

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”

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The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

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

Handling for Adhesive and Primer

EIS001IG

- 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

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When you read wiring diagrams, refer to the following:

- [GI-12. "How to Read Wiring Diagrams"](#)
- [PG-3. "POWER SUPPLY ROUTING CIRCUIT"](#)

When you perform trouble diagnosis, refer to the following:

- [GI-10. "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#)
- [GI-25. "How to Perform Efficient Diagnosis for an Electrical Incident"](#)

Check for any service bulletins before servicing the vehicle.

PREPARATION

PREPARATION

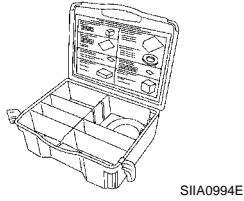
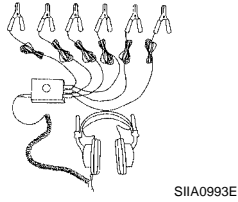
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Special Service Tool

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

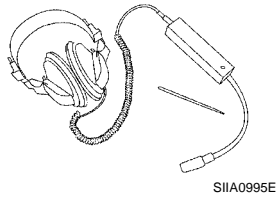
Tool number (Kent-Moore No.) Tool name	Description
(J-39570) Chassis ear	Locating the noise
(J-43980) NISSAN Squeak and Rattle Kit	Repairing the cause of noise



Commercial Service Tool

EIS001IJ

Tool name	Description
Engine ear	Locating the noise



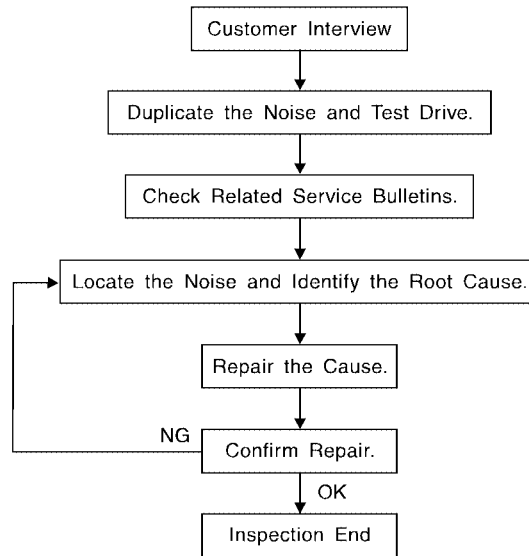
SQUEAK AND RATTLE TROUBLE DIAGNOSES

SQUEAK AND RATTLE TROUBLE DIAGNOSES

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Work Flow

EIS001K



SBT842

CUSTOMER INTERVIEW

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

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES

DUPLICATE THE NOISE AND TEST DRIVE

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

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

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

CHECK RELATED SERVICE BULLETINS

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

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

LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE

1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J-39570, Engine Ear: J-39565 and mechanic's 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 fasteners can be broken or lost during the repair, resulting in the creation of new noise.
 - tapping or pushing/pulling the component that you suspect is causing the noise. Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
 - feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
 - placing a piece of paper between components that you suspect are causing the noise.
 - looking for loose components and contact marks.
Refer to [GW-7, "Generic Squeak and Rattle Troubleshooting"](#) .

REPAIR THE CAUSE

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

CAUTION:

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

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

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

URETHANE PADS [1.5 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)

SQUEAK AND RATTLE TROUBLE DIAGNOSES

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

FELT CLOTH TAPE

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

68370-4B000: 15×25 mm (0.59×0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll. The following materials not found in the kit can also be used to repair squeaks and rattles.

UHMW (TEFLON) TAPE

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

SILICONE GREASE

Used instead 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

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

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

CAUTION:

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

CENTER CONSOLE

Components to pay attention to include:

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

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

DOORS

Pay attention to the:

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

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

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

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

SUNROOF/HEADLINING

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

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

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

SEATS

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

Cause of seat noise include:

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

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

UNDERHOOD

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

Causes of transmitted underhood noise include:

