

SECTION **GW**

GLASSES, WINDOW SYSTEM & MIRRORS

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PRECAUTIONS

PRECAUTIONS

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

GIS0003M

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.

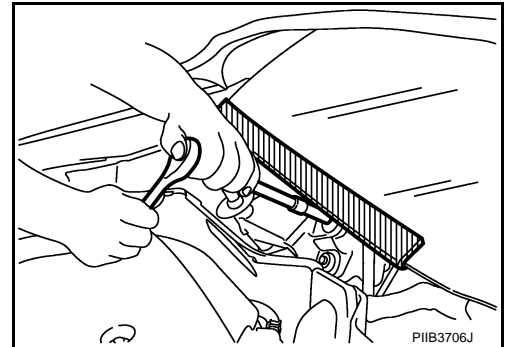
WARNING:

- 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.

Precautions for Procedures without Cowl Top Cover

GIS0003N

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



Handling for Adhesive and Primer

GIS0003O

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

Trouble Diagnosis Precaution

GIS0003P

When you read wiring diagrams, refer to the following:

- [GI-15, "How to Read Wiring Diagrams"](#)
- [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#)

When you perform trouble diagnosis, refer to the following:

- [GI-11, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#)
- [GI-24, "How to Perform Efficient Diagnosis for an Electrical Incident"](#)

Check for any service bulletins before servicing the vehicle.

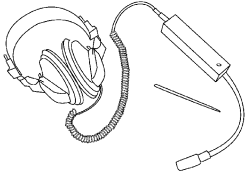
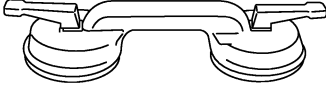
PREPARATION

PREPARATION

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Commercial Service Tools

GIS0003Q

Tool name	Description
<p data-bbox="172 314 284 342">Engine ear</p>  <p data-bbox="788 517 852 534">SIA0995E</p>	<p data-bbox="986 314 1171 342">Locating the noise</p>
<p data-bbox="172 646 300 674">Suction lifter</p>  <p data-bbox="788 753 852 770">PIIB1805J</p>	<p data-bbox="986 625 1230 704">Remove the windshield, rear window glass Holding the door glass</p>

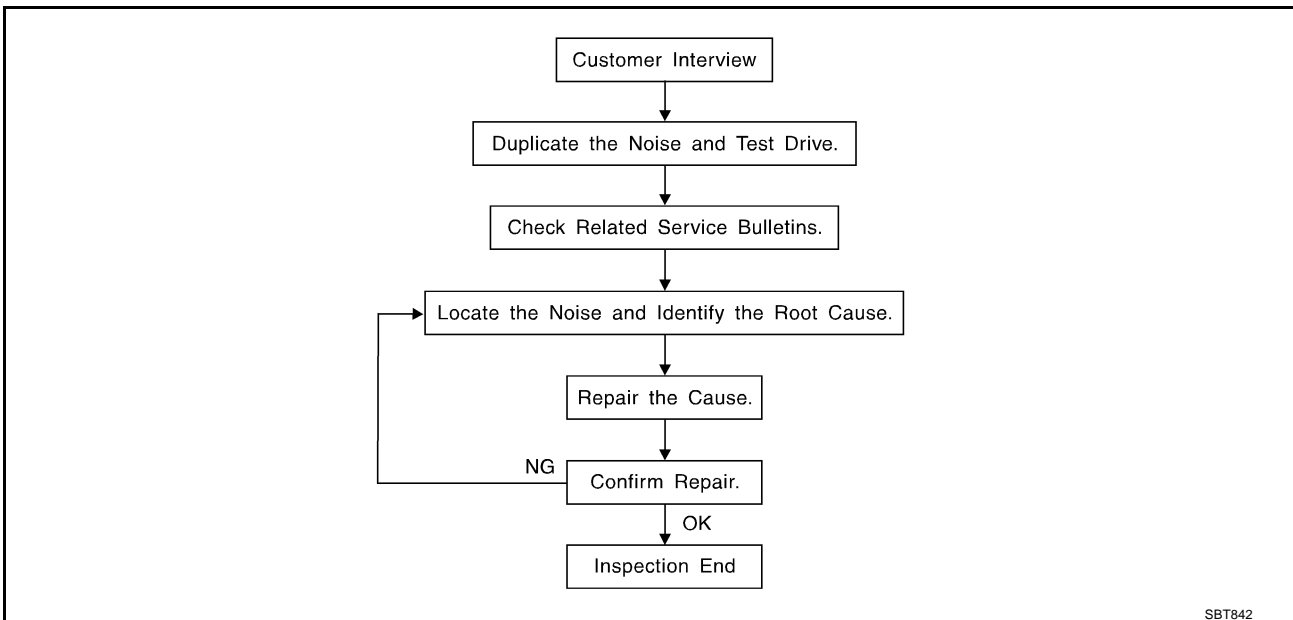
SQUEAK AND RATTLE TROUBLE DIAGNOSES

SQUEAK AND RATTLE TROUBLE DIAGNOSES

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Work Flow

GIS0003R



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 (Engine Ear or 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 are available through your authorized Nissan Parts Department.

CAUTION:

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

NOTE:

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

Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

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

INSULATOR (Foam blocks)

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

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

INSULATOR (Light foam block)

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES

FELT CLOTHTAPE

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

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

The following materials, not available through NISSAN Parts Department, can also be used to repair squeaks and rattles.

UHMW(TEFLON) TAPE

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

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit.

Note: Will only last a few months.

SILICONE SPRAY

Use when grease cannot be applied.

DUCT TAPE

Use to eliminate movement.

CONFIRM THE REPAIR

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

Generic Squeak and Rattle Troubleshooting

GIS0003S

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

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

CAUTION:

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

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas with felt cloth tape or insulator foam blocks to repair the noise.

SQUEAK AND RATTLE TROUBLE DIAGNOSES

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. Trunk lid torsion bars knocking together
4. A loose license plate or bracket

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

SUNROOF/HEADLINING

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

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

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

SEATS

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

Cause of seat noise include:

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

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

UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Diagnostic Worksheet

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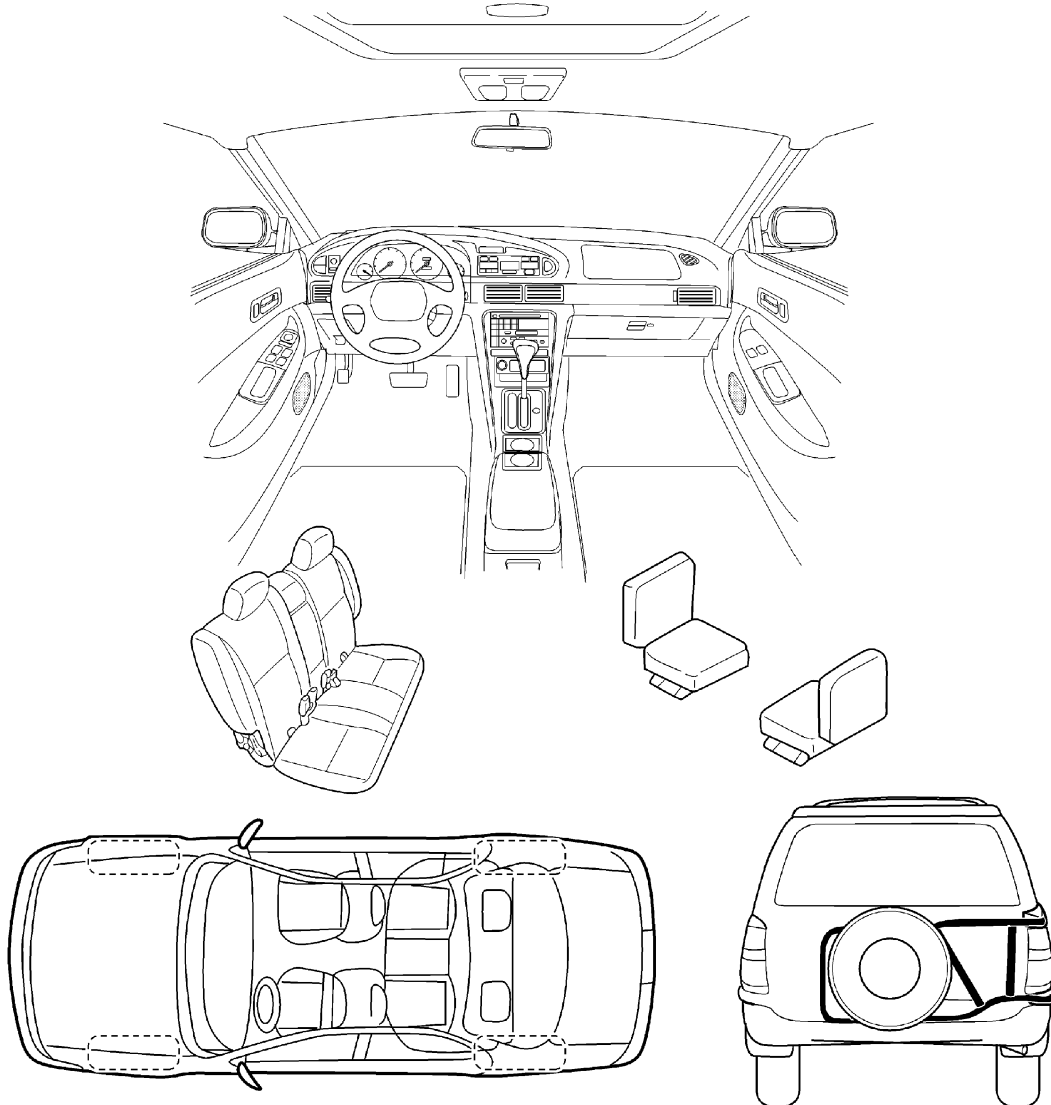
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Nissan Customer:

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

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

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



Continue to 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.

PIIB0723E

SQUEAK AND RATTLE TROUBLE DIAGNOSES

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET- page 2

Briefly describe the location where the noise occurs:

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 st 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:

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

VIN: _____ Customer Name: _____

W.O. #: _____ Date: _____

This form must be attached to Work Order

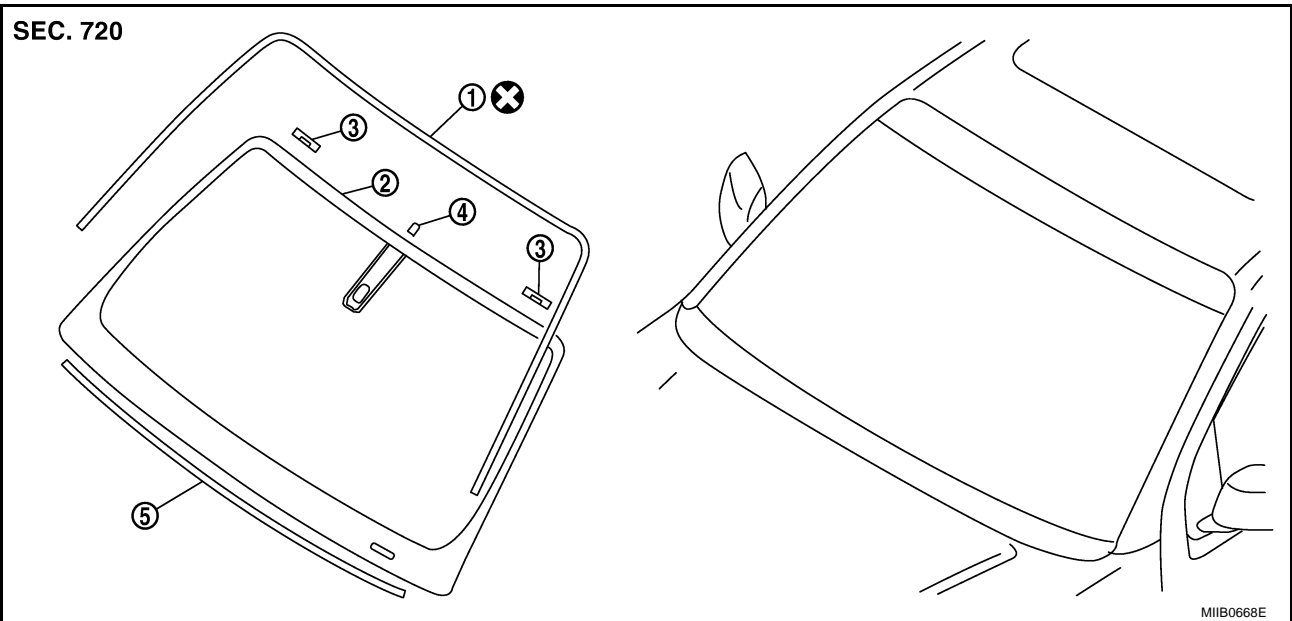
WINDSHIELD GLASS

WINDSHIELD GLASS

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Removal and Installation

GIS003U



1. Molding
2. Windshield
3. Windshield position pins
4. Mirror base
5. Insulator

REMOVAL

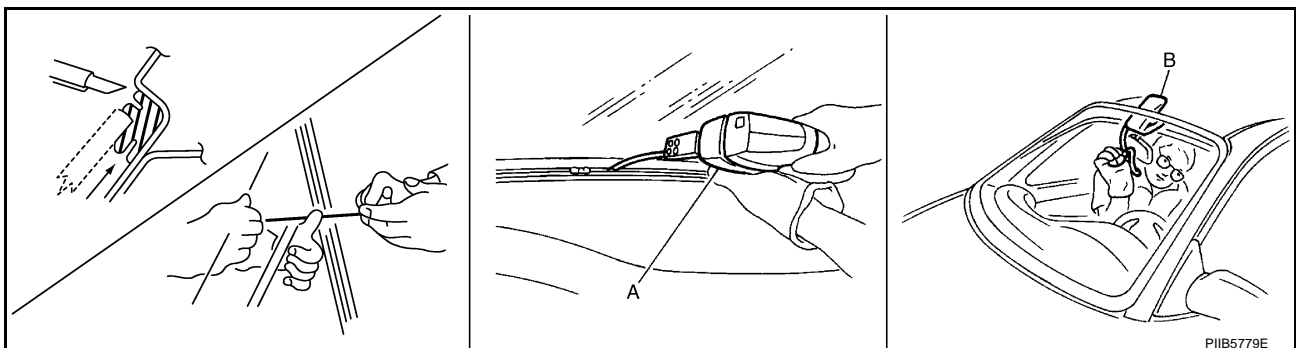
1. Remove the front pillar garnish. Refer to [EI-30, "BODY SIDE TRIM"](#) .
2. Remove inside mirror. Refer to [GW-44, "REMOVAL"](#) .
3. Partially remove the headlining (front edge). Refer to [EI-35, "HEADLINING"](#) .
4. Remove cowl top cover. Refer to [EI-20, "COWL TOP"](#) .
5. Apply a protective tape around the windshield glass to protect the painted surface from damage.
 - If a windshield glass is to be reused, mark the body and the glass with mating marks.
 - Remove glass using piano wire or power cutting tool A and an inflatable pump bag B.

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 glass on its edge. Small chips may develop into cracks.



6. Remove the windshield glass, using suction lifter.

WINDSHIELD GLASS

INSTALLATION

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

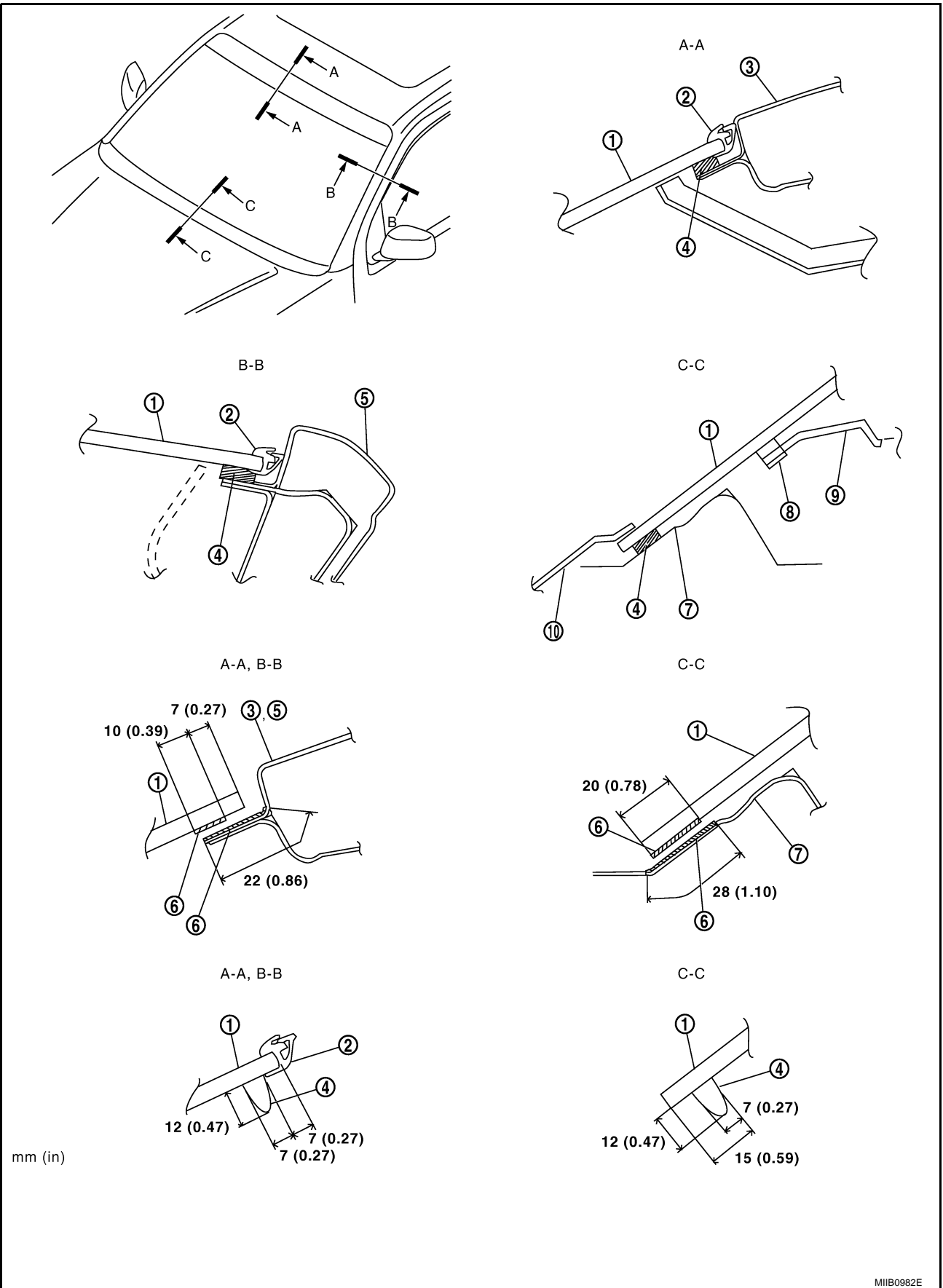
WARNING:

- **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 lower temperatures and lower humidities.**

WINDSHIELD GLASS



- 1. Windshield glass
- 4. Adhesive

- 2. Molding
- 5. A-pillar

- 3. Roof
- 6. Primer

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WINDSHIELD GLASS

7. Cowl top panel

8. Insulator

9. Instrument panel

10. Cowl top cover

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.

