

# SECTION GW

## GLASSES, WINDOW SYSTEM & MIRRORS

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# PRECAUTIONS

## PRECAUTIONS

PFP:00001

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

EIS000Z4

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

#### Handling for Adhesive and Primer.

EIS000IZ

- 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, then should be stored in a refrigerator.
- Open the seal of the primer and adhesive just before application. Do not use the remainder.
- Before application, be sure to shake the primer container to stir the content. If any floating materials are found, do not use it.
- If any primer or adhesive contacts the skin, wipe it off with white gasoline or equivalent and wash the skin with soap.
- When using primer and adhesive, always observe the precautions in the instruction manual.

#### Trouble diagnosis precaution

EIS000J0

- If each local control unit (LCU) connector is left disconnected for at least 1 minute, the BCM stores a communication inactive. After reconnecting the connector, any of the following steps shall be done. “Disconnect the BCM battery power supply”, Execute Erase memory with CONSULT-II.

When you read wiring diagrams, refer to the followings:

- “HOW TO READ WIRING DIAGRAMS” in GI section
- [PG-2. "POWER SUPPLY ROUTING"](#) in PG section

When you perform trouble diagnosis, refer to the followings:

- “HOW TO FOLLOW TEST GROUP IN TROUBLE DIAGNOSIS” in GI section
- “HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT” in GI section

Check for any service bulletins before servicing the vehicle.

# PREPARATION

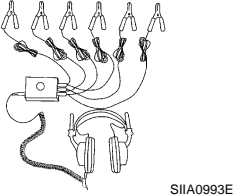
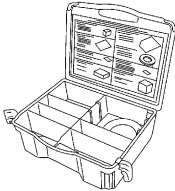
## PREPARATION

PFP:00002

### Special Service Tools

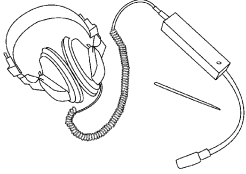
EIS000Z5

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

Tool number (Kent-Moore No.) Tool name	Description
(J-39570) Chassis ear  <p style="text-align: right; margin-right: 20px;">SIIA0993E</p>	Location the noise
(J-43980) NISSAN Squeak and Rattle Kit  <p style="text-align: right; margin-right: 20px;">SIIA0994E</p>	Repairing the cause of noise

### Commercial Service Tools

EIS000Z6

Tool name	Description
Engine ear  <p style="text-align: right; margin-right: 20px;">SIIA0995E</p>	Location the noise

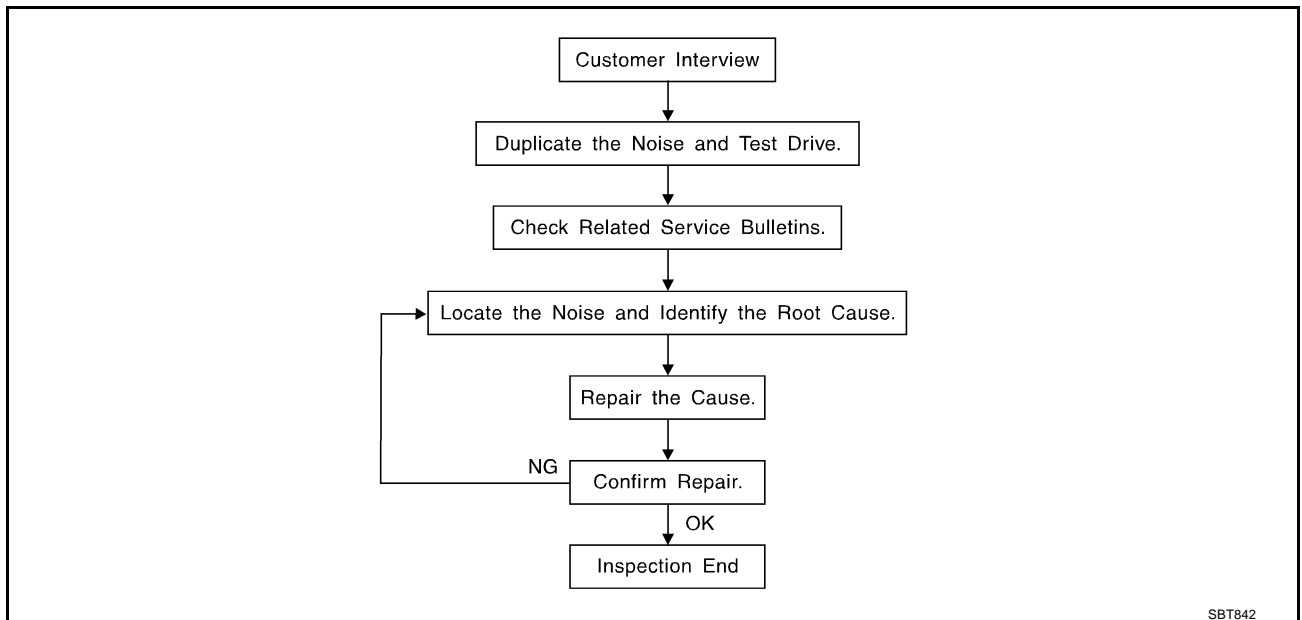
# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## SQUEAK AND RATTLE TROUBLE DIAGNOSES

PPF:00000

### Work Flow

EIS000Z7



### 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 model, drive position on A/T model).
  - 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: J-39565 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. 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 [1.5mm(0.059 in) thick]**

**Insulates connectors, harness, etc.**

**76268-9E005: 100×135mm(3.94×5.31 in)/76884-71L01: 60×85mm(2.36×3.35 in)/76884-71L02: 15×25mm(0.59×0.98 in)**

**INSULATOR (Foam blocks)**

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

**73982-9E000: 45mm(1.77 in) thick, 50×50mm(1.97×1.97 in)/73982-50Y00: 10mm(0.39 in) thick, 50×50mm(1.97×1.97 in)**

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

## INSULATOR (Light foam block)

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

## FELT CLOTHTAPE

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

68370-4B000: 15×25mm(0.59×0.98 in) pad/68239-13E00: 5mm(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 of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

## SILICONE SPRAY

Use when grease cannot be applied.

## DUCT TAPE

Use to eliminate movement.

A

B

C

D

E

## 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.

F

## Generic Squeak and Rattle Troubleshooting

E/IS00028

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

G

## 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

H

GW

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.

J

K

## 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.**

L

## 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.

M

## 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.

# 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/HEADLINER

Noises in the sunroof/headliner 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 headliner 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 seat back 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 noise 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

E/IS000Z9



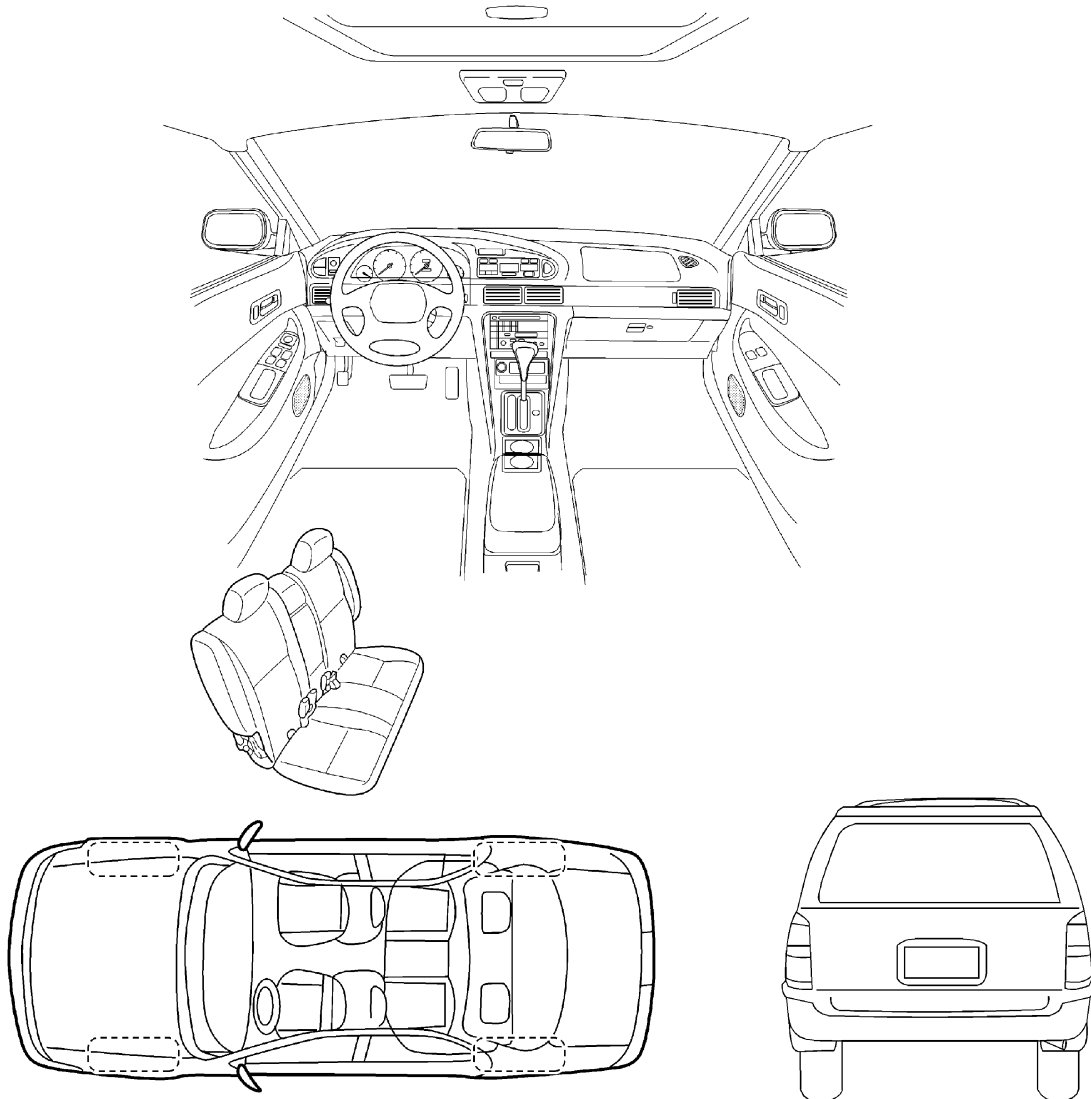
### SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Infiniti Customer:

We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti 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 the back 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.

SBT860

A  
B  
C  
D  
E  
F  
G  
H  
GW  
J  
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L  
M

# 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? (check the boxes that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> anytime                             | <input type="checkbox"/> after sitting out in the sun |
| <input type="checkbox"/> 1 <sup>st</sup> 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 at 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 on a 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:

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	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: \_\_\_\_\_

SBT844

**This form must be attached to Work Order**

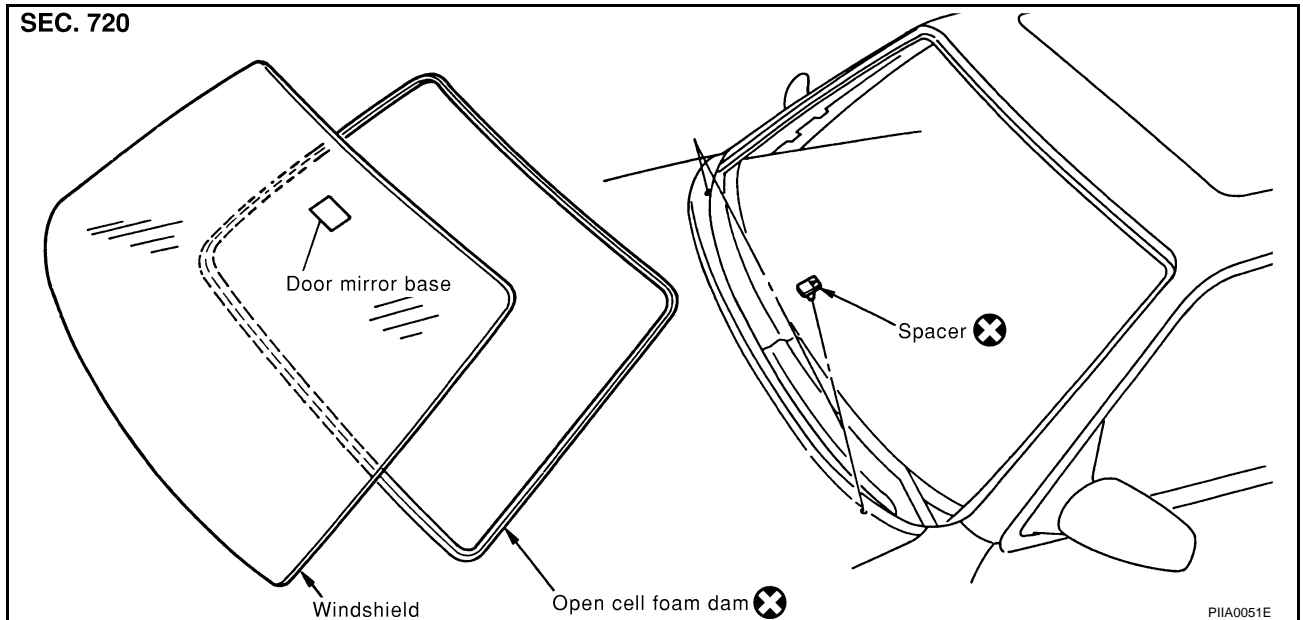
# WINDSHIELD GLASS

## WINDSHIELD GLASS

PFP:72712

### Removal and Installation

EIS000J4



### REMOVAL

1. Remove the front pillar garnish. Refer to [EI-38, "BODY SIDE TRIM"](#).
  2. Remove the headlining. Refer to [EI-48, "HEADLINING"](#).
  3. Remove the weather-strip on the front pillar.
  4. Remove the windshield molding. Refer to [EI-24, "WINDSHIELD MOLDING"](#).
  5. Remove the cowl top cover. Refer to [EI-21, "COWL TOP"](#).
  6. Apply a protective tape around the windshield glass to protect the painted surface from damage.
- After removing moldings, remove glass using piano wire or power cutting tool and an inflatable pump bag.

- If a windshield glass is reversed, mark the body and the glass with mating marks.

### WARNING:

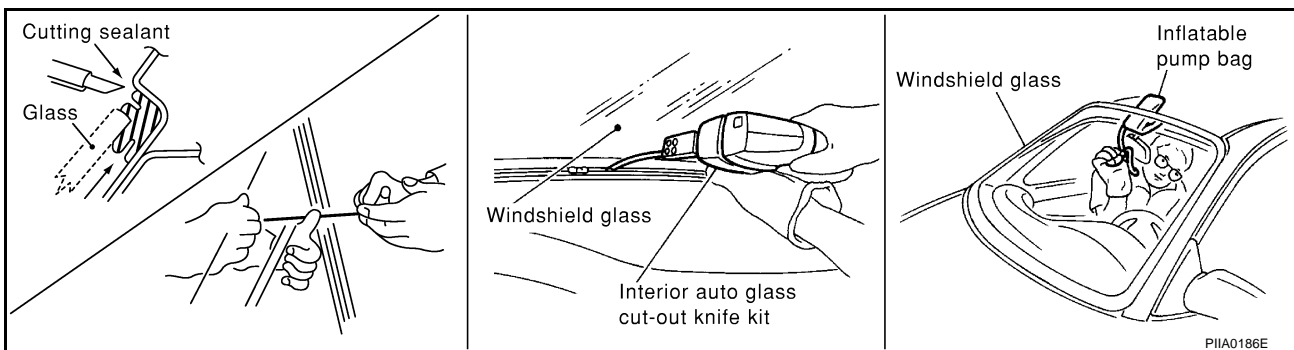
When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.

### CAUTION:

When a windshield glass is reused, do not use a cutting knife or power cutting tool.

### NOTE:

- 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.



### INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit 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.

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M

GW

# WINDSHIELD GLASS

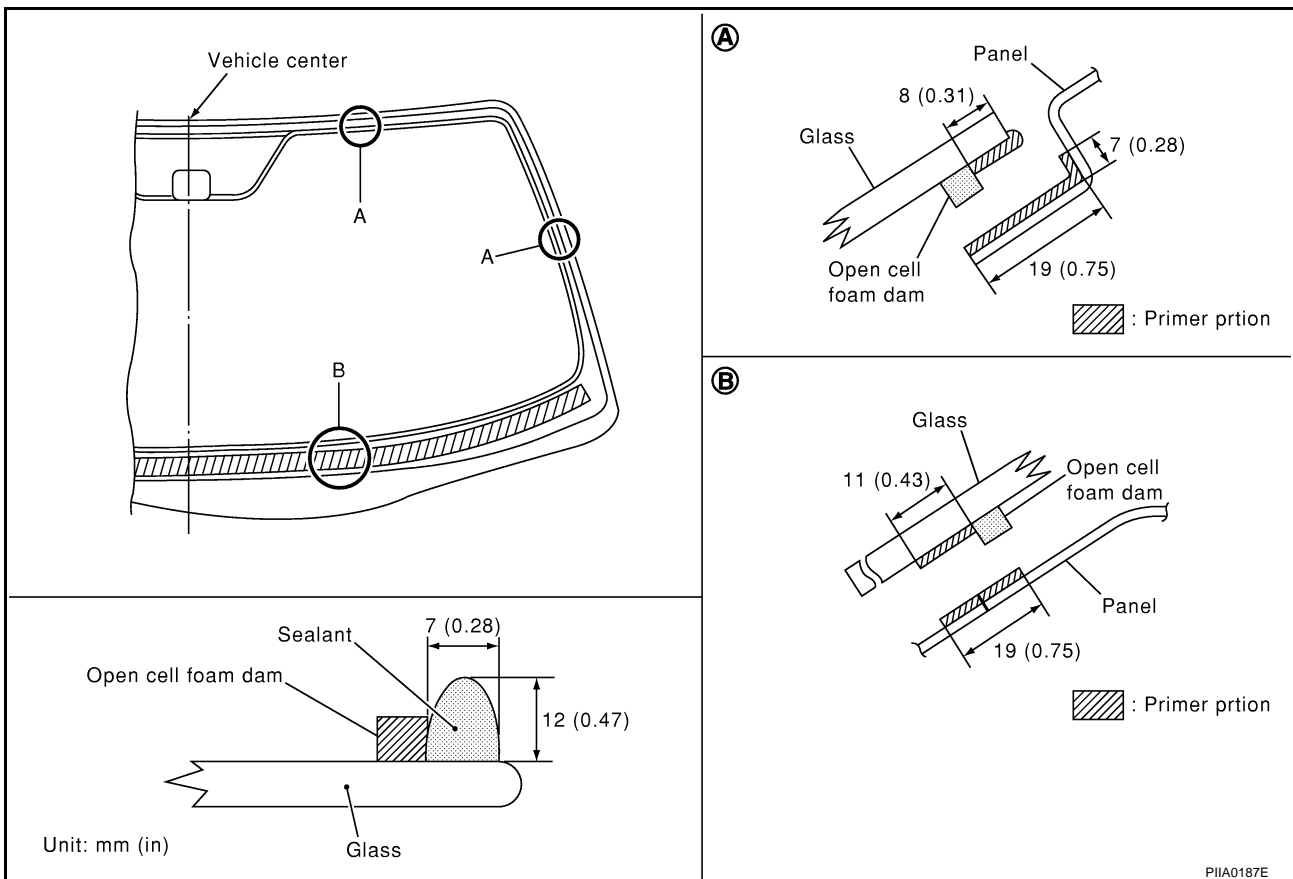
- The molding must be installed securely so that it is in position and leaves no gap.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

## 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 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 humidities. The curing time will increase under higher temperatures and lower humidities.**



## Repairing Water Leaks for Windshield

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.

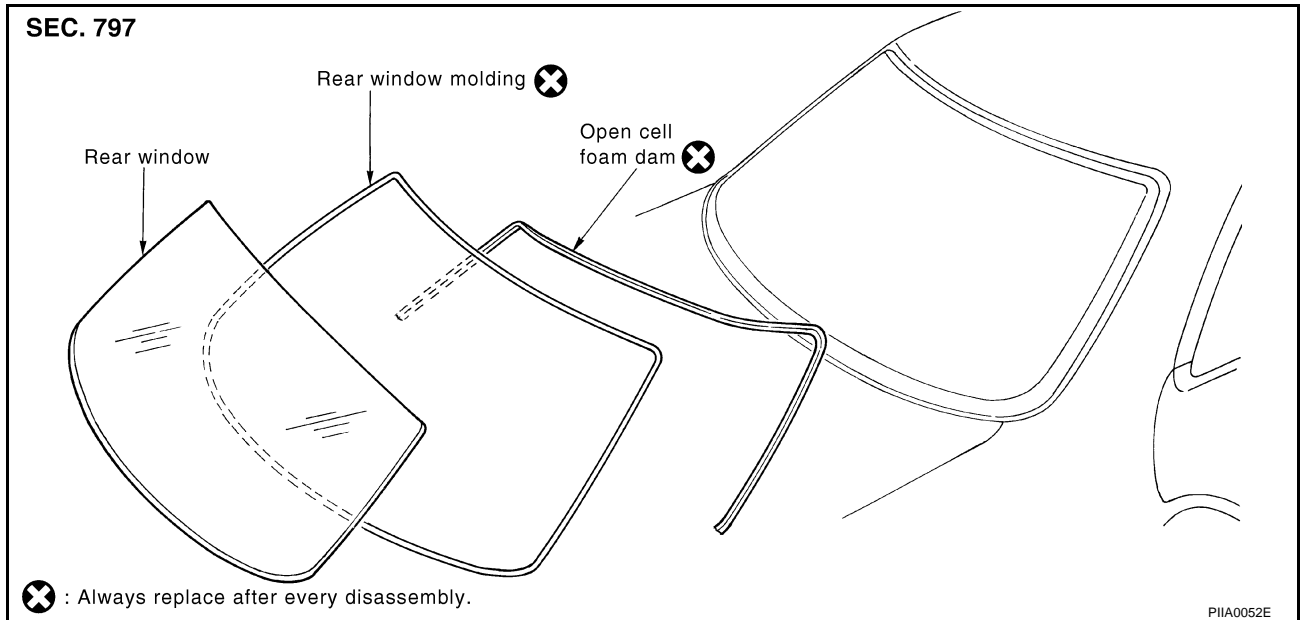
# REAR WINDOW GLASS AND MOLDING

## REAR WINDOW GLASS AND MOLDING

PF7:79712

### Removal and Installation

EIS000J5



### REMOVAL

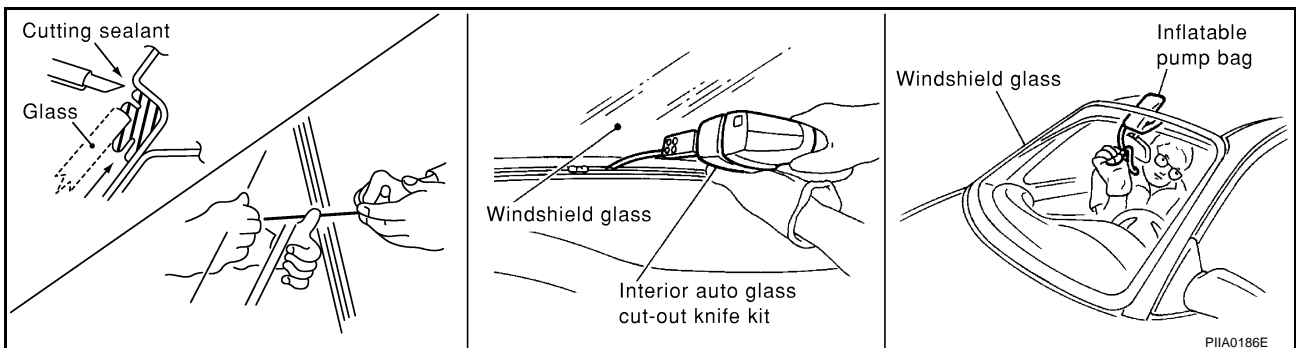
1. Remove the rear of the headliner. Refer to [EI-48, "Removal and Installation"](#) in "Exterior/Interior (EI)" section.
  2. Remove the rear pillar garnish. Refer to [EI-38, "Removal and Installation"](#) in "Exterior/Interior (EI)" section.
  3. Remove the rear parcel shelf finisher. Refer to [EI-40, "Removal and Installation"](#) in "Exterior/Interior (EI)" section.
  4. Remove the connectors and grounds for the rear defogger and printed antenna.
- After removing moldings, remove glass using piano wire or power cutting tool and an inflatable pump bag.
  - If a windshield glass is revised, 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 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.



### INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit 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.

## REAR WINDOW GLASS AND MOLDING

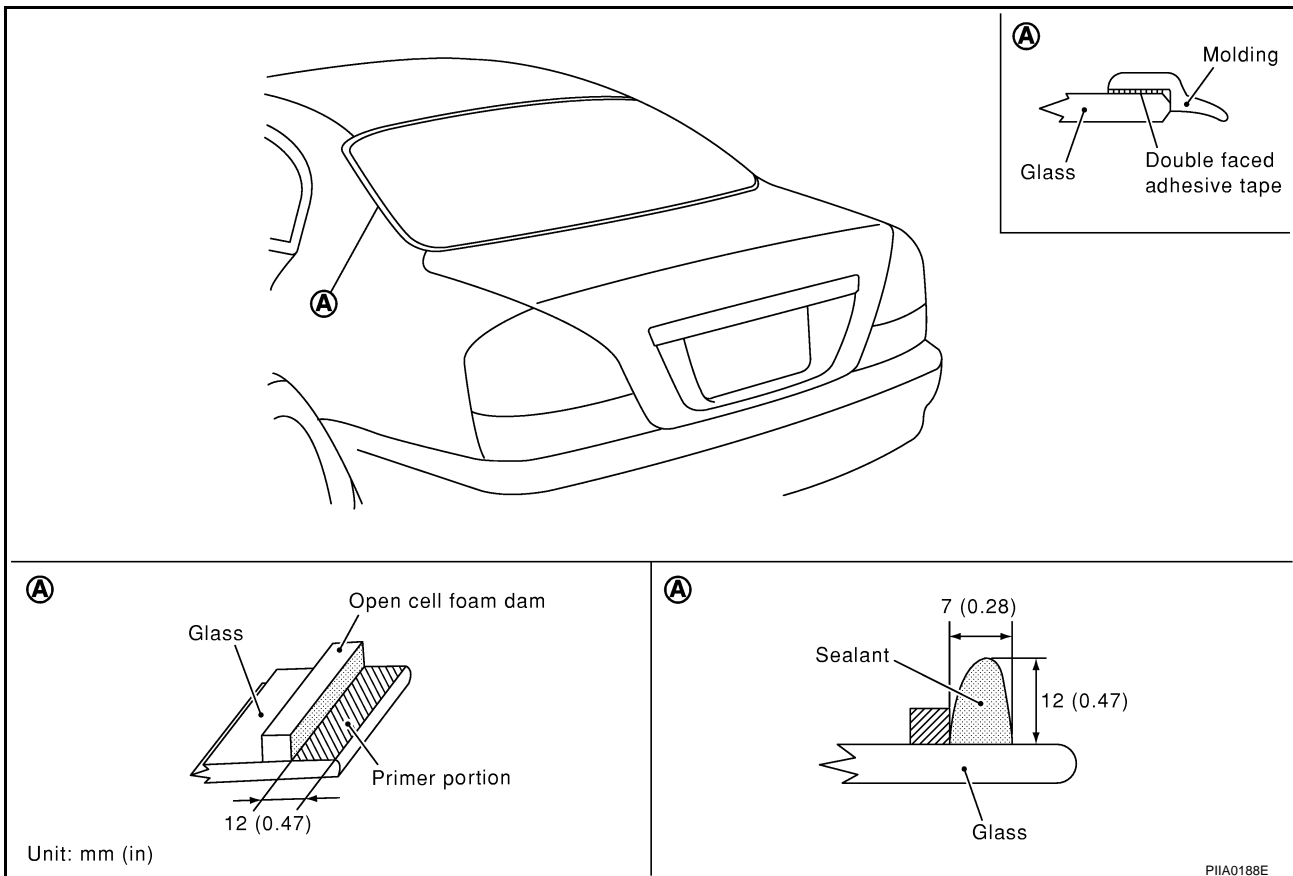
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

### 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 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 humidities. The curing time will increase under higher temperatures and lower humidities.



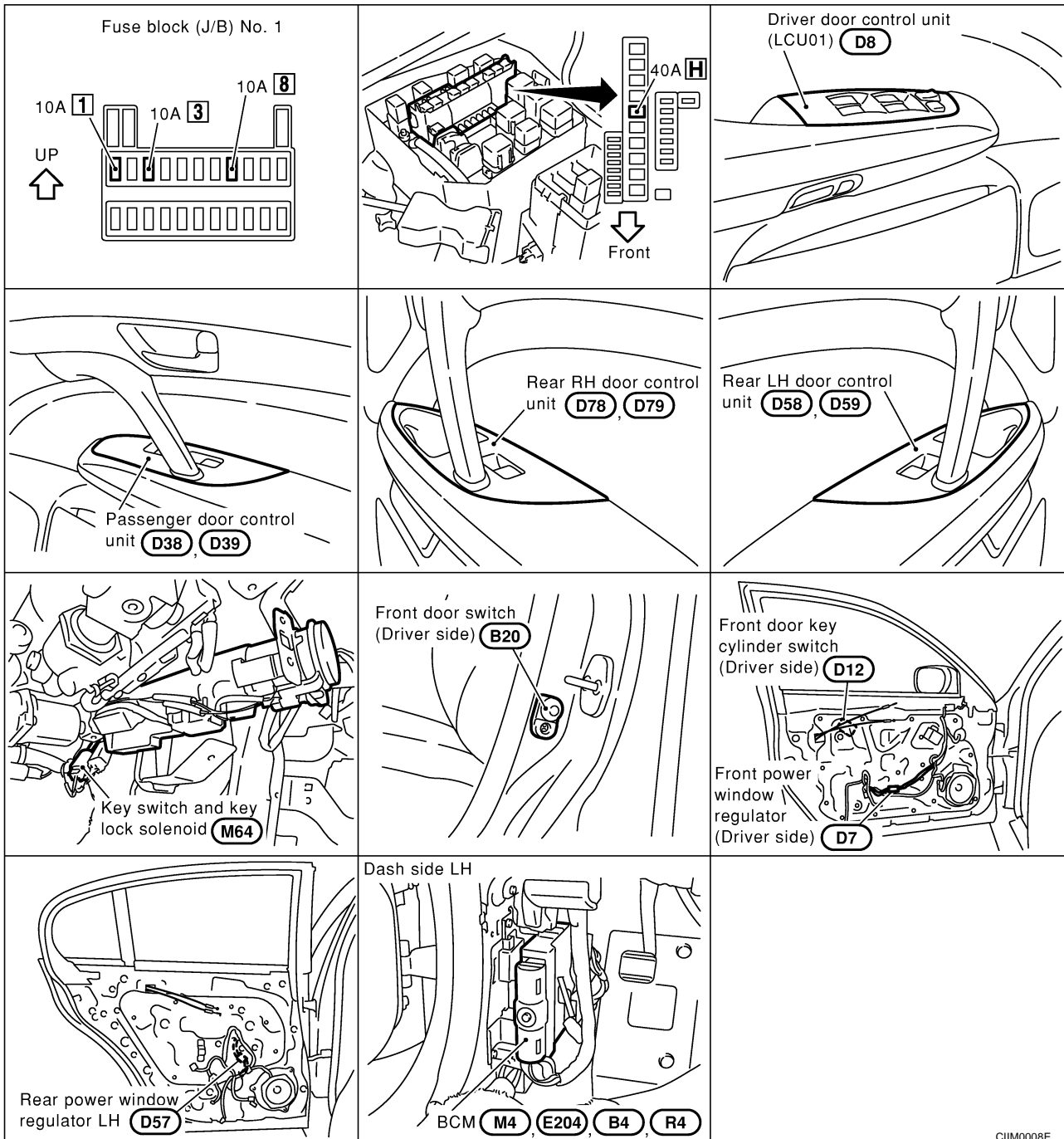
# POWER WINDOW SYSTEM

PPF:25401

## POWER WINDOW SYSTEM

### Component Parts and Harness Connector Location

EIS000UT



CIIM0008E

### System Description OUTLINE

EIS000J6

Power window system consists of

- BCM (Body Control Module)
- driver's door LCU (Local Control Module)
- passenger, rear LH, RH door control units
- four power window regulators

BCM is connected to driver's door LCU via DATA LINE A-3 and LCU supply power and ground to each power window regulator.

When ignition switch is in the "ON" position, power window will be operated depending on power window sub/main switch (which is combined with each LCU) condition.

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# POWER WINDOW SYSTEM

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## OPERATIVE CONDITION

- Power windows can be raised or lowered with each sub-switch or the power window main switch located on the driver's door trim when ignition key is in the "ON" position and power window lock switch on the driver door trim is unlocked.
- When power window lock switch is locked, no windows can be raised or lowered except for driver side window.
- When ignition key is in the "ON" position, to fully open/close the front windows, press down/pull completely on the automatic switch and release it; it needs not be held. The window will automatically open/close all the way. To stop the window, pull up/press down then release the switch.

## DELAYED POWER OPERATION

When the ignition switch is turned to the "OFF" position, the power window will still operate for up to approximately 45 seconds unless the driver side door is opened. (Power window timer)

## INTERRUPTION DETECTION FUNCTION

Driver's door control unit (LCU01) /passenger, rear LH, RH door control unit monitor the power window regulator motor operation and the power window position (full closed or other) by the signals from encoder and limit switch in power window regulator motor.

When driver's door control unit (LCU01) /passenger, rear LH RH door control unit detect interruption during the following close operation in the each door,

driver's door control unit (LCU01) / passenger, rear LH,RH door control unit control each power window regulator motor for open and the power window will be lowered about 150 mm (5.91 in).

- automatic close operation when ignition switch is in the "ON" position
- automatic close operation during power window timer operation

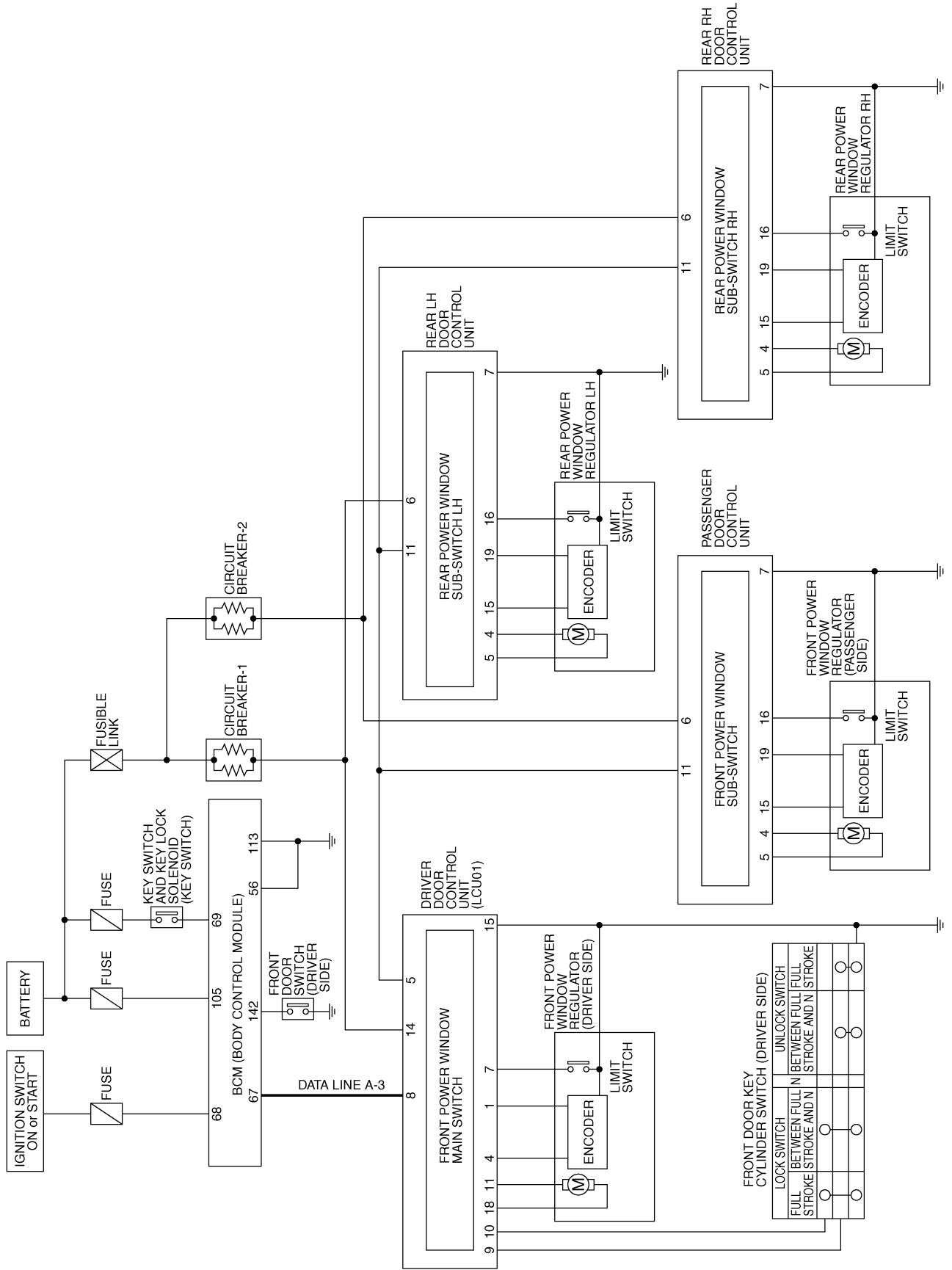


# POWER WINDOW SYSTEM

## Schematic

EIS000UU

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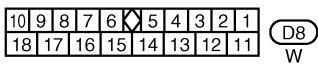
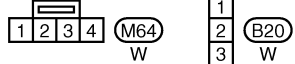
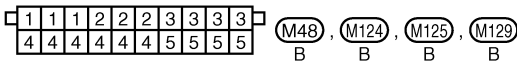
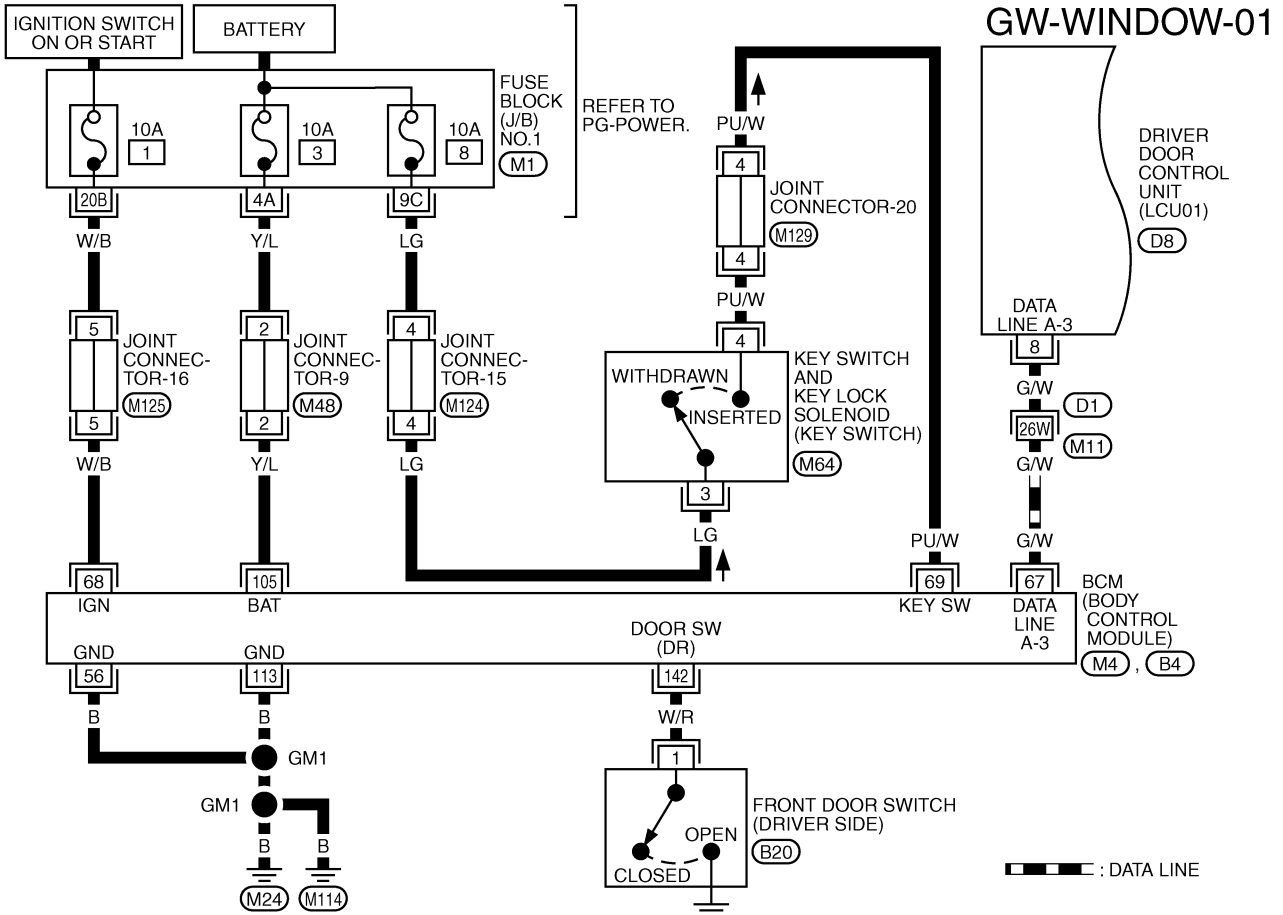
GW