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

These 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

EIS001IM



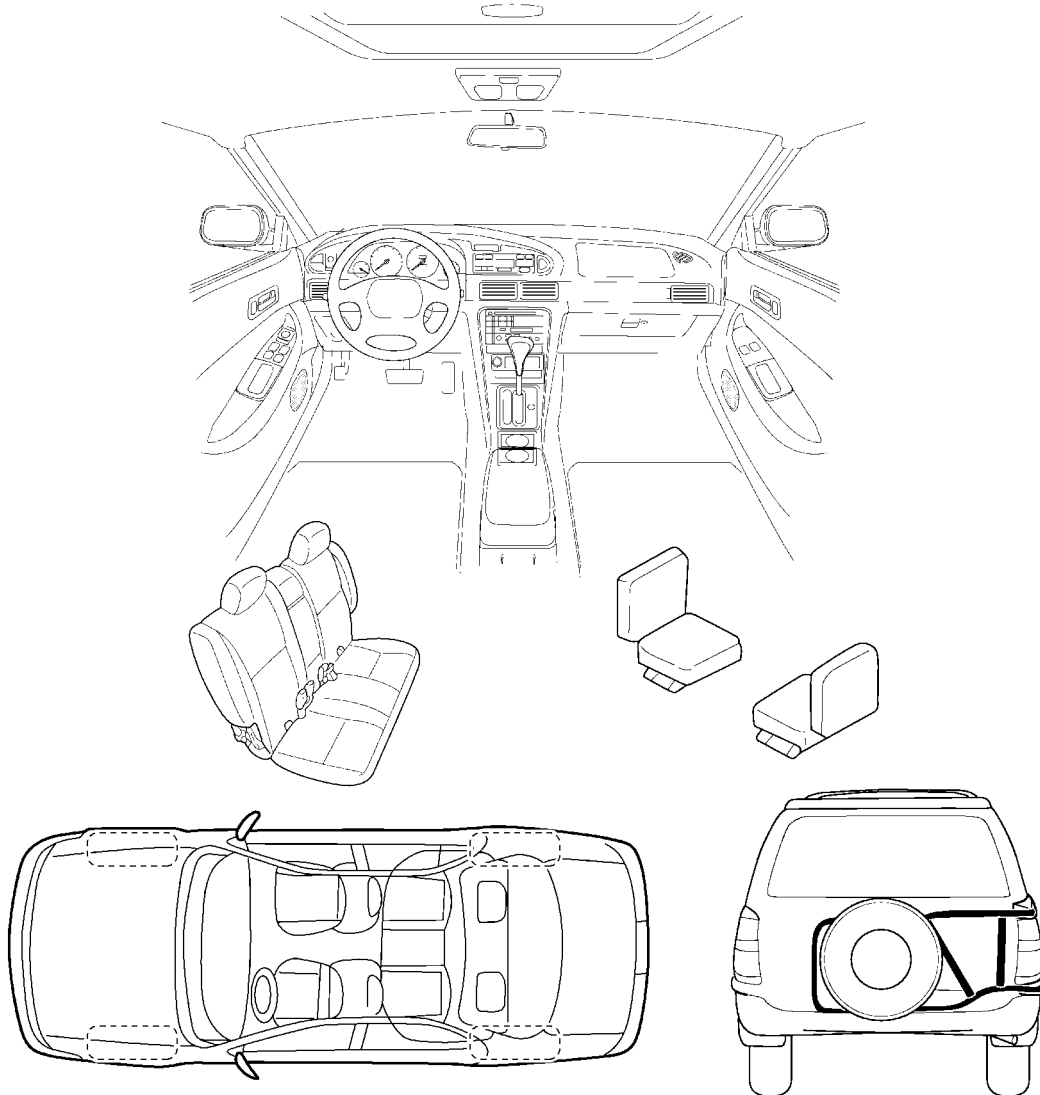
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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.

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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: _____