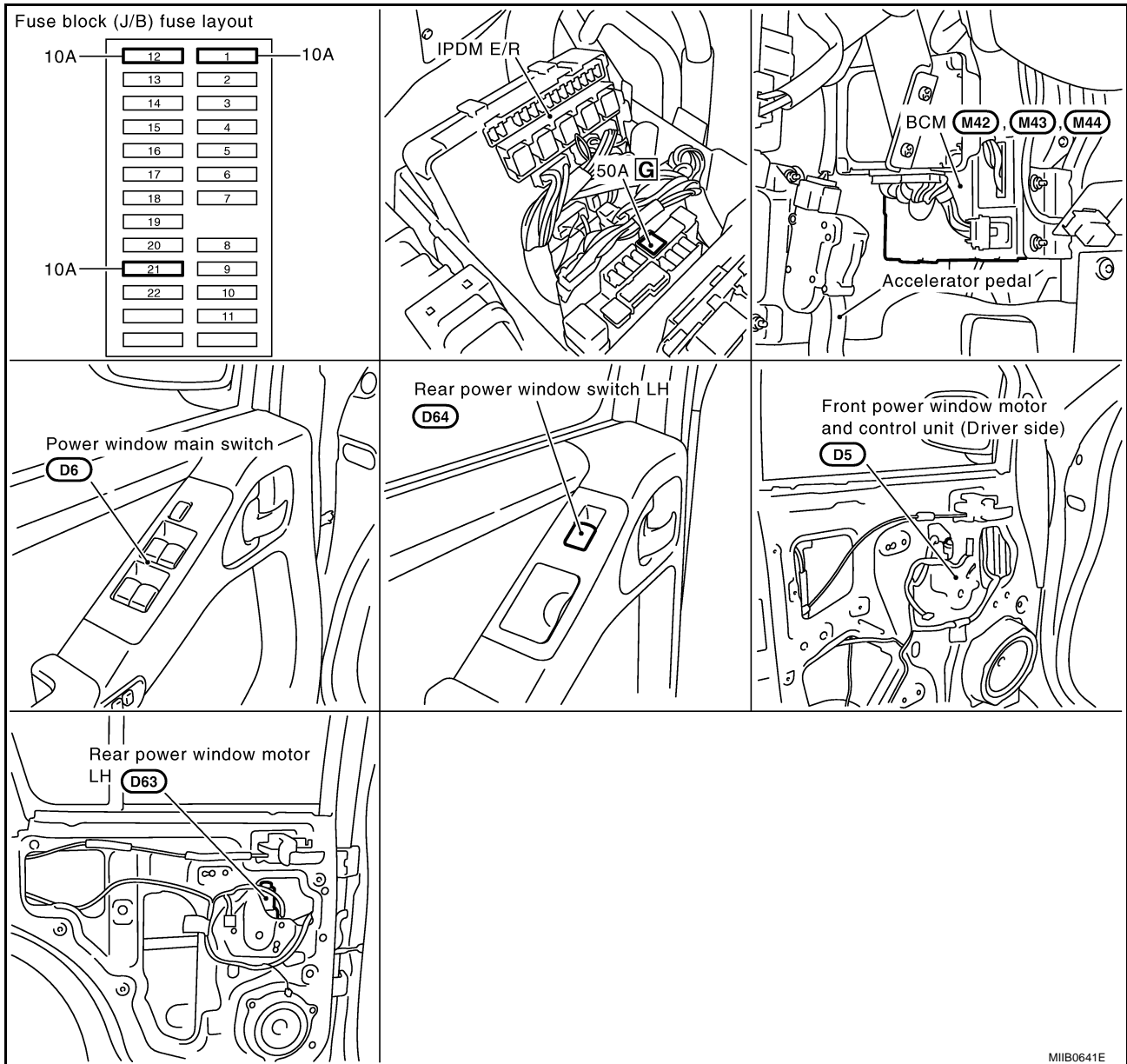
To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

POWER WINDOW SYSTEM

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Component Parts and Harness Connector Location

GIS0003V



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System Description

GIS0003W

Power is supplied at all times

- from 50A fusible link (letter **G** , located in the fuse and fusible link box)
- to BCM terminal 57
- through 10A fuse [No. 21, located in the fuse block (J/B)]
- to BCM terminal 41
- through BCM terminal 58
- to front power window motor and control unit terminal 4.

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

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to BCM terminal 3
- through 10A fuse [No. 12, located in the fuse block (J/B)]
- to front power window motor and control unit terminal 6

POWER WINDOW SYSTEM

- through BCM terminal 53
- to power window main switch terminal 2
- to front power window switch (passenger side) terminal 1
- to rear power window switches LH and RH terminal 1 (with rear power window).

Ground is supplied

- to BCM terminal 55
- to front power window motor and control unit terminal 3
- to power window main switch terminal 3
- through body grounds M21, M80 and M83.

MANUAL OPERATION

Front Driver Side Door

WINDOW UP

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

- to front power window motor and control unit terminal 2
- through power window main switch terminal 4
- through power window main switch terminal 3

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

WINDOW DOWN

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

- to front power window motor and control unit terminal 1
- through power window main switch terminal 5
- through power window main switch terminal 3

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

Front Passenger Side Door

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) OPERATION

WINDOW UP

When the front power window switch (passenger side) is operated in the up position Power is supplied

- through front power window switch (passenger side) terminal 1 and 5
- to front power window motor (passenger side) terminal 2.

Ground is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 7

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

WINDOW DOWN

When the front power window switch (passenger side) is operated in the down position Power is supplied

- through front power window switch (passenger side) terminal 1 and 4
- to front power window motor (passenger side) terminal 1.

Ground is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 2
- through power window main switch terminal 6

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

POWER WINDOW MAIN SWITCH OPERATION

WINDOW UP

When the passenger side switch in power window main switch is operated in the up position Power is supplied

POWER WINDOW SYSTEM

- through power window main switch terminal 6
- to front power window switch (passenger side) terminal 2 and 5
- to front power window motor (passenger side) terminal 2.

Ground is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 7

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

WINDOW DOWN

When the passenger side switch in power window main switch is operated in the down position

Power is supplied

- through power window main switch terminal 7
- to front power window switch (passenger side) terminal 3 and 4
- to front power window motor (passenger side) terminal 1.

Ground is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 2
- through power window main switch terminal 6

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

Rear Door (LH or RH)

REAR POWER WINDOW SWITCH LH OR RH OPERATION

WINDOW UP

When the rear power window switch LH or RH is operated in the up position

Power is supplied

- through rear power window switch LH or RH terminal 1 and 5
- to rear power window motor LH or RH terminal 1.

Ground is supplied

- to rear power window motor LH or RH terminal 2
- through rear power window switch LH or RH terminal 4 and 3
- through power window main switch 11 (LH) or 9 (RH)

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

WINDOW DOWN

When the rear power window switch LH or RH is pressed in the down position

Power is supplied

- through rear power window switch LH or RH terminal 1 and 4
- to rear power window motor LH or RH terminal 2.

Ground is supplied

- to rear power window motor LH or RH terminal 1
- through rear power window switch LH or RH terminal 5 and 2
- through power window main switch 1 (LH) or 7 (RH)

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

POWER WINDOW MAIN SWITCH OPERATION

WINDOW UP

When the rear LH or RH switch in the power window main switch is operated in the up position

Power is supplied

- through power window main switch terminal 10 (LH) or 8 (RH)
- to rear power window switch LH or RH terminal 5 and 2
- to rear power window motor LH or RH terminal 1.

Ground is supplied

- to rear power window motor LH or RH terminal 2
- through rear power window switch LH or RH terminal 4 and 3

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POWER WINDOW SYSTEM

- through power window main switch terminal 11 (LH) or 9 (RH).

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

WINDOW DOWN

When the rear LH or RH switch in the power window main switch is operated in the down position

Power is supplied

- through power window main switch terminal 11 (LH) or 9 (RH)
- to rear power window switch LH or RH terminal 4 and 3
- to rear power window motor LH or RH terminal 2.

Ground is supplied

- to rear power window motor LH or RH terminal 1
- through rear power window switch LH or RH terminal 5 and 2
- through power window main switch terminal 10 (LH) or 8 (RH).

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

AUTO OPERATION

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

POWER WINDOW LOCK

The power window lock is designed to lock operation of all windows except for front door window LH and RH. When in the lock position, the power window lock disables power window and door lock/unlock switch RH and rear power window switch LH and RH by disconnecting switch ground signal. This prevents the power window motors from operating.

DRIVER WINDOW ANTI-PINCH FUNCTION

During raising operation of driver side window, if door control module detects that foreign object is pinched, power window lowers approximately 150 mm (5.91 in).

NOTE:

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

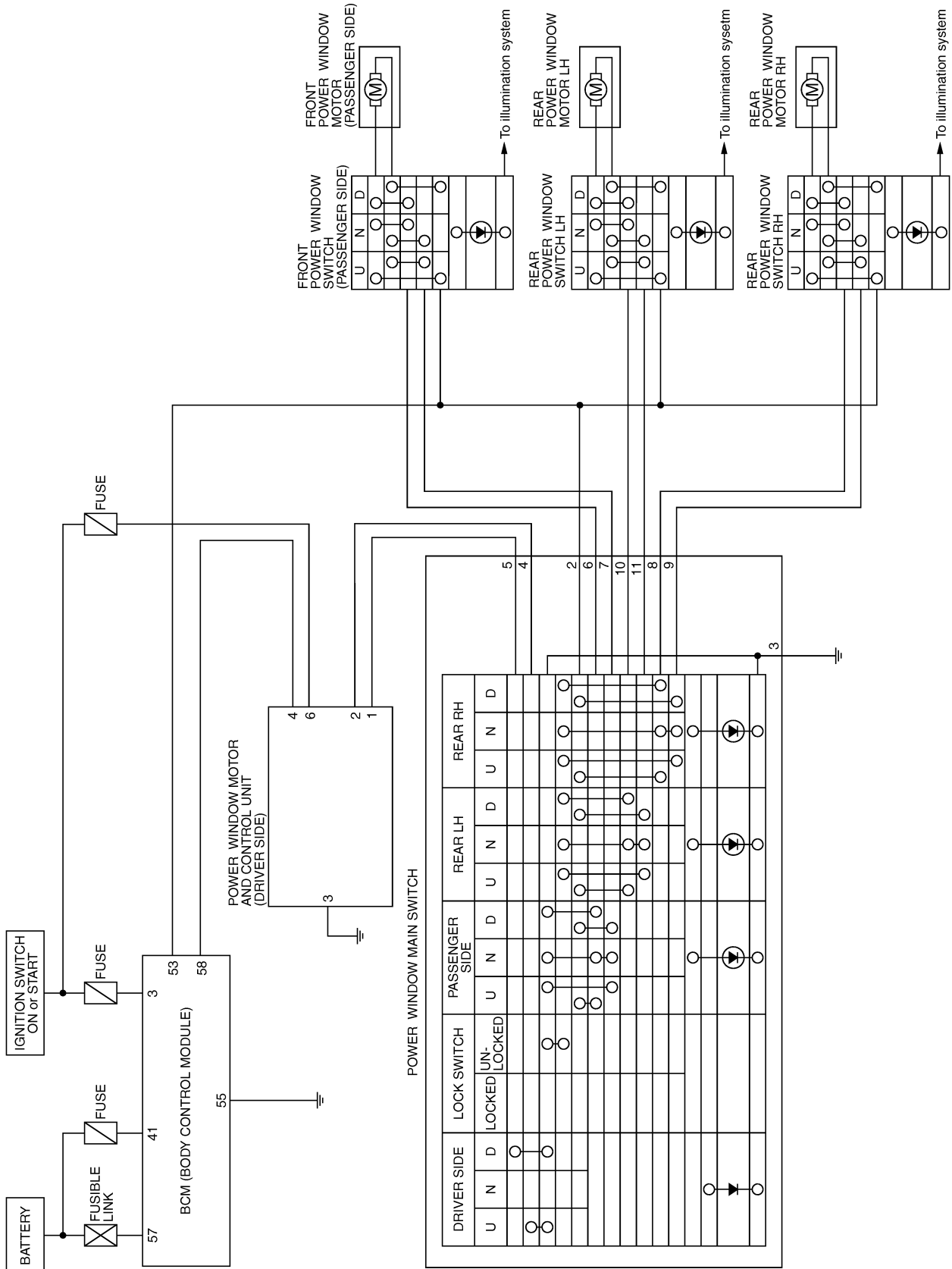
Operation Conditions

- Driver side window is between fully-open and just before fully-closed position (when the limit switch is ON).
- During automatic operation when ignition switch is turned ON.
- During automatic or manual operation when ignition switch is other than ON position (when the timer operates).

POWER WINDOW SYSTEM

Schematic

G/S0003X



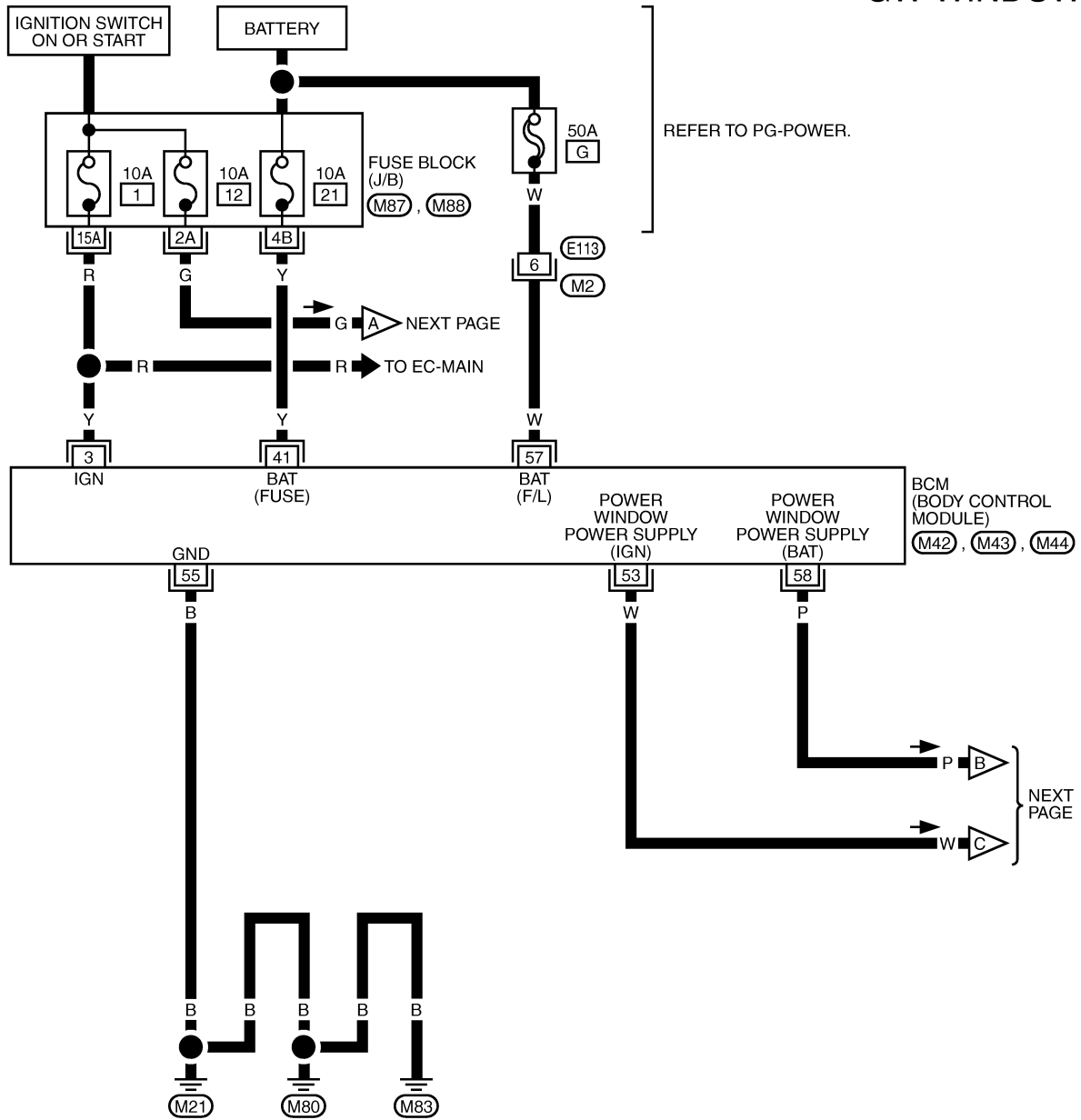
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POWER WINDOW SYSTEM

Wiring Diagram – WINDOW –

G/S0003Y

GW-WINDOW-01



1	2	3	(M2) W
4	5	6	

REFER TO THE FOLLOWING.

