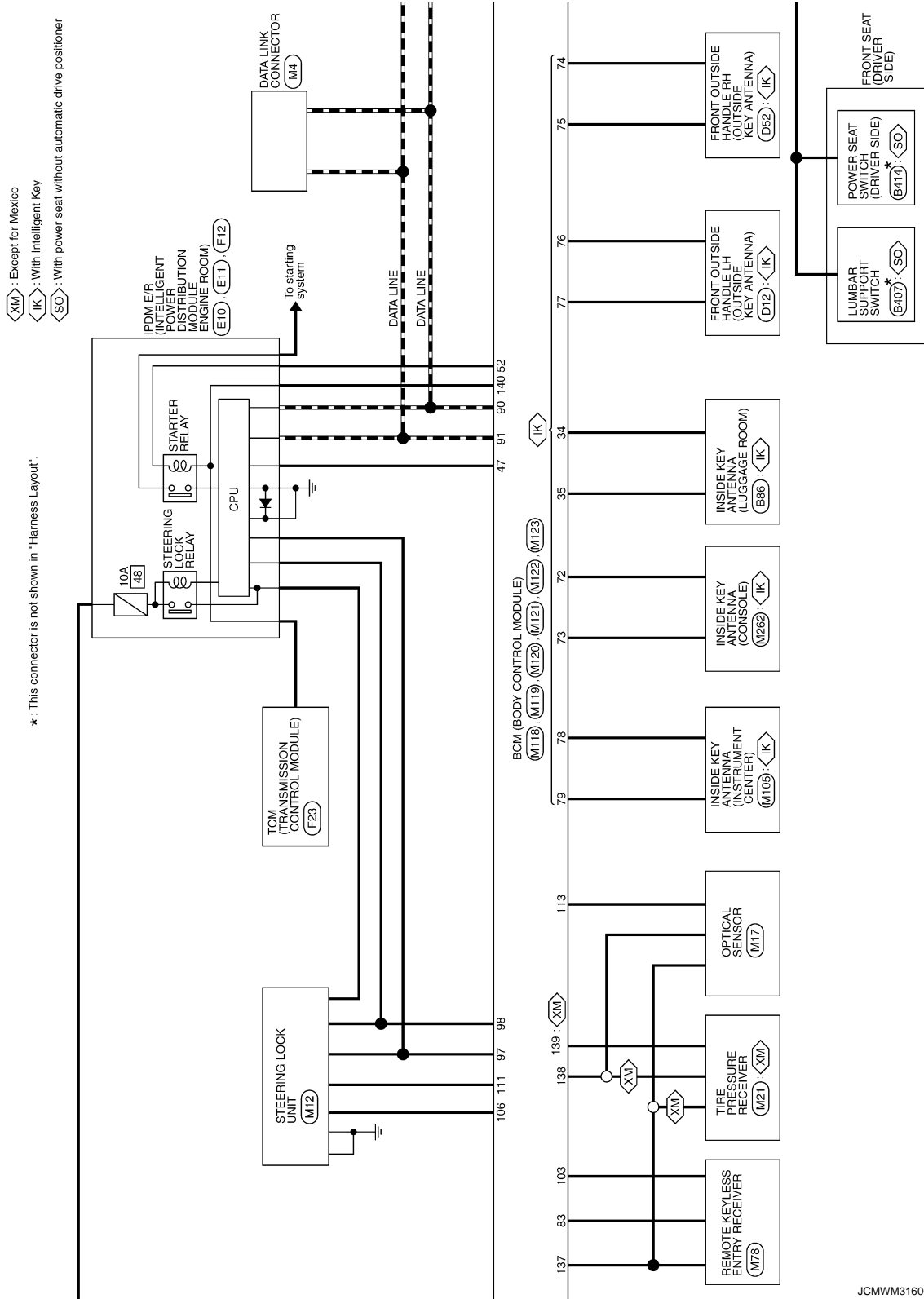
JCMWM3159G1

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >



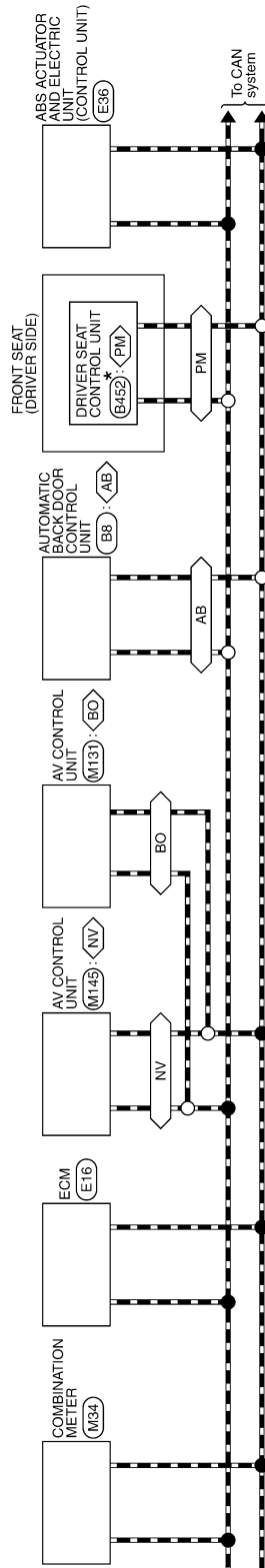
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BCM (BODY CONTROL MODULE)

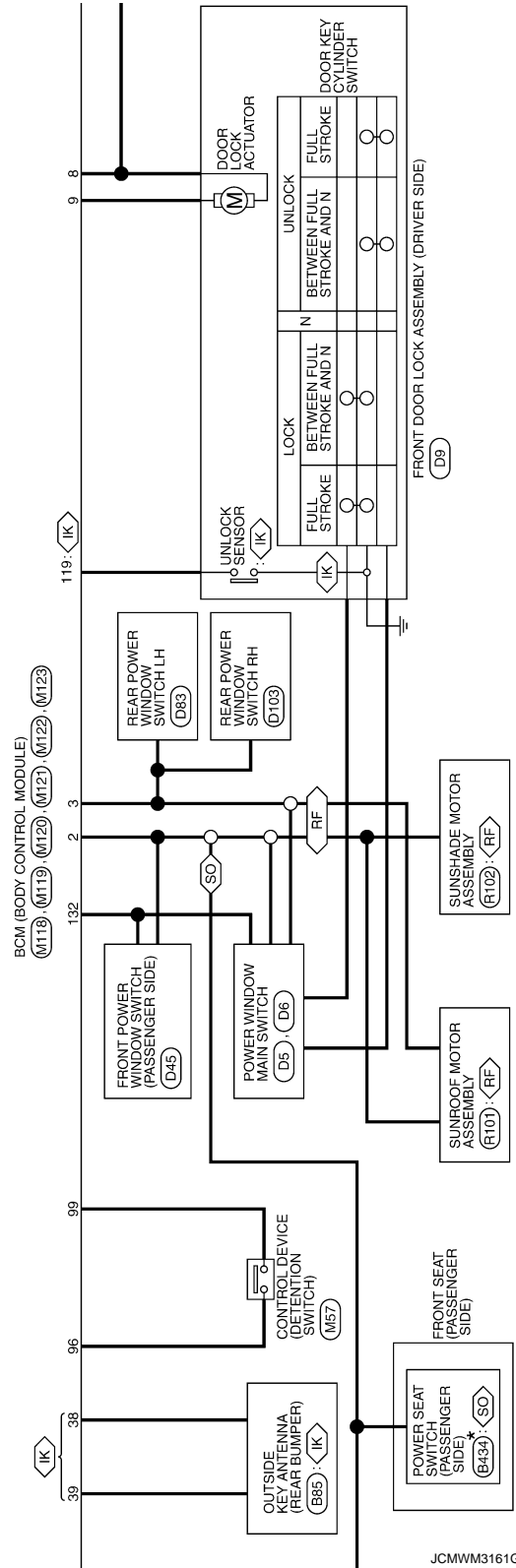
< ECU DIAGNOSIS >

- ◊IK : With Intelligent Key
- ◊NV : With navigation system
- ◊BO : With BOSE system without navigation system
- ◊PM : With sunroof
- ◊FM : With automatic drive positioner
- ◊SO : With power seat without automatic drive positioner
- ◊AB : With automatic back door

* : This connector is not shown in "Harness Layout".