SBT844

This form must be attached to Work Order

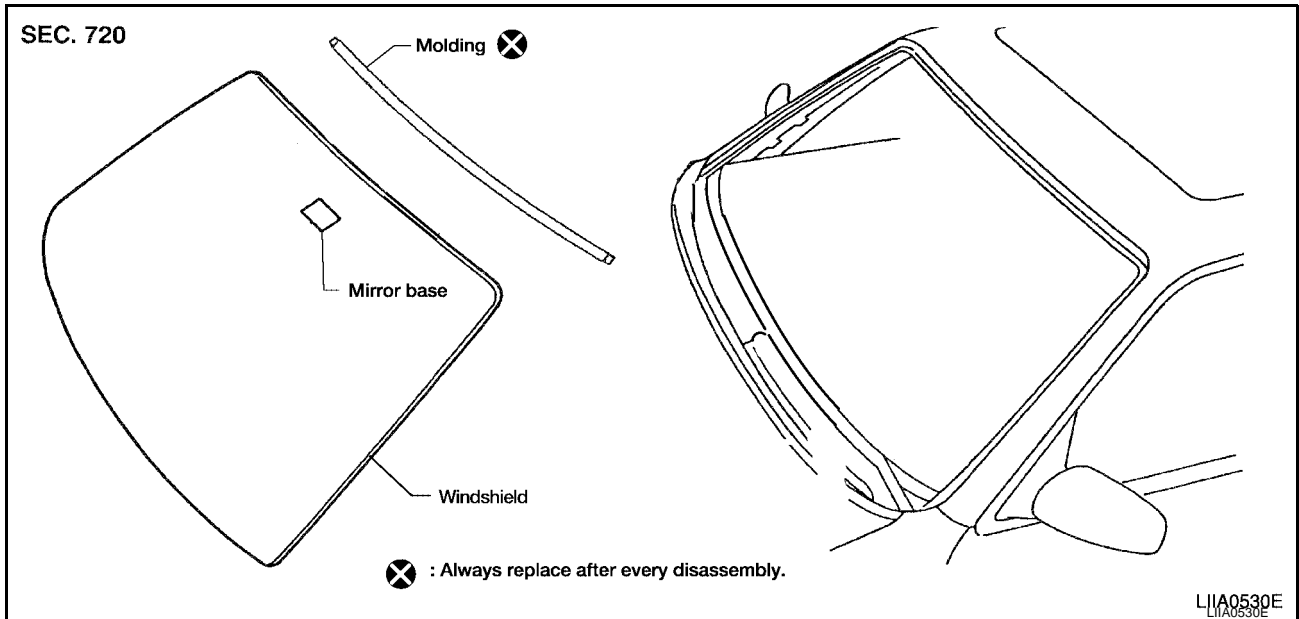
WINDSHIELD GLASS

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WINDSHIELD GLASS

Removal and Installation

EIS001IN



REMOVAL

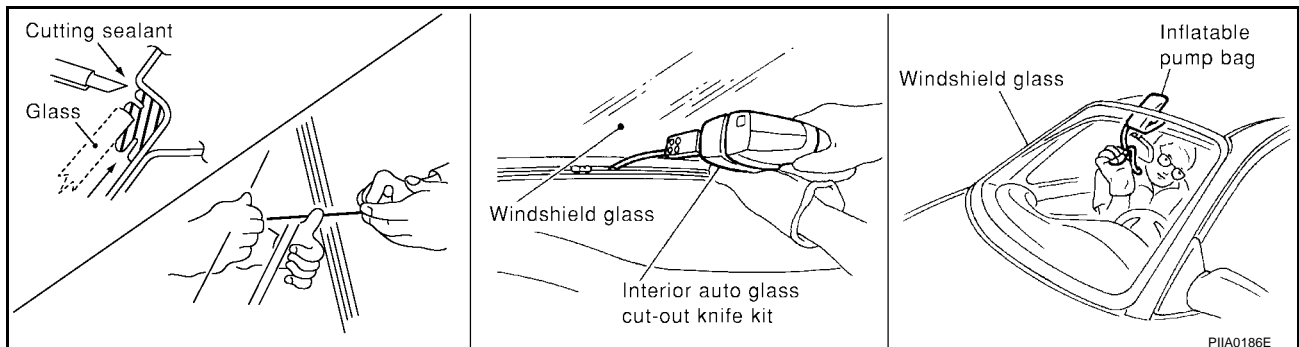
1. Remove the front pillar garnish. Refer to [EI-32, "BODY SIDE TRIM"](#) .
2. Remove inside mirror. Refer to [GW-93, "Removal and Installation"](#) .
3. Partially remove the headlining (front edge). Refer to [EI-40, "HEADLINING"](#) .
4. Remove the front wiper arms. Refer to [WW-27, "Removal and Installation for Front Wiper Arms, Adjustment for Wiper Arms Stop Location"](#) .
5. Remove roof side molding. Refer to [EI-26, "ROOF SIDE MOLDING"](#) .
6. Remove right and left front fender covers. Refer to [EI-19, "Removal and Installation"](#) .
7. Remove cowl top cover. Refer to [EI-19, "Removal and Installation"](#) .
8. Apply a protective tape around the windshield glass to protect the painted surface from damage.
 - After removing moldings, remove glass using piano wire or power cutting tool and an inflatable pump bag.
 - If a windshield glass is to be reused, mark the body and the glass with mating marks.

WARNING:

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

CAUTION:

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



WINDSHIELD GLASS

INSTALLATION

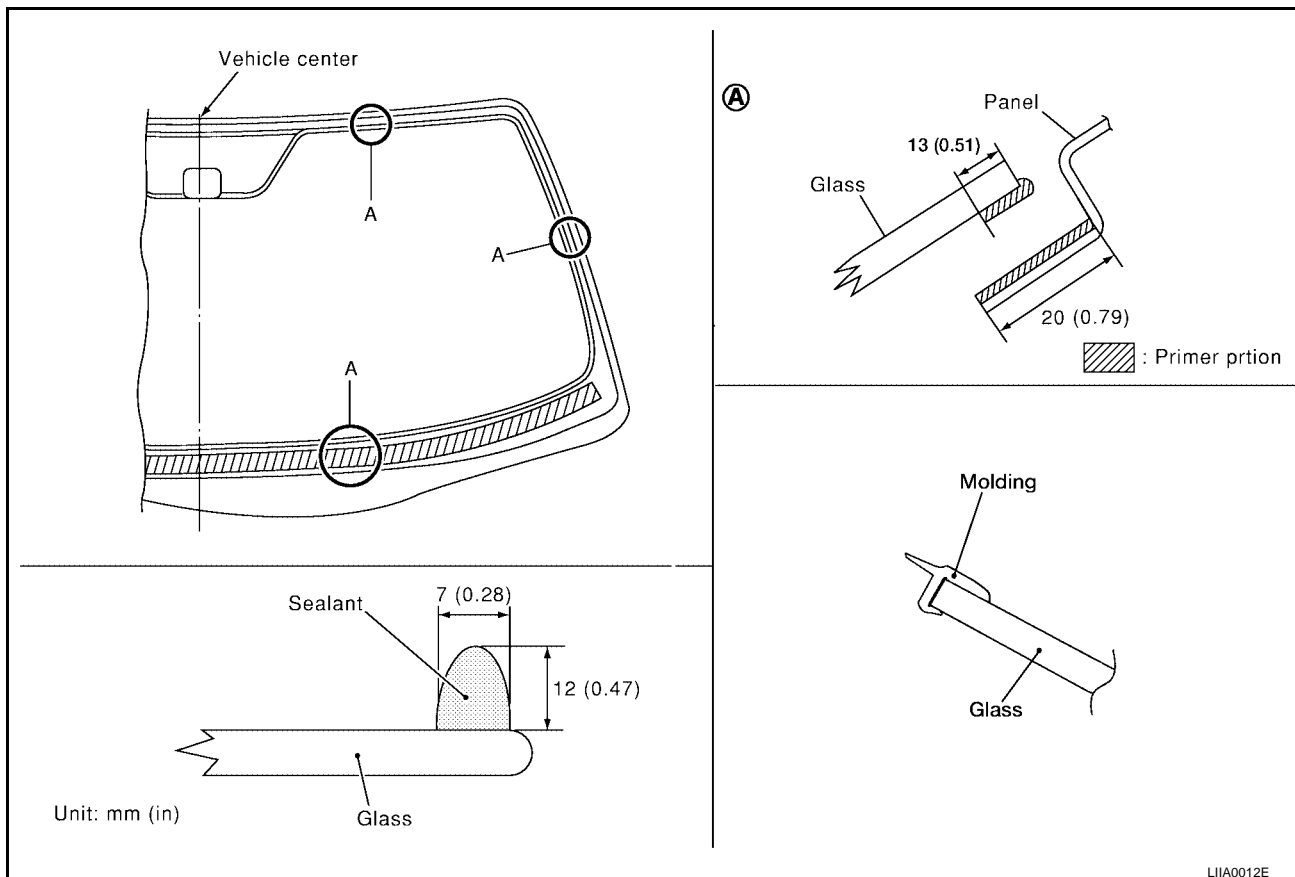
- Use a genuine NISSAN Urethane Adhesive Kit or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- The molding must be installed securely so that it is in position and leaves no gap.
- 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 higher temperatures and lower humidities.



Repairing Water Leaks for Windshield

Leaks can be repaired without removing and reinstalling glass.

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

WINDSHIELD GLASS

This can be done by applying water to the windshield area while pushing glass outward.
To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