TIWM0041E

# POWER WINDOW SYSTEM

EIS000UV

## Wiring Diagram – WINDOW –

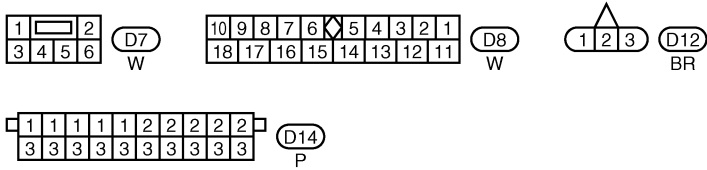
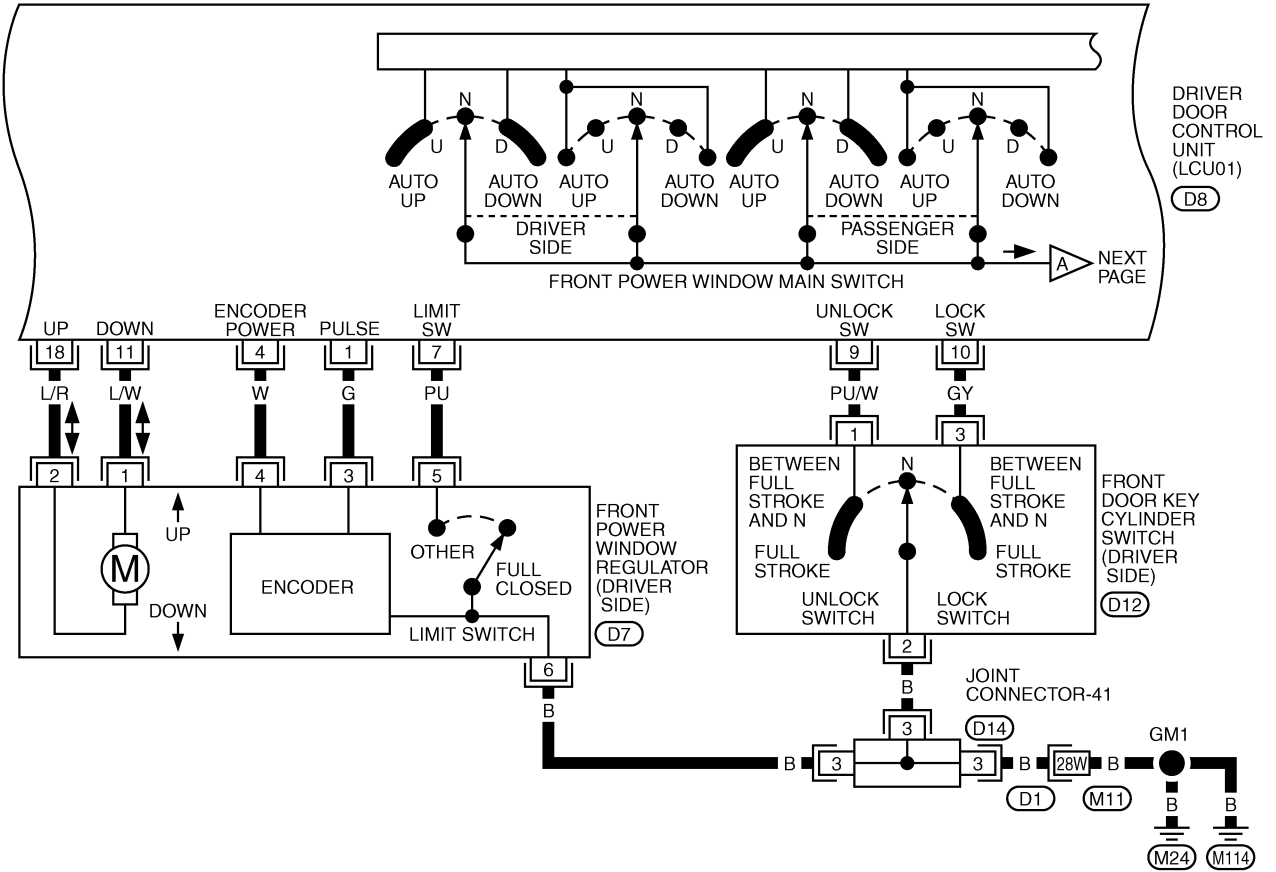


REFER TO THE FOLLOWING.  
 (D1) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1  
 (M4), (B4) -ELECTRICAL UNITS

TIWM0042E

# POWER WINDOW SYSTEM

## GW-WINDOW-02



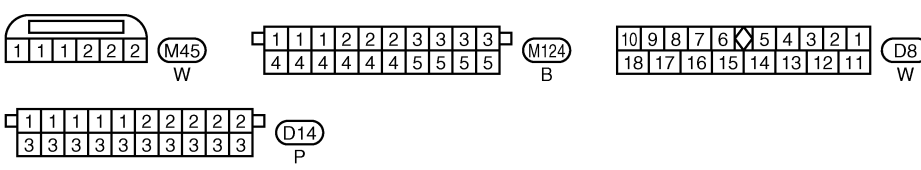
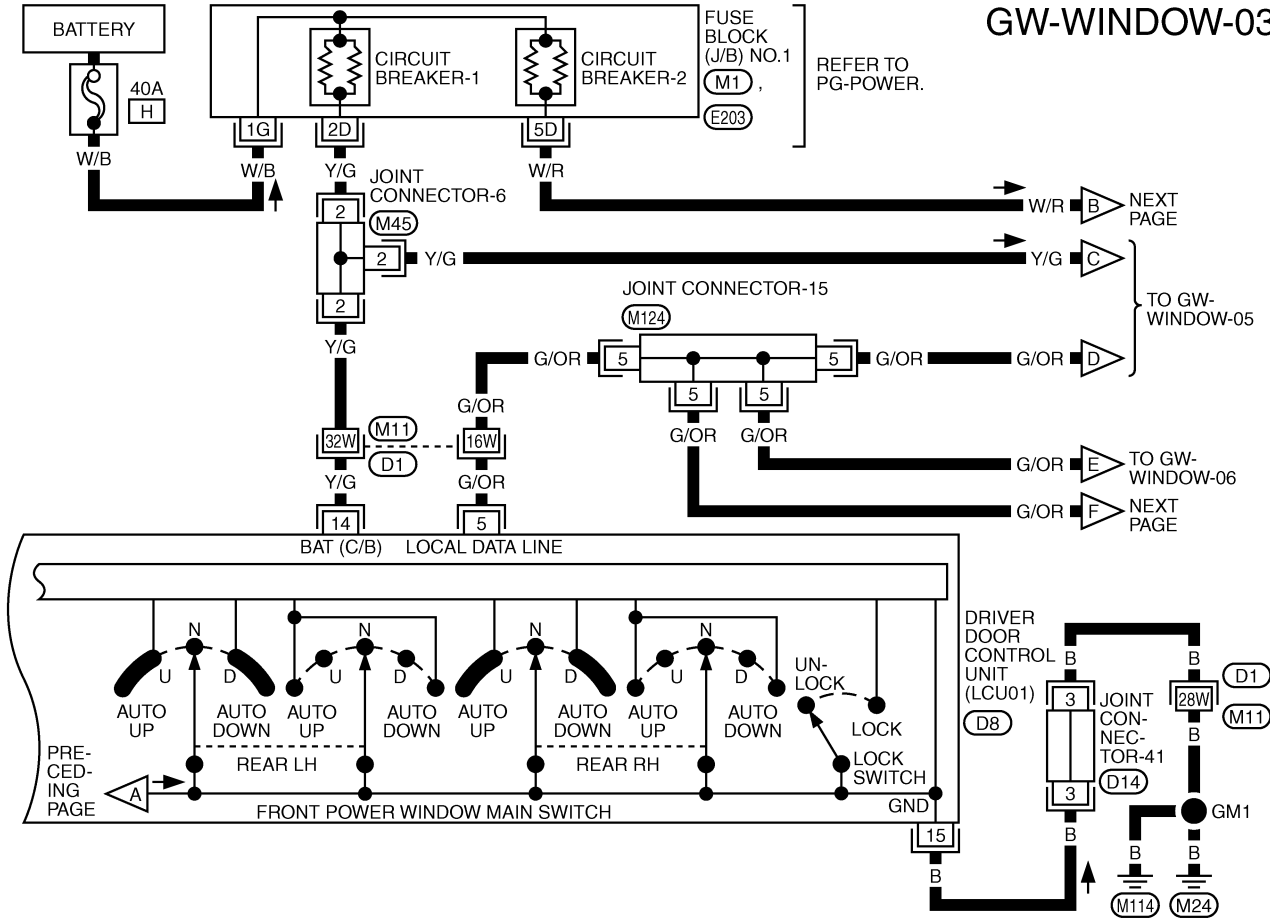
REFER TO THE FOLLOWING.  
 (D1) -SUPER MULTIPLE JUNCTION (SMJ)

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# POWER WINDOW SYSTEM

GW-WINDOW-03



REFER TO THE FOLLOWING.

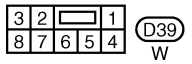
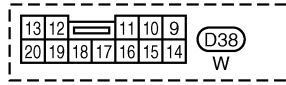
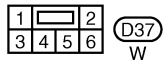
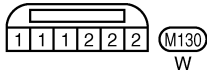
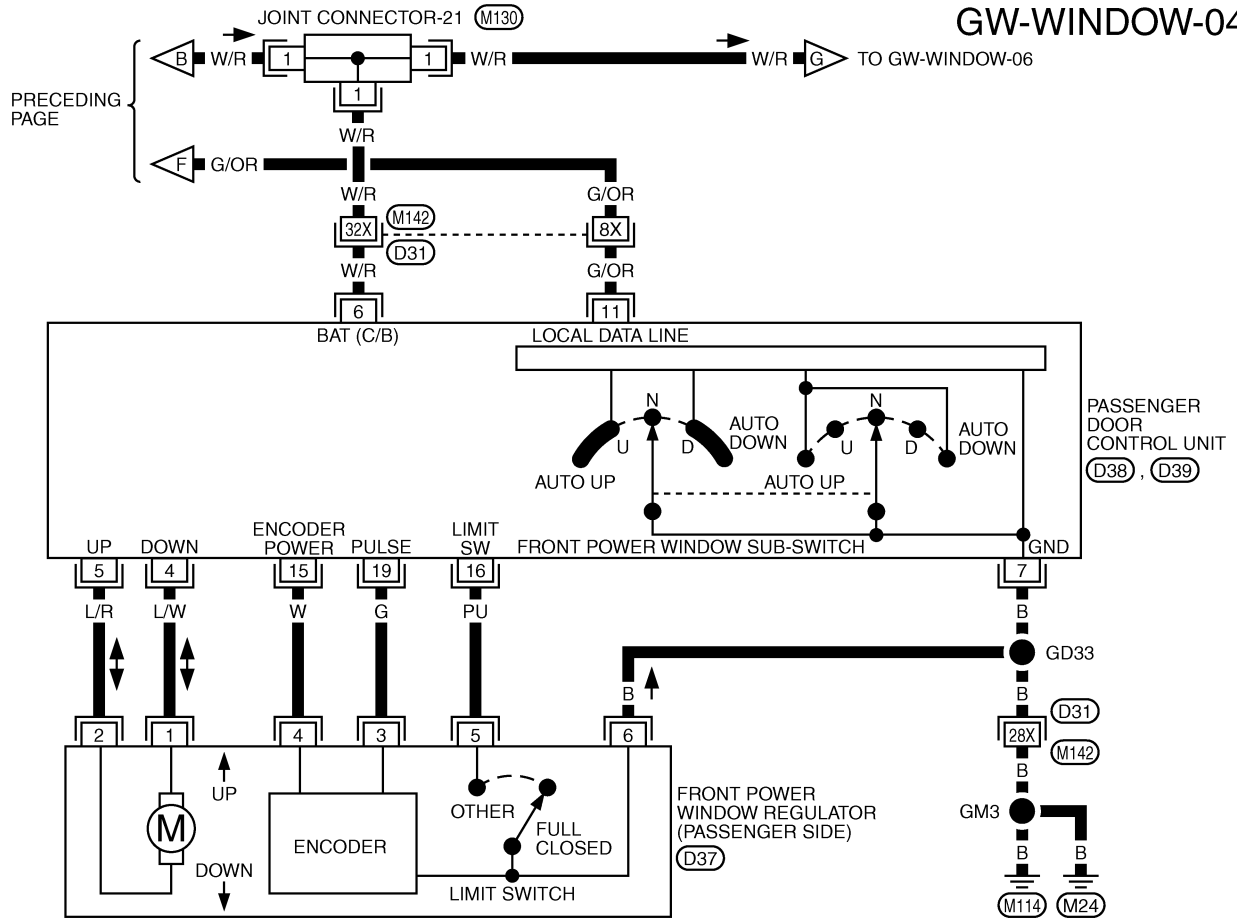
(D1) -SUPER MULTIPLE JUNCTION (SMJ)

(M1 , E203) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

TIWM0044E

# POWER WINDOW SYSTEM

GW-WINDOW-04

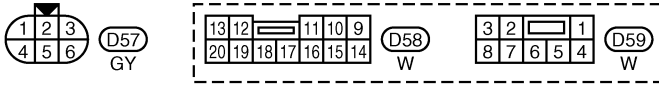
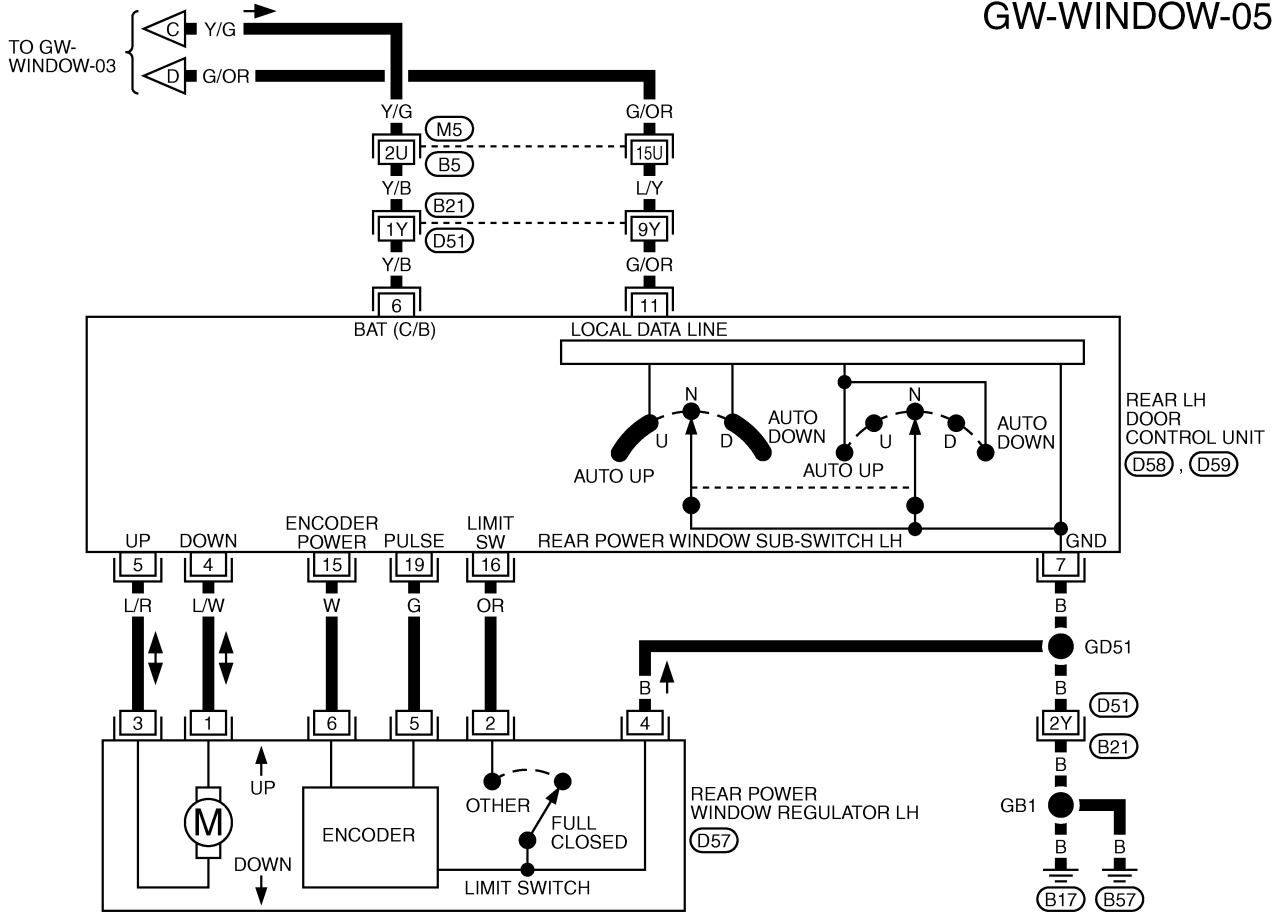


REFER TO THE FOLLOWING.  
 (D31) -SUPER MULTIPLE JUNCTION (SMJ)

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# POWER WINDOW SYSTEM

GW-WINDOW-05

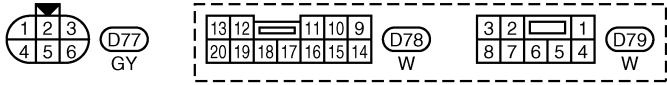
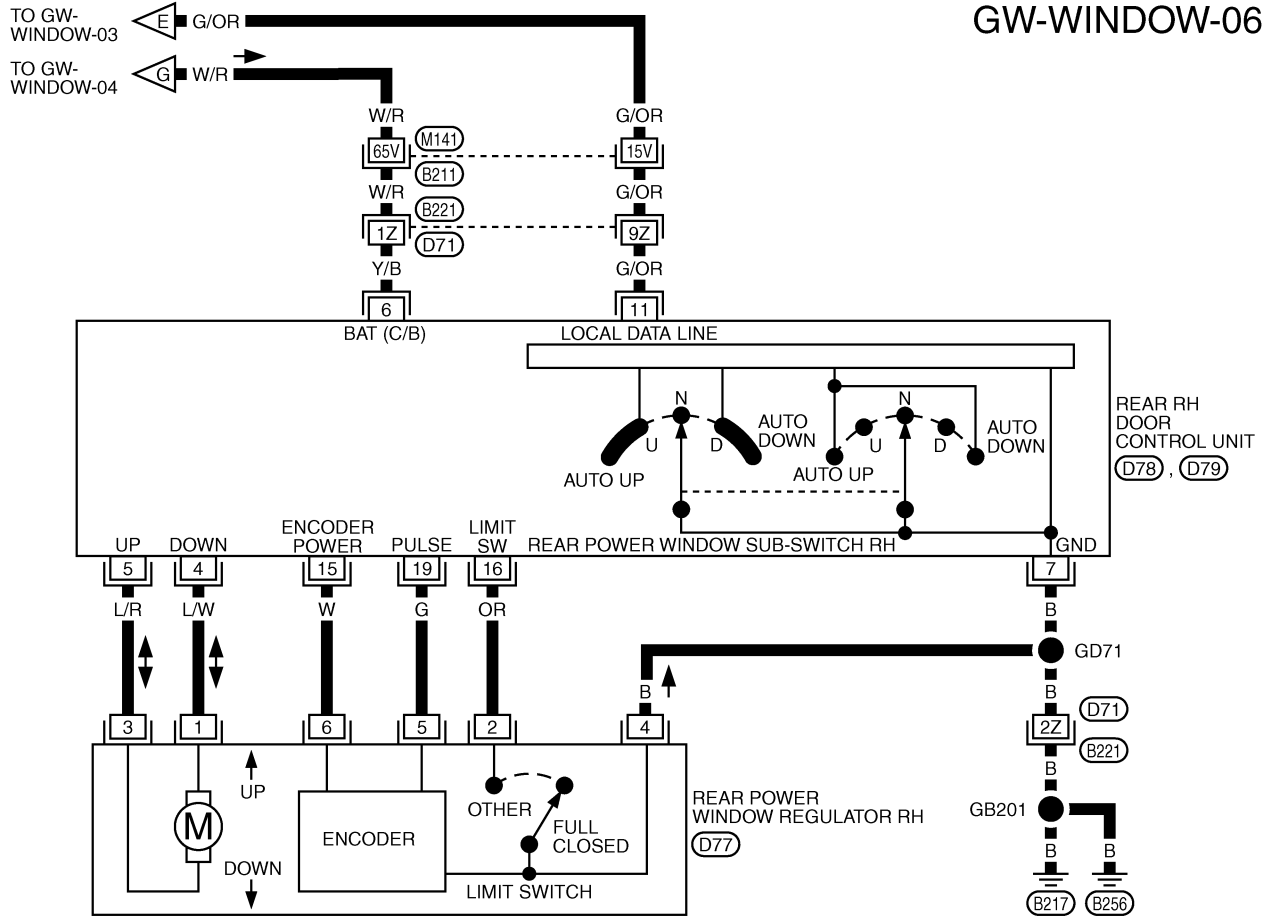


REFER TO THE FOLLOWING.  
 (M5), (B21) -SUPER MULTIPLE JUNCTION (SMJ)

TIWM0046E

# POWER WINDOW SYSTEM

GW-WINDOW-06



REFER TO THE FOLLOWING.  
 (B211), (B221) -SUPER MULTIPLE JUNCTION (SMJ)

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## Terminals and Reference Value for Driver Door Control Unit

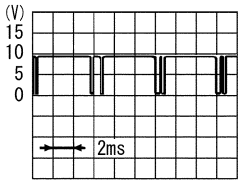
TIWM0047E

EIS000UY

TERMI- NAL	WIRE COLOR	ITEM	CONDITION	Voltage (Approximate values)
1	G	Encoder pulse signal	When power window motor operates	
4	W	Encoder power supply	When power window motor operates	10V

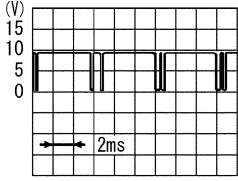
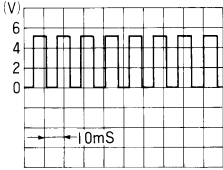
OCC3383D

# POWER WINDOW SYSTEM

TERMI-NAL	WIRE COLOR	ITEM	CONDITION	Voltage (Approximate values)
5	G/OR	Local communication	—	 <p style="text-align: right; font-size: small;">SIIA0591J</p>
7	PU	Limit switch signal	Door window is at fully open position (ON)	0V
			Door window is at fully closed position (OFF)	5V
8	G/W	Data line A-3	—	—
9	PU/W	Door key cylinder unlock switch	OFF (Neutral) → ON (Unlock)	5V → 0V
10	GY	Door key cylinder lock switch	OFF (Neutral) → ON (Lock)	5V → 0V
11	L/W	Power window motor DOWN signal	When power window motor DOWN operates	Battery voltage
14	Y/G	Power source (FUSE)	—	Battery voltage
15	B	Ground	—	0V
18	L/R	Power window motor UP signal	When power window motor UP operates	Battery voltage

## Terminals and Reference Value for Passenger, Rear LH, RH Door Control Unit

EIS0014K

TERMI-NAL	WIRE COLOR	ITEM	CONDITION	Voltage (Approximate values)
4	L/W	Power window motor DOWN signal	When power window motor DOWN operates	Battery voltage
5	L/R	Power window motor UP signal	When power window motor UP operates	Battery voltage
6	Y/B (W/R)	Power source (FUSE)	—	Battery voltage
7	B	Ground	—	0V
11	G/OR	Local communication	—	 <p style="text-align: right; font-size: small;">SIIA0591J</p>
15	W	Encoder power supply	When power window motor operates	10V
16	PU	Limit switch signal	Door window is at fully open position (ON)	0V
			Door window is at fully closed position (OFF)	5V
19	G	Encoder pulse signal	When power window motor operates	 <p style="text-align: right; font-size: small;">OCC3383D</p>

( ): Passenger door control unit



# POWER WINDOW SYSTEM

## Trouble Diagnosis Symptom Chart

EIS000NW

- Check that other systems using the signal of the following systems operate normally.

Symptom	Diagnostic procedure.
None of the power windows can be operated using any switch.	<p>Check the following.</p> <ul style="list-style-type: none"> <li>● harness for open and short between BCM and driver LCU.</li> <li>● BCM</li> </ul>
Driver side power window cannot be operated but other windows can be operated.	<p>Diagnostic procedure 1 <a href="#">GW-26, "Diagnostic Procedure 1"</a> (Driver power window motor circuit check)</p> <p>If the above system is "OK", replace the driver door control unit (LCU01).</p>
One or more power windows except driver 's side window cannot be operated.	<p>Diagnostic procedure 2 <a href="#">GW-27, "Diagnostic Procedure 2"</a> (Communication signal check)</p> <p>Diagnostic procedure 3 <a href="#">GW-28, "Diagnostic Procedure 3"</a> (Passenger power window motor check)</p> <p>Diagnostic procedure 4 <a href="#">GW-29, "Diagnostic Procedure 4"</a> (Rear LH or RH power window motor check)</p> <p>If the above system is "OK", replace the door control unit of the faulty door window.</p>
Power windows except driver's side window cannot be operated using power window main switch but can be operated by power window sub-switches.	<p>Check power window switch (door control unit).</p>
Power window automatic operation does not function properly.	<p>Diagnostic procedure 5 <a href="#">GW-30, "Diagnostic Procedure 5"</a> (Limit switch check)</p> <p>Diagnostic procedure 6 <a href="#">GW-33, "Diagnostic Inspection 6"</a> (Encoder system check)</p> <p>If the above system is "OK", replace the door control unit of the malfunctioning door window.</p>
Power window timer function does not operate properly.	<p>Within 45 seconds after ignition switch turned OFF.</p> <p>When front door driver side closed.</p> <p>Diagnostic procedure 7 <a href="#">GW-34, "Diagnostic Inspection 7"</a> (Driver side door switch check)</p> <p>If the above system is "OK", replace the BCM.</p>
During door window automatic raising operation, it is lowered at any position other than above.	<ul style="list-style-type: none"> <li>● Door window sliding part malfunction. <ul style="list-style-type: none"> <li>– A foreign material adheres to window glass or glass run rubber.</li> <li>– Glass run rubber wear or deformation.</li> <li>– Sash is tilted too much, or not enough.</li> </ul> </li> </ul>

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# POWER WINDOW SYSTEM

E/S000JB

## Diagnostic Procedure 1

### DRIVER POWER WINDOW REGULATOR CIRCUIT CHECK

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

1. Turn ignition switch OFF.
2. Disconnect front power window regulator (driver side) connector and driver door control unit (LCU01) connector.
3. Check continuity between front power window regulator (driver side) harness connector D7 terminals 1(L/W), 2(L/R) and driver door control unit (LCU01) harness connector D8 terminals 11(L/W), 18(L/R).

**1 – 18 : Continuity should exist.**

**2 – 11 : Continuity should exist.**

4. Check continuity between front power window regulator (driver side) harness connector D7 terminals 1(L/W), 2(L/R) and body ground.

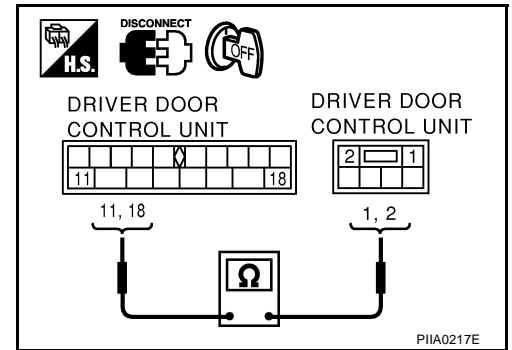
**1 – ground : Continuity should not exist.**

**2 – ground : Continuity should not exist.**

OK or NG?

OK >> GO TO 2

NG >> Repair or replace harness.



#### 2. CHECK DRIVER DOOR CONTROL UNIT (LCU01) OUTPUT SIGNAL

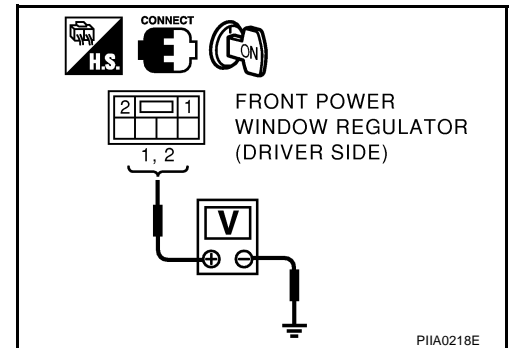
1. Connect driver door control unit (LCU01) connector.
2. Turn ignition switch ON.
3. Check voltage between front power window regulator (driver side) harness connector D7 terminals 1(L/W), 2(L/R) and body ground.

Terminals		Condition	Voltage	
(+)	(-)			
Connector	Terminal	Ground		
D7	1 (L/W)		Window is closing	0V
			Window is opening	Battery voltage should exist.
D7	2 (L/R)		Window is closing	0V
		Window is opening	Battery voltage should exist	

OK or NG?

OK >> Replace front power window regulator (driver side).

NG >> Replace driver door control unit (LCU01).



# POWER WINDOW SYSTEM

EIS000NX

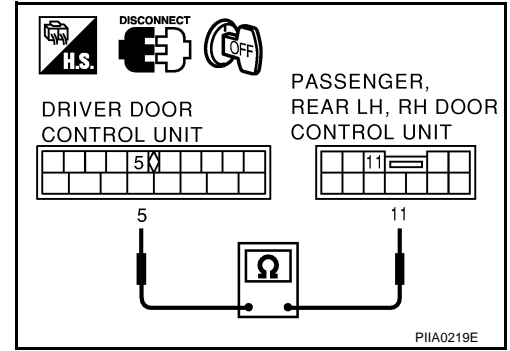
## Diagnostic Procedure 2

### COMMUNICATION SIGNAL CIRCUIT CHECK

#### 1. CHECK COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect connectors for driver door control unit (LCU01) and malfunctioning door control unit.
3. Check continuity between driver door control unit (LCU01) harness connector terminal 5 and malfunctioning door control unit harness connector terminal 11.

Passenger door control unit				
Terminals				Continuity
Driver door control unit (+)		Passenger door control unit (-)		
Connector	Terminal	Connector	Terminal	
D8	5 (G/OR)	D37	11 (G/OR)	Yes
Rear LH, RH door control unit				
Terminals				Continuity
Driver door control unit (+)		Rear LH or RH door control unit (-)		
Connector	Terminal	Connector	Terminal	
D8	5 (G/OR)	D58 (LH) D78 (RH)	11 (G/OR)	Yes



4. Check continuity between driver door control unit (LCU01) harness connector terminal 5 and body ground.

**5 – ground : Continuity should not exist.**

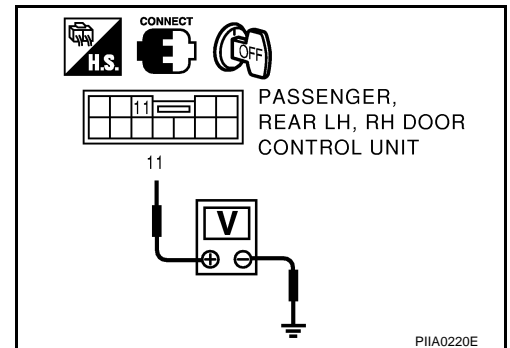
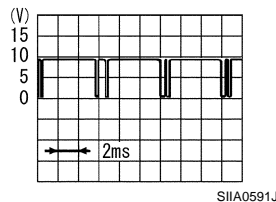
OK or NG?

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

#### 2. CHECK COMMUNICATION SIGNAL

- Connect driver door control unit (LCU01) and malfunctioning door control unit connector.
- Check voltage between malfunctioning door control unit harness connector terminal 11 and body ground.

Passenger door control unit				
Terminals			Voltage	
(+)		(-)		
Connector	Terminal	Ground		
D37	11 (G/OR)	Ground		
Rear LH, RH door control unit				
Terminals				
(+)		(-)		
Connector	Terminal	Ground		
D58 (LH) D78 (RH)	11 (G/OR)	Ground		



OK or NG?

- OK >> Communication signal is OK.
- NG >>
  - All door control unit (passenger, rear LH or RH) connected are NG. → Replace driver door control unit (LCU01).
  - Any of door control unit (passenger, rear LH or RH) connected are NG. → Replace malfunctioning door control unit.

# POWER WINDOW SYSTEM

EIS000JD

## Diagnostic Procedure 3

### FRONT POWER WINDOW REGULATOR CHECK (PASSENGER SIDE)

#### 1. CHECK FRONT POWER WINDOW REGULATOR (PASSENGER SIDE) CIRCUIT

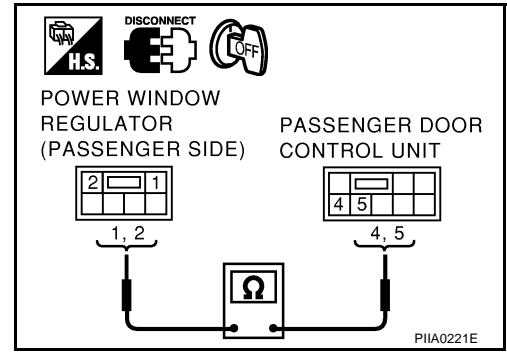
1. Turn ignition switch OFF.
2. Disconnect power window motor and door control unit connector.
3. Check continuity between door control unit harness connector D37 terminals 1(L/W), 2 (L/R) and power window regulator (passenger side) harness connector D39 terminals 4(L/W), 5(L/R).

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
D39	4 (L/W)	D37	1 (L/W)	Yes
D39	5 (L/R)	D37	2 (L/R)	Yes

#### OK or NG?

OK >> GO TO 2

NG >> Repair or replace harness between passenger power window motor and passenger door control unit.



#### 2. CHECK PASSENGER DOOR CONTROL UNIT OUTPUT SIGNAL

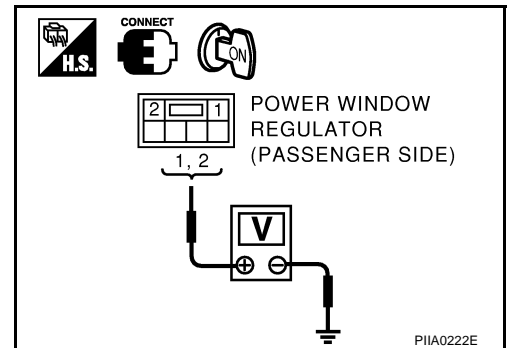
1. Connect passenger door control unit connector.
2. Turn ignition switch ON.
3. Check voltage between front power window regulator (passenger side) harness connector D37 terminals 1(L/W), 2(L/R) and body ground.

Terminals		Condition	Voltage	
(+)	(-)			
Connector	Terminal	Ground		
D37	1 (L/W)		Window is closing	0V
			Window is opening	Battery voltage should exist.
D37	2 (L/R)		Window is closing	0V
		Window is opening	Battery voltage should exist	

#### OK or NG?

OK >> Replace power window motor.

NG >> Replace door control unit.



# POWER WINDOW SYSTEM

EIS000ZV

## Diagnostic Procedure 4

### REAR POWER WINDOW REGULATOR LH OR RH CIRCUIT CHECK

#### 1. CHECK REAR POWER WINDOW REGULATOR LH OR RH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window regulator and rear door control LH or RH unit connector.
3. Check continuity between rear door control unit LH or RH harness connector D59(LH) or D79(RH) terminals 4(L/W), 5 (L/R) and rear power window regulator LH or RH harness connector D5(LH) or D77(RH) terminals 1(L/W), 3(L/R).

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
D59 (LH) D79 (RH)	4 (L/W)	D57 (LH) D77 (RH)	1 (L/W)	Yes
D59 (LH) D79 (RH)	5 (L/R)	D57 (LH) D77 (RH)	3 (L/R)	Yes

4. Check continuity between rear door control unit LH or RH harness connector D59(LH) or D79(RH) terminals 4(L/W), 5 (L/R) and body ground.

Terminals			Continuity
(+)		(-)	
Connector	Terminal		
D59 (LH) D79 (RH)	4 (L/W)	ground	Yes
D59 (LH) D79 (RH)	5 (L/R)		Yes

OK or NG?

OK >> GO TO 2

NG >> Repair or replace harness between rear power window regulator LH or RH and rear door control unit LH or RH.

#### 2. CHECK REAR DOOR CONTROL UNIT LH OR RH OUTPUT SIGNAL

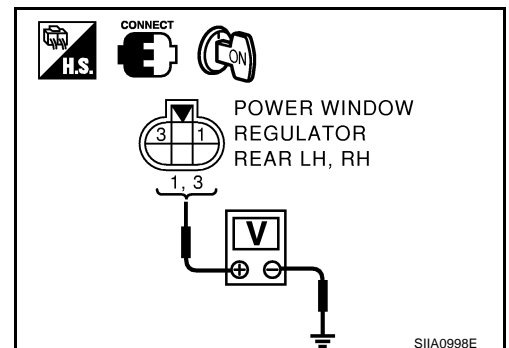
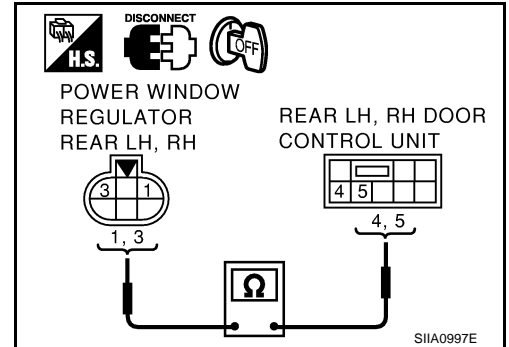
1. Connect rear door control unit LH or RH connector.
2. Turn ignition switch ON.
3. Check voltage between rear power window regulator LH or RH harness connector D57(LH), D77(RH) terminals 1(L/W), 3(L/R) and body ground.

Terminals			Condition	Voltage
(+)		(-)		
Connector	Terminal			
D57 (LH) D77 (RH)	1 (L/W)	Ground	Window is closing	0V
			Window is opening	Battery voltage should exist.
D57 (LH) D77 (RH)	3 (L/R)		Window is closing	0V
			Window is opening	Battery voltage should exist

OK or NG?

OK >> Replace rear power window regulator LH or RH.