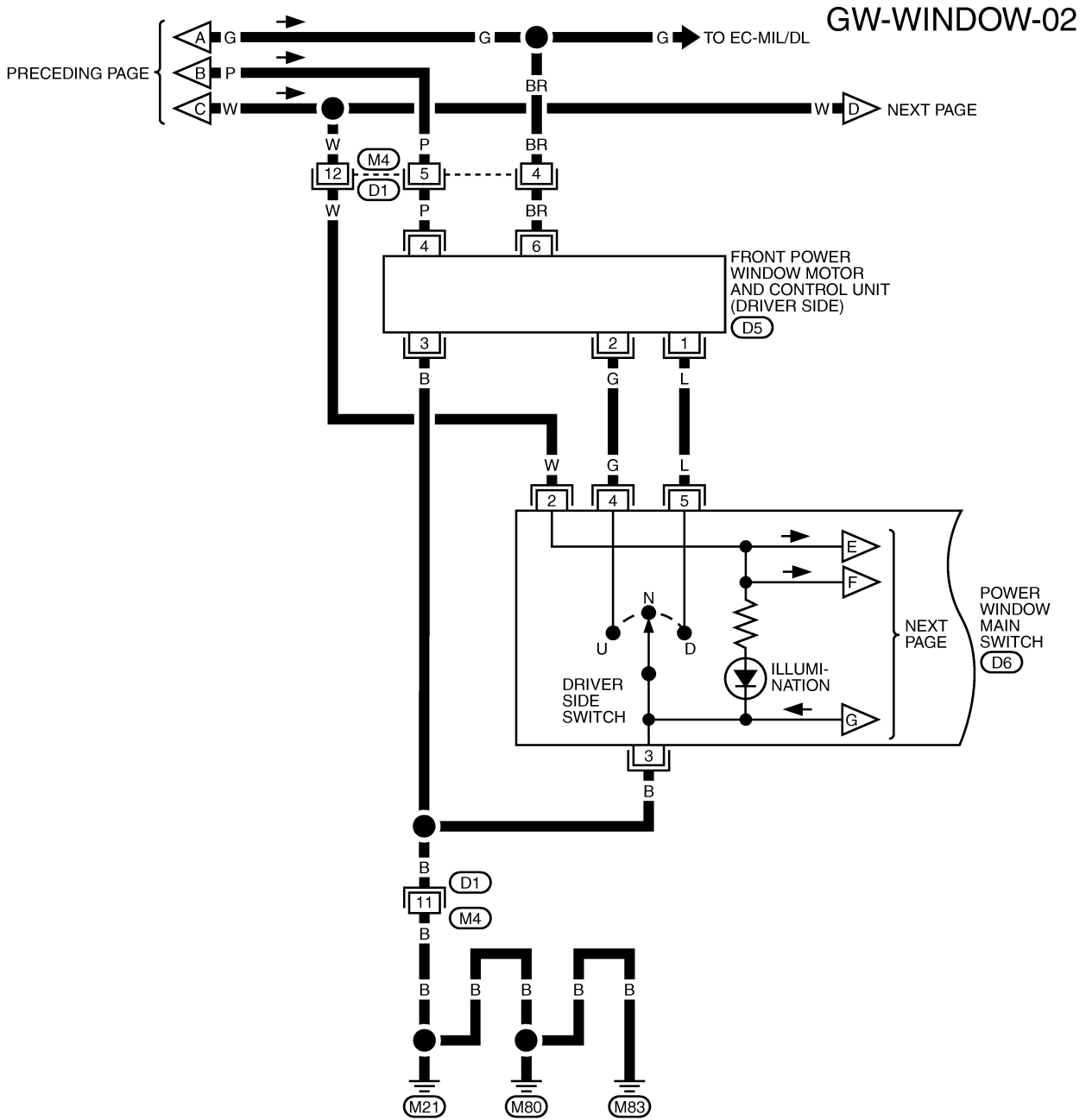
(M87), (M88) - FUSE BLOCK-JUNCTION BOX (J/B)

(M42), (M43), (M44)

- ELECTRICAL UNITS

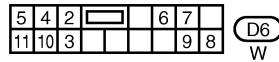
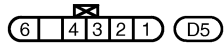
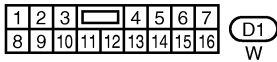
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POWER WINDOW SYSTEM



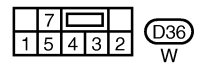
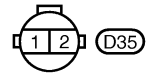
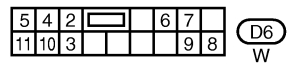
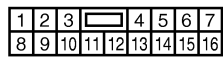
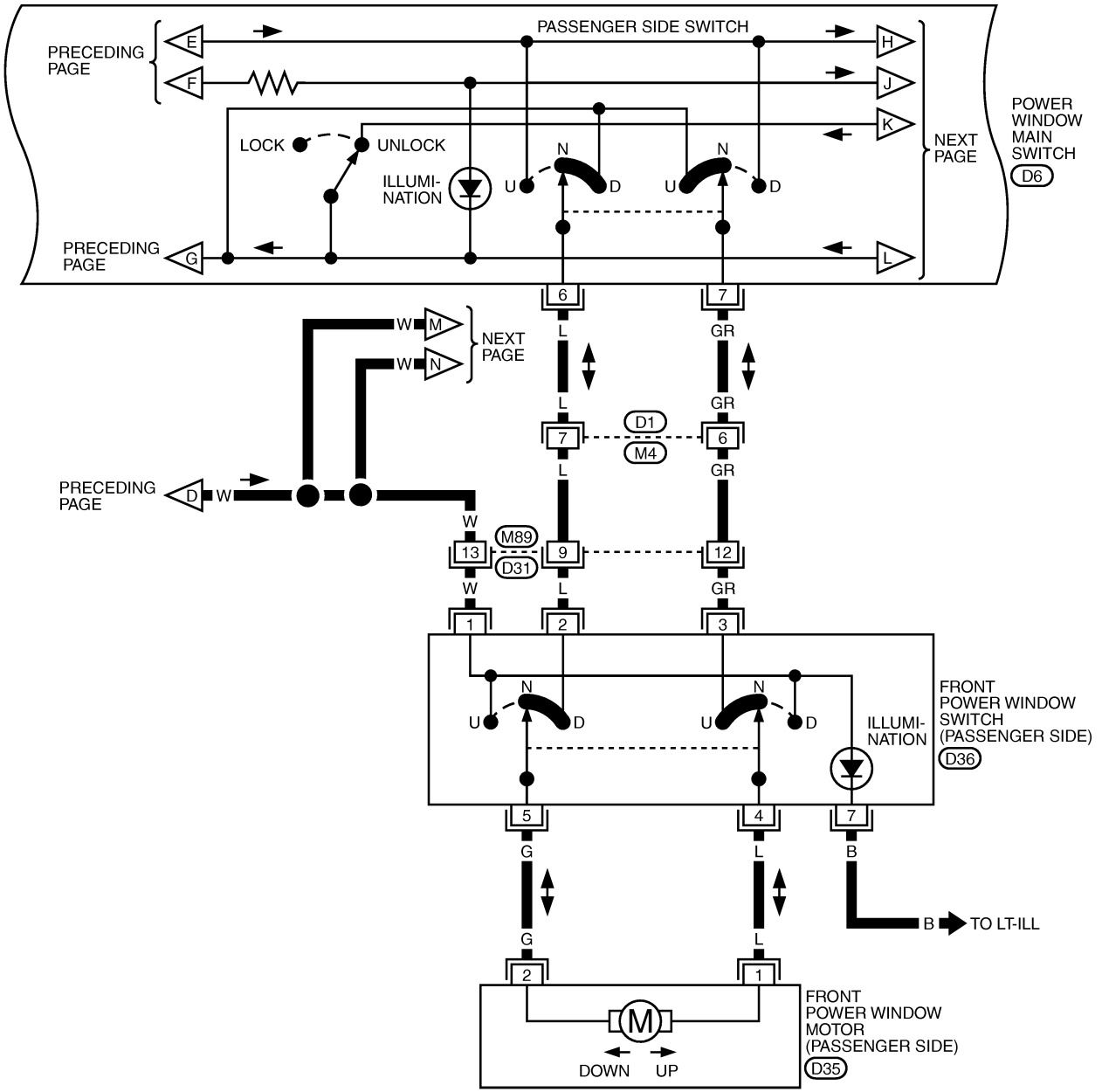
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POWER WINDOW SYSTEM

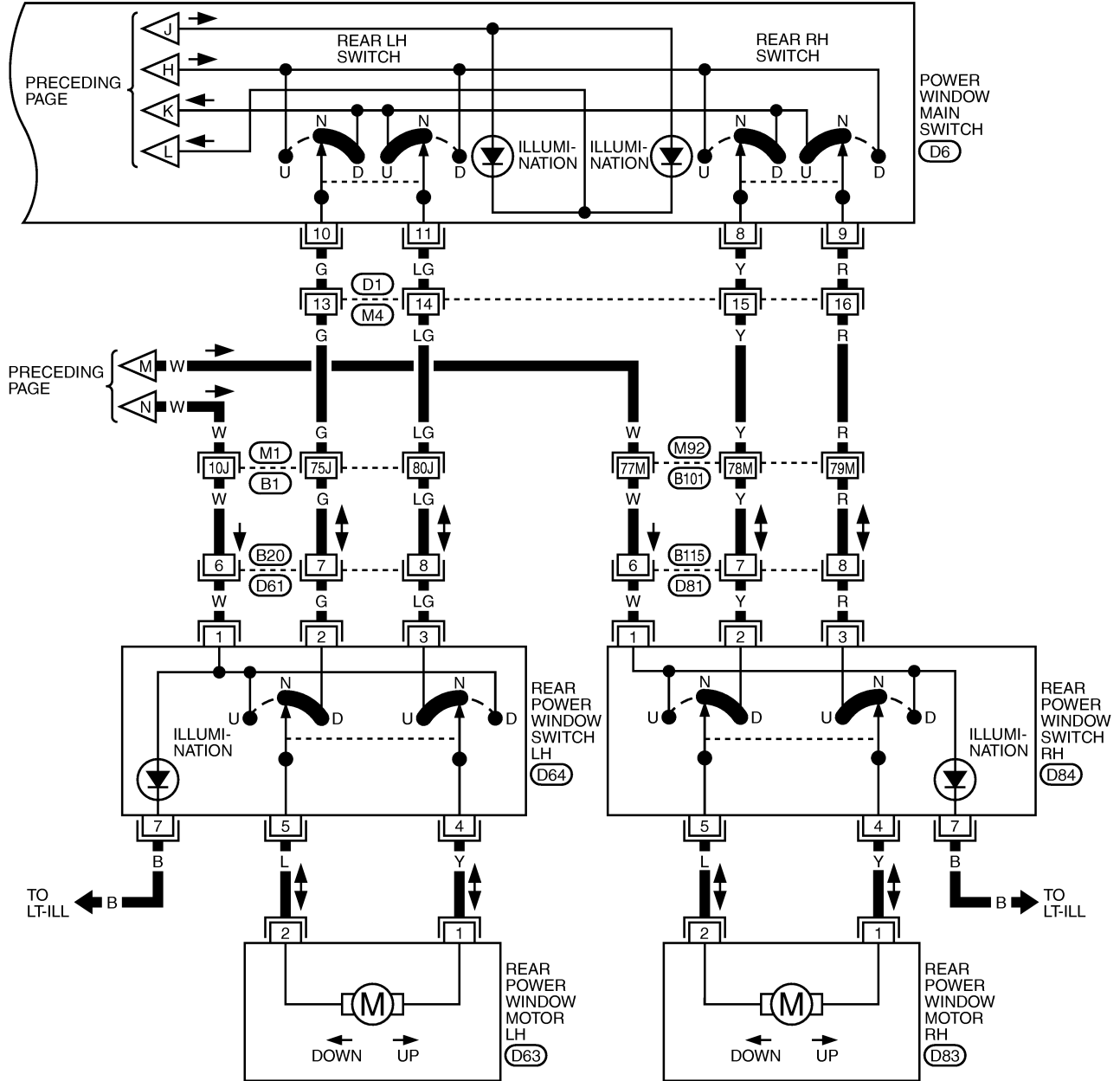
GW-WINDOW-03



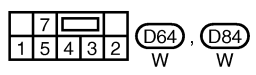
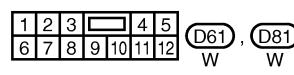
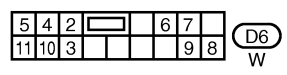
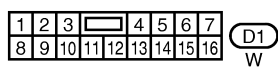
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POWER WINDOW SYSTEM

GW-WINDOW-04



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REFER TO THE FOLLOWING.
(M1, M92) - SUPER MULTIPLE JUNCTION (SMJ)

POWER WINDOW SYSTEM

Terminal and Reference Value for Power Window Main Switch

GIS0003Z

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
2	W	IGN power supply	Ignition switch (ON or START position)	Battery voltage
3	B	Ground	—	0
4	G	Driver power window motor UP signal	Driver side switch UP operation	0
			Other than above	Battery voltage
5	L	Driver power window motor DOWN signal	Driver side switch DOWN operation	0
			Other than above	Battery voltage
6	L	Passenger power window motor UP signal	Passenger side switch UP operation	Battery voltage
			Other than above	0
7	GR	Passenger power window motor DOWN signal	Passenger side switch DOWN operation	Battery voltage
			Other than above	0
8	Y	Rear RH power window motor UP signal	Rear RH switch UP operation	Battery voltage
			Other than above	0
9	R	Rear RH power window motor DOWN signal	Rear RH switch DOWN operation	Battery voltage
			Other than above	0
10	G	Rear LH power window motor UP signal	Rear LH switch UP operation	Battery voltage
			Other than above	0
11	LG	Rear LH power window motor DOWN signal	Rear LH switch DOWN operation	Battery voltage
			Other than above	0

Terminal and Reference Value for Each Door's Power Window Switch

GIS00040

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
1	W	IGN power supply	Ignition switch (ON or START position)	Battery voltage
2	L G*1 Y*2	Power window UP signal from power window main switch	Power window main switch UP operation	Battery voltage
			Other than above	0
3	L LG*1 R*2	Power window DOWN signal from power window main switch	Power window main switch DOWN operation	Battery voltage
			Other than above	0
4	L Y*1 Y*2	Power window motor DOWN signal	When DOWN operation	Battery voltage
			Other than above	0
5	G L*1 L*2	Power window motor UP signal	When UP operation	Battery voltage
			Other than above	0

*1 : Rear LH

*2 : Rear RH

POWER WINDOW SYSTEM

Terminal and Reference Value for BCM

GIS00041

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
3	Y	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
41	Y	Battery power supply (Fuse)	—	Battery voltage
53	W	Power window power supply (IGN)	When ignition switch ON	Battery voltage
			When ignition switch OFF	0
55	B	Ground	—	0
57	W	Battery power supply (Fusible link)	—	Battery voltage
58	P	Power window power supply (BAT)	—	Battery voltage

Work Flow

GIS00042

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-15, "System Description"](#) .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-25, "Trouble Diagnosis Symptom Chart"](#) .
4. Does power window system operate normally? Yes, GO TO 5, If No, GO TO 3.
5. Inspection end.

Trouble Diagnosis Symptom Chart

GIS00043

Symptom	Diagnosis / service procedure	Refer to page
None of the power window can be operated using any switch	1. BCM power supply and ground circuit check.	GW-26
	2. Power window main switch power supply and ground circuit check.	GW-27
Driver side power window cannot be operated	1. Driver side power window motor check.	GW-28
Passenger side power window cannot be operated	1. Passenger side power window motor circuit check	GW-29
	2. Power window switch check 1	GW-33
	3. passenger side power window circuit check	GW-31
Rear LH side power window cannot be operated	1. Rear LH power window motor circuit check	GW-30
	2. Power window switch check 1	GW-33
	3. Rear LH power window circuit check	GW-32
Rear RH side power window cannot be operated	1. Rear RH power window motor circuit check	GW-31
	2. Power window switch check 1	GW-33
	3. Rear RH power window circuit check	GW-33
Power window does not operate using power window switch. (Power window can be operated using power window main switch)	1. Power window switch check 2	GW-34
Anti-pinch system does not operate normal	Replace front power window motor and control unit (driver side)	—
Power window timer does not operated		

POWER WINDOW SYSTEM

GIS00044

BCM Power Supply and Ground Circuit Check

1. CHECK FUSE

- Check 10A fuse [No. 1, located in the fuse block (J/B)].
- Check 10A fuse [No. 21, located in the fuse block (J/B)].
- Check 50A fusible link (letter **G** located in the fuse and fusible link box).

NOTE:

Refer to [GW-15, "Component Parts and Harness Connector Location"](#).

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Turn ignition switch ON.
4. Check voltage between BCM connector M42, 43, 44 terminal 3, 41, 57 and ground.

3 - Ground : **Battery voltage**

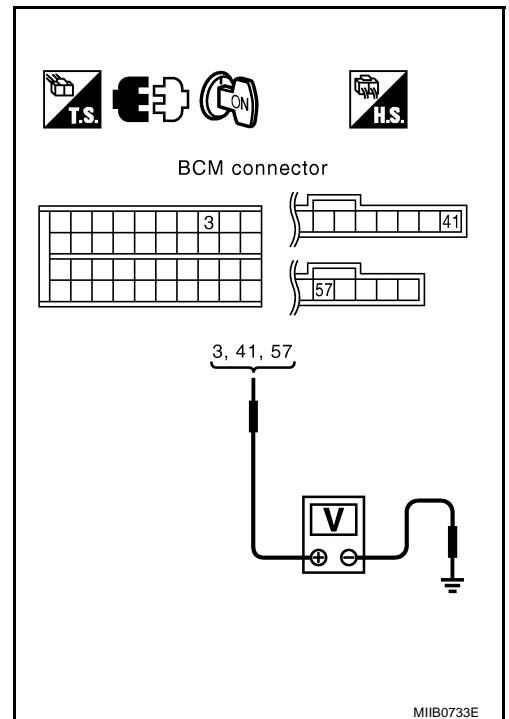
41 - Ground : **Battery voltage**

57 - Ground : **Battery voltage**

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. CHECK GROUND CIRCUIT

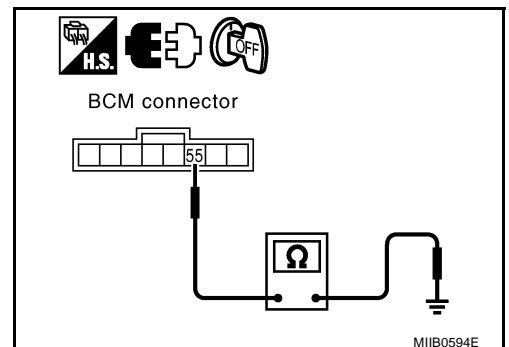
1. Turn ignition switch OFF.
2. Disconnect BCM.
3. Check continuity between BCM connector M44 terminal 55 and ground.

55 - Ground : **Continuity should exist.**

OK or NG

OK >> Power supply and ground circuit is OK.

NG >> Repair or replace harness.



POWER WINDOW SYSTEM

Power Window Main Switch Power Supply and Ground Circuit Check

GIS00045

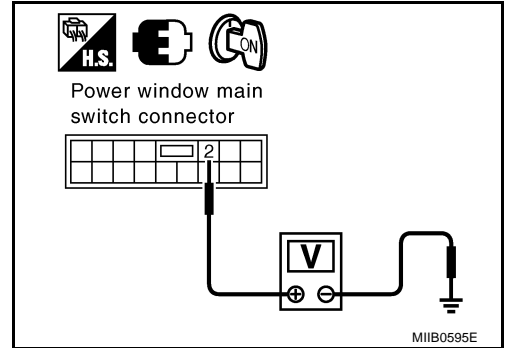
1. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between power window main switch connector D6 terminal 2 and ground.

2 – Ground : **Battery voltage**

OK or NG

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



2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and power window main switch connector.
3. Check continuity between BCM connector M44 terminal 53 and power window main switch connector D6 terminal 2.

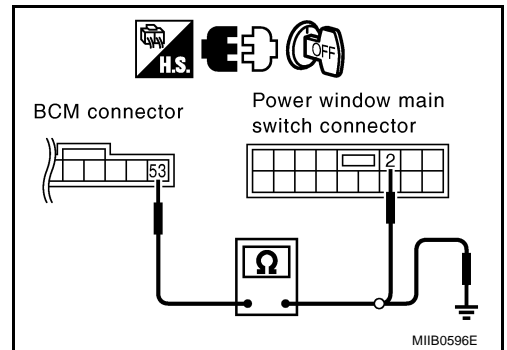
53 – 2 : **Continuity should exist.**

4. Check continuity between BCM connector M44 terminal 53 and ground.

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

OK or NG

- OK >> Check the condition of connector and harness.
NG >> Repair or replace harness between BCM and power window main switch.