BCM (BODY CONTROL MODULE)



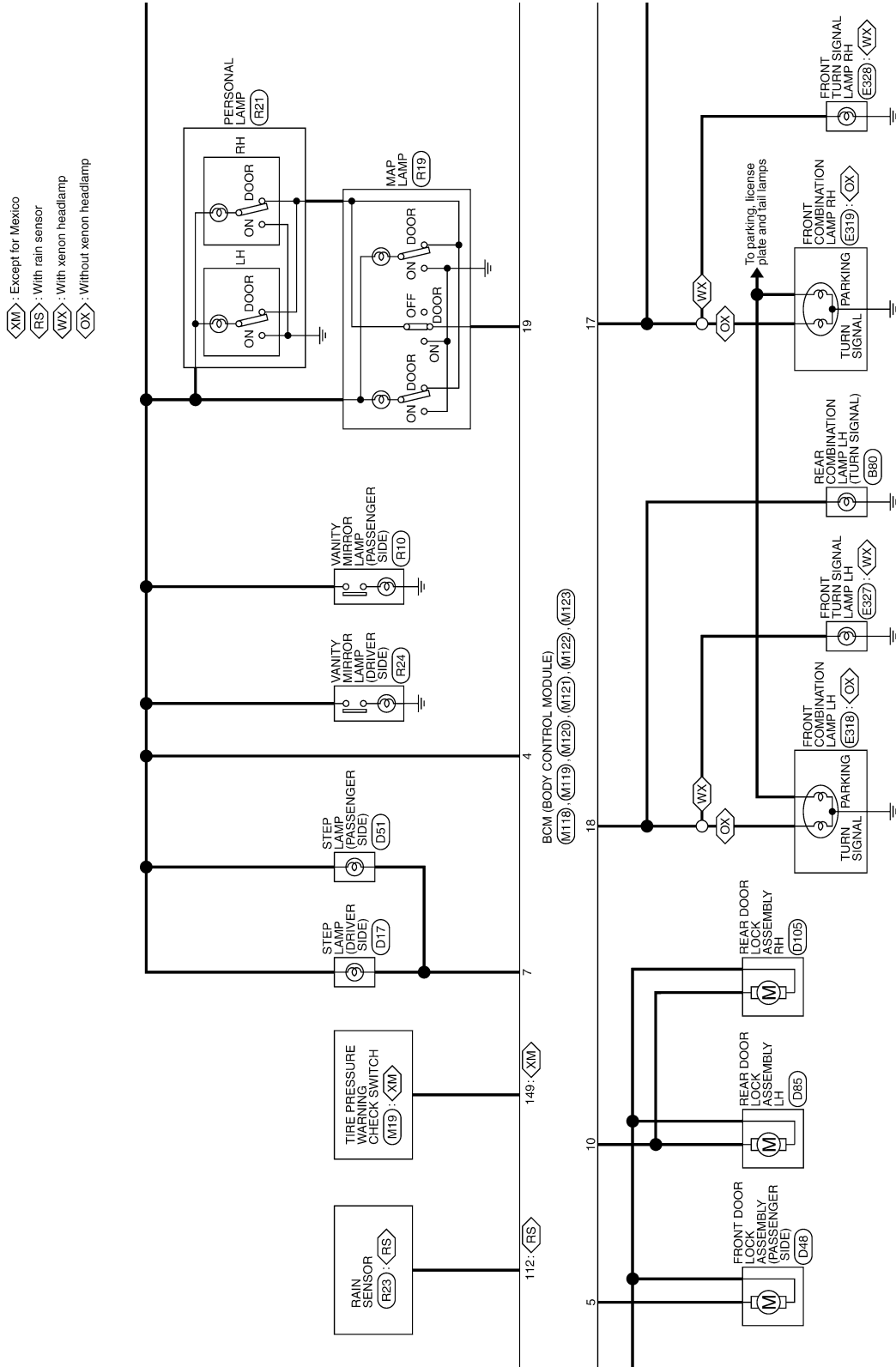
JCMWM3161G1

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BCM (BODY CONTROL MODULE)

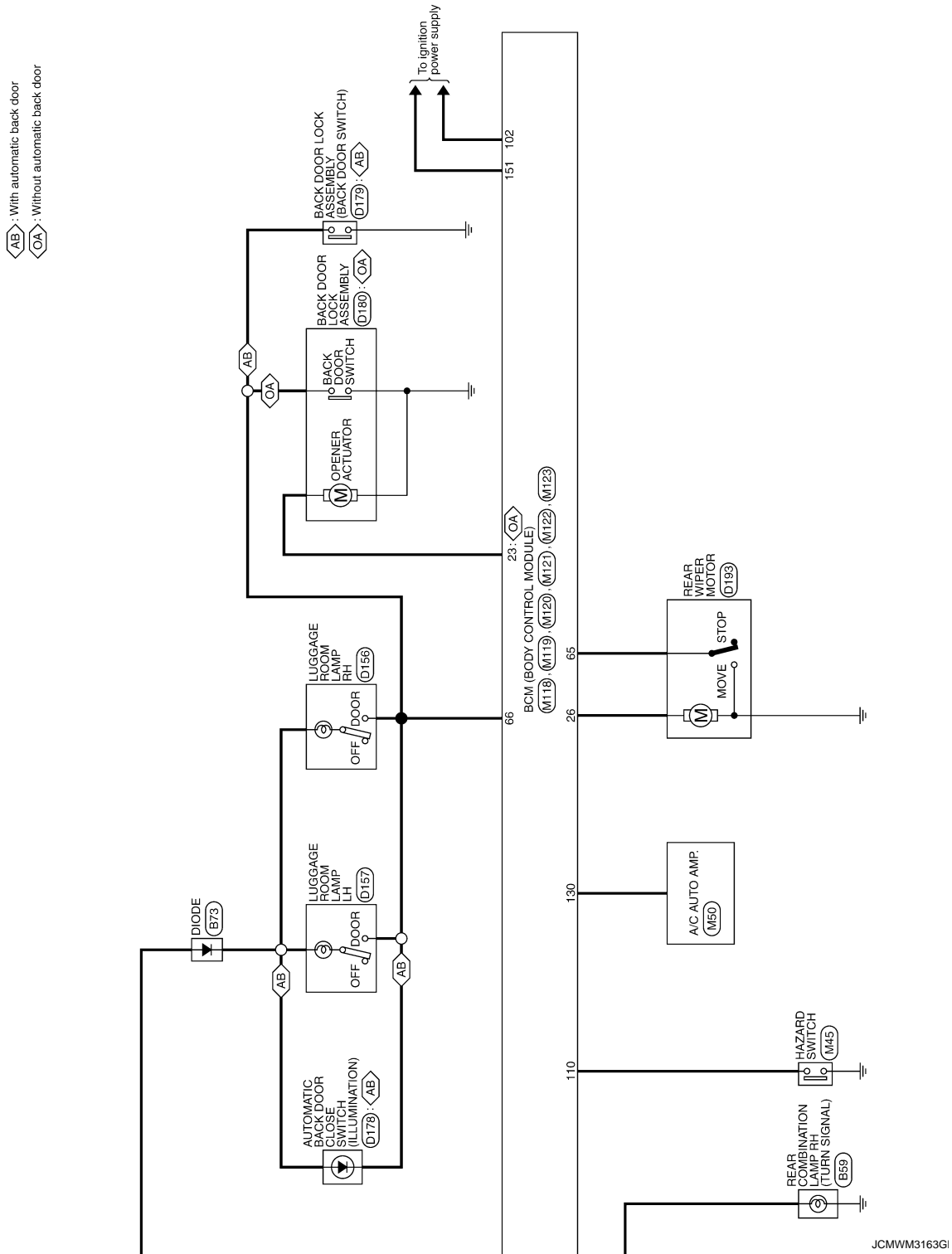
< ECU DIAGNOSIS >



JCMW3162G

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >



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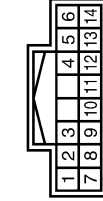
PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE) (TYPE B)

| | |
|----------------|--------------------|
| Connector No. | M103 |
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 2 | Y | OUTPUT 4 |
| 5 | V | OUTPUT 3 |
| 7 | GR | INPUT 3 |
| 8 | L | OUTPUT 5 |
| 9 | SB | INPUT 2 |
| 10 | P | INPUT 4 |
| 11 | O | INPUT 1 |
| 12 | W | OUTPUT 1 |
| 13 | R | INPUT 5 |
| 14 | P | OUTPUT 2 |



| | |
|----------------|---------------------------|
| Connector No. | M120 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS12FW-CS |

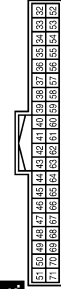


| | |
|----------------|---------------------------|
| Connector No. | M118 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | M03FB-LC |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|---------------------------------|
| 1 | W | BAT (F/L) |
| 2 | GR | POWER WINDOW POWER SUPPLY (BAT) |
| 3 | L | POWER WINDOW POWER SUPPLY (RAP) |

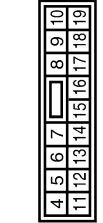
| | |
|----------------|---------------------------|
| Connector No. | M121 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FGY-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 23 | BR | BACK DOOR OPEN OUTPUT |
| 26 | G | REAR WIPER OUTPUT |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 34 | B | LUGGAGE ROOM ANTI- |
| 35 | W | LUGGAGE ROOM ANTI+ |
| 38 | L | REAR BUMPER ANTI- |
| 39 | BR | REAR BUMPER ANTI+ |
| 47 | L | IGN RELAY IPDM E/R CONT |
| 52 | R | STARTER RELAY CONT |
| 61 | R | BACK DOOR OPENER REQUEST SW |
| 64 | GR | REQUEST SW BUZZER |
| 65 | O | REAR WIPER STOP POSITION |
| 66 | Y | BACK DOOR SW |
| 67 | LG | BACK DOOR OPENER SW |

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|------------------------------------|
| 4 | P | INTERIOR ROOM LAMP POWER SUPPLY |
| 5 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 7 | W | STEP LAMP OUTPUT |
| 8 | V | ALL DOOR FUEL LID LOCK OUTPUT |
| 9 | G | DRIVER DOOR FUEL LID UNLOCK OUTPUT |
| 10 | P | REAR DOOR UNLOCK OUTPUT |
| 11 | LG | BAT (GUSE) |
| 13 | B | GND |
| 14 | O | PUSH-BUTTON IGNITION SW ILL GND |
| 15 | L | ACC IND |
| 17 | G | TURN SIGNAL RH |

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | NS16FW-CS |

| | | | | | |
|--------------|----|---------------|---|-----------------------------|-----------------|
| Terminal No. | 68 | Color of Wire | W | Signal Name [Specification] | REAR RH DOOR SW |
| Terminal No. | 69 | Color of Wire | R | Signal Name [Specification] | REAR LH DOOR SW |