NG >> Replace rear door control unit LH or RH.



# POWER WINDOW SYSTEM

E/S000JE

## Diagnostic Procedure 5 LIMIT SWITCH CIRCUIT CHECK – DRIVER SIDE

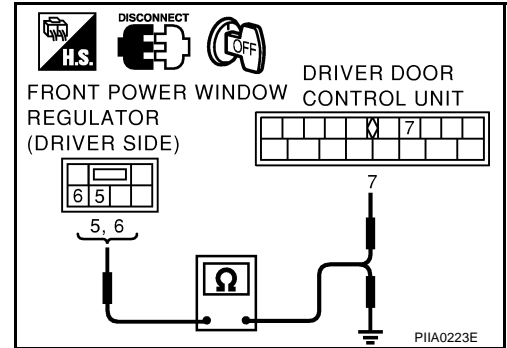
### 1. FRONT POWER WINDOW REGULATOR (DRIVER SIDE) CIRCUIT CHECK

1. Turn the ignition switch OFF.
2. Disconnect front power window regulator (driver side) and driver door control unit (door LCU01) connector.
3. Check continuity between power window regulator (driver side) harness connector D7 terminal 5(PU) and driver door control unit (door LCU01) harness connector D8 terminal 7(PU).
4. Check continuity between power window regulator (driver side) harness connector D7 terminal 5(PU), 6(B) and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
D7	5 (PU)	D8	7(PU)	Yes
D7	5 (PU)	Ground		No
D7	6 (B)	Ground		Yes

OK or NG?

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



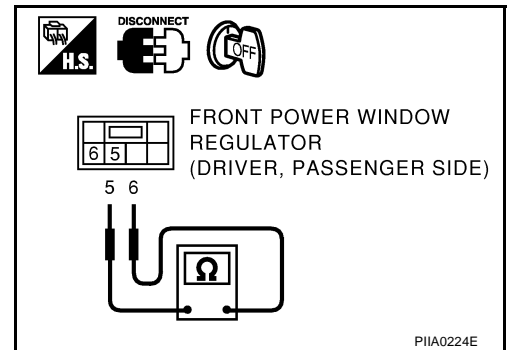
### 2. CHECK POWER WINDOW MOTOR (LIMIT SWITCH)

1. Connect front power window regulator (driver side) and driver door control unit (LCU01) connector.
2. Turn the ignition switch ON.
3. Check continuity between front power window regulator (driver side) harness connector D7 terminal 5(PU) and 6(B).

Terminals				Continuity
(+)		(-)	Condition	
Connector	Terminal	Terminal		
D7	5 (PU)	6(B)	Window close	No
			Window open	Yes

OK or NG?

- OK >> Limit switch (driver side) is OK.  
NG >> Replace front power window regulator (driver side).



# POWER WINDOW SYSTEM

## LIMIT SWITCH CIRCUIT CHECK – PASSENGER SIDE

### 1. CHECK POWER WINDOW MOTOR CIRCUIT

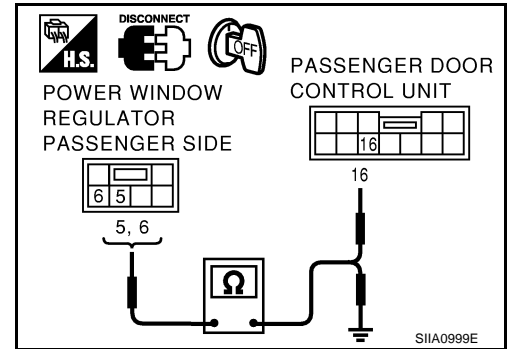
1. Turn the ignition switch OFF.
2. Disconnect front power window regulator (passenger side) and passenger door control unit connector.
3. Check continuity between front power window regulator (passenger side) harness connector D37 terminal 5(PU) and passenger door control unit harness connector D38 terminal 16(PU).
4. Check continuity between front power window regulator (passenger side) harness connector D37 terminal 5(PU), 6(B) and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
D37	5 (PU)	D38	16(PU)	Yes
D37	5 (PU)	Ground		No
D37	6 (B)	Ground		Yes

OK or NG?

OK >> GO TO 2

NG >> Repair or replace harness.



### 2. CHECK POWER WINDOW MOTOR (LIMIT SWITCH)

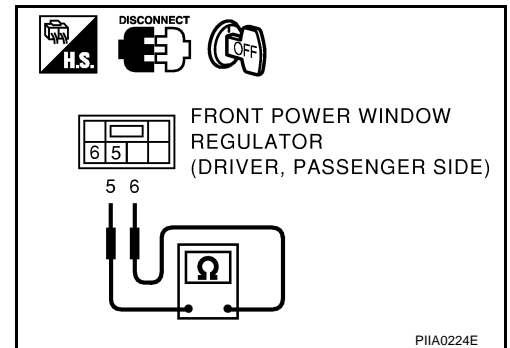
1. Connect front power window regulator (passenger side) and passenger door control unit connector.
2. Turn the ignition switch ON.
3. Check continuity between front power window regulator (passenger side) harness connector D37 terminals 6(B).

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Terminal	Condition	
D37	5 (PU)	6(B)	Window close	No
			Window open	Yes

OK or NG?

OK >> Limit switch (passenger side) is OK.

NG >> Replace front power window regulator (passenger side).



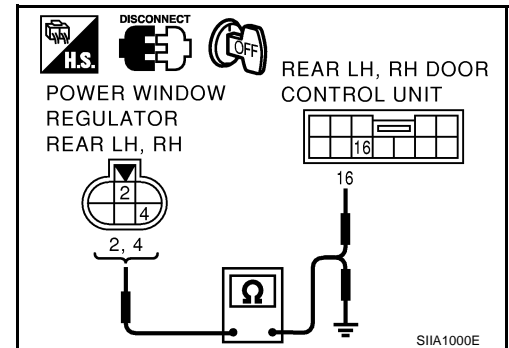
# POWER WINDOW SYSTEM

## LIMIT SWITCH CIRCUIT CHECK – REAR LH OR RH

### 1. CHECK REAR POWER WINDOW REGULATOR CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect rear power window regulator LH or RH and rear door control unit LH or RH connector.
3. Check continuity between rear power window regulator LH or RH harness connector D57(LH), D77(RH) terminal 2(OR) and rear door control unit LH or RH harness connector D58(LH),D78(RH) terminal 16(OR).
4. Check continuity between rear power window regulator harness connector D57(LH), D77(RH) terminal 2(OR), 4(B) and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
D57(LH) D77(RH)	2 (OR)	D58(LH) D78(RH)	16(OR)	Yes
D57(LH) D77(RH)	2 (OR)	Ground		No
D57(LH) D77(RH)	4 (B)	Ground		Yes



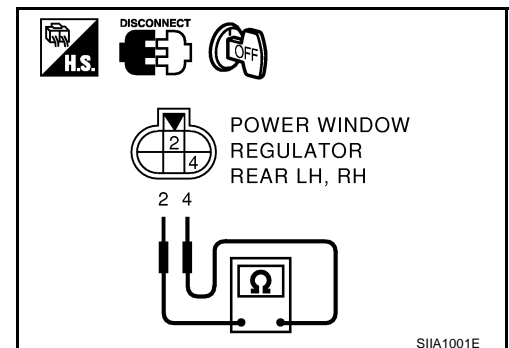
OK or NG?

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

### 2. CHECK POWER WINDOW REGULATOR (LIMIT SWITCH)

1. Connect rear power window regulator and rear door control unit LH or RH connector.
2. Turn the ignition switch ON.
3. Check continuity between rear power window regulator harness connector D57(LH) D77(RH) terminal 2(OR) and 4(B).

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Terminal	Condition	
D57(LH) D77(RH)	2 (OR)	4(B)	Window close	No
			Window open	Yes



OK or NG?

- OK >> Limit switch rear LH or RH is OK.  
 NG >> Replace rear power window regulator LH or RH.



# POWER WINDOW SYSTEM

## Diagnostic Inspection 6

EIS000JF

### FRONT DOOR SWITCH (DRIVER SIDE) CIRCUIT CHECK

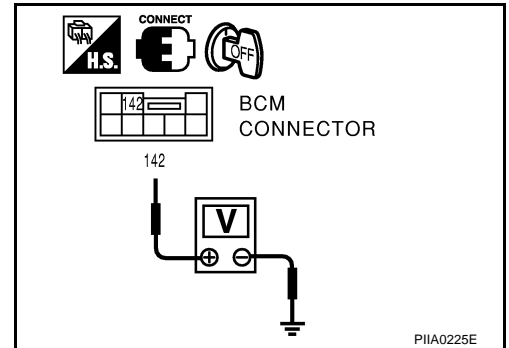
#### 1. CHECK FRONT DOOR SWITCH (DRIVER SIDE) SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between BCM harness connector B4 terminal 142 (W/R) and body ground.

Terminals		Condition	Voltage
(+)	(-)		
Connector	Terminal	Ground	
B4	142 (W/R)		Door close
		Door open	0V

OK or NG?

- OK >> Front door switch (driver side) is OK.  
 NG >> GO TO 2



#### 2. CHECK DRIVER DOOR SWITCH CIRCUIT

1. Disconnect BCM and front door switch (driver side) connector.
2. Check continuity between BCM harness connector B4 terminal 142(W/R) and front door switch (driver side) harness connector B20 terminal 1(W/R).

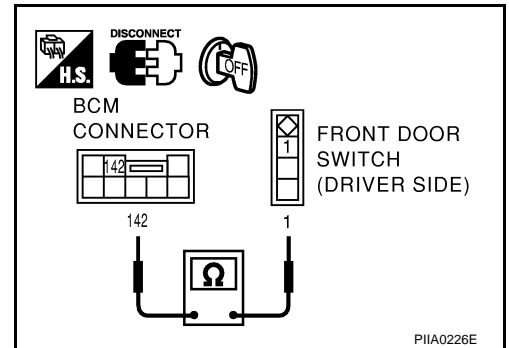
**142(W/R) – 1(W/R) : Continuity should exist.**

3. Check continuity between BCM harness connector B4 terminal 142(W/R) and body ground.

**142(W/R) – ground : Continuity should not exist.**

OK or NG?

- OK >> Replace front door switch (driver side).  
 NG >> Repair or replace harness.



# POWER WINDOW SYSTEM

EIS000JG

## Diagnostic Inspection 7 ENCODER CIRCUIT CHECK – DRIVER SIDE

### 1. CHECK FRONT POWER WINDOW REGULATOR (DRIVER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window regulator (driver side) and driver door control unit (LCU01) connector.
3. Check continuity between front power window regulator (driver side) harness connector D7 terminal 6(B) and body ground.

**6(B) – ground : Continuity should exist.**

4. Check continuity between front power window regulator (driver side) harness connector D7 terminals 3(G), 4(W) and driver door control unit (LCU01) harness connector D8 terminals 1(G), 4(W).

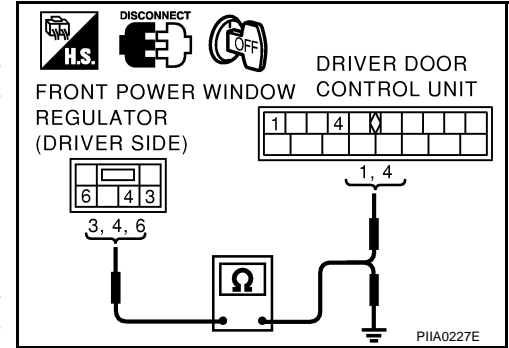
**3(G) – 1(G) : Continuity should exist.**

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

5. Check continuity between front power window regulator (driver side) harness connector D7 terminals 3(G), 4(W) and body ground.

**3(G) – ground : Continuity should not exist.**

**4(W) – ground : Continuity should not exist.**



OK or NG?

OK >> GO TO 2

NG >> Repair or replace harness.

### 2. CHECK DRIVER DOOR CONTROL UNIT (DOOR LCU01) OUTPUT SIGNAL

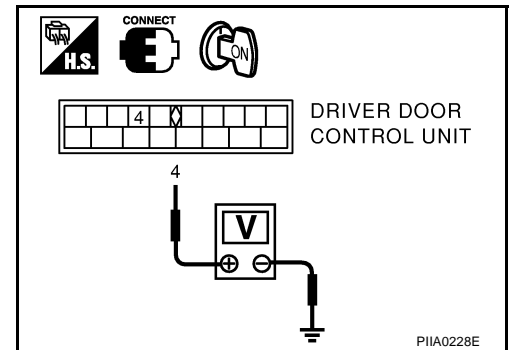
1. Connect driver door control unit (LCU01) and front power window regulator (driver side) connector.
2. Turn the ignition switch ON.
3. Check voltage between driver door control unit (LCU01) harness connector D8 terminal 4(W) and body ground.

**4 (W) – ground : Approx. 10V**

OK or NG?

OK >> GO TO 3

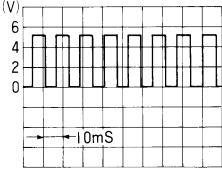
NG >> Replace driver door control unit (LCU01).



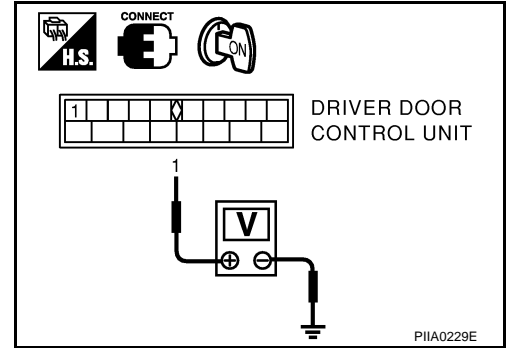
# POWER WINDOW SYSTEM

## 3. CHECK ENCODER SIGNAL

Check voltage between driver door control unit (LCU01) harness connector D8 terminal 1(G) and body ground.

Terminals		Condition	Voltage
(+)	(-)		
Connector	Terminal		
D8	1 (G)	Ground	
		opening	

OCC3383D



OK or NG?

- OK >> Front power window regulator (driver side) "encoder" is OK.
- NG >> Replace front power window regulator (driver side).

## ENCODER CIRCUIT CHECK – PASSENGER SIDE

### 1. CHECK FRONT POWER WINDOW REGULATOR (PASSENGER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window regulator (passenger side) and passenger door control unit connector.
3. Check continuity between front power window regulator (passenger side) harness connector D37 terminal 6(B) and body ground.

**6(B) – ground : Continuity should exist.**

4. Check continuity between front power window regulator (passenger side) harness connector D37 terminals 3(G), 4(W) and passenger door control unit harness connector D38 terminals 15(W), 19(G).

**3(G) – 19(G) : Continuity should exist.**

**4(W) – 15(W) : Continuity should exist.**

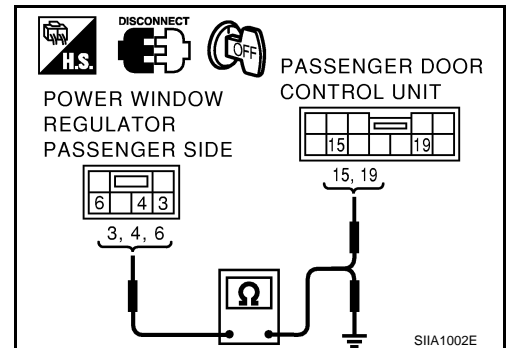
5. Check continuity between front power window regulator (passenger side) harness connector D37 terminals 3(G), 4(W) and body ground.

**3(G) – ground : Continuity should not exist.**

**4(W) – ground : Continuity should not exist.**

OK or NG?

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



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# POWER WINDOW SYSTEM

## 2. CHECK DOOR CONTROL UNIT OUTPUT SIGNAL

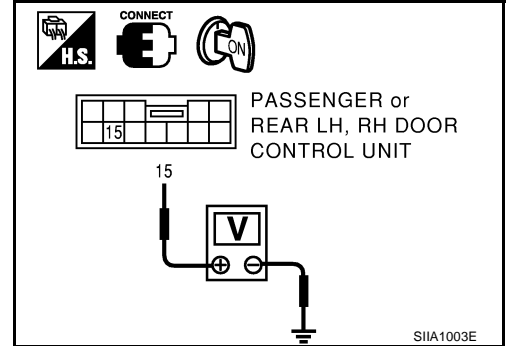
1. Connect passenger door control unit and front power window regulator (passenger side) connector.
2. Turn the ignition switch ON.
3. Check voltage between passenger door control unit harness connector D38 terminal 15(W) and body ground.

**15 (W) – body ground. : Approx. 10V**

OK or NG?

OK >> GO TO 3

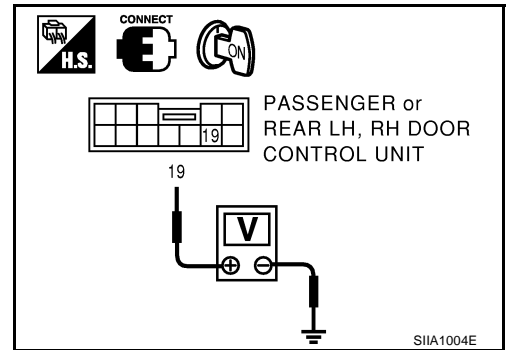
NG >> Replace passenger door control unit.



## 3. CHECK ENCODER SIGNAL

Check voltage between passenger door control unit harness connector D38 terminal 19(G) and body ground.

Terminals		Condition	Voltage
(+)	(-)		
Connector	Terminal		
D38	19 (G)	Ground	opening



OK or NG?

OK >> Front power window regulator (passenger side) "encoder" is OK.

NG >> Replace front power window regulator (passenger side).

# POWER WINDOW SYSTEM

## ENCODER CIRCUIT CHECK – REAR LH OR RH

### 1. CHECK REAR POWER WINDOW REGULATOR LH OR RH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window regulator LH or RH and rear door control unit LH or RH connector.
3. Check continuity between rear power window regulator LH or RH harness connector D57(LH), D77(RH) terminal 4(B) and body ground.

**4(B) – ground : Continuity should exist.**

4. Check continuity between rear power window regulator LH or RH harness connector D57(LH), D77(RH) terminal 5(G), 6(W) and rear door control unit LH or RH harness connector D58(LH), D78(RH) terminal 15(W), 19(G).

**5(G) – 19(G) : Continuity should exist.**

**6(W) – 15(W) : Continuity should exist.**

5. Check continuity between rear power window regulator LH or RH harness connector D57(LH), D77(RH) terminal 5(G), 6(W) and body ground.

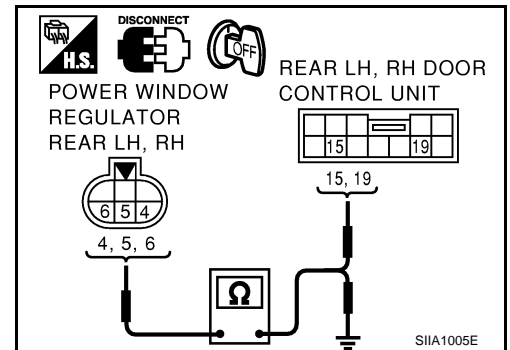
**5(G) – ground : Continuity should not exist.**

**6(W) – ground : Continuity should not exist.**

OK or NG?

OK >> GO TO 2

NG >> Repair or replace harness.



### 2. CHECK REAR DOOR CONTROL UNIT LH OR RH OUTPUT SIGNAL

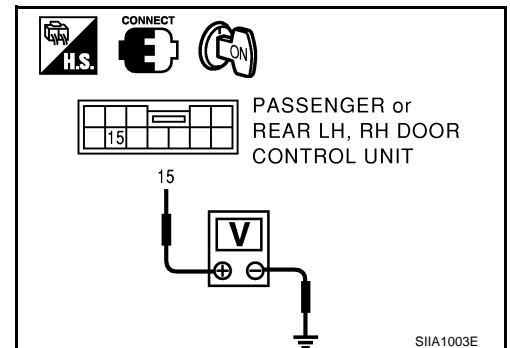
1. Connect rear door control unit LH or RH and rear power window regulator LH or RH connector.
2. Turn ignition switch ON.
3. Check voltage between rear door control unit LH or RH harness connector D58(LH), D78(RH) terminal 15(W) and body ground.

**15 (W) – ground. : Approx. 10V**

OK or NG?

OK >> GO TO 3

NG >> Replace rear door control unit LH or RH.

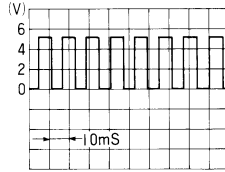


# POWER WINDOW SYSTEM

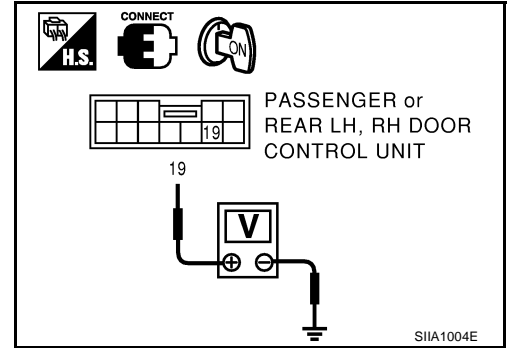
## 3. CHECK ENCODER SIGNAL

Check voltage between rear door control unit LH or RH harness connector D58(LH), D78(RH) terminal 19(G) and body ground.

Terminals		Condition	Voltage
(+)	(-)		
Connector	Terminal		
D58(LH) D78(RH)	19 (G)	Ground	opening



OCC3383D



SIA1004E

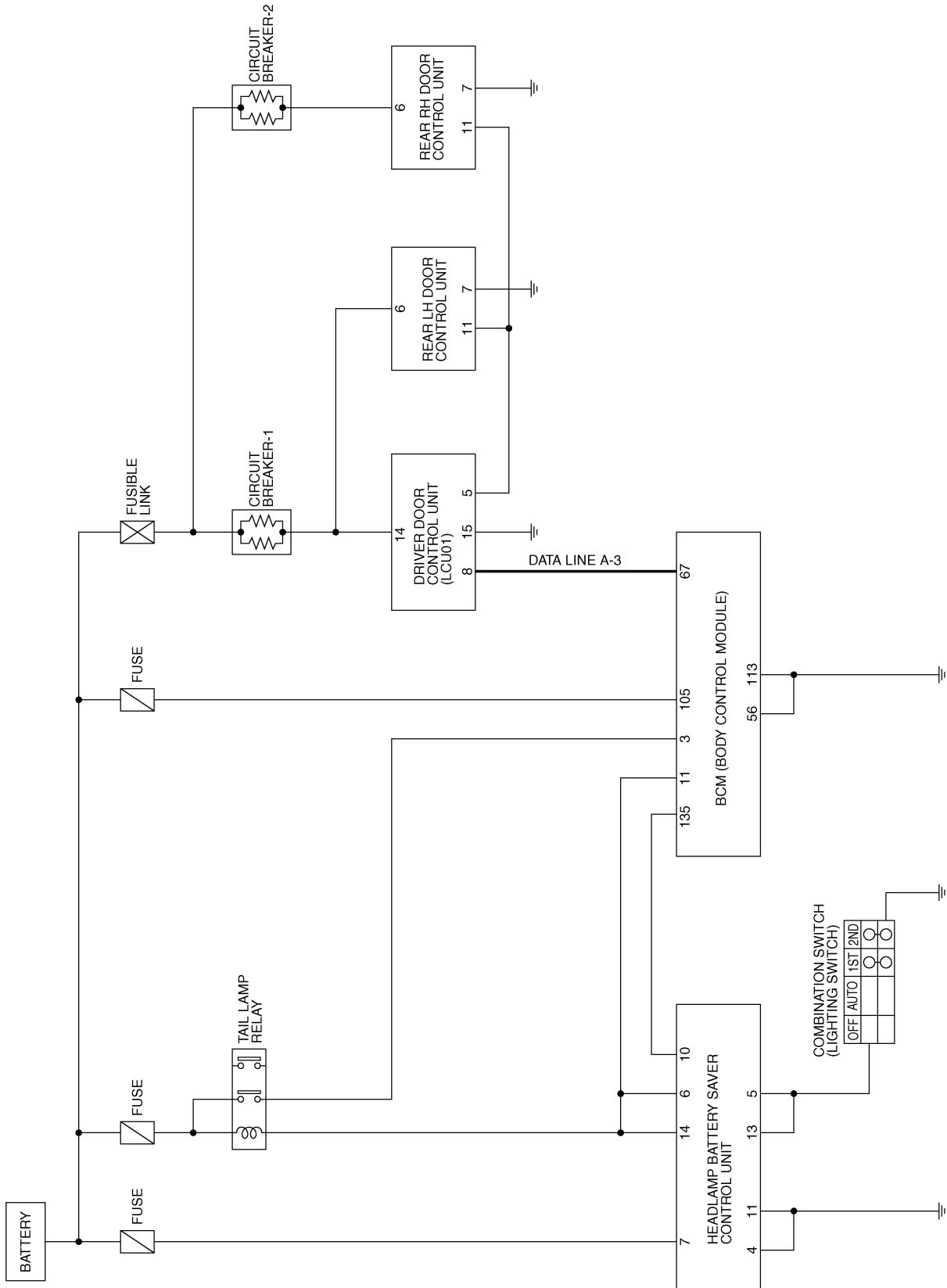
### OK or NG?

- OK >> Rear power window regulator LH or RH (encoder) is OK.
- NG >> Replace rear power window regulator LH or RH.

# POWER WINDOW SYSTEM

## Rear Power Window Switch Illumination SCHEMATIC — SW/ILL —

EIS0012P



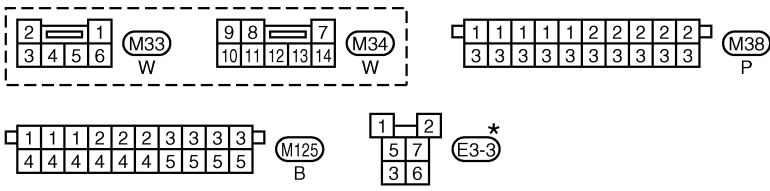
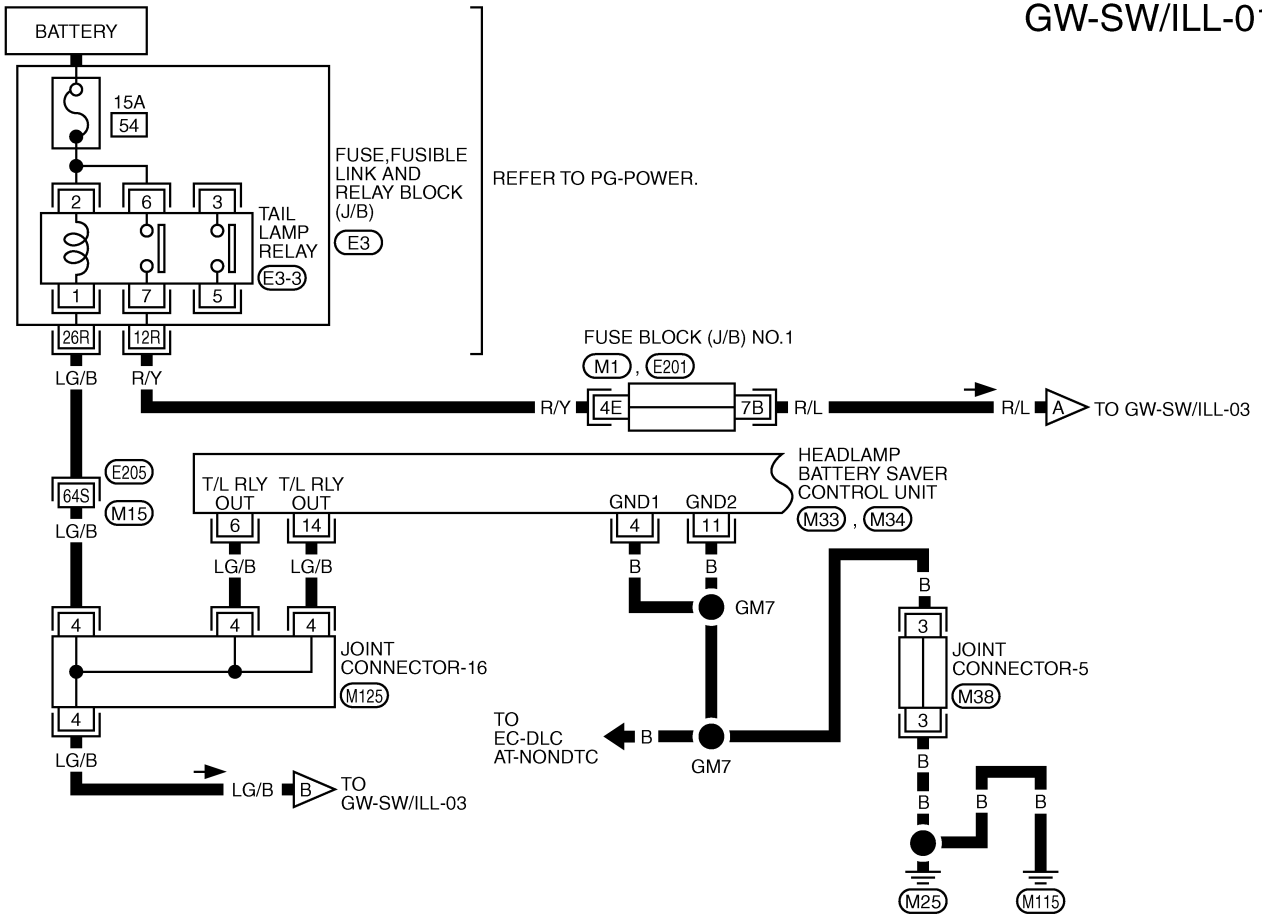
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TIWM0048E

# POWER WINDOW SYSTEM

## WIRING DIAGRAM — SW/ILL —

GW-SW/ILL-01



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

REFER TO THE FOLLOWING.

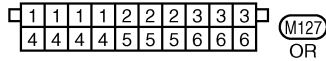
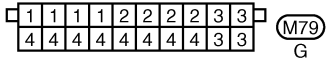
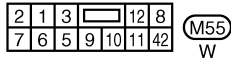
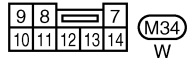
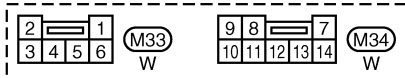
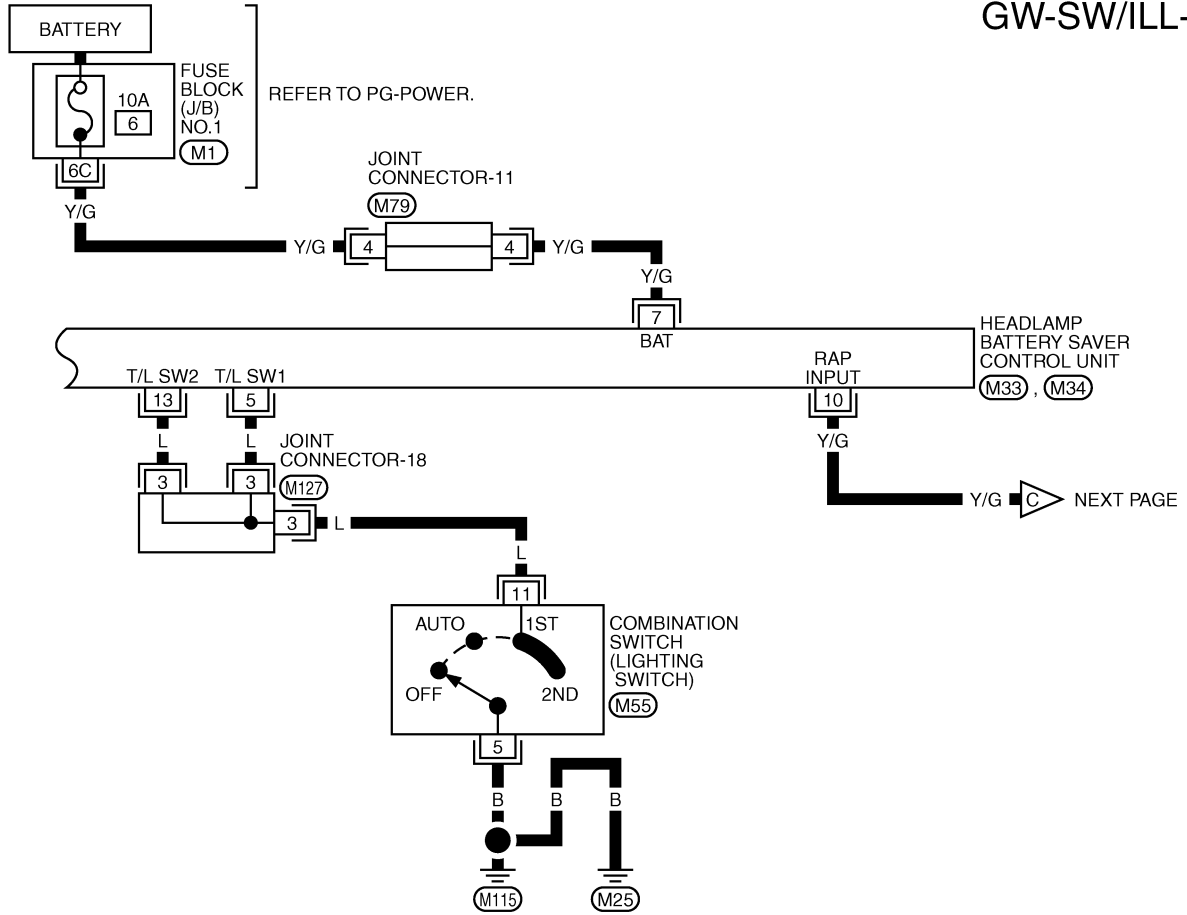
- (E205) -SUPER MULTIPLE JUNCTION (SMJ)
- (M1), (E201) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1
- (E3) -FUSE,FUSIBLE LINK AND RELAY BLOCK (J/B)

TIWM0049E



# POWER WINDOW SYSTEM

GW-SW/ILL-02



REFER TO THE FOLLOWING.

(M1) - FUSE BLOCK-JUNCTION BOX (J/B) NO.1

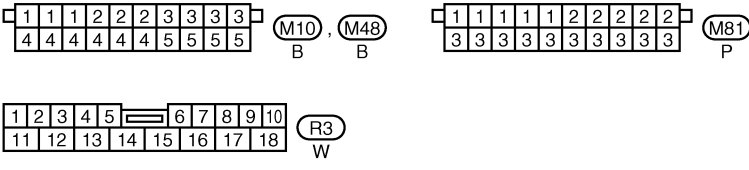
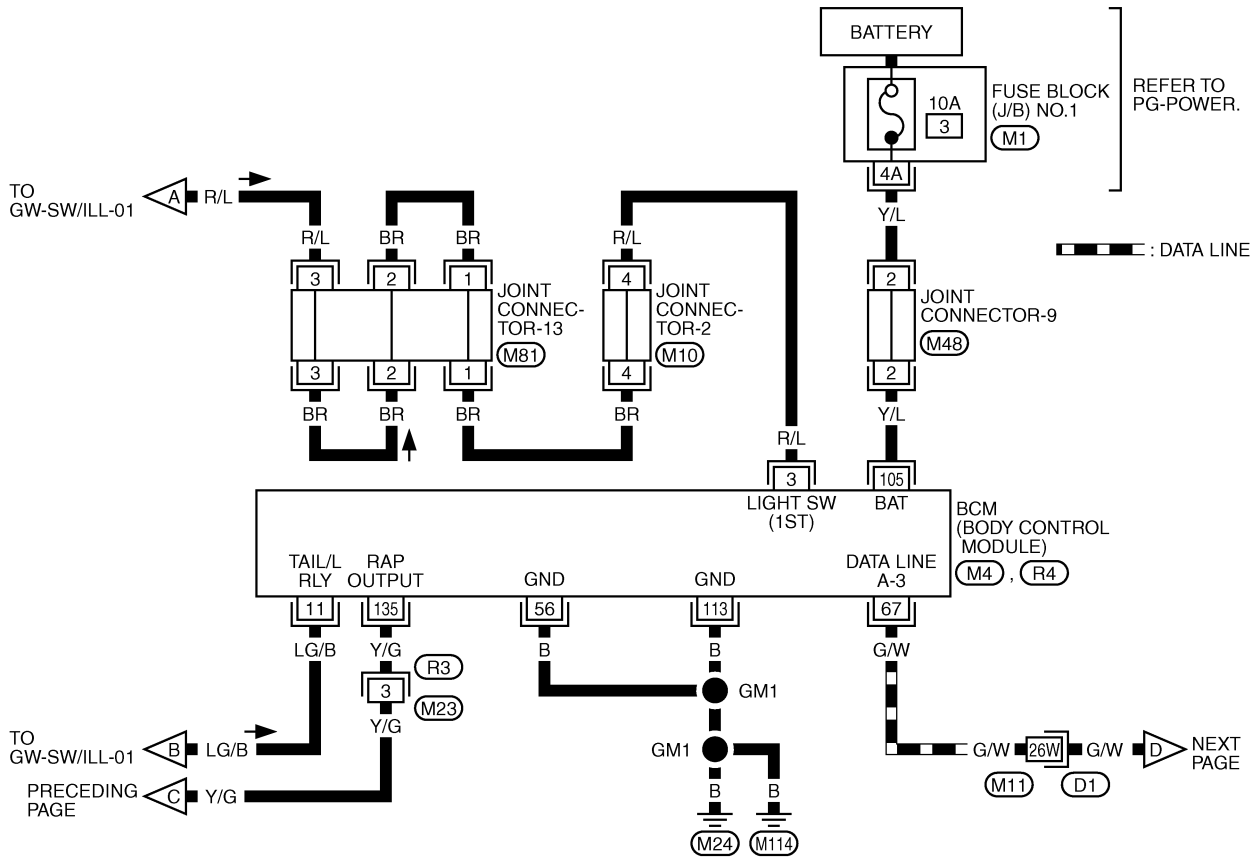
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# POWER WINDOW SYSTEM

GW-SW/ILL-03



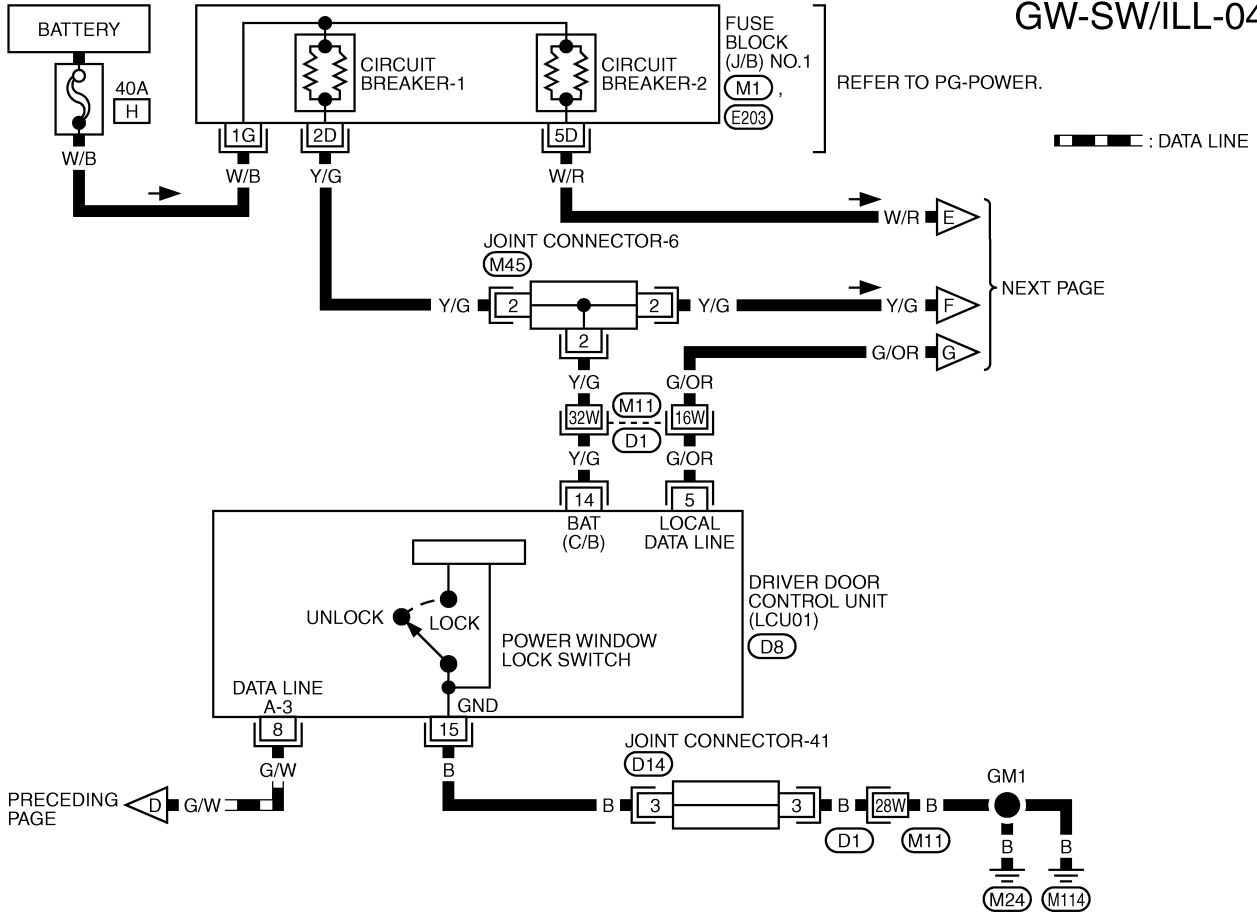
REFER TO THE FOLLOWING.