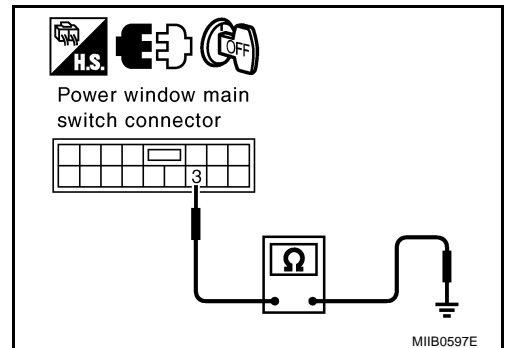
3. CHECK POWER WINDOW MAIN SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check continuity between power window main switch connector D6 terminal 3 and ground.

3 – Ground : **Continuity should exist.**

OK or NG

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



POWER WINDOW SYSTEM

GIS00046

Driver Side Power Window Motor Check

1. CHECK POWER WINDOW MOTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect front power window motor and control unit (driver side) connector.
3. Turn ignition switch ON.
4. Check voltage between front power window motor and control unit (driver side) connector D5 terminal 4, 6 and ground.

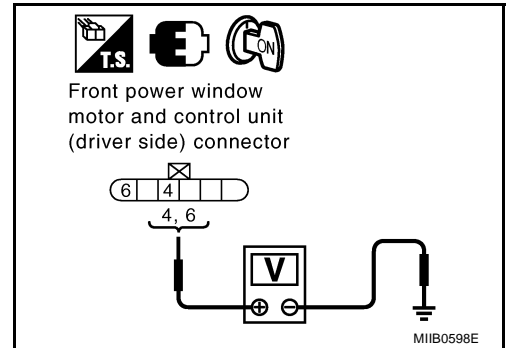
4 – Ground : Battery voltage
6 – Ground : Battery voltage

OK or NG

OK >> GO TO 2.

NG >> Check the following.

- Check 10A fuse [No.12, located in fuse block (J/B)]
- Check harness continuity between BCM and front power window motor and control unit (driver side)



2. CHECK POWER WINDOW MOTOR GROUND CIRCUIT

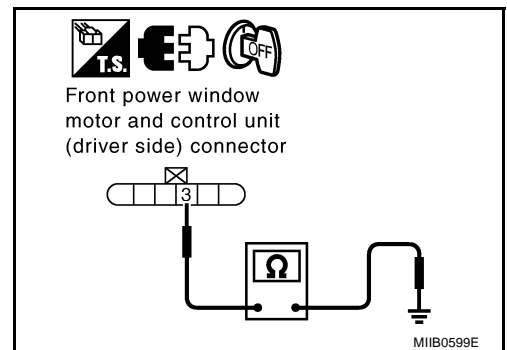
1. Turn ignition switch OFF.
2. Check continuity between power window motor and control unit (driver side) connector D5 terminal 3 and ground.

3 – Ground : Continuity should exist.

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. CHECK HARNESS CONTINUITY

1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector D6 terminal 4, 5 and front power window motor and control unit (driver side) connector D5 terminal 1, 2.

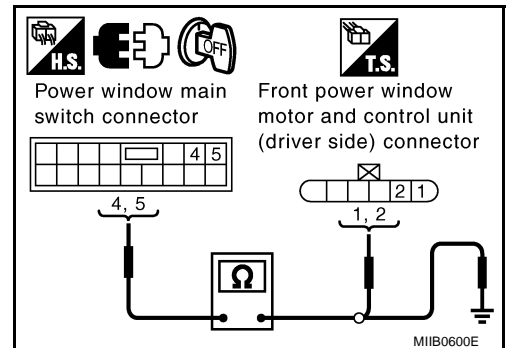
4 – 2 : Continuity should exist.

5 – 1 : Continuity should exist.

3. Check continuity between power window main switch connector D6 terminal 4, 5 and ground.

4 – Ground : Continuity should not exist.

5 – Ground : Continuity should not exist.



OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

POWER WINDOW SYSTEM

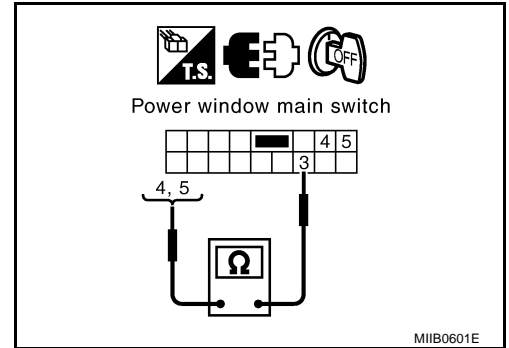
4. CHECK POWER WINDOW MAIN SWITCH

Power window main switch operate, check continuity between power window main switch terminal 4, 5 and 3.

Terminals		Condition	Continuity
4	3	Driver side switch UP	Yes
5		Driver side switch DOWN	

OK or NG

- OK >> GO TO 5.
 NG >> Replace power window main switch.



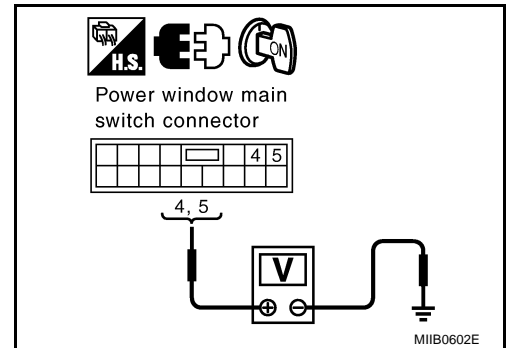
5. CHECK POWER WINDOW MOTOR OUTPUT SIGNAL

1. Connect front power window motor and control unit (driver side) connector.
2. Turn ignition switch ON.
3. Check voltage between power window main switch connector D6 terminal 4, 5 and ground.

- 4 – Ground : Battery voltage**
5 – Ground : Battery voltage

OK or NG

- OK >> Check the condition of harness and connector.
 NG >> Replace front power window motor and control unit (driver side)



Passenger Side Power Window Motor Circuit Check

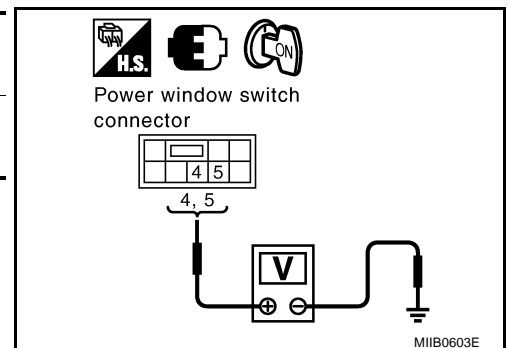
1. CHECK PASSENGER SIDE POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Operate power window main switch, check voltage between front power window switch (passenger side) connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D36	4	Ground	Passenger side DOWN	Battery voltage
	5		UP	

OK or NG

- OK >> GO TO 2.
 NG >> GO TO power window switch check 1. Refer to [GW-33](#), "Power Window Switch Check 1"



POWER WINDOW SYSTEM

2. CHECK HARNESS CONTINUITY

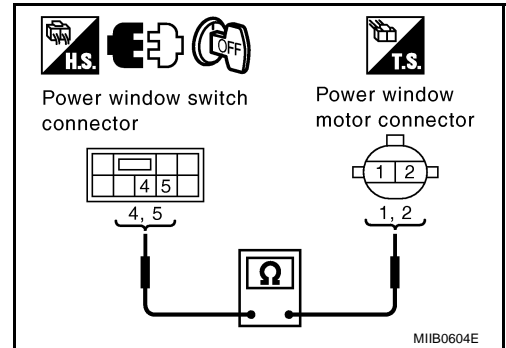
1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) and front power window motor (passenger side) connector.
3. Check continuity between front power window switch (passenger side) connector D36 terminal 4, 5 and front power window motor (passenger side) connector D35 terminal 1, 2.

4 – 1 : Continuity should exist.

5 – 2 : Continuity should exist.

OK or NG

- OK >> Replace front power window motor (passenger side)
 NG >> Repair or replace harness between front power window switch (passenger side) and front power window motor (passenger side).



Rear LH Power Window Motor Circuit Check

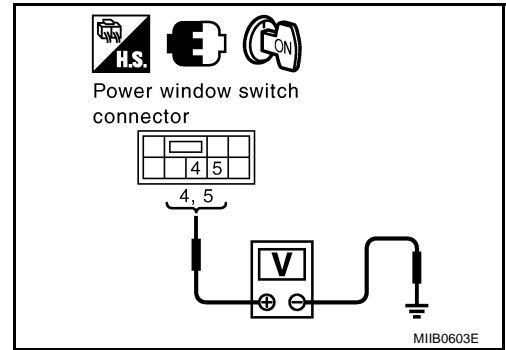
1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Operate power window main switch, check voltage between rear power window switch LH connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D64	4	Ground	Rear LH side	DOWN
	5		UP	

OK or NG

- OK >> GO TO 2.
 NG >> GO TO power window switch check 1. Refer to [GW-33](#).
["Power Window Switch Check 1"](#)



2. CHECK HARNESS CONTINUITY

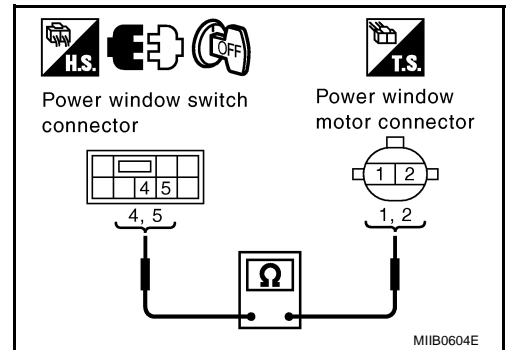
1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH and rear power window motor LH connector.
3. Check continuity between rear power window switch LH connector D64 terminal 4, 5 and rear power window motor LH connector D63 terminal 1, 2.

4 – 1 : Continuity should exist.

5 – 2 : Continuity should exist.

OK or NG

- OK >> Replace rear power window motor LH.
 NG >> Repair or replace harness between rear power window switch LH and rear power window motor LH.



POWER WINDOW SYSTEM

GIS00049

Rear RH Power Window Motor Circuit Check

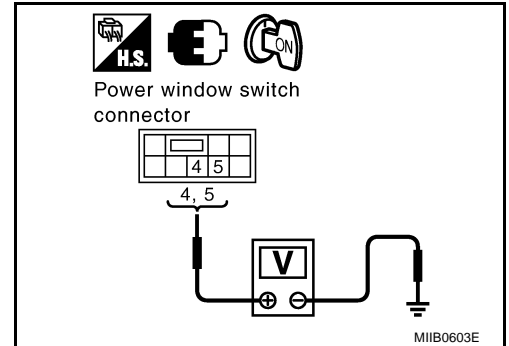
1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Operate power window main switch, check voltage between rear power window switch RH connector and ground.

Connector	Terminals (Wire color)		Condition		Voltage (V) (Approx.)
	(+)	(-)			
D84	4	Ground	Rear RH side	DOWN	Battery voltage
	5			UP	

OK or NG

- OK >> GO TO 2.
 NG >> GO TO power window switch check 1. Refer to [GW-33](#), "[Power Window Switch Check 1](#)"



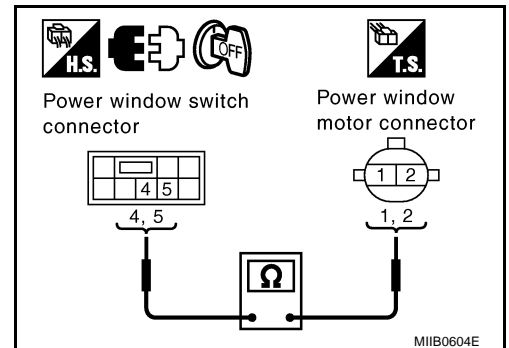
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH and rear power window motor RH connector.
3. Check continuity between rear power window switch RH connector D84 terminal 4, 5 and rear power window motor RH connector D83 terminal 1, 2.

- 4 – 1 : Continuity should exist.**
5 – 2 : Continuity should exist.

OK or NG

- OK >> Replace rear power window motor RH.
 NG >> Repair or replace harness between rear power window switch RH and rear power window motor RH.



Passenger Side Power Window Circuit Check

GIS0004A

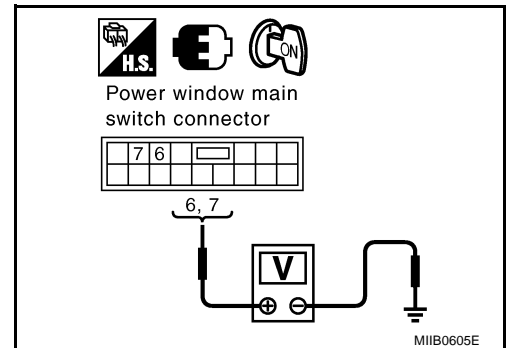
1. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Operate power window main switch, check voltage between power window main switch connector and ground.

Connector	Terminals (Wire color)		Condition		Voltage (V) (Approx.)
	(+)	(-)			
D6	6	Ground	Passenger side	UP	Battery voltage
	7			DOWN	

OK or NG

- OK >> GO TO 2.
 NG >> Replace power window main switch.



POWER WINDOW SYSTEM

2. CHECK HARNESS CONTIUIITY

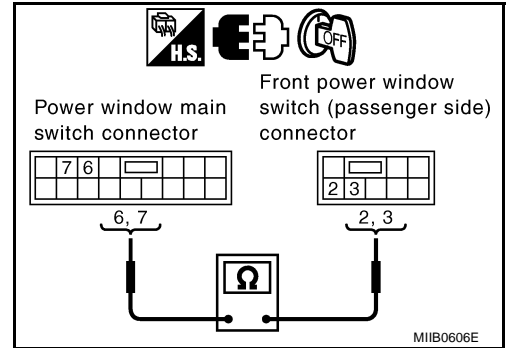
1. Turn ignition switch OFF.
2. Disconnect power window main switch and front power window switch (passenger side) connector.
3. Check continuity between power window main switch connector D6 terminal 6, 7 and front power window switch (passenger side) connector D36 terminal 2, 3.

6 – 2 : Continuity should exist.

7 – 3 : Continuity should exist.

OK or NG

- OK >> Check the condition of the harness and the connector.
 NG >> Repair or replace harness between power window main switch and front power window switch (passenger side).



Rear LH Power Window Circuit Check

GIS004B

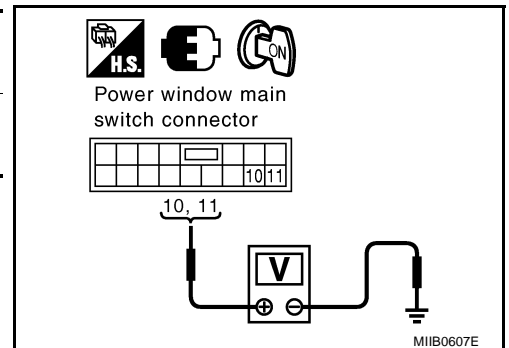
1. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Operate power window main switch, check voltage between power window main switch connector and ground.

Connector	Terminals (Wire color)		Condition		Voltage (V) (Approx.)
	(+)	(-)			
D6	10	Ground	Rear LH side	UP	Battery voltage
	11			DOWN	

OK or NG

- OK >> GO TO 2.
 NG >> Replace power window main switch.



2. CHECK HARNESS CONTIUIITY

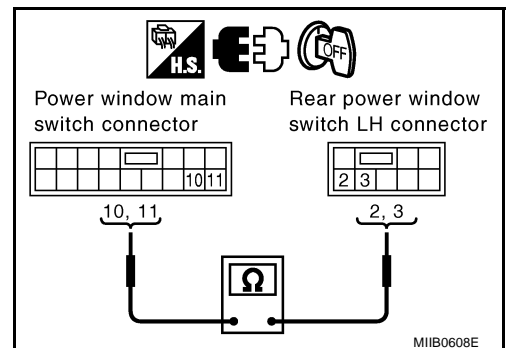
1. Turn ignition switch OFF.
2. Disconnect power window main switch and rear power window switch LH connector.
3. Check continuity between power window main switch connector D6 terminal 10, 11 and rear power window switch LH connector D64 terminal 2, 3.

10 – 2 : Continuity should exist.

11 – 3 : Continuity should exist.

OK or NG

- OK >> Check the condition of the harness and the connector.
 NG >> Repair or replace harness between power window main switch and rear power window switch LH.



POWER WINDOW SYSTEM

Rear RH Power Window Circuit Check

GIS0004C

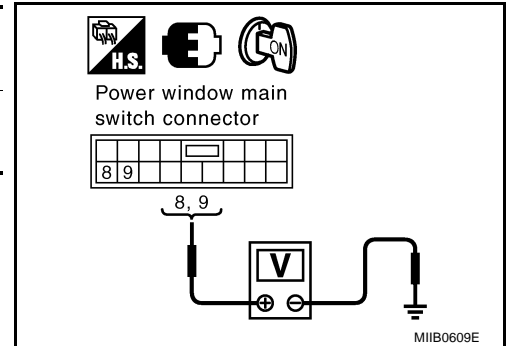
1. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Operate power window main switch, check voltage between power window main switch connector and ground.

Connector	Terminals (Wire color)		Condition		Voltage (V) (Approx.)
	(+)	(-)			
D6	8	Ground	Rear RH side	UP	Battery voltage
	9			DOWN	

OK or NG

- OK >> GO TO 2.
 NG >> Replace power window main switch.



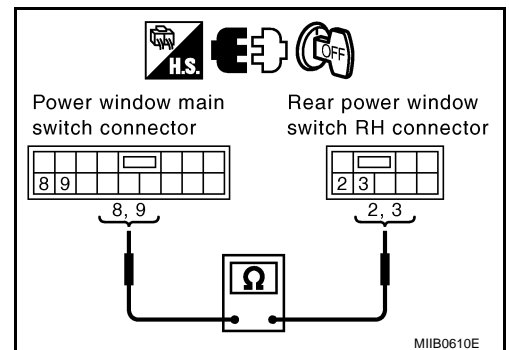
2. CHECK HARNESS CONTIUIITY

1. Turn ignition switch OFF.
2. Disconnect power window main switch and rear power window switch RH connector.
3. Check continuity between power window main switch connector D6 terminal 8, 9 and rear power window switch RH connector D84 terminal 2, 3.

- 8 – 2 : Continuity should exist.**
9 – 3 : Continuity should exist.

OK or NG

- OK >> Check the condition of the harness and the connector.
 NG >> Repair or replace harness between power window main switch and rear power window switch RH.