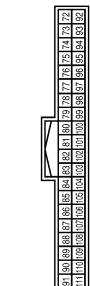
JCMWM3164G

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE) (TYPE B)

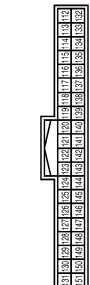
| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 72 | B | ROOM ANT2- |
| 73 | W | ROOM ANT2+ |
| 74 | Y | PASSENGER DOOR ANT- |
| 75 | LG | PASSENGER DOOR ANT+ |
| 76 | V | DRIVER DOOR ANT- |
| 77 | P | DRIVER DOOR ANT+ |
| 78 | R | ROOM ANT1- |
| 79 | G | ROOM ANT1+ |
| 80 | SB | IMMOBI ANTENNA CONTROL |
| 81 | O | IMMOBI ANTENNA SIGNAL |
| 82 | BR | IGN RELAY (F/B) CONT |

| | | |
|-----|----|-------------------------------------|
| 83 | P | KEYLESS ENTRY RECEIVER SIGNAL |
| 87 | R | COMBI SW INPUT 5 |
| 88 | GR | COMBI SW INPUT 3 |
| 89 | BR | PUSH SW |
| 90 | P | CAN-L |
| 91 | L | CAN-H |
| 92 | R | KEY SLOT ILL[With Intelligent Key] |
| 93 | L | ON IND |
| 95 | L | ACC RELAY CONT |
| 96 | Y | A-T DEVICE POWER SUPPLY |
| 97 | O | S/L CONDITION 1 |
| 98 | L | S/L CONDITION 2 |
| 99 | V | SHIFT P |
| 100 | P | PASSENGER DOOR REQUEST SW |
| 101 | W | DRIVER DOOR REQUEST SW |
| 102 | Y | BLOWER FAN MOTOR RELAY CONT |
| 103 | L | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 106 | Y | S/L POWER SUPPLY |
| 107 | O | COMBI SW INPUT 1 |
| 108 | P | COMBI SW INPUT 4 |
| 109 | SB | COMBI SW INPUT 2 |
| 110 | G | HAZARD SW |
| 111 | LG | S/L COMM |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 112 | R | RAIN SENSOR SERIAL LINK |
| 113 | O | OPTICAL SENSOR |
| 116 | GR | FUSE CHECK |
| 118 | L | STOP LAMP SW |
| 119 | W | DR DOOR UNL OCK SENSOR |
| 121 | Y | KEY SLOT SW |
| 122 | R | ACC F/B |
| 123 | G | IGN F/B |
| 124 | R | PASSENGER DOOR SW |
| 130 | BR | REAR DEFOGGER SW |
| 132 | G | POWER WINDOW SW COMM |

| | | |
|-----|----|-----------------------------------|
| 133 | W | PUSH-BUTTON IGNITION SW ILL POWER |
| 137 | P | RECEIVER SENSOR GND |
| 138 | V | RECEIVER SENSOR POWER SUPPLY |
| 139 | O | TIRE PRESS RECEIVER SIGNAL |
| 140 | GR | SHIFT N/P |
| 141 | O | SECURITY INDICATOR OUTPUT |
| 142 | L | COMBI SW OUTPUT 5 |
| 143 | W | COMBI SW OUTPUT 1 |
| 144 | P | COMBI SW OUTPUT 2 |
| 145 | V | COMBI SW OUTPUT 3 |
| 146 | Y | COMBI SW OUTPUT 4 |
| 149 | W | TIRE PRESS WARNING CHECK SW |
| 150 | SB | DRIVER DOOR SW |
| 151 | G | REAR WINDOW DEFOGGER RELAY |

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PWC

Fail-safe

FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

JCMWM3165GI

INFOID:000000004756223

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Display contents of CONSULT | Fail-safe | Cancellation |
|-----------------------------|-------------------------|---|
| B2013: ID DISCORD BCM-S/L | Inhibit engine cranking | Erase DTC |
| B2014: CHAIN OF S/L-BCM | Inhibit engine cranking | Erase DTC |
| B2190: NATS ANTENNA AMP | Inhibit engine cranking | Erase DTC |
| B2191: DIFFERENCE OF KEY | Inhibit engine cranking | Erase DTC |
| B2192: ID DISCORD BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2193: CHAIN OF BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2195: ANTI SCANNING | Inhibit engine cranking | Ignition switch ON → OFF |
| B2557: VEHICLE SPEED | Inhibit steering lock | When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms |
| B2560: STARTER CONT RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> • Starter control relay signal • Starter relay status signal |
| B2601: SHIFT POSITION | Inhibit steering lock | 500 ms after the following signal reception status becomes consistent <ul style="list-style-type: none"> • Selector lever P position switch signal • P range signal (CAN) |
| B2602: SHIFT POSITION | Inhibit steering lock | 5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more |
| B2603: SHIFT POSI STATUS | Inhibit steering lock | 500 ms after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Selector lever P/N position signal: Except P and N positions (0 V) |
| B2604: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF |
| B2605: PNP SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position <ul style="list-style-type: none"> - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON |
| B2606: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal) |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Display contents of CONSULT | Fail-safe | Cancellation |
|-----------------------------|--|---|
| B2607: S/L RELAY | Inhibit engine cranking | 500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal) |
| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> Starter motor relay control signal Starter relay status signal (CAN) |
| B2609: S/L STATUS | <ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock | When the following steering lock conditions agree <ul style="list-style-type: none"> BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) |
| B260F: ENG STATE SIG LOST | Maintains the power supply position attained at the time of DTC detection | When any of the following conditions are fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN) |
| B2612: S/L STATUS | <ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock | When any of the following conditions are fulfilled <ul style="list-style-type: none"> Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R) |
| B2617: STARTER RELAY CIRC | Inhibit engine cranking | 1 second after the starter motor relay control inside BCM becomes normal |
| B2618: BCM | Inhibit engine cranking | 1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control inside BCM becomes normal |
| B261E: VEHICLE TYPE | Inhibit engine cranking | BCM initialization |
| B26E9: S/L STATUS | <ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock | When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled <ul style="list-style-type: none"> Steering condition No. 1 signal: LOCK (0V) Steering condition No. 2 signal: LOCK (Battery voltage) |

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.
 BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF ⇒ ON and front wiper switch is INT/AUTO position, BCM operates a fail-safe control.

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.
 When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

- More than 1 minute is passed after the rear wiper stop.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:000000004756224

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

| Priority | DTC |
|----------|--|
| 1 | B2562: LOW VOLTAGE |
| 2 | <ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN) |
| 3 | <ul style="list-style-type: none"> • B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI SCANNING |
| 4 | <ul style="list-style-type: none"> • B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2612: S/L STATUS • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| Priority | DTC |
|----------|---|
| 5 | <ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1734: CONTROL UNIT |
| 6 | <ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA |

DTC Index

INFOID:000000004756225

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to [BCS-17. "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)".](#)