- (D1) -SUPER MULTIPLE JUNCTION (SMJ)
- (M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1
- (M4), (R4) -ELECTRICAL UNITS

TIWM0051E

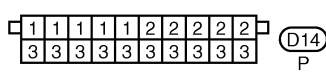
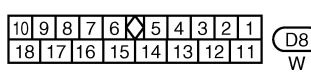
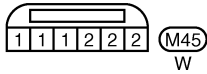
# POWER WINDOW SYSTEM

GW-SW/ILL-04



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REFER TO THE FOLLOWING.

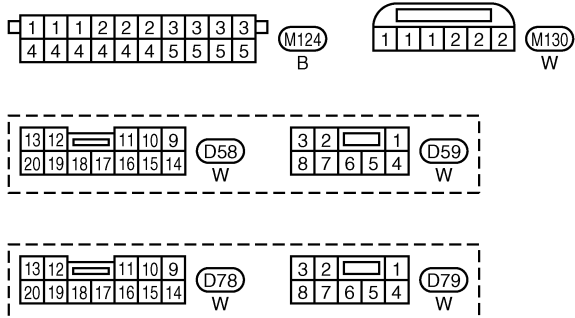
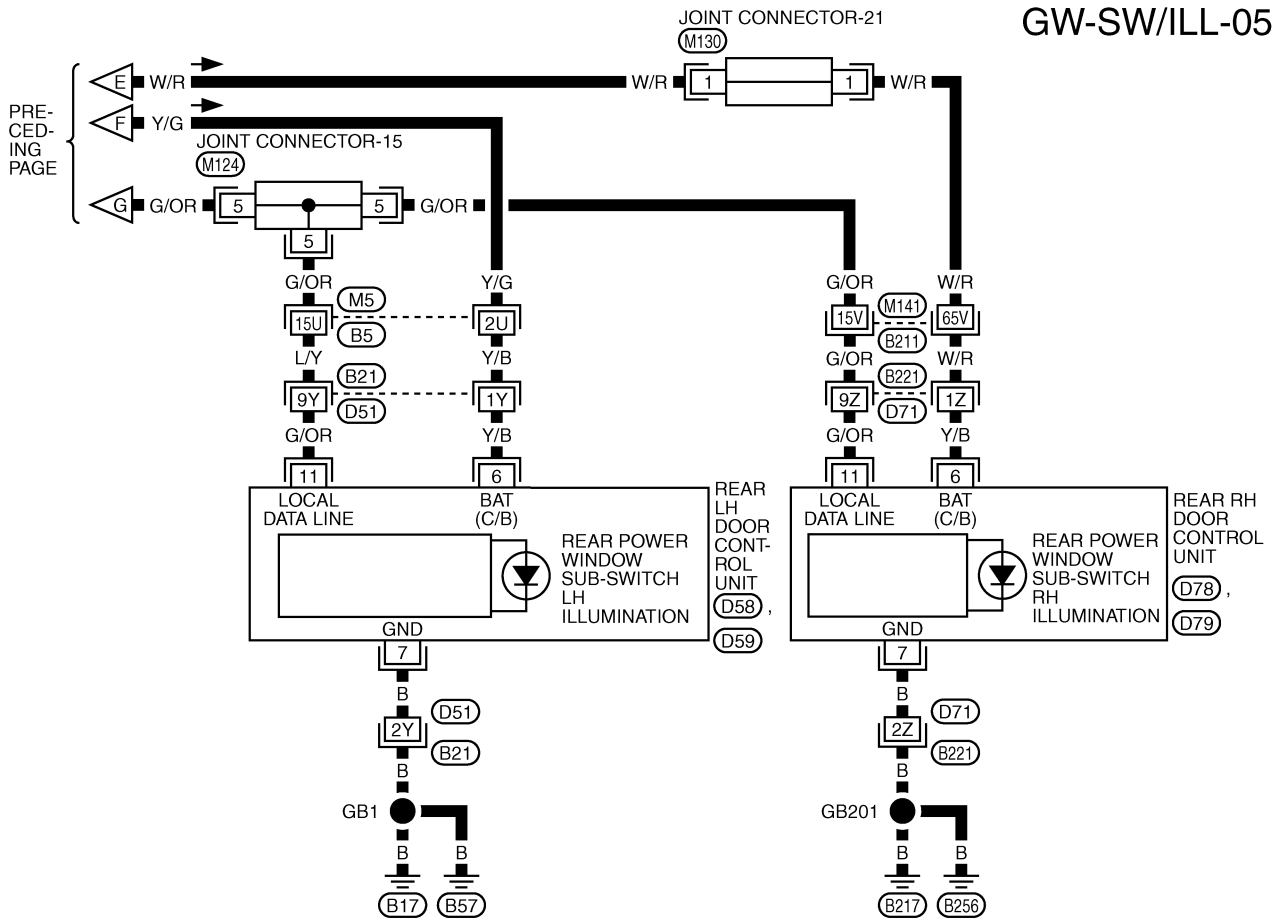
(D1) -SUPER MULTIPLE JUNCTION (SMJ)

(M1), (E203) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

TIWM0052E

# POWER WINDOW SYSTEM

GW-SW/ILL-05



REFER TO THE FOLLOWING.  
 (M5), (B21), (B211), (B221)  
 -SUPER MULTIPLE JUNCTION (SMJ)

TIWM0090E

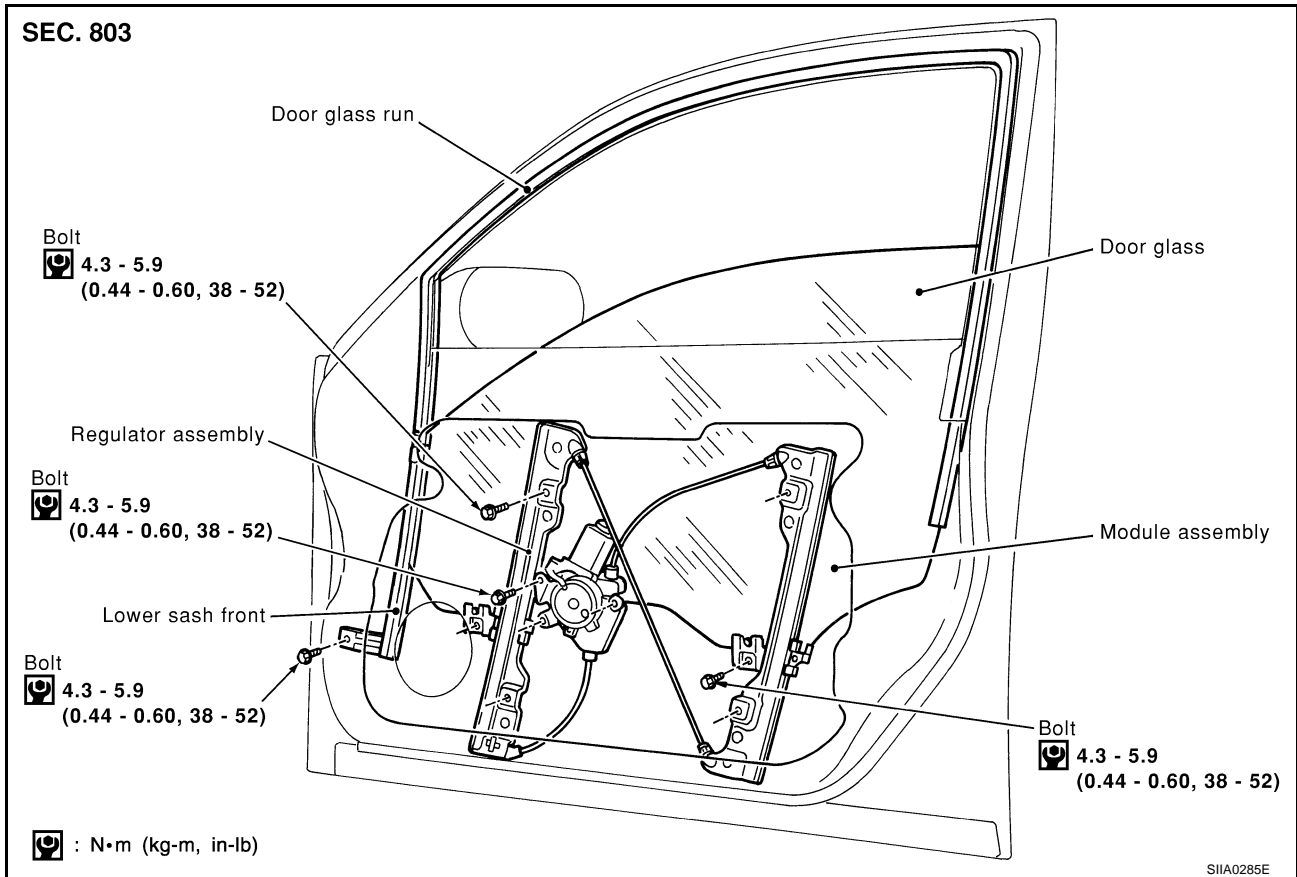
# FRONT DOOR GLASS AND REGULATOR

## FRONT DOOR GLASS AND REGULATOR

PPF:80300

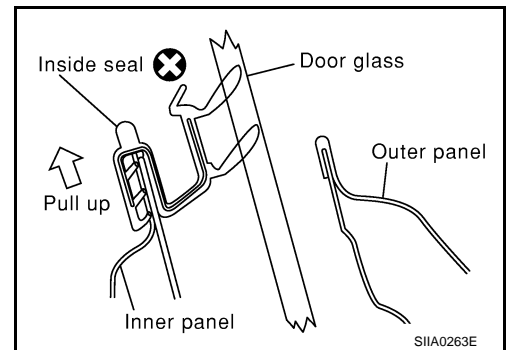
### Removal and Installation

EIS000JH

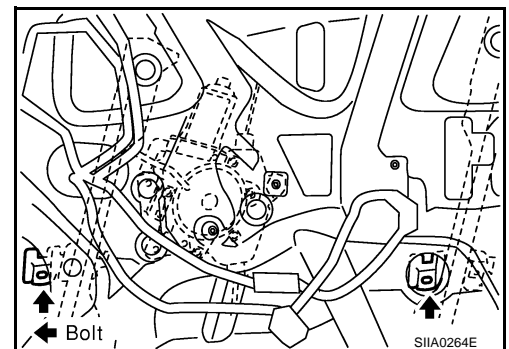


### REMOVAL

1. Remove the front door finisher. Refer to [EI-31, "Removal and Installation"](#).
2. Remove the door speaker. Refer to [AV-28, "Removal and Installation of Door Speaker"](#).
3. Pull the inside seal out of the inner panel.



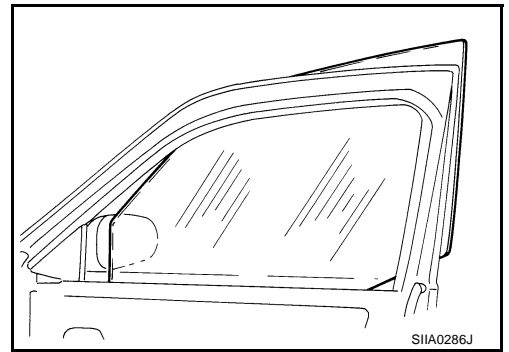
4. Operate the power window main switch to raise/lower the door window until the glass mounting bolts can be seen.
5. Remove the glass mounting bolts.



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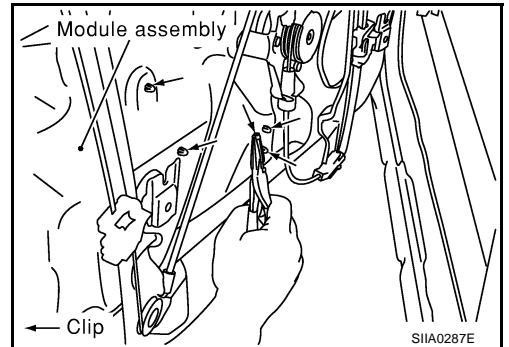
# FRONT DOOR GLASS AND REGULATOR

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



7. Remove the mounting bolts, and remove the module assembly.
8. Disconnect the harness connector for the module assembly, and clip the harness from the back.

Install in the reverse order of removal.

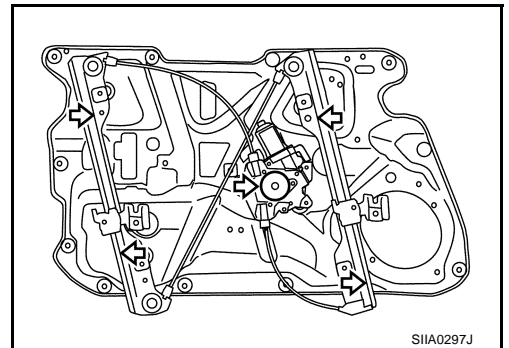


## INSPECTION AFTER REMOVAL

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

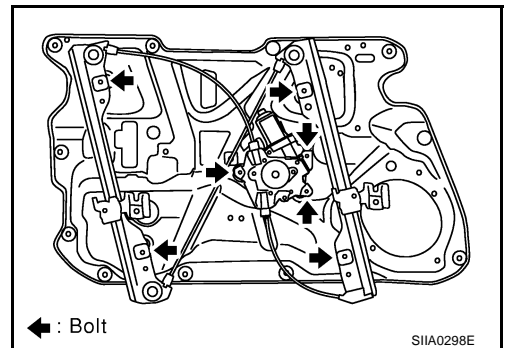
- Wire wear
- Regulator deformation
- Grease condition for each sliding part

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



## DISASSEMBLY AND ASSEMBLY

Remove the regulator motor and guide rail from the module assembly.



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

# FRONT DOOR GLASS AND REGULATOR

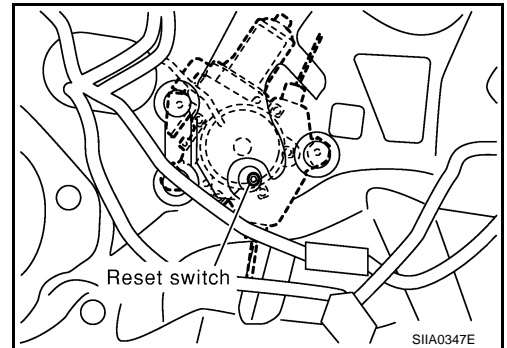
## Resetting

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

1. Raise the glass to the top dead center.
2. While pressing and holding the reset switch, lower the glass to the bottom dead center.
3. Release the reset switch, and check that the reset switch returns to the original position, and then raise the glass to the top dead center.

### **CAUTION:**

**Do not operate the glass automatically to raise the glass to the top dead center.**



## FITTING INSPECTION

- Check that the glass is securely fit into the glass run groove.
- Lower the glass slightly [approx. 10 to 20 mm (0.39 to 0.79 in)] and check that the clearance to the sash is parallel. If the clearance between the glass and sash is not parallel, loosen the regulator mounting bolts, guide rail mounting bolts, and glass & guide rail mounting bolts to correct the glass position.

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GW

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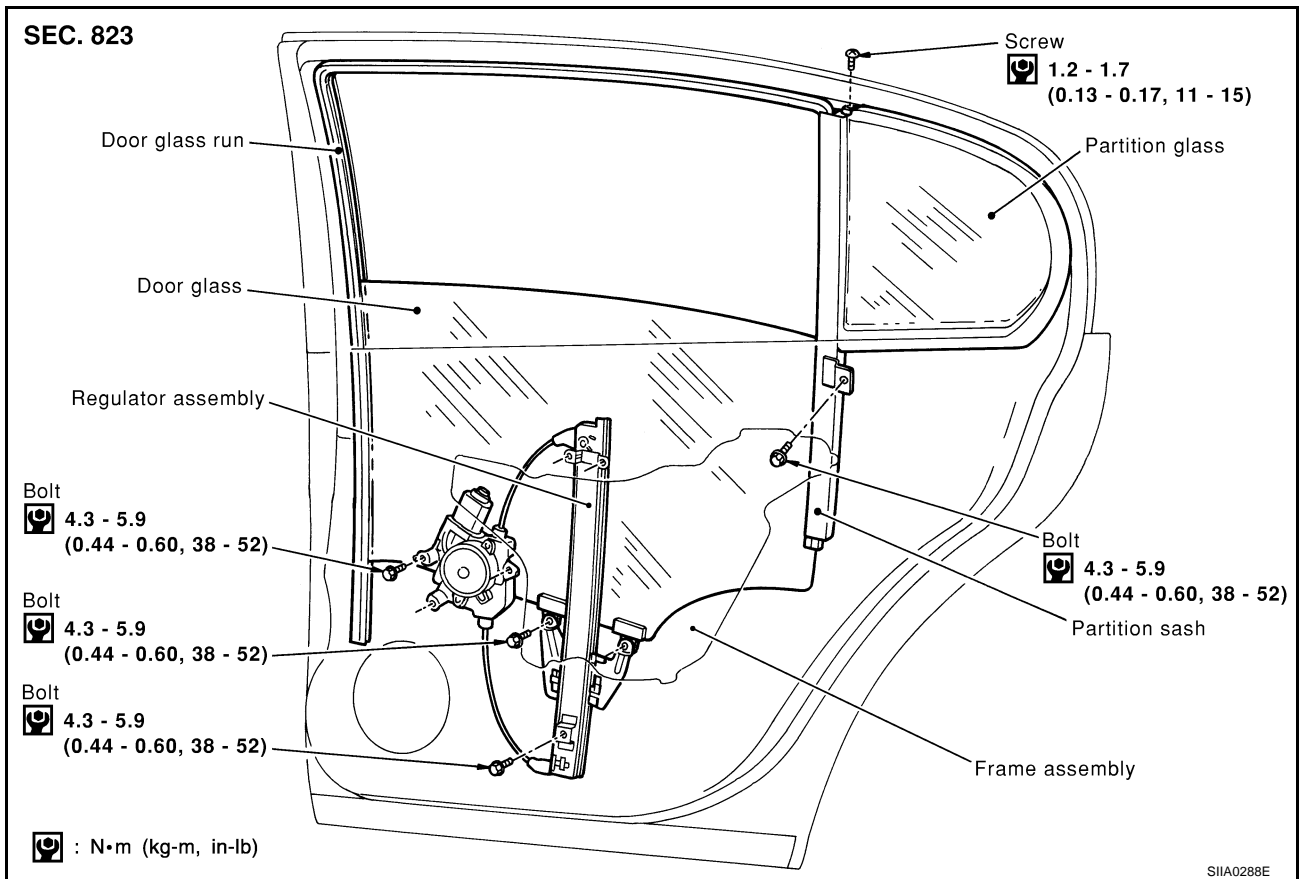
# REAR DOOR GLASS AND REGULATOR

## REAR DOOR GLASS AND REGULATOR

PFP:82300

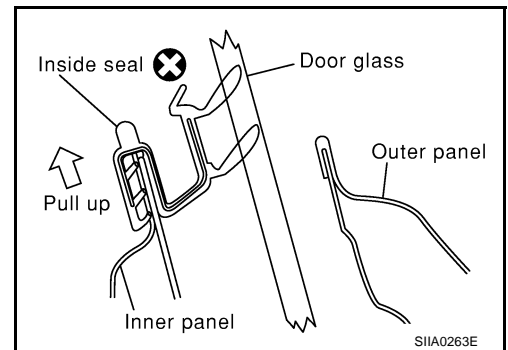
### Removal and Installation

EIS000JI

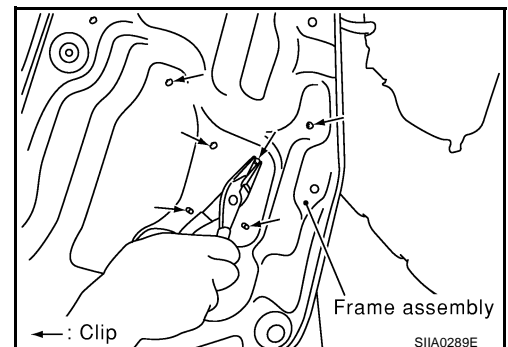


### REMOVAL

1. Remove the rear door outside molding. Refer to [EI-28, "Removal and Installation"](#).
2. Remove the rear door finisher. Refer to [EI-31, "Removal and Installation"](#).
3. Pull the inside seal out of the inner panel.



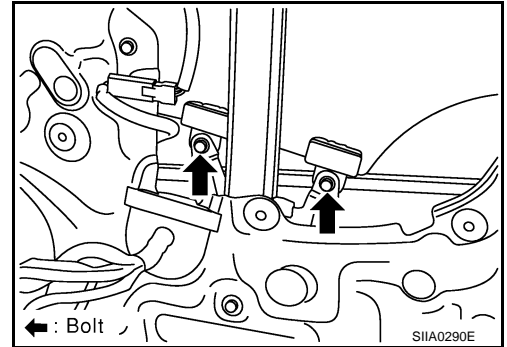
4. Remove the mounting bolts, and remove the frame assembly.
5. Remove the harness connector routed on the frame assembly, then remove the harness clip from the back.



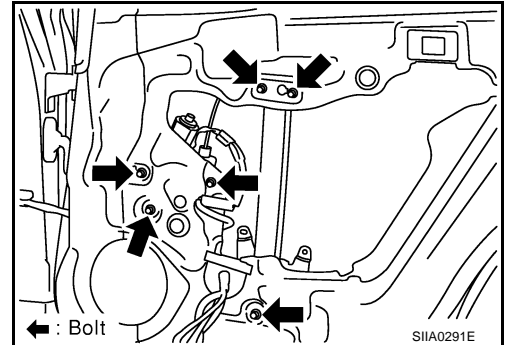


## REAR DOOR GLASS AND REGULATOR

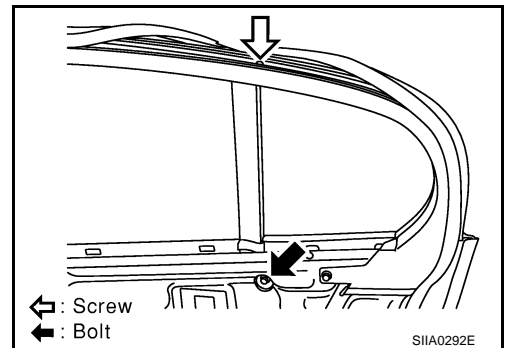
- Operate the power window switch to raise/lower the door window until the glass mounting bolts can be seen.
- Remove the glass mounting bolts, and place the glass on the inner bottom of the panel.



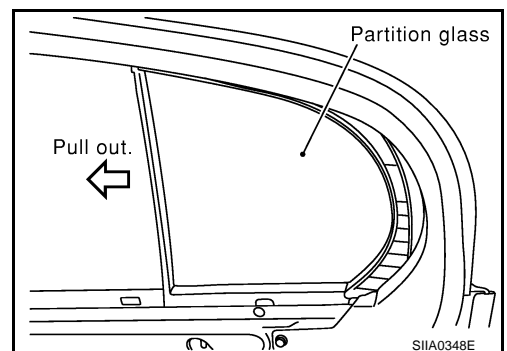
- Remove the mounting bolts, and remove the regulator and guide channel from the panel.
- Disconnect the connector for the regulator assembly.



- Remove the partition sash from the glass run.
- Remove the partition sash mounting bolt (lower) and screw (upper) to remove the sash.
- Remove the glass from the inside of the panel.



- Remove the partition glass from the panel.  
Install in the reverse order of removal.



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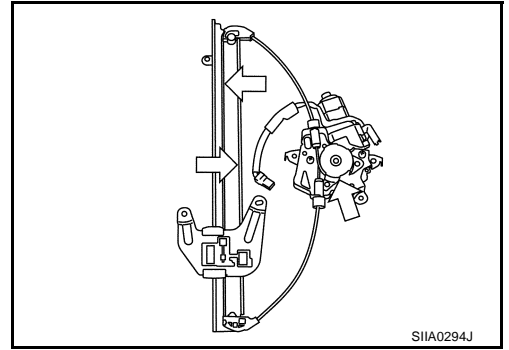
# REAR DOOR GLASS AND REGULATOR

## INSPECTION AFTER REMOVAL

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

- Gear wear
- Regulator deformation
- Spring damage
- Grease condition for each sliding part

The arrows in the figure show the application points of the grease "Dow Corning Moly Coat SK 623".



## SETTING AFTER INSTALLATION

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

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

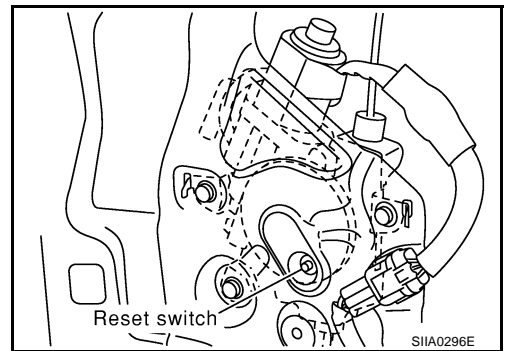
### Setting Of Limit Switch

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

#### **CAUTION:**

**Do not assembly the frame assembly.**

1. Raise the glass to the top dead center.
2. While pressing and holding the reset switch, lower the glass to the bottom dead center.
3. Release the reset switch, and check that the reset switch returns to the original position, and then raise the glass to the top dead center.



#### **CAUTION:**

**Do not operate the glass automatically to raise the glass to the top dead center.**

## FITTING INSPECTION

- Check that the glass is securely fit into the glass run groove.
- Lower the glass slightly [approx. 10 to 20 mm (0.39 to 0.79 in)], and check that the clearance to the sash is parallel. If the clearance between the glass and sash is not parallel, loosen the regulator mounting bolts, guide rail mounting bolts, and glass & carrier plate mounting bolts to correct the glass position.

# INSIDE MIRROR

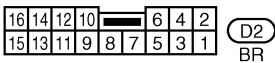
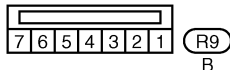
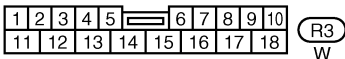
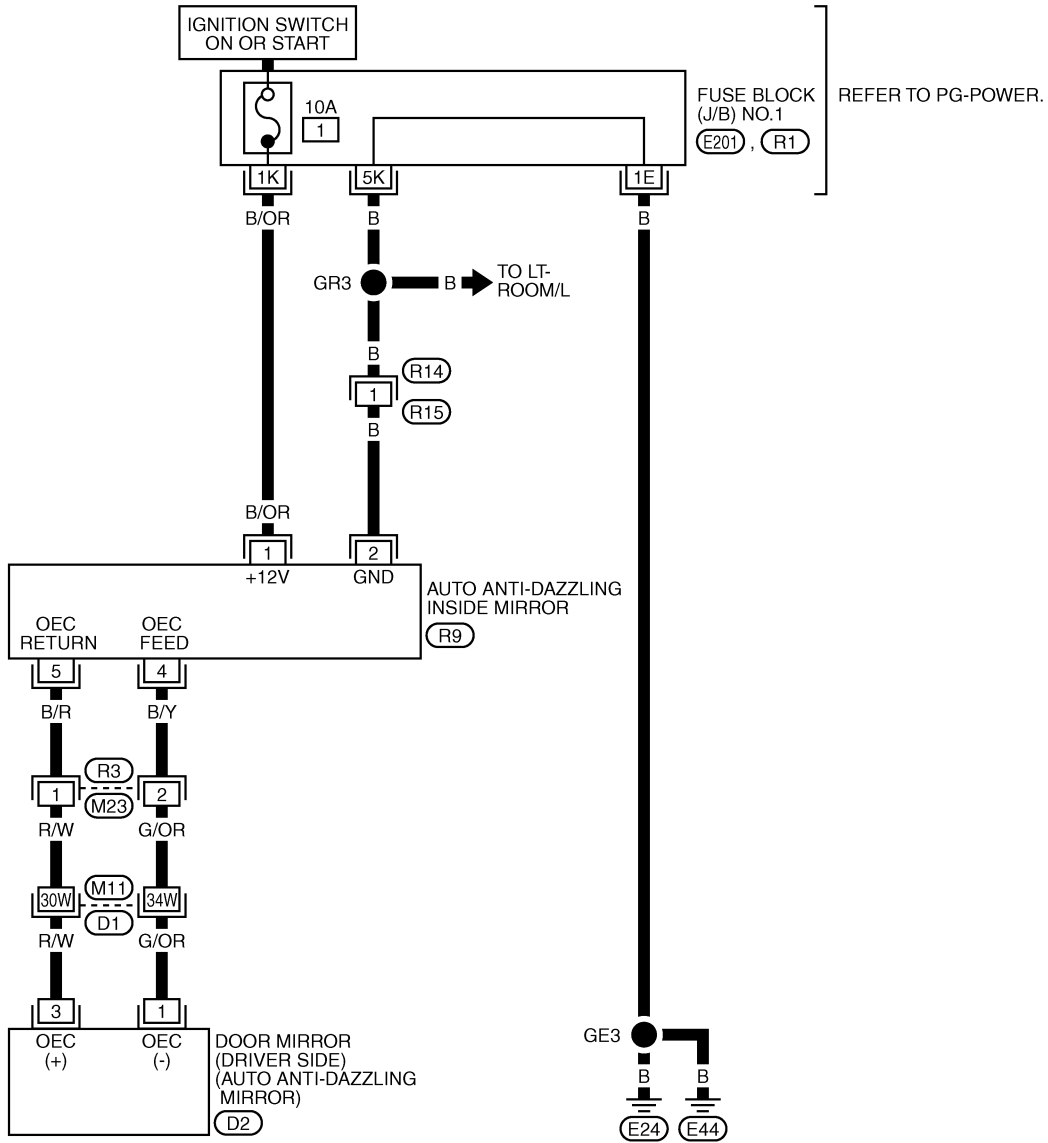
PPF:96321

## INSIDE MIRROR

### Wiring Diagram-I/MIRR-

EIS000UA

## GW-I/MIRR-01



REFER TO THE FOLLOWING.

(D1) -SUPER MULTIPLE JUNCTION (SMJ)

(E201), (R1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

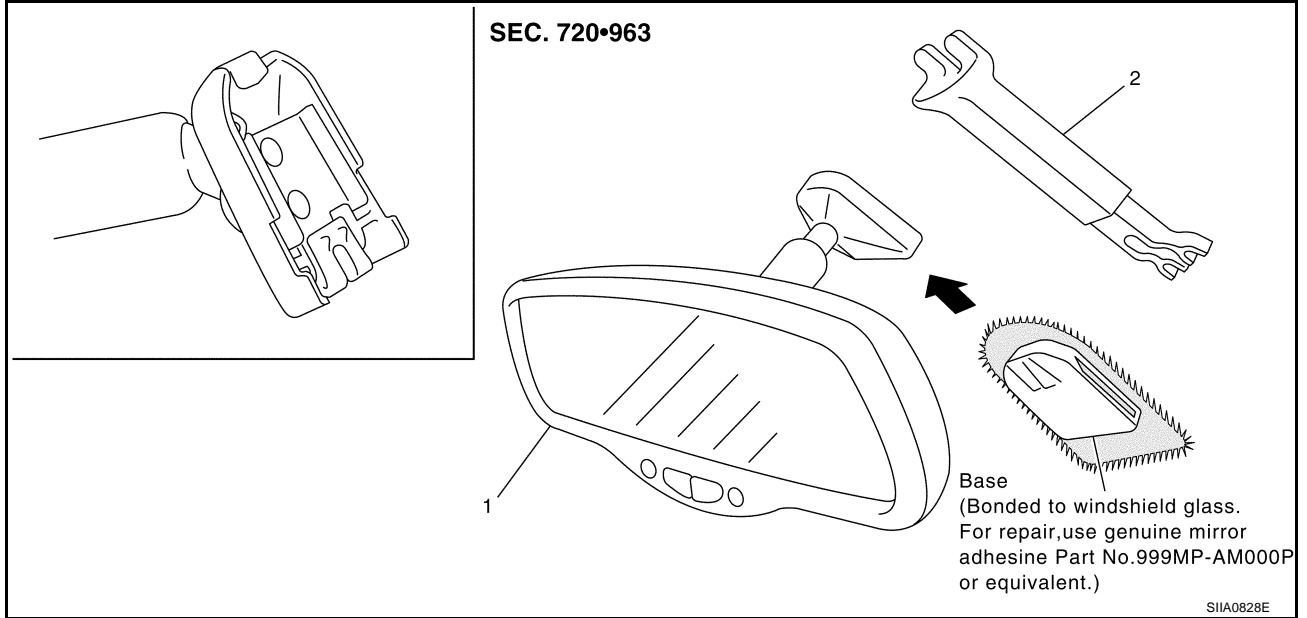
TIWM0102E

# INSIDE MIRROR

E/S000JK

## Removal and Installation AUTO ANTI-DAZZLING INSIDE MIRROR

1. Remove connector cover.
2. Slide the mirror upward to remove, and disconnect the connector.



1. Inside mirror

2. Inside mirror finisher

# REAR WINDOW DEFOGGER

PPF:25350

EIS000UP

## REAR WINDOW DEFOGGER

### System Description TIMER FUNCTION

The rear window defogger system is controlled by the BCM.  
Power is supplied at all times

- through 20A fuse[NO.10, located in the fuse block (J/B)]
- to the rear window defogger and door mirror defogger relay terminal NO.6, and
- through 20A fuse[NO.11, located in the fuse block (J/B)]
- to the rear window defogger and door mirror defogger relay terminal NO.3.

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

- through 10A fuse[NO.1, located in the fuse block (J/B)]
- to BCM terminal NO.68
- to the rear window defogger and door mirror defogger relay terminal NO.1, and

When the rear defogger switch in the multifunction switch is ON, ground is supplied

- through terminal NO.5 of the multifunction switch
- to BCM terminal NO.10.

Terminal NO.144 of the BCM then supplies ground to the rear window defogger and door mirror defogger relay terminal NO.2.

With power and ground supplied, the rear window defogger and door mirror defogger relay is energized to operate rear window defogger for about 15 minutes.

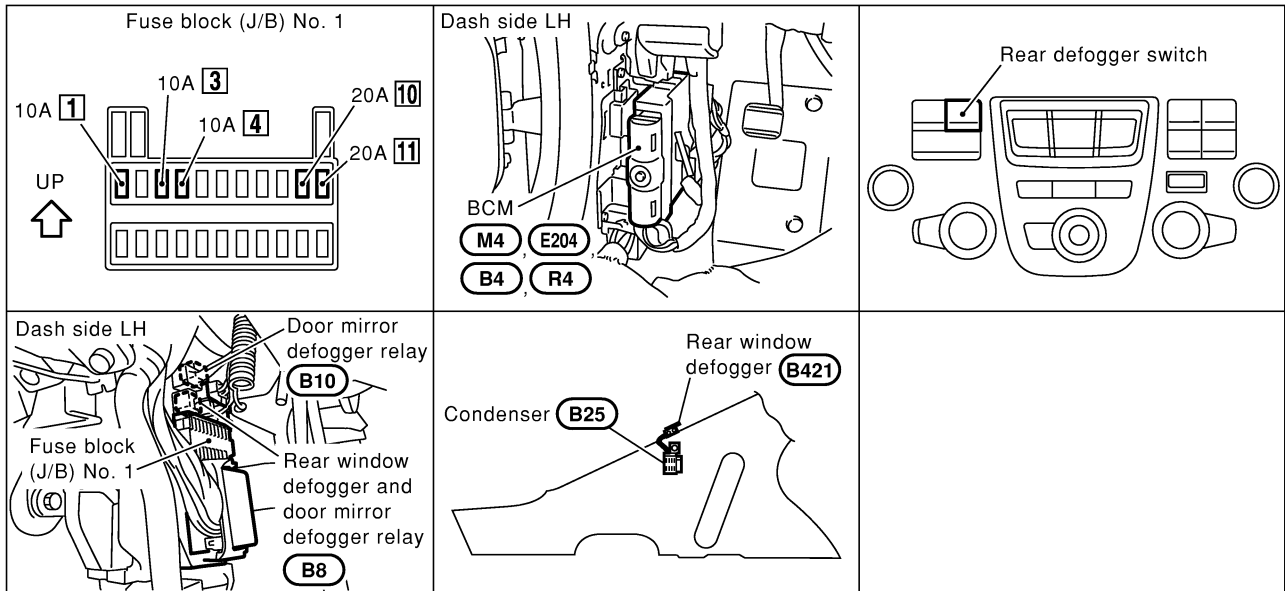
When the system is activated, the rear window defogger indicator in the rear defogger switch illuminates.

Power is supplied

- from rear window defogger and door mirror defogger relay terminal NO.5 and NO.7
- to multifunction switch terminal NO.6.