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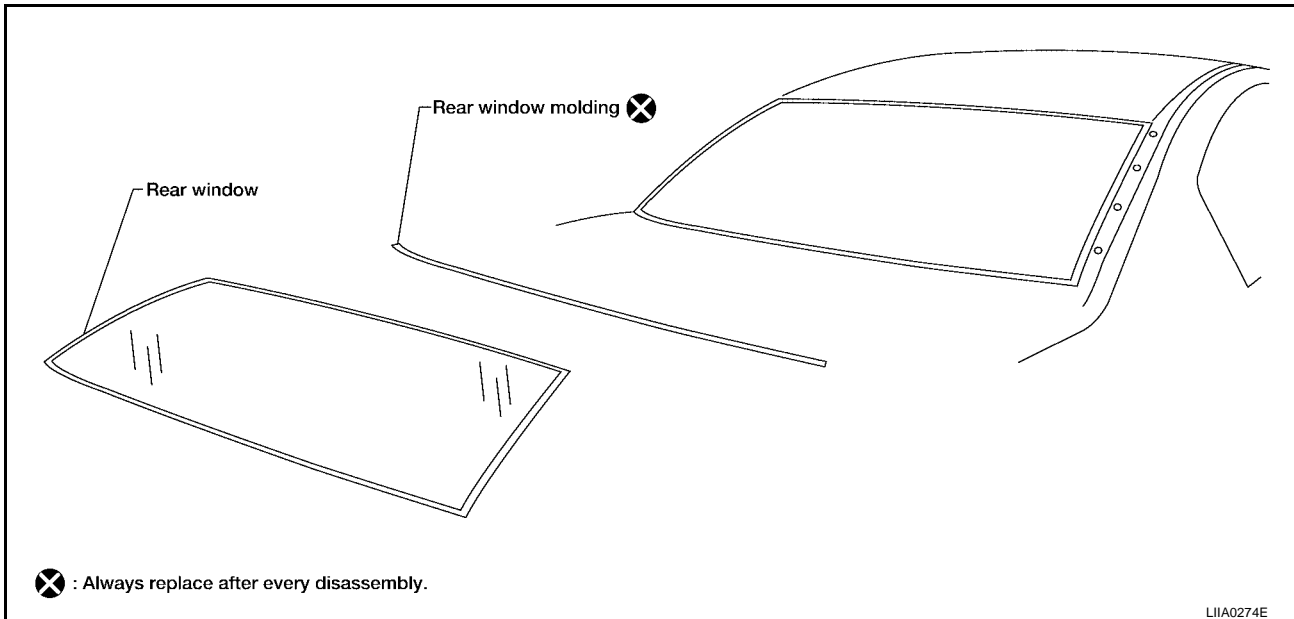
REAR WINDOW GLASS AND MOLDING

PFP:79712

REAR WINDOW GLASS AND MOLDING

Removal and Installation

EIS0010



REMOVAL

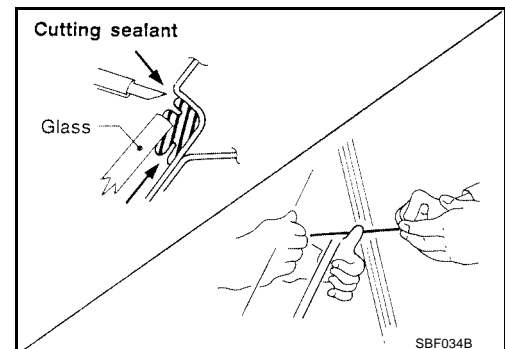
1. Remove the rear of the headliner. Refer to [EI-40, "HEADLINING"](#) .
 2. Remove the rear pillar garnish. Refer to [EI-32, "BODY SIDE TRIM"](#) .
 3. Remove the rear parcel shelf finisher. Refer to [EI-34, "REAR PARCEL SHELF FINISHER"](#) .
 4. Remove the connectors and grounds for the rear window defogger and printed antenna.
 5. Remove rear pillar finishers. Refer to [EI-27, "REAR PILLAR FINISHER"](#) .
- After removing rear pillar finishers, remove glass using piano wire or power cutting tool and an inflatable pump bag.
 - If a rear window glass is to be reused, mark the body and the glass with mating marks.

WARNING:

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

CAUTION:

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



INSTALLATION

- Use a genuine NISSAN Urethane Adhesive Kit or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- The molding must be installed securely so that it is in position and leaves no gap.