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|--|-----------|--|---------------------------------|---------------------------------------|------------------------|
| No DTC is detected. further testing may be required. | — | — | — | — | — |
| U1000: CAN COMM CIRCUIT | — | — | — | — | BCS-40 |
| U1010: CONTROL UNIT (CAN) | — | — | — | — | BCS-41 |
| U0415: VEHICLE SPEED SIG | — | — | — | — | BCS-42 |
| B2013: ID DISCORD BCM-S/L | × | × | — | — | SEC-55 |
| B2014: CHAIN OF S/L-BCM | × | × | — | — | SEC-56 |
| B2190: NATS ANTENNA AMP | × | — | — | — | SEC-47 |
| B2191: DIFFERENCE OF KEY | × | — | — | — | SEC-50 |
| B2192: ID DISCORD BCM-ECM | × | — | — | — | SEC-51 |
| B2193: CHAIN OF BCM-ECM | × | — | — | — | SEC-53 |
| B2195: ANTI SCANNING | × | — | — | — | SEC-54 |
| B2553: IGNITION RELAY | — | × | — | — | PCS-49 |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---------------------------|-----------|--|---------------------------------|---------------------------------------|-------------------------|
| B2555: STOP LAMP | — | × | — | — | SEC-59 |
| B2556: PUSH-BTN IGN SW | — | × | × | — | SEC-61 |
| B2557: VEHICLE SPEED | × | × | × | — | SEC-63 |
| B2560: STARTER CONT RELAY | × | × | × | — | SEC-64 |
| B2562: LOW VOLTAGE | — | × | — | — | BCS-43 |
| B2601: SHIFT POSITION | × | × | × | — | SEC-65 |
| B2602: SHIFT POSITION | × | × | × | — | SEC-68 |
| B2603: SHIFT POSI STATUS | × | × | × | — | SEC-70 |
| B2604: PNP SW | × | × | × | — | SEC-73 |
| B2605: PNP SW | × | × | × | — | SEC-75 |
| B2606: S/L RELAY | × | × | × | — | SEC-77 |
| B2607: S/L RELAY | × | × | × | — | SEC-78 |
| B2608: STARTER RELAY | × | × | × | — | SEC-80 |
| B2609: S/L STATUS | × | × | × | — | SEC-82 |
| B260A: IGNITION RELAY | × | × | × | — | PCS-51 |
| B260B: STEERING LOCK UNIT | — | × | × | — | SEC-86 |
| B260C: STEERING LOCK UNIT | — | × | × | — | SEC-87 |
| B260D: STEERING LOCK UNIT | — | × | × | — | SEC-88 |
| B260F: ENG STATE SIG LOST | × | × | × | — | SEC-89 |
| B2612: S/L STATUS | × | × | × | — | SEC-92 |
| B2614: ACC RELAY CIRC | — | × | × | — | PCS-53 |
| B2615: BLOWER RELAY CIRC | — | × | × | — | PCS-56 |
| B2616: IGN RELAY CIRC | — | × | × | — | PCS-59 |
| B2617: STARTER RELAY CIRC | × | × | × | — | SEC-96 |
| B2618: BCM | × | × | × | — | PCS-62 |
| B2619: BCM | × | × | × | — | SEC-98 |
| B261A: PUSH-BTN IGN SW | — | × | × | — | SEC-99 |
| B261E: VEHICLE TYPE | × | × | × (Turn ON for 15 seconds) | — | SEC-102 |
| B2621: INSIDE ANTENNA | — | × | — | — | DLK-95 |
| B2622: INSIDE ANTENNA | — | × | — | — | DLK-97 |
| B2623: INSIDE ANTENNA | — | × | — | — | DLK-99 |
| B26E9: S/L STATUS | × | × | × (Turn ON for 15 seconds) | — | SEC-90 |
| B26EA: KEY REGISTRATION | — | × | × (Turn ON for 15 seconds) | — | SEC-91 |
| C1704: LOW PRESSURE FL | — | — | — | × | WT-16 |
| C1705: LOW PRESSURE FR | — | — | — | × | |
| C1706: LOW PRESSURE RR | — | — | — | × | |
| C1707: LOW PRESSURE RL | — | — | — | × | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---------------------------|-----------|--|---------------------------------|---------------------------------------|-----------------------|
| C1708: [NO DATA] FL | — | — | — | × | WT-18 |
| C1709: [NO DATA] FR | — | — | — | × | |
| C1710: [NO DATA] RR | — | — | — | × | |
| C1711: [NO DATA] RL | — | — | — | × | |
| C1712: [CHECKSUM ERR] FL | — | — | — | × | WT-21 |
| C1713: [CHECKSUM ERR] FR | — | — | — | × | |
| C1714: [CHECKSUM ERR] RR | — | — | — | × | |
| C1715: [CHECKSUM ERR] RL | — | — | — | × | |
| C1716: [PRESSDATA ERR] FL | — | — | — | × | WT-24 |
| C1717: [PRESSDATA ERR] FR | — | — | — | × | |
| C1718: [PRESSDATA ERR] RR | — | — | — | × | |
| C1719: [PRESSDATA ERR] RL | — | — | — | × | |
| C1720: [CODE ERR] FL | — | — | — | × | WT-26 |
| C1721: [CODE ERR] FR | — | — | — | × | |
| C1722: [CODE ERR] RR | — | — | — | × | |
| C1723: [CODE ERR] RL | — | — | — | × | |
| C1724: [BATT VOLT LOW] FL | — | — | — | × | WT-29 |
| C1725: [BATT VOLT LOW] FR | — | — | — | × | |
| C1726: [BATT VOLT LOW] RR | — | — | — | × | |
| C1727: [BATT VOLT LOW] RL | — | — | — | × | |
| C1729: VHCL SPEED SIG ERR | — | — | — | × | WT-32 |
| C1734: CONTROL UNIT | — | — | — | × | WT-33 |

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PWC

POWER WINDOW MAIN SWITCH

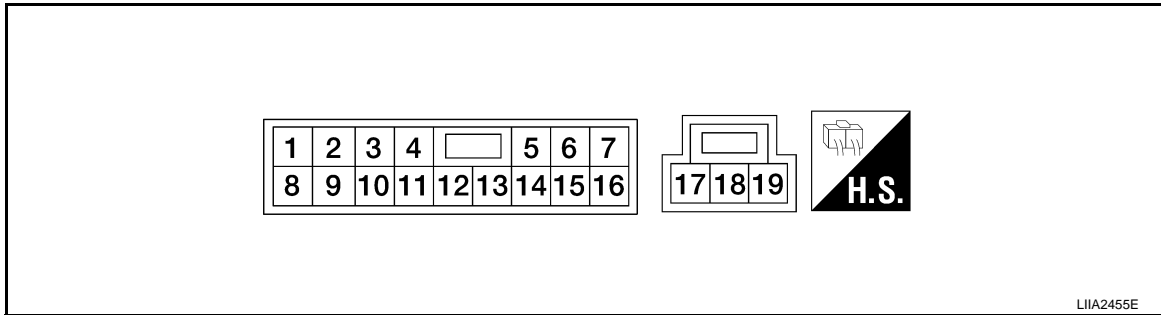
< ECU DIAGNOSIS >

POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000003507932

TERMINAL LAYOUT



PHYSICAL VALUES

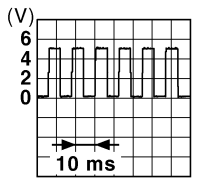
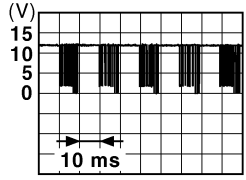
POWER WINDOW MAIN SWITCH

| Terminal No. (Wire color) | | Description | | Condition | Voltage (V) (Approx.) |
|------------------------------|--------|---|------------------|---|--------------------------|
| + | - | Signal name | Input/ Output | | |
| 1 (GR) | Ground | Rear power window motor LH UP signal | Output | When rear LH switch in power window main switch is UP at operated | Battery voltage |
| 2 (W) | Ground | Encoder ground | — | — | 0 |
| 3 (BR) | Ground | Rear power window motor LH DOWN signal | Output | When rear LH switch in power window main switch is DOWN at operated | Battery voltage |
| 4 (L) | Ground | Door key cylinder switch LH LOCK signal | Input | Key position (Neutral → Locked) | 5 → 0 |
| 5 (SB) | Ground | Rear power window motor RH DOWN signal | Output | When rear RH switch in power window main switch is DOWN at operated | Battery voltage |
| 6 (R) | Ground | Door key cylinder switch LH UNLOCK signal | Input | Key position (Neutral → Unlocked) | 5 → 0 |
| 7 (P) | 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 (L) | 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 |
| 9 (G) | Ground | Encoder pulse signal 2 | Input | When front power window motor (driver side) operates | |

JMKIA0070GB

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

| Terminal No. (Wire color) | | Description | | Condition | Voltage (V) (Approx.) |
|------------------------------|--------|--|------------------|---|--|
| + | - | Signal name | Input/ Output | | |
| 10 (V) | Ground | Retained power signal | Input | Ignition switch ON | Battery voltage |
| | | | | Within 45 seconds after ignition switch is turned to OFF | Battery voltage |
| | | | | When driver side or passenger side door is opened during retained power operation | 0 |
| 11 (LG) | 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 |
| 13 (Y) | Ground | Encoder pulse signal 1 | Input | When front power window motor (driver side) operates. |  <small>JMKIA0070GB</small> |
| 14 (O) | Ground | Power window serial link | Input/ Output | Ignition switch ON or power window timer operating |  <small>JPMIA0013GB</small> |
| 15 (R) | Ground | Encoder power supply | Output | Ignition switch ON | Battery voltage |
| 17 (B) | Ground | Ground | — | — | 0 |
| 19 (LG) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |

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PWC

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

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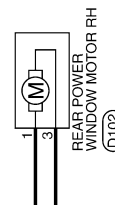
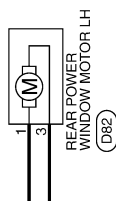
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JCKWM2252GF

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

| | |
|----------------|--------------|
| Connector No. | B3 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10FW-NSB |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 14 | GR | - |
| 15 | BR | - |
| 17 | R | - |

| | |
|----------------|--------------|
| Connector No. | B216 |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16MER-GS |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 14 | R | - |
| 15 | P | - |
| 16 | SB | - |

| | |
|----------------|--------------|
| Connector No. | B218 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10FW-NSB |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 14 | P | - |
| 15 | SB | - |
| 17 | R | - |

| | |
|----------------|--------------|
| Connector No. | B11 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS19 |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 15 | SB | - |
| 95 | BR | - |
| 96 | GR | - |
| 97 | R | - |

| | |
|----------------|---------------------------------|
| Connector No. | B34 |
| Connector Name | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 2 | SB | - |

| | |
|----------------|------------------------------------|
| Connector No. | B220 |
| Connector Name | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Type | A03FW |

| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 2 | R | - |

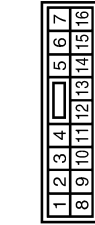
JCKWM2253GI

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

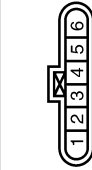
POWER WINDOW SYSTEM

| | |
|----------------|--------------------------|
| Connector No. | D5 |
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS36FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | W | - |
| 3 | BR | - |
| 4 | L | - |
| 5 | SB | - |
| 6 | R | - |
| 7 | P | - |
| 8 | L | - |
| 9 | G | - |
| 10 | V | - |
| 11 | LG | - |

| | |
|----------------|--|
| Connector No. | D9 |
| Connector Name | FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) |
| Connector Type | ED8FCY-RS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | B | - |
| 5 | R | - |
| 6 | L | - |

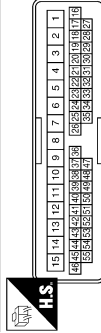
| | | |
|----|---|---|
| 13 | Y | - |
| 14 | O | - |
| 15 | R | - |

| | |
|----------------|--------------------------|
| Connector No. | D6 |
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS36FW-CS |



