

# SECTION **GW**

## GLASSES, WINDOW SYSTEM & MIRRORS

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# PRECAUTIONS

## PRECAUTIONS

PF0:00001

### Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

NIS00049

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 and SB section of this Service Manual.

#### **WARNING:**

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

### Precautions for Battery Service

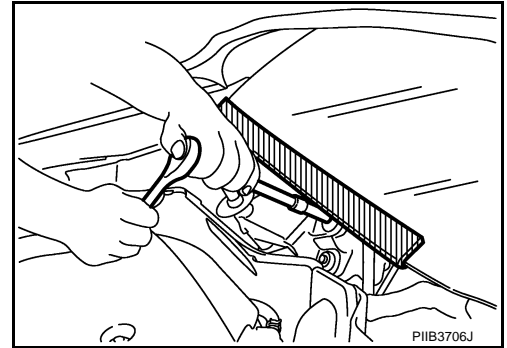
NIS0004A

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

### Precautions for Procedures without Cowl Top Cover

NIS001L6

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



### Handling for Adhesive and Primer

NIS0004B

- Do not use an adhesive which is past its usable date. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.
- Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.
- Open the seal of the primer and adhesive just before application. Discard the remainder.
- Before application, be sure to shake the primer container to stir the contents. If any floating material is found, do not use it.
- If any primer or adhesive contacts the skin, wipe it off with gasoline or equivalent and wash the skin with soap.
- When using primer and adhesive, always observe the precautions in the instruction manual.

# PREPARATION

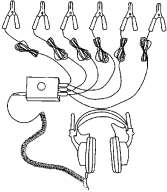
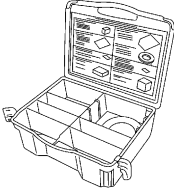
## PREPARATION

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### Special Service Tools

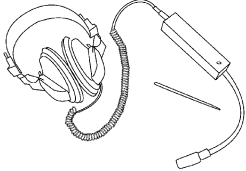
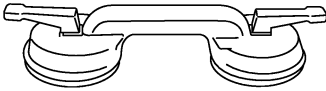
NIS0004D

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

| Tool number<br>(Kent-Moore No.)<br>Tool name | Description  |
|--|--|
| (J39570)<br>Chassis ear                      |  <p style="text-align: right;">SIIA0993E</p> Locating the noise           |
| (J43980)<br>NISSAN Squeak and Rattle Kit     |  <p style="text-align: right;">SIIA0994E</p> Repairing the cause of noise |

### Commercial Service Tools

NIS0004E

| Tool name      | Description  |
|----------------|--|
| Engine ear     |  <p style="text-align: right;">SIIA0995E</p> Locating the noise                               |
| Suction lifter |  <p style="text-align: right;">PIIB1805J</p> Remove the windshield,<br>back door window glass |

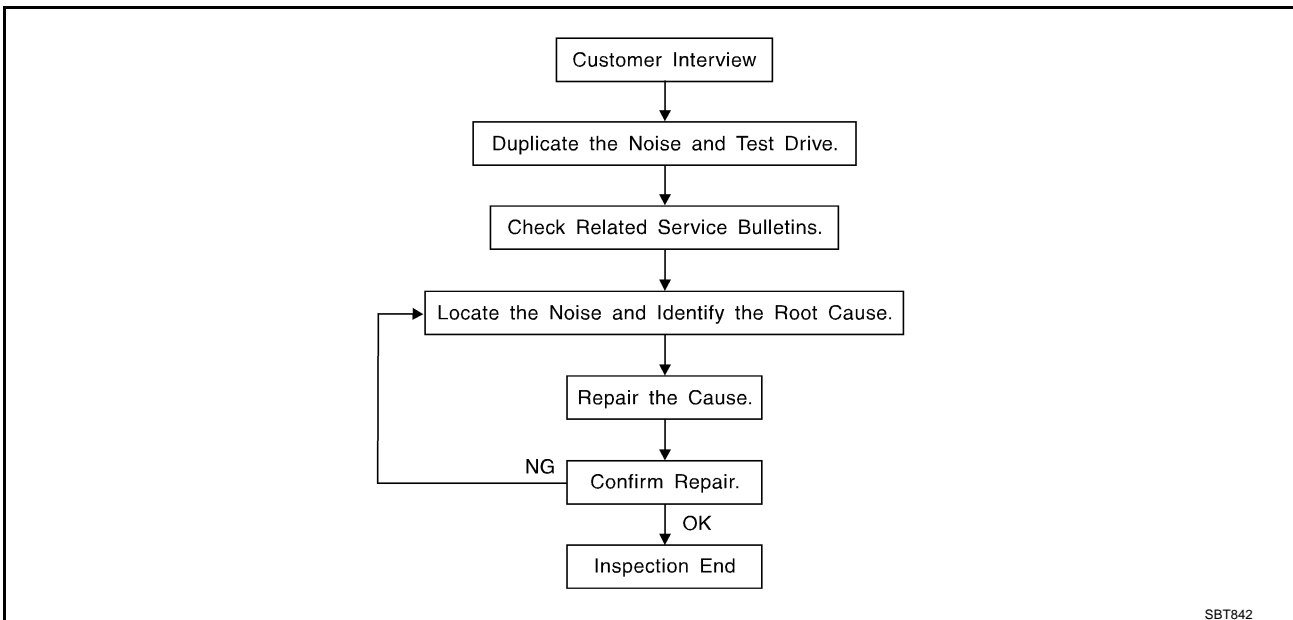
# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

PFP:00000

### Work Flow

NIS0004F



### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to [GW-9, "Diagnostic Worksheet"](#). This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by test driving the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak—(Like tennis shoes on a clean floor)  
Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces=higher pitch noise/softer surfaces=lower pitch noises/edge to surface=chirping
- Creak—(Like walking on an old wooden floor)  
Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle—(Like shaking a baby rattle)  
Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock—(Like a knock on a door)  
Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick—(Like a clock second hand)  
Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump—(Heavy, muffled knock noise)  
Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz—(Like a bumble bee)  
Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon the person. A noise that you may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1) Close a door.
  - 2) Tap or push/pull around the area where the noise appears to be coming from.
  - 3) Rev the engine.
  - 4) Use a floor jack to recreate vehicle "twist".
  - 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).
  - 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
  - If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

## CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

## LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear and mechanics stethoscope).
2. Narrow down the noise to a more specific area and identify the cause of the noise by:
  - removing the components in the area that you suspect the noise is coming from.  
Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.
  - tapping or pushing/pulling the component that you suspect is causing the noise.  
Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
  - feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
  - placing a piece of paper between components that you suspect are causing the noise.
  - looking for loose components and contact marks.  
Refer to [GW-7, "Generic Squeak and Rattle Troubleshooting"](#) .

## REPAIR THE CAUSE

- If the cause is a loose component, tighten the component securely.
- If the cause is insufficient clearance between components:
  - separate components by repositioning or loosening and retightening the component, if possible.
  - insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through your authorized Nissan Parts Department.

### CAUTION:

**Do not use excessive force as many components are constructed of plastic and may be damaged.**

### NOTE:

Always check with the Parts Department for the latest parts information.

The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: 100 × 135 mm (3.94 × 5.31 in)/76884-71L01: 60 × 85 mm (2.36 × 3.35 in)/76884-

71L02: 15 × 25 mm (0.59 × 0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick, 50 × 50 mm (1.97 × 1.97 in)/73982-50Y00:

10 mm (0.39 in) thick, 50 × 50 mm (1.97 × 1.97 in)

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30 × 50 mm (1.18 × 1.97 in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

68370-4B000: 15 × 25 mm (0.59 × 0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

UHMW (TEFLON) TAPE

Insulates where slight movement is present. Ideal for instrument panel applications.

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit. Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

## CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

## Generic Squeak and Rattle Troubleshooting

NIS0004G

Refer to Table of Contents for specific component removal and installation information.

## INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

1. The cluster lid A and instrument panel
2. Acrylic lens and combination meter housing
3. Instrument panel to front pillar garnish
4. Instrument panel to windshield
5. Instrument panel mounting pins
6. Wiring harnesses behind the combination meter
7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

### CAUTION:

**Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.**

## CENTER CONSOLE

Components to pay attention to include:

1. Shifter assembly cover to finisher
2. A/C control unit and cluster lid C
3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

## DOORS

Pay attention to the:

1. Finisher and inner panel making a slapping noise
2. Inside handle escutcheon to door finisher
3. Wiring harnesses tapping
4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.

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D  
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M

GW

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

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## TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:

1. Trunk lid dumpers out of adjustment
2. Trunk lid striker out of adjustment
3. The trunk lid torsion bars knocking together
4. A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

## SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
2. Sunvisor shaft shaking in the holder
3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

## SEATS

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should be duplicated when verifying and isolating the cause of the noise.

Cause of seat noise include:

1. Headrest rods and holder
2. A squeak between the seat pad cushion and frame
3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

## UNDERHOOD

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

1. Any component mounted to the engine wall
2. Components that pass through the engine wall
3. Engine wall mounts and connectors
4. Loose radiator mounting pins
5. Hood bumpers out of adjustment
6. Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.



# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## Diagnostic Worksheet

NIS0004H



### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

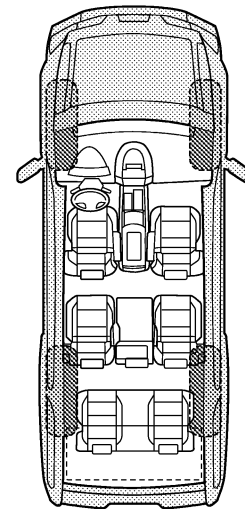
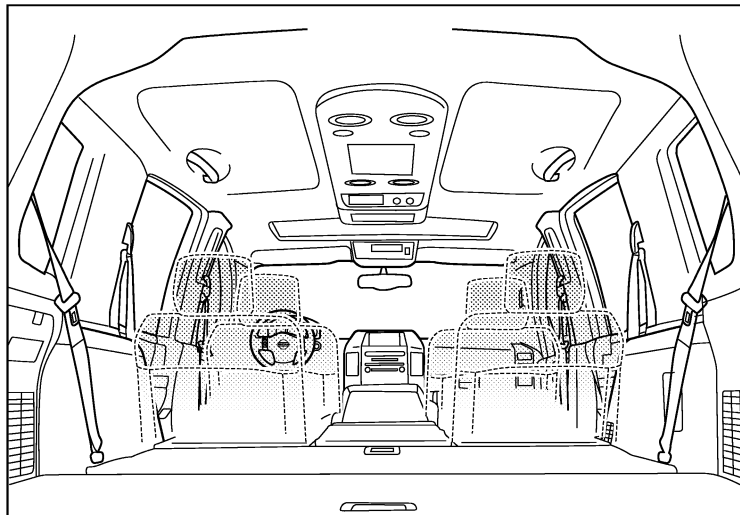
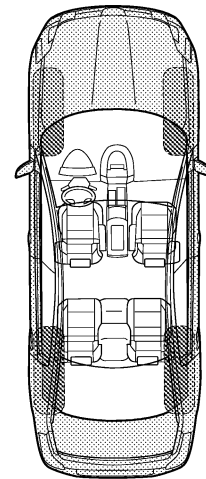
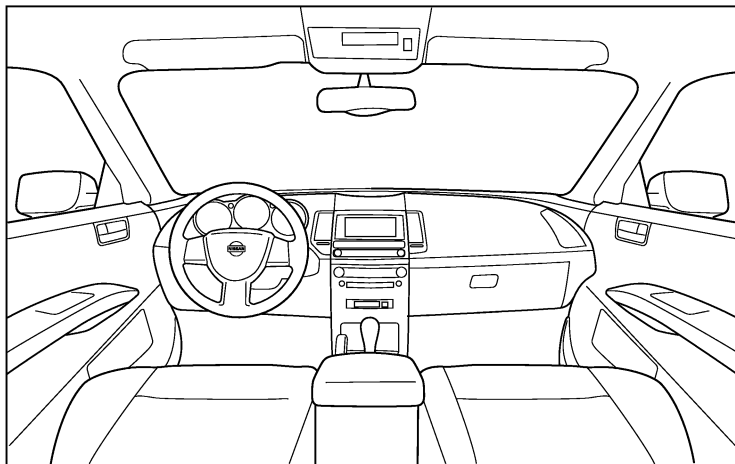
A  
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Dear Nissan Customer:

We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service advisor or technician to ensure we confirm the noise you are hearing.

#### I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

PIIB8740E

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2

Briefly describe the location where the noise occurs:

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---

### II. WHEN DOES IT OCCUR? (please check the boxes that apply)

- |   |  |
|---|--|
| <input type="checkbox"/> anytime                      | <input type="checkbox"/> after sitting out in the rain |
| <input type="checkbox"/> 1st time in the morning      | <input type="checkbox"/> when it is raining or wet     |
| <input type="checkbox"/> only when it is cold outside | <input type="checkbox"/> dry or dusty conditions       |
| <input type="checkbox"/> only when it is hot outside  | <input type="checkbox"/> other:                        |

### III. WHEN DRIVING:

- through driveways
- over rough roads
- over speed bumps
- only about \_\_\_\_ mph
- on acceleration
- coming to a stop
- on turns: left, right or either (circle)
- with passengers or cargo
- other: \_\_\_\_\_
- after driving \_\_\_\_ miles or \_\_\_\_ minutes

### IV. WHAT TYPE OF NOISE

- squeak (like tennis shoes on a clean floor)
- creak (like walking on an old wooden floor)
- rattle (like shaking a baby rattle)
- knock (like a knock at the door)
- tick (like a clock second hand)
- thump (heavy, muffled knock noise)
- buzz (like a bumble bee)

## TO BE COMPLETED BY DEALERSHIP PERSONNEL

### Test Drive Notes:

---

---

---

|  | YES                      | NO                       | Initials of person performing |
|--|--------------------------|--------------------------|-------------------------------|
| Vehicle test driven with customer                  | <input type="checkbox"/> | <input type="checkbox"/> | _____                         |
| - Noise verified on test drive                     | <input type="checkbox"/> | <input type="checkbox"/> | _____                         |
| - Noise source located and repaired                | <input type="checkbox"/> | <input type="checkbox"/> | _____                         |
| - Follow up test drive performed to confirm repair | <input type="checkbox"/> | <input type="checkbox"/> | _____                         |

VIN: \_\_\_\_\_ Customer Name: \_\_\_\_\_

W.O.# \_\_\_\_\_ Date: \_\_\_\_\_

This form must be attached to Work Order

PIIB8742E

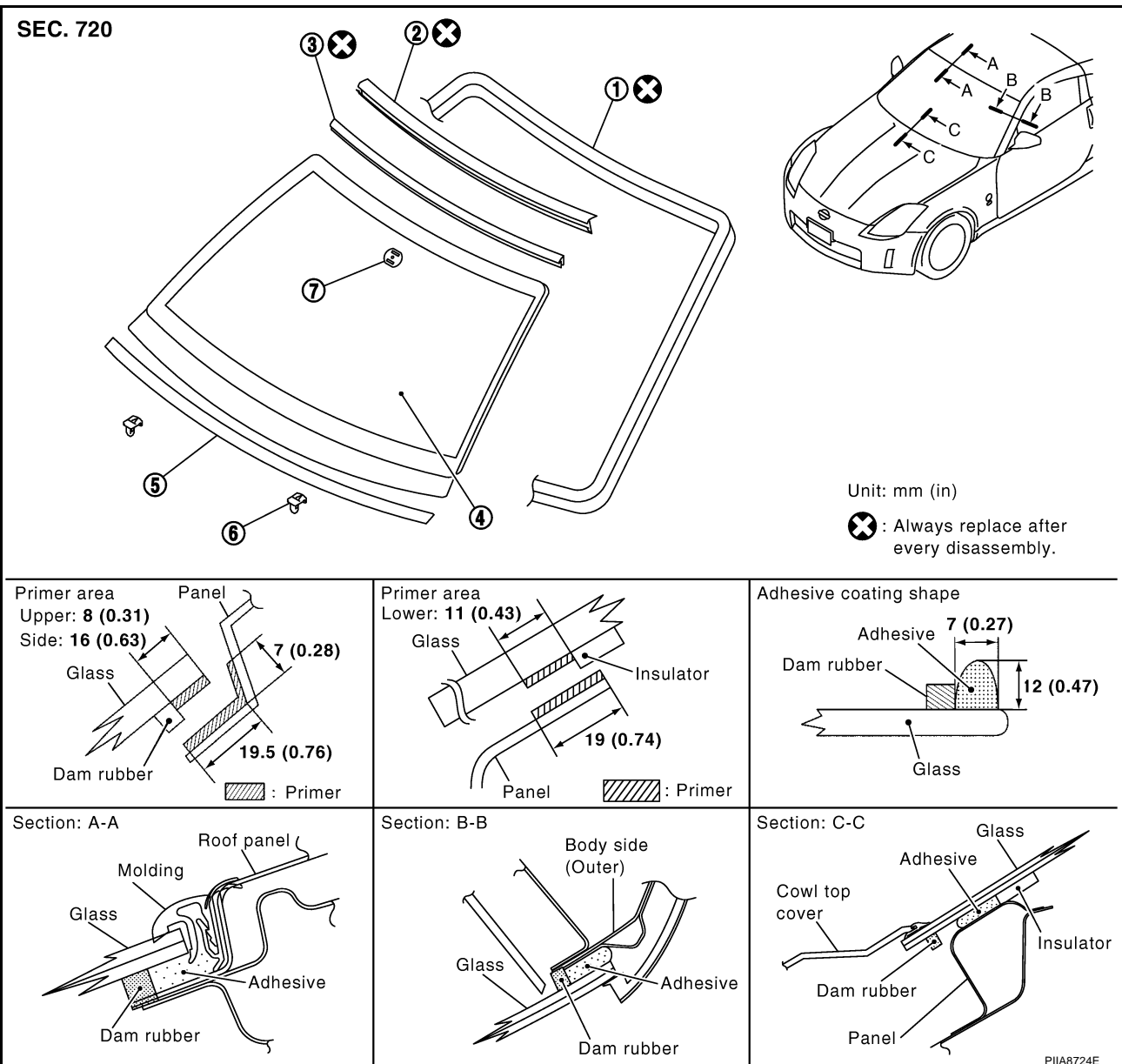
# WINDSHIELD GLASS

## WINDSHIELD GLASS

PFP:72712

### Removal and Installation

NIS0004I



- |                     |              |                    |
|---------------------|--------------|--------------------|
| 1. Dam rubber       | 2. Fastener  | 3. Molding (upper) |
| 4. Windshield glass | 5. Insulator | 6. Spacer          |
| 7. Mirror base      |              |                    |

### REMOVAL (COUPE)

1. Remove the front pillar finisher. Refer to [EI-31, "Removal and Installation \(for Coupe Models\)"](#) .
2. Partially remove the headlining (front edge). Refer to [EI-44, "Removal and Installation \(for Coupe Models\)"](#) .
3. Remove the front pillar garnish. Refer to [EI-35, "Removal and Installation \(for Coupe Models\)"](#) .
4. Remove the front wiper arms. Refer to [WW-34, "Removal and Installation of Front Wiper Arms, Adjustment of Wiper Arms Stop Location"](#) .
5. Remove the cowl top cover. Refer to [EI-20, "COWL TOP"](#) .
6. Apply a protective tape around the windshield glass to protect the painted surface from damage.

### NOTE:

- After removing moldings, remove glass using piano wire or power cutting tool and an inflatable pump bag.
- If a windshield glass is to be reused, mark the body and the glass with mating marks.

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PIIA8724E

# WINDSHIELD GLASS

## WARNING:

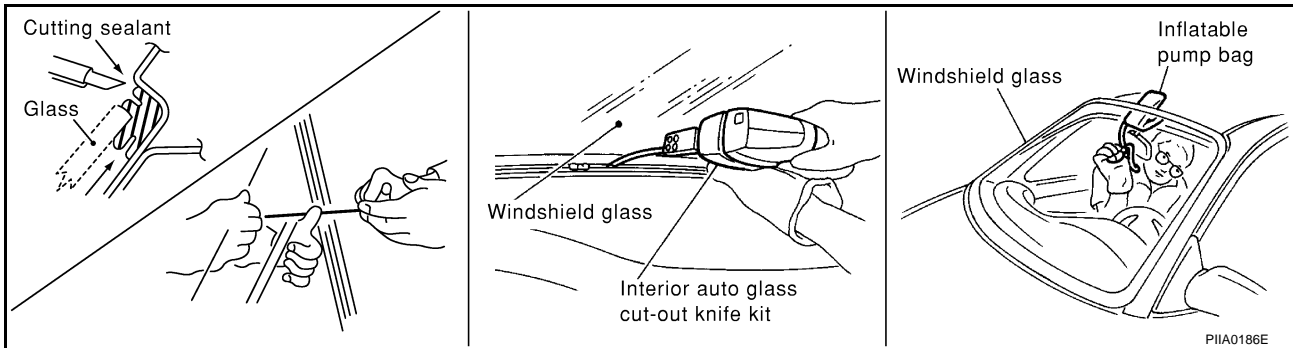
When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.

## CAUTION:

- When a windshield glass is to be reused, do not use a cutting knife or power cutting tool.
  - Be careful not to scratch the glass when removing.
7. Remove the windshield glass, using suction lifter.

## NOTE:

Do not set or stand the glass on its edge. Small chips may develop into cracks.



## REMOVAL (ROADSTER)

1. Open the soft top.
2. Remove the front pillar finisher. Refer to [EI-32, "Removal and Installation \(for Roadster Models\)"](#).
3. Remove the roof front finisher. Refer to [EI-46, "Removal and Installation \(for Roadster Models\)"](#).
4. Remove the front pillar garnish. Refer to [EI-37, "Removal and Installation \(for Roadster Models\)"](#).
5. Remove the front wiper arms. Refer to [WW-34, "Removal and Installation of Front Wiper Arms, Adjustment of Wiper Arms Stop Location"](#).
6. Remove the cowl top cover. Refer to [EI-20, "COWL TOP"](#).
7. Apply a protective tape around the windshield glass to protect the painted surface from damage.

## NOTE:

- After removing moldings, remove glass using piano wire or power cutting tool and an inflatable pump bag.
- If a windshield glass is to be reused, mark the body and the glass with mating marks.

## WARNING:

When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.

## CAUTION:

- When a windshield glass is to be reused, do not use a cutting knife or power cutting tool.
  - Be careful not to scratch the glass when removing.
8. Remove the windshield glass, using suction lifter.

## NOTE:

Do not set or stand the glass on its edge. Small chips may develop into cracks.

## INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- The molding must be installed securely so that it is in position and leaves no gap.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

## WARNING:

- Keep heat and open flames away as primers and adhesive are flammable.
- The materials contained in the kit are harmful if swallowed, and may irritate skin and eyes. Avoid contact with the skin and eyes.

# WINDSHIELD GLASS

- Use in an open, well ventilated location. Avoid breathing the vapors. They can be harmful if inhaled. If affected by vapor inhalation, immediately move to an area with fresh air.
- Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the windshield in case of an accident.

## CAUTION:

- Do not use an adhesive which is past its usable term. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.
- Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.
- Do not leave primers or adhesive cartridge unattended with their caps open or off.
- The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time varies depending on temperature and humidity. The curing time will increase under lower temperature and lower humidity.

## Repairing Water Leaks

Leaks can be repaired without removing and reinstalling glass.

If water is leaking between the urethane adhesive material and body or glass, determine the extent of leakage. This can be done by applying water to the windshield area while pushing glass outward.

To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

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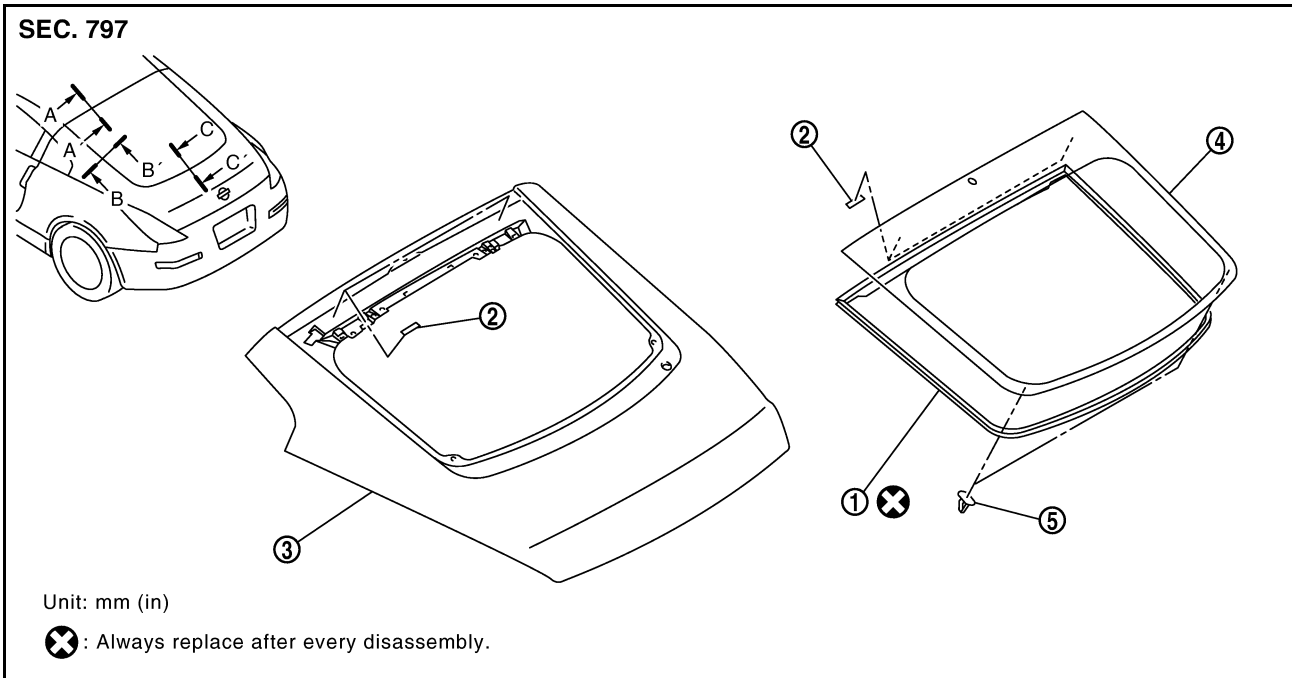
# BACK DOOR WINDOW GLASS

PFP:90300

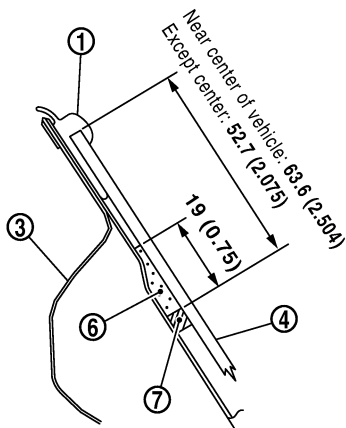
NIS0004J

## BACK DOOR WINDOW GLASS

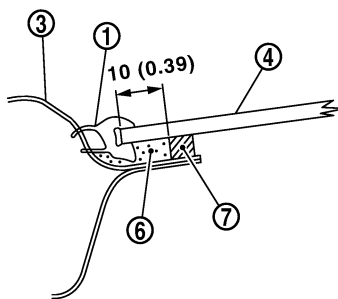
### Removal and Installation



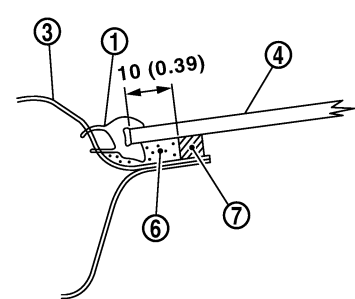
Section: A-A'



Section: B-B'



Section: C-C'



PIIB0822E

- |                             |                       |              |
|-----------------------------|-----------------------|--------------|
| 1. Back door window molding | 2. Dual lock fastener | 3. Back door |
| 4. Back door window glass   | 5. Holder             | 6. Adhesive  |
| 7. Dam rubber               |                       |              |

### REMOVAL

1. Remove back door finisher. Refer to [EI-48, "BACK DOOR FINISHER"](#).
2. Remove rear wiper arm. Refer to [WW-52, "Removal and Installation of Rear Wiper Arm, Adjustment of Wiper Arms Stop Location"](#).
3. Remove connectors and grounds for rear window defogger.
4. Apply a protective tape around the back door window glass to protect the painted surface from damage. remove glass using piano wire or power cutting tool and an inflatable pump bag.

### NOTE:

If a back door window glass is to be reused, mark the body and the glass with mating marks.

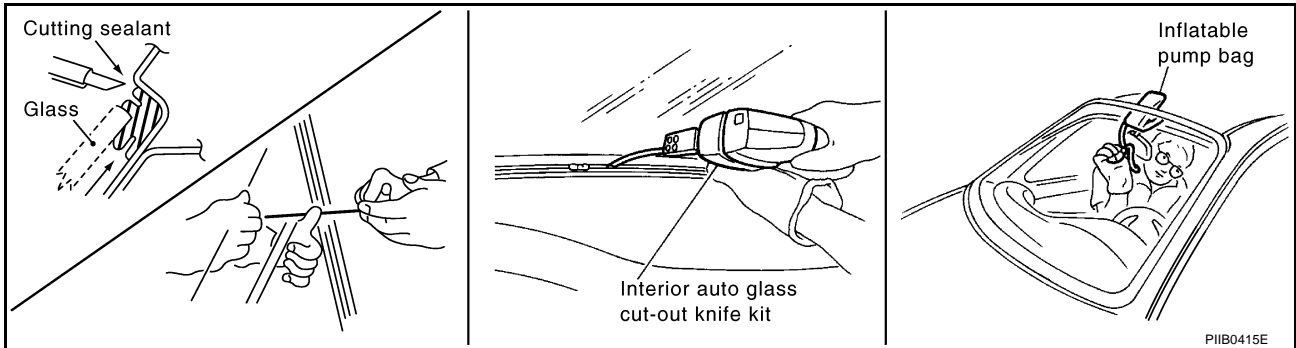
### WARNING:

**When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.**

# BACK DOOR WINDOW GLASS

## CAUTION:

- When a back door window glass is to be reused, do not use a cutting knife or power cutting tool.
- Be careful not to scratch the glass when removing.
- Do not set or stand the glass on its edge. Small chips may develop into cracks.