REAR WINDOW GLASS AND MOLDING

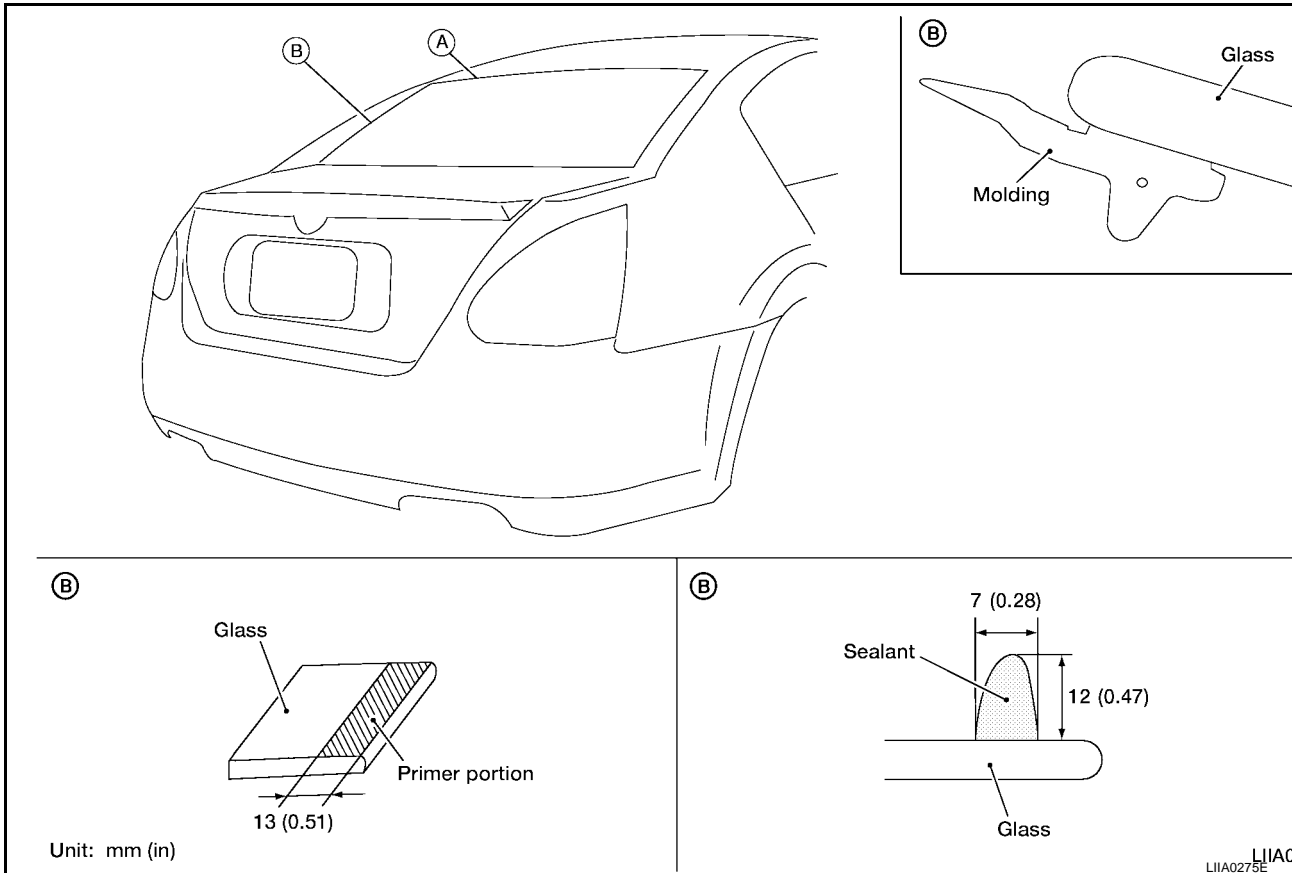
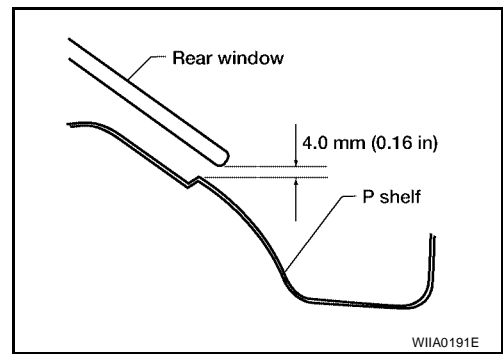
- Check gap along bottom to confirm that glass does not contact sheet metal.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.
- Install parts removed.

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 windshield in case of an accident.

CAUTION:

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

REAR WINDOW GLASS AND MOLDING

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

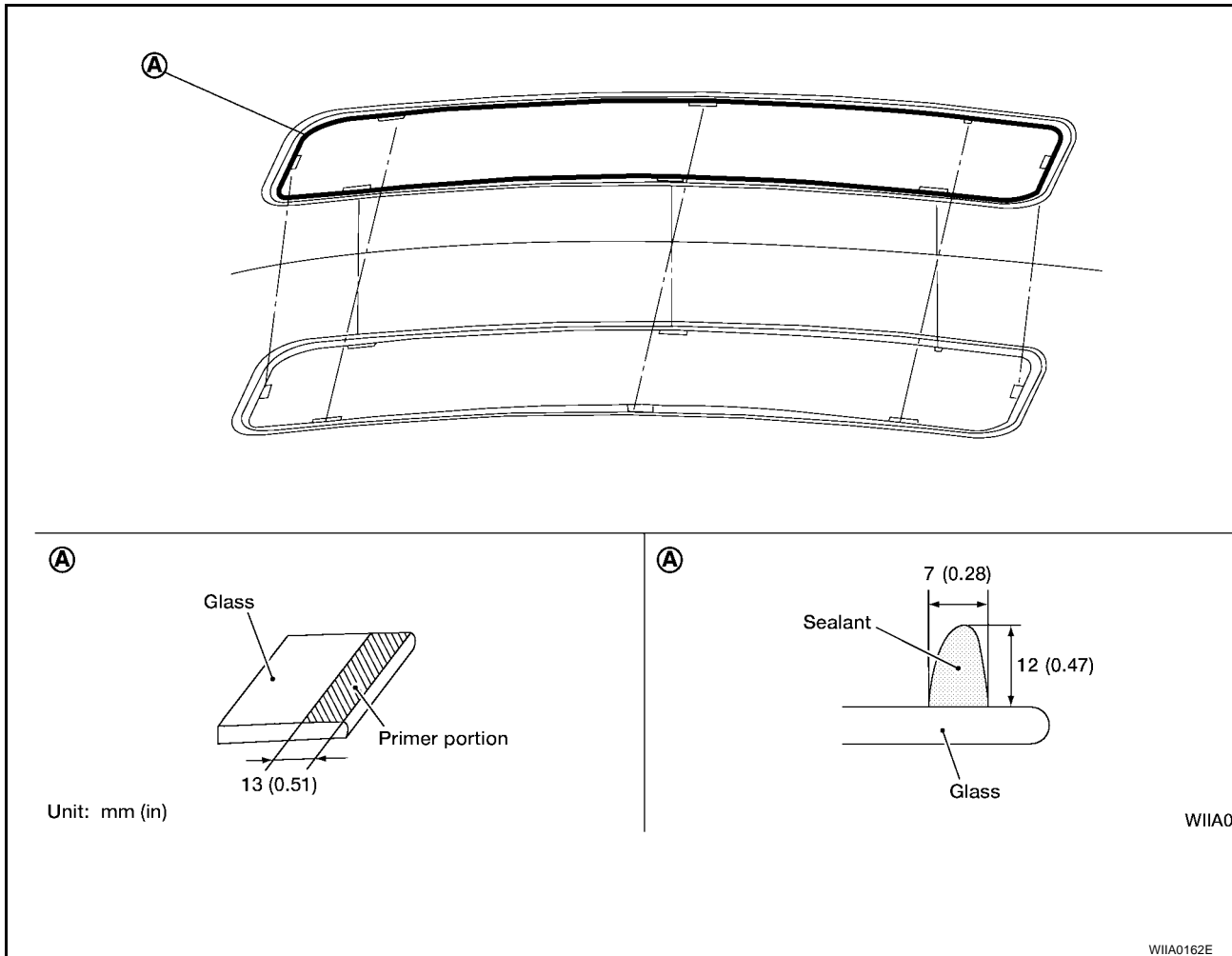
SKYVIEW ROOF

SKYVIEW ROOF

PFP:79700

Removal and Installation

EIS001NJ



REMOVAL

1. Remove the headlining. Refer to [EI-40, "HEADLINING"](#).
2. Apply protective tape around the skyview roof glass to protect the painted surface from damage.
3. Remove 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:

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

INSTALLATION

- Use a genuine NISSAN Urethane Adhesive Kit or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- The rubber seal must be installed securely so that it is in position and leaves no gap.
- Inform 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 adhesives are flammable.

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SKYVIEW ROOF

- 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 area with fresh air.
- Driving the vehicle before urethane adhesive has completely cured may affect the performance of the skyview roof 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 adhesives in a cool dry place. Ideally they should be stored in a refrigerator.
- Do not leave primers and adhesive cartridge unattended with their caps off.
- The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time depends on temperature and humidity. The curing time will increase under higher temperature and lower humidities.

Repairing Water Leaks for Skyview Roof Glass

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 glass area while pushing glass outward.