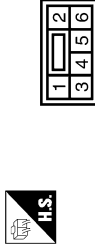
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 17 | B | - |
| 19 | LG | - |

| | |
|----------------|--------------|
| Connector No. | D41 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH40FW-CS15 |



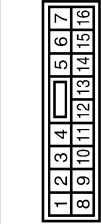
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 6 | P | - |
| 7 | O | - |
| 8 | B | - |

| | |
|----------------|--|
| Connector No. | D7 |
| Connector Name | FRONT POWER WINDOW MOTOR (DRIVER SIDE) |
| Connector Type | NS36FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LG | - |
| 2 | L | - |
| 3 | G | - |
| 4 | R | - |
| 5 | Y | - |
| 6 | W | - |

| | |
|----------------|--|
| Connector No. | D45 |
| Connector Name | FRONT POWER WINDOW SWITCH (PASSENGER SIDE) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | W | - |
| 4 | R | - |
| 8 | L | - |
| 9 | LG | - |
| 10 | P | - |
| 11 | B | - |
| 12 | Y | - |
| 15 | G | - |
| 16 | O | - |

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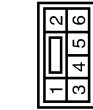
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POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

| | |
|----------------|---|
| Connector No. | D46 |
| Connector Name | FRONT POWER WINDOW MOTOR (PASSENGER SIDE) |
| Connector Type | NS06FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LG | - |
| 2 | L | - |
| 3 | G | - |
| 4 | R | - |
| 5 | Y | - |
| 6 | W | - |

| | |
|----------------|--------------|
| Connector No. | D81 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10MW-NS8 |



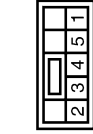
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 14 | P | - |
| 15 | SB | - |
| 17 | R | - |

| | |
|----------------|----------------------------|
| Connector No. | D32 |
| Connector Name | REAR POWER WINDOW MOTOR LH |
| Connector Type | RS06FG |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 3 | LG | - |

| | |
|----------------|-----------------------------|
| Connector No. | D83 |
| Connector Name | REAR POWER WINDOW SWITCH LH |
| Connector Type | NS08FW-CS |



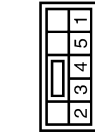
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | P | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | L | - |

| | |
|----------------|----------------------------|
| Connector No. | D102 |
| Connector Name | REAR POWER WINDOW MOTOR RH |
| Connector Type | RS06FG |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 3 | LG | - |

| | |
|----------------|-----------------------------|
| Connector No. | D103 |
| Connector Name | REAR POWER WINDOW SWITCH RH |
| Connector Type | NS08FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | P | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | L | - |

| | |
|----------------|--------------|
| Connector No. | D155 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10MW-NS8 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 14 | P | - |
| 15 | SB | - |
| 17 | R | - |

| | |
|----------------|----------------|
| Connector No. | E105 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH70MW-CS10-M3 |



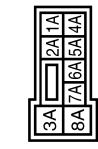
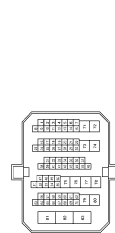
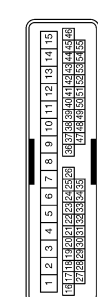
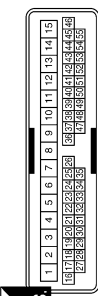
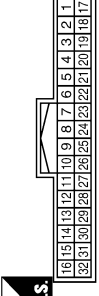
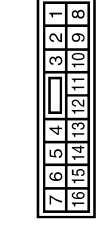
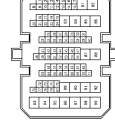


| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 82 | LG | - |

JCKWMM2255G1

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

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| <p>Connector No. M1</p> <p>Connector Name FUSE BLOCK (J/B)</p> <p>Connector Type NS06FW-M2</p>  <p>H.S.</p> | <p>Terminal No. 7A</p> <p>Color of Wire LG</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M11</p> <p>Connector Name WIRE TO WIRE</p> <p>Connector Type TH70FW-CS10-M3</p>  <p>H.S.</p> | <p>Terminal No. 82</p> <p>Color of Wire W</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M18</p> <p>Connector Name WIRE TO WIRE</p> <p>Connector Type TH40MW-CS15</p>  <p>H.S.</p> | <p>Terminal No. 6, 7, 8</p> <p>Color of Wire GR, G, B</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M20</p> <p>Connector Name WIRE TO WIRE</p> <p>Connector Type TH40MW-CS15</p>  <p>H.S.</p> | <p>Terminal No. 6, 7, 8, 9, 10, 11, 12, 13, 14, 15</p> <p>Color of Wire V, BR, O, SR, L, G, B, GR</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M44</p> <p>Connector Name WIRE TO WIRE</p> <p>Connector Type TH22FW-NH</p>  <p>H.S.</p> | <p>Terminal No. 17</p> <p>Color of Wire R</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M70</p> <p>Connector Name WIRE TO WIRE</p> <p>Connector Type NS16FBR-CS</p>  <p>H.S.</p> | <p>Terminal No. 14, 15, 16</p> <p>Color of Wire L, BR, V</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M77</p> <p>Connector Name WIRE TO WIRE</p> <p>Connector Type TH80FW-CS19</p>  <p>H.S.</p> | <p>Terminal No. 15, 95, 96, 97</p> <p>Color of Wire SB, O, SB, L</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M18</p> <p>Connector Name WIRE TO WIRE</p> <p>Connector Type TH40MW-CS15</p>  <p>H.S.</p> | <p>Terminal No. 1, 2, 3</p> <p>Color of Wire W, GR, L</p> <p>Signal Name [Specification]</p> |
| <p>Connector No. M18</p> <p>Connector Name BCM (BODY CONTROL MODULE)</p> <p>Connector Type M03FB-LC</p>  <p>H.S.</p> | <p>Terminal No. 1, 2, 3</p> <p>Color of Wire W, GR, L</p> <p>Signal Name [Specification]</p> |

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PWC

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

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

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

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

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

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PWC

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

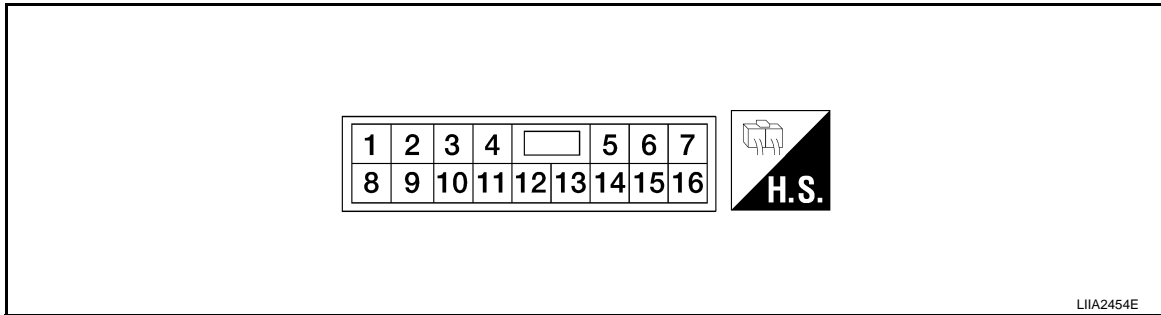
< ECU DIAGNOSIS >

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Reference Value

INFOID:000000003508830

TERMINAL LAYOUT



PHYSICAL VALUES

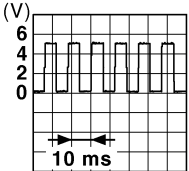
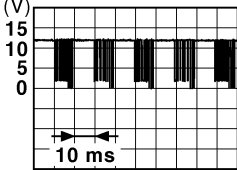
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

| Terminal No. | | Description | | Condition | Voltage [V] (Approx.) |
|--------------|--------|--------------------------------|------------------|--|--------------------------|
| + | - | Signal name | Input/ Output | | |
| 3 (W) | Ground | Encoder ground | — | — | 0 |
| 4 (R) | Ground | Encoder power supply | Output | When ignition switch ON or power window timer operates | Battery voltage |
| 8 (L) | Ground | Power window motor DOWN signal | Output | When power window motor is DOWN at operated. | Battery voltage |
| 9 (LG) | Ground | Power window motor UP signal | Output | When power window motor is UP at operated. | Battery voltage |
| 10 (P) | Ground | Battery power supply | Input | — | Battery voltage |
| 11 (B) | Ground | Ground | — | — | 0 |
| 12 (Y) | Ground | Encoder pulse signal 1 | Input | When power window motor operates. | |

JMKIA0070GB

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

| Terminal No. | | Description | | Condition | Voltage [V] (Approx.) |
|--------------|--------|--------------------------|------------------|---|---|
| + | - | Signal name | Input/ Output | | |
| 15 (G) | Ground | Encoder pulse signal 2 | Input | When power window motor operates. |  <p style="text-align: right; font-size: small;">JMKIA0070GB</p> |
| 16 (O) | Ground | Power window serial link | Input/ Output | Ignition switch ON or power window timer operating. |  <p style="text-align: right; font-size: small;">JPMIA0013GB</p> |