Power Window Switch Check 1

GIS0004D

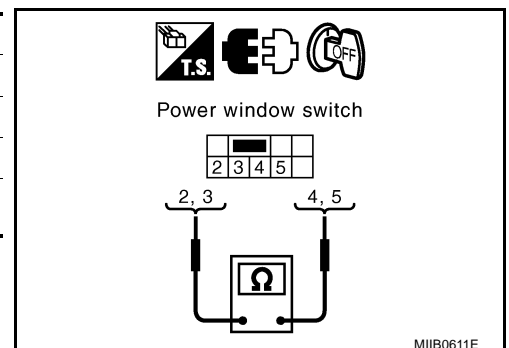
1. CHECK POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect malfunction power window switch connector.
3. Operate malfunction power window switch, check continuity between malfunction power window switch terminal 2, 3 and 4, 5.

Connector	Terminal		Condition	Continuity
D36 (Passenger side)	2	5	UP	No
			Other than above	Yes
D64 (Rear LH)	3	4	DOWN	No
			Other than above	Yes

OK or NG

- OK >> Power window switch is OK.
 NG >> Replace malfunction power window switch.



POWER WINDOW SYSTEM

GIS0004E

Power Window Switch Check 2

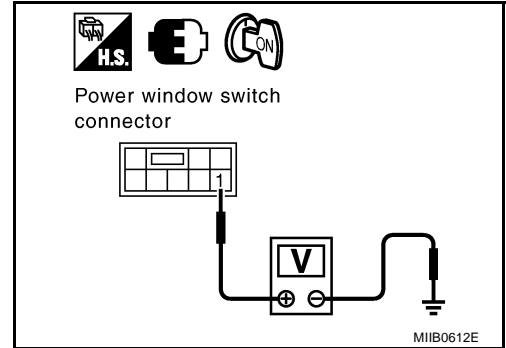
1. CHECK POWER WINDOW SWITCH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between malfunction power window switch terminal 1 and ground.

1 – Ground : Battery voltage

OK or NG

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



2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and malfunction power window switch connector.
3. Check continuity between BCM connector M44 terminal 53 and malfunction power window switch terminal 1.

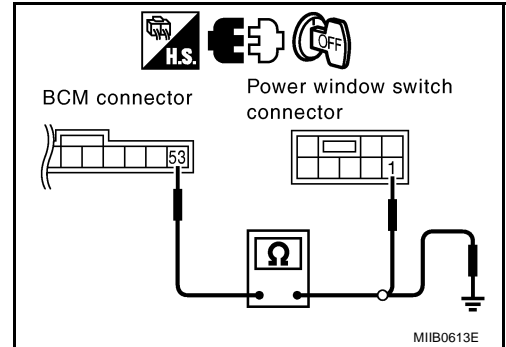
53 – 1 : Continuity should exist.

4. Check continuity between BCM connector M44 terminal 53 and ground.

53 – Ground : Continuity should not exist.

OK or NG

- OK >> Check the condition of harness and connector.
 NG >> Repair or replace harness between BCM and malfunction power window switch.



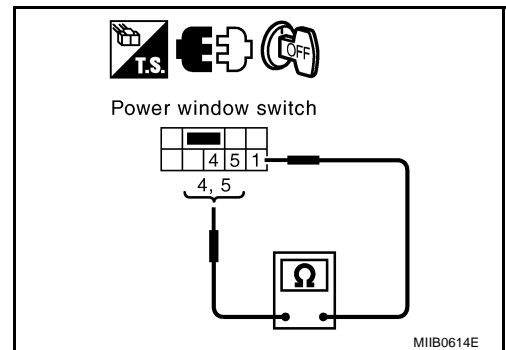
3. CHECK POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect malfunction power window switch connector.
3. Operate malfunction power window switch, check continuity between malfunction power window switch terminal 4, 5 and 1.

Terminals		Condition	Continuity
4	1	DOWN	Yes
		Other than above	No
UP		Yes	
Other than above		No	

OK or NG

- OK >> Power window switch is OK.
 NG >> Replace malfunction power window switch.



FRONT DOOR GLASS AND REGULATOR

FRONT DOOR GLASS AND REGULATOR

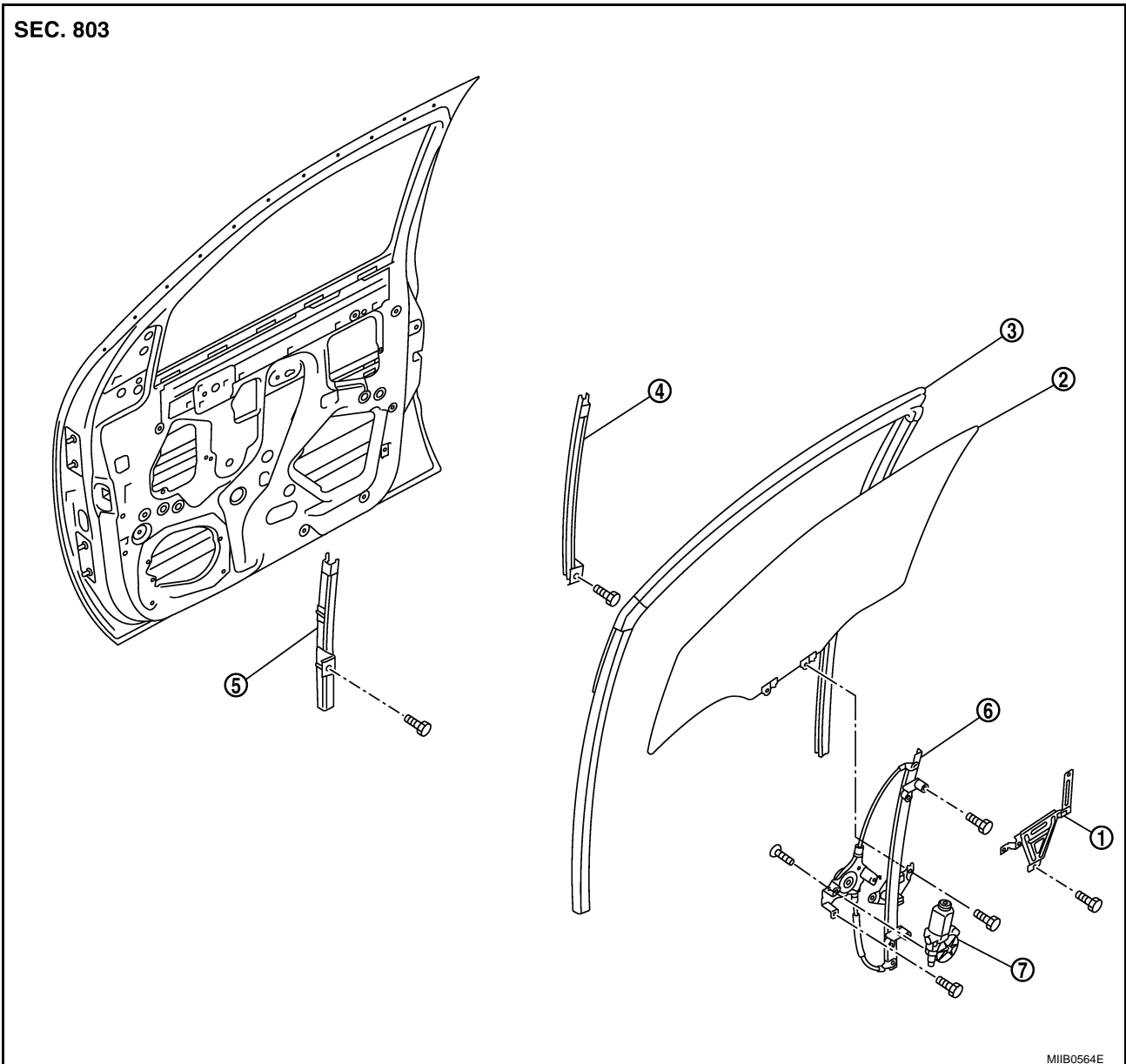
PPF:80300

Removal and Installation

GIS004F

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SEC. 803



- | | | |
|------------------------|-----------------------|-----------------------|
| 1. Pull handle bracket | 2. Door glass | 3. Door glass run |
| 4. Lower sash (rear) | 5. Lower sash (front) | 6. Regulator assembly |
| 7. Power window motor | | |

DOOR GLASS

Removal

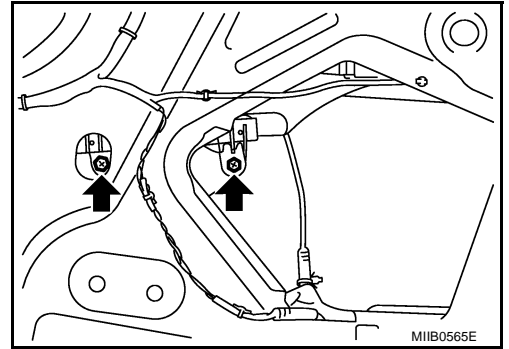
1. Remove the front door finisher. Refer to [EI-28, "FRONT DOOR"](#).
2. Remove the pull handle bracket.
3. Remove the sealing screen.

NOTE:

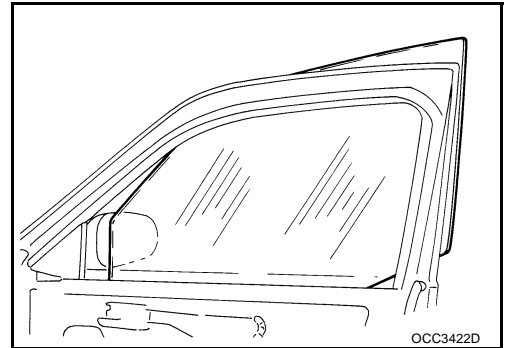
If sealing screen is reused, cut the butyl-tape so that a part of butyl-tape remains on the sealing screen.

FRONT DOOR GLASS AND REGULATOR

4. Operate power window main switch to raise or lower the door window until the door glass mounting bolts appear.
5. Remove the door glass mounting bolts.



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



Installation

Installation in the reverse order of removal.

REGULATOR ASSEMBLY

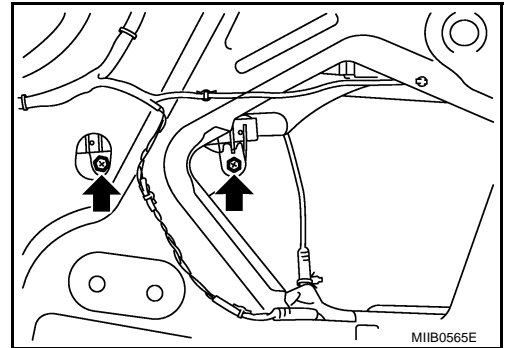
Removal

1. Remove the front door finisher. Refer to [EI-28, "FRONT DOOR"](#).
2. Remove the pull handle bracket.
3. Remove the sealing screen.

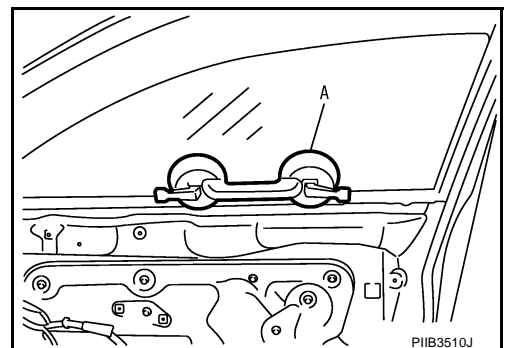
NOTE:

If sealing screen is reused, cut the butyl-tape so that a part of butyl-tape remains on the sealing screen.

4. Operate power window main switch to raise or lower the door window until the door glass mounting bolts appear.
5. Remove the door glass mounting bolts.

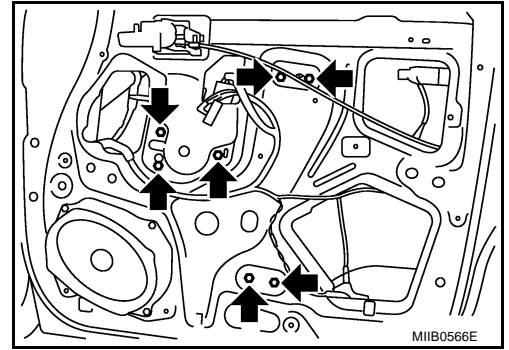


6. Raise up the door glass and hold with a suction lifter A.



FRONT DOOR GLASS AND REGULATOR

7. Disconnect the harness connector from the regulator assembly.
8. Remove the mounting bolts and remove the regulator assembly.



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Installation

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 grease it.

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

Disassembly and Assembly REGULATOR ASSEMBLY

GIS0004G

Disassembly

Remove the power window motor from the regulator assembly.

Assembly

Assemble in the reverse order of disassembly.

Inspection after Installation FITTING INSPECTION

GIS0004H

- Check that glass is securely fit into glass run groove.
- While raising and lowering the window, check for abnormal operation.
- Lower the glass slightly [approximately 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 bolts, guide rail bolts, and glass and guide rail bolts to correct the glass position.

RESET OPERATION

The anti pinch requires resetting after battery was disconnected or removal of the regulator motor, also if the glass installation or glass runs have be changed.

- Operate the power window motor switch until glass is fully closed and hold more than 1 seconds then fully opened and hold more than 1 seconds.

GW

REAR DOOR GLASS AND REGULATOR

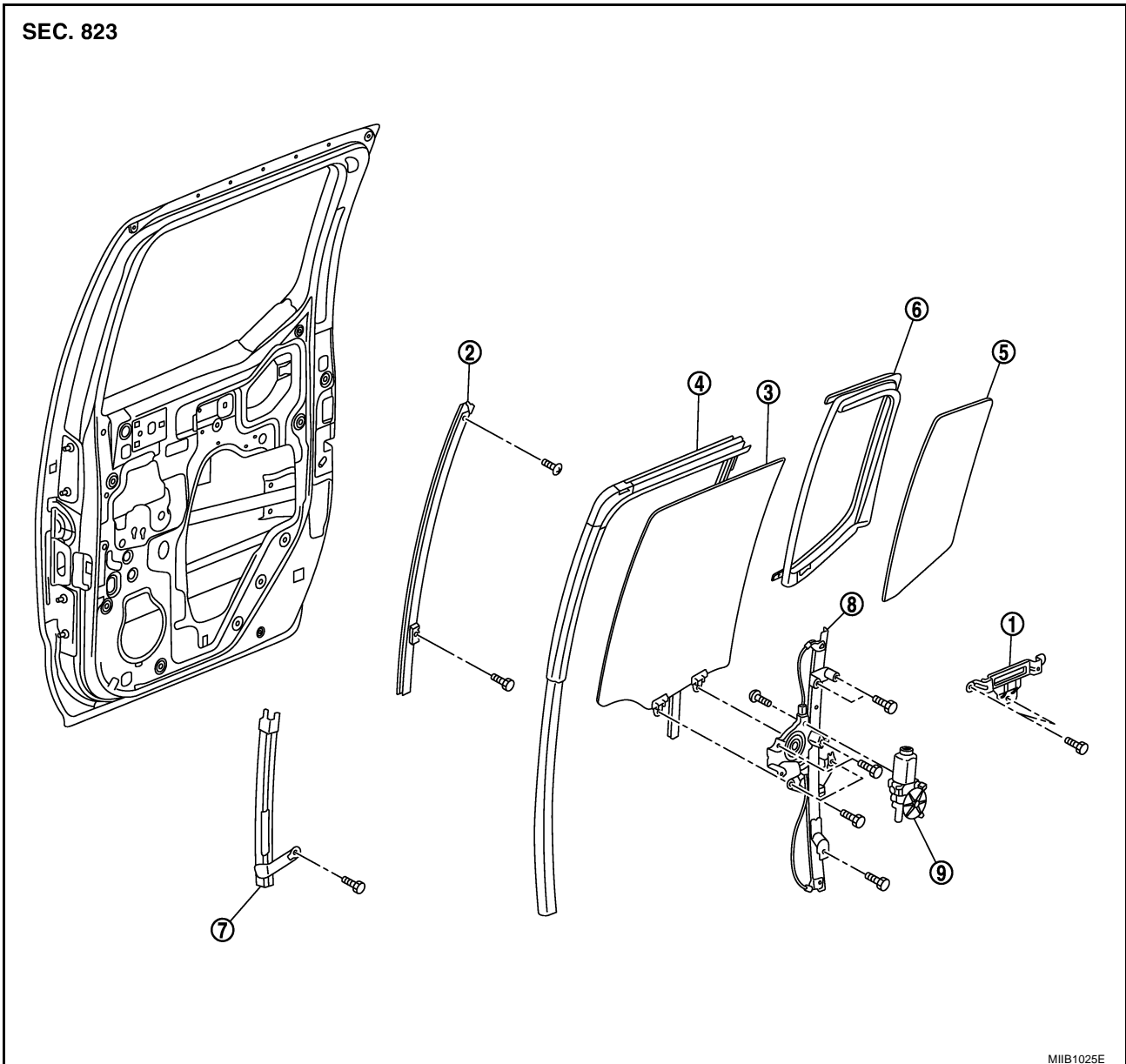
REAR DOOR GLASS AND REGULATOR

PFP:82300

Removal and Installation

GIS0004I

SEC. 823



MIIB1025E

- | | | |
|------------------------|-----------------------|---------------------------------|
| 1. Pull handle bracket | 2. Partition sash | 3. Door glass |
| 4. Door glass run | 5. Partition glass | 6. Partition glass weatherstrip |
| 7. Lower sash (front) | 8. Regulator assembly | 9. Power window motor |

DOOR GLASS

Removal

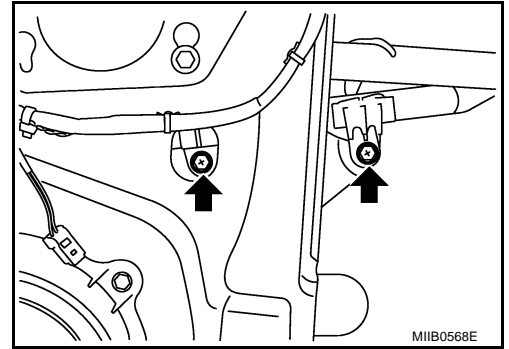
1. Remove the rear door finisher. Refer to [EI-29, "REAR DOOR"](#) .
2. Remove the pull handle bracket.
3. Remove the sealing screen.

NOTE:

If sealing screen is reused, cut the butyl-tape so that a part of butyl-tape remains on the sealing screen.

REAR DOOR GLASS AND REGULATOR

4. Operate power window main switch to raise or lower the door window until the door glass mounting bolts appear.



A
B
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5. Remove the partition sash bolt (lower) and screw (upper).
6. Remove the glass mounting bolts, and place the glass on the inner bottom of the door panel.
7. Remove the partition sash.
8. Remove the door glass.
9. Remove the door glass run.
10. Remove the partition glass.
11. Remove the bolts and lower sash (front).

E
F

Installation

Install in the reverse order of removal.