5. Remove the back door window glass, using suction lifter.

## INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

## WARNING:

- Keep heat and open flames away as primers and adhesive are flammable.
- The materials contained in the kit are harmful if swallowed, and may irritate skin and eyes. Avoid contact with the skin and eyes.
- Use in an open, well ventilated location. Avoid breathing the vapors. They can be harmful if inhaled. If affected by vapor inhalation, immediately move to an area with fresh air.
- Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the back door window in case of an accident.

## CAUTION:

- Do not use an adhesive which is past its usable term. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.
- Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.
- Do not leave primers or adhesive cartridge unattended with their caps open or off.
- The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time varies depending on temperature and humidity. The curing time will increase under lower temperature and lower humidity.

## Repairing Water Leaks

Leaks can be repaired without removing and reinstalling glass.

If water is leaking between the urethane adhesive material and body or glass, determine the extent of leakage. This can be done by applying water to the back door window area while pushing glass outward.

To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

# SIDE WINDOW GLASS

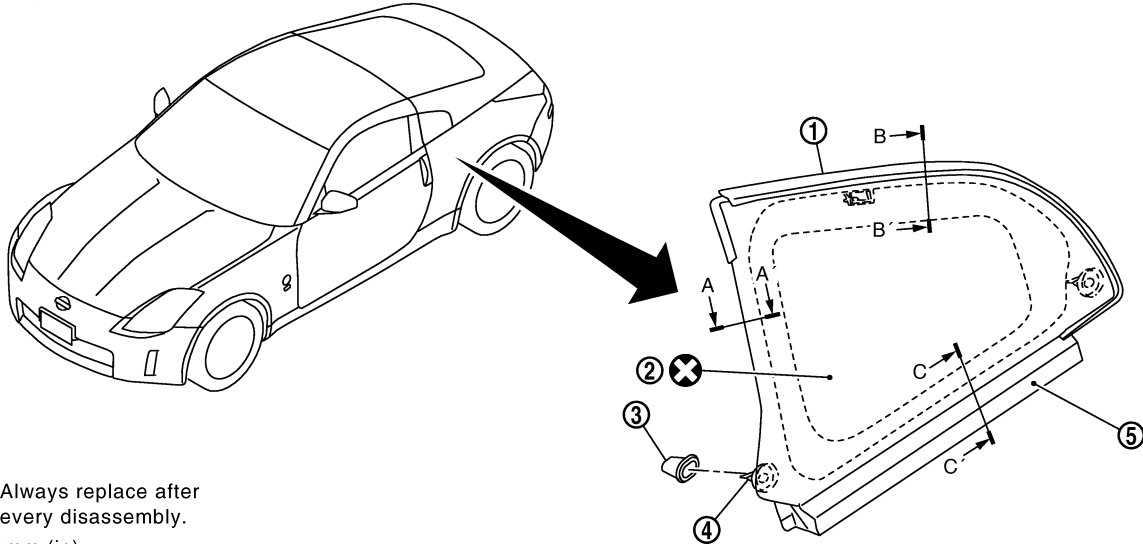
PFP:83300

NIS0004K

## SIDE WINDOW GLASS

### Removal and Installation

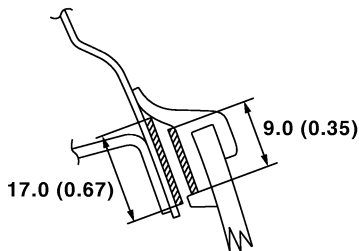
SEC. 830



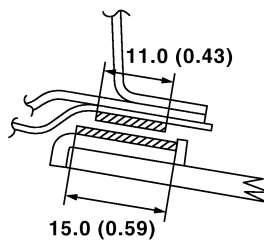
⊗ : Always replace after every disassembly.

Unit: mm (in)

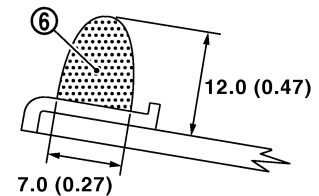
Primer area (Except side) : Primer



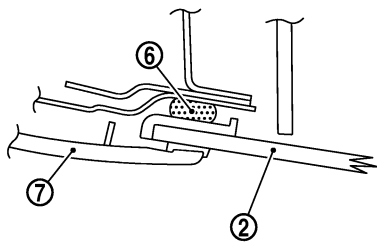
Primer area (Side) : Primer



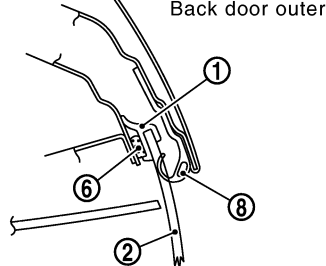
Adhesive coating shape



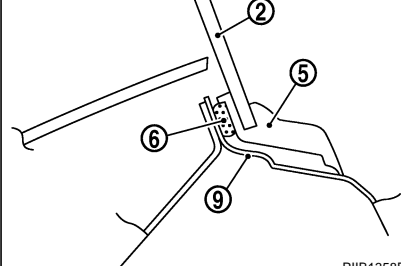
Section: A-A'



Section: B-B'



Section: C-C'



PIIB1358E

- |                                      |                                      |                |
|--------------------------------------|--------------------------------------|----------------|
| 1. Side window glass molding (upper) | 2. Side window glass                 | 3. Grommet     |
| 4. Clip                              | 5. Side window glass molding (lower) | 6. Adhesive    |
| 7. Lock pillar finisher              | 8. Back door molding                 | 9. Rear fender |

### REMOVAL

1. Remove rear side finisher. Refer to [EI-35, "BODY SIDE TRIM"](#).
2. Remove rear pillar finisher. Refer to [EI-35, "BODY SIDE TRIM"](#).
3. Remove headlining. Refer to [EI-44, "HEADLINING"](#).
4. Remove lock pillar finisher. Refer to [EI-31, "ROOF SIDE MOLDING"](#).

#### NOTE:

If a side window glass is to be reused, mark the body and the glass with mating marks.

#### WARNING:

When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.

#### CAUTION:

- Be careful not to scratch the glass when removing.



# SIDE WINDOW GLASS

- **Do not set or stand the glass on its edge. Small chips may develop into cracks.**

## INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- The molding must be installed securely so that it is in position and leaves no gap.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

### WARNING:

- **Keep heat and open flames away as primers and adhesive are flammable.**
- **The materials contained in the kit are harmful if swallowed, and may irritate skin and eyes. Avoid contact with the skin and eyes.**
- **Use in an open, well ventilated location. Avoid breathing the vapors. They can be harmful if inhaled. If affected by vapor inhalation, immediately move to an area with fresh air.**
- **Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the side window in case of an accident.**

### CAUTION:

- **Do not use an adhesive which is past its usable term. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.**
- **Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.**
- **Do not leave primers or adhesive cartridge unattended with their caps open or off.**
- **The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time varies depending on temperature and humidity. The curing time will increase under lower temperature and lower humidity.**

## Repairing Water Leaks

Leaks can be repaired without removing and reinstalling glass.

If water is leaking between the urethane adhesive material and body or glass, determine the extent of leakage.

This can be done by applying water to the side window area while pushing glass outward.

To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

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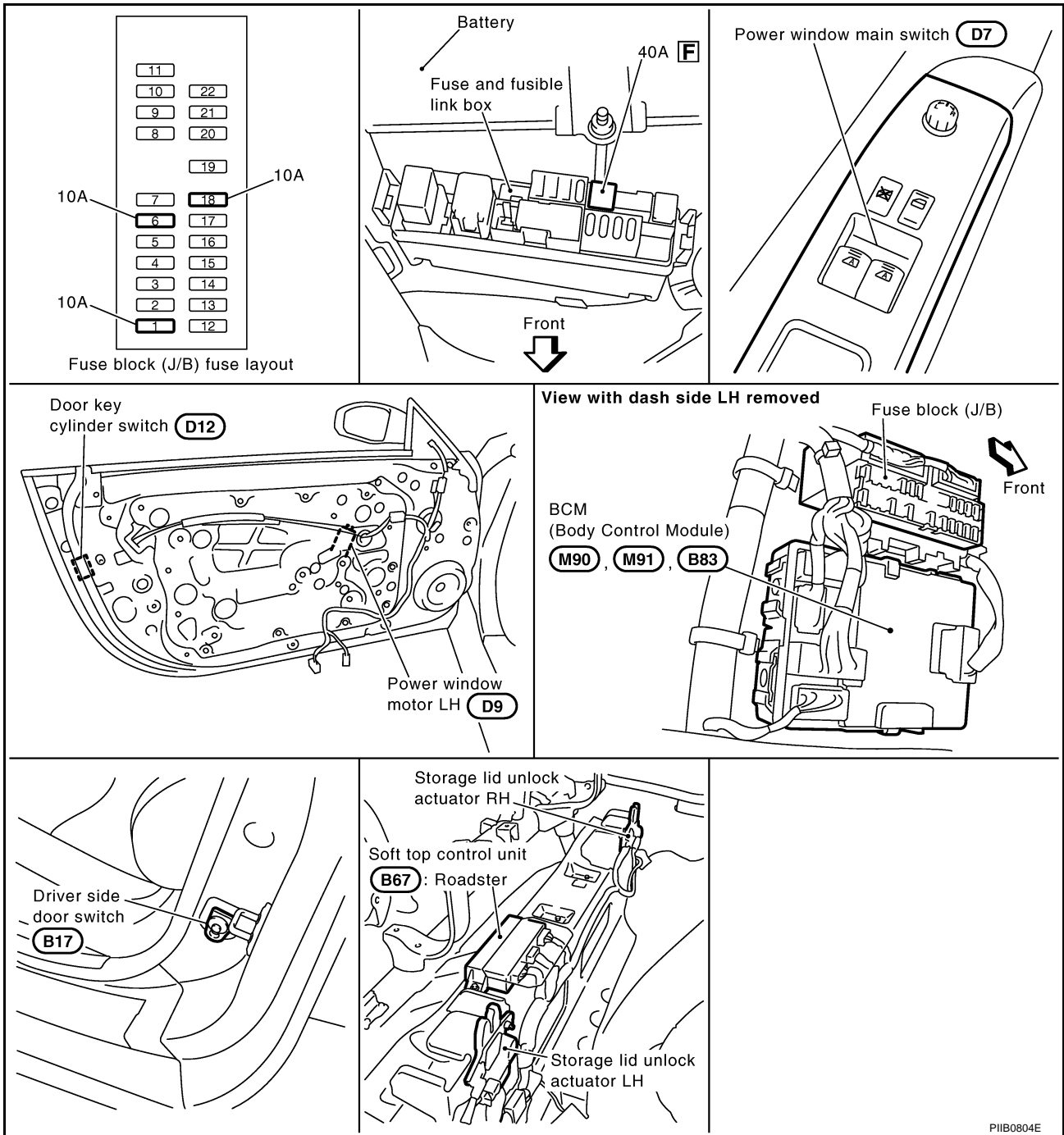
# POWER WINDOW SYSTEM

## POWER WINDOW SYSTEM

PF25401

### Component Parts and Harness Connector Location

NIS0004L



## System Description

Power is supplied at all times

- through 40A fusible link (letter **F** , located in the fuse and fusible link box)
- to BCM terminal 55.
- through 10A fuse [No. 18, located in the fuse block (J/B)]
- to BCM terminal 42.
- through BCM terminal 54
- to power window main switch terminal 1.
- to power window sub-switch terminal 10.

With ignition switch in ON or START position, power is supplied

- through 10A fuse [No.1, located in the fuse block (J/B)]
- to BCM terminal 38.
- through BCM terminal 53
- to power window main switch terminal 10.

Ground is supplied

- to BCM terminal 52
- through grounds M30 and M66.
- to power window main switch terminal 15
- through grounds M30 and M66.
- to power window sub-switch terminal 11
- through grounds M30 and M66.

## MANUAL OPERATION

### Driver Side Door WINDOW UP

When the driver side window switch in the power window main switch is pressed in the up position, Power is supplied

- through power window main switch terminal 8
- to driver side power window motor terminal 2.

Ground is supplied

- through driver side power window motor terminal 1
- to power window main switch terminal 11.

Then, the motor raises the window until the switch is released.

### WINDOW DOWN

When the driver side window switch in the power window main switch is pressed in the down position, Power is supplied

- through power window main switch terminal 11
- to driver side power window motor terminal 1.

Ground is supplied

- through side power window motor terminal 2.
- to power window main switch terminal 8

Then, the motor lowers the window until the switch is released.

### Passenger Side Door

### POWER WINDOW SUB-SWITCH OPERATION

#### WINDOW UP

When the power window sub-switch is pressed in the up position, Power is supplied

- through power window sub-switch terminal 8
- to passenger side power window motor terminal 2.

Ground is supplied

- through passenger side power window motor terminal 1.

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# POWER WINDOW SYSTEM

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- to power window sub-switch terminal 9

Then, the motor raises the window until the switch is released.

## **WINDOW DOWN**

When the power window sub-switch is pressed in the down position, Power is supplied

- through power window sub-switch terminal 9
- to passenger side power window motor terminal 1.

Ground is supplied

- through passenger side power window motor terminal 2.
- to power window sub-switch terminal 8

Then, the motor lowers the window until the switch is released.

## **POWER WINDOW MAIN SWITCH OPERATION**

Signal is sent

- through power window main switch terminal 12.
- to power window sub-switch terminal 16

The operation of passenger side power window with power window main switch is as same as the operation with power window sub-switch.

## **POWER WINDOW SERIAL LINK**

Power window main switch, power window sub-switch and BCM transmit and receive the signal by power window serial link.

The under mentioned signal is transmitted from BCM to power window main switch.

- Driver side door switch signal
- Keyless power window down signal

The under mentioned signal is transmitted from BCM to power window sub-switch.

- Passenger side door switch signal
- Keyless power window down signal

The under mentioned signal is transmitted from power window main switch to power window sub-switch.

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

## **AUTO OPERATION**

The power window AUTO feature enables the driver to open or close the window without holding the window switch in the down or up position.

## **POWER WINDOW LOCK**

The power window lock is designed to lock operation of passenger side door window.

When the lock position, power window lock signal is sent by using power window serial link from power window main switch to power window sub-switch.

When power window sub-switch is receiving the lock signal, prohibits the operation of passenger side power window by power window sub-switch.

## **RETAINED POWER OPERATION**

When the ignition switch is turned to the OFF position from ON or START position.

### **Power is supplied for 45 seconds**

- through BCM terminal 53.
- to power window main switch terminal 10

When power and ground are supplied, the BCM continues to be energized, and the power window can be operated.

The retained power operation is canceled when the driver side door or the passenger side door is opened. RAP signal period can be changed by CONSULT-II. Refer to [GW-29, "CONSULT-II Function \(BCM\)"](#) .

# POWER WINDOW SYSTEM

## ANTI-PINCH SYSTEM

Power window main switch and power window sub-switch monitors the power window motor operation and the power window position (full closed or other) for driver side and passenger side power window by the signals from encoder and limit switch in power window motor (driver side and passenger side).

When power window main switch detects interruption during the following close operation,

- automatic close operation when ignition switch is in the "ON" position
- automatic close operation during retained power operation
- manual close operation during retained power operation

Power window main switch or power window sub-switch controls each power window motor for open and the power window will be lowered about 150 mm (5.91 in).

## POWER WINDOW CONTROL BY THE KEY CYLINDER SWITCH

When ignition key switch is OFF, power window can be opened or closed by turning the door key cylinder UNLOCK / LOCK position more than 1.5 second over condition.

- Power window can be opened as the door key cylinder is kept fully turning to the UNLOCK position.
- Power window can be closed as the door key cylinder is kept fully turning to the LOCK position.

The power window operation by the key cylinder switch stops when the following operations are performed.

- While performing open / close the window with power window main switch.
- When the ignition switch is turned ON while the power window control operation by the key cylinder switch.

## AUTOMATIC WINDOW ADJUSTING FUNCTION

When the driver's / passenger's door(s) is opened, the window of the opened door is lowered approx. 10 mm (0.39in).

When the door is closed, the window is raised to fully-closed positions.

Automatic window adjusting function system (opening operation) does not operate when the following.

- The window is 10 mm (0.39 in) or more open from fully-closed positions.

Automatic window adjusting function system (closing operation) does not operate when the following.

- The automatic window adjusting function system (opening operation) operation.
- The keyless power window operation.
- The power window control by the key cylinder switch operation.

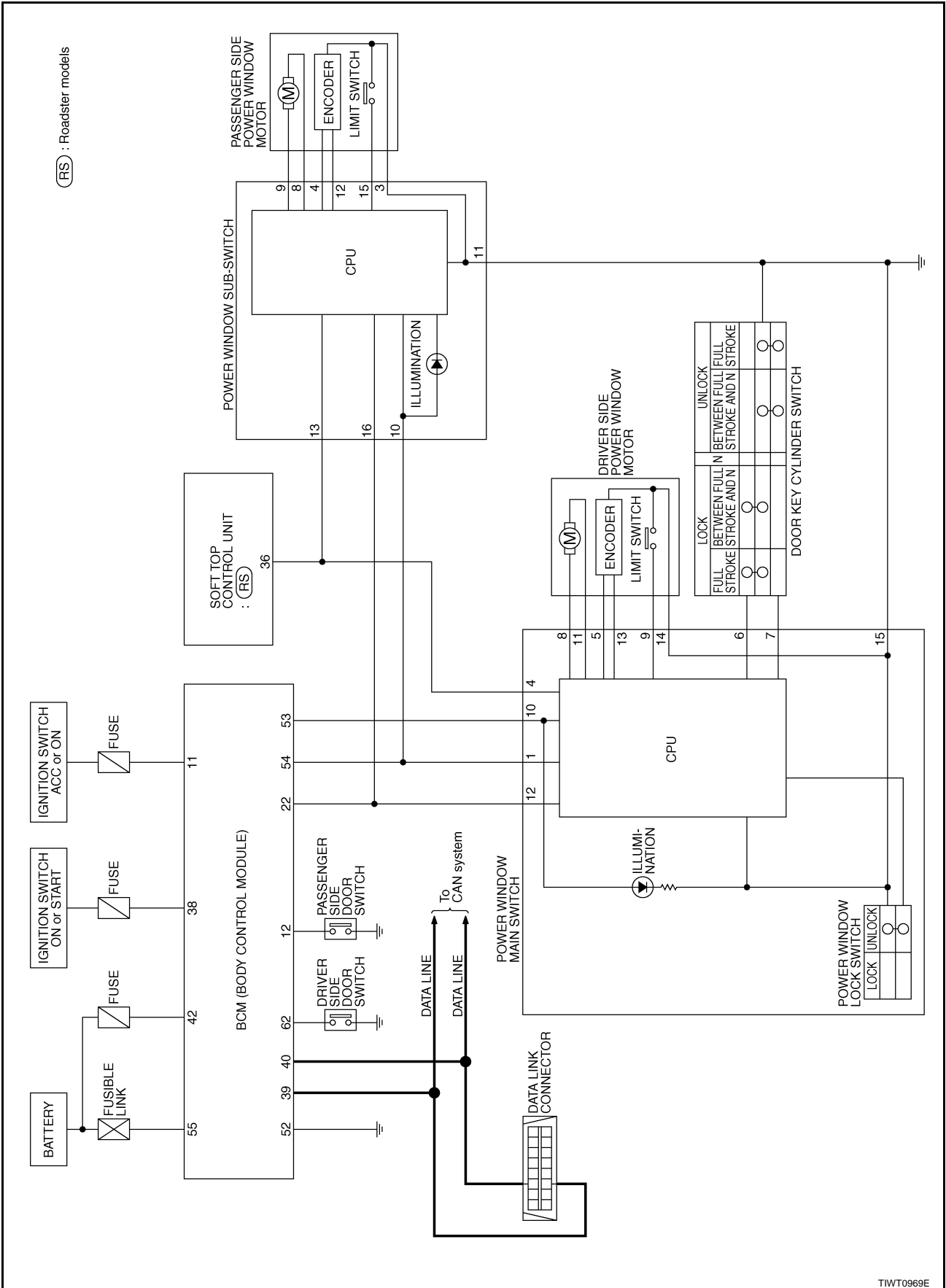
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# POWER WINDOW SYSTEM

## Schematic

NIS0004N

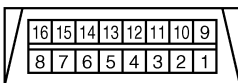
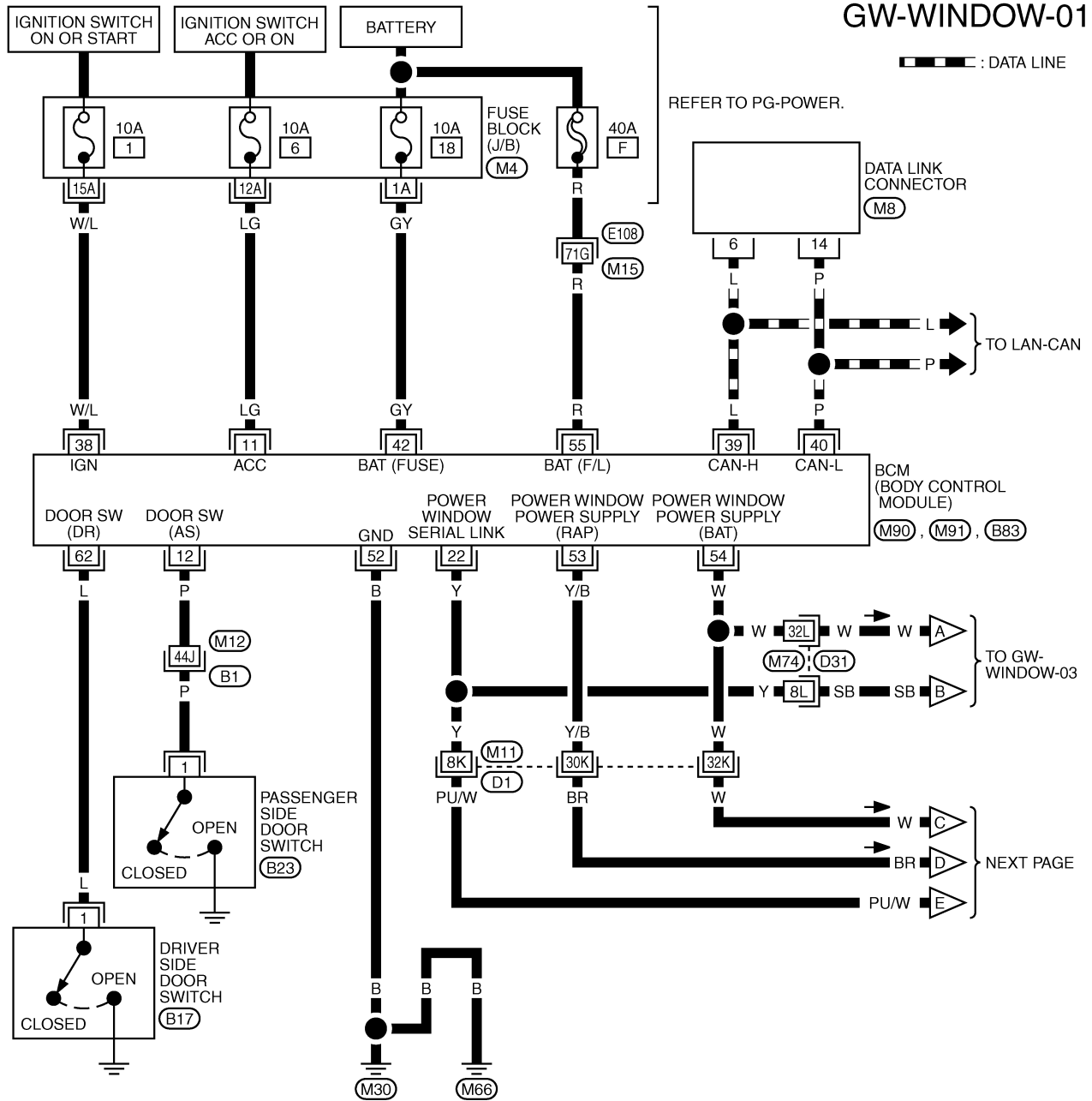


TIWT0969E

# POWER WINDOW SYSTEM

## Wiring Diagram — WINDOW —

NIS00040



(M8)  
W



(B17), (B23)  
W W

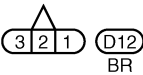
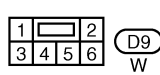
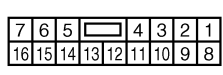
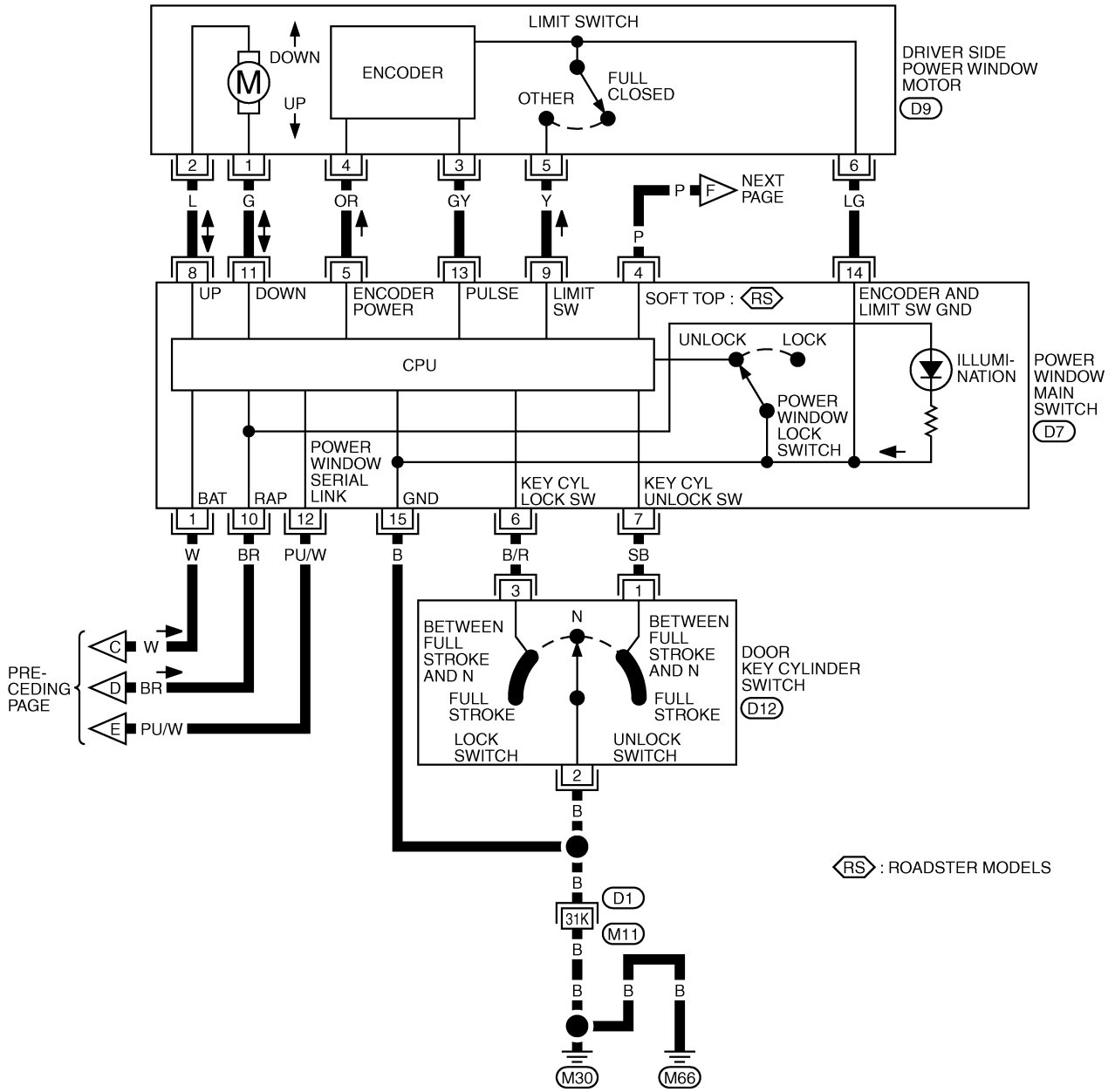
REFER TO THE FOLLOWING.