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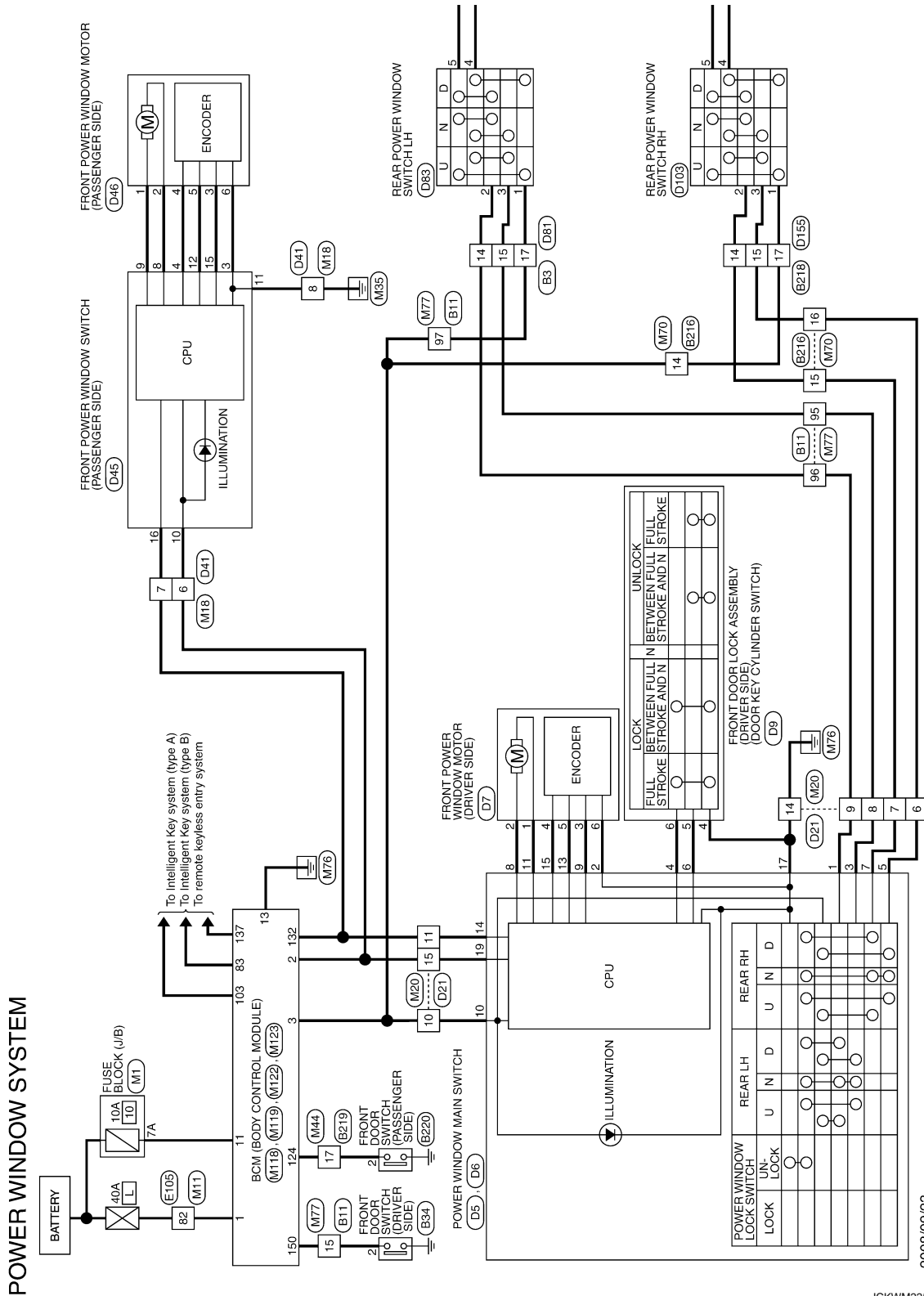
PWC

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

Wiring Diagram - POWER WINDOW SYSTEM -

INFOID:000000004790233



2008/09/23

JCKWM2251G1

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

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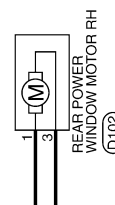
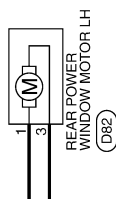
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JCKWM2252Gf

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >


POWER WINDOW SYSTEM

| | |
|----------------|--------------|
| Connector No. | B3 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10FW-NSB |




| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 14 | GR | - |
| 15 | BR | - |
| 17 | R | - |

| | |
|----------------|--------------|
| Connector No. | B216 |
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16MER-CS |



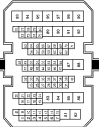
| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 14 | R | - |
| 15 | P | - |
| 16 | SB | - |

| | |
|----------------|--------------|
| Connector No. | B218 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10FW-NSB |




| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 14 | P | - |
| 15 | SB | - |
| 17 | R | - |

| | |
|----------------|--------------|
| Connector No. | B11 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS19 |




| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 15 | SB | - |
| 95 | BR | - |
| 96 | GR | - |
| 97 | R | - |

| | |
|----------------|---------------------------------|
| Connector No. | B34 |
| Connector Name | FRONT DOOR SWITCH (DRIVER SIDE) |
| Connector Type | A03FW |



| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 2 | SB | - |

| | |
|----------------|------------------------------------|
| Connector No. | B220 |
| Connector Name | FRONT DOOR SWITCH (PASSENGER SIDE) |
| Connector Type | A03FW |



| | | |
|--------------|---------------|-----------------------------|
| Terminal No. | Color of Wire | Signal Name [Specification] |
| 2 | R | - |

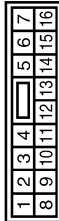
JCKWM2253GI

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

| | |
|----------------|--------------------------|
| Connector No. | D5 |
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS36FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | GR | - |
| 2 | W | - |
| 3 | BR | - |
| 4 | L | - |
| 5 | SB | - |
| 6 | R | - |
| 7 | P | - |
| 8 | L | - |
| 9 | G | - |
| 10 | V | - |
| 11 | LG | - |

| | |
|----------------|--|
| Connector No. | D9 |
| Connector Name | FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) |
| Connector Type | ED6FCY-RS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 4 | B | - |
| 5 | R | - |
| 6 | L | - |

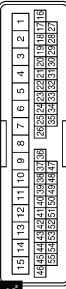
| | | |
|----|---|---|
| 13 | Y | - |
| 14 | O | - |
| 15 | R | - |

| | |
|----------------|--------------------------|
| Connector No. | D6 |
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS36FW-CS |



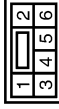
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 17 | B | - |
| 19 | LG | - |

| | |
|----------------|--------------|
| Connector No. | D21 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH40FW-CS15 |



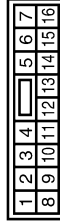
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 6 | SB | - |
| 7 | P | - |
| 8 | BR | - |
| 9 | GR | - |
| 10 | V | - |
| 11 | O | - |
| 14 | B | - |
| 15 | LG | - |

| | |
|----------------|--|
| Connector No. | D7 |
| Connector Name | FRONT POWER WINDOW MOTOR (DRIVER SIDE) |
| Connector Type | NS36FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LG | - |
| 2 | L | - |
| 3 | G | - |
| 4 | R | - |
| 5 | Y | - |
| 6 | W | - |

| | |
|----------------|--|
| Connector No. | D45 |
| Connector Name | FRONT POWER WINDOW SWITCH (PASSENGER SIDE) |
| Connector Type | NS16FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 3 | W | - |
| 4 | R | - |
| 8 | L | - |
| 9 | LG | - |
| 10 | P | - |
| 11 | B | - |
| 12 | Y | - |
| 15 | G | - |
| 16 | O | - |

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FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

| | |
|----------------|---|
| Connector No. | D46 |
| Connector Name | FRONT POWER WINDOW MOTOR (PASSENGER SIDE) |
| Connector Type | NS06FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | LG | - |
| 2 | L | - |
| 3 | G | - |
| 4 | R | - |
| 5 | Y | - |
| 6 | W | - |

| | |
|----------------|--------------|
| Connector No. | D81 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10MW-NS8 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 14 | P | - |
| 15 | SB | - |
| 17 | R | - |

| | |
|----------------|----------------------------|
| Connector No. | D32 |
| Connector Name | REAR POWER WINDOW MOTOR LH |
| Connector Type | RS06FG |



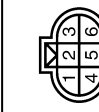
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 3 | LG | - |

| | |
|----------------|-----------------------------|
| Connector No. | D83 |
| Connector Name | REAR POWER WINDOW SWITCH LH |
| Connector Type | NS08FW-CS |



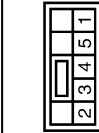
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | P | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | L | - |

| | |
|----------------|----------------------------|
| Connector No. | D102 |
| Connector Name | REAR POWER WINDOW MOTOR RH |
| Connector Type | RS06FG |



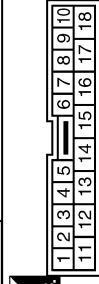
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | L | - |
| 3 | LG | - |

| | |
|----------------|-----------------------------|
| Connector No. | D103 |
| Connector Name | REAR POWER WINDOW SWITCH RH |
| Connector Type | NS08FW-CS |



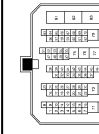
| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 1 | R | - |
| 2 | P | - |
| 3 | SB | - |
| 4 | LG | - |
| 5 | L | - |

| | |
|----------------|--------------|
| Connector No. | D155 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TK10MW-NS8 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 14 | P | - |
| 15 | SB | - |
| 17 | R | - |

| | |
|----------------|----------------|
| Connector No. | E105 |
| Connector Name | WIRE TO WIRE |
| Connector Type | TH70MW-CS10-M3 |