### Component Parts and Harness Connector Location

EIS000G0



CIIM0007E

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H

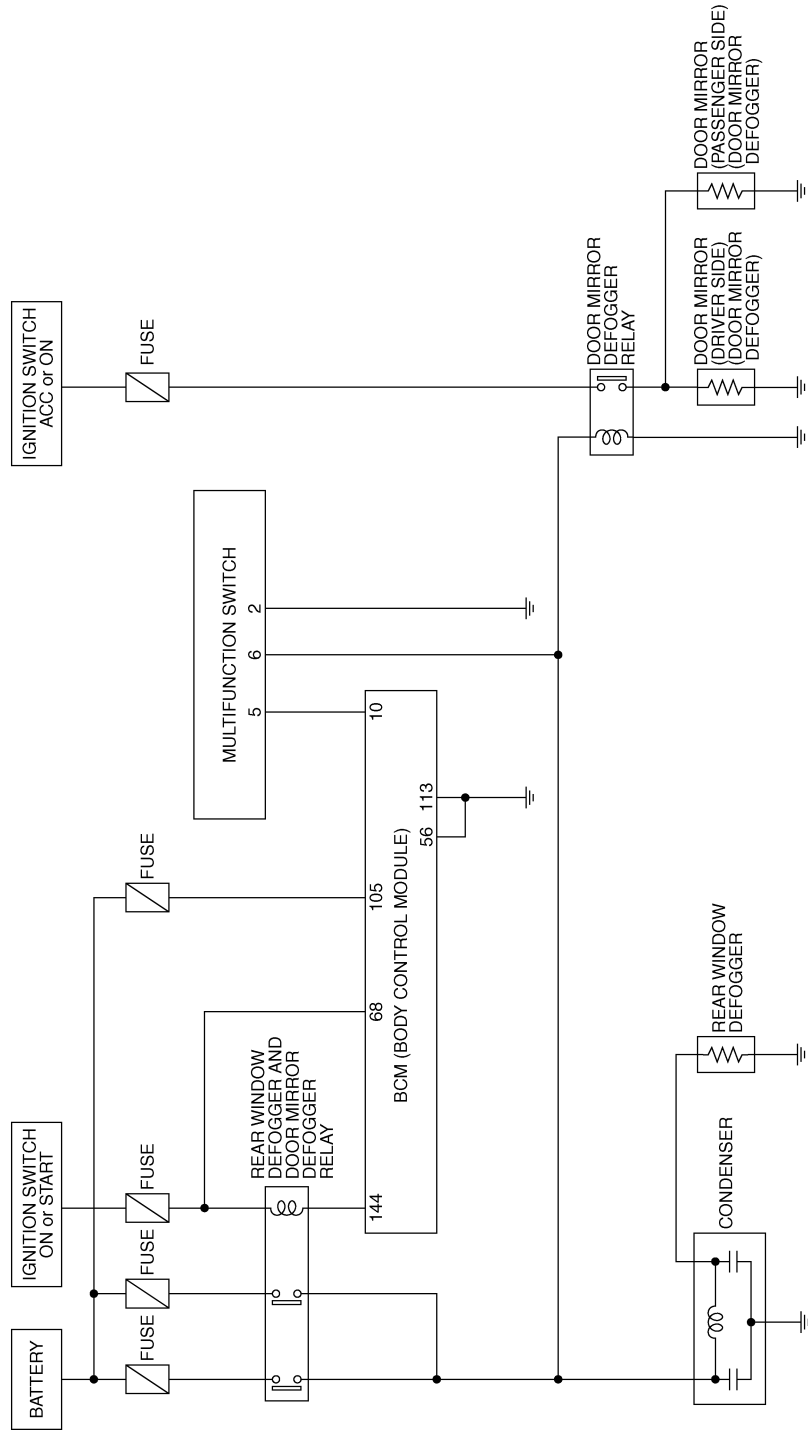
GW

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# REAR WINDOW DEFOGGER

## Schematic

EIS000G2



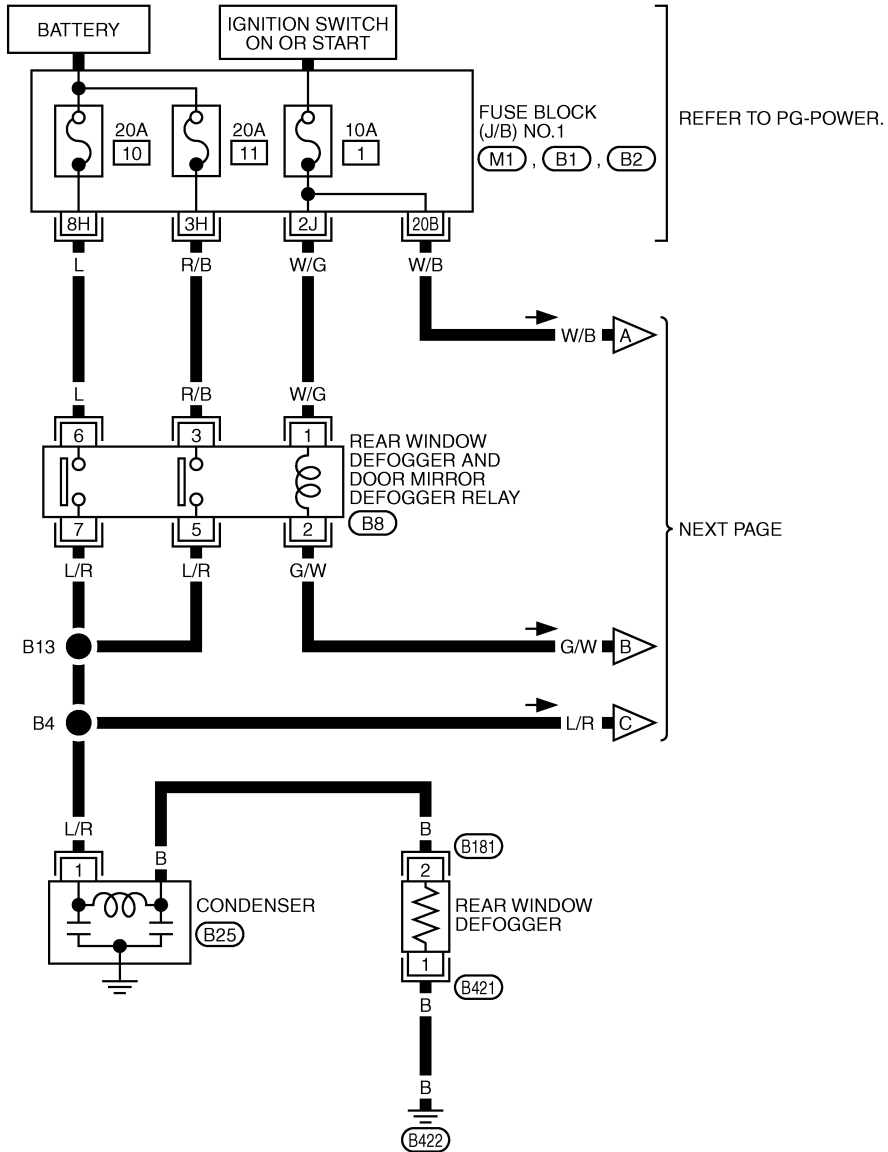
TIWM0036E

# REAR WINDOW DEFOGGER

## Wiring Diagram-DEF-

EIS000G3

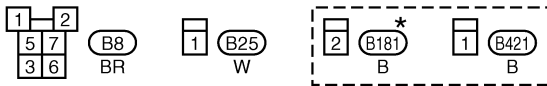
GW-DEF-01



REFER TO PG-POWER.

NEXT PAGE

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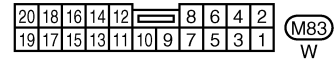
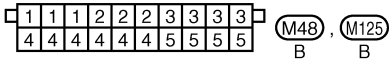
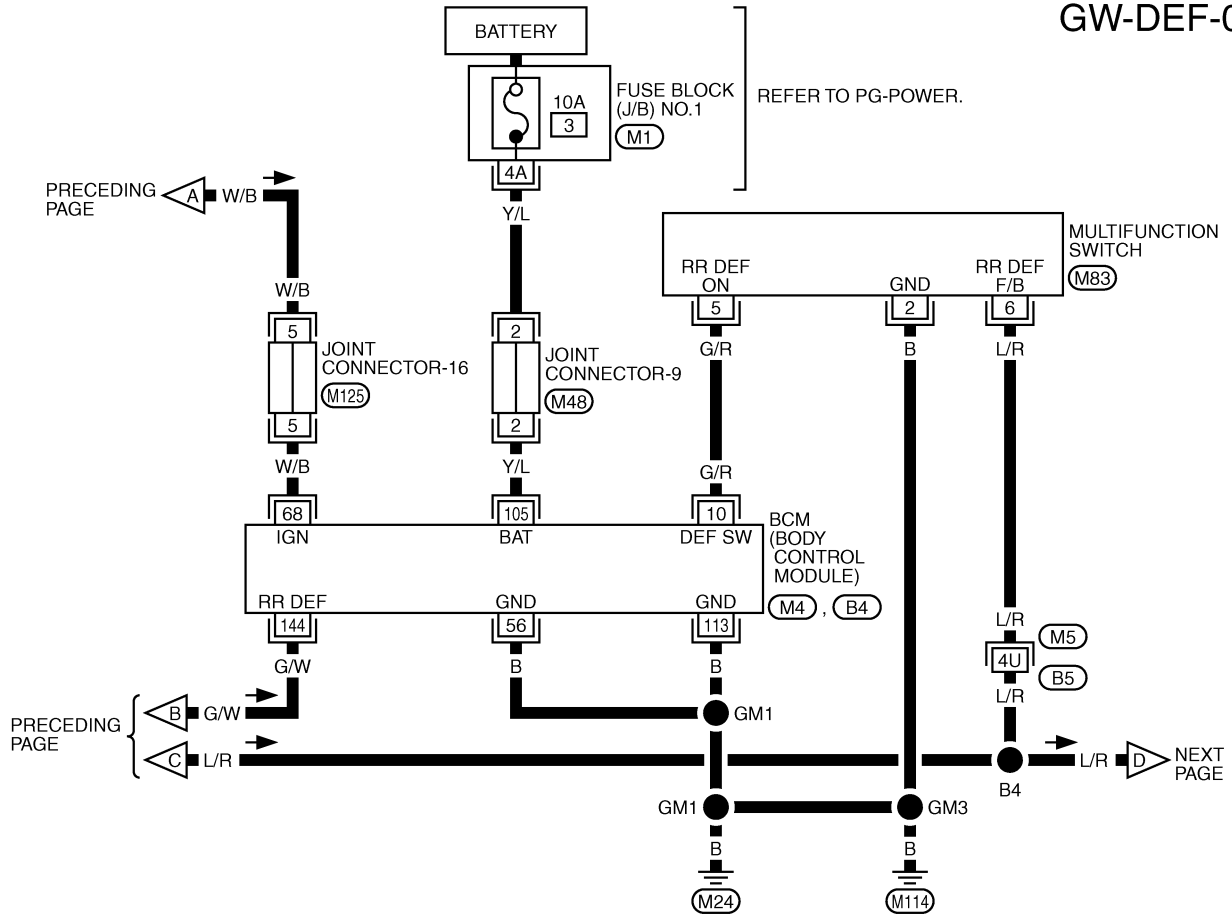
\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.  
 (M1), (B1), (B2) - FUSE  
 BLOCK-JUNCTION BOX (J/B) NO.1

TIVM0037E

# REAR WINDOW DEFOGGER

GW-DEF-02



REFER TO THE FOLLOWING.  
 (M5) -SUPER MULTIPLE JUNCTION (SMJ)  
 (M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1  
 (M4), (B4) -ELECTRICAL UNITS

TIWM0038E

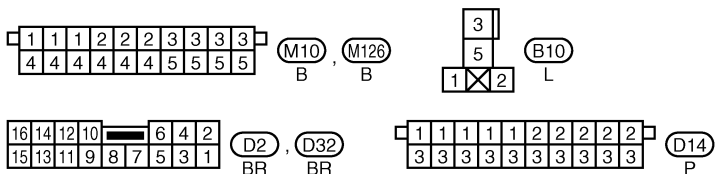
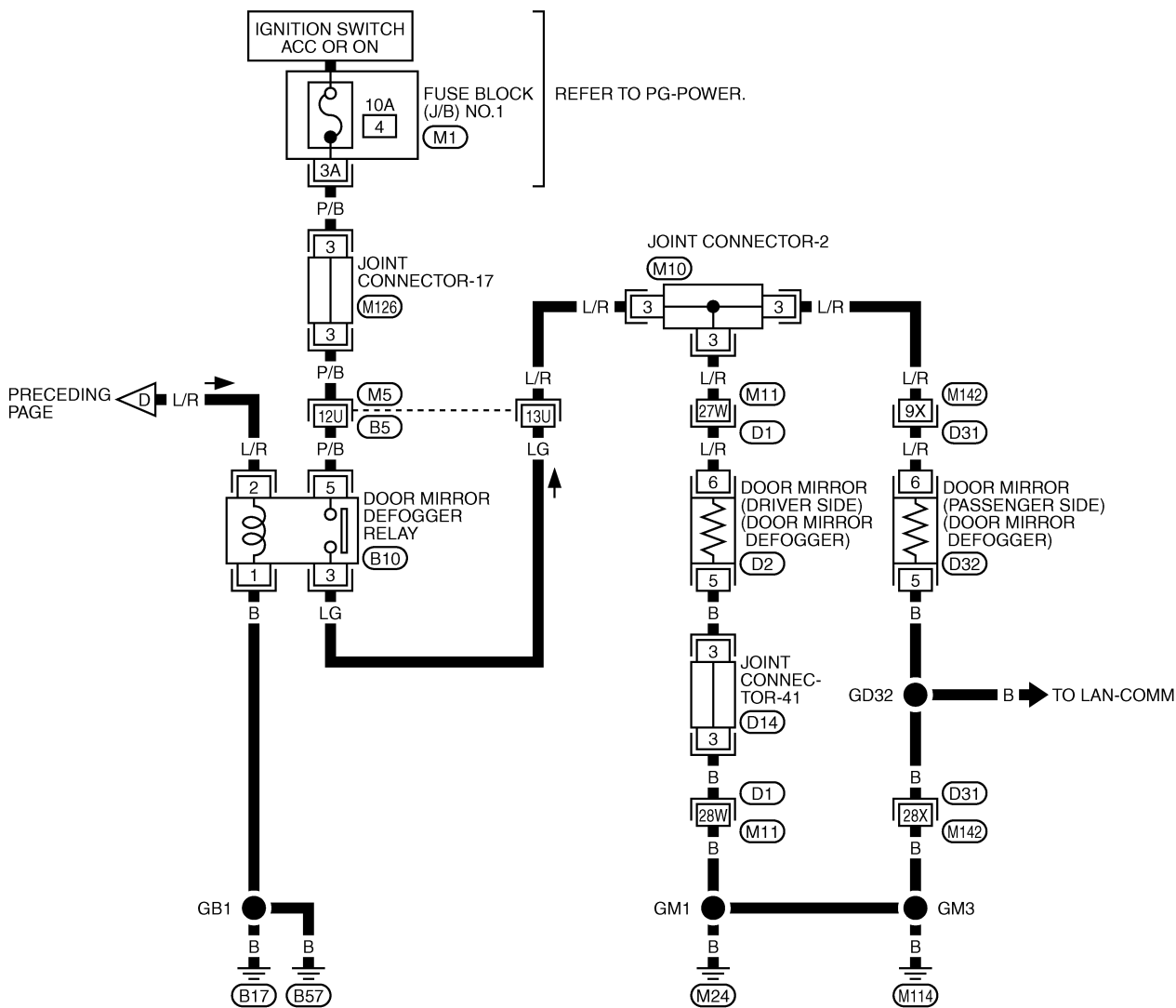
## TERMINALS AND REFERENCE VALUES FOR BCM

TERMINAL	WIRE COLOR	ITEM	CONDITION	DATA (DC)
10	G/R	Rear defogger switch signal	Rear defogger switch ON	0V
			Rear defogger switch OFF	Approx.5V
56	B	Ground	-	0V
68	W/B	IGN power supply	Ignition switch ON or START	Battery voltage
105	Y/L	Power source (FUSE)	-	Battery voltage
113	B	Ground	-	0V
144	G/W	Rear window defogger and door mirror defogger relay control signal	Rear defogger switch ON	0V
			Rear defogger switch OFF	Battery voltage



# REAR WINDOW DEFOGGER

GW-DEF-03



REFER TO THE FOLLOWING.  
 (M5), (D1), (D31) -SUPER  
 MULTIPLE JUNCTION (SMJ)  
 (M1) -FUSE BLOCK-JUNCTION  
 BOX (J/B) NO.1

T1WM0039E

# REAR WINDOW DEFOGGER

EIS0014L

## Work Flow

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-53, "System Description"](#) .
3. The preliminary check. Refer to [GW-58, "Preliminary Check"](#) .
4. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-60, "Symptom Chart"](#) .
5. Does rear defogger operate normally? OK: GO TO 6. NG: GO TO 4.
6. Inspection end.

## Preliminary Check POWER SUPPLY AND GROUND CIRCUIT INSPECTION

EIS0014M

### 1. FUSE INSPECTION

- Check that any of the following fuses in the BCM is blown.

Unit	Terminal NO.	Power source	Fuse NO.
BCM	105	BAT power supply	#3
	68	IGN power supply	#1

#### NOTE:

Refer to [GW-53, "Component Parts and Harness Connector Location"](#) .

#### OK or NG?

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-2, "POWER SUPPLY ROUTING"](#) .

### 2. POWER SUPPLY CIRCUIT INSPECTION (BCM)

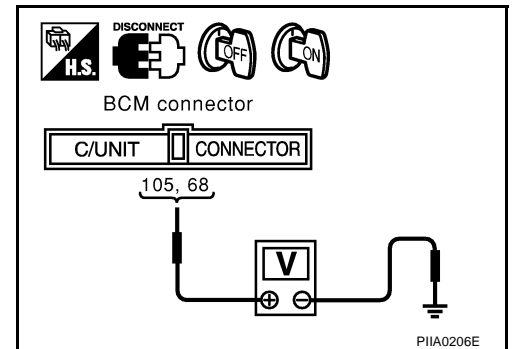
Disconnect the BCM connector M4, check voltage between connector terminal (refer to the "Chart" below") of the harness connector and body ground.

Terminals		Power source	Condition	Voltage (V)
(+)	(-)			
Connector	Terminal			
M4	105(Y/L)	BAT power supply	Ignition switch OFF	Battery voltage
	68(W/B)	IGN power supply	Ignition switch ON	Battery voltage

#### OK or NG?

OK >> GO TO 3.

NG >> Check harness for open and short between BCM and fuse.

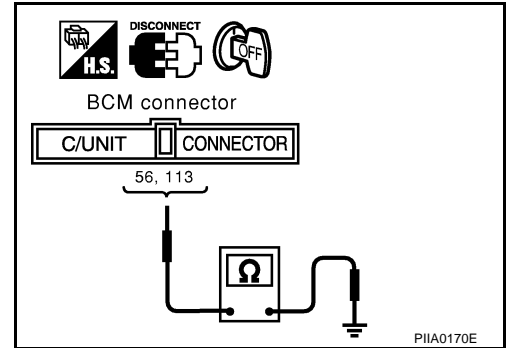


# REAR WINDOW DEFOGGER

## 3. GROUND CIRCUIT INSPECTION (BCM)

Check continuity between the following terminal NOs. of the BCM connector M4 and body ground.

Terminals		Condition	Continuity
(+)			
Connector	Terminal	(-)	
M4	56(B)	Ground	Ignition switch OFF Should exist
	113(B)	Ground	Ignition switch OFF Should exist



OK or NG?

- OK >> System is OK.
- NG >> Repair or replace harness.

### CONSULT-II Function

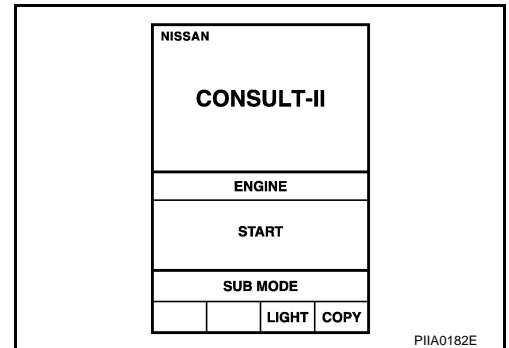
EIS0014N

- The following functions are executed by combining data received and command transmitted via the communication line from the BCM.

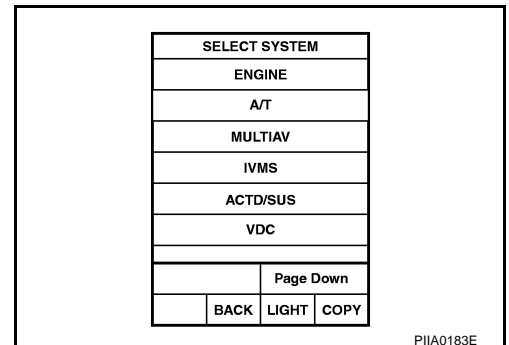
Self-diagnosis mode	Content
Data monitor	Displays the input data to BCM on real-time basis.
Active test	Gives a drive signal to a load to check the operation.

### CONSULT-II BASIC OPERATION

1. With the ignition switch OFF, connect CONSULT-II to the data link connector, and turn the ignition switch ON.
2. Touch "START".

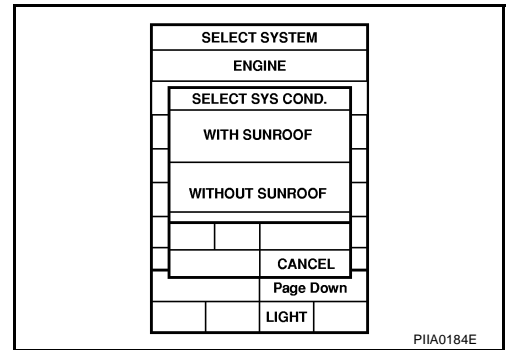


3. Touch "IVMS" on the "SELECT SYSTEM" screen.



# REAR WINDOW DEFOGGER

4. Check the model specification, and touch either "WITH SUNROOF" or "WITHOUT SUNROOF" on the "SELECT SYS COND" screen.
5. Touch "OK". If the selection is wrong, touch "CANCEL".
6. Select the desired part to be diagnosed on the "SELECT TEST ITEM" screen.



## DATA MONITOR

### Operation Procedure

1. Touch "REAR DEFOGGER" on the "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on the "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on the "DATA MONITOR" screen.

ALL SIGNALS	Monitor all items.
SELECTION FROM MENU	Select and monitor the item.

4. Touch "START".
5. If "SELECTION FROM MENU" is selected, touch the desired monitor item. If "ALL SIGNALS" is selected, all the items are monitored.
6. During monitoring, touching "COPY" can start recording the monitor item status.

### Display Item List

Monitor item "OPERATION"		Content
DEFOGGER SW	"ON/OFF"	Displays "Press (ON)/others (OFF)" status determined with the defogger switch.
IGN ON SW	"ON/OFF"	Displays "IGN (ON)/OFF, ACC (OFF)" status determined with the ignition switch signal.

## ACTIVE TEST

### Operation Procedure

1. Touch "REAR DEFOGGER" on the "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on the "SELECT DIAG MODE" screen.
3. Touch the item to be tested, and check the operation.
4. During the operation check, touching "OFF" deactivates the operation.

### Display Item List

Test item	Content
Rear defogger relay	Gives a drive signal to the rear window defogger and door mirror defogger relay to activate it.

## Symptom Chart

EIS000NZ

Symptom	Malfunctioning system and reference
Rear window defogger does not activate.	Rear window defogger control system, refer to <a href="#">GW-61, "Rear Window Defogger Control System Inspection."</a>

# REAR WINDOW DEFOGGER

## Rear Window Defogger Control System Inspection.

EIS000GB

### 1. FUSE INSPECTION (REAR WINDOW DEFOGGER).

- Check that any of the following fuses in the rear window defogger is blown.

System	Terminal NO.	Power source	Fuse NO.
Rear defogger	1	IGN power supply	#1
	3	BAT power supply	#11
	6	BAT power supply	#10

#### NOTE:

Refer to [GW-53, "Component Parts and Harness Connector Location"](#).

#### OK or NG?

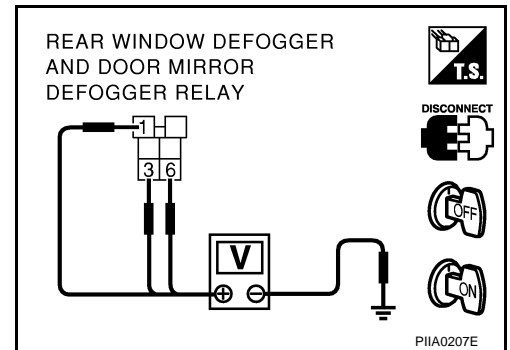
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-2, "POWER SUPPLY ROUTING"](#).

### 2. REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGER RELAY POWER SUPPLY CIRCUIT INSPECTION.

- Disconnect the rear window defogger and door mirror defogger relay B8.
- Check voltage between rear window defogger and door mirror defogger relay harness connector B8 terminals 1(W/G),3(R/B), 6(L) and body ground.

Terminals		Power source	Condition	Voltage (V)
(+)	(-)			
Connector	Terminal			
B8	1(W/G)	BAT power supply	Ignition switch OFF	Battery voltage
	3(R/B)	IGN power supply	Ignition switch ON	Battery voltage
	6(L)	BAT power supply	Ignition switch OFF	Battery voltage



#### OK or NG?

OK >> GO TO 3.

NG >> Check harness for open and short between rear window defogger and door mirror defogger relay and fuse.

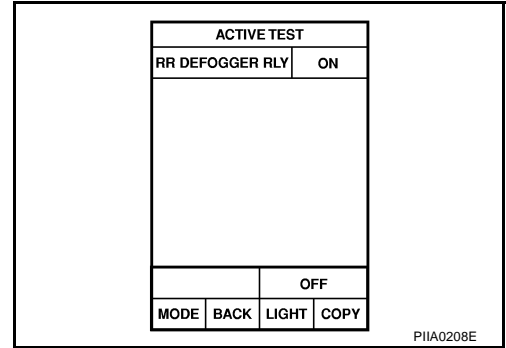
# REAR WINDOW DEFOGGER

## 3. REAR WINDOW DEFOGGER AND DOOR MIRROR DEFOGGER RELAY INSPECTION 1.

Connect the rear window defogger and door mirror defogger relay.

☑ With CONSULT-II

- Using "REAR DEFOGGER RLY" in the ACTIVE TEST, check the operation. Refer to [GW-60, "ACTIVE TEST"](#) .



☒ Without CONSULT-II

- GO TO 4.

OK or NG?

OK >> GO TO 5.

NG >> Replace the rear window defogger and door mirror defogger relay.

## 4. REAR WINDOW AND DOOR MIRROR DEFOGGER RELAY INSPECTION 2.

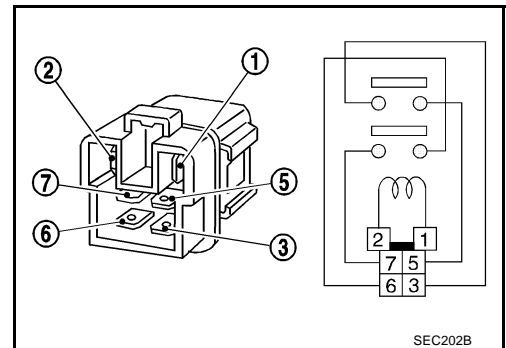
- Disconnect the rear window defogger and door mirror defogger relay B8.
- Check continuity between terminals 3(R/B) and 5(L/R), 6(L) and 7(L/R).

Terminals			Condition	Continuity
(+) Connector		(-) Terminal		
B8	1(W/G)	2(G/W)	12V direct current supply between terminals 1 to 2	YES
			No current supply	NO

OK or NG?

OK >> GO TO 5.

NG >> Replace the rear defogger and door mirror defogger relay.

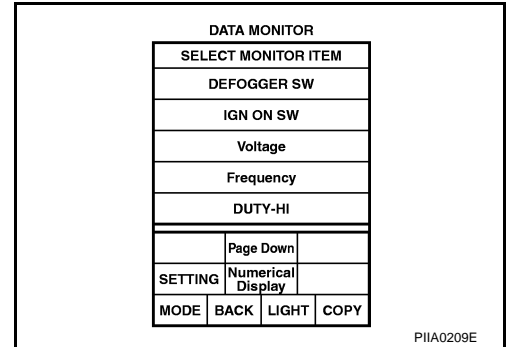


# REAR WINDOW DEFOGGER

## 5. MULTIFUNCTION SWITCH (REAR DEFOGGER SWITCH) INSPECTION.

☑ With CONSULT-II

- Check the operation on "DEFOGGER SW" in the DATA MONITOR. Refer to [GW-60, "DATA MONITOR"](#).



☒ Without CONSULT-II

- Perform the self-diagnosis for the multifunction switch (rear defogger switch). Refer to [DI-119, "Multifunction Switch Self-Diagnosis Function"](#).

OK or NG?

OK >> GO TO 6.

NG >> Refer to [GW-65, "Rear Defogger Switch Does Not Work."](#)

## 6. MULTIFUNCTION SWITCH (REAR DEFOGGER SWITCH) SIGNAL INSPECTION

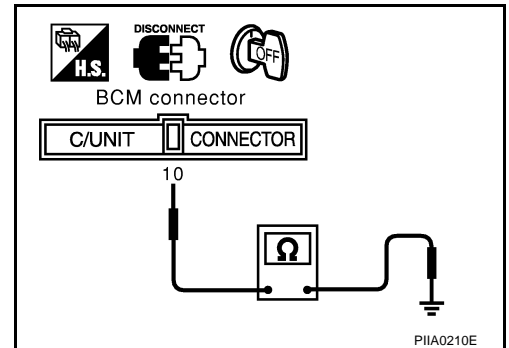
- Connect the rear window defogger and door mirror defogger relay B8, and disconnect the BCM connector M4.
- Operate the rear defogger switch, and check the continuity between BCM harness connector M4 terminal 10(G/R) for the BCM and body ground.

Terminals		Condition	Continuity	
(+)				
Connector	Terminal	(-)		
M4	10(G/R)	Ground	Rear defogger switch ON	Should exist
			Rear defogger switch OFF	Should not exist

OK or NG?

OK >> GO TO 7.

NG >> Repair or replace the harness between the BCM and display unit assembly.



# REAR WINDOW DEFOGGER

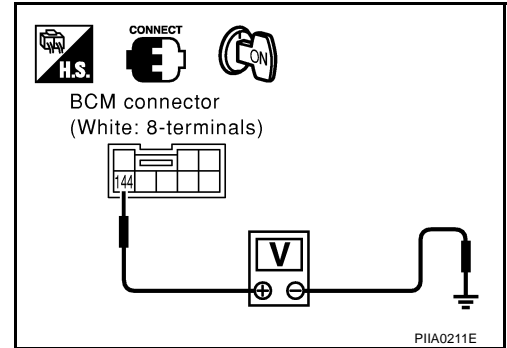
## 7. REAR DEFOGGER OUTPUT SIGNAL INSPECTION

- Turn the ignition switch OFF, and connect the BCM connector B4.
- Turn the ignition switch ON.
- Operate the rear defogger switch, and check the voltage between BCM connector B4 terminal 144(G/W) and body ground.

Terminals		Condition	Voltage (V)
(+)			
Connector	Terminal	(-)	
B4	144 (G/W)	Ground	0V
		Ground	Battery voltage

OK or NG?

- OK >> GO TO 8.  
 NG >> Replace the BCM.



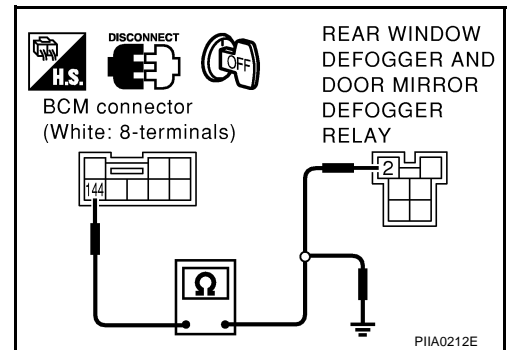
## 8. HARNESS CONTINUITY INSPECTION 1

- Turn the ignition switch OFF, and disconnect the BCM connector B4 and rear window defogger and door mirror defogger relay B8.
- Check continuity between BCM harness connector B4 terminal 144(G/W) and rear window defogger and door mirror defogger relay harness connector B8 terminal 2(G/W), and BCM harness connector B4 terminal 144(G/W) and body ground.

Terminals		Continuity	
(+)			
Connector	Terminal	(-)	
B4	144 (G/W)	2(G/W)	Should exist
	144 (G/W)	Ground	Should not exist

OK or NG?

- OK >> GO TO 9.  
 NG >> Repair or replace harness.



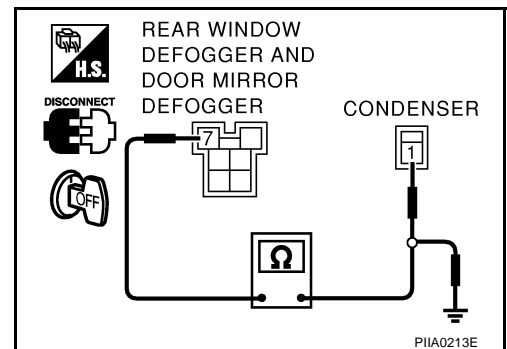
## 9. HARNESS CONTINUITY INSPECTION 2.

- Disconnect the condenser connector B25.
- Check continuity between rear window defogger and door mirror defogger relay harness connector B8 terminal 7(L/R) and condenser harness connector B25 terminal 1(L/R), and between condenser harness connector B25 terminal 1(L/R) and body ground.

Terminals		Continuity	
(+)			
Connector	Terminal	(-)	
B25	1(L/R)	7(L/R)	Should exist
	1(L/R)	Ground	Should not exist

OK or NG?

- OK >> GO TO 10.  
 NG >> Repair or replace harness.





# REAR WINDOW DEFOGGER

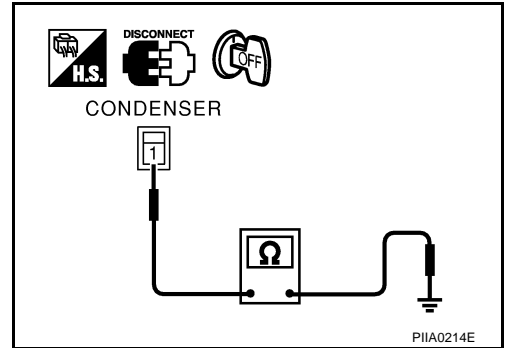
## 10. REAR WINDOW DEFOGGER GROUND HARNESS INSPECTION.

- Disconnect rear window defogger harness connector B421.
- Check the continuity between rear window defogger harness connector B421 and body ground.

NO. 1(B) – body ground : Continuity should exist

### OK or NG?

- OK >> Check filament. Refer to [GW-66, "Filament Check"](#) .
- If filament is OK, replace condenser.
  - If filament is NG, repair filament.
- NG >> Repair or replace the rear window defogger ground harness.

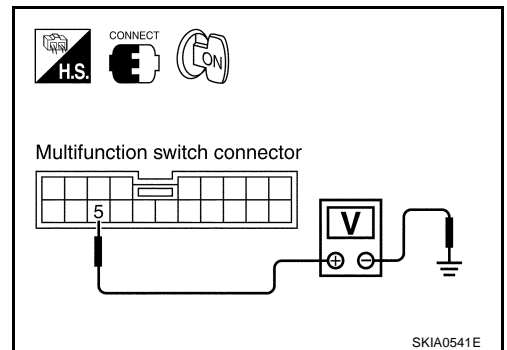


## Rear Defogger Switch Does Not Work.

### 1. CHECK REAR DEFOGGER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between multifunction switch connector M83 terminal 5(G/R) and ground.

Terminals		(-)	Condition	Voltage (V)
(+) (+)				
Con-connector	Terminal (Wire color)			
M83	6(G/R)	Ground	Rear defogger switch ON	0V
			Rear defogger switch OFF	Approx.5V



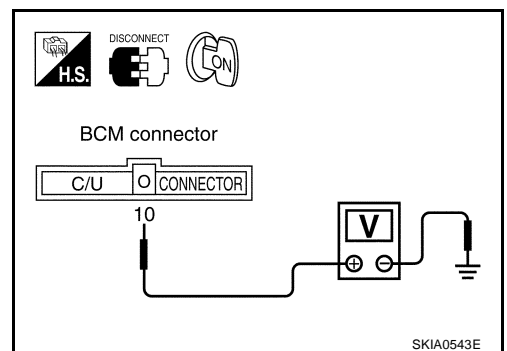
### OK or NG

- OK >> GO TO 2.
- NG >> Replace multifunction switch (rear defogger switch).

### 2. CHECK REAR DEFOGGER OUTPUT SIGNAL

1. Turn ignition switch OFF, and disconnect multifunction switch connector.
2. Turn ignition switch ON.
3. Check voltage between multifunction switch harness connector M83 terminal 10(G/R) and ground.

Terminals		(-)	Condition	Voltage (V)
(+) (+)				
Con-connector	Terminal (Wire color)			
M83	10 (G/R)	Ground	rear defogger switch is pushed	Approx.5V
			other than above	0V



### OK or NG

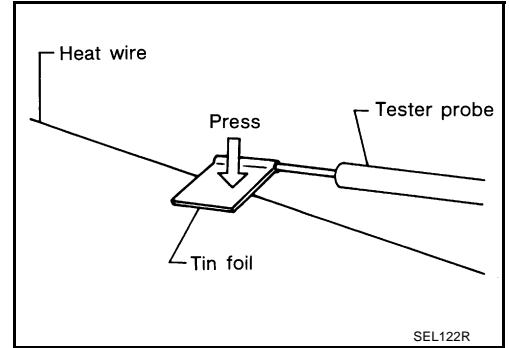
- OK >> Replace multifunction switch.
- NG >> Check rear defogger circuit.