- (E108), (B1), (D1), (D31)
- SUPER MULTIPLE JUNCTION (SMJ)
- (M4) -FUSE BLOCK-JUNCTION BOX (J/B)
- (M90), (M91), (B83)
- ELECTRICAL UNITS

TIWT2206E

# POWER WINDOW SYSTEM

GW-WINDOW-02



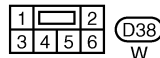
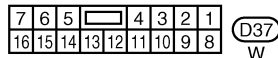
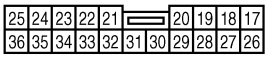
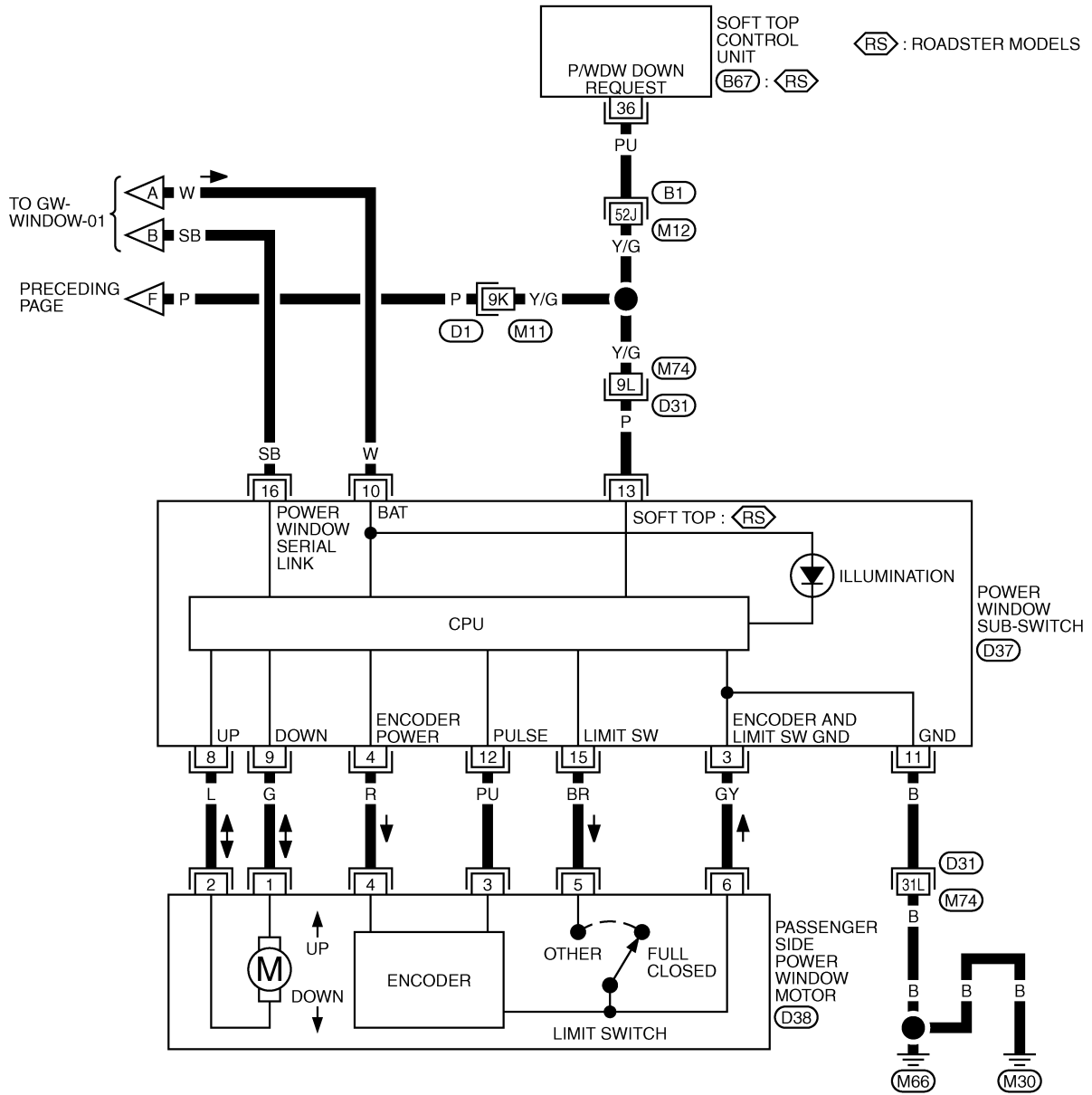
REFER TO THE FOLLOWING.  
 (D1) -SUPER MULTIPLE JUNCTION (SMJ)



# POWER WINDOW SYSTEM

GW-WINDOW-03

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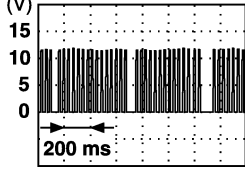
REFER TO THE FOLLOWING.  
**(B1)**, **(D1)**, **(D31)** -SUPER MULTIPLE JUNCTION (SMJ)

TIWT1594E

# POWER WINDOW SYSTEM

## Terminal and Reference Value for BCM

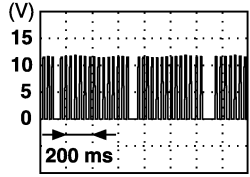
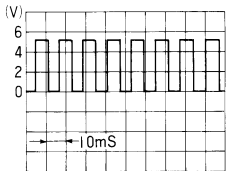
NIS0004P

| Terminal | Wire color | Item  | Signal input/output | Condition  | Voltage (V) (Approx.)   |
|----------|------------|---|---------------------|--|---|
| 11       | LG         | Ignition switch ACC power supply (ACC or ON)  | Input               | Ignition switch (ACC or ON position)   | Battery voltage   |
| 12       | P          | Passenger side door switch                    | Input               | ON (open)  | 0   |
|          |            |   |                     | OFF (closed)   | Battery voltage   |
| 22       | Y          | Power window serial link                      | Input/Output        | —  |  <p style="text-align: right; font-size: small;">PIIA2344J</p> |
| 38       | W/L        | Ignition switch ON power supply (ON or START) | Input               | Ignition switch (ON or START position)   | Battery voltage   |
| 39       | L          | CAN-H   | Input/Output        | —  | —   |
| 40       | P          | CAN-L   | Input/Output        | —  | —   |
| 42       | GY         | Power source (Fuse)                           | Input               | —  | Battery voltage   |
| 52       | B          | Ground  | —                   | —  | 0   |
| 53       | Y/B        | Rap signal                                    | Output              | IGN SW ON  | Battery voltage   |
|          |            |   |                     | Within 45 second after ignition switch is turned to OFF                        | Battery voltage   |
|          |            |   |                     | When driver side or passenger side door is open in power window timer operates | 0   |
| 54       | W          | Power window switch power supply              | Output              | —  | Battery voltage   |
| 55       | R          | Power source (Fusible link)                   | Input               | —  | Battery voltage   |
| 62       | L          | Driver side door switch                       | Input               | ON (open)  | 0   |
|          |            |   |                     | OFF (closed)   | Battery voltage   |

# POWER WINDOW SYSTEM

## Terminal and Reference Value for Power Window Main Switch

NIS0004Q

| Terminal | Wire Color | Item                                       | Signal input/output | Condition   | Voltage (V) (Approx.)   |
|----------|------------|--|---------------------|---|---|
| 1        | W          | BAT power supply                           | Input               | —   | Battery voltage   |
| 4*       | P          | Power window down request signal           | Input               | When soft top open/close function starts and window down function is operating.                       | 0   |
|          |            |  |                     | Other than above  | 5   |
| 5        | CR         | Encoder power supply                       | Input               | —   | 10  |
| 6        | B/R        | Key cylinder lock switch                   | Output              | Key position (Neutral → Locked)   | 5 → 0   |
| 7        | SB         | Key cylinder unlock switch                 | Output              | Key position (Neutral → Unlocked)   | 5 → 0   |
| 8        | L          | Driver side power window motor UP signal   | Output              | When power window motor UP operation.   | Battery voltage   |
| 9        | Y          | Limit switch signal                        | Input               | Driver side door window is between fully-open and just before fully-closed position (ON).             | 0   |
|          |            |  |                     | Driver side door window is between just before fully-closed position and fully-closed position (OFF). | 5   |
| 10       | BR         | Rap signal                                 | Output              | IGN SW ON   | Battery voltage   |
|          |            |  |                     | Within 45 second after ignition switch is turned to OFF   | Battery voltage   |
|          |            |  |                     | When driver side or passenger side door is open in power window timer is operates                     | 0   |
| 11       | G          | Driver side power window motor DOWN signal | Output              | When power window motor DOWN operation.   | Battery voltage   |
| 12       | PU/W       | Power window serial link                   | Input/Output        | —   |  <p style="text-align: right; font-size: small;">PIIA2344J</p> |
| 13       | GY         | Encoder pulse signal                       | Input/Output        | When power window motor operates.   |  <p style="text-align: right; font-size: small;">OCC3383D</p>  |
| 14       | LG         | Limit switch and encoder ground            | —                   | —   | 0   |
| 15       | B          | Ground                                     | —                   | —   | 0   |

\*: For Roadster

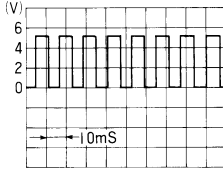
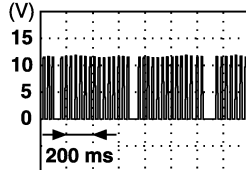
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# POWER WINDOW SYSTEM

## Terminal and Reference Value for Power Window Sub-Switch

NIS0004R

| Terminal | Wire Color | Item  | Signal input/output | Condition  | Voltage (V) (Approx)  |
|----------|------------|---|---------------------|--|---|
| 3        | GY         | Limit switch and encoder ground               | —                   | —  | 0   |
| 4        | R          | Encoder power supply                          | Input               | —  | 10  |
| 8        | L          | Passenger side power window motor UP signal   | Output              | When power window motor UP operation.  | Battery voltage   |
| 9        | G          | Passenger side power window motor DOWN signal | Output              | When power window motor DOWN operation.  | Battery voltage   |
| 10       | W          | BAT power supply                              | Input               | —  | Battery voltage   |
| 11       | B          | Ground  | —                   | —  | 0   |
| 12       | PU         | Encoder pulse signal                          | Input/Output        | When power window motor operates.  |  <p style="text-align: right; font-size: small;">OCC3383D</p>    |
| 13*      | P          | Power window down request signal              | Input               | When soft top open/close function starts and window down function is operating.                          | 0   |
|          |            |   |                     | Except the above   | 5   |
| 15       | BR         | Limit switch signal                           | Input               | Passenger side door window is between fully-open and just before fully-closed position (ON).             | 0   |
|          |            |   |                     | Passenger side door window is between just before fully-closed position and fully-closed position (OFF). | 5   |
| 16       | SB         | Power window serial link                      | Input/Output        | —  |  <p style="text-align: right; font-size: small;">PIIA2344J</p> |

\*: For Roadster

# POWER WINDOW SYSTEM

## CONSULT-II Function (BCM)

NIS0004S

CONSULT-II can display each diagnostic item using the diagnostic test modes shown following.

| BCM diagnostic test item | Check item diagnostic test mode | Content  |
|--------------------------|---------------------------------|--|
| RETAINED PWR             | Work support                    | Changes setting of each function.                      |
|                          | Data monitor                    | Displays the input data of BCM in real time.           |
|                          | Active test                     | Gives a drive signal to a load to check the operation. |

## CONSULT-II START PROCEDURE

Refer to [GI-36, "CONSULT-II Start Procedure"](#)

## WORK SUPPORT

| Work item    | Description   |
|--------------|---|
| RETAINED PWR | <p>Rap signal's power supply period can be changed by mode setting. Selects rap signal's power supply period between three steps</p> <ul style="list-style-type: none"> <li>● MODE 1 (45 sec.) / MODE 2 (OFF) / MODE 3 (2 min.).</li> </ul> |

## DATE MONITOR

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

## ACTIVE TEST

| Test item    | Description   |
|--------------|---|
| RETAINED PWR | <p>This test is able to supply RAP signal (power) from BCM (body control module) to power window system and power sunroof system (if equipped). Those systems can be operated when turning on "RETAINED PWR" on CONSULT-II screen even if the ignition switch is turned OFF.</p> <p><b>NOTE:</b><br/>During this test, CONSULT-II can be operated with ignition switch in "OFF" position. "RETAINED PWR" should be turned "ON" or "OFF" on CONSULT-II screen when ignition switch is ON. Then turn ignition switch OFF to check retained power operation. CONSULT-II might be stuck if "RETAINED PWR" is turned to "ON" or "OFF" on CONSULT-II screen when ignition switch is OFF position.</p> |

# POWER WINDOW SYSTEM

## Work Flow

NIS0004T

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-19, "System Description"](#) .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-30, "Trouble Diagnoses Symptom Chart"](#) .
4. Does power window system operate normally? If Yes, GO TO 5, If No, GO TO 3.
5. INSPECTION END

## Trouble Diagnoses Symptom Chart

NIS0004U

- Make sure that other systems using the signal of the following check systems operate normally.

| Symptom  | Diagnoses / service procedure   | Reference page         |
|--|---|------------------------|
| None of the power windows can be operated using any switch.      | 1. Check BCM power supply and ground circuit  | <a href="#">GW-32</a>  |
|  | 2. Check power window main switch power supply and ground circuit   | <a href="#">GW-46</a>  |
|  | 3. Check power window serial link   | <a href="#">GW-44</a>  |
|  | 4. Replace BCM.   | <a href="#">BCS-19</a> |
| Driver side power window cannot be operated                      | 1. Check driver side power window motor circuit   | <a href="#">GW-33</a>  |
|  | 2. Replace the power window main switch.  | <a href="#">GW-46</a>  |
| Passenger side power window cannot be operated.                  | 1. Check power window sub-switch power supply and ground circuit  | <a href="#">GW-47</a>  |
|  | 2. Check power window serial link   | <a href="#">GW-44</a>  |
|  | 3. Check passenger side power window motor circuit  | <a href="#">GW-33</a>  |
|  | 4. Replace BCM.   | <a href="#">BCS-19</a> |
| Anti-pinch system does not operate normally (driver side).       | 1. Door window sliding part malfunction <ul style="list-style-type: none"> <li>● A foreign material adheres to window glass or grass run rubber.</li> <li>● Glass run rubber wear or deformation.</li> <li>● Sash is tilted too much, or not enough.</li> </ul> | —                      |
|  | 2. Limit switch adjusting   | <a href="#">GW-52</a>  |
|  | 3. Check limit switch circuit (driver side)   | <a href="#">GW-34</a>  |
|  | 4. Check encoder circuit (driver side)  | <a href="#">GW-37</a>  |
| Anti-pinch system does not operate normally (passenger side).    | 1. Door window sliding part malfunction <ul style="list-style-type: none"> <li>● A foreign material adheres to window glass or grass run rubber.</li> <li>● Glass run rubber wear or deformation.</li> <li>● Sash is tilted too much, or not enough.</li> </ul> | —                      |
|  | 2. Limit switch adjusting   | <a href="#">GW-52</a>  |
|  | 3. Check limit switch circuit (passenger side)  | <a href="#">GW-36</a>  |
|  | 4. Check encoder circuit (passenger side)   | <a href="#">GW-39</a>  |
| Power window retained power operation does not operate properly. | 1. Check the retained power operation mode setting.   | <a href="#">GW-29</a>  |
|  | 2. Check door switch  | <a href="#">GW-42</a>  |
|  | 3. Replace BCM.   | <a href="#">BCS-19</a> |

# POWER WINDOW SYSTEM

| Symptom  | Diagnoses / service procedure                  | Reference page         |
|--|--|------------------------|
| Automatic window adjusting function does not operate.                        | 1. Check door switch                           | <a href="#">GW-42</a>  |
|  | 2. Limit switch adjusting                      | <a href="#">GW-52</a>  |
|  | 3. Check limit switch circuit (driver side)    | <a href="#">GW-34</a>  |
|  | 4. Check limit switch circuit (passenger side) | <a href="#">GW-36</a>  |
|  | 5. Check power window serial link              | <a href="#">GW-44</a>  |
|  | 6. Replace BCM.                                | <a href="#">BCS-19</a> |
| Does not operate by the key cylinder switch.                                 | 1. Check door key cylinder switch              | <a href="#">GW-48</a>  |
|  | 2. Replace the power window main switch.       | <a href="#">EI-33</a>  |
| Power window lock switch does not function.                                  | 1. Check power window serial link              | <a href="#">GW-44</a>  |
|  | 2. Replace the power window main switch.       | <a href="#">EI-33</a>  |
| Auto operation does not operate but manual operate normally (driver side)    | 1. Check encoder circuit (driver side)         | <a href="#">GW-37</a>  |
|  | 2. Replace power window main switch            | <a href="#">EI-33</a>  |
| Auto operation does not operate but manual operate normally (passenger side) | 1. Check encoder circuit (passenger side)      | <a href="#">GW-39</a>  |
|  | 2. Replace power window sub-switch             | <a href="#">EI-33</a>  |

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# POWER WINDOW SYSTEM

NIS0004V

## Check BCM Power Supply and Ground Circuit

### 1. CHECK FUSE

- Check 10A fuse [No.1, located in fuse block (J/B)]
- Check 10A fuse [No.18, located in fuse block (J/B)]
- Check 40A fusible link (letter **F** , located in the fuse and fusible link box).

#### NOTE:

Refer to [GW-18, "Component Parts and Harness Connector Location"](#) .

#### OK or NG

OK >> GO TO 2.

NG >> If fuse is blown out, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

### 2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM connector M90, M91 terminal 38, 42, 55 and ground.

**38 (W/L) – Ground : Battery voltage**

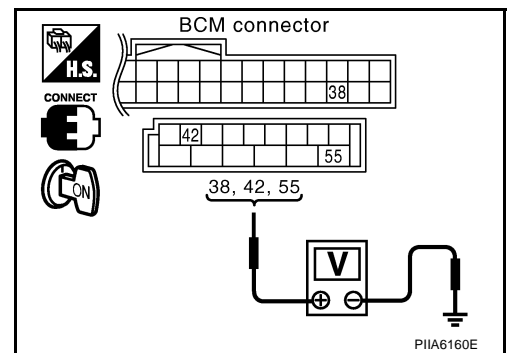
**42 (GY) – Ground : Battery voltage**

**55 (R) – Ground : Battery voltage**

#### OK or NG

OK >> GO TO 3.

NG >> Check BCM power supply circuit for open or short.



### 3. CHECK GROUND CIRCUIT

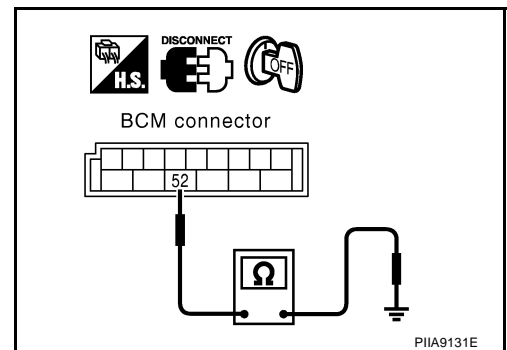
1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM connector M91 terminal 52 and ground.

**52 (B) – Ground :Continuity should exist.**

#### OK or NG

OK >> Power supply and ground circuit are OK.

NG >> Check BCM ground circuit for open or short.





# POWER WINDOW SYSTEM

## Check Drive Side Power Window Motor Circuit

NIS0004W

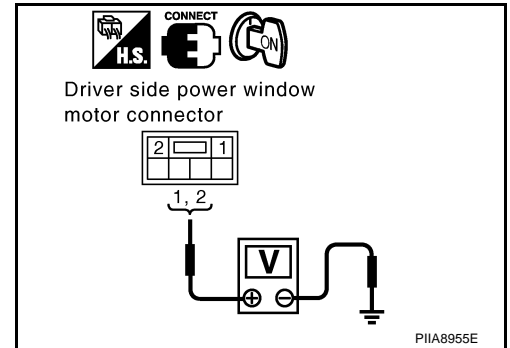
### 1. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Power window main switch operate, check voltage between driver side power window motor connector and ground.

| Connector | Terminals (Wire color) |        | Condition of power window main switch | Voltage (V) (Approx.) |
|-----------|------------------------|--------|---------------------------------------|-----------------------|
|           | (+)                    | (-)    |                                       |                       |
| D9        | 1 (G)                  | Ground | UP                                    | 0                     |
|           |                        |        | DOWN                                  | Battery voltage       |
|           | 2 (L)                  |        | UP                                    | Battery voltage       |
|           |                        |        | DOWN                                  | 0                     |

#### OK or NG

- OK >> Replace driver side power window motor.  
 NG >> GO TO 2.



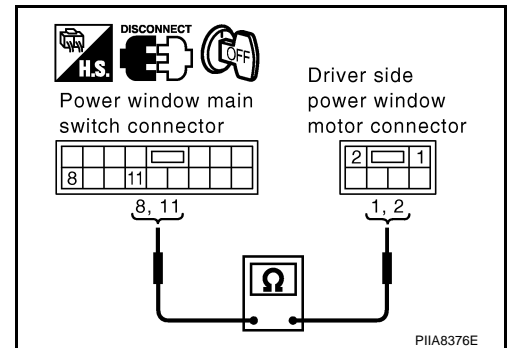
### 2. CHECK POWER WINDOW MAIN SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch and driver side power window motor connector.
3. Check continuity between power window main switch connector D7 terminals 8, 11 and driver side power window motor connector D9 terminals 1, 2.

- 8 (L) – 2 (L) : Continuity should exist.**  
**11 (G) – 1 (G) : Continuity should exist.**

#### OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.  
 NG >> Repair or replace harness.



## Check Passenger Side Power Window Motor Circuit

NIS0004X

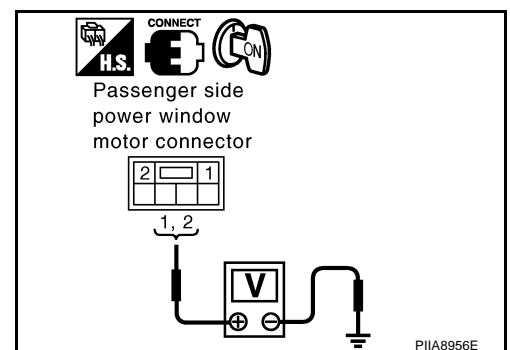
### 1. CHECK POWER WINDOW SUB-SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Power window sub-switch operate, check voltage between passenger side power window motor connector and ground.

| Connector | Terminals (Wire color) |        | Condition of power window sub-switch | Voltage (V) (Approx.) |
|-----------|------------------------|--------|--------------------------------------|-----------------------|
|           | (+)                    | (-)    |                                      |                       |
| D38       | 1 (G)                  | Ground | UP                                   | 0                     |
|           |                        |        | DOWN                                 | Battery voltage       |
|           | 2 (L)                  |        | UP                                   | Battery voltage       |
|           |                        |        | DOWN                                 | 0                     |

#### OK or NG

- OK >> Replace passenger side power window motor.  
 NG >> GO TO 2.



# POWER WINDOW SYSTEM

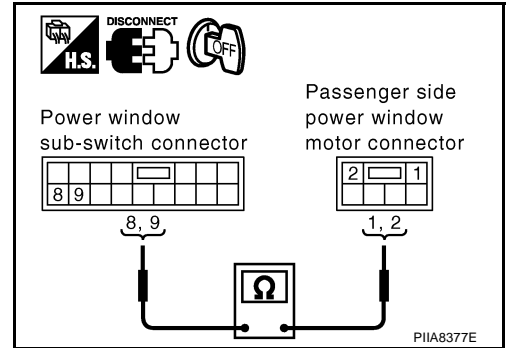
## 2. CHECK POWER WINDOW MOTOR (PASSENGER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window sub-switch and passenger side power window motor connector.
3. Check continuity between power window sub-switch connector D37 terminals 8, 9 and passenger side power window motor connector D38 terminals 1, 2.

**9 (G) – 1 (G) : Continuity should exist.**  
**8 (L) – 2 (L) : Continuity should exist.**

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.  
 NG >> Repair or replace harness.

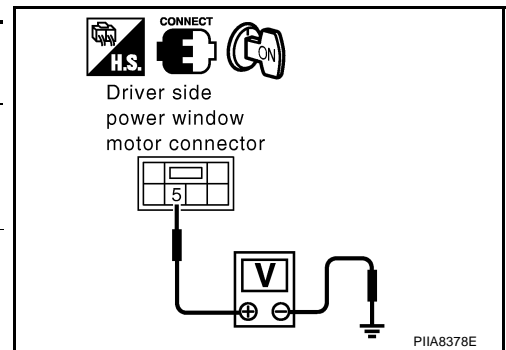


## Check Limit Switch Circuit (Driver Side)

### 1. CHECK DRIVER DOOR LIMIT SWITCH SIGNAL

1. Turn ignition switch ON.
2. Check voltage between driver side power window motor connector and ground.

| Connector | Terminals (Wire color) |        | Condition  | Voltage (V) (Approx.) |
|-----------|------------------------|--------|--|-----------------------|
|           | (+)                    | (-)    |  |                       |
| D9        | 5 (Y)                  | Ground | Driver side door window is between fully-open and just before fully-closed position (ON)             | 0                     |
|           |                        |        | Driver side door window is between just before fully-closed position and fully-closed position (OFF) | 5                     |



OK or NG

- OK >> Limit switch circuit is OK.  
 NG >> GO TO 2.

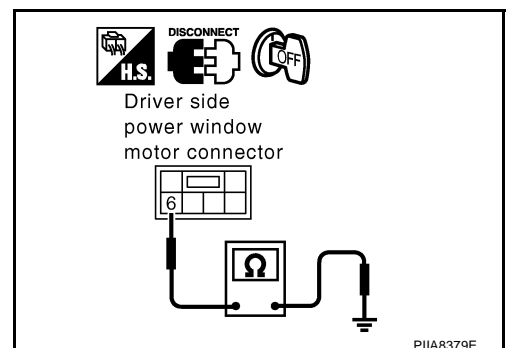
## 2. CHECK LIMIT SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect driver side power window motor connector.
3. Check continuity between driver side power window motor connector D9 terminal 6 and ground.

**6 (LG) – Ground : Continuity should exist.**

OK or NG

- OK >> GO TO 4.  
 NG >> GO TO 3.



# POWER WINDOW SYSTEM

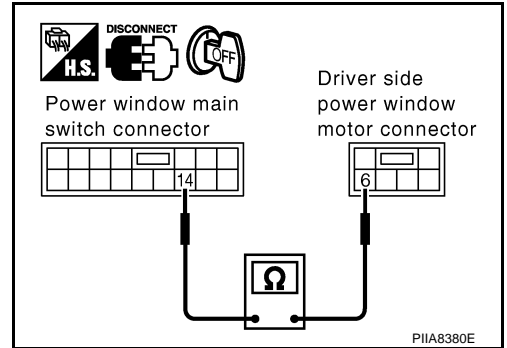
## 3. CHECK HARNESS CONTINUITY

1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector D7 terminal 14 and driver side power window motor connector D9 terminal 6.

**14 (LG) – 6 (LG) : Continuity should exist.**

OK or NG

- OK >> Replace power window main switch.  
NG >> Repair or replace harness.



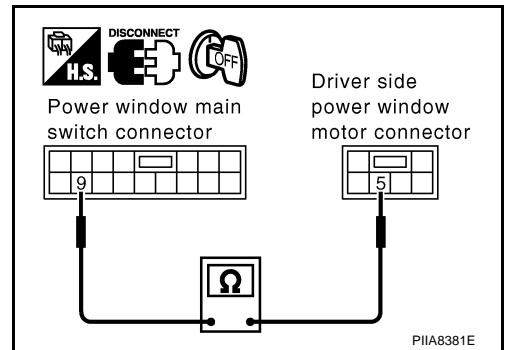
## 4. CHECK HARNESS CONTINUITY

1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector D7 terminal 9 and driver side power window motor connector D9 terminal 5.

**9 (Y) – 5 (Y) : Continuity should exist.**

OK or NG

- OK >> GO TO 5.  
NG >> Repair or replace harness.



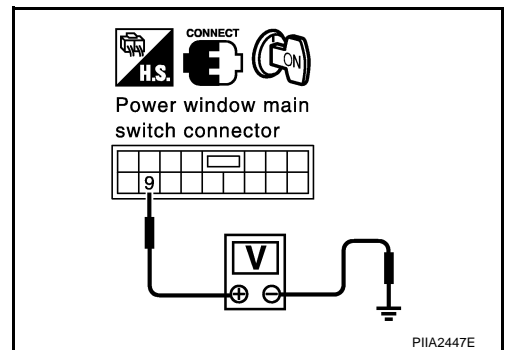
## 5. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Check voltage between power window main switch connector D7 terminal 9 and ground.

**9 (Y) – Ground : Approx. 5V**

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.  
NG >> Replace power window main switch.



# POWER WINDOW SYSTEM

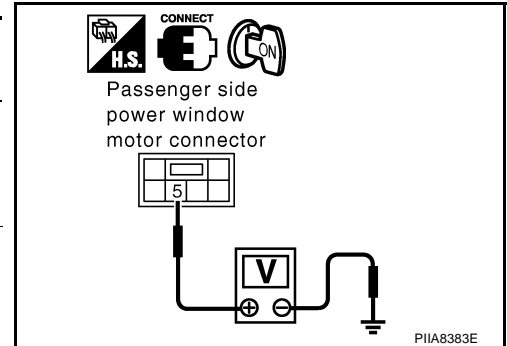
## Check Limit Switch Circuit (Passenger Side)

NIS0004Z

### 1. CHECK POWER WINDOW LIMIT SWITCH SIGNAL

1. Turn ignition switch ON.
2. Check voltage between passenger side power window motor connector and ground.

| Connector | Terminals (Wire color) |        | Condition   | Voltage (V)<br>(Approx.) |
|-----------|------------------------|--------|---|--------------------------|
|           | (+)                    | (-)    |   |                          |
| D38       | 5 (BR)                 | Ground | Passenger side door window is between fully-open and just before fully-closed position (ON)             | 0                        |
|           |                        |        | Passenger side door window is between just before fully-closed position and fully-closed position (OFF) | 5                        |



OK or NG

- OK >> Limit switch circuit is OK.  
 NG >> GO TO 2.