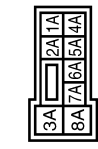
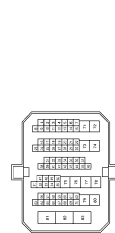
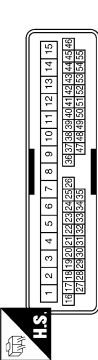
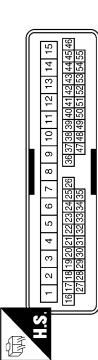
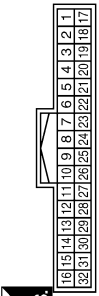
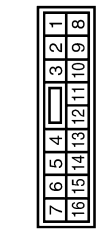
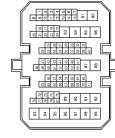

| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 82 | LG | - |

JCKWMM2255G1

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

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|--|---------------------------------|-----------------------------|---------------------------------|-----------------------------|---------------------------------|----------------|--|-----------------------------|---------------------------------|-----------------------------|---------------------------------|-----------------------------|-----------|-----------------------------|----|-----------------------------|----|-----------------------------|---------------------------------|-----------------------------|----|-----------------------------|----|-----------------------------|---------------------------------|-----------------------------|----|-----------------------------|----|-----------------------------|----|-----------------------------|----|-----------------------------|----|-----------------------------|----|-----------------------------|----|-----------------------------|---|-----------------------------|---|--------------|----|---------------|---|-----------------------------|---|--------------|----|---------------|----|-----------------------------|---|
| <table border="1"> <tr><td>Connector No.</td><td>M1</td></tr> <tr><td>Connector Name</td><td>FUSE BLOCK (J/B)</td></tr> <tr><td>Connector Type</td><td>NS06FW-M2</td></tr> </table>  | Connector No. | M1 | Connector Name | FUSE BLOCK (J/B) | Connector Type | NS06FW-M2 | <table border="1"> <tr><td>Terminal No.</td><td>7A</td></tr> <tr><td>Color of Wire</td><td>LG</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table> | Terminal No. | 7A | Color of Wire | LG | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector No. | M1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | FUSE BLOCK (J/B) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | NS06FW-M2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 7A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | LG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Connector No.</td><td>M11</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH70FW-CS10-M3</td></tr> </table>  | Connector No. | M11 | Connector Name | WIRE TO WIRE | Connector Type | TH70FW-CS10-M3 | <table border="1"> <tr><td>Terminal No.</td><td>82</td></tr> <tr><td>Color of Wire</td><td>W</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table> | Terminal No. | 82 | Color of Wire | W | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector No. | M11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | WIRE TO WIRE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | TH70FW-CS10-M3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 82 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Connector No.</td><td>M18</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH40MW-CS15</td></tr> </table>  | Connector No. | M18 | Connector Name | WIRE TO WIRE | Connector Type | TH40MW-CS15 | <table border="1"> <tr><td>Terminal No.</td><td>6</td></tr> <tr><td>Color of Wire</td><td>GR</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr> <td>Terminal No.</td><td>7</td> <tr><td>Color of Wire</td><td>G</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>8</td> <tr><td>Color of Wire</td><td>B</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> </tr></tr></tr></tr></table> | Terminal No. | 6 | Color of Wire | GR | Signal Name [Specification] | - | Terminal No. | 7 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 8 | Color of Wire | B | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector No. | M18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | WIRE TO WIRE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | TH40MW-CS15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | GR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 7 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 8 | Color of Wire | B | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 8 | Color of Wire | B | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 8 | Color of Wire | B | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | B | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Connector No.</td><td>M20</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH40MW-CS15</td></tr> </table>  | Connector No. | M20 | Connector Name | WIRE TO WIRE | Connector Type | TH40MW-CS15 | <table border="1"> <tr><td>Terminal No.</td><td>6</td></tr> <tr><td>Color of Wire</td><td>V</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr> <td>Terminal No.</td><td>7</td> <tr><td>Color of Wire</td><td>BR</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>8</td> <tr><td>Color of Wire</td><td>O</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>9</td> <tr><td>Color of Wire</td><td>SR</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>10</td> <tr><td>Color of Wire</td><td>L</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>11</td> <tr><td>Color of Wire</td><td>G</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>14</td> <tr><td>Color of Wire</td><td>B</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>15</td> <tr><td>Color of Wire</td><td>GR</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> </tr></tr></tr></tr></tr></tr></tr></tr></tr></tr></tr></tr></tr></tr></table> | Terminal No. | 6 | Color of Wire | V | Signal Name [Specification] | - | Terminal No. | 7 | Color of Wire | BR | Signal Name [Specification] | - | Terminal No. | 8 | Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 9 | Color of Wire | SR | Signal Name [Specification] | - | Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - |
| Connector No. | M20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | WIRE TO WIRE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | TH40MW-CS15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 7 | Color of Wire | BR | Signal Name [Specification] | - | Terminal No. | 8 | Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 9 | Color of Wire | SR | Signal Name [Specification] | - | Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | |
| Color of Wire | BR | Signal Name [Specification] | - | Terminal No. | 8 | Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 9 | Color of Wire | SR | Signal Name [Specification] | - | Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 8 | Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 9 | Color of Wire | SR | Signal Name [Specification] | - | Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 9 | Color of Wire | SR | Signal Name [Specification] | - | Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 9 | Color of Wire | SR | Signal Name [Specification] | - | Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | SR | Signal Name [Specification] | - | Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 10 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 11 | Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | G | Signal Name [Specification] | - | Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 14 | Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | B | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 15 | Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | GR | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Connector No.</td><td>M44</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH22FW-NH</td></tr> </table>  | Connector No. | M44 | Connector Name | WIRE TO WIRE | Connector Type | TH22FW-NH | <table border="1"> <tr><td>Terminal No.</td><td>17</td></tr> <tr><td>Color of Wire</td><td>R</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table> | Terminal No. | 17 | Color of Wire | R | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector No. | M44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | WIRE TO WIRE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | TH22FW-NH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Connector No.</td><td>M70</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>NS16FBR-CS</td></tr> </table>  | Connector No. | M70 | Connector Name | WIRE TO WIRE | Connector Type | NS16FBR-CS | <table border="1"> <tr><td>Terminal No.</td><td>14</td></tr> <tr><td>Color of Wire</td><td>L</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr> <td>Terminal No.</td><td>15</td> <tr><td>Color of Wire</td><td>BR</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>16</td> <tr><td>Color of Wire</td><td>V</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> </tr></tr></tr></tr></table> | Terminal No. | 14 | Color of Wire | L | Signal Name [Specification] | - | Terminal No. | 15 | Color of Wire | BR | Signal Name [Specification] | - | Terminal No. | 16 | Color of Wire | V | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector No. | M70 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | WIRE TO WIRE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | NS16FBR-CS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 15 | Color of Wire | BR | Signal Name [Specification] | - | Terminal No. | 16 | Color of Wire | V | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | BR | Signal Name [Specification] | - | Terminal No. | 16 | Color of Wire | V | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 16 | Color of Wire | V | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | V | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Connector No.</td><td>M77</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH80FW-CS19</td></tr> </table>  | Connector No. | M77 | Connector Name | WIRE TO WIRE | Connector Type | TH80FW-CS19 | <table border="1"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr> <td>Terminal No.</td><td>95</td> <tr><td>Color of Wire</td><td>O</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>96</td> <tr><td>Color of Wire</td><td>SB</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> <tr> <td>Terminal No.</td><td>97</td> <tr><td>Color of Wire</td><td>L</td> <tr><td>Signal Name [Specification]</td><td>-</td> </tr> </tr></tr></tr></tr></tr></tr></table> | Terminal No. | 15 | Color of Wire | SB | Signal Name [Specification] | - | Terminal No. | 95 | Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 96 | Color of Wire | SB | Signal Name [Specification] | - | Terminal No. | 97 | Color of Wire | L | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector No. | M77 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | WIRE TO WIRE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | TH80FW-CS19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | SB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 95 | Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 96 | Color of Wire | SB | Signal Name [Specification] | - | Terminal No. | 97 | Color of Wire | L | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | O | Signal Name [Specification] | - | Terminal No. | 96 | Color of Wire | SB | Signal Name [Specification] | - | Terminal No. | 97 | Color of Wire | L | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 96 | Color of Wire | SB | Signal Name [Specification] | - | Terminal No. | 97 | Color of Wire | L | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | SB | Signal Name [Specification] | - | Terminal No. | 97 | Color of Wire | L | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 97 | Color of Wire | L | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | L | Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr><td>Connector No.</td><td>M18</td></tr> <tr><td>Connector Name</td><td>ECM (BODY CONTROL MODULE)</td></tr> <tr><td>Connector Type</td><td>MO3FB-LC</td></tr> </table>  | Connector No. | M18 | Connector Name | ECM (BODY CONTROL MODULE) | Connector Type | MO3FB-LC | <table border="1"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Color of Wire</td><td>W</td></tr> <tr><td>Signal Name [Specification]</td><td>BAT (F/L)</td></tr> <tr> <td>Terminal No.</td><td>2</td> <tr><td>Color of Wire</td><td>GR</td> <tr><td>Signal Name [Specification]</td><td>POWER WINDOW POWER SUPPLY (BAT)</td> </tr> <tr> <td>Terminal No.</td><td>3</td> <tr><td>Color of Wire</td><td>L</td> <tr><td>Signal Name [Specification]</td><td>POWER WINDOW POWER SUPPLY (RAP)</td> </tr> </tr></tr></tr></tr></table> | Terminal No. | 1 | Color of Wire | W | Signal Name [Specification] | BAT (F/L) | Terminal No. | 2 | Color of Wire | GR | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (BAT) | Terminal No. | 3 | Color of Wire | L | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (RAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector No. | M18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Name | ECM (BODY CONTROL MODULE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Connector Type | MO3FB-LC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | W | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | BAT (F/L) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 2 | Color of Wire | GR | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (BAT) | Terminal No. | 3 | Color of Wire | L | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (RAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | GR | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (BAT) | Terminal No. | 3 | Color of Wire | L | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (RAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | POWER WINDOW POWER SUPPLY (BAT) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal No. | 3 | Color of Wire | L | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (RAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color of Wire | L | Signal Name [Specification] | POWER WINDOW POWER SUPPLY (RAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal Name [Specification] | POWER WINDOW POWER SUPPLY (RAP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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PWC