G
H

REGULATOR ASSEMBLY

Removal

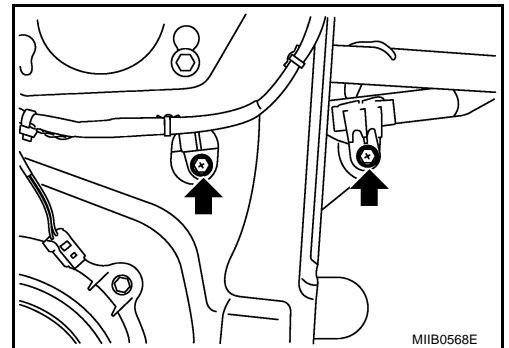
1. Remove the front door finisher. Refer to [EI-29, "REAR DOOR"](#).
2. Remove the pull handle bracket.
3. Remove the sealing screen.

GW

NOTE:

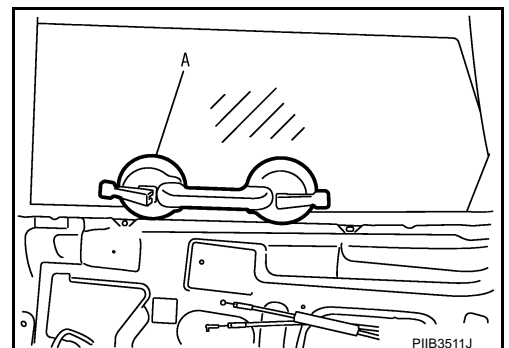
If sealing screen is reused, cut the butyl-tape so that a part of butyl-tape remains on the sealing screen.

4. Operate power window main switch to raise or lower the door window until the door glass mounting bolts appear.
5. Remove the door glass mounting bolts.



J
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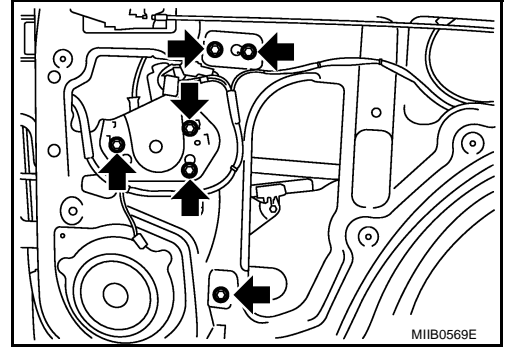
6. Raise up the door glass and hold with a suction lifter A.



7. Disconnect the harness connector from the regulator assembly.

REAR DOOR GLASS AND REGULATOR

8. Remove the mounting bolts and remove the regulator assembly.



Installation

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 grease it.

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

Disassembly and Assembly REGULATOR ASSEMBLY

GIS0004J

Disassembly

Remove the power window motor from the regulator assembly.

Assembly

Assemble in the reverse order of disassembly.

Inspection after Installation FITTING INSPECTION

GIS0004K

- Check that glass is securely fit into glass run groove.
- While raising and lowering the window, check for abnormal operation.
- Lower the glass slightly [approximately 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 bolts, guide rail bolts, and glass and guide rail bolts to correct the glass position.

REAR WINDOW GLASS AND MOLDING

REAR WINDOW GLASS AND MOLDING

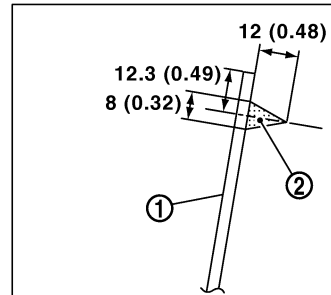
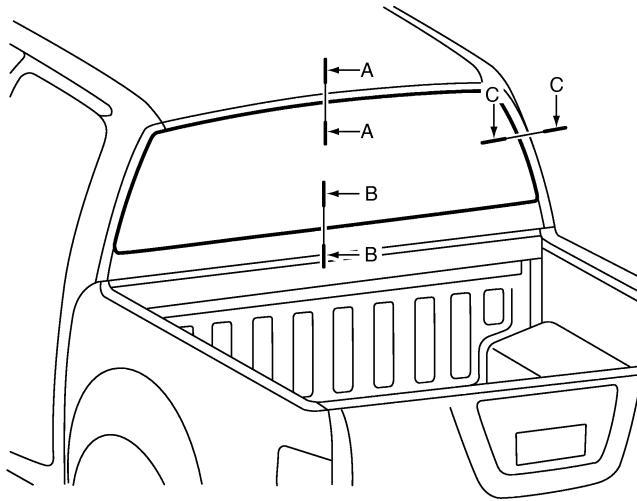
PPF:79712

Removal and Installation

GIS0004M

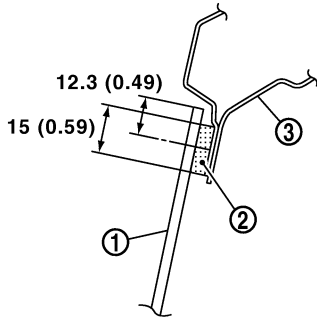
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SEC. 797

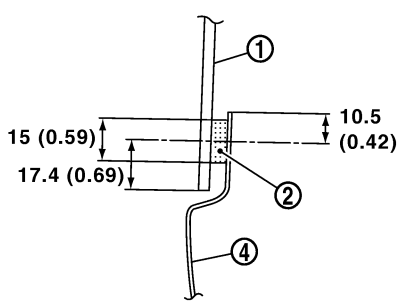


mm (in)

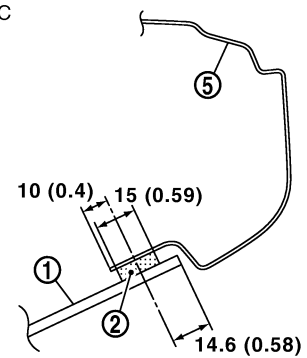
A - A



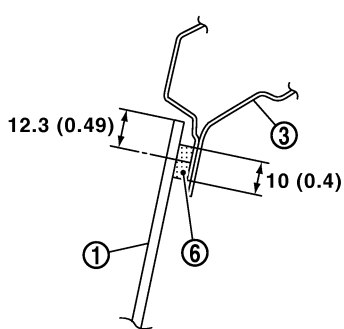
B - B



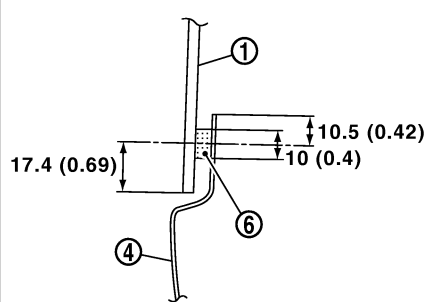
C - C



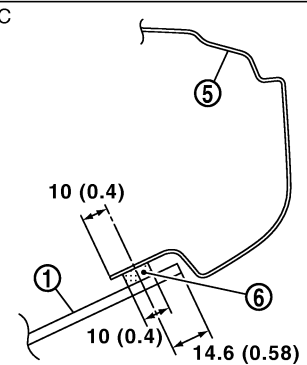
A - A



B - B



C - C



MIB0931E

- | | | |
|----------------------|--------------------------|---------------|
| 1. Rear window glass | 2. Primer | 3. Roof panel |
| 4. Back panel | 5. Body side outer panel | 6. Adhesive |

REMOVAL

1. Remove the rear upper finisher. Refer to [EI-32, "REAR"](#).

REAR WINDOW GLASS AND MOLDING

2. Apply a protective tape around the rear window glass to protect the painted surface from damage.
 - If the window glass is to be reused, mark the body and the glass with mating marks.
 - Remove the glass using piano wire or power cutting tool and an inflatable pump bag.

WARNING:

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

CAUTION:

- **Be careful not to scratch the glass when removing.**
 - **Do not set or stand the glass on its edge. Small chips may develop into cracks.**
3. Remove the rear window glass, using suction lifter.

INSTALLATION

- Use a genuine NISSAN Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- Check gap along bottom to confirm that glass does not contact sheet metal.
- 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.
- Install parts removed.

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 glass in case of an accident.**

CAUTION:

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

Repairing Water Leaks for Rear window Glass

Leaks can be repaired without removing or reinstalling glass.

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

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

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

INSIDE MIRROR

INSIDE MIRROR

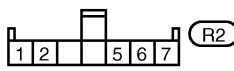
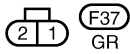
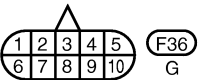
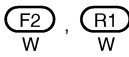
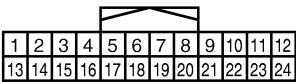
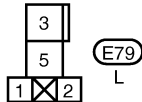
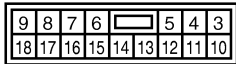
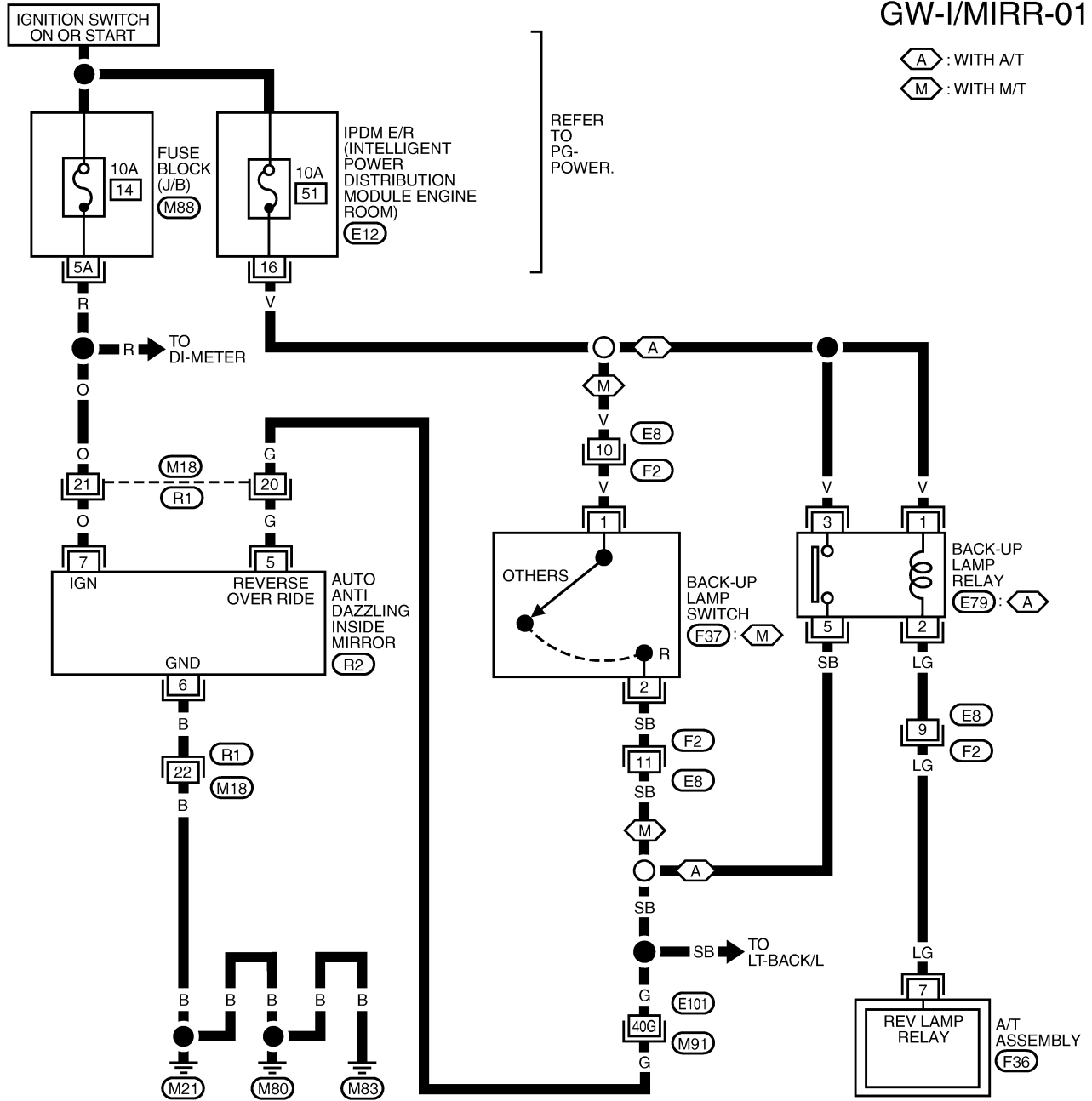
PPF:96321

Wiring Diagram – I/MIRR –

G/S0004N

GW-I/MIRR-01

⬡ : WITH A/T
⬢ : WITH M/T



REFER TO THE FOLLOWING.

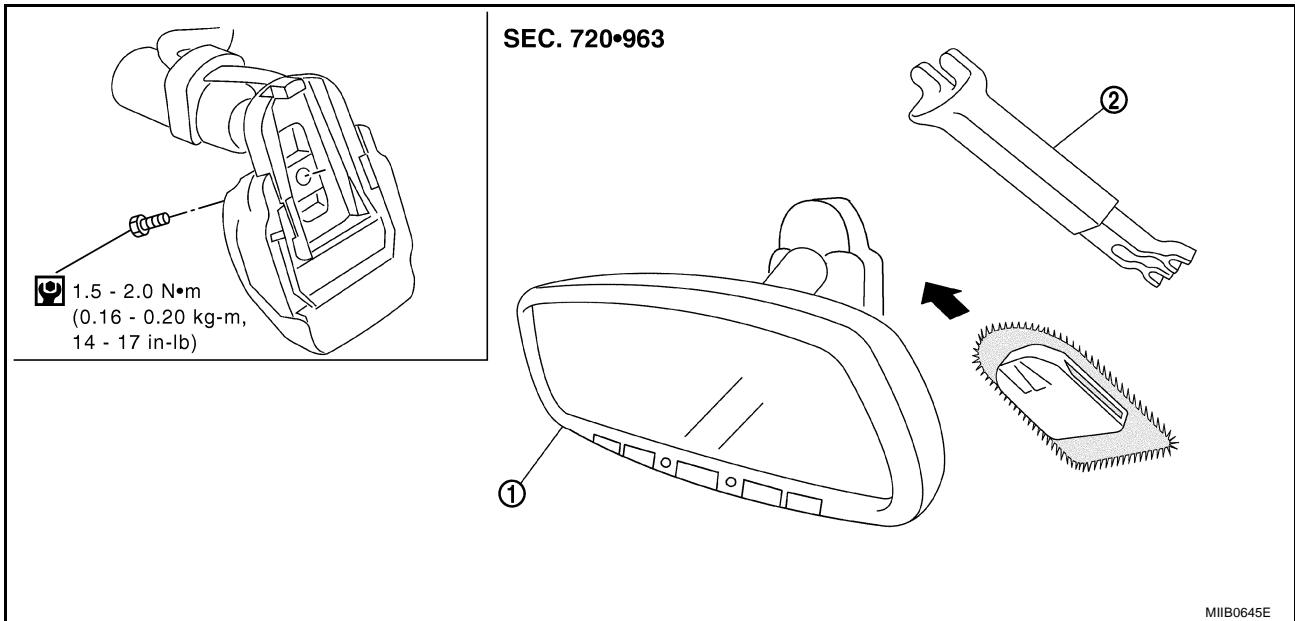
(M88) - FUSE BLOCK-JUNCTION BOX (J/B)

(M91) - SUPER MULTIPLE JUNCTION (SMJ)

INSIDE MIRROR

Removal and Installation

GIS00040



REMOVAL

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

INSTALLATION

Install in the reverse order of removal.

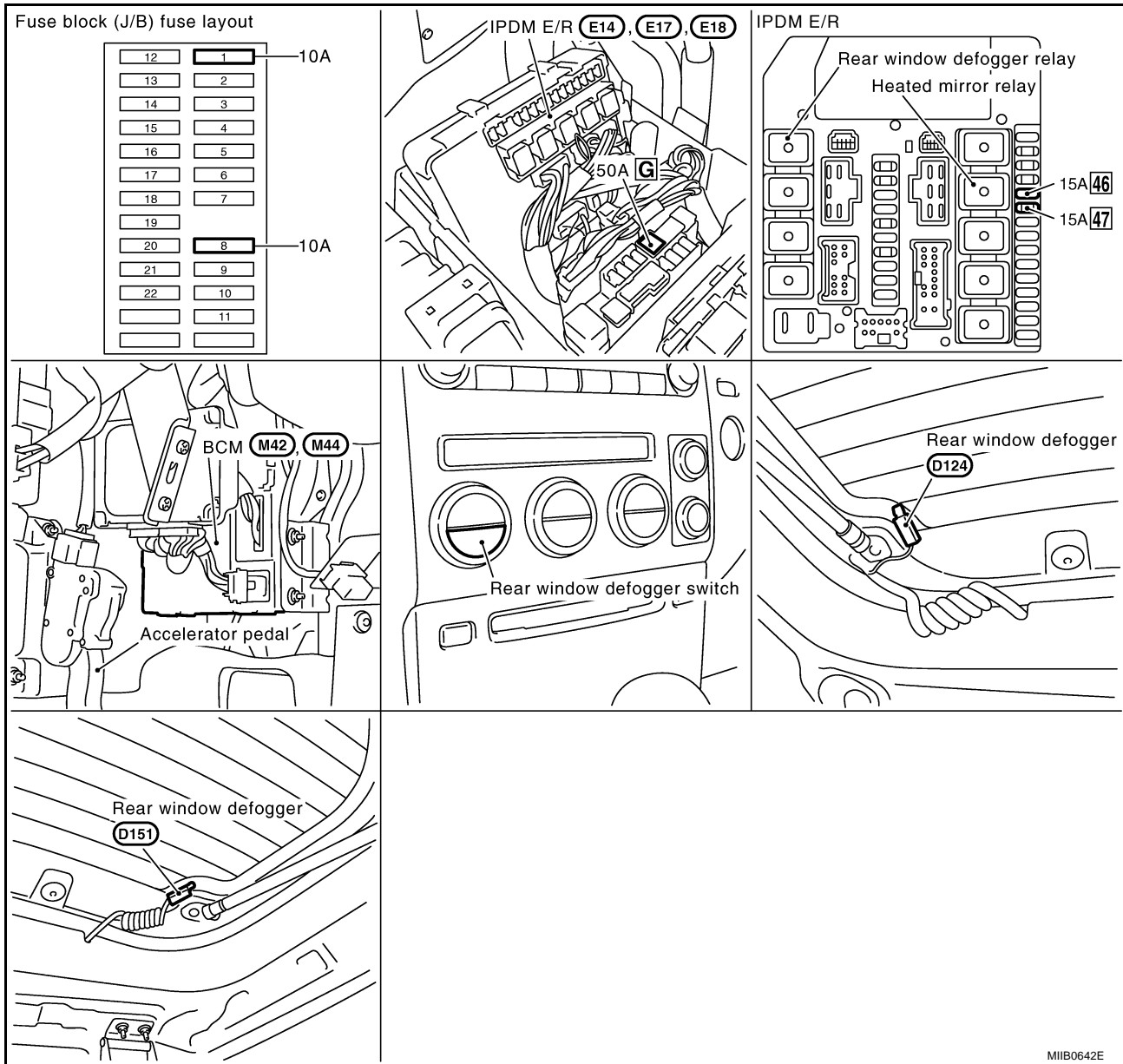
REAR WINDOW DEFOGGER

REAR WINDOW DEFOGGER

PF25350

Component Parts and Harness Connector Location

GIS004P



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System Description

GIS004Q

The rear window defogger system is controlled by BCM and IPDM E/R. The rear window defogger operates only for approximately 15 minutes. Power is supplied at all times

- through 15A fuse (No.46, 47, located in the IPDM E/R)
- to rear window defogger relay (located in the IPDM E/R)
- through 50A fusible link [letter **G** , located in the fuse block (J/B)]
- to BCM terminal 57.