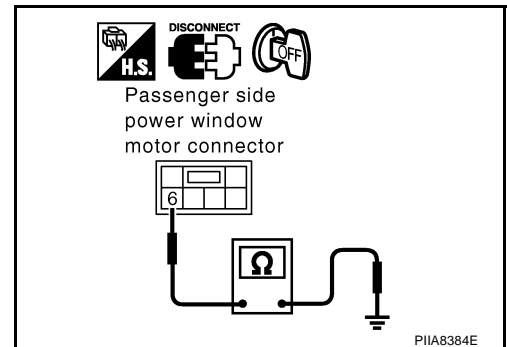
### 2. CHECK LIMIT SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect passenger side power window motor connector.
3. Check continuity between passenger side power window motor connector D38 terminal 6 and ground.

**6 (GY) – Ground : Continuity should exist.**

OK or NG

- OK >> GO TO 4.  
 NG >> GO TO 3.



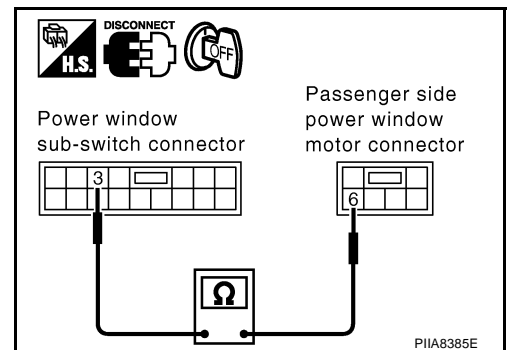
### 3. CHECK HARNESS CONTINUITY

1. Disconnect power window sub-switch connector.
2. Check continuity between power window sub-switch connector D37 terminal 3 and passenger side power window motor connector D38 terminal 6.

**3 (GY) – 6 (GY) : Continuity should exist.**

OK or NG

- OK >> Replace power window sub-switch.  
 NG >> Repair or replace harness.



# POWER WINDOW SYSTEM

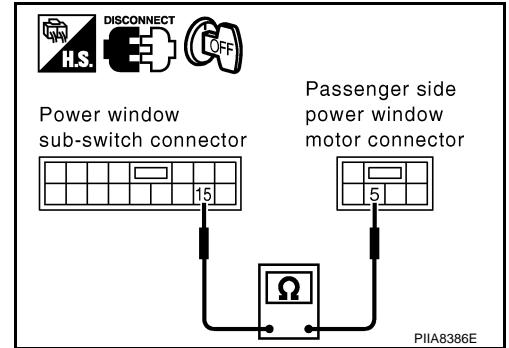
## 4. CHECK HARNESS CONTINUITY

1. Disconnect power window sub-switch connector.
2. Check continuity between power window sub-switch connector D37 terminal 15 and passenger side power window motor connector D38 terminal 5.

**15 (BR) – 5 (BR) : Continuity should exist.**

OK or NG

- OK >> GO TO 5.  
NG >> Repair or replace harness.



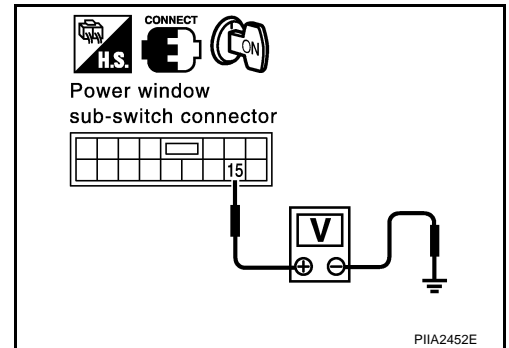
## 5. CHECK POWER WINDOW SUB-SWITCH OUTPUT SIGNAL

1. Connect power window sub-switch connector.
2. Turn ignition switch ON.
3. Check voltage between power window sub-switch connector D37 terminal 15 and ground.

**15 (BR) – Ground : Approx. 5V**

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.  
NG >> Replace power window sub-switch.



## Check Encoder Circuit (Driver Side)

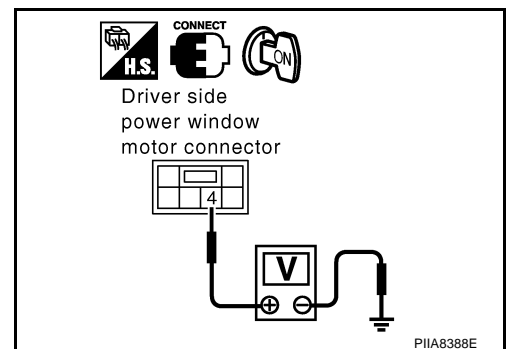
### 1. CHECK DRIVER SIDE POWER WINDOW MOTOR POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between driver side power window motor connector D9 terminal 4 and ground.

**4 (OR) – Ground : Approx. 10V**

OK or NG

- OK >> GO TO 3.  
NG >> GO TO 2.



# POWER WINDOW SYSTEM

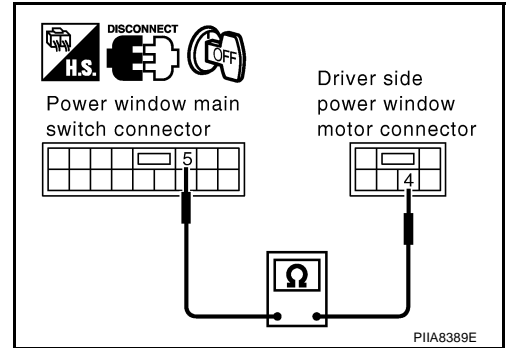
## 2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window main switch and driver side power window motor connector.
3. Check continuity between power window main switch connector D7 terminal 5 and driver side power window motor connector D9 terminal 4.

**5 (OR) – 4 (OR) : Continuity should exist.**

OK or NG

- OK >> Replace power window main switch.  
NG >> Repair or replace harness.



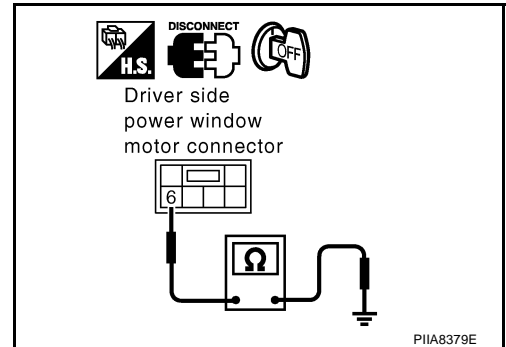
## 3. CHECK ENCODER GROUND

1. Turn ignition switch OFF.
2. Disconnect driver side power window motor connector.
3. Check continuity between driver side power window motor connector D9 terminal 6 and ground.

**6 (LG) – Ground : Continuity should exist.**

OK or NG

- OK >> GO TO 5.  
NG >> GO TO 4.



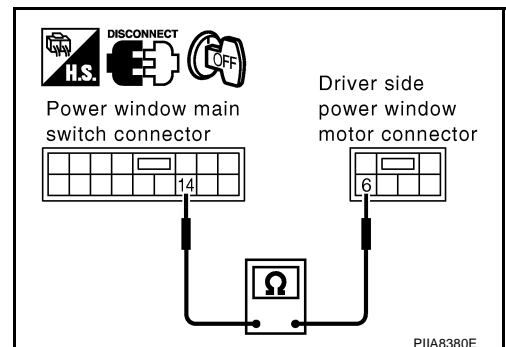
## 4. CHECK ENCODER GROUND CIRCUIT

1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector D7 terminal 14 and driver side power window motor connector D9 terminal 6.

**14 (LG) – 6 (LG) : Continuity should exist.**

OK or NG

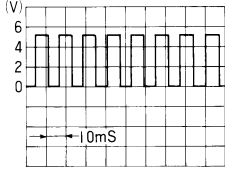
- OK >> Replace power window main switch.  
NG >> Repair or replace harness.



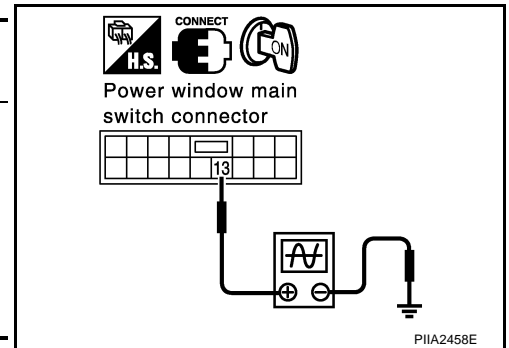
# POWER WINDOW SYSTEM

## 5. CHECK ENCODER SIGNAL

1. Connect driver side power window motor connector.
2. Turn ignition switch ON.
3. Check signal between power window main switch connector and ground with oscilloscope.

| Connector | Terminals (Wire color) |        | Condition | Signal<br>(Reference valve)   |
|-----------|------------------------|--------|-----------|---|
|           | (+)                    | (-)    |           |   |
| D7        | 13 (GY)                | Ground | DOWN      |  |

OCC3383D



OK or NG

- OK >> Replace power window main switch.  
 NG >> GO TO 6.

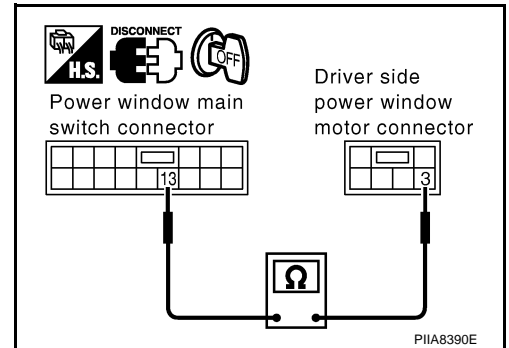
## 6. CHECK ENCODER CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch and driver side power window motor connector.
3. Check continuity between power window main switch connector D7 terminal 13 and driver side power window motor connector D9 terminal 3.

**13 (GY) – 3 (GY) : Continuity should exist.**

OK or NG

- OK >> Replace driver side power window motor.  
 NG >> Repair or replace harness.



## Check Encoder Circuit (Passenger Side)

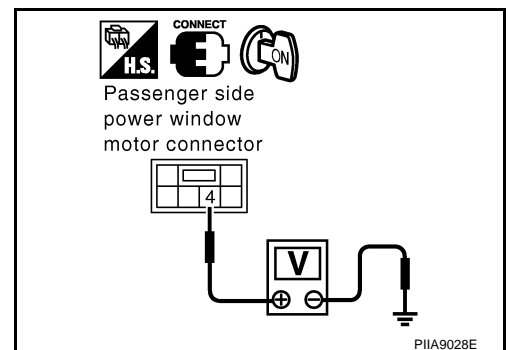
### 1. CHECK PASSENGER SIDE POWER WINDOW MOTOR POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between passenger side power window motor connector D38 terminal 4 and ground.

**4 (R) – Ground : Approx. 10V**

OK or NG

- OK >> GO TO 3.  
 NG >> GO TO 2.



# POWER WINDOW SYSTEM

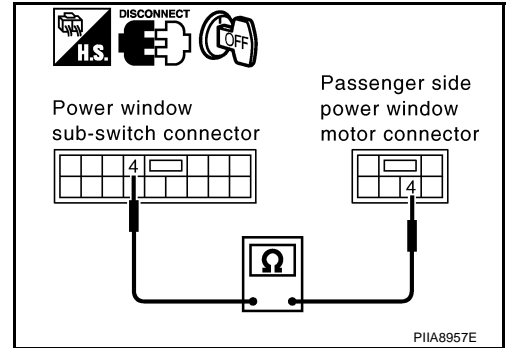
## 2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window sub-switch and passenger side power window motor connector.
3. Check continuity between power window sub-switch connector D37 terminal 4 and passenger side power window motor connector D38 terminal 4.

**4 (R) – 4 (R) : Continuity should exist.**

OK or NG

- OK >> Replace power window sub-switch.  
NG >> Repair or replace harness.



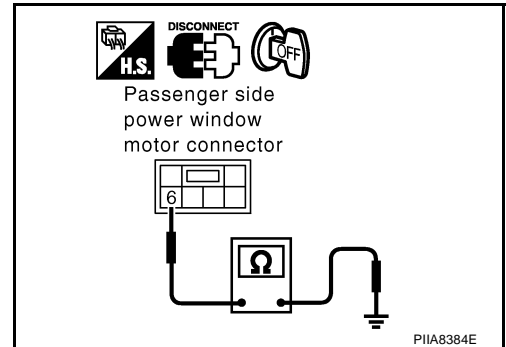
## 3. CHECK ENCODER GROUND

1. Turn ignition switch OFF.
2. Disconnect passenger side power window motor connector.
3. Check continuity between passenger side power window motor connector D38 terminal 6 and ground.

**6 (GY) – Ground : Continuity should exist.**

OK or NG

- OK >> GO TO 5.  
NG >> GO TO 4.



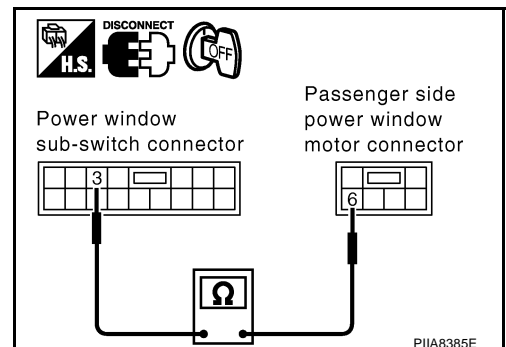
## 4. CHECK ENCODER GROUND CIRCUIT

1. Disconnect power window sub-switch connector.
2. Check continuity between power window sub-switch connector D37 terminal 3 and passenger side power window motor connector D38 terminal 6.

**3 (GY) – 6 (GY) : Continuity should exist.**

OK or NG

- OK >> Replace power window sub switch.  
NG >> Repair or replace harness.

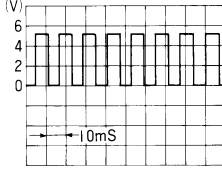




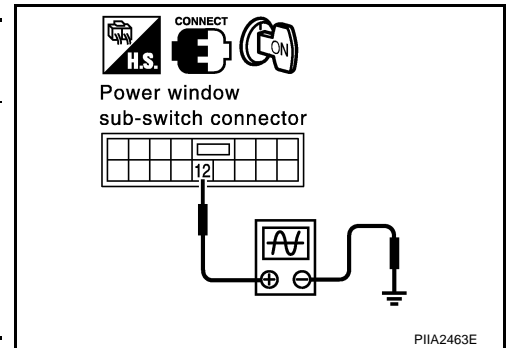
# POWER WINDOW SYSTEM

## 5. CHECK ENCODER SIGNAL

1. Connect passenger side power window motor connector.
2. Turn ignition ON.
3. Check signal between power window sub-switch connector and ground with oscilloscope.

| Connector | Terminals (Wire color) |        | Condition | Signal<br>(Reference valve)   |
|-----------|------------------------|--------|-----------|---|
|           | (+)                    | (-)    |           |   |
| D37       | 12 (PU)                | Ground | DOWN      |  |

OCC3383D



OK or NG

- OK >> Replace power window sub-switch.  
 NG >> GO TO 6.

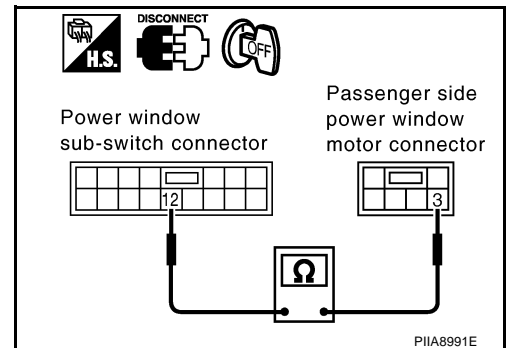
## 6. CHECK ENCODER CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window sub-switch and passenger side power window motor connector.
3. Check continuity between power window sub-switch connector D37 terminal 12 and passenger side power window motor connector D38 terminal 3.

**12 (PU) – 3 (PU) : Continuity should exist.**

OK or NG

- OK >> Replace passenger side power window motor.  
 NG >> Repair or replace harness.



A  
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M

GW

# POWER WINDOW SYSTEM

NIS00052

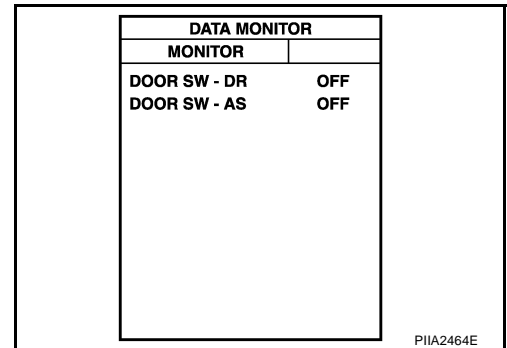
## Check Door Switch

### 1. CHECK DOOR SWITCH INPUT SIGNAL

#### With CONSULT-II

Check door switches ("DOOR SW-DR" and "DOOR SW-AS") in "DATA MONITOR" mode with CONSULT-II.

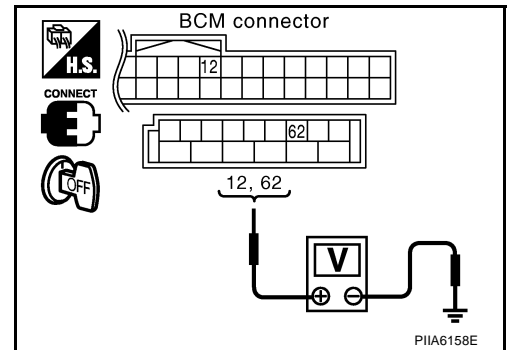
| Monitor item | Condition   |
|--------------|-------------|
| DOOR SW-DR   | OPEN : ON   |
|              | CLOSE : OFF |
| DOOR SW-AS   | OPEN : ON   |
|              | CLOSE : OFF |



#### Without CONSULT-II

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

| Item                       | Connector | Terminals (Wire color) |        | Condition | Voltage (V) (Approx.) |
|----------------------------|-----------|------------------------|--------|-----------|-----------------------|
|                            |           | (+)                    | (-)    |           |                       |
| Passenger side door switch | M90       | 12 (P)                 | Ground | OPEN      | 0                     |
|                            |           |                        |        | CLOSE     | Battery voltage       |
| Driver side door switch    | B83       | 62 (L)                 | Ground | OPEN      | 0                     |
|                            |           |                        |        | CLOSE     | Battery voltage       |



#### OK or NG

- OK >> Door switch is OK.  
 NG >> GO TO 2.

# POWER WINDOW SYSTEM

## 2. CHECK DOOR SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door switch and BCM connector.
3. Check continuity between BCM connector M90, B83 terminals 12, 62 and door switch connector B17, B23 terminals 1.

**12 (P) – 1 (P) : Continuity should exist.**

**62 (L) – 1 (L) : Continuity should exist.**

4. Check continuity between BCM connector M90, B83 terminals 12, 62 and ground.

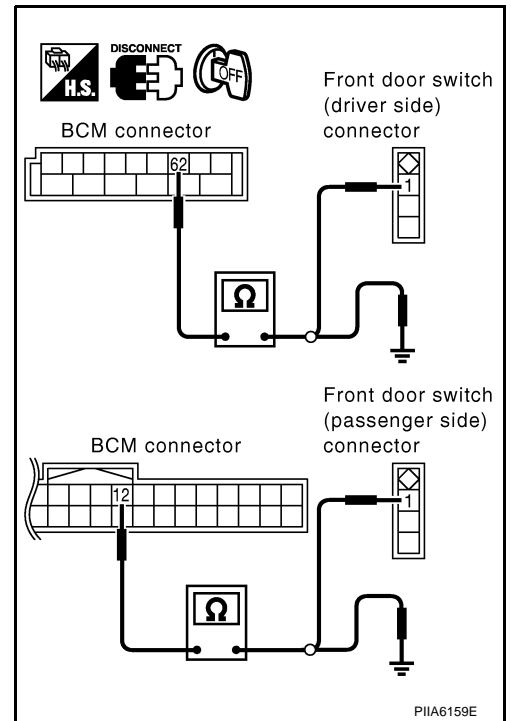
**12 (P) – Ground : Continuity should not exist.**

**62 (L) – Ground : Continuity should not exist.**

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



## 3. CHECK DOOR SWITCH

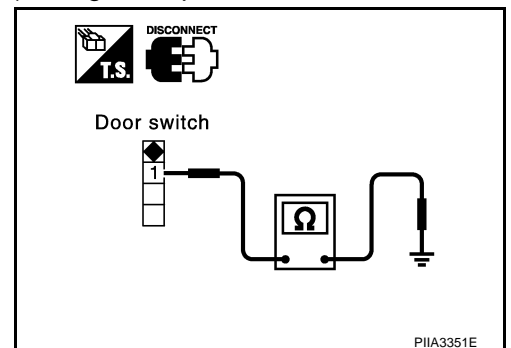
Check continuity between door switch (driver side) or (passenger side) and ground part of door switch.

| Terminal |                            | Condition of door switch | Continuity |
|----------|----------------------------|--------------------------|------------|
| 1        | Ground part of door switch | Pushed                   | No         |
|          |                            | Released                 | Yes        |

OK or NG

OK >> GO TO 4.

NG >> Replace malfunction door switch.



## 4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Check voltage between BCM connector M90, B83 terminals 12, 62 and ground.

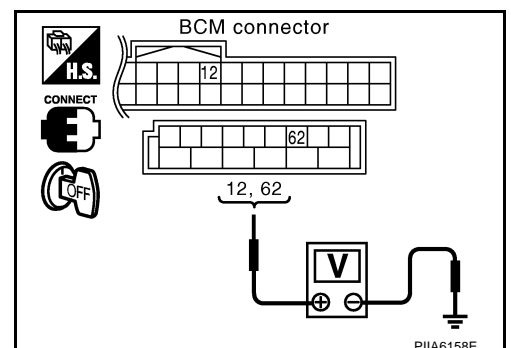
**12 (P) – Ground : Battery voltage**

**62 (L) – Ground : Battery voltage**

OK or NG

OK >> Check the condition of the harness and the connector.

NG >> Replace BCM.



# POWER WINDOW SYSTEM

NIS00053

## Check Power Window Serial Link

### 1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

#### With CONSULT-II

Check door lock and unlock switch ("LOCK SW DR/AS", "UNLK SW DR/AS") in DATA MONITOR mode with CONSULT-II. Refer to [BL-35, "DATA MONITOR"](#).

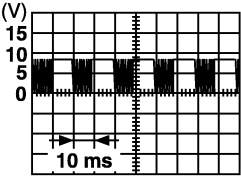
| Monitor item  | Condition   |
|---------------|-------------|
| CDL LOCK SW   | LOCK: ON    |
|               | UNLOCK: OFF |
| CDL UNLOCK SW | LOCK: OFF   |
|               | UNLOCK: ON  |

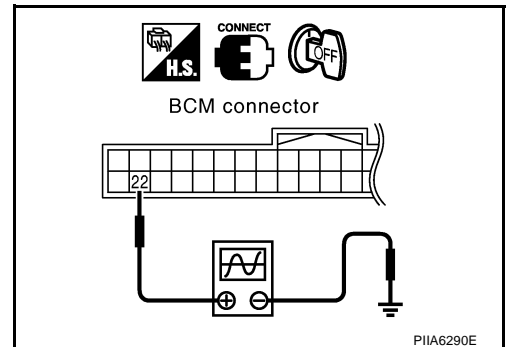
| DATA MONITOR  |     |
|---------------|-----|
| MONITOR       |     |
| CDL LOCK SW   | OFF |
| CDL UNLOCK SW | OFF |

PIIA7068E

#### Without CONSULT-II

1. Remove key from ignition switch, and the door of driver side and passenger side is closed.
2. Check signal between BCM connector and ground with oscilloscope when door lock and unlock switch (driver side and passenger side) is turned "LOCK" or "UNLOCK".
3. Make sure signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (driver side and passenger side) is turned "LOCK" or "UNLOCK".

| Connector | Terminals (Wire color) |        | Signal<br>(Reference valve)   |
|-----------|------------------------|--------|---|
|           | (+)                    | (-)    |   |
| M90       | 22 (Y)                 | Ground |  <p style="text-align: right;">PIIA1297E</p> |



OK or NG

- OK >> GO TO 2.  
 NG >> GO TO 3.

### 2. CHECK BCM OUTPUT SIGNAL

Check power window serial link ("POWER WINDOW DOWN") in "ACTIVE TEST" mode with CONSULT-II. Refer to [BL-75, "Active Test"](#).

When "ACTIVE TEST" is perform, is the window of driver side and passenger side lowered?

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.  
 NG >> Replace BCM.

| ACTIVE TEST       |     |
|-------------------|-----|
| POWER WINDOW DOWN | OFF |
| ON                |     |

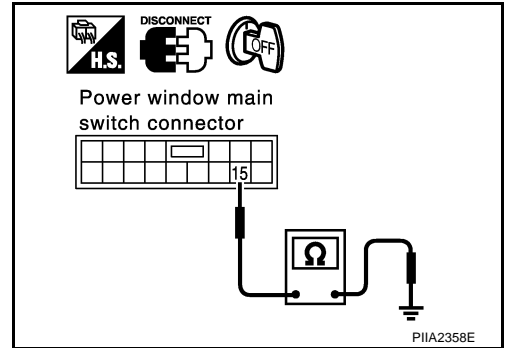
PIIA3080E

# POWER WINDOW SYSTEM

## 3. CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.
2. Disconnect power window main switch and power window sub-switch connector.
3. Check continuity between power window main switch connector D7 terminals 15 and ground.

**15 (B) – Ground : Continuity should exist.**



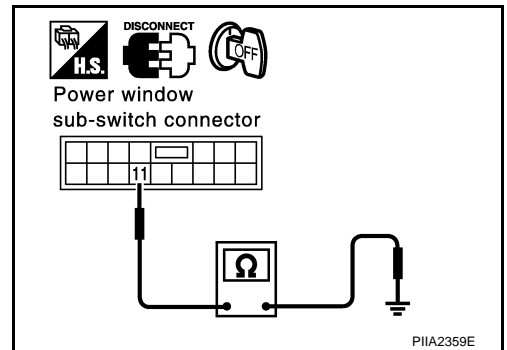
4. Check continuity between power window sub-switch connector D37 terminal 11 and ground.

**11 (B) – Ground : Continuity should exist.**

OK or NG

OK >> GO TO 4.

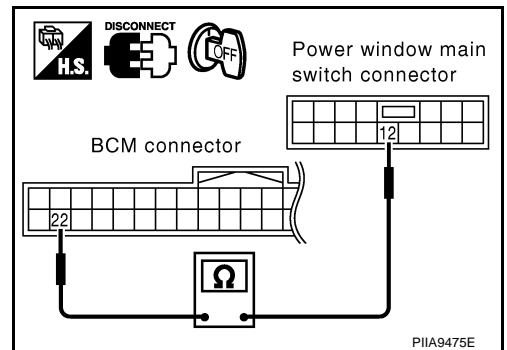
NG >> Repair or replace harness.



## 4. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM connector M90 terminal 22 and power window main switch connector D7 terminal 12.

**22 (Y) – 12 (PU/W) : Continuity should exist.**



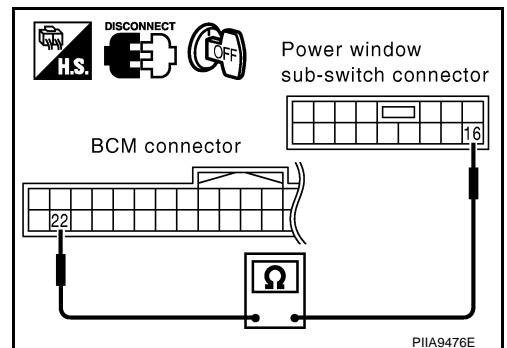
3. Check continuity between BCM connector M90 terminal 22 and power window sub-switch connector D37 terminal 16.

**22 (Y) – 16 (SB) : Continuity should exist.**

OK or NG

OK >> Replace power window main switch.

NG >> Repair or replace harness.



# POWER WINDOW SYSTEM

## Check Power Window Main Switch Power Supply and Ground Circuit

NIS00054

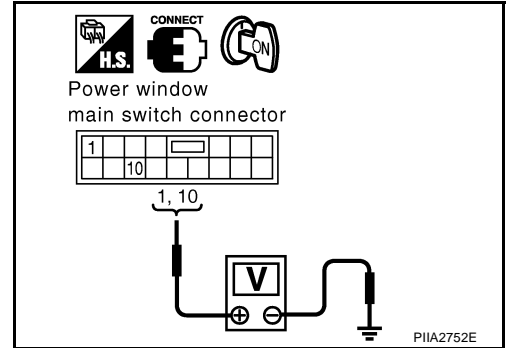
### 1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between power window main switch connector D7 terminals 1, 10 and ground.

**1 (W) – Ground : Battery voltage**  
**10 (BR) – Ground : Battery voltage**

OK or NG

- OK >> GO TO 2.  
NG >> GO TO 3.



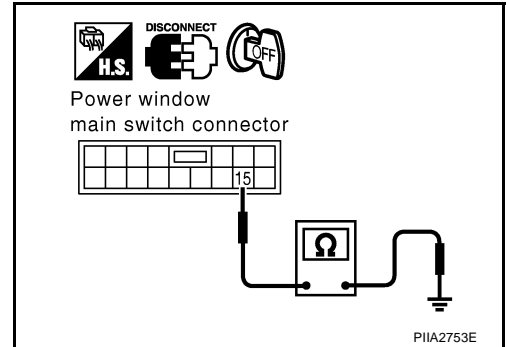
### 2. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check continuity between power window main switch connector D7 terminal 15 and ground.

**15 (B) – Ground : Continuity should exist.**

OK or NG

- OK >> Power window main switch power supply and ground circuits are OK.  
NG >> Repair or replace harness.



### 3. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and power window main switch connector.
3. Check continuity between BCM connector M91 terminals 53, 54 and power window main switch connector D7 terminal 1, 10.