# REAR WINDOW DEFOGGER

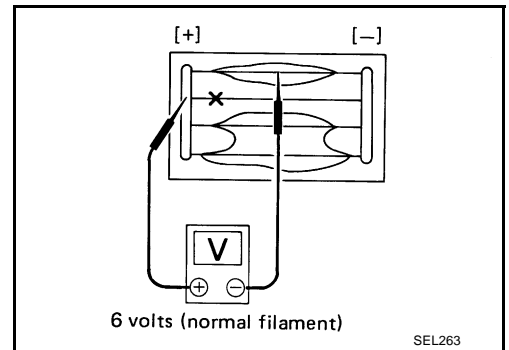
## Filament Check

EIS000U8

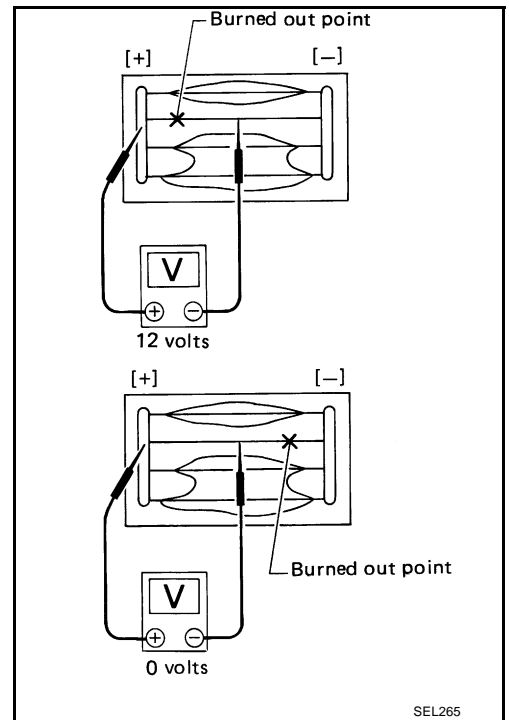
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



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

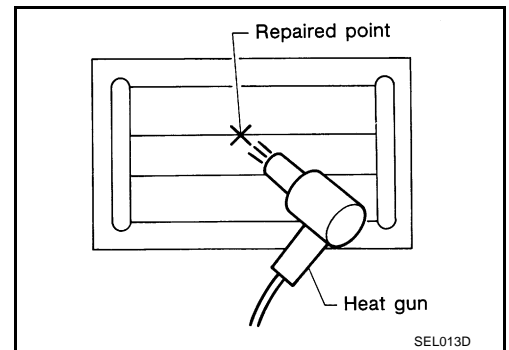
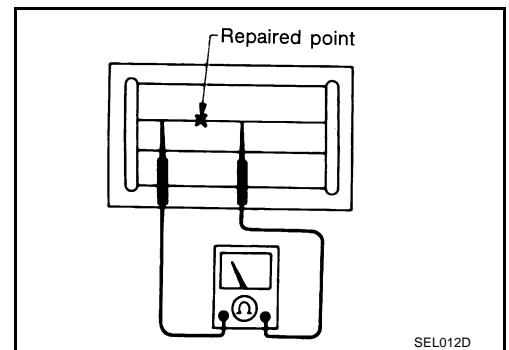
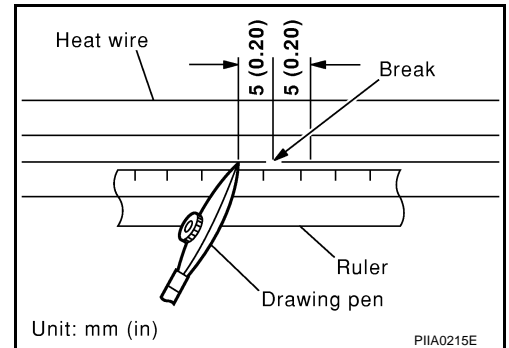
EIS000U9

## Filament Repair REPAIR EQUIPMENT

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

## REPAIRING PROCEDURE

1. Wipe broken heat wire and its surrounding area clean with a cloth dampened 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(0.20in)] of the break.
4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited. Do not touch repaired area while test is being conducted.
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 3cm(1.2in) 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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# REVERSE INTERLOCK DOOR MIRROR SYSTEM

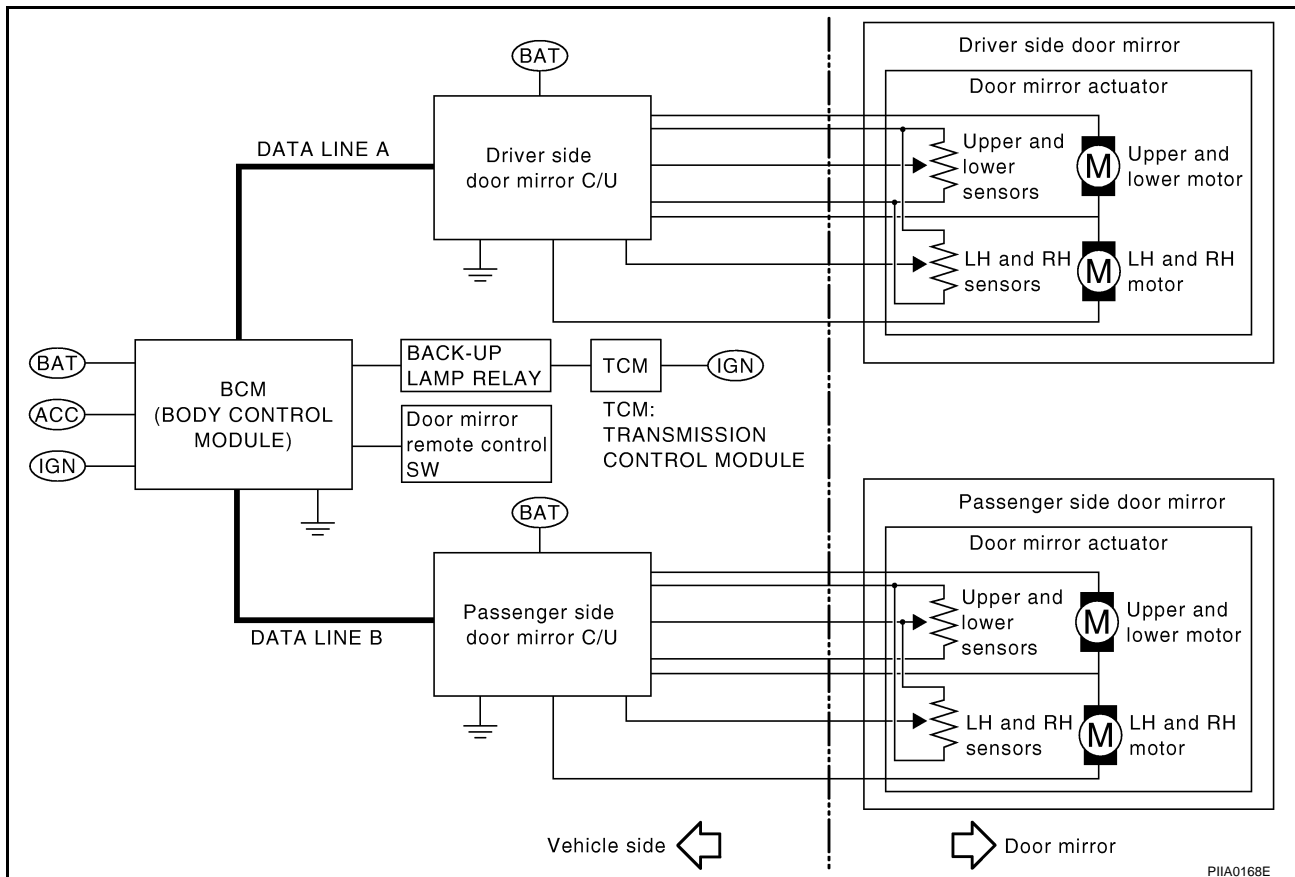
PF28548

## REVERSE INTERLOCK DOOR MIRROR SYSTEM

### System Description

EIS00118

- When switching the door mirror remote control switch position (LH/RH), the system moves driver or passenger door mirror face downward, in relation to the A/T selector lever being shifted to Reverse Position.
- The mirror position with the reverse gear engaged can be adjusted and the adjusted mirror position can be stored in memory (2 positions).
- With reverse gear-linked operation signal, the door mirror control unit–LH/RH (LCU) installed on the door panel drives and controls the motors (UP/DOWN, LH/RH).
- Using the self-diagnostic function and CONSULT-II, system diagnosis can be performed.



### OUTLINE OF OPERATION

#### Operation Conditions

If the following conditions are satisfied, starts operating after approximately 0.5 seconds.

- Ignition switch is in ON position.
- Set the door mirror remote control switch to the neutral position →right position, or left position.
- A/T selector lever is in R position.

#### NOTE:

- If the conditions for reverse gear-linked operation are satisfied during manual operation, the manual operation is interrupted and switched to the reverse gear-linked operation.

#### Operation Angle

##### Fixed operation angle

	Facing downward	Facing innerward
Driver-side	7°	1°
Passenger-side	7°	1°

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## End of Operation

If the following conditions are satisfied, the reverse gear-linked operation is stopped.

- When the set angle is reached.
- When no operation signal or no operation end signal can be received for approximately 2 seconds or more after BCM actually outputs the reverse gear-linked operation signal.
- After receiving the operation signal from the door mirror control unit, when BCM has stayed in the status for 60 seconds.

## Return Operation

If one of the following conditions is satisfied, the mirror face returns upward.

- When the ignition switch is turned OFF.
- When the A/T selector lever is shifted to any position except R position.
- When the door mirror remote control switch is in the neutral position.

### NOTE:

- After the above operation, if no operation conditions previously mentioned are satisfied, shifting the A/T selector lever to R position will not move the mirror face downward.

## End of Return Operation

- Mirror face returns to the original position.
- When no operation signal or no operation end signal can be received for approximately 2 seconds or more after BCM actually outputs the reverse gear-linked operation signal.
- After receiving the operation signal from the door mirror control unit, when BCM has stayed in the status for 60 seconds.

## MIRROR POSITION MEMORY FUNCTIONS

Equipped with a function which allows memorizing the desired mirror face positions (2 positions each for LH/RH door mirror).

### Memory Operation Conditions

The seat and steering wheel positions are in accordance with memory 1 or memory 2 in the automatic drive position control. Refer to [SE-12, "AUTOMATIC DRIVE POSITIONER"](#).

### Memory Operation Procedure

1. Turn ignition switch ON.
2. Shift the A/T selector lever to R position.
3. Switch the door mirror remote control switch to right or left, and set the mirror face to the desired angle.
4. Press the setting button, and within 5 seconds, press the memory switch which stores the current seat and steering wheel positions for 0.5 seconds or more.
5. If the memory switch with certain positions stored is used, it turns off for 0.5 seconds after the operation, and after that it illuminates continuously (for approx. 5 seconds).
6. If a memory switch with no positions stored is used, it illuminates (for approx. 5 seconds) after the memory switch operation.

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GW

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## POWER SUPPLY AND GROUND

Power is supplied at all times

- through 10A fuse[No.8,located in the fuse block (J/B)]
- to driver side door mirror control unit terminal No.8 and passenger side door mirror remote control unit terminal No.8.
- through 10A fuse[No.3,located in the fuse block (J/B)]
- to BCM terminal No.105.

Power is supplied

- through 10A fuse[No.9,located in the fuse block (J/B)]
- to TCM terminal No.41.

BCM is connected to LCU03 and LCU04 as DATA LINE A-2 and DATA LINE A-3.

When door mirror remote control switch is turned left or right, ground is supplied

- to BCM terminal No.24 or No.21
- through door mirror remote control switch terminal No.6 or No.5.

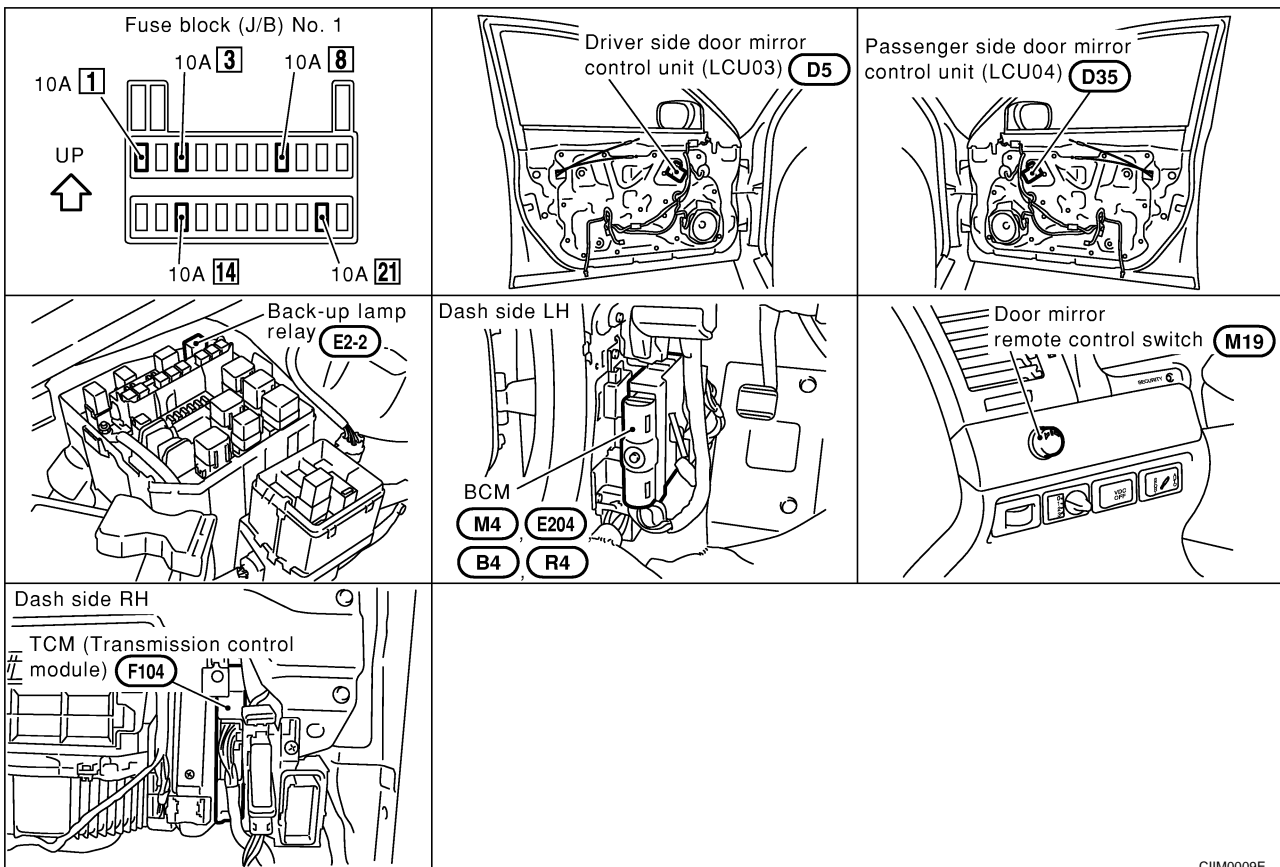
When selector lever is R position, ground is supplied

- to TCM terminal No.41.
- from back-up lamp relay terminal No.1.
- to BCM terminal No.141.
- through back-up lamp relay terminal No.3.

Then signal input to driver side door mirror control unit and passenger side door mirror control unit terminal No.7 from BCM terminal No.61 and No.67 by DATA LINE A-2 and DATA LINE A-3.

## Component Parts and Harness Connector Location

EIS00119

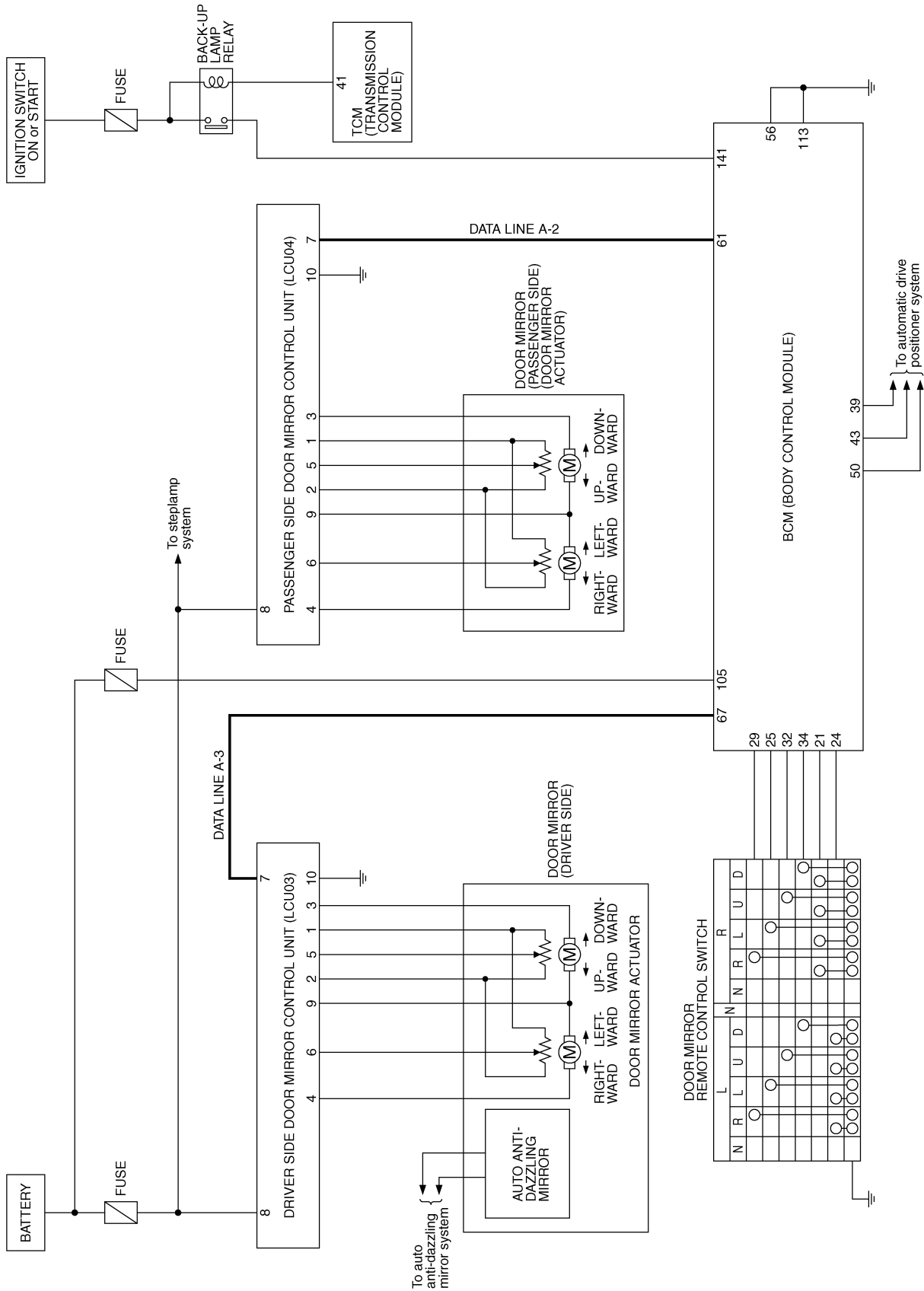


CIIM0009E

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## Schematic

EIS0011B



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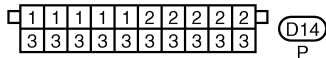
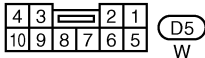
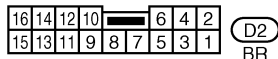
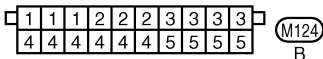
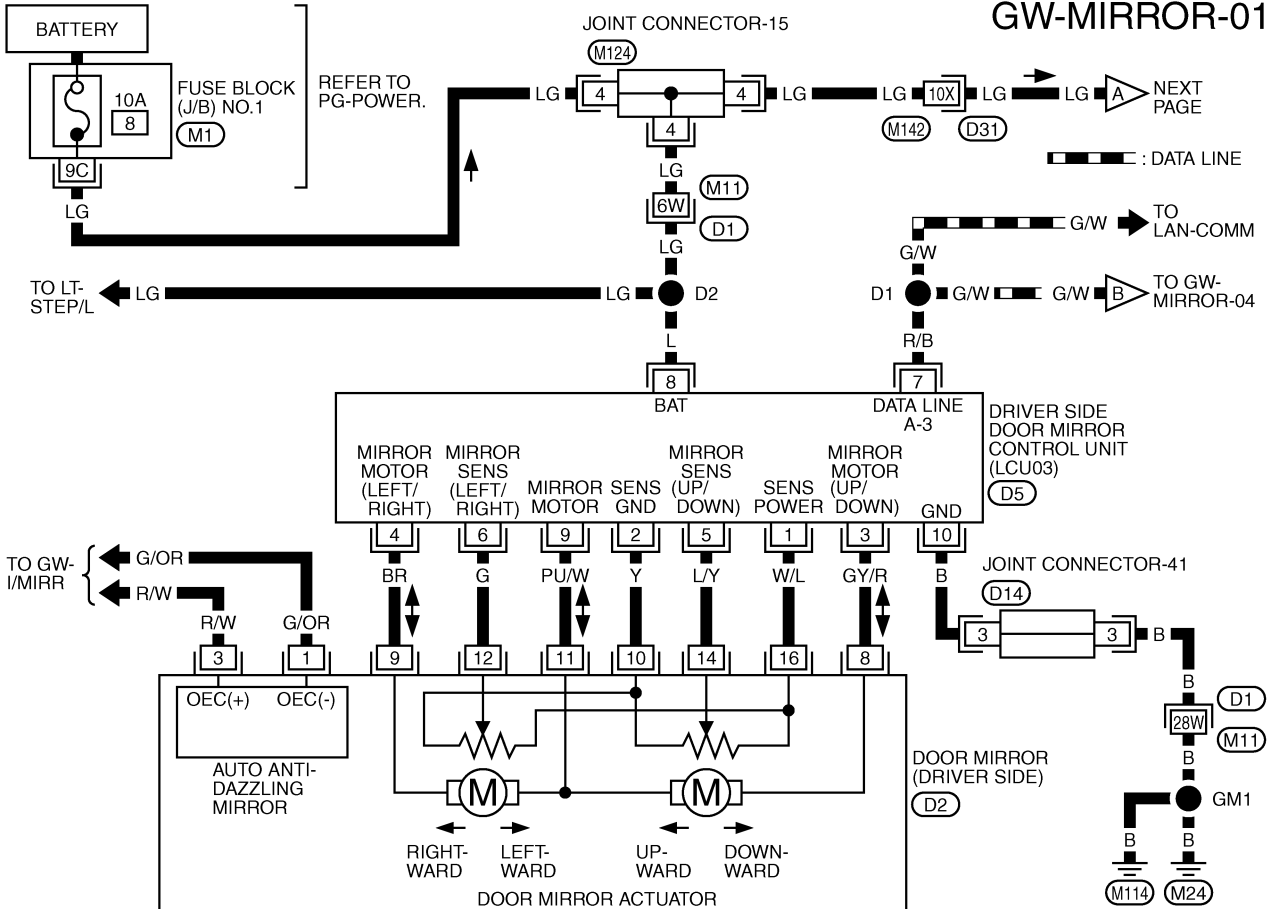
TIWM0053E

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

EIS0011C

## Wiring Diagram -MIRROR-

### GW-MIRROR-01



REFER TO THE FOLLOWING.

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

(M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

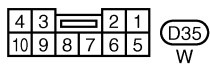
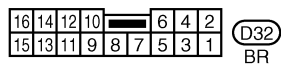
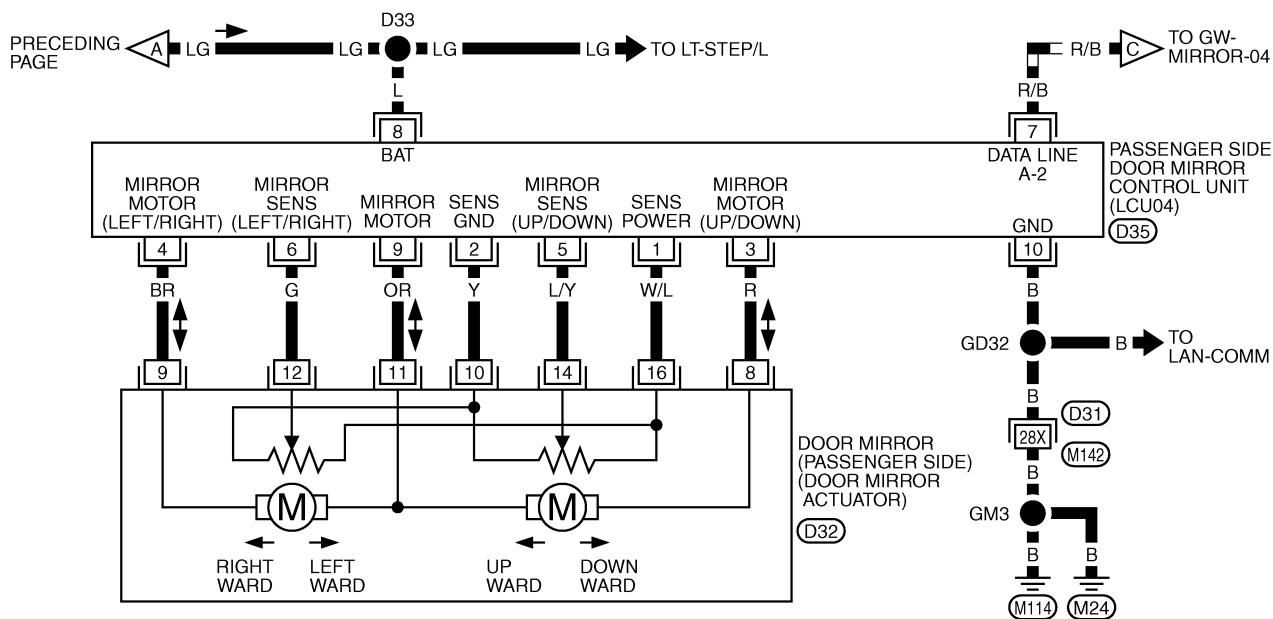
TIWM0054E



# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## GW-MIRROR-02

▬ : DATA LINE



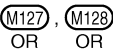
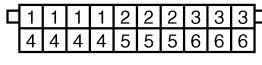
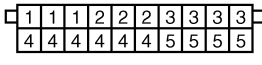
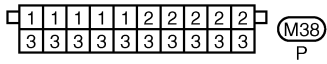
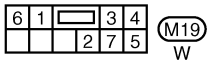
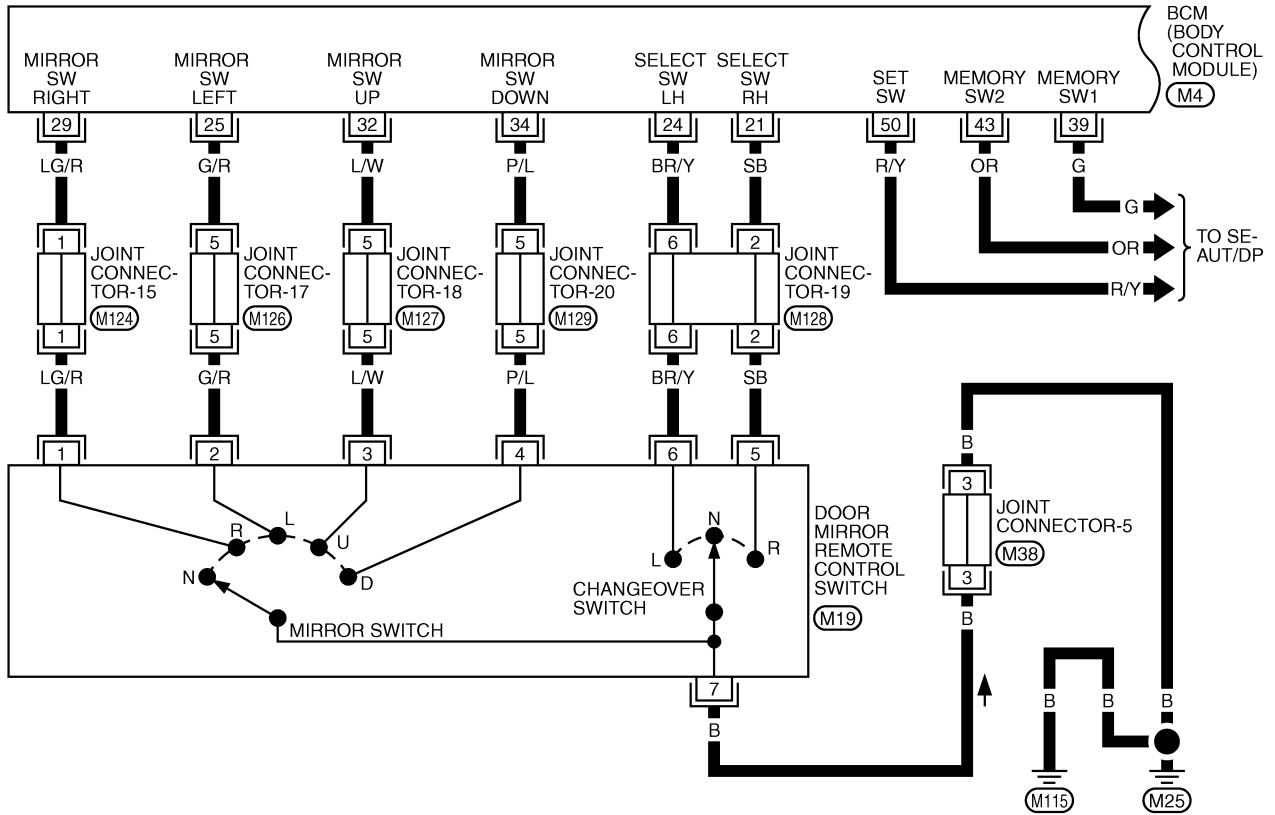
REFER TO THE FOLLOWING.

(D31) -SUPER MULTIPLE JUNCTION (SMJ)

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# REVERSE INTERLOCK DOOR MIRROR SYSTEM

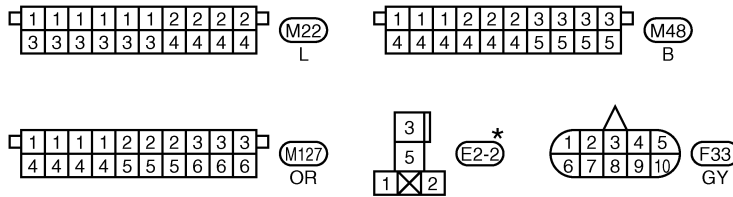
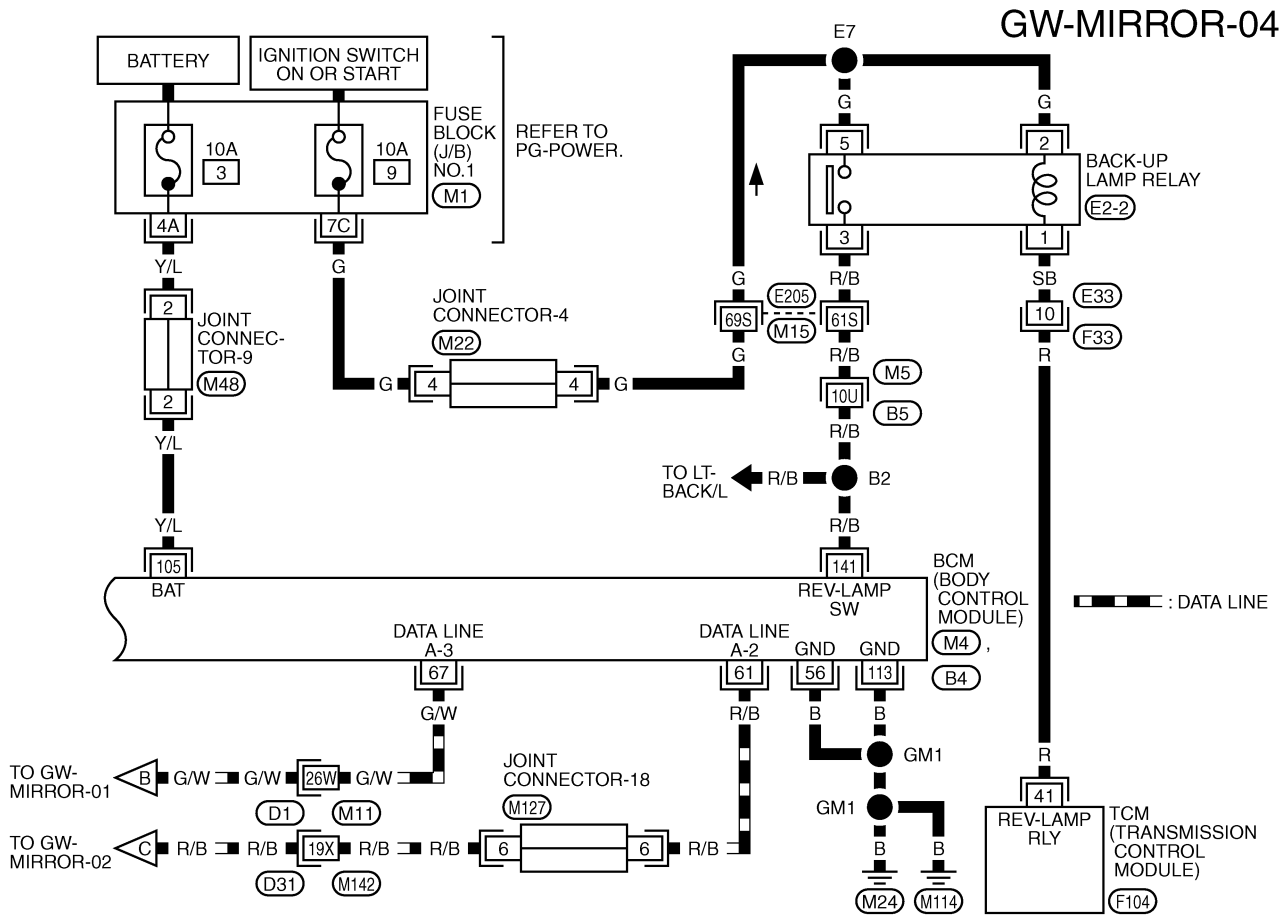
GW-MIRROR-03



REFER TO THE FOLLOWING.  
(M4) -ELECTRICAL UNITS

TIWM0056E

# REVERSE INTERLOCK DOOR MIRROR SYSTEM



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

REFER TO THE FOLLOWING.

- (M5), (E205), (D1), (D31)
- SUPER MULTIPLE JUNCTION (SMJ)
- (M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1
- (M4), (F104), (B4)
- ELECTRICAL UNITS

TIVM0100E

## Terminals and Reference Values for Driver Side Door Mirror Control Unit & Terminals and Reference Value for Passenger Side Door Mirror Control Unit

EIS00140

TERMINAL		WIRE COLOR		ITEM	CONDITION	VOLTAGE (V)
+	-	+	-			
1	*	W/L	—	Mirror sensor power supply	—	Approx.5V
2		Y	—	Ground (Mirror sensor)	—	0V
3	9	GY/R	PU/W	Mirror motor UP signal	When motor is activated (UP)	Battery voltage
					When motor is not activated	0V
4	9	BR	PU/W	Mirror motor LH signal	When motor is activated (LH)	Battery voltage
					When motor is not activated	0V

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

TERMINAL		WIRE COLOR		ITEM	CONDITION	VOLTAGE (V)
+	-	+	-			
5	*	L/Y	—	Mirror sensor UP/ DOWN signal	When motor is activated (UP or DOWN)	Changes between 4V (UP)– and 0.5V (DOWN).
6	*	G	—	Mirror sensor LH/RH signal	When motor is activated (LH or RH)	Changes between 4V (RIGHT)–0.5V (LEFT).
7		R/B	—	Data line A-3	—	—
8		L	—	BAT power supply	—	Battery voltage
9	3	PU/W	GY/R	Mirror motor DOWN signal	When motor is activated (DOWN)	Battery voltage
					When motor is not activated	0V
9	4	PU/W	BR	Mirror motor RH signal	When motor is activated (RH)	Battery voltage
					When motor is not activated	0V
10	*	B	—	Ground	—	0V

\*: Body ground

## Terminals and Reference Values for BCM

E/S0014P

TERMINAL	WIRE COLOR	ITEM	CONDITION	Voltage(V)
21	SB	Door mirror LH/RH switch- ing Signal –RH	Set the door mirror control switch to right position.	0V
			Other than above	Approx.5V
24	BR/Y	Door mirror LH/RH switch- ing Signal –LH	Set the door mirror remote control switch to left position.	0V
			Other than above	Approx.5V
25	G/R	Door mirror remote control switch signal–LH opera- tion	Set the either LH/RH door mirror face to left.	0V
			Other than above	Approx.5V
29	LG/R	Door mirror remote control switch signal–RH opera- tion	Set the either LH/RH door mirror face to right.	0V
			Other than above	Approx.5V
32	L/W	Door mirror remote control switch signal–Upward	Set the either LH/RH door mirror face upward.	0V
			Other than above	Approx.5V
34	P/L	Door mirror remote control switch signal–Downward	Set the either LH/RH door mirror face downward.	0V
			Other than above	Approx.5V
39	G	Memory switch1 signal	Memory switch1 (ON)	0V
			Memory switch1 (OFF)	Approx.5V
43	OR	Memory switch2 signal	Memory switch2 (ON)	0V
			Memory switch2 (OFF)	Approx.5V
50	R/Y	Set switch signal	Set switch (ON)	0V
			Set switch (OFF)	Approx.5V
56	B	Ground	—	0V
61	R/B	Data line A–2	—	—
67	G/W	Data line A–3	—	—
105	Y/L	BAT power supply	—	Battery voltage
113	B	Ground	—	0V
141	R/B	R position signal	When the selector lever is in Rposition	Battery voltage
			When the selector lever is not in Rposition	0V

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

EIS0011D

## Work Flow

1. Check the symptom and customer's requests.
2. Understand the system description. Refer to [GW-68, "System Description"](#) .
3. Carry out the preliminary check. Refer to [GW-77, "Preliminary Check"](#) .
4. Carry out the communication inspection. If CONSULT-II is used, refer to [GW-80, "IVMS Communication Diagnosis"](#) . If CONSULT-II is not used, refer to [GW-87, "COMMUNICATION DIAGNOSIS"](#) . Is the communication diagnosis result OK? If OK, GO TO 7. If NG, GO TO 5.
5. Repair or replace depending on the diagnosis result.
6. Carry out the communication diagnosis again. If CONSULT-II is used, refer to [GW-80, "IVMS Communication Diagnosis"](#) . If CONSULT-II is not used, refer to [GW-87, "COMMUNICATION DIAGNOSIS"](#) . Is communication diagnosis result OK? If OK, GO TO 7. If NG, GO TO 5.
7. Perform self-diagnosis. If CONSULT-II is used, refer to [GW-81, "Operation Procedure"](#) . If CONSULT-II is not used, refer to [GW-91, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#) . Is self-diagnosis result OK? If OK, GO TO 11. If NG, GO TO 8.
8. Repair or replace depending on the diagnosis result.
9. Carry out the self-diagnosis again. If CONSULT-II is used, refer to [GW-87, "Operation Procedure"](#) . If CONSULT-II is not used, refer to [GW-91, "ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER"](#) . Is self-diagnosis result OK? If OK, GO TO 11. If NG, GO TO 8.
10. Referring to Trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-93, "Symptom Chart"](#) .
11. Does the Reverse Interlock Door Mirror System operate normally? If it operates normally, GO TO 12. If not, GO TO 10.
12. Inspection end

## Preliminary Check

### POWER SUPPLY AND GROUND CIRCUIT INSPECTION

EIS0011E

#### 1. CHECK FUSE.

- Check that any of the following fuses in BCM and door mirror control unit are blown.

Unit	Terminal No.	Power source	Fuse No.
BCM	105	BAT power supply	#3
	60	ACC power	#21
	68	IGN power	#1
Door Mirror Control Unit(RH&LH)	8	BAT power supply	#8

#### NOTE:

Refer to [GW-70, "Component Parts and Harness Connector Location"](#) .

#### OK or NG?

OK >> GO TO 2

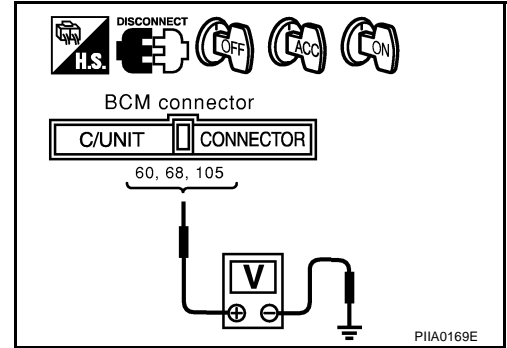
NG >> If fuse is blown, be sure to eliminate cause of problem before installing new fuse. Refer to [PG-2, "POWER SUPPLY ROUTING"](#) .

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 2. POWER SUPPLY CIRCUIT INSPECTION(BCM)

Disconnect BCM connector M4, measure the voltage between connector terminal (refer to the "Chart" below) of the harness connector and body ground.

Terminals		Power source	Condition	Voltage (V)
(+)				
Connector	Terminal			
M4	105(Y/L)	BAT power supply	Ignition switch OFF	Battery voltage
	60(L/OR)	ACC power supply	Ignition switch ACC	Battery voltage
	68(W/B)	IGN power supply	Ignition switch ON	Battery voltage



OK or NG?

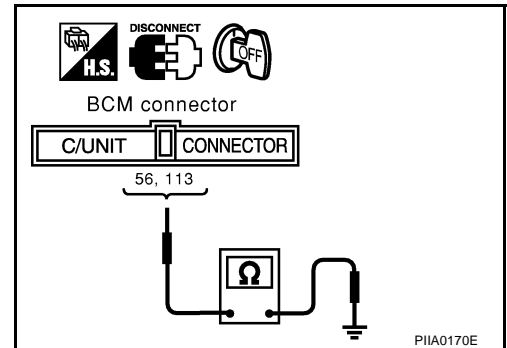
OK >> GO TO 3

NG >> Repair or replace the harnesses for BCM power supply circuit.

## 3. GROUND CIRCUIT INSPECTION(BCM)

Check continuity between BCM harness connector M4 following terminal Nos. and body ground.

Terminals		Condition	Continuity
(+)			
Connector	Terminal		
M4	56(B)	Ignition switch OFF	Should exist
	113(B)	Ignition switch OFF	Should exist



OK or NG?

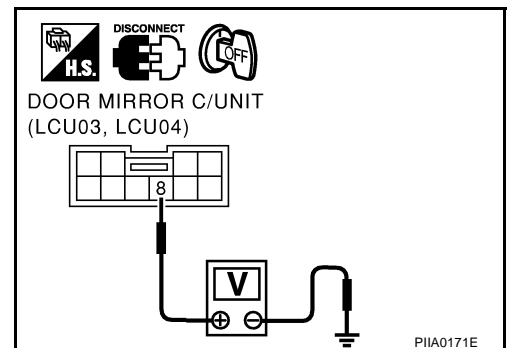
OK >> Check the door mirror control unit. GO TO 4

NG >> Repair or replace harness.

## 4. POWER SUPPLY CIRCUIT INSPECTION (DOOR MIRROR CONTROL UNIT)

Disconnect harness connectors of the door mirror control unit on the driver-side and passenger-side, measure the voltage between connecting the terminal (refer to the "Chart" below) of the harness connector D5,D35 and body ground.

Terminals		Power source	Condition	Voltage (V)
(+)				
Connector	Terminal			
D5,D35	8(L)	BAT power supply	Ignition switch OFF	Battery voltage



OK or NG?