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

- through 10A fuse [No. 1, located in the fuse block (J/B)]
- to BCM terminal 3
- through 10A fuse [No. 8, located in the fuse block (J/B)]
- to front air control terminal 6.

REAR WINDOW DEFOGGER

Ground is supplied

- to BCM terminal 55
- to front air control terminal 20
- through body grounds M21, M80 and M83
- to IPDM E/R terminals 38 and 59
- through body grounds E21, E41 and E61.

When front air control (rear window defogger switch) is turned to ON,

Ground is supplied

- to BCM terminal 20
- through front air control terminal 11
- through front air control terminal 20
- through body grounds M21, M80 and M83.

Then rear window defogger switch is illuminated.

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

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

When display panel receives rear window defogger switch signals it illuminates on the screen.

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

Ground is supplied

- to rear window defogger relay (located in the IPDM E/R)
- through IPDM E/R terminals 38 and 59
- through body grounds E21, E41 and E61

and then rear window defogger relay is energized.

Power is supplied

- through IPDM E/R terminal 60
- to rear window defogger terminal 1.

Ground is supplied

- to rear window window defogger terminal 2
- through body ground B152.

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

CAN Communication System Description

Refer to [LAN-21, "CAN COMMUNICATION"](#) .

GIS0004R

REAR WINDOW DEFOGGER

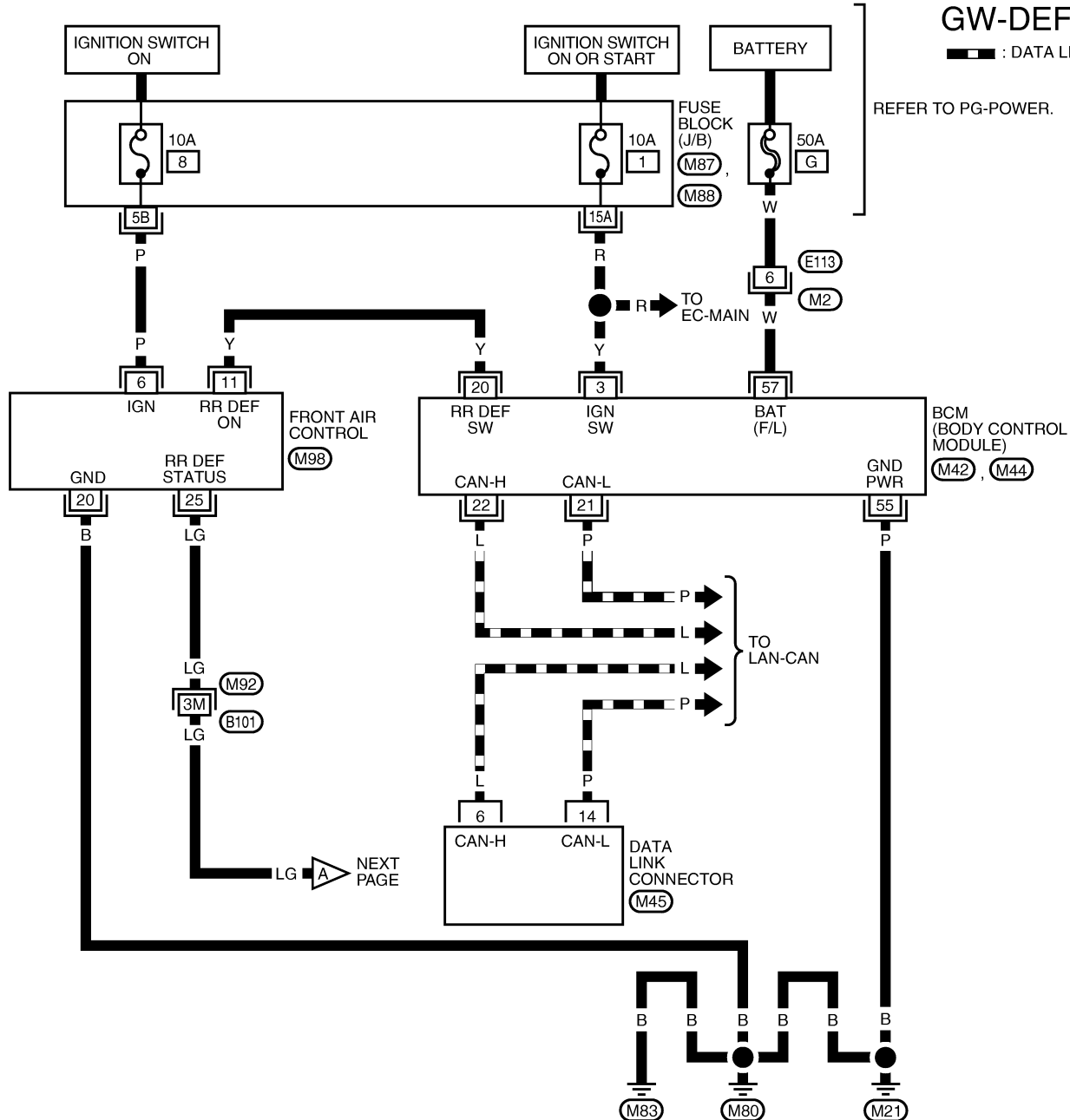
Wiring Diagram -DEF-

GIS0004T

GW-DEF-01

— : DATA LINE

REFER TO PG-POWER.



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GW

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4	5	6

(M2)
W

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

(M45)
W

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26

(M98)
B

REFER TO THE FOLLOWING.
 (M87), (M88) - FUSE BLOCK - JUNCTION BOX (J/B)
 (M42), (M44) - ELECTRICAL UNITS
 (M92) - SUPER MULTIPLE JUNCTION (SMJ)

REAR WINDOW DEFOGGER

Terminal and Reference Value for BCM

GIS0004U

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
3	Y	Ignition switch ON or START	Ignition switch (ON or START position)	Battery voltage
20	Y	Rear window defogger switch signal	When rear window defogger switch is pressed	0
			When rear window defogger switch is OFF	5
21	P	CAN-L	—	—
22	L	CAN-H	—	—
55	P	Ground	—	0
57	W	Battery power supply	—	Battery voltage

Terminal and Reference Value for IPDM E/R

GIS0004V

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
38	B	Ground	—	0
39	L	CAN-H	—	—
40	P	CAN-L	—	—
59	B	Ground	—	0
60	B	Rear window defogger output signal	When rear window defogger switch is ON	Battery voltage
			When rear window defogger switch is OFF	0

Work Flow

GIS0004W

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-45, "System Description"](#) .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-52, "Trouble Diagnoses Symptom Chart"](#) .
4. Does rear window defogger operate normally? YES: GO TO 5, NO: GO TO 3.
5. Inspection end.

A
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GW

REAR WINDOW DEFOGGER

GIS0004X

CONSULT-II Function (BCM)

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

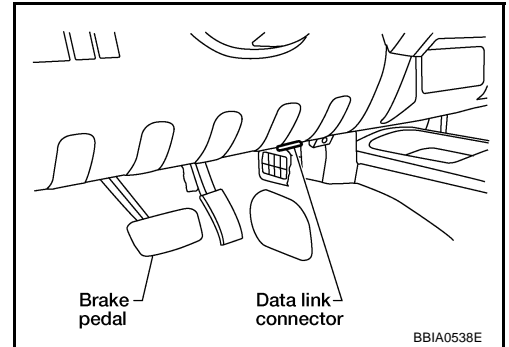
BCM diagnostic test item	Diagnostic mode	Content
Inspection by part	WORK SUPPORT	Changes setting of each function.
	DATA MONITOR	Displays BCM input/output data in real time.
	ACTIVE TEST	Operation of electrical loads can be checked by sending drive signal to them.
	SELF-DIAG RESULTS	Displays BCM self-diagnosis results.
	CAN DIAG SUPPORT MNTR	The results of transmit/receive diagnosis of CAN communication can be read.
	ECU PART NUMBER	BCM part number can be read.
	CONFIGURATION	Performs BCM configuration read/write functions.

CONSULT-II BASIC OPERATION PROCEDURE

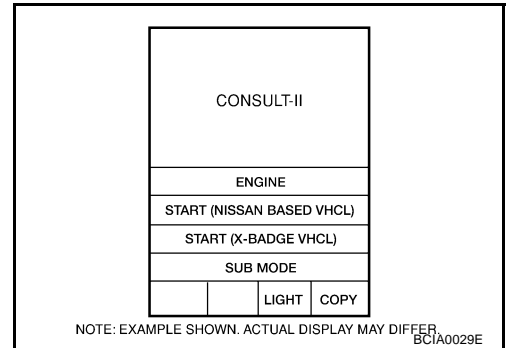
CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

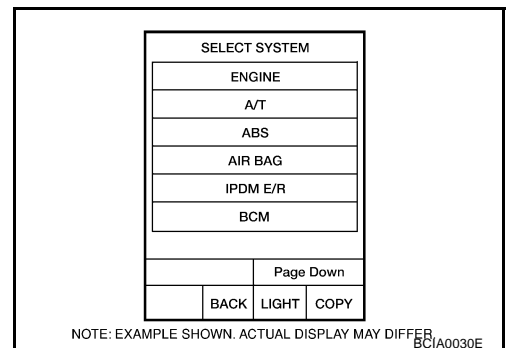
1. Turn ignition switch OFF.
2. Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



3. Turn ignition switch ON.
4. Touch "START (NISSAN BASED VHCL)".

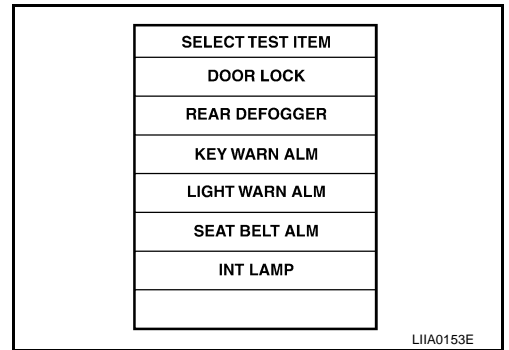


5. Touch "BCM".

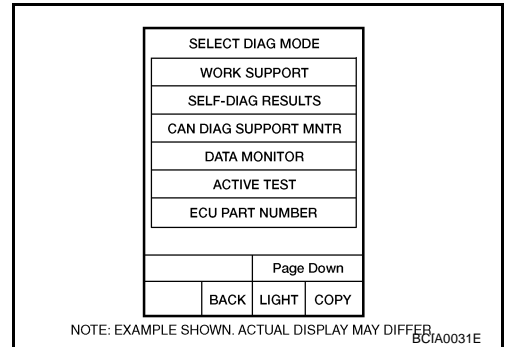


REAR WINDOW DEFOGGER

6. Touch "REAR DEFOGGER".



7. Select diagnosis mode, "DATA MONITOR" or "ACTIVE TEST".



DATA MONITOR

Display Item List

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

ACTIVE TEST

Display Item List

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

A
B
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M

GW

REAR WINDOW DEFOGGER

Trouble Diagnoses Symptom Chart

GIS0004Y

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

Symptom	Diagnoses / Service procedure	Refer to page
Rear window defogger do not operate.	1. BCM power supply and ground circuit check	GW-52
	2. IPDM E/R auto active test check	PG-19
	3. Rear window defogger power supply circuit check	GW-55
	4. Rear window defogger switch circuit check	GW-53
	5. Rear window defogger circuit check	GW-55
	6. Replace IPDM E/R	PG-26
Rear window defogger switch does not light, and rear window defogger is not displayed on the display, but rear window defogger operates.	1. Rear window defogger signal check	GW-56

BCM Power Supply and Ground Circuit Check

GIS0004Z

First perform the "SELF-DIAG RESULTS" in "BCM" with CONSULT-II, when perform the each trouble diagnosis. Refer to [BCS-14, "CAN Communication Inspection Using CONSULT-II \(Self-Diagnosis\)"](#).

1. CHECK FUSE

- Check 10A fuse [No. 1, located in the fuse block (J/B)]
- Check 50A fusible link (letter **G** located in the fuse and fusible link box)

NOTE:

Refer to [GW-45, "Component Parts and Harness Connector Location"](#).

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#).

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Turn ignition switch ON.
4. Check voltage between BCM connector M42, M44 terminal 3, 57 and ground.

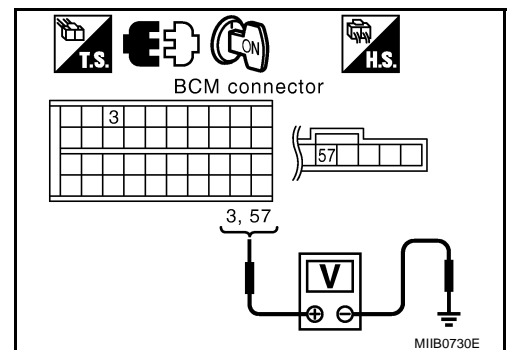
3 - Ground : Battery voltage

57 - Ground : Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



REAR WINDOW DEFOGGER

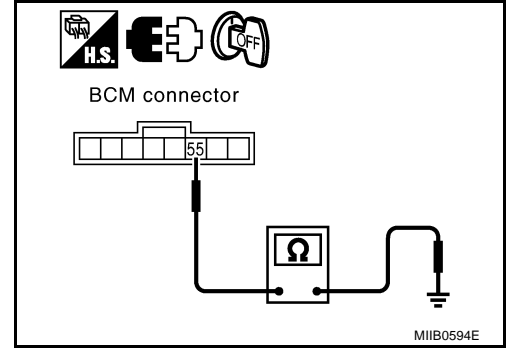
3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM.
3. Check continuity between BCM connector M44 terminal 55 and ground.

55 - Ground : Continuity should exist.

OK or NG

- OK >> BCM power supply and ground circuit is OK.
NG >> Repair or replace harness.



Rear Window Defogger Switch Circuit Check

1. CHECK REAR WINDOW DEFOGGER SWITCH OPERATION

① With CONSULT-II

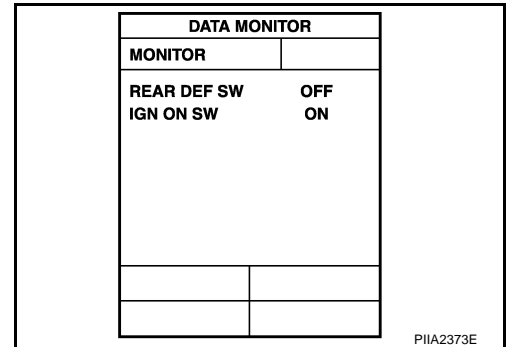
Check ("REAR DEF SW", "IGN ON SW") in DATA MONITOR mode with CONSULT-II.

When rear window defogger switch is turned to ON

REAR DEF SW : ON

When ignition switch is turned to ON

IGN ON SW : ON



⊗ Without CONSULT-II

1. GO TO 2.

OK or NG

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

REAR WINDOW DEFOGGER

2. CHECK REAR WINDOW DEFOGGER SWITCH CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and front air control connector.
3. Check continuity between BCM connector M42 terminal 20 and front air control connector M98 terminal 11.

20 - 11 : **Continuity should exist.**

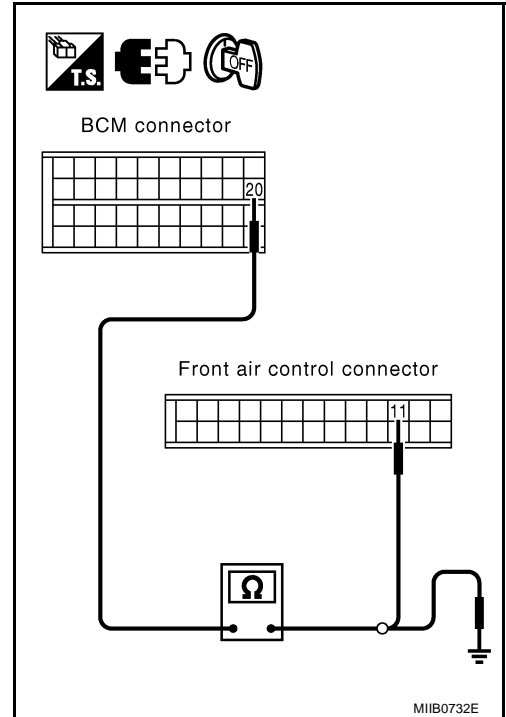
4. Check continuity between BCM connector M42 terminal 20 and ground.

20 - Ground : **Continuity should not exist.**

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. CHECK BCM OUTPUT SIGNAL

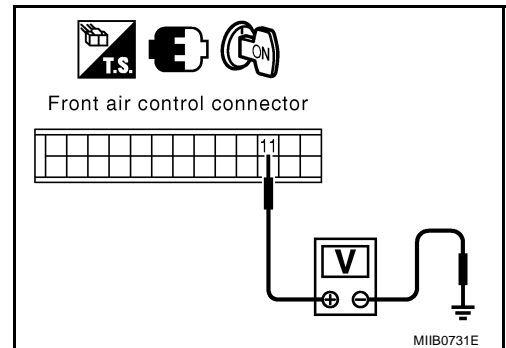
1. Connect BCM and front air control connector.
2. Turn ignition switch ON.
3. Check voltage between front air control connector M98 terminal 11 and ground.

11 - Ground : **Approx. 5V**

OK or NG

OK >> Check front air control.

NG >> Replace BCM.



REAR WINDOW DEFOGGER

Rear Window Defogger Power Supply Circuit Check

GIS00051

1. CHECK FUSE

- Check 15A fuse (No.46, 47, located in the IPDM E/R)

NOTE:

Refer to [GW-45, "Component Parts and Harness Connector Location"](#).

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#).

2. CHECK REAR WINDOW DEFOGGER RELAY OUTPUT SIGNAL

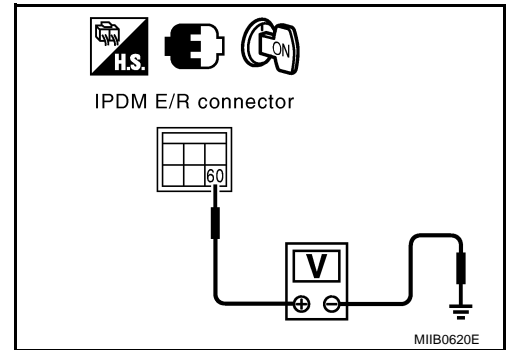
1. Turn ignition switch ON.
2. Check voltage between IPDM E/R connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
E18	60	Ground	Rear window defogger switch is ON.	Battery voltage
			Rear window defogger switch is OFF.	0

OK or NG

OK >> Check the condition of harness and connector.