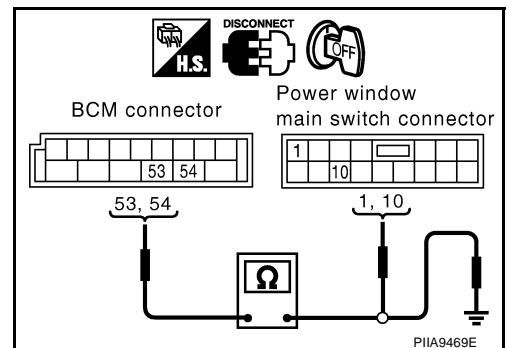
**53 (Y/B) – 10 (BR) : Continuity should exist.**  
**54 (W) – 1 (W) : Continuity should exist.**

4. Check continuity between BCM connector M91 terminals 53, 54 and ground.

**53 (Y/B) – Ground : Continuity should not exist.**  
**54 (W) – Ground : Continuity should not exist.**

OK or NG

- OK >> GO TO 4.  
NG >> Repair or replace harness.



# POWER WINDOW SYSTEM

## 4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M91 terminals 53, 54 and ground.

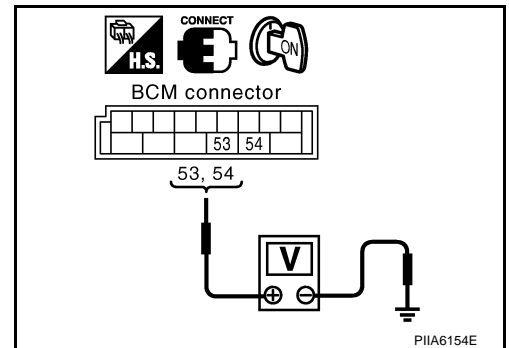
**53 (Y/B) – Ground : Battery voltage**

**54 (W) – Ground : Battery voltage**

OK or NG

OK >> Check condition of harness and connector.

NG >> Replace BCM.



## Check Power Window Sub-switch Power Supply and Ground

NIS00055

### 1. CHECK POWER SUPPLY CIRCUIT

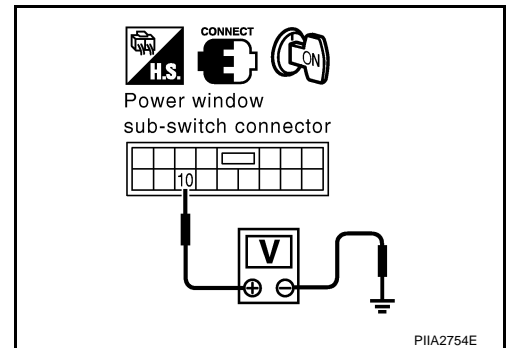
1. Turn ignition switch ON.
2. Check voltage between power window sub-switch connector D37 terminal 10 and ground.

**10 (W) – Ground : Battery voltage**

OK or NG

OK >> GO TO 2.

NG >> GO TO 3.



### 2. CHECK GROUND CIRCUIT

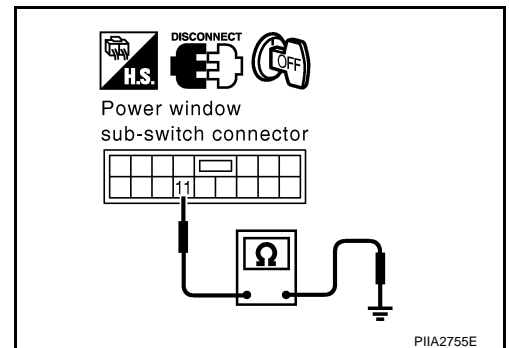
1. Turn ignition switch OFF.
2. Disconnect power window sub-switch connector.
3. Check continuity between power window sub-switch connector D37 terminal 11 and ground.

**11 (B) – Ground : Continuity should exist.**

OK or NG

OK >> Power window sub-switch power supply and ground circuit are OK.

NG >> Repair or replace harness.



# POWER WINDOW SYSTEM

## 3. CHECK POWER WINDOW SUB-SWITCH POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and power window sub-switch connector.
3. Check continuity between BCM connector M91 terminal 54 and power window sub-switch connector D37 terminal 10.

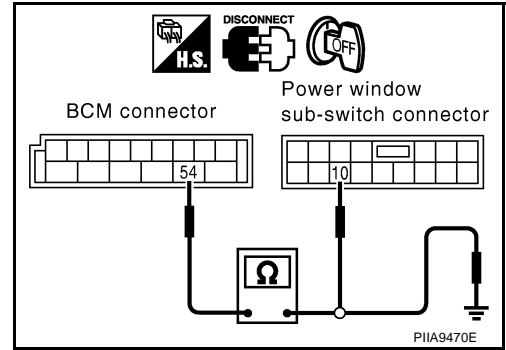
**54 (W) – 10 (W) : Continuity should exist.**

4. Check continuity between BCM connector M91 terminal 54 and ground.

**54 (W) – Ground : Continuity should not exist.**

OK or NG

- OK >> Check the condition of the harness and the connector.  
 NG >> Repair or replace harness.



## Check Door Key Cylinder Switch

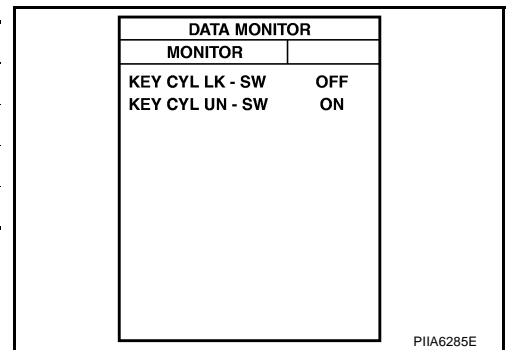
NIS00056

### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

**With CONSULT-II**

Check door key cylinder switch (“KEY CYL LK-SW”, “KEY CYL UN-SW”) in “DATA MONITOR” mode with CONSULT-II.

| Monitor item   | Condition           |
|----------------|---------------------|
| KEY CYL LK- SW | Lock: ON            |
|                | Neutral/Unlock: OFF |
| KEY CYL UN- SW | Unlock: ON          |
|                | Neutral/Lock: OFF   |



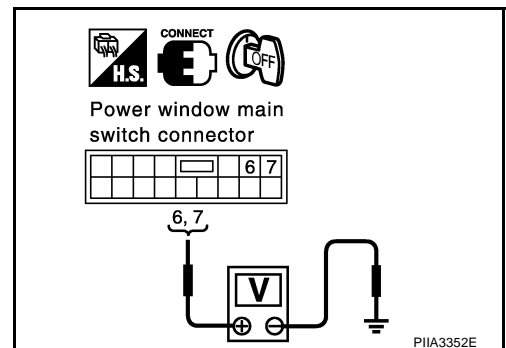
**Without CONSULT-II**

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

| Connector | Terminals (Wire color) |        | Key position   | Voltage (V) (Approx.) |
|-----------|------------------------|--------|----------------|-----------------------|
|           | (+)                    | (-)    |                |                       |
| D7        | 6 (B/R)                | Ground | Neutral/Unlock | 5                     |
|           |                        |        | Lock           | 0                     |
|           | 7 (SB)                 |        | Neutral/Lock   | 5                     |
|           |                        |        | Unlock         | 0                     |

OK or NG

- OK >> Door key cylinder switch is OK.  
 NG >> GO TO 2.





# POWER WINDOW SYSTEM

## 2. CHECK DOOR KEY CYLINDER SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch and door key cylinder switch connector.
3. Check continuity between power window main switch connector D7 terminal 6, 7 and door key cylinder switch connector D12 terminals 1, 3.

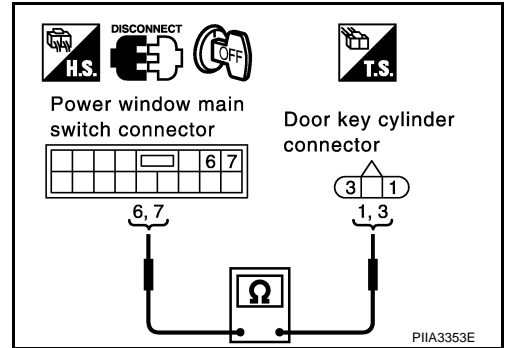
**6 (B/R) – 3 (B/R) : Continuity should exist.**

**7 (SB) – 1 (SB) : Continuity should exist.**

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



## 3. CHECK DOOR KEY CYLINDER SWITCH GROUND

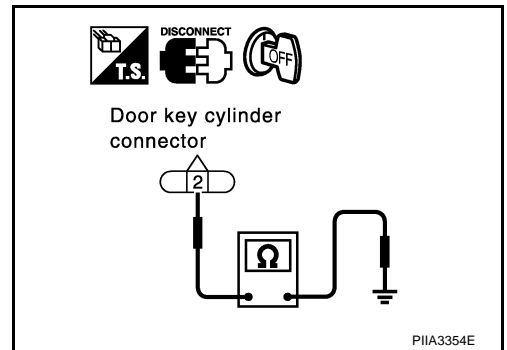
Check continuity between door key cylinder switch connector D12 terminal 2 and ground.

**2 (B) – Ground : Continuity should exist.**

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



## 4. CHECK DOOR KEY CYLINDER SWITCH

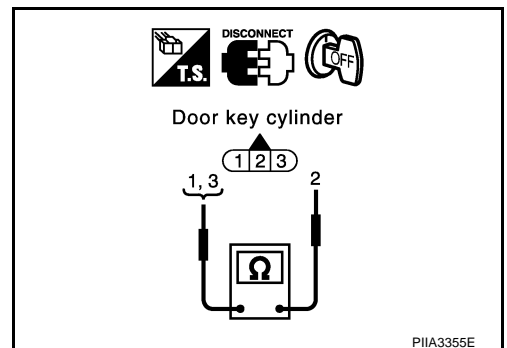
Check continuity between door key cylinder switch connector D12 terminals 1, 3 and 2.

| Connector | Terminal |   | Key position   | Continuity |
|-----------|----------|---|----------------|------------|
| D12       | 1        | 2 | Neutral/Lock   | No         |
|           |          |   | Unlock         | Yes        |
|           | 3        | 2 | Neutral/Unlock | No         |
|           |          |   | Lock           | Yes        |

OK or NG

OK >> GO TO 5.

NG >> Replace door key cylinder switch.



# POWER WINDOW SYSTEM

## 5. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Connect power window main switch connector.
2. Check voltage between power window main switch connector D7 terminals 6, 7 and ground.

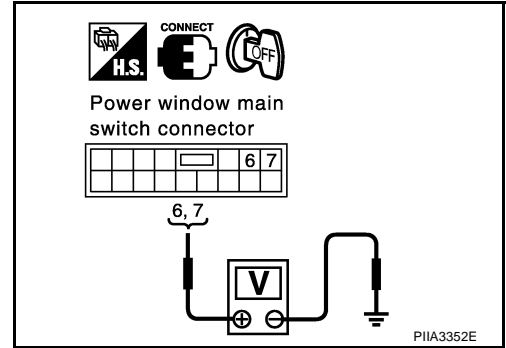
**6 (B/R) – Ground : Battery voltage**

**7 (SB) – Ground : Battery voltage**

OK or NG

OK >> Check the condition of the harness and the connector.

NG >> Replace power window main switch.



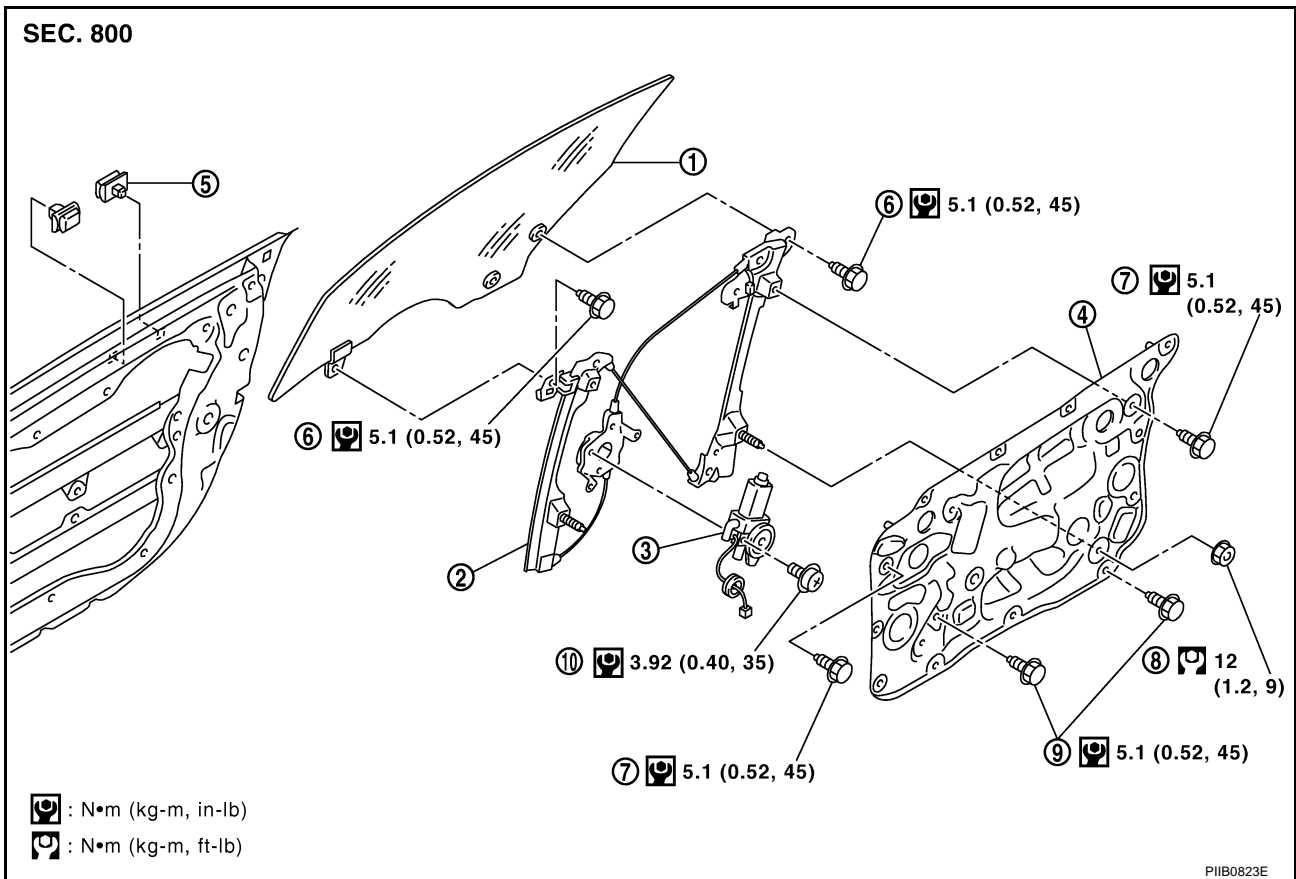
# FRONT DOOR GLASS AND REGULATOR

## FRONT DOOR GLASS AND REGULATOR

PFP:80300

### Removal and Installation

NIS00057

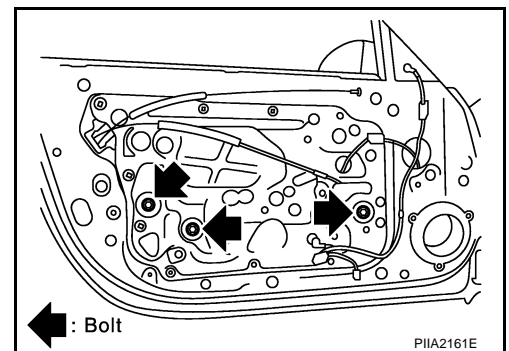


- |                                      |                           |                         |
|--------------------------------------|---------------------------|-------------------------|
| 1. Door glass                        | 2. Regulator assembly     | 3. Power window motor   |
| 4. Module assembly                   | 5. Glass stabilizer       | 6. Glass mounting bolt  |
| 7. Regulator mounting bolt           | 8. Regulator mounting nut | 9. Module mounting bolt |
| 10. Power window motor mounting bolt |                           |                         |

### DOOR GLASS

#### Removal

1. Remove front door finisher. Refer to [EI-33, "DOOR FINISHER"](#).
2. Operate power window main switch to raise/lower door window until glass mounting bolts can be seen.
3. Remove the glass mounting bolts.



4. While holding door window, raise it at rear end to pull the glass out of sash toward outside of door.

#### Installation

Install in the reverse order of removal.

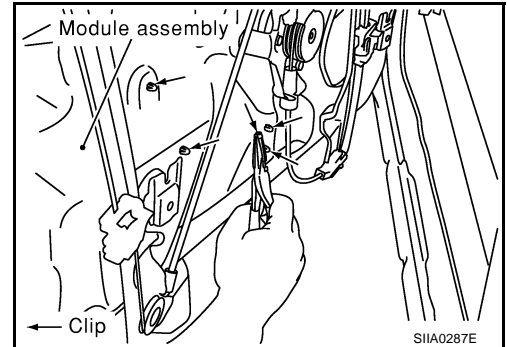
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# FRONT DOOR GLASS AND REGULATOR

## REGULATOR ASSEMBLY

### Removal

1. Remove front door finisher. Refer to [GW-51, "DOOR GLASS"](#).
2. Remove mounting bolts, and remove module assembly.
3. Disconnect harness connector for the module assembly, and unclip the harness from the back.



### Installation

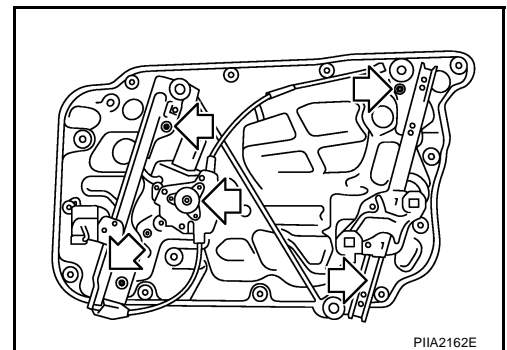
Install in the reverse order of removal.

### Inspection after Removal

Check regulator assembly for the following items. If a malfunction is detected, replace or grease it.

- Wire wear
- Regulator deformation
- Grease condition for each sliding part

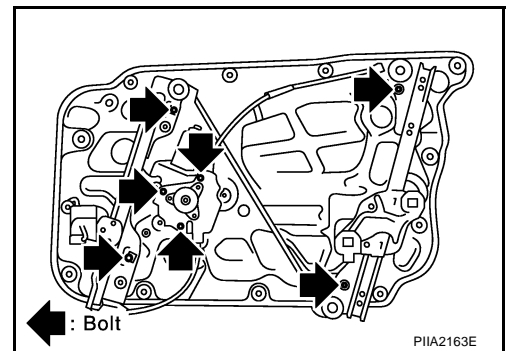
The arrows in the figure show the application points of body grease.



## Disassembly and Assembly REGULATOR ASSEMBLY

### Disassembly

Remove power window motor and guide rail from module assembly.



### Assembly

Assemble in the reverse order of removal.

## Inspection after Installation SETTING OF LIMIT SWITCH

If any of the following work has been done, set the limit switch (integrated in the motor).

- Removal and installation of regulator.
- Removal and installation of motor from regulator.
- Operate the regulators as a unit.
- Removal and installation of the glass.

### Resetting

After installing each component to the vehicle, follow the steps below.

# FRONT DOOR GLASS AND REGULATOR

1. With the door open, lift up and hold the power window switch until the door glass is fully closed.
2. Get inside the vehicle and close the door.

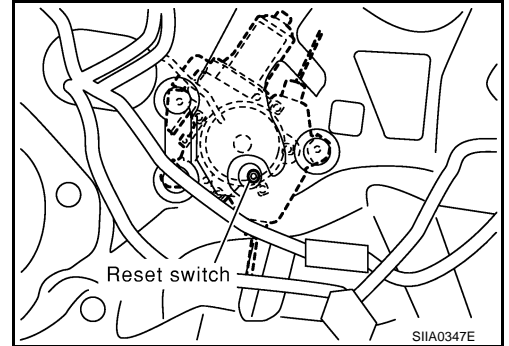
## NOTE:

You need to close the door so the door switch is fully depressed.

3. Press and hold the reset switch. While holding the reset switch, press down and hold the power window switch until the door glass is fully opened.
4. Release the reset switch. Then, lift up and hold the power window switch until the door glass is fully closed.
5. Open the door to release the door switch. The door glass should partially move down.

## CAUTION:

- Do not use the window auto function.
- Do not release the switch before the window is fully stopped.

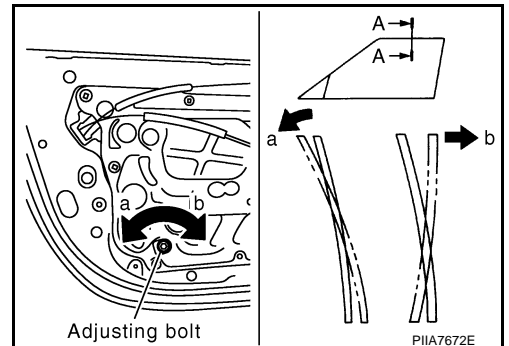


## FITTING INSPECTION

- Check that glass is securely fit into glass run groove.
- Lower glass slightly [approx. 10 to 20 mm (0.39 to 0.79 in)] and check the distance between the edge of glass and the body side welt. If the distance is not constant, adjust the glass position by loosening and tightening following bolts.
- Regulator mounting bolt and nut
- Glass and guide rail mounting bolt
- Raise the glass fully and adjust the glass top end and body side welt fitting with the adjusting bolt at the lower of the regulator rear rail.

## NOTE:

- Turn the adjusting bolt clockwise to move the door glass upper end outward.
- Turn the adjusting bolt counterclockwise to move the door glass upper end inward.
- If water leaks, repair the fitting (Roadster only). Refer to [RF-116](#), "Repairing Method for Water Leakage Around Doors".



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GW

# INSIDE MIRROR

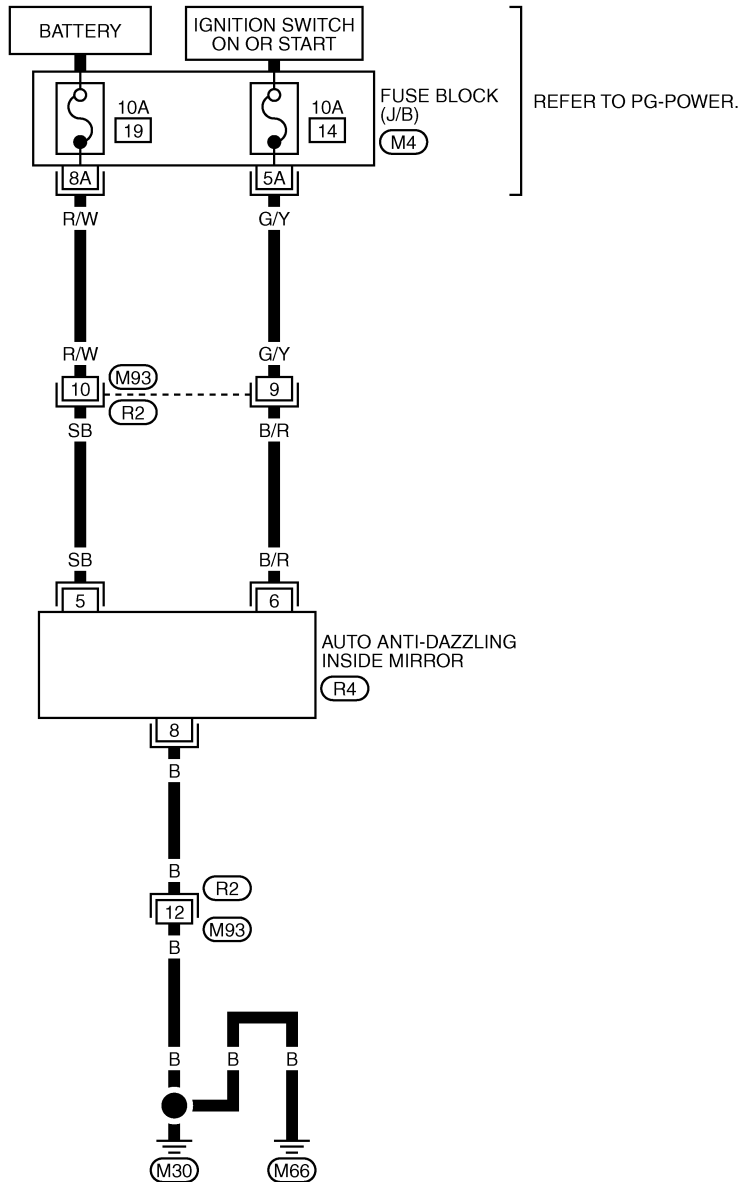
PF9:96321

## INSIDE MIRROR

### Wiring Diagram -I/MIRR-

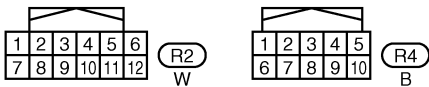
NIS0005A

## GW-I/MIRR-01



REFER TO PG-POWER.

AUTO ANTI-DAZZLING  
INSIDE MIRROR  
(R4)



REFER TO THE FOLLOWING.

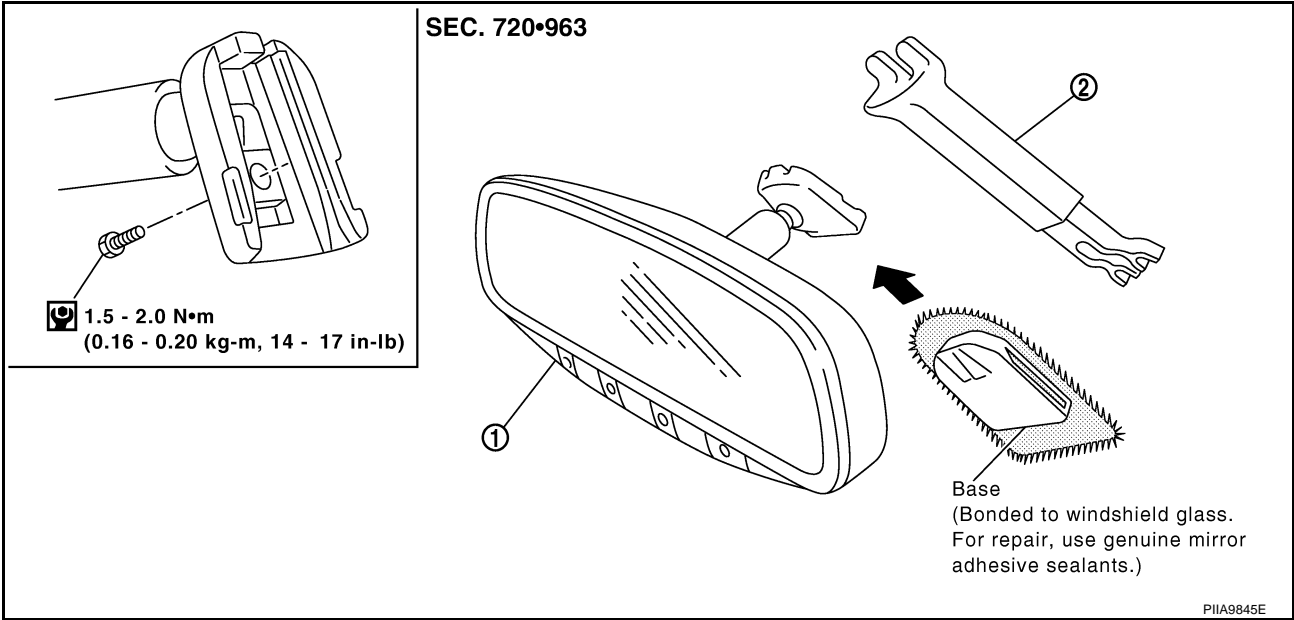
(M4) - FUSE BLOCK-JUNCTION BOX (J/B)

TIWT1602E

# INSIDE MIRROR

## Removal and Installation

NIS0005B



### REMOVAL

1. Remove inside mirror finisher.
2. Remove screw of the mirror base.
3. Slide the mirror base upward to remove.
4. Disconnect the connector.

### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Apply Genuine Mirror Adhesive or equivalent to bonding surface of mounting bracket. Refer to [GI-45](#), "[RECOMMENDED CHEMICAL PRODUCTS AND SEALANTS](#)".