OK >> GO TO 5

NG >> Repair or replace harness.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

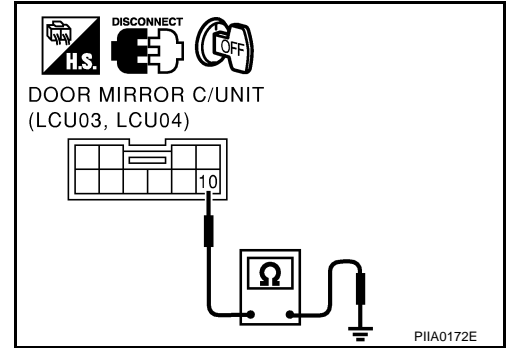
## 5. GROUND CIRCUIT INSPECTION (DOOR MIRROR CONTROL UNIT)

Check continuity between the following terminal of the harness connectors D5,D35 for door mirror control unit on the driver-side and passenger-side and body ground.

Terminals		(-)	Condition	Continuity
(+) Connector				
Terminal				
D5,D35	10(B)	Ground	Ignition switch OFF	Should exist

OK or NG?

- OK >> Normal
- NG >> Repair or replace harness.



## CONSULT-II Function

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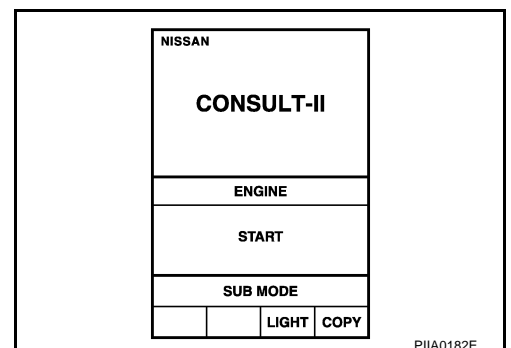
- CONSULT-II executes the following functions by combining data received and command transmitted via the communication line from BCM. IVMS communication inspection, work support (only function setting of seats and steering wheel), self-diagnosis, data monitor, and active test display.

IVMS diagnosis position	Inspection item and diagnosis mode	Description
IVMS-COMM CHECK	IVMS-COMM DIAGNOSIS	Diagnose a communication malfunction, inactive communication, and sleep malfunction in the communication line between BCM and each LCU.
	WAKE-UP DIAGNOSIS	Diagnose the wake-up signals output from each LCU.
AUTO DRIVE POSITIONER	WORK SUPPORT*	Changes the setting for each function. Refer to <a href="#">SE-31, "SETTING CHANGE FUNCTION"</a> .
	SELF-DIAG RESULTS	Carries out the self-diagnosis.
	DATA MONITOR	Displays the input data of BCM and each LCU on real-time basis.
	ACTIVE TEST	Sends a drive signal to a load to check the operation.
BCM PART NUMBER		Displays BCM part No.

\*: Only for function setting of seat and steering wheel

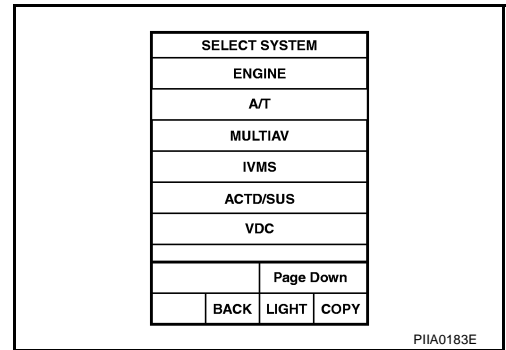
## CONSULT-II BASIC OPERATION PROCEDURE

- With the ignition switch OFF, connect CONSULT-II to the data link connector and turn the ignition switch ON.
- Touch "START".



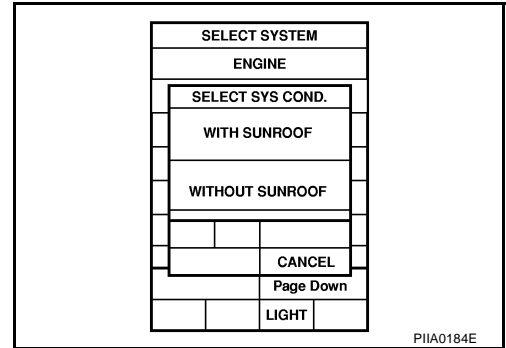
# REVERSE INTERLOCK DOOR MIRROR SYSTEM

3. Touch "IVMS" on the "SELECT SYSTEM" screen.



4. Check the model specification, touch either "WITH SUNROOF" or "WITHOUT SUNROOF" on the "SELECT SYS COND" screen.

5. Touch "OK". If the selection is wrong, touch "CANCEL".



6. Select the desired part to be diagnosed on the "SELECT TEST ITEM" screen.

## IVMS COMMUNICATION INSPECTION

- IVMS contains the IVMS communication diagnosis and wake-up diagnosis.

### IVMS Communication Diagnosis

- The IVMS communication diagnosis consists of the communication diagnosis, sleep diagnosis, and inactive communication diagnosis between BCM and each local unit (LCU), and display the results on the CONSULT-II screen.

#### NOTE:

Sleep is a power saving function when a vehicle is stationary (all BCM related electrical equipment: OFF, and the timer: OFF).

- The function also stores the communication malfunction records and inactive communication records, and displays the data on the CONSULT-II screen (Error record diagnosis)

Malfunction description	CONSULT-II display item	Description
Communication error	COMM DATA	<ul style="list-style-type: none"> <li>● Communicating with each LCU is judged sound when the communication is normally completed and the transmitted data and received data are identically the same. In other cases, it is judged malfunctioning. If the communication is inactive, no diagnosis result is displayed.</li> </ul>
Inactive communication	NO RESPONSE	<ul style="list-style-type: none"> <li>● Communicating with each LCU is judged sound when at least one time communication is normally completed within three trials. In other cases, it is judged malfunctioning.</li> </ul>
Sleep malfunction	SLEEP	<ul style="list-style-type: none"> <li>● Check that each LCU enters sleep mode.</li> </ul>
Communication error *	PAST COMM DATA	<ul style="list-style-type: none"> <li>● The records when communication signal malfunctions were continuously detected while the communication was normal are displayed. Or the records when a malfunction is detected during the past sleep mode are displayed.</li> </ul>
Inactive communication*	PAST NO RESPONSE	<ul style="list-style-type: none"> <li>● The records when inactive communications were continuously detected while the communication was normal are displayed.</li> </ul>

\*: malfunctioning item record



# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## Operation Procedure

1. Touch "IVMS-COMM CHECK" on "SELECT TEST ITEM".
2. Touch "IVMS-COMM DIAGNOSIS" on "SELECT DIAG ITEM" screen.
3. Touch "START" on "IVMS-COMM DIAGNOSIS" screen to start the diagnosis.
4. After the diagnosis is completed, the malfunctioning system is displayed.
5. When the malfunctioning items are displayed, touch "PRINT" to record.
6. Touch "ERASE".
7. Carry out the communication inspection again to check that any malfunctioning item is displayed.
8. Check the displayed items.

## Wake-Up Diagnosis

- The wake-up diagnosis is carried out when BCM detects the wake-up signal from each local unit (LCU). When the switch shown on the screen is operated as instructed, each local control unit(LCU) outputs the wake-up signal. If BCM cannot detect a wake-up signal, it is judged malfunctioning. The malfunctioning local control unit(LCU) is displayed on the screen.

## Operation Procedure

1. Touch "IVMS-COMM CHECK" on "SELECT TEST ITEM" screen.
2. Touch "WAKE-UP DIAGNOSIS" on "SELECT DIAG ITEM" screen.
3. Touch "START" on "WAKE-UP DIAGNOSIS" screen to start the diagnosis.
4. Touch "NEXT" to select the local control unit (LCU) to be diagnosed.
5. Check that any malfunction is displayed. If necessary, touch "PRINT" to record.
6. Carry out the inspection to the malfunctioning item.

## Trouble Diagnosis Chart

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference
COMM DATA	One LCU is displayed.	POWER WINDOW C/U-DR "COMM DATA"	24	Replace the displayed LCU.
		DOOR MIRROR C/U-RH "COMM DATA"	27	
		DOOR MIRROR C/U-LH "COMM DATA"	37	
		POWER SEAT C/U-DR "COMM DATA"	47	
	Multiple LCUs are displayed	BCM "COMM FAIL1" ,"COMM FAIL2"	Displays in order of 24 →27→37→47 →and cycles from 24.	Communication system A: Refer to <a href="#">GW-82, "COMMUNICATION SYSTEM A"</a>
NO RESPONSE	One LCU is displayed.	POWER WINDOW C/U-DR "NO RESPONSE"	25	Communication system B: Refer to <a href="#">GW-82, "COMMUNICATION SYSTEM B"</a>
		DOOR MIRROR C/U-RH "NO RESPONSE"	28	
		DOOR MIRROR C/U-LH "NO RESPONSE"	38	
		POWER SEAT C/U-DR "NO RESPONSE"	48	
	Multiple LCUs are displayed	BCM/HARNESS	Displays in order of 25→28→38→48 and cycles from 25.	Communication system C: Refer to <a href="#">GW-83, "COMMUNICATION SYSTEM C"</a>

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference
SLEEP malfunction	One LCU is displayed.	POWER WINDOW C/U-DR "SLEEP"	No self-diagnosis function	Replace the displayed LCU.
		DOOR MIRROR C/U-RH "SLEEP"		
		DOOR MIRROR C/U-LH "SLEEP"		
	POWER SEAT C/U-DR "SLEEP"			
	Multiple LCUs are displayed	All the above control units are displayed.	No self-diagnosis function	Communication system A: Refer to <a href="#">GW-82. "COMMUNICATION SYSTEM A"</a>

**NOTE:**

- For a specific local control unit (LCU), either "PAST COMM DATA" or "PAST NO RESPONSE" may be displayed instead of the above results. The data record, causes this, so erase the records.  
(The display only shows the incident records, they are not malfunctions caused during the diagnosis. One possible cause is that an intermittent incident occurred.)
- Follow the steps below to erase the memory.  
Carry out either disconnect BCM battery power supply or erase memory with CONSULT-II.
- With the battery connected, if the local control unit (LCU) connector is disconnected and left for approximately 1 minute, the BCM stores "NO RESPONSE" record.

## COMMUNICATION SYSTEM A

### 1. BCM INSPECTION

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to [GW-80. "IVMS Communication Diagnosis"](#) .

OK or NG?

- OK >> Replace the BCM
- NG >> GO TO 2.

### 2. LCU INSPECTION

1. Replace with the previously installed BCM.
2. Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to [GW-80. "IVMS Communication Diagnosis"](#) .

OK or NG?

- OK >> Replace the LCU
- NG >> Repair or replace communication harness between the LCU and BCM.

## COMMUNICATION SYSTEM B

### 1. HARNESS CONNECTOR INSPECTION

Check the terminals (at the control unit and harness) on the malfunctioning LCU for disconnection, bend, loose connection, and other malfunctions.

OK or NG?

- OK >> GO TO 2.
- NG >> Repair the terminals and connectors.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 2. LCU INSPECTION

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis. Refer to [GW-80, "IVMS Communication Diagnosis"](#) .

OK or NG?

OK >> Replace the LCU

NG >> Repair the communication harness between the indicated LCU and BCM.

## COMMUNICATION SYSTEM C

### 1. HARNESS CONNECTOR INSPECTION

Check the terminals (at the control unit and harness) on BCM and LCU for disconnection, bend, loose connection, and other malfunctions.

OK or NG?

OK >> GO TO 2.

NG >> Repair the terminals and connectors.

## 2. BCM INSPECTION

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to [GW-80, "IVMS Communication Diagnosis"](#) .

OK or NG?

OK >> Replace the BCM

NG >> Repair the communication harness between the LCU and BCM control.

## SELF-DIAGNOSIS RESULTS

### Operation Procedure

1. Touch "AUTO DRIVE POSITIONER" on "SELECT TEST ITEM" screen.
2. Touch "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
3. Touch "START" on "SELF-DIAG RESULTS" screen.
4. The seat and steering wheel automatically move, and the self-diagnosis for the seat , steering wheel and door mirror start (door mirror does not operate).
5. Within 15 seconds after the self-diagnosis for the seat, steering wheel and door mirror are completed, drive the vehicle at a speed of 7 km/h(4 MPH) or higher for the vehicle speed sensor self-diagnosis.
6. After the diagnosis is completed, the malfunctioning system is displayed.
7. When the malfunctioning items are displayed, touch "COPY" to record.
8. Touch "ERASE".
9. Perform self-diagnosis results again to check that any malfunctioning item is displayed.
10. Check the displayed items.

### Display Item List

Malfunctioning system	Malfunction detecting condition
SEAT SLIDE	When the sliding motor moves the seat backward for 2.5 seconds, and then forward for 2.5 seconds, if the sliding sensor pulse change amount is within 2 pulses.
SEAT RECLINING	When the reclining motor moves the seat forward for 2.5 seconds, and then backward for 2.5 seconds, if the reclining sensor pulse change amount is within 2 pulses.
SEAT LIFTER-FR	When the lifter motor (front end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds, if the lifter sensor (front end) pulse change amount is within 2 pulses.
SEAT LIFTER-RR	When the lifter motor (rear end) moves the seat downward for 2.5 seconds, and then upward for 2.5 seconds, if the lifter sensor (rear end) pulse change amount is within 2 pulses.
STEERING TILT	When the tilt motor moves the steering wheel upward for 1 second, and then downward for 1 second, if the tilt sensor output voltage is 0.2V or less.
STEERING TELESCO	When the telescoping motor moves the steering wheel forward for 1 second, and then backward for 1 second, if the telescoping sensor output voltage is 0.2V or less.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

Malfunctioning system	Malfunction detecting condition
DOOR MIRROR–LH·UP–DOWN	When LH door mirror sensor detects 0.2V or lower, or 4.5V or higher, for 0.5 seconds or more.
DOOR MIRROR–LH·L–R	
DOOR MIRROR–RH·UP–DOWN	When RH door mirror sensor detects 0.2V or lower, or 4.5V or higher, for 0.5 seconds or more.
DOOR MIRROR–RH·L–R	
VEHICLE SPEED SENSOR	When the vehicle speed is less than 7 km/h (4 MPH) for 15 seconds after the diagnosis for the seat and steering wheel is completed.

## DATA MONITOR

### Operation Procedure

1. Touch "AUTO DRIVE POSITIONER" on "SELECT TEST ITEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch "MAIN SIGNALS" or "SELECTION FROM MENU" on "DATA MONITOR" screen.

MAIN SIGNALS	Monitors the main items.
SELECTION FROM MENU	Selects and monitors the items.

4. Touch "START".
5. If "SELECTION FROM MENU" is selected, touch the desired monitor item. If "MAIN SIGNALS" is selected, the main item required to control is monitored.
6. During monitoring, touching "COPY" can start recording the monitor item status.

### Display Item List

Monitor item [OPERATION or UNIT]	Contents
SLIDE SW–FR      "ON/OFF"	Operation (ON)/open (OFF) status judged from the sliding switch (FR) signal is displayed.
SLIDE SW–RR      "ON/OFF"	Operation (ON)/open (OFF) status judged from the sliding switch (RR) signal is displayed.
RECLN SW–FR      "ON/OFF"	Operation (ON)/open (OFF) status judged from the reclining switch (FR) signal is displayed.
RECLIN SW–RR      "ON/OFF"	Operation (ON)/open (OFF) status judged from the reclining switch (RR) signal is displayed.
LIFT FR SW–UP      "ON/OFF"	Operation (ON)/open (OFF) status judged from the FR lifter switch (UP) signal is displayed.
LIFT FR SW–DN      "ON/OFF"	Operation (ON)/open (OFF) status judged from the FR lifter switch (DOWN) signal is displayed.
LIFT RR SW–UP      "ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (UP) signal is displayed.
LIFT RR SW–DN      "ON/OFF"	Operation (ON)/open (OFF) status judged from the RR lifter switch (DOWN) signal is displayed.
MIR CON SW–UP      "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (UP) signal is displayed.
MIR CON SW–DN      "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (DOWN) signal is displayed.
MIR CON SW–RH      "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (RIGHT) signal is displayed.
MIR CON SW–LH      "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (LEFT) signal is displayed.
MIR CHNG SW–R      "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (switching to RIGHT) signal is displayed.
MIR CHNG SW–L      "ON/OFF"	Operation (ON)/open (OFF) status judged from the door mirror remote control switch (switching to LEFT) signal is displayed.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

Monitor item [OPERATION or UNIT]	Contents	
SET SW	"ON/OFF"	Operation (ON)/open (OFF) status judged from the setting switch signal is displayed.
TELESCO SW-FR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the telescoping switch (FR) signal is displayed.
TELESCO SW-RR	"ON/OFF"	Operation (ON)/open (OFF) status judged from the telescoping switch (RR) signal is displayed.
TILT SW-UP	"ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (UP) signal is displayed.
TILT SW-DOWN	"ON/OFF"	Operation (ON)/open (OFF) status judged from the tilt switch (DOWN) signal is displayed.
MEMORY SW1	"ON/OFF"	Operation (ON)/open (OFF) status judged from the seat memory switch 1 signal is displayed.
MEMORY SW2	"ON/OFF"	Operation (ON)/open (OFF) status judged from the seat memory switch 2 signal is displayed.
CANCEL SW	"ON/OFF"	Setting status is displayed with the display unit: "Active (ON)/inactive (OFF)"
DOOR SW DR	"ON/OFF"	Door open (ON)/door closed (OFF) status judged from the driver door switch is displayed.
VHCL SPEED SE	"<7km/ >7km"	The present vehicle speed (less than 7 km/h(4 MPH), or 7 km/h(4MPH) or higher) is displayed.
DETENT SW	"ON/OFF"	The selector lever position "P position (ON)/other than P position (OFF)" judged from the detent switch signal is displayed.
IGN ON SW	"ON/OFF"	Ignition key switch ON/ignition switch START, ACC, or OFF status judged from the ignition switch signal is displayed.
IGN ACC SW	"ON/OFF"	Ignition key switch ACC or ON/ignition switch START, or OFF status judged from the ignition switch signal is displayed.
IGN START SW	"ON/OFF"	Ignition key switch START, ON/ignition switch ACC, or OFF status judged from the ignition switch signal is displayed.
IGN KEY SW	"ON/OFF"	Key inserted (ON)/key removed (OFF) status judged from the key detection switch is displayed.
R POSITION SW	"ON/OFF"	R position (ON)/Other than R position OFF of shift position signal from back-up lamp relay is displayed.
TILT SEN	"V"	The tilt position (voltage) judged from the tilt sensor signal is displayed.
TELESCO SEN	"V"	The telescoping position (voltage) judged from the telescoping sensor signal is displayed.
MIR/SE RH R-L	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (LH/RH) is displayed.
MIR/SE RH U-D	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from RH door mirror sensor output voltage (UP/DOWN) is displayed.
MIR/SE LH R-L	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (LH/RH) is displayed.
MIR/SE LH U-D	"ON/OFF"	ON (normal value)/OFF (abnormal value) *of voltage value judged from LH door mirror sensor output voltage (UP/DOWN) is displayed.
Voltage	"V"	Displays measured values by voltage probe.
Frequency	"ms,Hz,%"	Displays value measured with pulse probe.

\*: Abnormal value indicates that the sensor output voltage is 0.2V or lower, or 4.5V or higher.

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M

GW

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## ACTIVE TEST

### Operation Procedure

1. Touch "AUTO DRIVE POSITIONER" on "SELECT TEST ITEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch the item to be tested, and check the operation.
4. During the operation check, touching "OFF" deactivates the operation.

### Display Item List

Test item	Description
TILT MOTOR	The tilt motor is activated by receiving the drive signal.
TELESCO MOTOR	The telescoping motor is activated by receiving the drive signal.
SEAT SLIDE	The sliding motor is activated by receiving the drive signal.
SEAT RECLINING	The reclining motor is activated by receiving the drive signal.
SEAT LIFTER FR	The front end lifter motor is activated by receiving the drive signal.
SEAT LIFTER RR	The rear end lifter motor is activated by receiving the drive signal.
MEMORY SW INDCTR	The memory switch indicator is lit by receiving the drive signal.
MIRROR MOTOR RH	The RH door mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.
MIRROR MOTOR LH	The LH door mirror motor moves the mirror UP/DOWN and LEFT/RIGHT by receiving the drive signal.

## On Board Diagnosis

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- BCM can check each local unit (LCU), switches, loads, and malfunctions in communication with the self-diagnosis.

### DIAGNOSIS ITEM

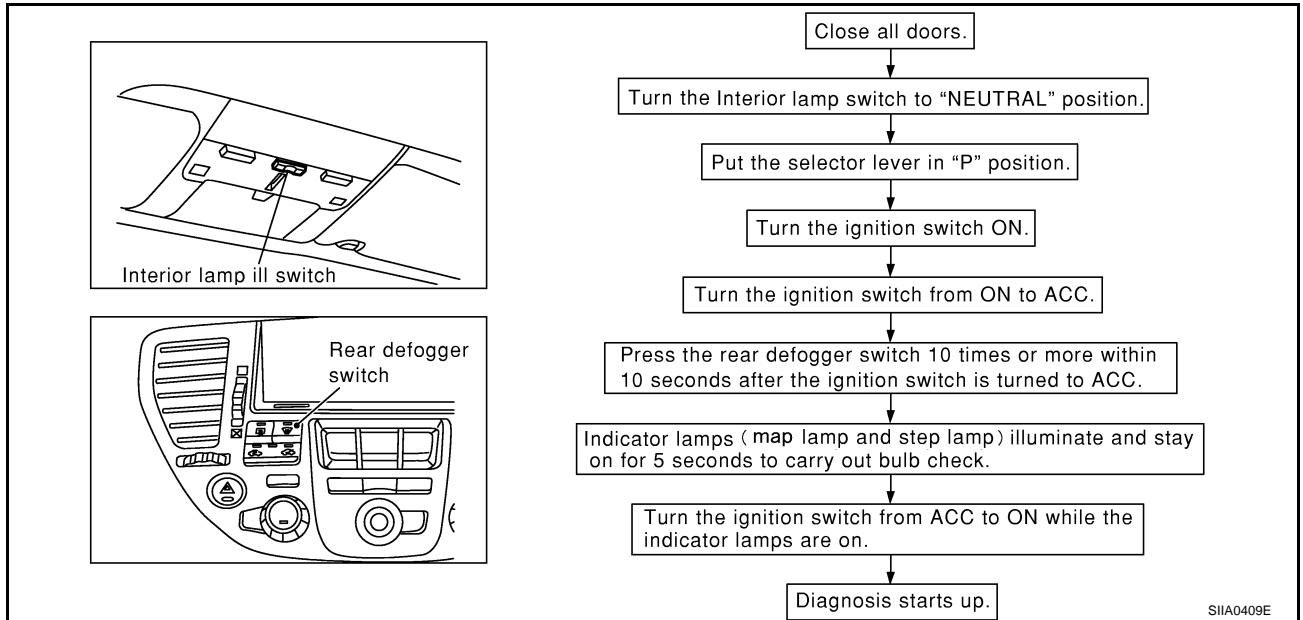
Diagnosis item	Description
Communication diagnosis	<ul style="list-style-type: none"><li>● It can check the communication line between BCM and each LCU, and also each LCU, for a communication error and malfunction.</li></ul>
Switch monitor	<ul style="list-style-type: none"><li>● It can check the switch systems which send data to BCM and each LCU for a malfunction.</li></ul>
Self-diagnosis for auto drive positioner	<ul style="list-style-type: none"><li>● Diagnoses malfunctions in each motor and sensor in the electrical load parts of the driver power seat system (sliding, reclining, and lifter [front/rear]), of the steering wheel system (tilt, telescoping), and of door mirror.</li></ul>

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## COMMUNICATION DIAGNOSIS

- Check the communication between BCM and each local control unit(LCU).

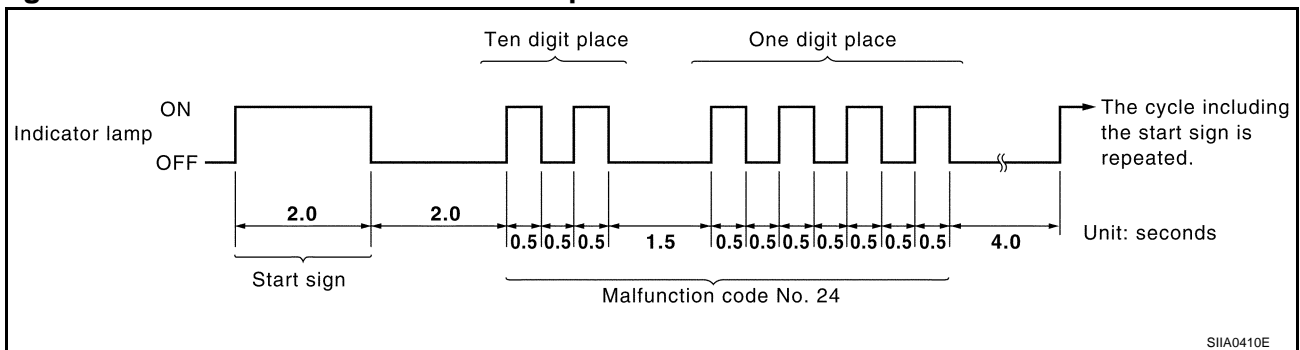
### Operation Procedure



### Diagnosis Result Display

- The indicator lamps (the map lamp and step lamp) turn ON (illuminate) for 2 seconds and OFF (go off) for 2 seconds to indicate that the diagnosis has started, then indicate the diagnosis trouble code.
- To indicate the self-diagnosis trouble code, the indicator lamps illuminate or flash.
- At first, the lamps indicate the second place by ON/OFF with 0.5 second-interval, then OFF for 1.5 seconds. Next, they indicate the first place by ON/OFF with 0.5 second interval.
- If there are multiple malfunctioning parts, the lamps indicate them in sequence from the smallest diagnosis trouble code.
- The diagnosis results repeat until the diagnosis is cancelled.
- If a malfunction is indicated, carry out the communication diagnosis again to check that the same diagnosis trouble code is indicated.

### Diagnosis Trouble Code Indication Example



# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## Trouble Diagnosis Chart

Malfunctioning item	Display unit	CONSULT-II IVMS communication diagnosis content	Self-diagnosis trouble code No.	Malfunctioning system and reference
COMM DATA	One LCU is displayed.	POWER WINDOW C/U-DR "COMM DATA"	24	Replace the displayed LCU.
		DOOR MIRROR C/U-RH "COMM DATA"	27	
		DOOR MIRROR C/U-LH "COMM DATA"	37	
		POWER SEAT C/U-DR "COMM DATA"	47	
	Multiple LCUs are displayed	BCM "COMM FAIL1" ,"COMM FAIL2"	Displays in order of 24 →27→37→47 →and cycles from 24.	Communication system A: Refer to <a href="#">GW-89. "COMMUNICATION SYSTEM A"</a>
NO RESPONSE	One LCU is displayed.	POWER WINDOW C/U-DR "NO RESPONSE"	25	Communication system B: Refer to <a href="#">GW-89. "COMMUNICATION SYSTEM B"</a>
		DOOR MIRROR C/U-RH "NO RESPONSE"	28	
		DOOR MIRROR C/U-LH "NO RESPONSE"	38	
		POWER SEAT C/U-DR "NO RESPONSE"	48	
	Multiple LCUs are displayed	BCM/HARNESS	Displays in order of 25→28→38→48 and cycles from 25.	Communication system C: Refer to <a href="#">GW-89. "COMMUNICATION SYSTEM C"</a>
SLEEP malfunction	One LCU is displayed.	POWER WINDOW C/U-DR "SLEEP"	No self-diagnosis function	Replace the displayed LCU.
		DOOR MIRROR C/U-RH "SLEEP"		
		DOOR MIRROR C/U-LH "SLEEP"		
		POWER SEAT C/U-DR "SLEEP"		
	Multiple LCUs are displayed	All the above control units are displayed.	No self-diagnosis function	Communication system A: Refer to <a href="#">GW-89. "COMMUNICATION SYSTEM A"</a>

### NOTE:

- For a specific local control unit(LCU), either "PAST COMM DATA" or "PAST NO RESPONSE" may be displayed instead of the above results. This is caused by the data record, so erase the records.  
(The display only shows the incident records, they are not malfunctions caused during the diagnosis. One possible cause is that an irreproducible incident occurred.)
- Follow the steps below to erase the memory.  
Carry out either disconnect BCM battery power supply or erase memory with CONSULT-II.
- With the battery connected, if the local control unit(LCU) connector is disconnected and left for approximately 1 minute, the BCM stores "NO RESPONSE" record.

### Cancel of Communication Diagnosis

If the following conditions are satisfied, the communication diagnosis is cancelled.

- When the ignition switch is turned OFF.
- The vehicle speed becomes 7 km/h (4 MPH) or higher.
- Ten minutes have passed since the diagnosis result indication start without no diagnosis cancel operation.



# REVERSE INTERLOCK DOOR MIRROR SYSTEM

---

## COMMUNICATION SYSTEM A

### 1. BCM INSPECTION

---

Replace the BCM with a known-good one, and carry out the communication diagnosis. Refer to [GW-87, "COMMUNICATION DIAGNOSIS"](#) .

OK or NG?

- OK >> Replace the BCM
- NG >> GO TO 2.

### 2. LCU INSPECTION

---

1. Replace with the previously installed BCM.
2. Replace the LCU with a known-good one, and carry out the communication diagnosis. Refer to [GW-87, "COMMUNICATION DIAGNOSIS"](#) .

OK or NG?

- OK >> Replace the LCU
- NG >> Repair the communication harness between the LCU and BCM.

## COMMUNICATION SYSTEM B

### 1. HARNESS CONNECTOR INSPECTION

---

Check the terminals (at the control unit and harness) on the malfunctioning LCU for disconnection, bend, poor connection and other malfunctions.

OK or NG?

- OK >> GO TO 2.
- NG >> Repair the terminals and connectors.

### 2. LCU INSPECTION

---

Replace the malfunctioning LCU with a known-good one, and carry out the communication diagnosis. Refer to [GW-87, "COMMUNICATION DIAGNOSIS"](#) .

OK or NG?

- OK >> Replace the LCU
- NG >> Repair the communication harness between the indicated LCU and BCM.

## COMMUNICATION SYSTEM C

### 1. HARENESS CONNECTOR INSPECTION

---

Check the terminals (at the control unit and harness) on BCM and LCU for disconnection, bend, poor connection, and other malfunctions.

OK or NG?

- OK >> GO TO 2.
- NG >> Repair the terminals and connectors.

### 2. BCM INSPECTION

---

Replace the malfunctioning BCM with a known-good one, and carry out the communication diagnosis. Refer to [GW-87, "COMMUNICATION DIAGNOSIS"](#) .

OK or NG?

- OK >> Replace the BCM
- NG >> Repair the communication harness between the LCU and BCM control.

## SWITCH MONITOR

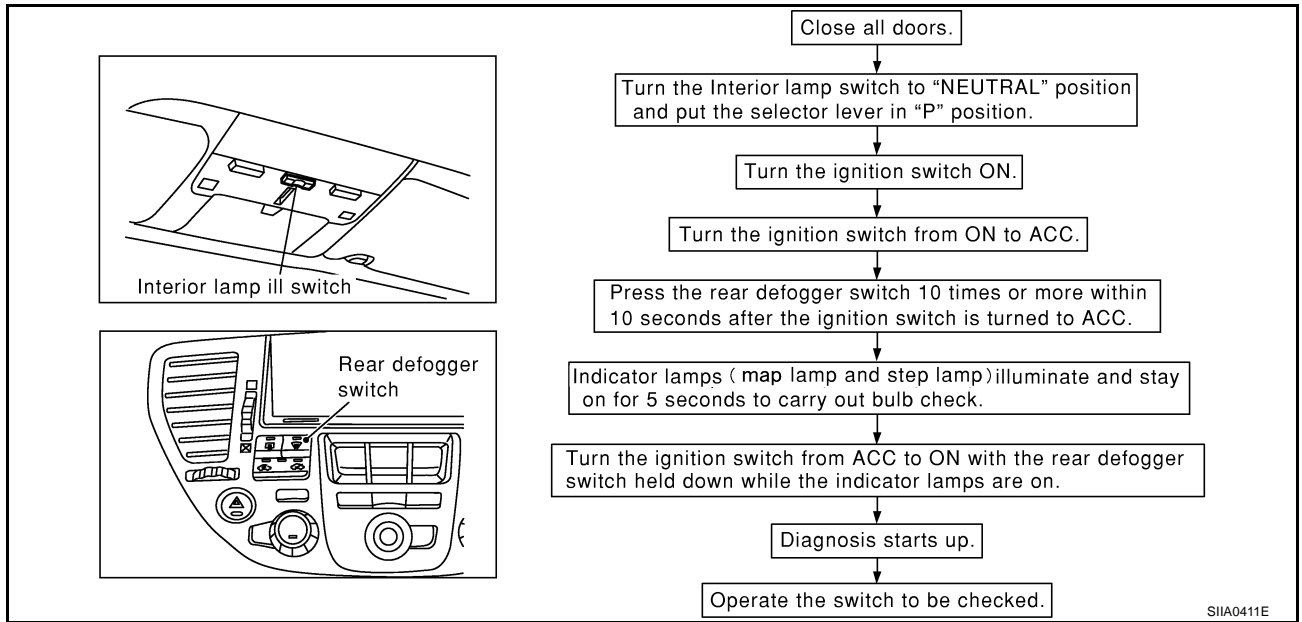
- Carry out the diagnosis for the switch system input to each control unit.

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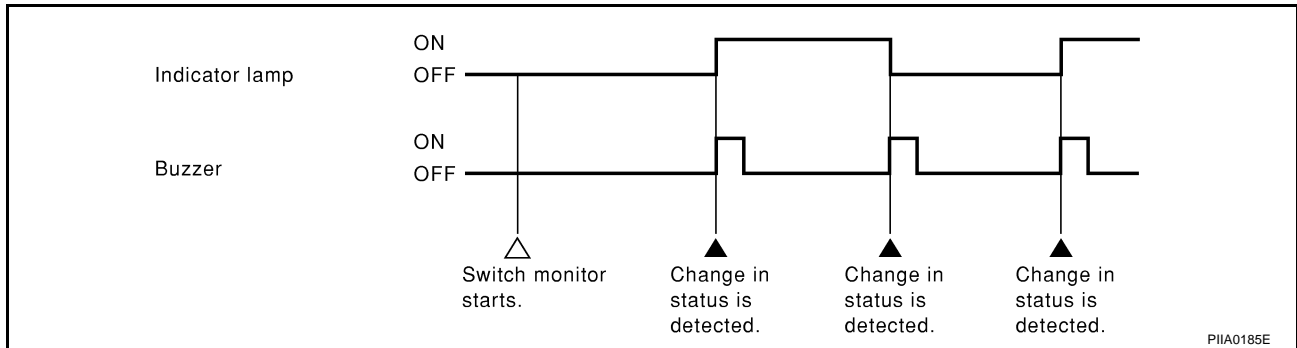
# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## Operation Procedure



## Diagnosis Result Display

- Detects the status change (switch ON/OFF operation) of the switch to be checked, and turns on/off the indicator lamps (the map lamp and step lamp). Also sounds the buzzer (the key remainder and light remainder) for 0.5 seconds.
- If a malfunction is detected, no indicator lamp and buzzer react.



## Diagnosis Item

- The status of the switch (except the ignition switch, interior lamp switch, and map lamp switch) input to each control unit can be monitored.

Control unit	Item
BCM	Detent switch
	Steering wheel position switch (telescoping switch and tilt switch)
	Seat memory switch (memory switch 1, memory switch 2, and setting switch).
	Driver door switch
	Door mirror remote control switch

## Cancel of Switch Monitor

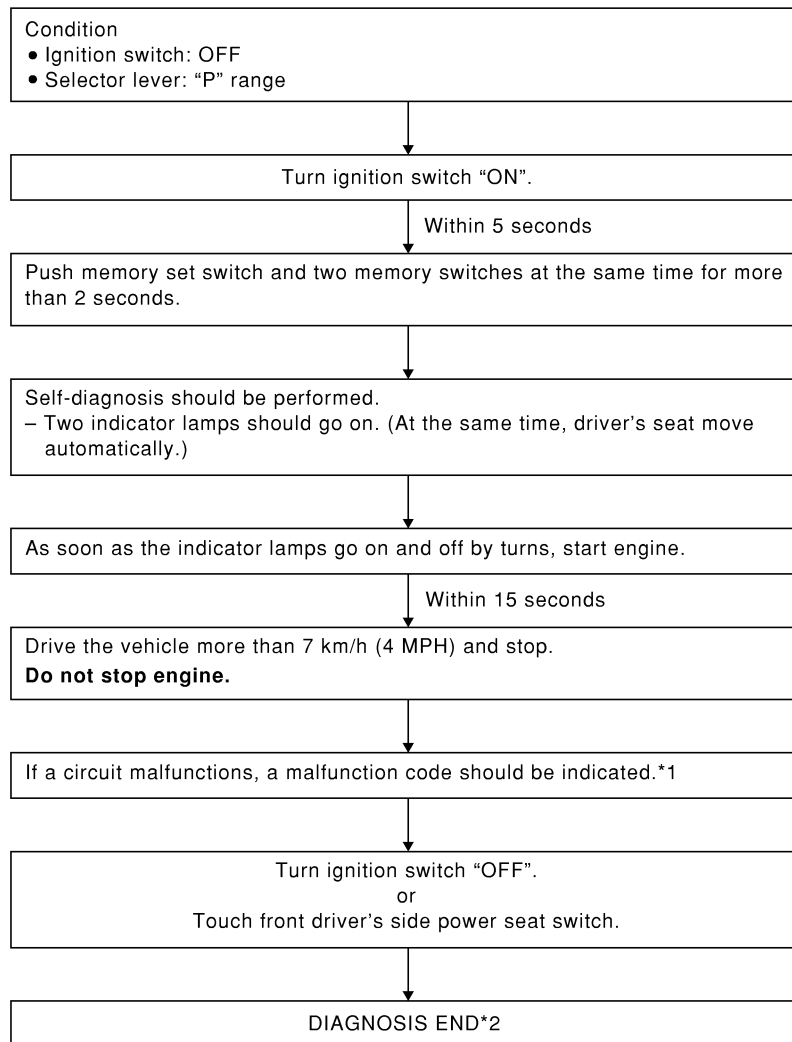
If the following conditions are satisfied, the switch monitor is cancelled.

- When the ignition switch is turned OFF.
- The vehicle speed becomes 7 km/h (4 MPH) or higher.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## ON BOARD DIAGNOSIS FOR AUTOMATIC DRIVE POSITIONER

- Check the operations of the auto drive positioner system.



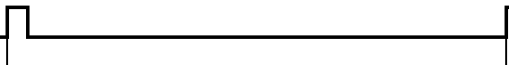

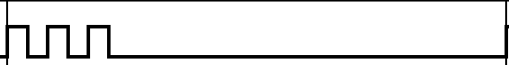
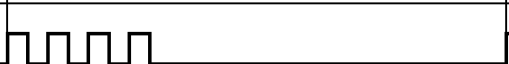


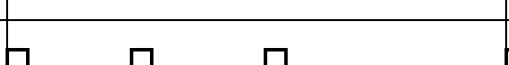

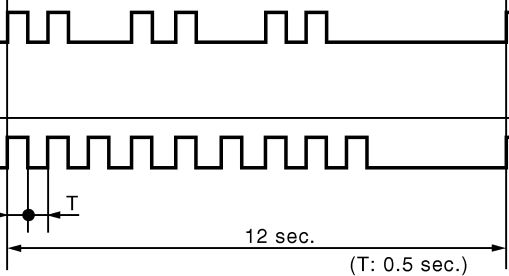
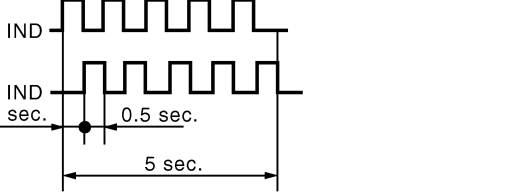
SEL596W  
\*1: If no malfunction is indicated, On board Diagnosis will end after the vehicle speed sensor diagnosis is performed.