JCKWM2256G1

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

| | |
|----------------|---------------------------|
| Connector No. | M119 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | HS16FW-CS |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 11 | LG | BAT (FUSE) |
| 13 | B | GND |

| | |
|----------------|---------------------------|
| Connector No. | M122 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-------------------------------------|
| 83 | P | KEYLESS ENTRY RECEIVER SIGNAL |
| 103 | L | KEYLESS ENTRY RECEIVER POWER SUPPLY |

| | |
|----------------|---------------------------|
| Connector No. | M123 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FG-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|--------------|---------------|-----------------------------|
| 124 | R | PASSENGER DOOR SW |
| 132 | G | POWER WINDOW SW COMM |
| 137 | P | RECEIVER/SENSOR GND |
| 150 | SB | DRIVER DOOR SW |

Fail Safe

FAIL-SAFE CONTROL

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

JCKWM2257G1

INFOID:000000003508832

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ECU DIAGNOSIS >

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

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

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

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

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POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Diagnosis Procedure

INFOID:000000004756707

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to [PWC-13, "BCM : Diagnosis Procedure"](#).

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-13, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-40, "Intermittent Incident"](#).
- NO >> GO TO 1.

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000004756708

1. CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check power window motor.

Refer to [PWC-19, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

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FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

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

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000004756709

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) SERIAL LINK CIRCUIT

Check front power window switch (passenger side) serial link circuit.

Refer to [PWC-32. "FRONT POWER WINDOW SWITCH \(PASSENGER SIDE\) : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

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

INFOID:000000004756710

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to [PWC-114. "Removal and Installation"](#)

>> INSPECTION END

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

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

INFOID:000000004756711

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

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

Refer to [PWC-13. "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK PASSENGER SIDE POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor circuit.

Refer to [PWC-20. "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000004756712

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch .

Refer to [PWC-17, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure

INFOID:000000004756713

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

Check rear power window switch power supply and ground circuit.

Refer to [PWC-15, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to [PWC-114, "Removal and Installation"](#).

>> INSPECTION END

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

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

INFOID:000000004756714

1. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-22, "REAR LH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

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REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000004756715

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch .

Refer to [PWC-17. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure

INFOID:000000004756716

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

Check rear power window switch power supply and ground circuit.

Refer to [PWC-15. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to [PWC-114. "Removal and Installation"](#).

>> INSPECTION END

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

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

INFOID:000000004756717

1. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-23. "REAR RH : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY

< SYMPTOM DIAGNOSIS >

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000004756718

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to [PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit.

Refer to [PWC-26, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000004756719

1.PERFORM INITIALIZAITON PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to [PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER (PASSENGER SIDE) CIRCUIT

Check encoder (passenger side) circuit.

Refer to [PWC-28, "PASSENGER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

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ANTI-PINCH FUNCTION DOES NOT OPERATE NORMALLY

< SYMPTOM DIAGNOSIS >

ANTI-PINCH FUNCTION DOES NOT OPERATE NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000004756720

1.CHECK POWER WINDOW AUTO OPERATION

Check power window auto operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [PWC-105. "DRIVER SIDE : Diagnosis Procedure"](#).

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000004756721

1.CHECK POWER WINDOW AUTO OPERATION

Check power window auto operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [PWC-105. "PASSENGER SIDE : Diagnosis Procedure"](#).

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:000000004756722

1.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-103, "WITH AUTOMATIC BACK DOOR : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

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DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

< SYMPTOM DIAGNOSIS >

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Diagnosis Procedure

INFOID:000000004756723

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to [PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"](#) .

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK DRIVER SIDE DOOR LOCK ASSEMBLY (DOOR KEY CYLINDER SWITCH)

Check driver side door lock assembly (door key cylinder switch).

Refer to [DLK-118, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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

NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000004756724

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to [DLK-135, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace BCM. Refer to [BCS-96, "Exploded View"](#).

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

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

NO >> GO TO 1.

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PWC

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:000000004756725

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to [PWC-114. "Removal and Installation"](#).

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:000000004756726

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to [PWC-114. "Removal and Installation"](#).

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000003736201

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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" 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 "SRS AIRBAG".
- Never 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.

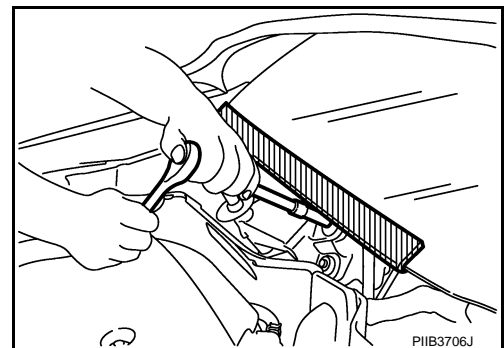
PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors while ignition switch is ON or engine is running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration may activate the sensor(s), deploy the airbag(s), possibly cause serious injury. When using air or electric power tools or hammers, always turn OFF ignition switch, disconnect the battery, and wait 3 minutes or more before performing any service.

Precaution for Procedure without Cowl Top Cover

INFOID:000000003736203

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:000000003736202

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

This vehicle is equipped with a push-button ignition switch and a steering lock unit. If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

PRECAUTIONS

< PRECAUTION >

1. Connect both battery cables.
NOTE:
Supply power using jumper cables if battery is discharged.
2. Turn the push-button ignition switch to ACC position.
(At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT-III.

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POWER WINDOW MAIN SWITCH

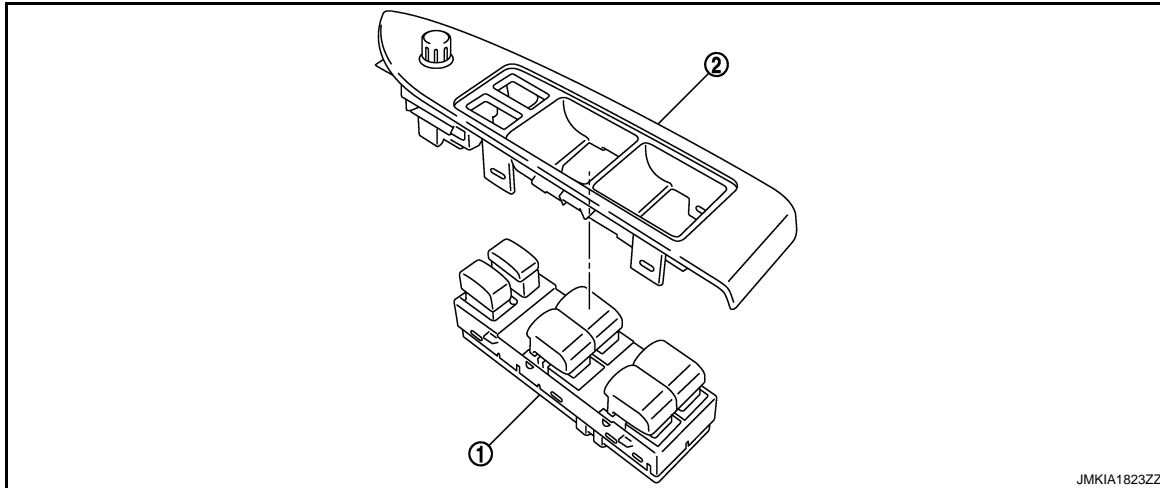
< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

POWER WINDOW MAIN SWITCH

Exploded View

INFOID:000000003507950



1. Power window main switch
2. Power window main switch finisher

NOTE:

The same procedure is also performed for front power window switch (passenger side) and rear power switch (LH & RH).

Refer to removal and installation procedure. Refer to [PWC-114. "Removal and Installation"](#).

Removal and Installation

INFOID:000000003507951

REMOVAL

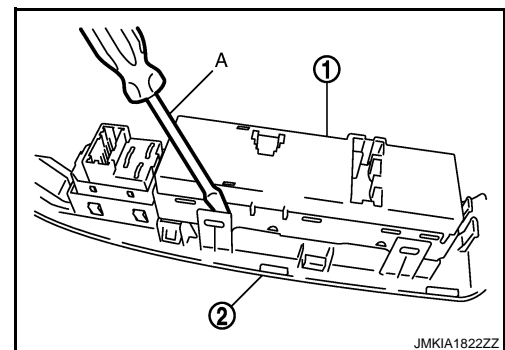
1. Remove the power window main switch finisher (2).
Refer to [INT-11. "FRONT DOOR FINISHER : Exploded View"](#) and [INT-11. "FRONT DOOR FINISHER : Removal and Installation"](#).
2. Power window main switch (1) is removed from power window main switch finisher (2) using flat-head screw driver (A) etc.

CAUTION:

Do not fold the pawl of power window main switch finisher.

NOTE:

The same procedure is also performed for front power window switch (passenger side) and rear power window switch (LH & RH).



INSTALLATION

Install in the reverse order of removal.

NOTE:

Power window main switch is exchanged or is detached it is necessary to do the initialization procedure.

Refer to [PWC-6. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).