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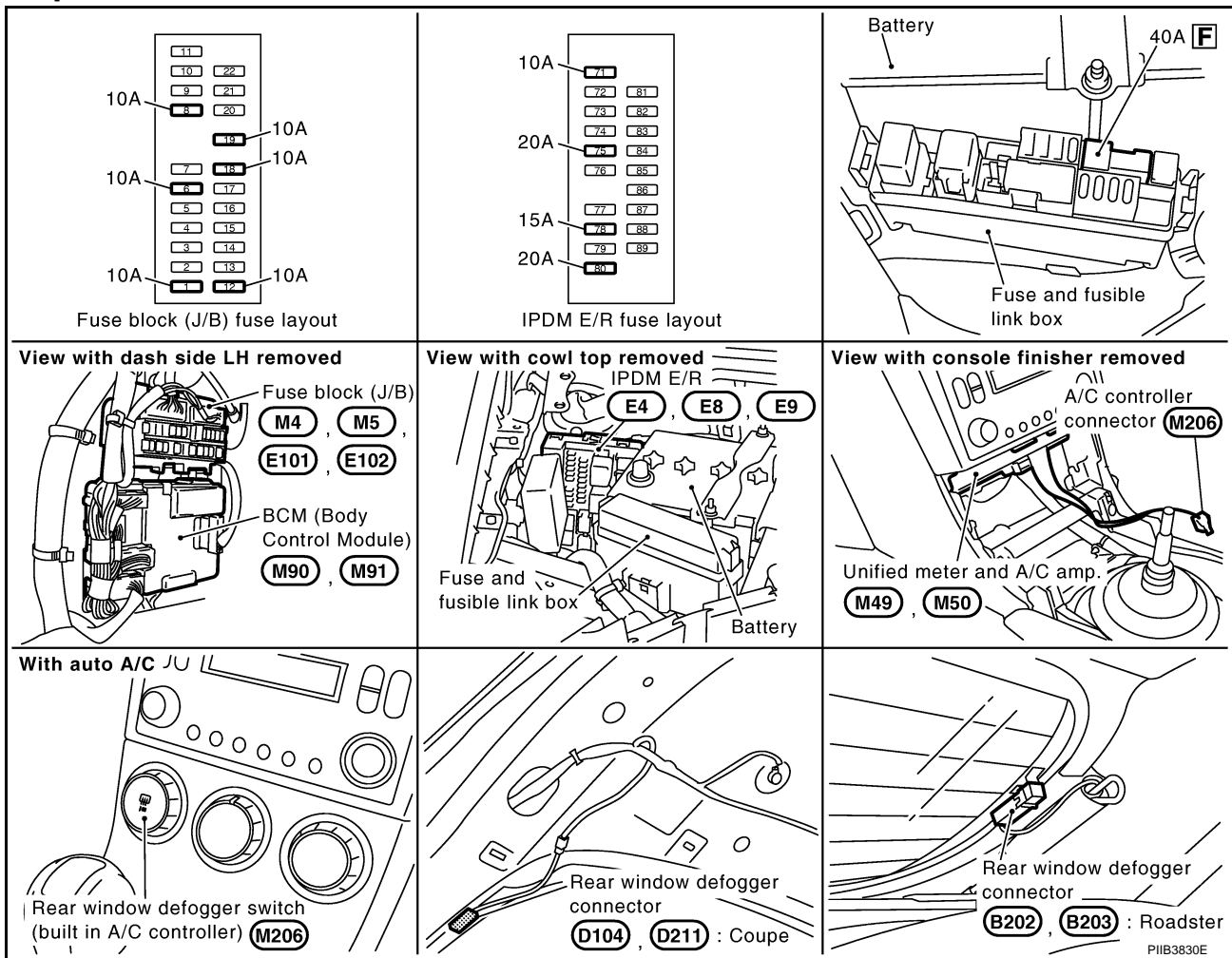
# REAR WINDOW DEFOGGER

## REAR WINDOW DEFOGGER

PFP:25350

### Component Parts and Harness Connector Location

NIS0005C



### System Description

NIS0005D

The rear window defogger system is controlled by BCM (Body Control Module) and IPDM E/R (Intelligent Power Distribution Module Engine Room). The rear window defogger operates only for approximately 15 minutes.

Power is supplied at all times

- through 20A fuse [No. 75 and 80, located in the IPDM E/R]
- to rear window defogger relay terminal 3 and 6.
- through 40A fusible link (letter **F**, located in the fuse and fusible link box)
- to BCM terminal 55.
- through 10A fuse [No. 18, located in the fuse block (J/B)]
- to BCM terminal 42.
- through 10A fuse [No. 19, located in the fuse block (J/B)]
- to unified meter and A/C amp. terminal 21.

With the ignition switch turned to ON or START position, power is supplied

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to BCM terminal 38.
- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to unified meter and A/C amp. terminal 22 and rear window defogger relay terminal 1
- and then through unified meter and A/C amp.
- to A/C controller (rear window defogger switch) terminal 72 and 84.



## REAR WINDOW DEFOGGER

Ground is supplied

- to BCM terminal 52
- through body grounds M30, and M66.
- to unified meter and A/C amp. terminal 29 and 30
- through body grounds M30 and M66.
- to internal CPU of IPDM E/R terminal 38 and 60
- through body grounds E17, E43, B102 (with VDC system or navigation system) and F152 (without VDC system and navigation system).

When A/C controller (rear window defogger switch) is turned ON, Rear window defogger switch signals are transmitted,

- through A/C controller terminal 87
- to unified meter and A/C amp.

Then ground is supplied

- to BCM terminal 9
- through unified meter and A/C amp. terminal 38
- through unified meter and A/C amp. terminal 30
- through body grounds M30 and M66.

Then BCM recognizes that rear window defogger switch is turned ON.

Then it sends rear window defogger switch signals to IPDM E/R via DATA LINE (CAN H, CAN L).

When IPDM E/R receives rear window defogger switch signals,

Ground is supplied

- to rear window defogger relay terminal 2
- through IPDM E/R terminal 52
- through internal CPU of IPDM E/R
- through IPDM E/R terminal 60
- through body grounds E17, E43, B102 (with VDC system or navigation system), F152 (without VDC system and navigation system), and then rear window defogger relay is energized.

When rear window defogger relay is turned ON,

Signals are transmitted

- to rear window defogger terminal 1
- through rear window defogger relay terminals 5 and 7 (For Coupe)
- through rear window defogger relay terminal 5. (For Roadster)

Rear window defogger terminal 2 is grounded through body ground D212. (For Coupe)

Rear window defogger terminal 2 is grounded through body ground B5, B6 and T14. (For Roadster)

With power and ground supplied, rear window defogger filaments heat and defog the rear window.

When rear window defogger relay is turned ON,

Power is supplied

- through rear window defogger relay terminals 5 and 7 (For Coupe)
- through rear window defogger relay terminal 7 (For Roadster)
- through fuse block (J/B) terminal 2C
- through 10A fuse [No. 8, located in the fuse block (J/B)]
- through fuse block (J/B) terminal 5B
- to door mirror defogger (Driver side and passenger side) terminal 2.

Door mirror defogger (Driver side and passenger side) terminal 1 is grounded through body grounds M30 and M66.

With power and ground supplied, door mirror defogger filaments heat and defog the mirror.

When rear window defogger relay is turned ON,

Power is supplied

- through rear window defogger relay terminals 5 and 7 (For Coupe)
- through rear window defogger relay terminal 5. (For Roadster)
- to unified meter and A/C amp. terminal 56

Then ground is supplied

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# REAR WINDOW DEFOGGER

---

- to A/C controller terminal 78
- through unified meter and A/C amp.
- through unified meter and A/C amp. terminal 29 and 30
- through body grounds M30 and M66.

This energizes rear window defogger indicator.

## CAN Communication System Description

NIS0005E

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

## CAN Communication Unit

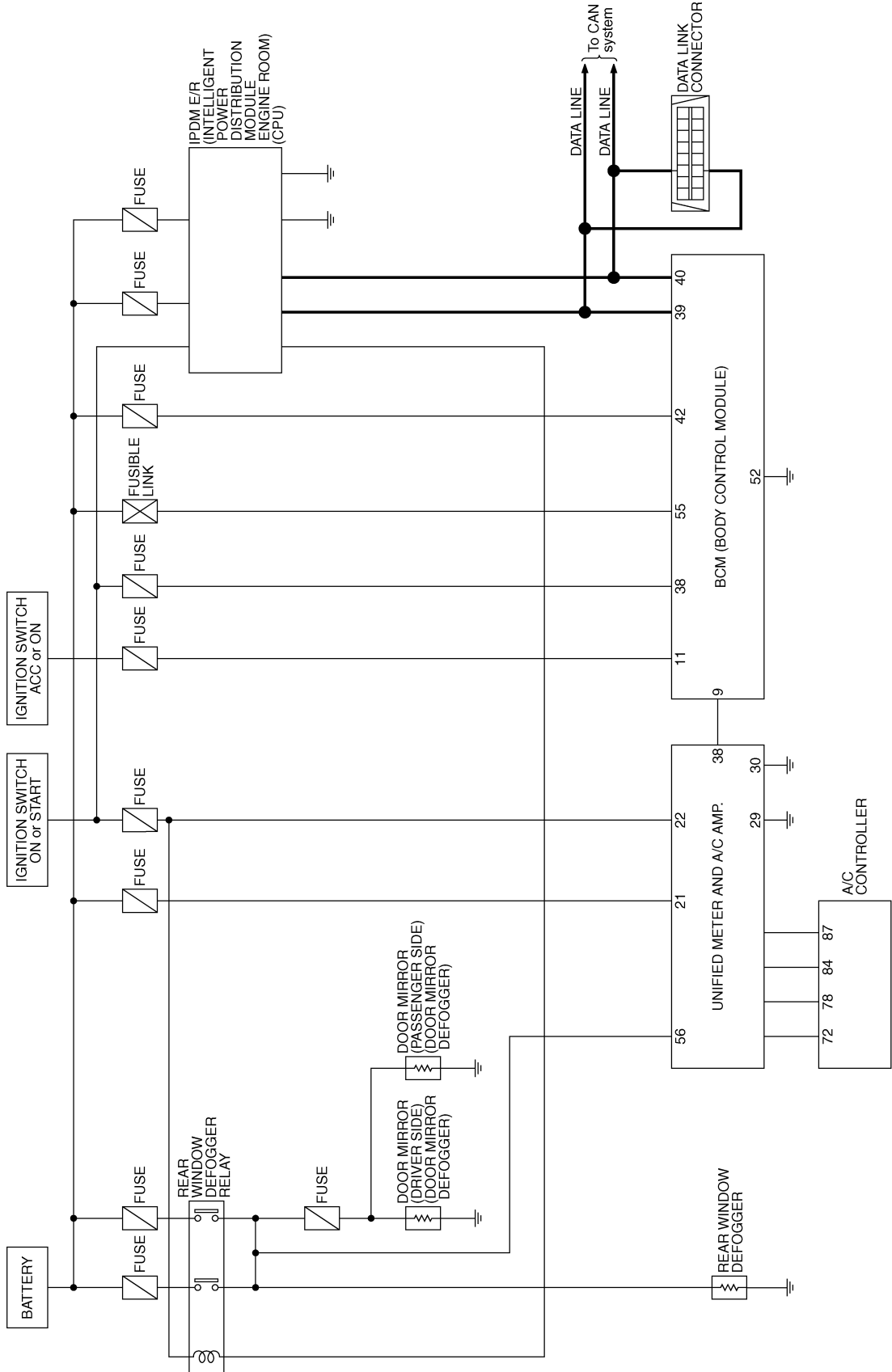
NIS0005F

Refer to [LAN-48, "CAN System Specification Chart"](#) .

# REAR WINDOW DEFOGGER

## Schematic – DEF –/ For Coupe

NIS0005G



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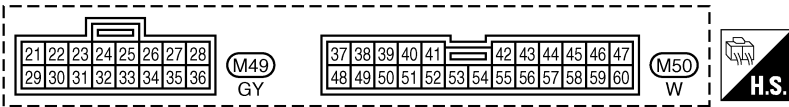
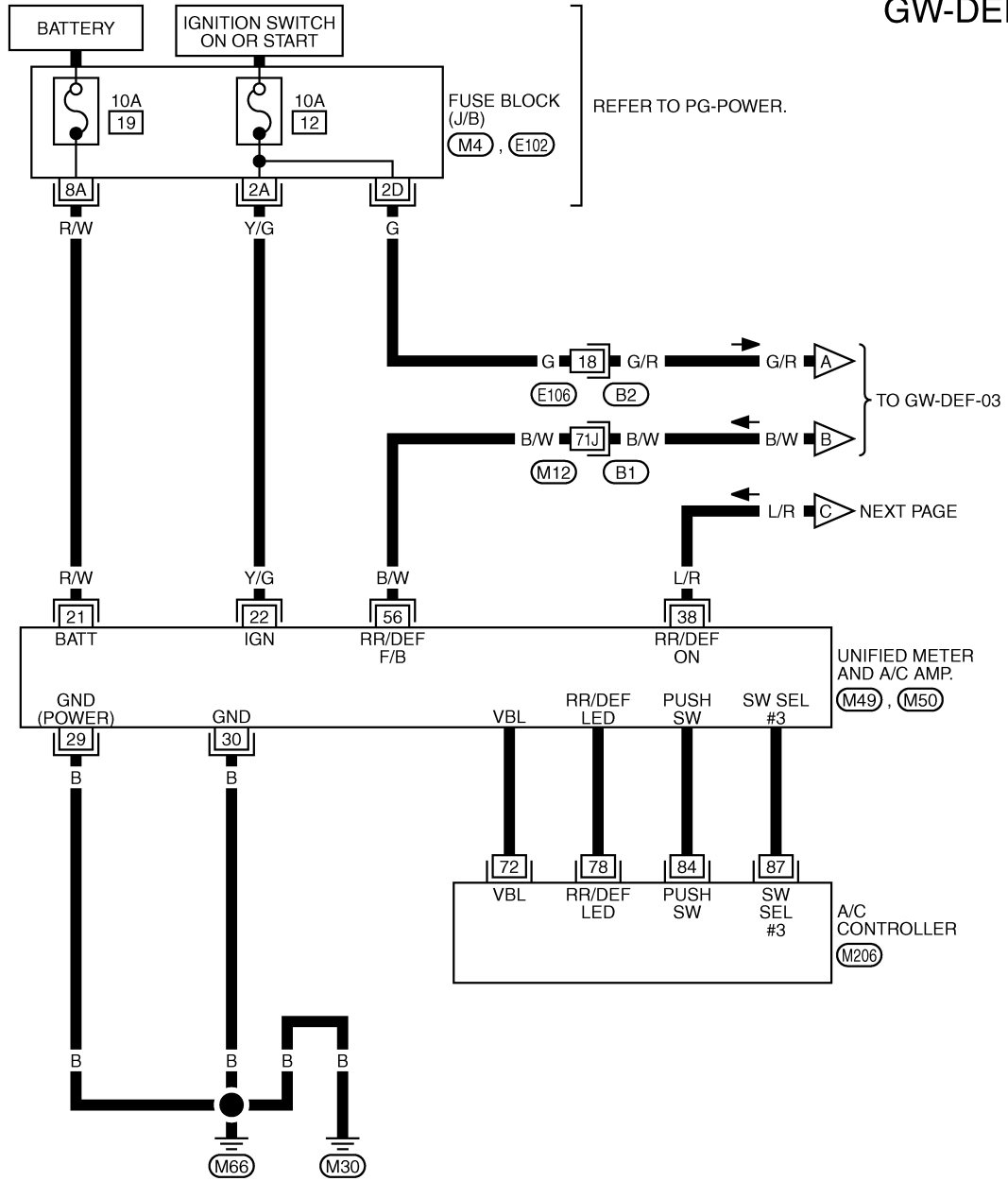
TIWT0972E

# REAR WINDOW DEFOGGER

## Wiring Diagram -DEF- For Coupe

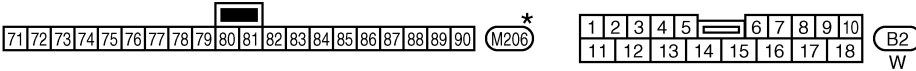
NIS0005H

GW-DEF-01



REFER TO THE FOLLOWING.

- (B1) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4) , (E102) -FUSE BLOCK-JUNCTION BOX (J/B)

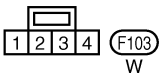
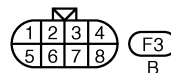
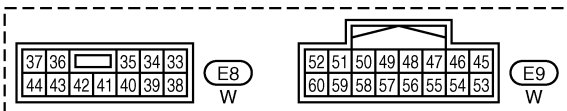
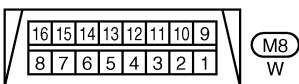
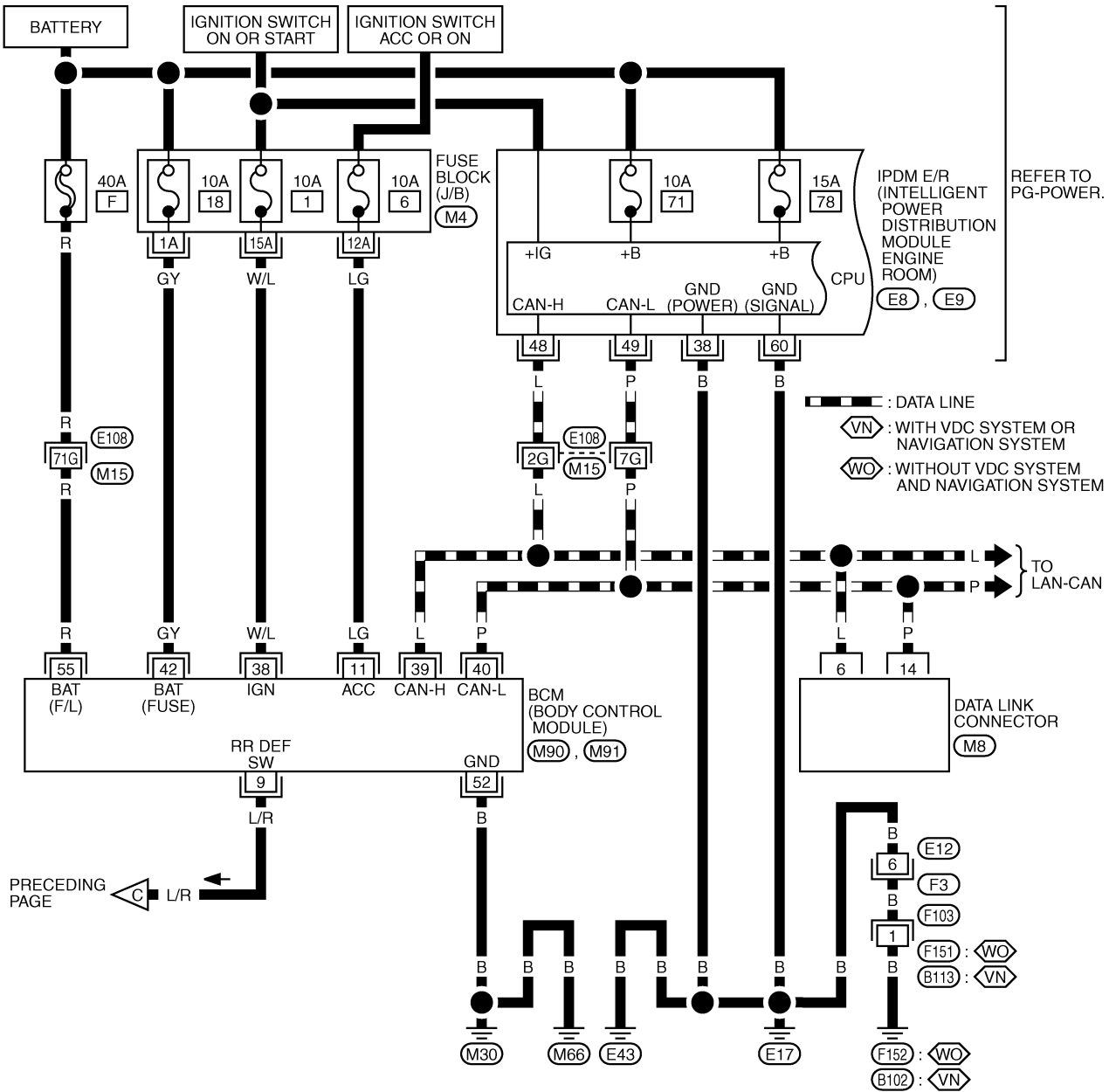


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1595E

# REAR WINDOW DEFOGGER

GW-DEF-02

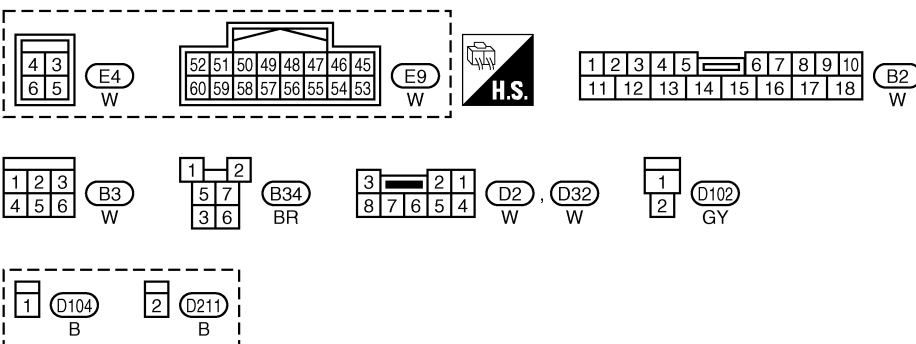
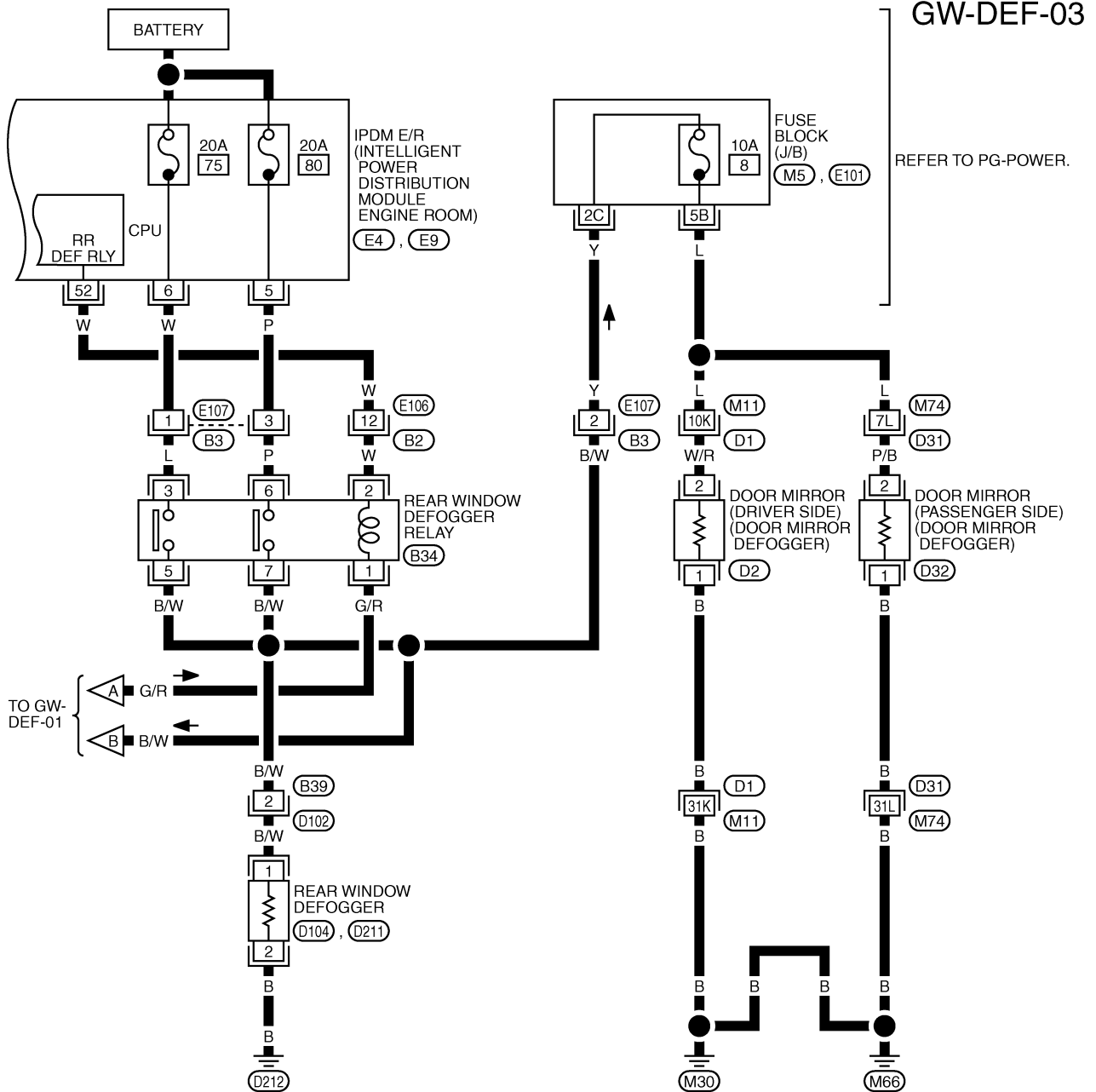


REFER TO THE FOLLOWING.

- <math>\langle \text{E108} \rangle</math> -SUPER MULTIPLE JUNCTION (SMJ)
- <math>\langle \text{M4} \rangle</math> -FUSE BLOCK-JUNCTION BOX (J/B)
- <math>\langle \text{M90} \rangle, \langle \text{M91} \rangle</math> -ELECTRICAL UNITS

TIWT2209E

# REAR WINDOW DEFOGGER



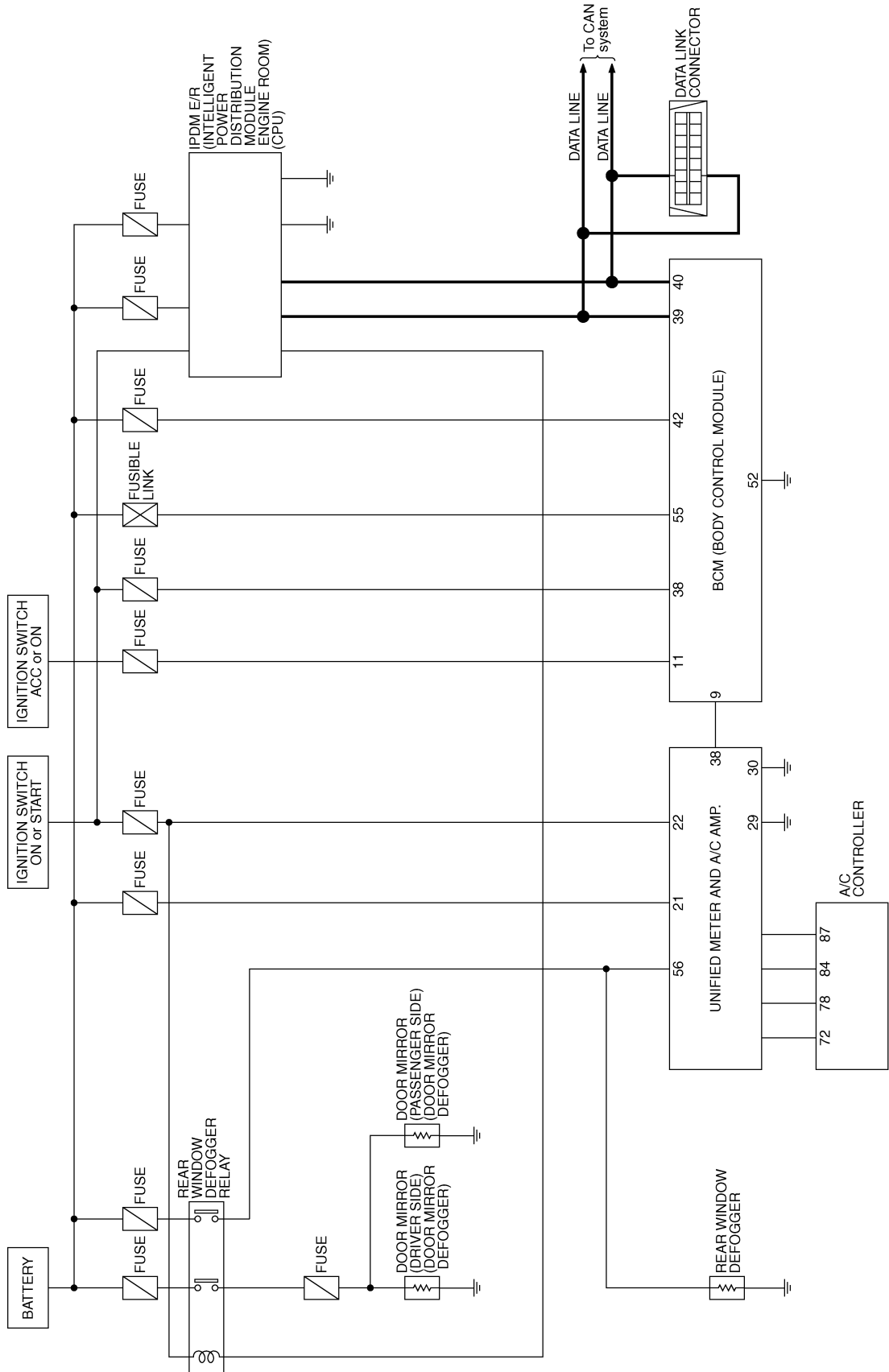
REFER TO THE FOLLOWING.  
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M5), (E101) -FUSE BLOCK-JUNCTION BOX (J/B)

TIWT1597E

# REAR WINDOW DEFOGGER

## Schematic – DEF –/ For Roadster

NIS00051



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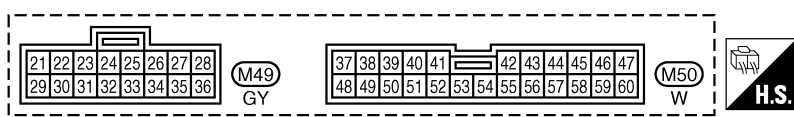
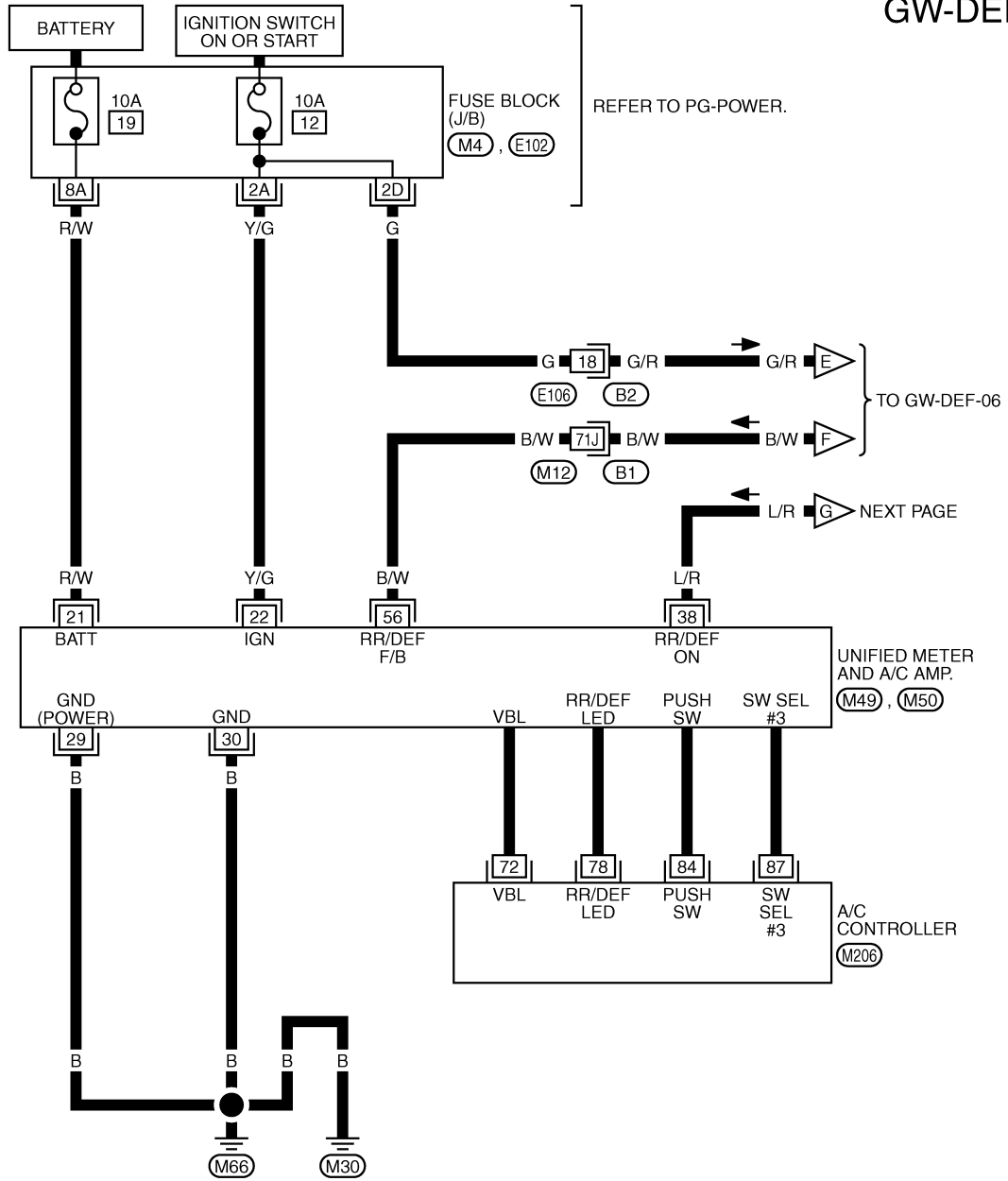
TIWT0975E

# REAR WINDOW DEFOGGER

## Wiring Diagram -DEF- For Roadster

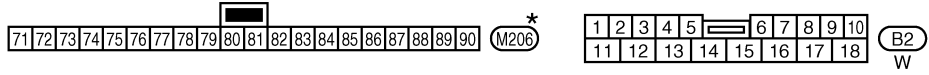
NIS0005J

GW-DEF-04



REFER TO THE FOLLOWING.