\*2: Diagnosis ends after self-diagnostic results have indicated for 10 minutes if left unattended.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## Diagnosis Result Display

- The malfunctioning items are indicated by how many times LEDs on the seat memory switches 1 and 2 flash simultaneously.

Code No.	Detected items	Indication of seat memory switches 1 and 2	Explanation
1	Seat sliding	IND1, IND2 	While the seat motors are moving for 2.5 seconds, if the number of seat sliding/reclining/lifting sensor pulses changes 2 times or less, the seat device is determined to be malfunctioning.
2	Seat reclining	IND1, IND2 	
3	Seat lifting front	IND1, IND2 	
4	Seat lifting rear	IND1, IND2 	
5	Steering telescopic	IND1, IND2 	While the steering motors are moving, if the steering sensor output changes 0.2 volts or less, the steering device is determined to be malfunctioning.
6	Steering tilt	IND1, IND2 	
7	Door mirrors (upper and lower)	IND1, IND2 	When output voltage of either LH or RH door mirror sensor continues at less than 0.2V or more than 4.5V for 0.5 seconds or more, the door mirror is determined to be malfunctioning.
8	Door mirrors (LH and RH)	IND1, IND2 	When output voltage of either LH or RH door mirror sensor continues at less than 0.2V or more than 4.5V for 0.5 seconds or more, the door mirror is determined to be malfunctioning.
9	Vehicle speed sensor circuit	IND1, IND2 	If the vehicle speed sensor output of less than 7 km/h (4 MPH) is detected, the vehicle speed sensor is determined to be malfunctioning.
-	No malfunction in the above items		—

PIIA0190E

- If the vehicle speed is less than 7 km/h (4 MPH) for 15 seconds after the diagnosis for the seat and steering wheel systems were completed, the vehicle speed signal is judged malfunctioning.
- If LH door mirror is malfunctioning, only indicator lamp on the memory switch 1 flashes, and if RH door mirror is malfunctioning, only indicator lamp on the memory switch 2 flashes.
- When all the diagnosis are finished normally, the indicator lamps on the memory switches 1 and 2 go off after the vehicle speed signal diagnosis.
- If there are multiple malfunctioning parts, the lamps indicate them in sequence from the smallest diagnosis trouble code.
- The diagnosis results repeat until the diagnosis mode is cancelled.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## Symptom Chart

EIS0011H

Symptom	Malfunctioning system and reference
Reverse interlock door mirror system does not operate at all.	Refer to <a href="#">GW-93, "Door Mirror Remote Control Switch (Changeover switch) Circuit Inspection"</a> in "Door mirror LH/RH switching signal" section.
	Refer to <a href="#">GW-95, "Back-up Input Signal Circuit Inspection In R Position"</a> in "R position signal" section.
	If all the above systems are normal, replace BCM.
<ul style="list-style-type: none"> <li>● During the reverse interlock door mirror system operation, either LH or RH door mirror face does not reproduce the stored angle.</li> <li>● After the reverse interlock door mirror system operation, the door mirror face returns to wrong position (not to the original position).</li> </ul>	Refer to <a href="#">GW-96, "Mirror Sensors Circuit Inspection 1"</a> in "Mirror sensor signal" section.
	If the above system is normal, carry out the communication inspection again.
The mirror face position with the reverse gear engaged cannot be memorized.	Refer to <a href="#">SE-74, "Seat Memory Switch Circuit Inspection"</a> in "Seat memory switch signal" section.
	Refer to <a href="#">GW-93, "Door Mirror Remote Control Switch (Changeover switch) Circuit Inspection"</a> in "Door mirror LH/RH switching signal" section.
	Refer to <a href="#">GW-98, "Door Mirror Remote Control Switch (Mirror Switch) System Inspection"</a> in "Door mirror up/down and left/light adjustment signal" section.
	Refer to <a href="#">GW-95, "Back-up Input Signal Circuit Inspection In R Position"</a> in "R position signal" section.
	Refer to <a href="#">GW-99, "Mirror Motors Circuit Inspection"</a> in "Mirror motor signal" section.
	Refer to <a href="#">GW-101, "Mirror Sensors Circuit Inspection 2"</a> in "Mirror sensor signal" section.
	If all the above systems are normal, replace BCM.

## Door Mirror Remote Control Switch (Changeover switch) Circuit Inspection

EIS00111

### 1. FUNCTION INSPECTION

 With CONSULT-II

- Check the operation on "MIR CHNG SW-R" or "MIR CHNG SW-L" in the DATA MONITOR. Refer to [GW-84, "DATA MONITOR"](#).

DATA MONITOR			
SELECT MONITOR ITEM			
MIR CON SW-RH			
MIR CON SW-LH			
MIR CHNG SW-R			
MIR CHNG SW-L			
SET SW			
Page Up	Page Down		
SETTING	Numerical Display		
MODE	BACK	LIGHT	COPY

PIIA0191E

 Without CONSULT-II

- Carry out the switch monitor in the self-diagnostic function. Refer to [GW-89, "SWITCH MONITOR"](#).

OK or NG?

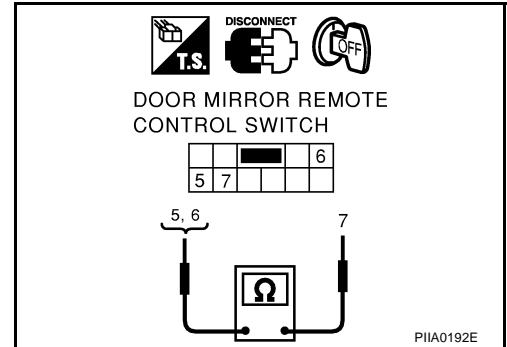
- OK >> System is OK.
- NG >> GO TO 2.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 2. DOOR MIRROR REMOTE CONTROL SWITCH (SWITCHING TO LEFT/RIGHT) INSPECTION

- Disconnect the door mirror remote control switch connector M19.
- After switching the door mirror remote control switch to left/right, check continuity between the following terminals.

Terminals		Condition	Continuity	
(+)				
Connector	Terminal	(-)		
M19	5(SB)	7(B)	LH/RH control switch (Right position)	Should exist
	6(BR/Y)	7(B)	LH/RH control switch (Left position)	Should exist



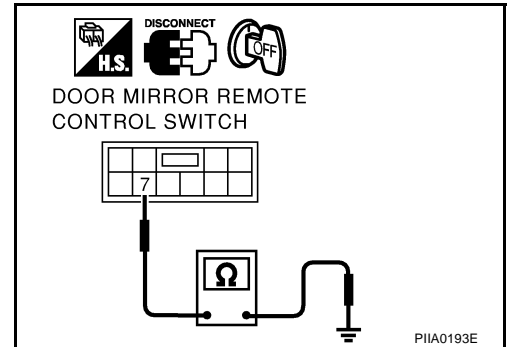
OK or NG ?

- OK >> GO TO 3.  
 NG >> Replace the door mirror remote control switch.

## 3. GROUND CIRCUIT INSPECTION OF DOOR MIRROR REMOTE CONTROL SWITCH

- Check continuity between the door mirror remote control switch harness connector M19 terminal No.7(B) and body ground.

No.7(B) – body ground : :Continuity should exist



OK or NG ?

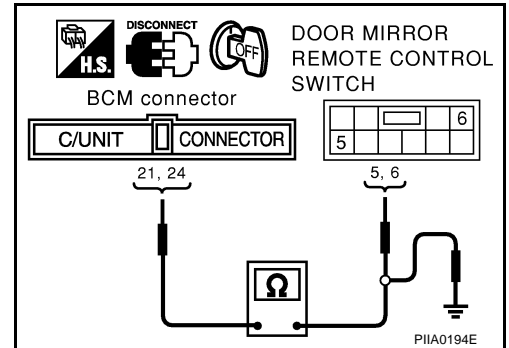
- OK >> GO TO 4.  
 NG >> Repair or replace harness.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 4. HARNESS CONTINUITY INSPECTION

- Disconnect the BCM connector M4.
- Check continuity BCM harness connector M4 terminals No.21(SB), No.24(BR/Y) and door mirror remote control switch connector M19 terminals 5(SB),6(BR/Y) and check continuity between door mirror remote control switch harness connector M19 terminals No.5(SB), No.6(BR/Y) and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	21(SB)	M19	5(SB)	Should exist
	6(BR/Y)		6(BR/Y)	Should exist
	21(SB)	—	Ground	Should not exist
	6(BR/Y)		Ground	Should not exist



OK or NG ?

- OK >> Replace BCM.
- NG >> Repair or replace harness.

## Back-up Input Signal Circuit Inspection In R Position

EIS0011J

### 1. CHECK THE SYMPTOM

- With the A/T selector lever shifted to R position, check that the vehicle runs normally.
- Check that other systems using the reverse signal are under normal operation.

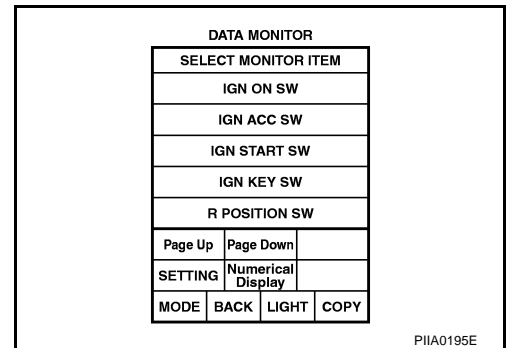
OK or NG ?

- OK >> GO TO 2.
- NG >> Refer to [AT-192, "Vehicle Does Not Creep Backward In "R" Position"](#) .

### 2. FUNCTION INSPECTION

☐ With CONSULT-II

- Check the operation on "R POSITION SW" in the DATA MONITOR. Refer to [GW-84, "DATA MONITOR"](#) .



⊗ Without CONSULT-II

- GO TO 3.

GO or NG ?

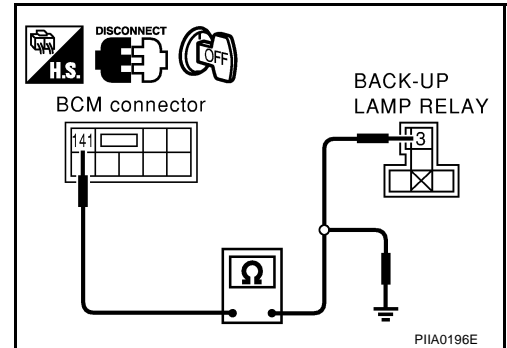
- OK >> Normal
- NG >> GO TO 3.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the BCM connector B4 and BACK-UP LAMP RELAY connector E2-2.
- Check continuity between BCM harness connector B4 terminal No.141(R/B) and back-up lamp relay harness connector E2-2 terminal No.3(R/B) and check continuity between back-up lamp relay harness connector E2-2 terminal No.3(R/B) and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	141(R/B)	E2-2	3(R/B)	Should exist
	21(SB)	—	Ground	Should not exist



OK or NG ?

- OK >> Replace BCM.
- NG >> Repair or replace harness.

## Mirror Sensors Circuit Inspection 1

EIS0011K

### 1. DOOR MIRROR FUNCTION INSPECTION

Check the following items.

- Operation malfunction caused by a foreign object caught in door mirror face edge.
- Operation malfunction in memory control

**NOTE:**

If a door mirror face position is set to an implausible angle, the set position may not be reproduced.

OK or NG ?

- OK >> GO TO 2.
- NG >> Repair the malfunctioning parts, and check the symptom again.

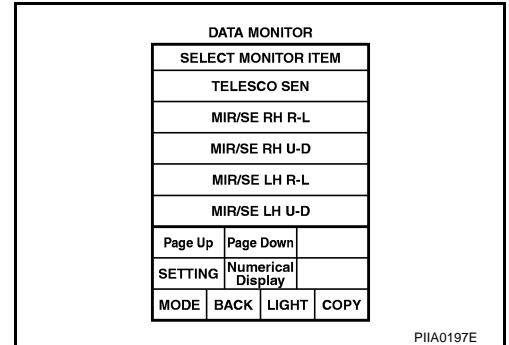


# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 2. MIRROR SENSOR INSPECTION

☑ With CONSULT-II

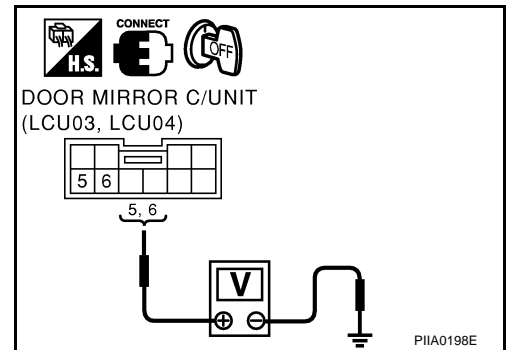
- Check that "ON" is displayed on "MIR/SE RH R-L, MIR/SE RH U-D" or "MIR/SE LH R-L, MIR/SE LH U-D" in the DATA MONITOR. Refer to [GW-84, "DATA MONITOR"](#).



☒ Without CONSULT-II

Check voltage between the door mirror control unit harness connector D5(Driver side),D35(Passenger side) terminals No.5(L/Y), No.6(G) and body ground.

Terminals		Condition	Voltage (V)
(+)	(-)		
Con- nector	Terminal		
D5, D35	5(L/Y)	When motor is activated (UP/DOWN)	Changes between 4V(close to peak)– and 0.5V(close to valley)
	6(G)	When motor is activated (LEFT/RIGHT)	Changes between 4V(close to right edge)–and 0.5V(close to left edge)



OK or NG ?

- OK >> System is OK.
- NG >> Replace the mirror sensor.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

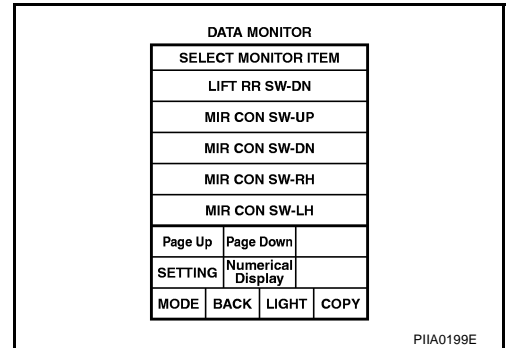
EIS0011L

## Door Mirror Remote Control Switch (Mirror Switch) System Inspection

### 1. DOOR MIRROR REMOTE CONTROL SWITCH(UP/DOWN, LEFT/RIGHT ADJUSTMENT) SIGNAL INSPECTION

☑ With CONSULT-II

- Check the operation on "MIR CON SW-UP/DN" and "MIR CON SW-RH/LH" in the DATA MONITOR. Refer to [GW-84, "DATA MONITOR"](#).



☒ Without CONSULT-II

- Carry out the switch monitor in the self-diagnostic function. Refer to [GW-89, "SWITCH MONITOR"](#).

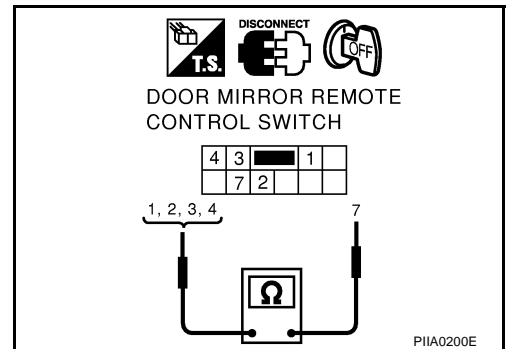
OK or NG ?

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

### 2. DOOR MIRROR REMOTE CONTROL SWITCH (UP/DOWN, LEFT/RIGHT ADJUSTMENT) INSPECTION

- Disconnect the door mirror remote control switch connector M19.
- After operating door mirror remote control switch in UP/DOWN and LEFT/RIGHT direction, check continuity between the following terminals.

Terminals		Condition	Continuity
(+)	(-)		
Connector	Terminal		
M19	3(L/W)	UP operation	Should exist
	4(P/L)	DOWN operation	
	2(G/R)	LEFT operation	Should exist
	1(LG/R)	RIGHT operation	
		7(B)	



OK or NG ?

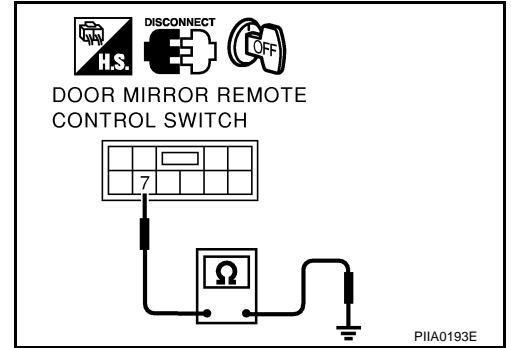
- OK >> GO TO 3.
- NG >> Replace the door mirror remote control switch.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 3. GROUND CIRCUIT INSPECTION OF DOOR MIRROR REMOTE CONTROL SWITCH

- Check continuity between the door mirror remote control switch harness connector M19 terminal No.7(B) and body ground.

No.7 (B)- body ground :: Continuity should exist



OK or NG ?

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

## 4. HARNESS CONTINUITY INSPECTION

- Disconnect the BCM harness connector.
- Check continuity between BCM harness connector M4 terminals No.25(G/R), No.29(LG/R), No.32(L/W), No.34(P/L) and the door mirror remote control switch harness connector M19 terminals No.1(LG/R), No.2(G/R), No.3(L/W), No.4(P/L) and body ground.

Terminals				Continuity
(+)		(-)		
Connector	Terminal	Connector	Terminal	
M4	32(L/W)	M19	3(L/W)	Should exist
	34(P/L)		4(P/L)	Should exist
	25(G/R)		2(G/R)	Should exist
	29(LG/R)		1(LG/R)	Should exist
	32(L/W)	—	Ground	Should not exist
	34(P/L)			Should not exist
	25(G/R)			Should not exist
	29(LG/R)			Should not exist

OK or NG?

- OK >> Replace BCM.
- NG >> Repair or replace harness.

## Mirror Motors Circuit Inspection

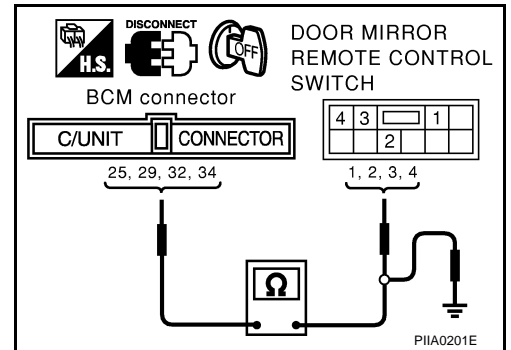
### 1. DOOR MIRROR FUNCTION INSPECTION

Check the following items.

- Operation malfunction caused by a foreign object caught in door mirror face edge.

OK or NG ?

- OK >> GO TO 2.
- NG >> Repair the malfunctioning parts, and check the symptom again.



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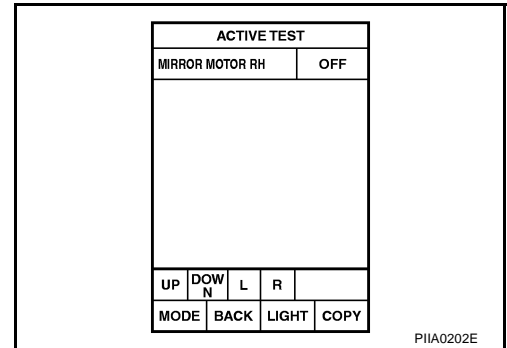
GW

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 2. MIRROR MOTOR INSPECTION

☑ With CONSULT-II

Check the operation with "MIRROR MOTOR RH" or "MIRROR MOTOR LH" in the ACTIVE TEST. Refer to [GW-86, "ACTIVE TEST"](#)



☒ Without CONSULT-II

GO TO 3

OK or NG ?

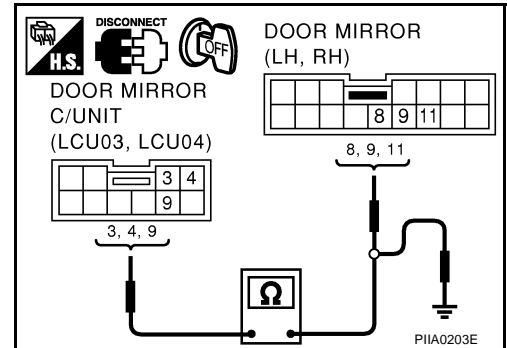
OK >> System is OK.

NG >> GO TO 3.

## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the door mirror control unit connector D5(Driver side),D35(Passenger side) and door mirror connector D2(Driver side),D32(Passenger side).
- Check continuity between the door mirror control unit harness connector D5(Driver side),D35(Passenger side) terminals No.3(GY/R,R\*), No.4(BR), No.9(PU/W,OR\*) and door mirror harness connector D2(Driver side),D32(Passenger side) terminals No.8(GY/R,R\*), No.9(BR), No.11(PU/W,OR\*) and body ground.

Terminals				Continuity
(+) Terminal		(-) Terminal		
Connector	Terminal	Connector	Terminal	
D5,D35	3(GY/R,R*)	D2,D32	8(GY/R,R*)	Should exist
	4(BR)		9(BR)	Should exist
	9(PU/W,OR*)		11(PU/W,OR*)	Should exist
D5,D35	3(GY/R,R*)	—	Ground	Should not exist
	4(BR)			Should not exist
	9(PU/W,OR*)			Should not exist



\*:Wire color for passenger side door mirror and passenger side door mirror control unit.

OK or NG ?

OK >> GO TO 4.

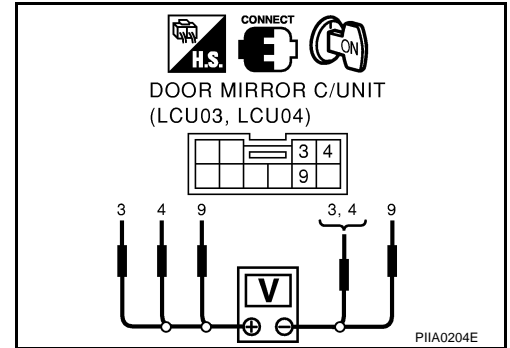
NG >> Repair or replace harness.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 4. MIRROR MOTOR SIGNAL INSPECTION

- Connect the door mirror control unit connector D5(Driver side), D35(Passenger side) and door mirror connector D2(Driver side), D32(Passenger side).
- Operate the door mirror remote control switch, and check voltage between door mirror control unit harness connector D5(Driver side),D35(Passenger side) terminals No.3(GY/R,R\*) and No.9(PU/W,OR\*), and terminals No.4(BR) and No.9(PU/W,OR\*).

Terminals		Condition	Voltage (V)
(+)	(-)		
Con- nector	Terminal		
D5, D35	3(GY/ R,R*)	When motor is activated(UP)	Battery voltage
		When motor is not activated	0V
	9(PU/ W,OR*)	When motor is activated(DOWN)	Battery voltage
		When motor is not activated	0V
	4(BR)	When motor is activated(LEFT)	Battery voltage
		When motor is not activated	0V
	9(PU/ W,OR*)	When motor is activated(RIGHT)	Battery voltage
		When motor is not activated	0V



\*:Wire color for passenger side door mirror and passenger side door mirror control unit.

OK or NG ?

- OK >> Replace the door mirror control unit.
- NG >> Replace the door mirror motor.

## Mirror Sensors Circuit Inspection 2

EIS0011N

### 1. DOOR MIRROR FUNCTION INSPECTION

Check the following items.

- Operation malfunction caused by a foreign object caught in door mirror face edge.
- Operation malfunction in memory control

**NOTE:**

If a door mirror face position is set to an implausible angle, the set position may not be reproduced.

OK or NG ?

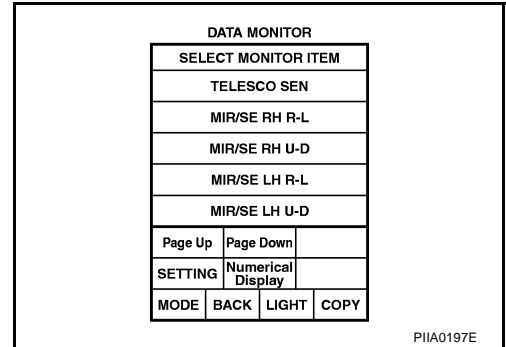
- OK >> GO TO 2.
- NG >> Repair the malfunctioning parts, and check the symptom again.

# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 2. MIRROR SENSOR INSPECTION

☑ With CONSULT-II

- Check that "ON" is displayed on "MIR/SE RH R-L, MIR/SE RH U-D" or "MIR/SE LH R-L, MIR/SE LH U-D" in the DATA MONITOR. Refer to [GW-84, "DATA MONITOR"](#).



☒ Without CONSULT-II  
GO TO 3.

### Question

- OK >> System is OK.  
NG >> GO TO 3.

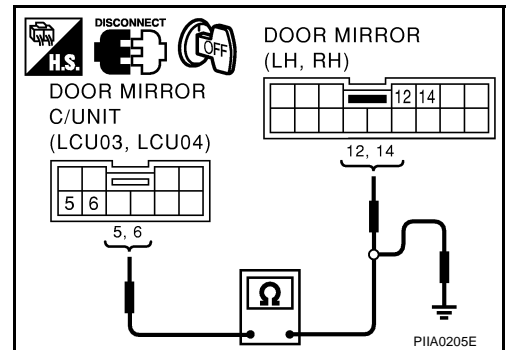
## 3. HARNESS CONTINUITY INSPECTION

- Disconnect the door mirror control unit connector D5(Driver side), D35(Passenger side) and door mirror connector D2(Driver side), D32(Passenger side).
- Check continuity between the door mirror control unit harness connector D5(Driver side), D35(Passenger side) terminals No.5(L/Y), No.6(G) and door mirror harness connector D2(Driver side), D32(Passenger side) terminals No.12(G), No.14(L/Y) and body ground.

Terminals				Continuity
(+) Terminal		(-) Terminal		
Con-nect- tor	Terminal	Connector	Terminal	
D5,D35	5(L/Y)	D2,D32	14(L/Y)	Should exist
	6(G)		12(G)	Should exist
	5(L/Y)	—	Ground	Should not exist
	6(G)			Should not exist

OK or NG ?

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

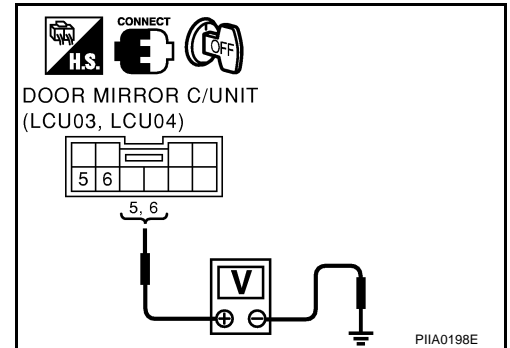


# REVERSE INTERLOCK DOOR MIRROR SYSTEM

## 4. MIRROR SENSOR SIGNAL INSPECTION

- Connect the door mirror control unit connector D5(Driver side), D35(Passenger side)and door mirror connector D2(Driver side), D32(Passenger side).
- Check voltage between the door mirror control unit harness connector D5(Driver side),D35(Passenger side) terminals No.5(L/Y), No.6(G) and body ground.

Terminals		Condition	Voltage (V)
(+)	(-)		
Con- nector	Terminal		
D5, D35	5(L/Y)	Ground	Changes between 4V(close to peak)– and 0.5V(close to valley)
	6(G)	Ground	Changes between 4V(close to right edge)–and 0.5V(close to left edge)



OK or NG ?

- OK >> Replace the door mirror control unit.  
 NG >> Replace the mirror sensor.

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**GW**

# DOOR MIRROR

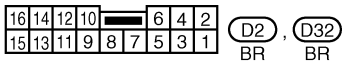
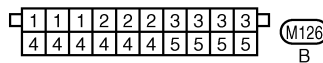
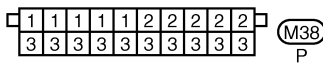
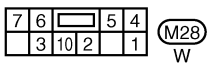
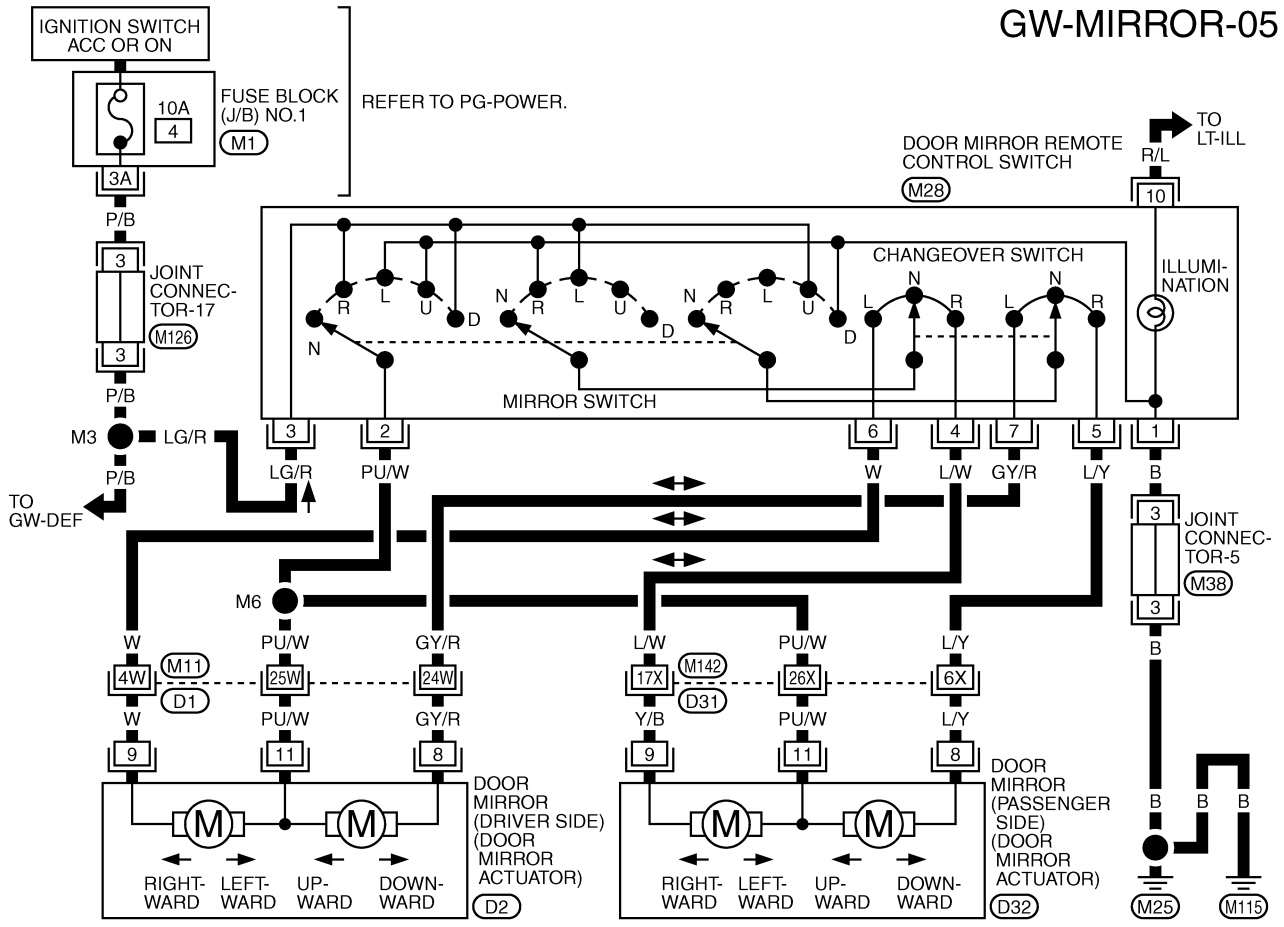
PFP:96301

## DOOR MIRROR

### Wiring Diagram-MIRROR-

EIS0010F

## GW-MIRROR-05



REFER TO THE FOLLOWING.

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

(M1) -FUSE BLOCK-JUNCTION BOX (J/B) NO.1

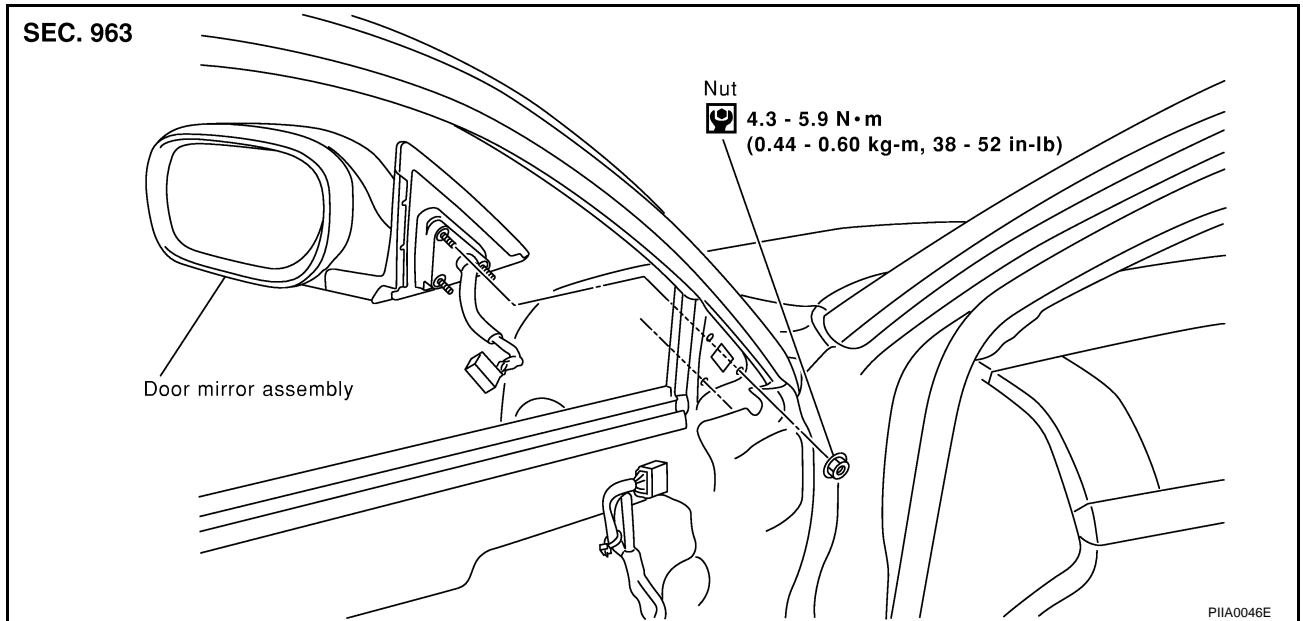
TIWM0088E



# DOOR MIRROR

## Removal and Installation

EIS0000E



### NOTE:

Be careful not to damage the mirror bodies.

1. Remove the front door finisher and door sash cover. Refer to [EI-31, "Removal and Installation"](#).
2. Remove the door mirror harness connector.
3. Loosen the door mirror mounting nuts, and remove the door mirror assembly.

Install in the reverse order of removal.

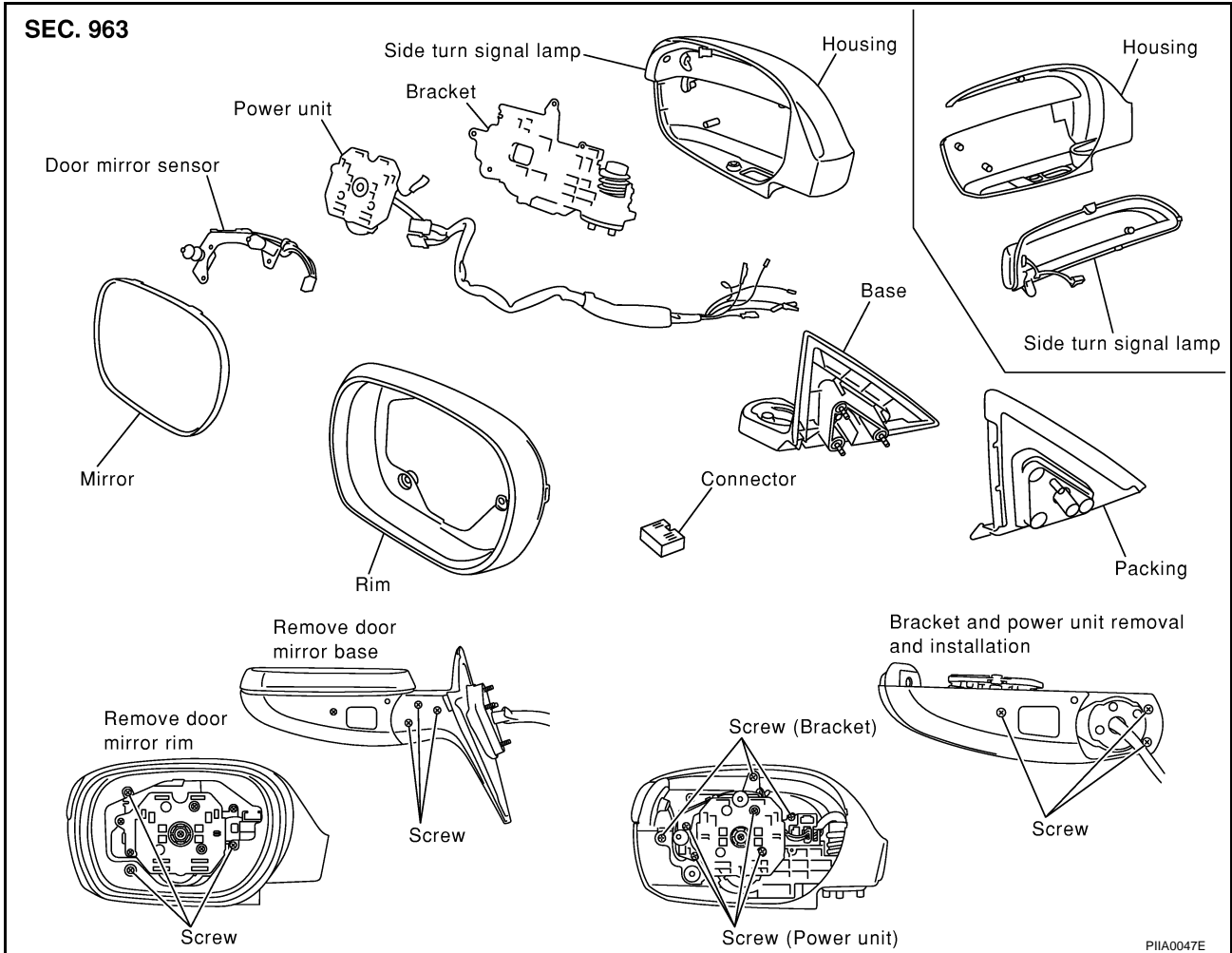
A  
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GW

# DOOR MIRROR

## Disassembly and Assembly

EIS0000F

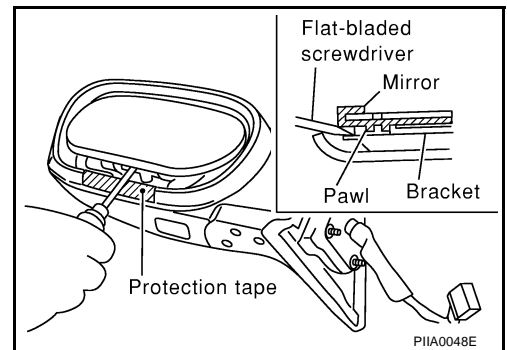


### DISASSEMBLY

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

**NOTE:**

When pushing up the pawls, do not attempt to use 1 recess only, be sure to push up with both recesses.



### ASSEMBLY

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

**NOTE:**

After installation, visually check that the lower pawls (2) are securely engaged from the bottom of the mirror face.