NG >> Repair IPDM E/R.



Rear Window Defogger Circuit Check

GIS00052

1. CHECK REAR WINDOW DEFOGGER POWER SUPPLY CIRCUIT

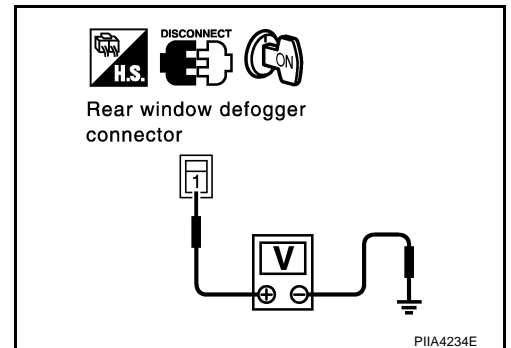
1. Turn ignition switch OFF.
2. Disconnect rear window defogger.
3. Turn ignition switch ON.
4. Check voltage between rear window defogger connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D124	1	Ground	Rear window defogger switch ON.	Battery voltage
			Rear window defogger switch OFF.	0

OK or NG

OK >> GO TO 2.

NG >> GO TO 3.



REAR WINDOW DEFOGGER

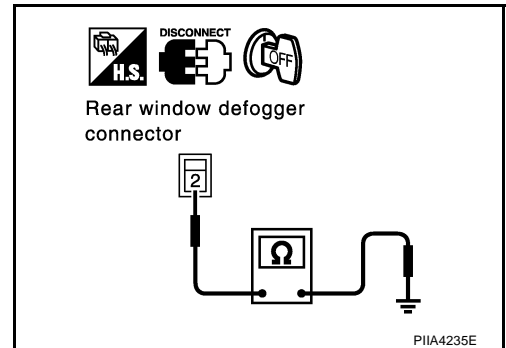
2. CHECK REAR WINDOW DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between rear window defogger connector D151 terminal 2 and ground.

2 - Ground : **Continuity should exist.**

OK or NG

- OK >> Check filament. Refer to [GW-57, "Filament Check"](#).
- If filament is OK.
Check the condition of the harness and the connector.
 - If filament is NG.
Repair filament.
- NG >> Repair or replace harness.



3. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R connector E18 terminal 60 and rear window defogger connector D124 terminal 1.

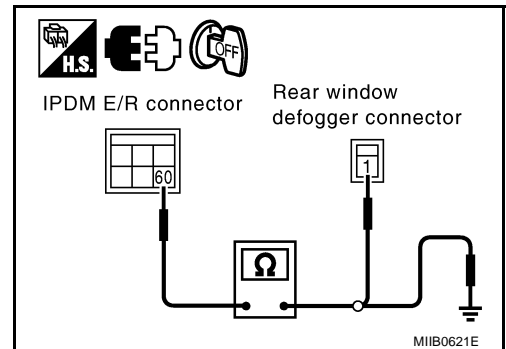
60 - 1 : **Continuity should exist.**

4. Check continuity between IPDM E/R connector E18 terminal 60 and ground.

60 - Ground : **Continuity should not exist.**

OK or NG

- OK >> Check the condition of the harness and connector.
- NG >> Repair or replace harness between IPDM E/R and rear window defogger.



Rear Window Defogger Signal Check

GIS00053

1. CHECK CAN COMMUNICATION LINE

CAN communication line check is executed. Refer to [LAN-21, "CAN COMMUNICATION"](#)

OK or NG

- OK >> GO TO 2.
- NG >> In addition, it is necessary to check CAN communication line. Refer to [LAN-21, "CAN COMMUNICATION"](#).

2. CHECK FRONT AIR CONTROL

Front air control check is executed. Refer to [LAN-21, "CAN COMMUNICATION"](#).

Is rear window defogger indicator illuminates on the display panel?

OK or NG

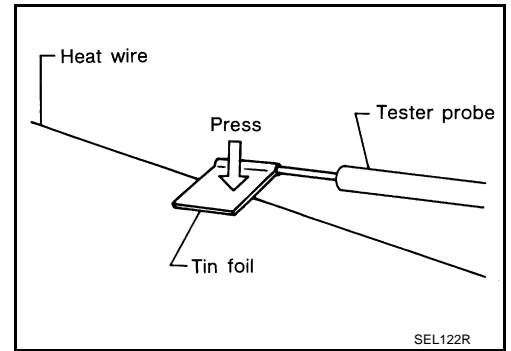
- OK >> Check the condition of the harness and the connector
- NG >> Replace front air control.

REAR WINDOW DEFOGGER

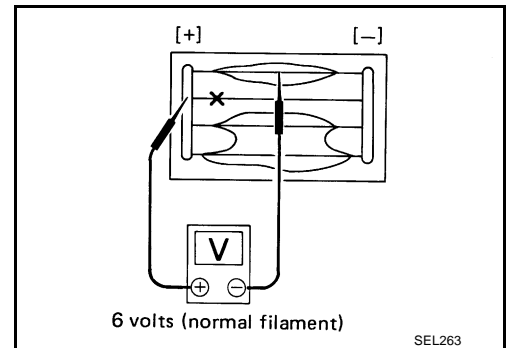
Filament Check

GIS00054

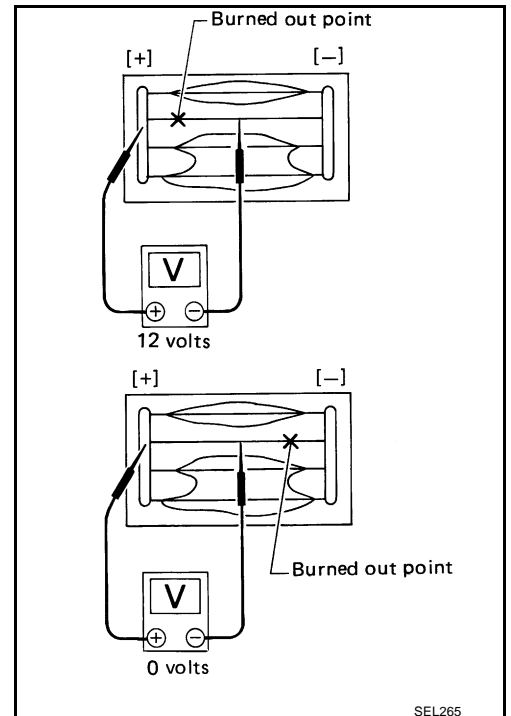
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



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.



Filament Repair REPAIR EQUIPMENT

GIS00055

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

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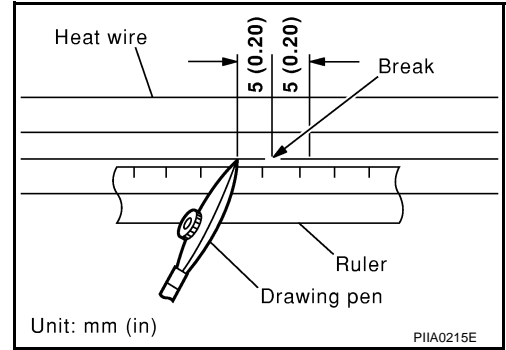
GW

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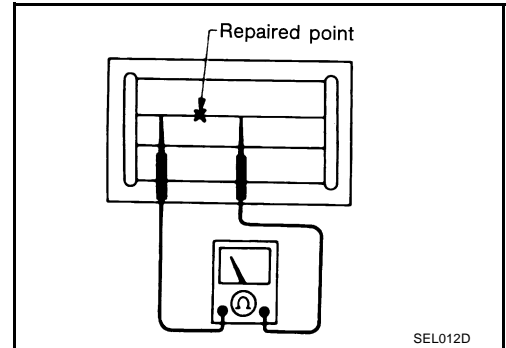
REAR WINDOW DEFOGGER

REPAIRING PROCEDURE

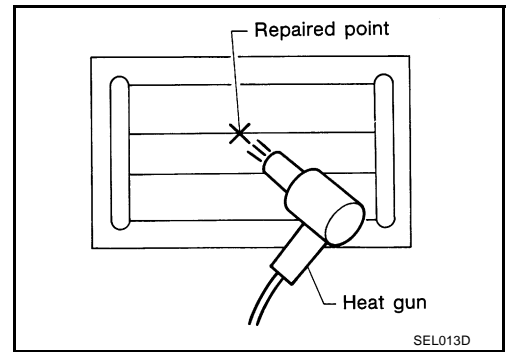
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on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



4. After repair has been completed, check repaired wire for continuity. This check should be 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 3 cm (1.2 in) should be kept between repaired area and hot air outlet. If a heat gun is not available, let the repaired area dry for 24 hours.



DOOR MIRROR

DOOR MIRROR

PFP:96301

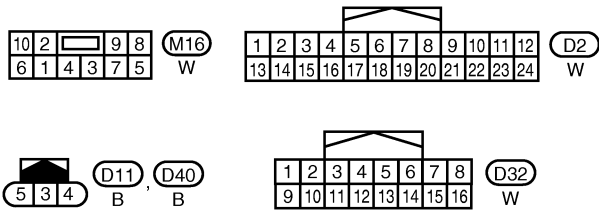
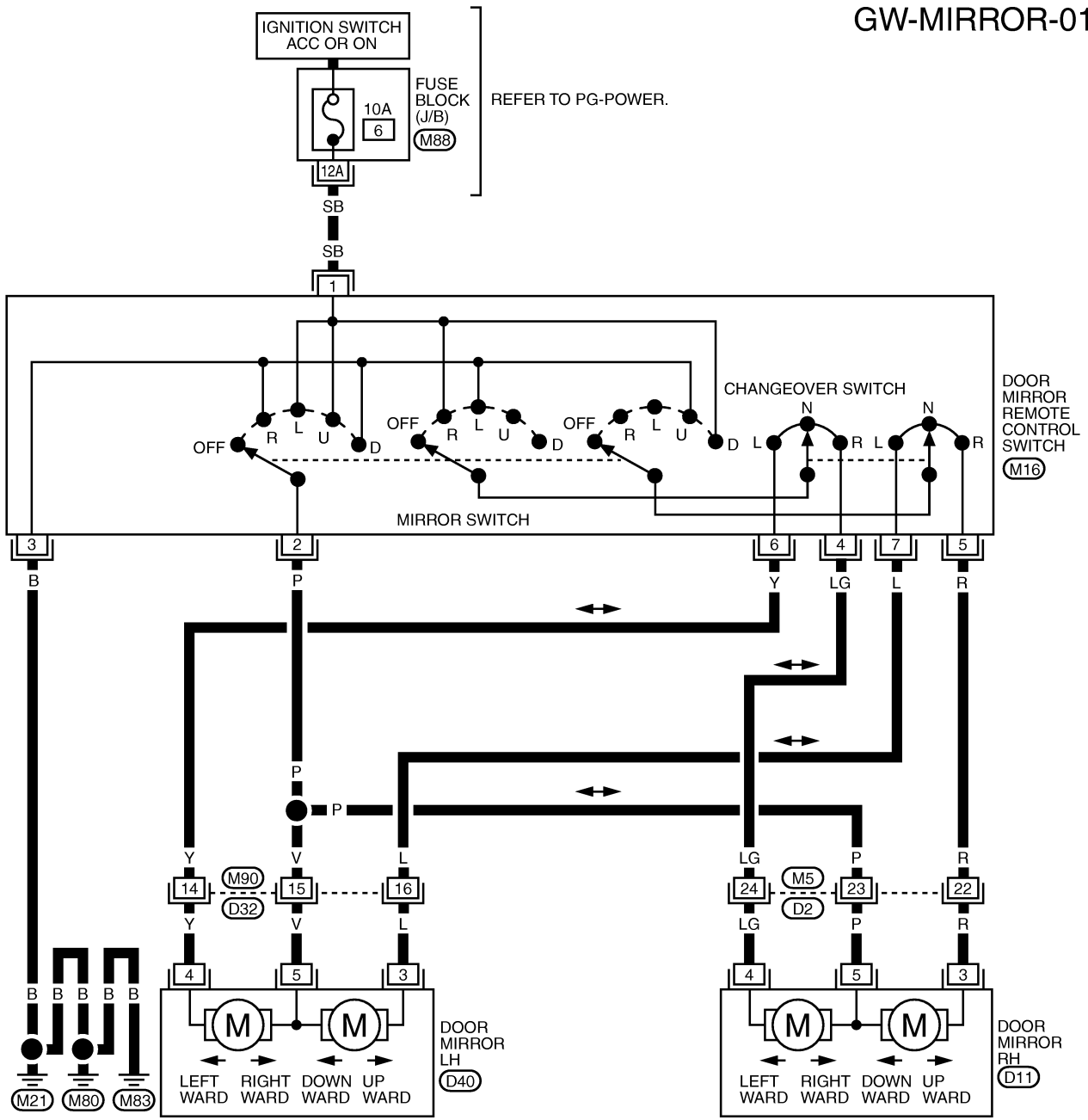
Wiring Diagram – MIRROR –

GIS00056

GW-MIRROR-01

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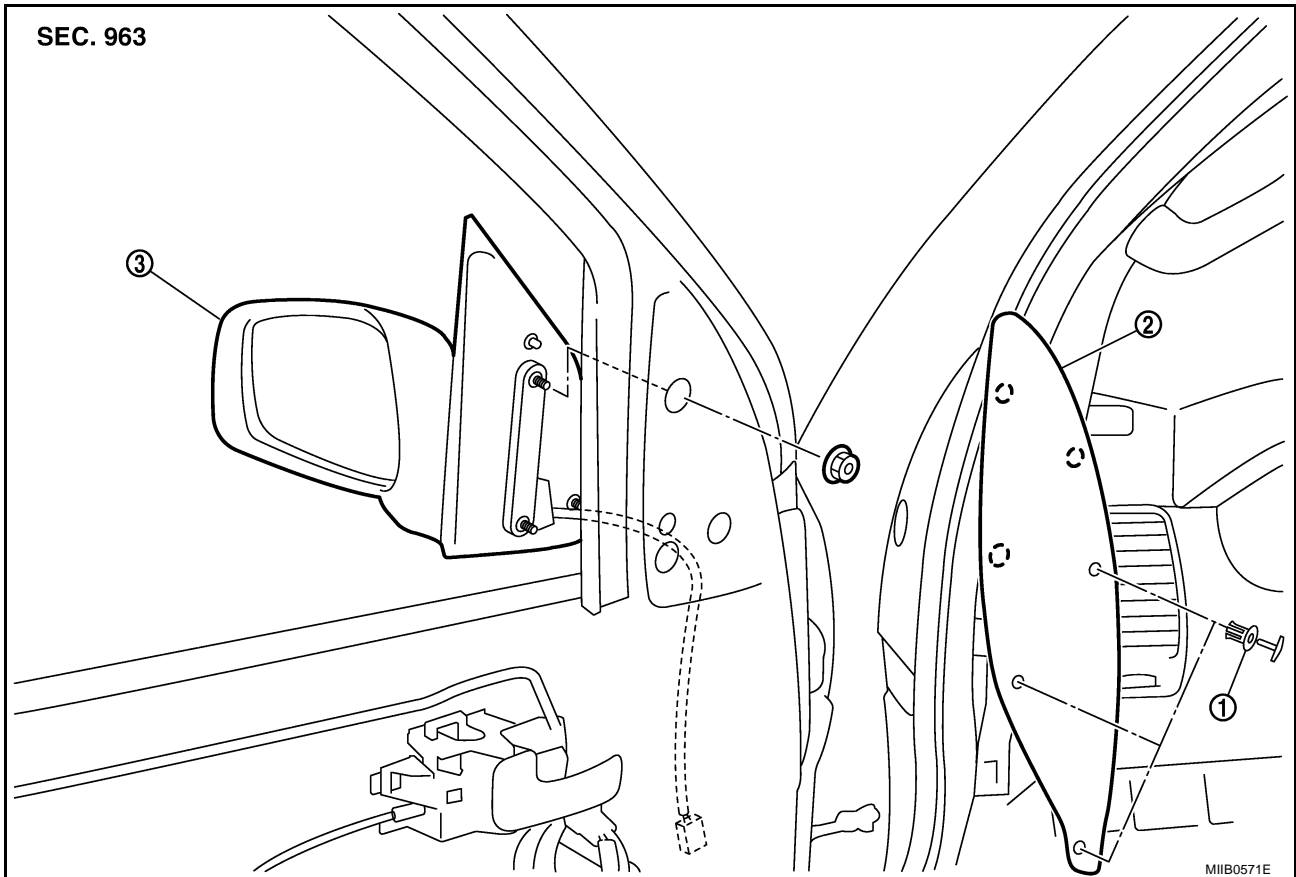


REFER TO THE FOLLOWING.
 (M88) - FUSE BLOCK - JUNCTION BOX (J/B)

DOOR MIRROR

Door Mirror Assembly

GIS00058



1. Clip

2. Front door sash cover

3. Door mirror assembly

REMOVAL

NOTE:

Be careful not to damage the mirror bodies.

1. Remove the clip and front door sash cover.
2. Remove the front door finisher. Refer to [EI-28, "FRONT DOOR"](#).
3. Position the sealing screen aside.
4. Disconnect the door mirror harness connector.
5. Remove the nuts and the door mirror assembly.

INSTALLATION

Install in the reverse order of removal.

Disassembly and Assembly

DISASSEMBLY

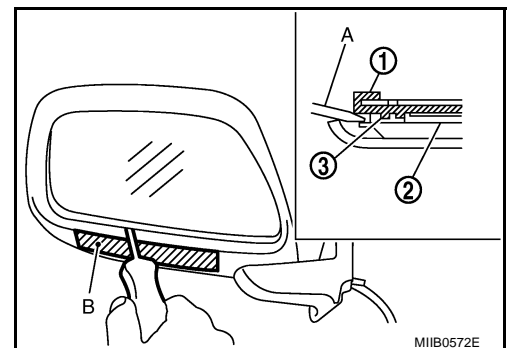
GIS00059

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

NOTE:

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

4. Remove two terminals of mirror heater attachment.



DOOR MIRROR

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

NOTE:

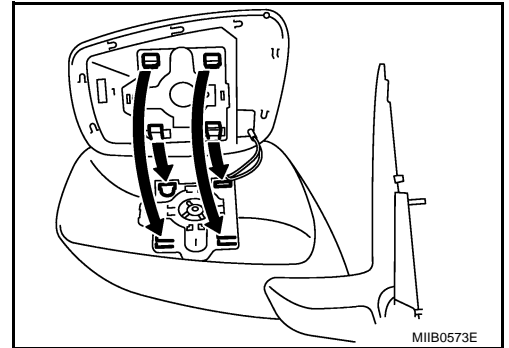
Be certain not to allow grease on sealing agent in center of mirror body assembly (actuator) or back side of mirror surface (mirror holder).

ASSEMBLY

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

NOTE:

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



A

B

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D

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DOOR MIRROR