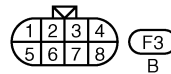
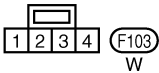
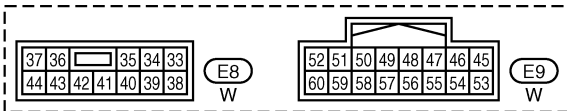
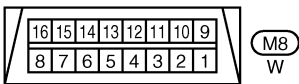
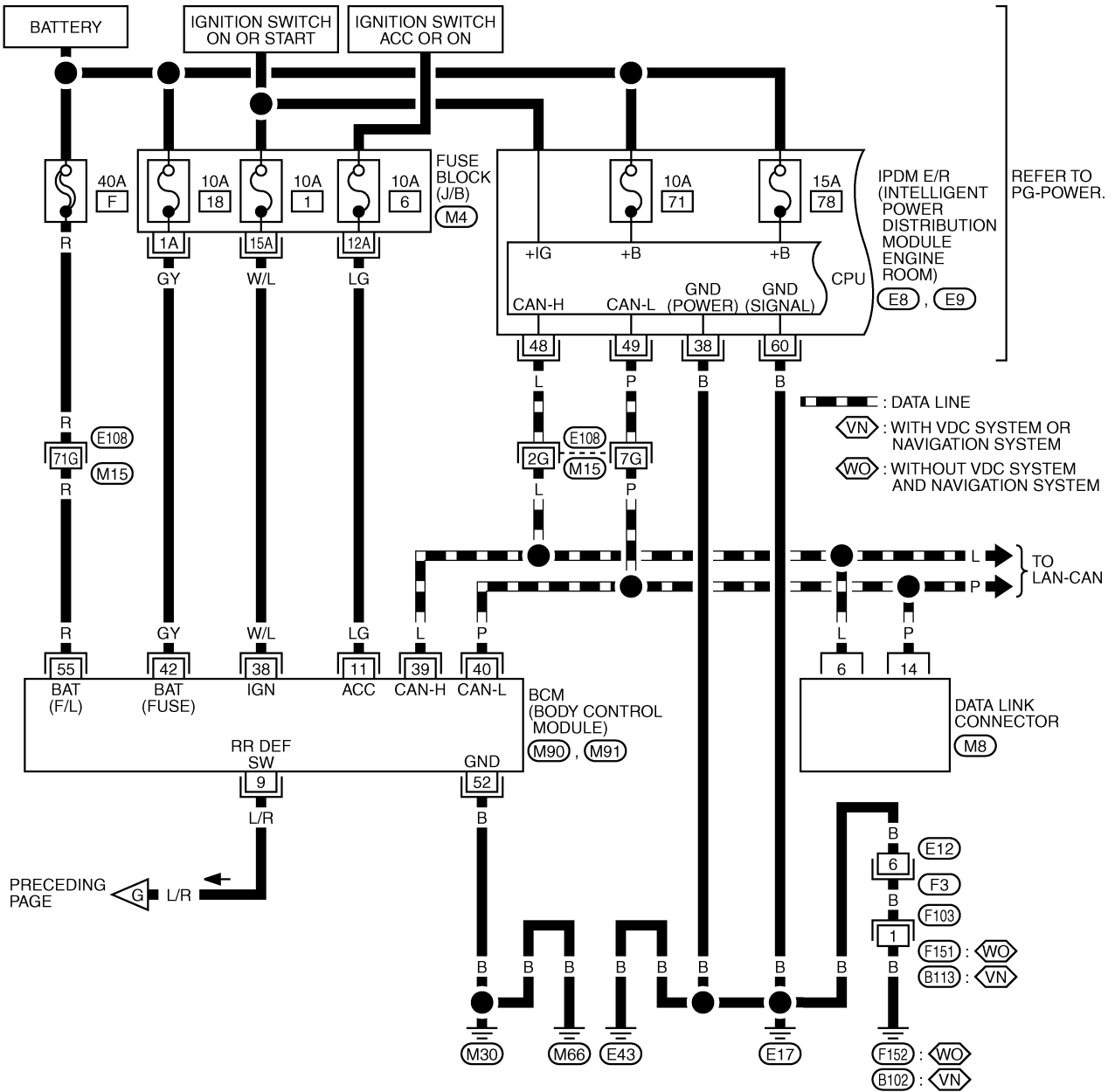
- (B1) -SUPER MULTIPLE JUNCTION (SMJ)
- (M4), (E102) -FUSE BLOCK-JUNCTION BOX (J/B)





# REAR WINDOW DEFOGGER

GW-DEF-05

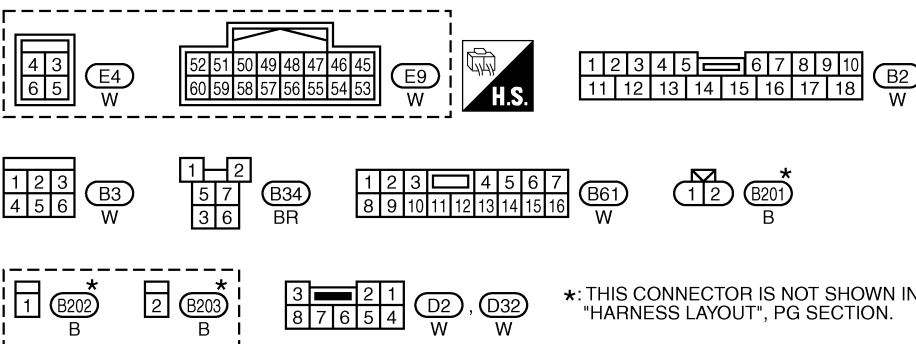
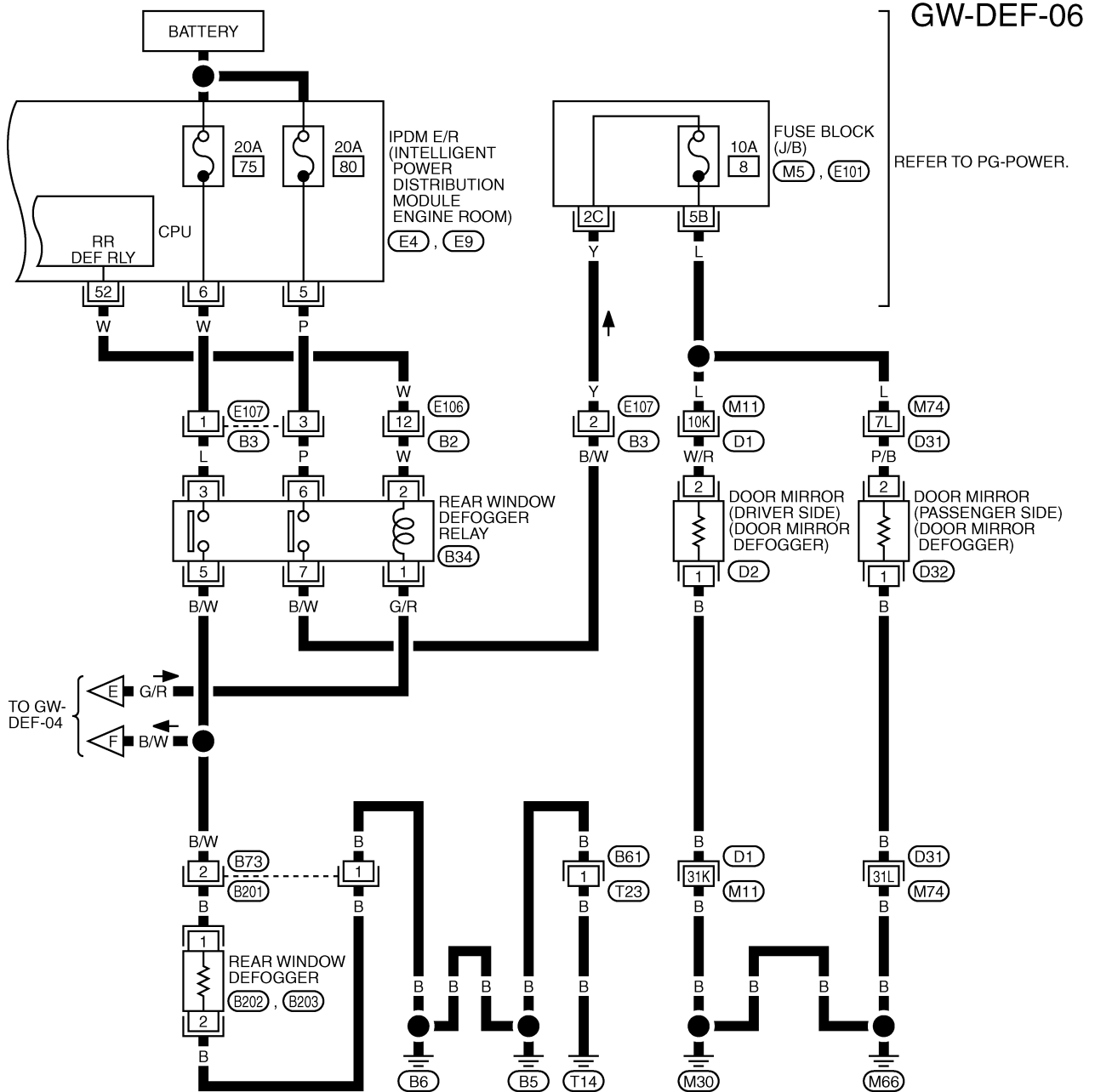


REFER TO THE FOLLOWING.

- E108 -SUPER MULTIPLE JUNCTION (SMJ)
- M4 -FUSE BLOCK-JUNCTION BOX (J/B)
- M90, M91 -ELECTRICAL UNITS

TIWT2210E

# REAR WINDOW DEFOGGER



REFER TO THE FOLLOWING.  
 (D1), (D31) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M5), (E101) -FUSE BLOCK-JUNCTION BOX (J/B)

\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

TIWT1600E

# REAR WINDOW DEFOGGER

## Terminal and Reference Value for BCM

NIS0005K

| Terminal | Wire Color | Item  | Signal input/output | Condition                              | Voltage (V) (Approx.) |        |
|----------|------------|---|---------------------|--|-----------------------|--------|
| 9        | L/R        | Rear window defogger switch signal            | Output              | Rear window defogger switch            | : Pressed<br>: OFF    | 0<br>5 |
|          |            |   |                     |  |                       |        |
| 11       | LG         | Ignition switch ACC power supply (ACC or ON)  | Input               | Ignition switch (ACC or ON position)   | Battery voltage       |        |
| 38       | W/L        | Ignition switch ON power supply (ON or START) | Input               | Ignition switch (ON or START position) | Battery voltage       |        |
| 39       | L          | CAN-H   | Input/Output        | —                                      | —                     |        |
| 40       | P          | CAN-L   | Input/Output        | —                                      | —                     |        |
| 42       | GY         | Power source (Fuse)                           | Input               | —                                      | Battery voltage       |        |
| 52       | B          | Ground  | —                   | —                                      | 0                     |        |
| 55       | R          | Power source (Fusible link)                   | Input               | —                                      | Battery voltage       |        |

## Terminal and Reference Value for IPDM E/R.

NIS0005L

| Terminal | Wire Color | Item                                      | Signal input/output | Condition                   | Voltage (V) (Approx.) |                      |
|----------|------------|---|---------------------|-----------------------------|-----------------------|----------------------|
| 5        | P          | Battery power supply                      | Output              | —                           | Battery voltage       |                      |
| 6        | W          | Battery power supply                      | Output              | —                           | Battery voltage       |                      |
| 38       | B          | Ground (Power)                            | —                   | —                           | 0                     |                      |
| 48       | L          | CAN-H                                     | Input/Output        | —                           | —                     |                      |
| 49       | P          | CAN-L                                     | Input/Output        | —                           | —                     |                      |
| 52       | W          | Rear window defogger relay control signal | Input               | Rear window defogger switch | : ON<br>: OFF         | 0<br>Battery voltage |
|          |            |   |                     |                             |                       |                      |
| 60       | B          | Ground (Signal)                           | —                   | —                           | 0                     |                      |

## Terminal and Reference Value for Unified Meter and A/C Amp.

NIS0005M

| Terminal | Wire Color | Item  | Signal input/output | Condition                              | Voltage (V) (Approx.) |                      |
|----------|------------|---|---------------------|--|-----------------------|----------------------|
| 21       | R/W        | Power source (Fuse)                           | Input               | —                                      | Battery voltage       |                      |
| 22       | Y/G        | Ignition switch ON power supply (ON or START) | Input               | Ignition switch (ON or START position) | Battery voltage       |                      |
| 29       | B          | Ground (Power)                                | —                   | —                                      | 0                     |                      |
| 30       | B          | Ground  | —                   | —                                      | 0                     |                      |
| 38       | L/R        | Rear window defogger switch signal            | Input               | Rear window defogger switch.           | : Pressed<br>: OFF    | 0<br>5               |
|          |            |   |                     |  |                       |                      |
| 56       | B/W        | Rear window defogger ON signal                | Input               | Rear window defogger switch            | : ON<br>: OFF         | Battery voltage<br>0 |
|          |            |   |                     |  |                       |                      |
| 72       | —          | Indicator power supply                        | Input               | Ignition switch (ON or START position) | 5                     |                      |
| 78       | —          | Rear window defogger indicator signal         | Input               | Rear window defogger switch            | : ON<br>: OFF         | 0<br>5               |
|          |            |   |                     |  |                       |                      |

# REAR WINDOW DEFOGGER

| Terminal | Wire Color | Item                                  | Signal input/output | Condition                              | Voltage (V) (Approx.) |
|----------|------------|---------------------------------------|---------------------|--|-----------------------|
| 84       | —          | A/C control push switch power supply  | Input               | Ignition switch (ON or START position) | 5                     |
| 87       | —          | Rear window defogger switch ON signal | Input               | Rear window defogger switch : ON       | 0                     |
|          |            |                                       |                     | : OFF                                  | 5                     |

## CONSULT-II Function (BCM)

NIS0005N

CONSULT-II can display each diagnostic item using the diagnostic test modes shown following.

| BCM diagnostic test item | Check item diagnostic test mode | Content  |
|--------------------------|---------------------------------|--|
| REAR DEFOGGER            | Data monitor                    | Displays the input data of BCM in real time.           |
|                          | Active test                     | Gives a drive signal to a load to check the operation. |

## CONSULT-II STRAT PROCEDURE FOR REAR WINDOW DEFOGGER

Refer to [GI-36, "CONSULT-II Start Procedure"](#)

### DATA MONITOR

#### Display Item List

| Monitor item "Operation" | Content  |
|--------------------------|--|
| REAR DEF SW              | "ON/OFF"<br>Displays "Press (ON)/others (OFF)" status determined with the rear window defogger switch. |
| IGN ON SW                | "ON/OFF"<br>Displays "IGN (ON)/OFF" status determined with the ignition switch signal.                 |

### ACTIVE TEST

#### Display Item List

| Test item     | Content  |
|---------------|--|
| REAR DEFOGGER | Gives a drive signal to the rear window defogger to activate it. |

## CONSULT-II Function (IPDM E/R)

NIS0005O

CONSULT-II can display each diagnostic item using the diagnostic test mode shown following.

| IPDM E/R diagnostic test item | Check item diagnostic test mode | Content  |
|-------------------------------|---------------------------------|--|
| REAR DEFOGGER                 | Data monitor                    | Displays the input data of BCM in real time.           |
|                               | Active test                     | Gives a drive signal to a load to check the operation. |

## CONSULT-II START PROCEDURE FOR REAR WINDOW DEFOGGER

Refer to [GI-36, "CONSULT-II Start Procedure"](#)

### DATA MONITOR

| Monitored Item | Description  |
|----------------|--|
| RR DEF REQ     | Indicates [ON/OFF] condition of rear window defogger function by IPDM E/R. |

### ACTIVE TEST

| Test Item     | Description   |
|---------------|---|
| REAR DEFOGGER | This test is able to check rear window defogger operation. Rear window defogger operates when "ON" on CONSULT-II screen is touched. |

# REAR WINDOW DEFOGGER

## Work Flow

NIS0005P

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-56, "System Description"](#) .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-69, "Trouble Diagnoses Symptom Chart"](#) .
4. Does rear window defogger operate normally? YES: GO TO 5, NO: GO TO 4.
5. INSPECTION END

## Trouble Diagnoses Symptom Chart

NIS0005Q

Make sure that other systems using the signal of the following systems operate normally.

| Symptom  | Diagnoses / service procedure                                     | Refer to page  |
|--|---|--|
| Rear window defogger does not operate.   | 1. CAN communication inspection using CONSLUT-II (self-diagnosis) | <a href="#">BCS-18</a>   |
|  | 2. Check IPDM E/R operation                                       | <a href="#">GW-70</a>  |
|  | 3. Check rear window defogger switch circuit                      | <a href="#">GW-70</a>  |
|  | 4. Check rear window defogger power supply circuit                | <a href="#">GW-71</a>  |
|  | 5. Replace IPDM E/R.  | <a href="#">PG-43</a>  |
| Rear window defogger does not response but door mirror defoggers operate.        | 1. Check rear window defogger circuit                             | <a href="#">GW-73</a> <sup>*1</sup><br><a href="#">GW-74</a> <sup>*2</sup> |
|  | 2. Check filament   | <a href="#">GW-78</a>  |
| Both of door mirror defoggers do not response but rear window defogger operates. | Check door mirror defogger power supply circuit                   | <a href="#">GW-75</a>  |
| Driver side door mirror defogger does not operate.                               | Check driver side door mirror defogger circuit                    | <a href="#">GW-76</a>  |
| Passenger side door mirror defogger does not operate.                            | Check passenger side door mirror defogger circuit                 | <a href="#">GW-76</a>  |

\*1 : For Coupe

\*2 : For Roadster

# REAR WINDOW DEFOGGER

NIS0005R

## Check IPDM E/R Operation

### 1. CHECK IPDM E/R OPERATION

#### With CONSULT-II

Check IPDM E/R "REAR DEFOGGER" in "ACTIVE TEST" mode with CONSULT-II.  
Refer to [GW-68, "ACTIVE TEST"](#).

**When "ACTIVE TEST" is performed, does rear defogger switch indicator illuminate?**

YES or NO

- YES >> GO TO diagnosis/service procedure 3 in "Trouble Diagnosis Symptom Chart". Refer to [GW-69](#).  
NO >> GO TO diagnosis/service procedure 4 in "Trouble Diagnosis Symptom Chart". Refer to [GW-69](#).

## Check Rear Window Defogger Switch Circuit

NIS0005S

### 1. CHECK REAR WINDOW DEFOGGER SWITCH OPERATION

#### With CONSULT-II

Check ("REAR DEF SW" and "IGN ON SW") in DATA MONITOR mode with CONSULT-II. Refer to [GW-68, "DATA MONITOR"](#).

**When rear defogger switch is turned to ON**

**REAR DEF SW :ON**

**When ignition switch is turned to ON**

**IGN ON SW :ON**

| DATA MONITOR |     |
|--------------|-----|
| MONITOR      |     |
| REAR DEF SW  | OFF |
| IGN ON SW    | ON  |
|              |     |
|              |     |

PIIA2373E

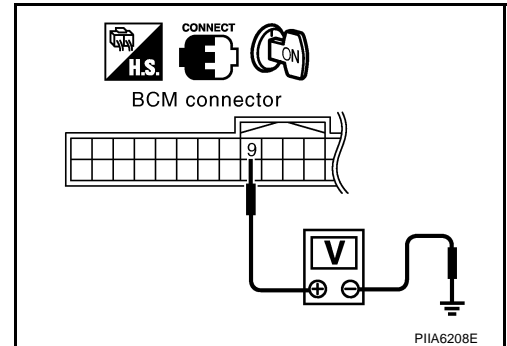
#### With out CONSULT-II

- Turn ignition switch ON.
- Check voltage between BCM connector ground.

| Connector | Terminal (Wire color) |        | Condition                           | Voltage (V)<br>(Approx.) |
|-----------|-----------------------|--------|-------------------------------------|--------------------------|
|           | (+)                   | (-)    |                                     |                          |
| M90       | 9 (L/R)               | Ground | Rear window defogger switch<br>: ON | 0                        |
|           |                       |        | : OFF                               | 5                        |

OK or NG

- OK >> Rear window defogger switch check is OK.  
NG >> GO TO 2.



# REAR WINDOW DEFOGGER

## 2. REAR WINDOW DEFOGGER SWITCH SIGNAL CIRCUIT HARNESS CONTINUITY INSPECTION

1. Turn ignition switch OFF.
2. Disconnect BCM connector and unified meter and A/C amp.connector.
3. Check continuity between BCM connector M90 terminal 9 and unified meter and A/C amp. connector M50 terminal 38.

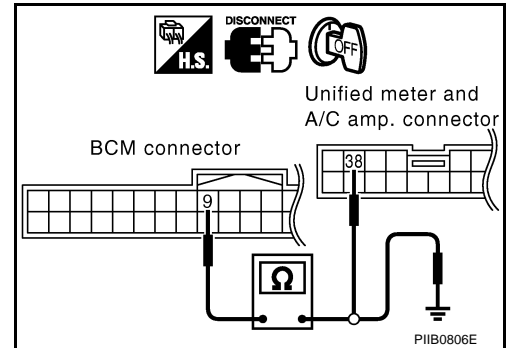
**9 (L/R) – 38 (L/R) : Continuity should exist**

4. Check continuity between BCM harness connector M90 terminal 9 and ground

**9 (L/R) – Ground : Continuity should not exist**

### OK or NG

- OK >> GO TO 3.  
NG >> Repair or replace harness.



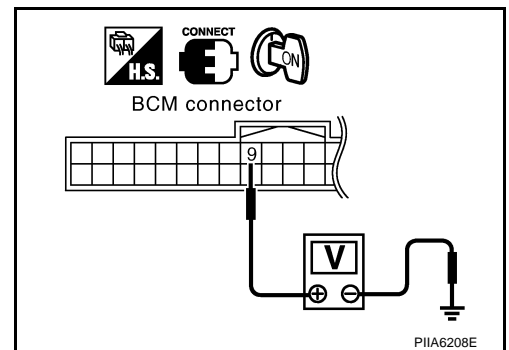
## 3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M90 terminal 9 and ground.

**9 (L/R) – Ground :Approx. 5V**

### OK or NG

- OK >> Replace unified meter and A/C amp.  
NG >> Replace BCM.



## Check Rear Window Defogger Power Supply Circuit

### 1. CHECK FUSE

Check 10A fuse [No. 12, located in fuse block (J/B)].

#### NOTE:

Refer to [GW-56, "Component Parts and Harness Connector Location"](#) .

### OK or NG

- OK >> GO TO 2.  
NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#) .

# REAR WINDOW DEFOGGER

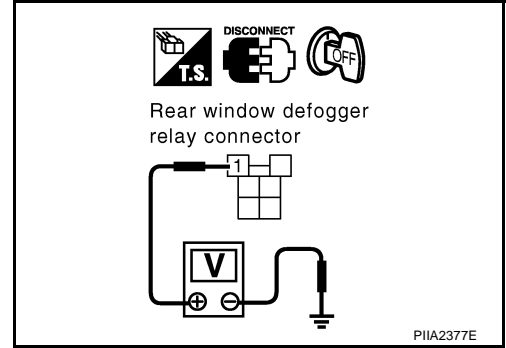
## 2. REAR WINDOW DEFOGGER RELAY POWER SUPPLY CIRCUIT INSPECTION

1. Turn ignition switch OFF.
2. Remove rear window defogger relay.
3. Check voltage between rear window defogger relay connector B34 terminal 1 and ground.

**1 (G/R) – Ground** : **Battery voltage**

OK or NG

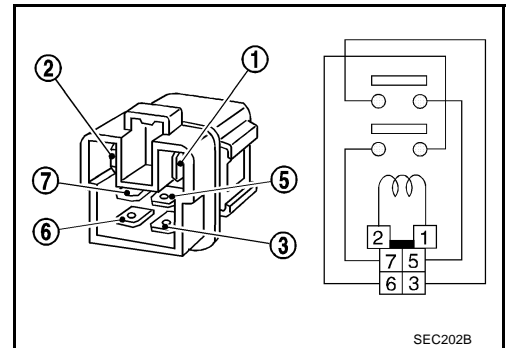
- OK >> GO TO 3.  
 NG >> Repair or replace harness.



## 3. REAR WINDOW DEFOGGER RELAY INSPECTION

1. Remove rear window defogger relay.
2. Check continuity between rear window defogger relay terminals 3 and 5, 6 and 7.

| Terminal | Condition   | Continuity |
|----------|---|------------|
| 3        | 12V direct current supply between terminals 1 and 2 | Yes        |
|          | No current supply                                   | No         |
| 6        | 12V direct current supply between terminals 1 and 2 | Yes        |
|          | No current supply                                   | No         |



OK or NG

- OK >> GO TO 4.  
 NG >> Replace rear window defogger relay.

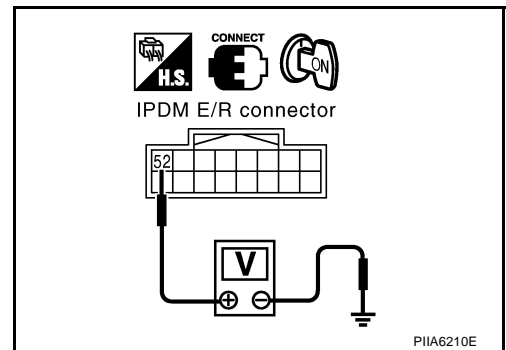
## 4. REAR WINDOW DEFOGGER RELAY GROUND CIRCUIT INSPECTION

1. Installation rear window defogger relay.
2. Turn ignition switch ON.
3. Turn rear window defogger switch OFF.
4. Check voltage between IPDM E/R connector E9 terminal 52 and ground.

**52 (B) – Ground** : **Battery voltage**

OK or NG

- OK >> Rear window defogger power supply circuit is OK.  
 NG >> GO TO 5.





# REAR WINDOW DEFOGGER

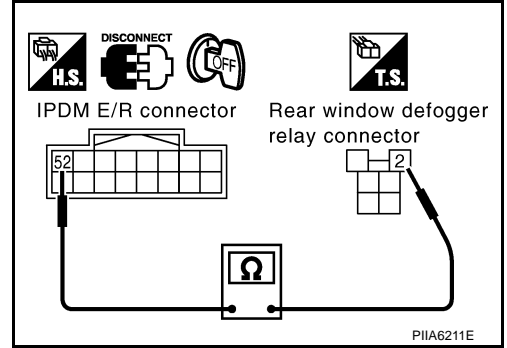
## 5. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector and rear window defogger relay.
3. Check continuity between IPDM E/R connector E9 terminal 52 and rear window defogger relay connector B34 terminal 2.

**52 (W) - 2 (W) : Continuity should exist.**

OK or NG

- OK >> Check the condition of harness and the connector.  
 NG >> Repair or replace harness.



## Check Rear Window Defogger Circuit / For Coupe

NIS0005U

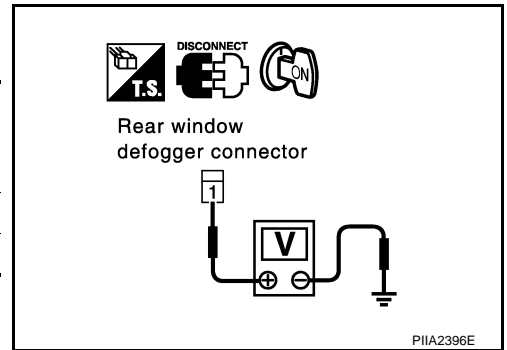
### 1. REAR WINDOW DEFOGGER POWER SUPPLY CIRCUIT INSPECTION

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

| Connector | Terminal<br>(Wire color) |        | Condition                        | Voltage [V]<br>(Approx.) |
|-----------|--------------------------|--------|----------------------------------|--------------------------|
|           | (+)                      | (-)    |                                  |                          |
| D104      | 1 (B/W)                  | Ground | Rear window defogger switch : ON | Battery voltage          |
|           |                          |        | : OFF                            | 0                        |

OK or NG

- OK >> GO TO 2.  
 NG >> GO TO 3.



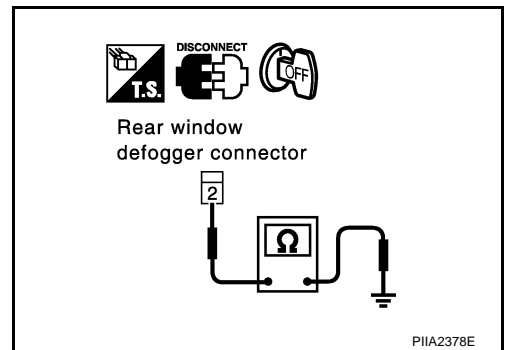
### 2. REAR WINDOW DEFOGGER GROUND HARNESS INSPECTION

1. Turn ignition switch OFF.
2. Disconnect rear window defogger connector.
3. Check continuity between rear window defogger connector D211 terminal 2 and ground.

**2 (B) – Ground : Continuity should exist**

OK or NG

- OK >> Rear window defogger circuit is OK.  
 NG >> Repair or replace harness.



# REAR WINDOW DEFOGGER

## 3. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear window defogger relay connector.
3. Check continuity between rear window defogger relay connector B34 terminal 5, 7 and rear window defogger connector D104 terminal 1.

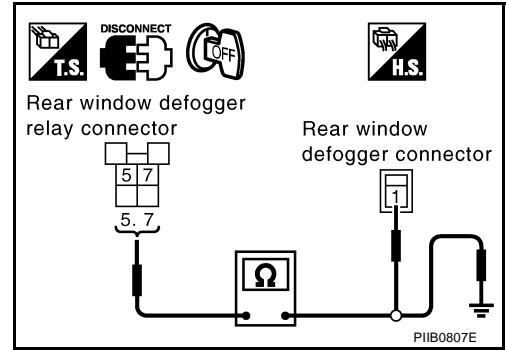
**5 (B/W) – 1 (B/W) : Continuity should exist.**

**7 (B/W) – 1 (B/W) : Continuity should exist.**

4. Check continuity between rear window defogger relay connector B34 terminal 5, 7 and ground.

**5 (B/W) – Ground : Continuity should not exist.**

**7 (B/W) – Ground : Continuity should not exist.**



OK or NG

OK >> Check the condition of the harness and the connector.

NG >> Repair or replace harness.

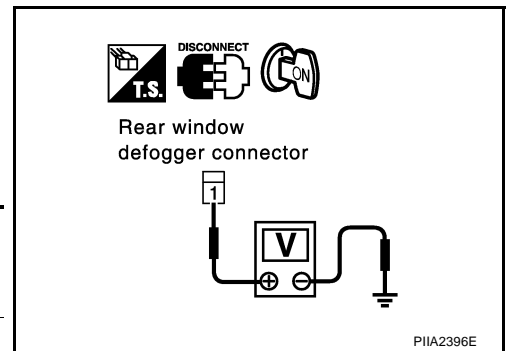
## Check Rear Window Defogger Circuit / For Roadster

NIS0005V

### 1. REAR WINDOW DEFOGGER POWER SUPPLY CIRCUIT INSPECTION

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

| Connector | Terminal (Wire color) |        | Condition | Voltage [V] (Approx.) |
|-----------|-----------------------|--------|-----------|-----------------------|
|           | (+)                   | (-)    |           |                       |
| B202      | 1 (B)                 | Ground | : ON      | Battery voltage       |
|           |                       |        | : OFF     | 0                     |



OK or NG

OK >> GO TO 2.

NG >> GO TO 3.

### 2. REAR WINDOW DEFOGGER GROUND HARNESS INSPECTION

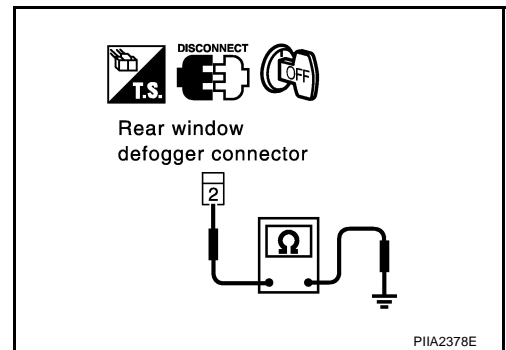
1. Turn ignition switch OFF.
2. Disconnect rear window defogger connector.
3. Check continuity between rear window defogger connector D203 terminal 2 and ground.

**2(B) – Ground : Continuity should exist**

OK or NG

OK >> Rear window defogger circuit is OK.

NG >> Repair or replace harness.



# REAR WINDOW DEFOGGER

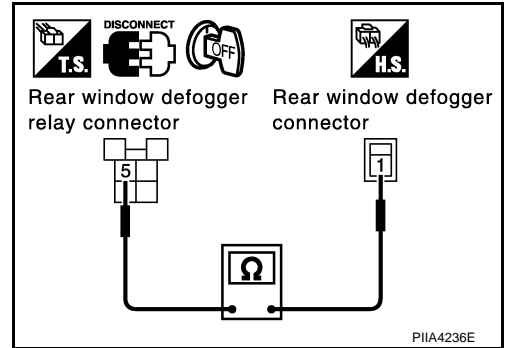
## 3. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear window defogger relay connector.
3. Check continuity between rear window defogger relay connector B34 terminal 5 and rear window defogger connector B202 terminal 1.

**5 (B/W) – 1 (B) : Continuity should exist.**

OK or NG

- OK >> Check the condition of the harness and the connector.  
 NG >> Repair or replace harness.



## Check Door Mirror Defogger Power Supply Circuit

### 1. CHECK FUSE

- Check 10A fuse [No. 8, located in fuse block (J/B)].

**NOTE:**

Refer to [GW-56, "Component Parts and Harness Connector Location"](#).

OK or NG

- OK >> GO TO 2.  
 NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to [PG-5, "POWER SUPPLY ROUTING CIRCUIT"](#).

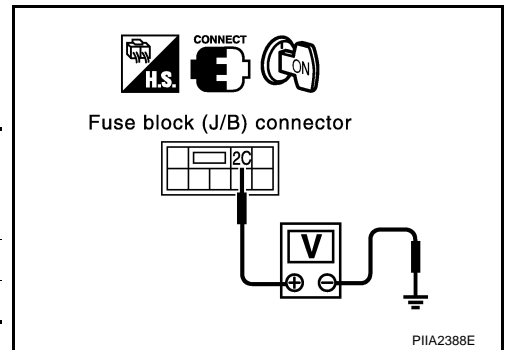
### 2. DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT INSPECTION 1

1. Turn ignition switch ON.
2. Rear window defogger switch operate, check voltage between fuse block (J/B) connector and ground.

| Connector | Terminal (Wire color) |        | Condition                        | Voltage [V] (Approx.) |
|-----------|-----------------------|--------|----------------------------------|-----------------------|
|           | (+)                   | (-)    |                                  |                       |
| E101      | 2C (Y)                | Ground | Rear window defogger switch : ON | Battery voltage       |
|           |                       |        | : OFF                            | 0                     |

OK or NG

- OK >> GO TO 3.  
 NG >> Repair or replace between harness.



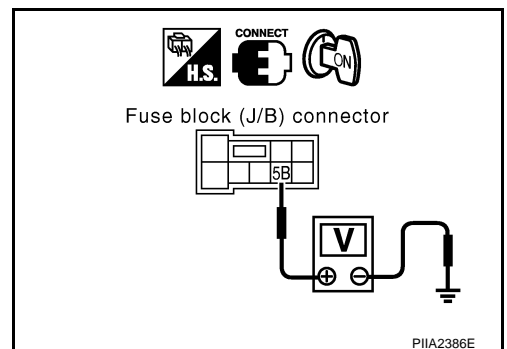
### 3. DOOR MIRROR DEFOGGER POWER SUPPLY INSPECTION 2

Rear window defogger switch operate, check voltage between Fuse block (J/B) connector and ground.

| Connector | Terminal (Wire color) |        | Condition                        | Voltage [V] (Approx.) |
|-----------|-----------------------|--------|----------------------------------|-----------------------|
|           | (+)                   | (-)    |                                  |                       |
| M5        | 5B (L)                | Ground | Rear window defogger switch : ON | Battery voltage       |
|           |                       |        | : OFF                            | 0                     |

OK or NG

- OK >> Repair or replace harness.  
 NG >> Replace fuse block (J/B).



# REAR WINDOW DEFOGGER

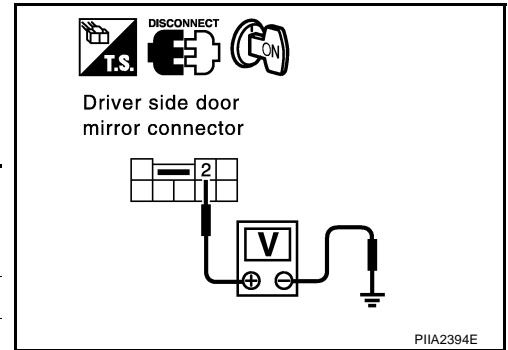
## Check Driver Side Door Mirror Defogger Circuit

NIS0005X

### 1. DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT INSPECTION

1. Turn ignition switch OFF.
2. Disconnect driver side door mirror defogger connector.
3. Turn ignition switch ON.
4. Rear window defogger switch operate, check voltage between driver side door mirror defogger connector and ground.

| Connector | Terminal<br>(Wire color) |        | Condition                   | Voltage [V]<br>(Approx.) |                      |
|-----------|--------------------------|--------|-----------------------------|--------------------------|----------------------|
|           | (+)                      | (-)    |                             |                          |                      |
| D2        | 2 (W/R)                  | Ground | Rear window defogger switch | : ON<br>: OFF            | Battery voltage<br>0 |



OK or NG

- OK >> GO TO 2.  
NG >> Repair or replace harness.

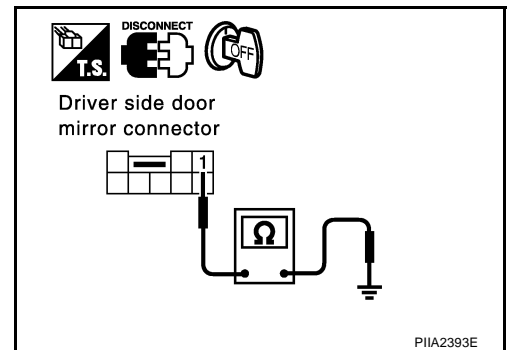
### 2. DOOR MIRROR DEFOGGER GROUND HARNESS INSPECTION

1. Turn ignition switch OFF.
2. Check continuity between driver side door mirror defogger connector D2 terminal 1 (B) and ground.

**1 (B) – Ground : Continuity should exist.**

OK or NG

- OK >> Check door mirror defogger firmament continuity.  
NG >> Repair or replace harness.



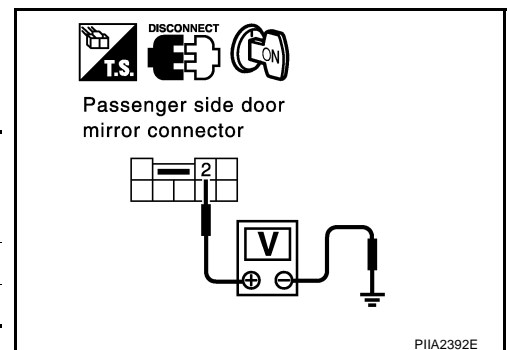
## Check Passenger Side Door Mirror Defogger Circuit

NIS0005Y

### 1. DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT INSPECTION

1. Turn ignition switch ON.
2. Disconnect passenger side door mirror defogger connector.
3. Rear window defogger switch operate, check voltage between passenger side door mirror defogger connector and ground.

| Connector | Terminal<br>(Wire color) |        | Condition                   | Voltage [V]<br>(Approx.) |                      |
|-----------|--------------------------|--------|-----------------------------|--------------------------|----------------------|
|           | (+)                      | (-)    |                             |                          |                      |
| D32       | 2 (P/B)                  | Ground | Rear window defogger switch | : ON<br>: OFF            | Battery voltage<br>0 |



OK or NG

- OK >> GO TO 2.  
NG >> Repair or replace harness.

# REAR WINDOW DEFOGGER

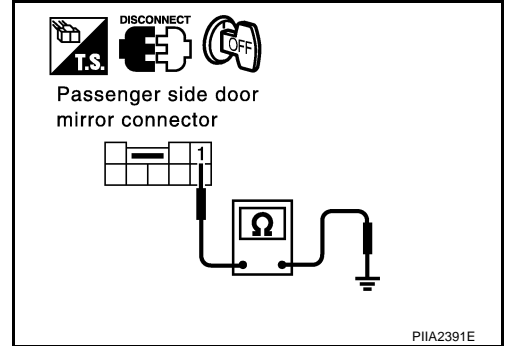
## 2. DOOR MIRROR DEFOGGER GROUND HARNESS INSPECTION

1. Turn ignition switch OFF.
2. Check continuity between passenger side door mirror defogger connector D32 terminal 1 and ground.

**1 (B) – Ground : Continuity should exist.**

### OK or NG

- OK >> Check door mirror defogger firmament continuity.  
NG >> Repair or replace harness.



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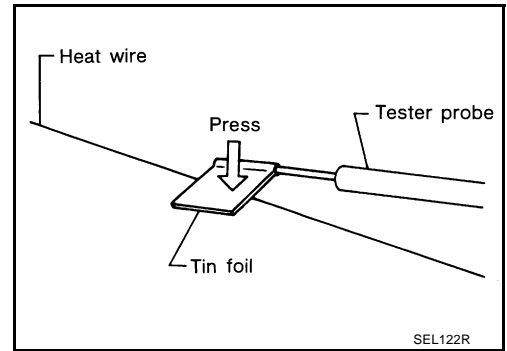
GW

# REAR WINDOW DEFOGGER

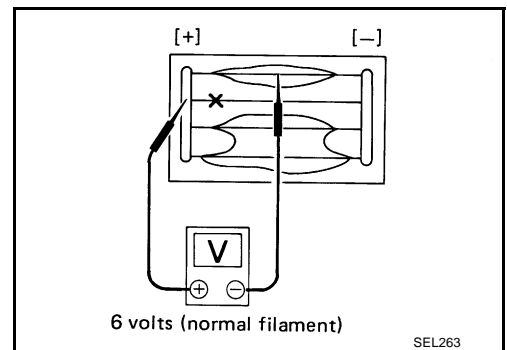
## Check Filament

NIS0005Z

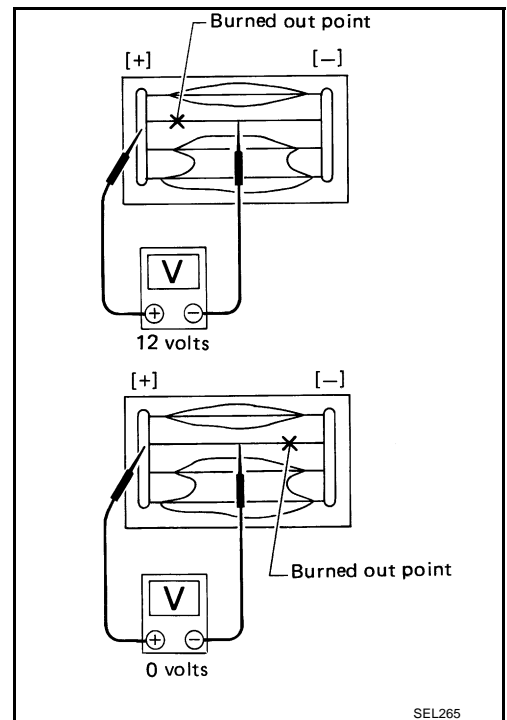
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



2. Attach probe circuit tester (in Volt range) to middle portion of each filament.



3. If a filament is burned out, circuit tester registers 0 or battery voltage.
4. To locate burned out point, move probe to left and right along filament. Test needle will swing abruptly when probe passes the point.



# REAR WINDOW DEFOGGER

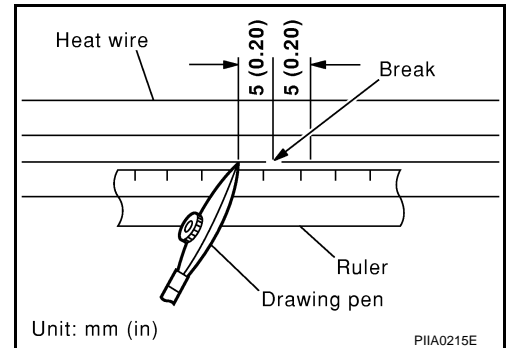
NIS00060

## Filament Repair REPAIR EQUIPMENT

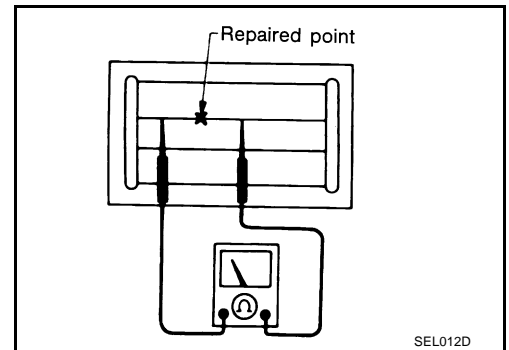
- Conductive silver composition (Dupont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

## REPAIRING PROCEDURE

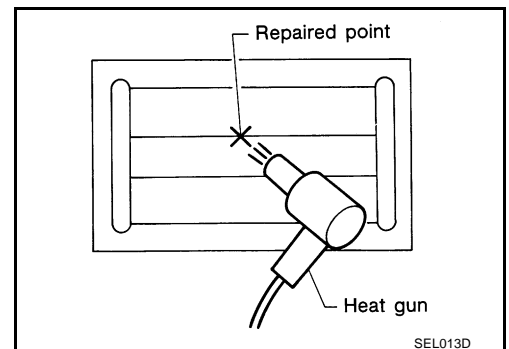
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.



4. After repair has been completed, check repaired wire for continuity. This check should be performed 10 minutes after silver composition is deposited. Do not touch repaired area while test is being performed.



5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.



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GW

# DOOR MIRROR

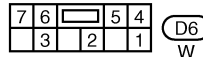
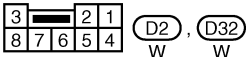
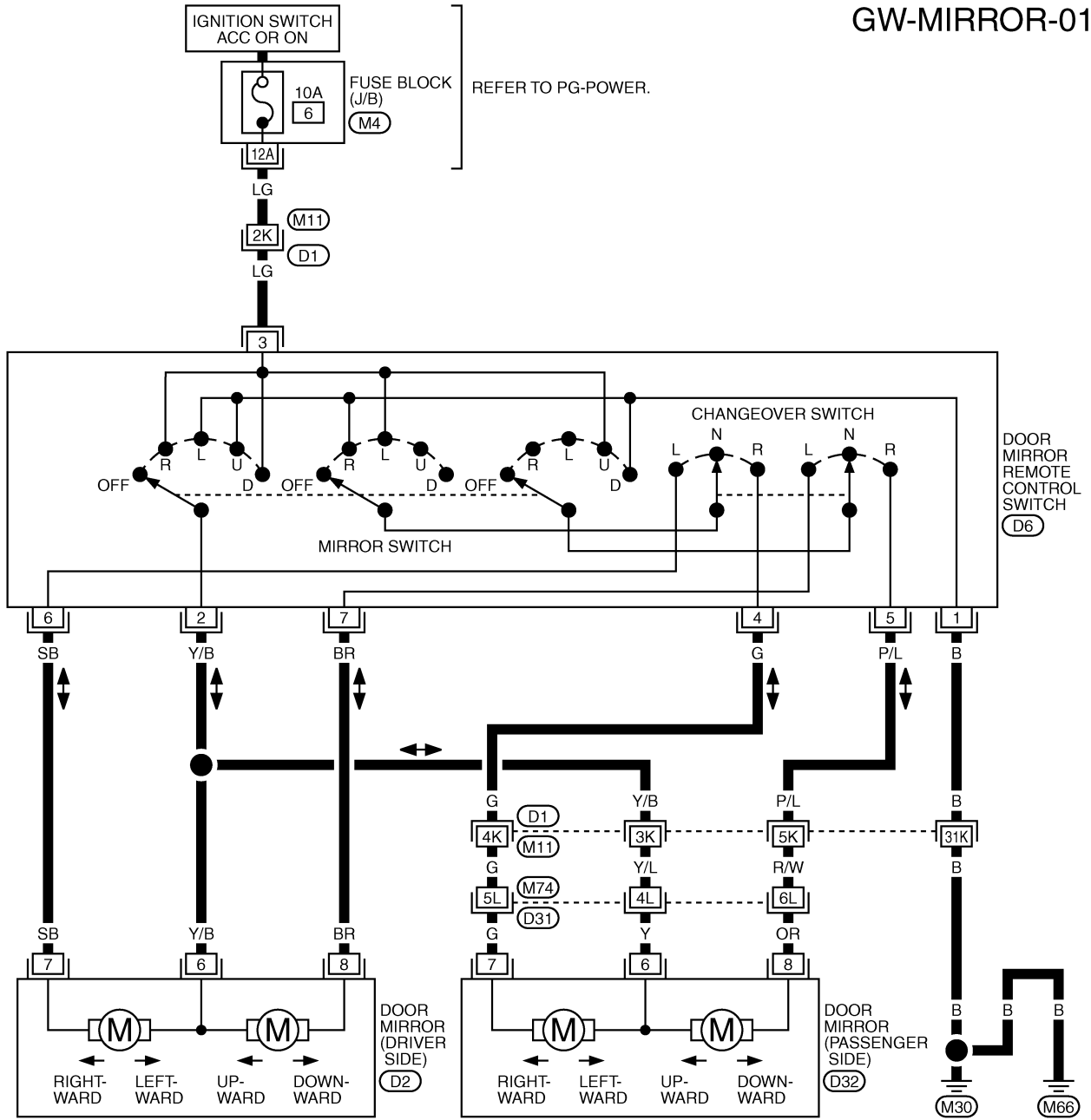
PFP:96301

NIS00061

## DOOR MIRROR

### Wiring Diagram –MIRROR–

## GW-MIRROR-01



REFER TO THE FOLLOWING.

(D1) , (D31) -SUPER MULTIPLE JUNCTION (SMJ)

(M4) -FUSE BLOCK-JUNCTION BOX (J/B)

TIWT1601E

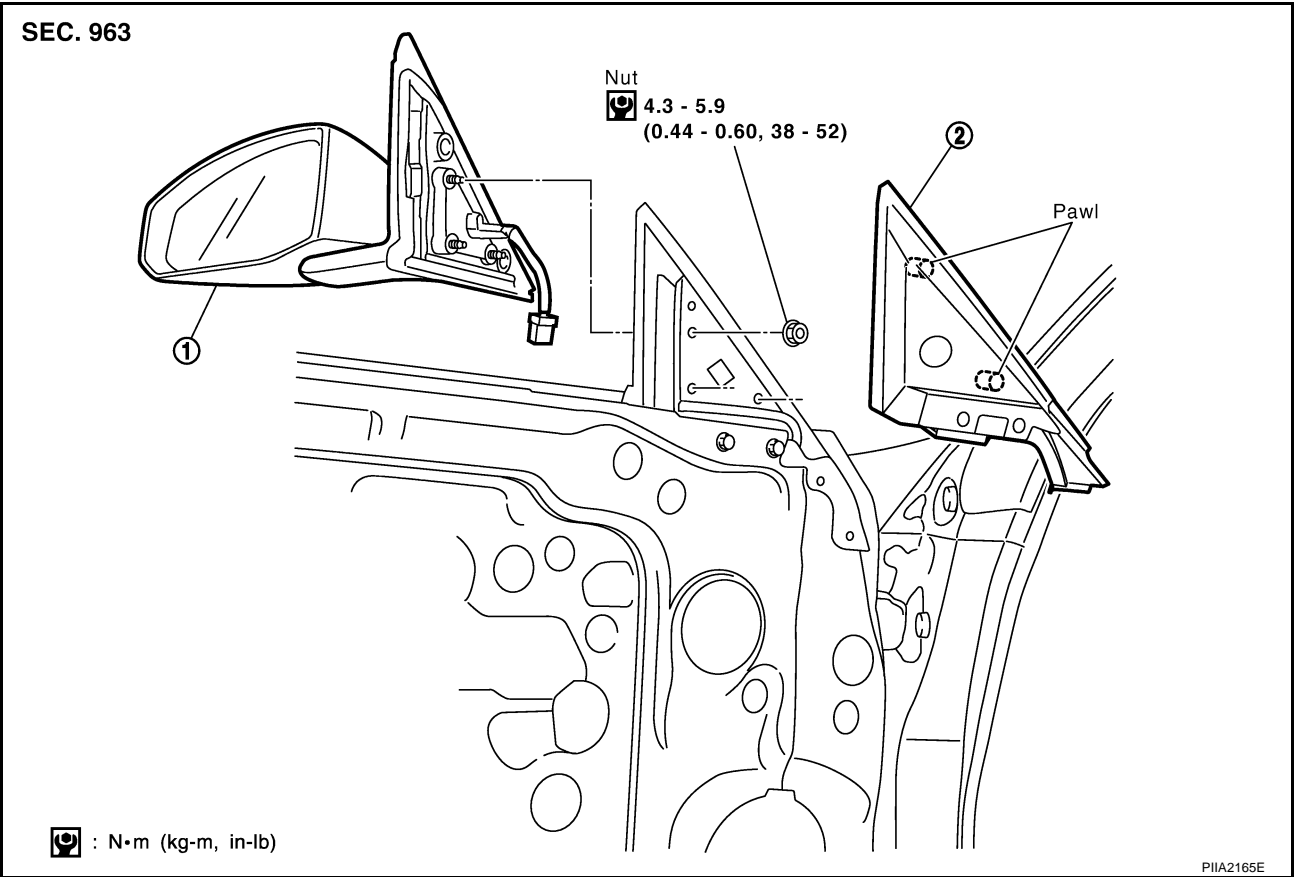


# DOOR MIRROR

## Removal and Installation

NIS00062

A  
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H



GW

### REMOVAL

1. Remove door finisher. Refer to [EI-33. "DOOR FINISHER"](#).
2. Remove corner cover inner.
3. Disconnect door mirror harness connector.
4. Remove door mirror mounting nuts, and remove door mirror assembly.

### INSTALLATION

Install in the reverse order of removal.

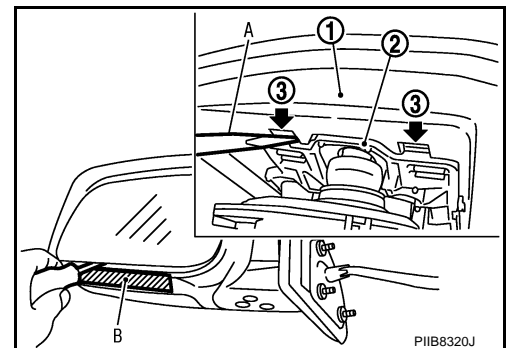
### DISASSEMBLY

1. Place the mirror body with mirror glass facing upward.
2. Put a strip of protective tape B on mirror body.
3. As shown in the figure, insert a small slotted screwdriver A into the recess between mirror base (mirror holder) (1) and mirror holder bracket (2) and push up two pawls (3) to remove mirror holder lower half side.

#### NOTE:

When pushing up pawls do not attempt to use one recess only, be sure to push up with both recesses. Insert screwdriver into recesses, and push up while rotating (twist) to make work easier.

4. Remove two terminals of mirror heater attachment.
5. Lightly lift up lower side of mirror surface from mirror surface, and detach pawls of upper side as if pulling it out. Remove mirror surface from mirror body.



J  
K  
L  
M

# DOOR MIRROR

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**NOTE:**

Be certain not to allow grease on sealing agent in center of mirror body assembly (actuator) or back side of mirror surface (mirror holder).

**ASSEMBLY**

1. Place mirror holder bracket and mirror body assembly (actuator) in a horizontal position.
2. Connect terminals of heater installed mirror.
3. Fit the upper pawls on the mirror face onto the mirror holder bracket first, then press the lower side of mirror face until a click sound is heard to engage the lower pawls.

**NOTE:**

After installation, visually check that lower pawls are securely engaged from the bottom of mirror face.