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

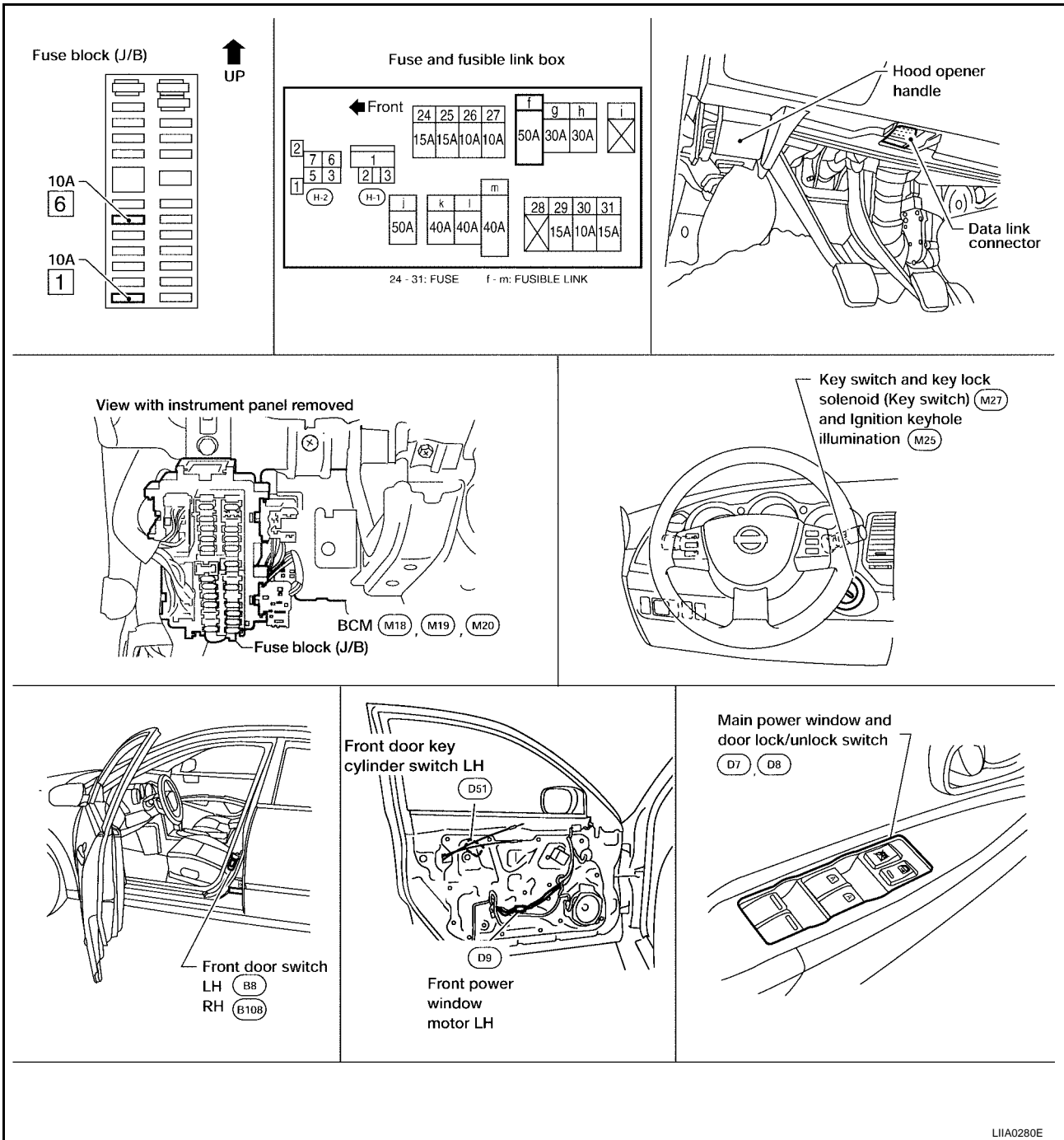
POWER WINDOW SYSTEM

PF25401

POWER WINDOW SYSTEM

Component Parts and Harness Connector Location

EIS001LN



LIIA0280E

System Description

EIS001LO

Power is supplied at all time / with front left and right only power window anti-pinch system

- from 50A fusible link (letter f , located in the fuse and fusible link box)
- to BCM terminal 55
- through BCM terminal 54
- to main power window and door lock/unlock switch terminal 19
- to front power window switch RH terminal 10.

Power is supplied at all time / with front and rear window anti-pinch system

- from 50A fusible link (letter f , located in the fuse and fusible link box)
- to BCM terminal 55

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POWER WINDOW SYSTEM

- through BCM terminal 54
- to main power window and door lock/unlock switch terminal 19
- to front power window switch RH terminal 10
- to rear power window switch LH and RH terminal 10.

With ignition switch in ON or START position,
Power is supplied / with front left and right only power window anti-pinch system

- through 10A fuse [No.1, located in the fuse block (J/B)]
- to BCM terminal 38
- through BCM terminal 53
- to main power window and door lock/unlock switch terminal 10
- to rear power window switch LH and RH terminal 1 and 6.

With ignition switch in ON or START position,
Power is supplied / with front and rear power window anti-pinch system

- through 10A fuse [No.1, located in the fuse block (J/B)]
- to BCM terminal 38
- through BCM terminal 53
- to main power window and door lock/unlock switch terminal 7

Ground supplied / with front left and right only power window anti-pinch

- to BCM terminal 49 and 52, and
- to main power window and door lock/unlock switch terminal 17
- to front power window switch RH terminal 11
- through body grounds M57, M61 and M79.

Ground supplied / with front and rear power window anti-pinch

- to BCM terminal 49, 52, and
- to main power window and door lock/unlock switch terminal 17
- to front power window switch RH terminal 11
- through body grounds M57, M61 and M79.

MANUAL OPERATION

Front Driver Side Door / with Front Left and Right Only Anti-pinch System

WINDOW UP

When the front LH switch in the main power window and door lock/unlock switch is pressed in the up position,
Power is supplied

- through main power window and door lock/unlock switch terminal 8
- to front power window motor LH terminal 1.

Ground is supplied

- through main power window and door lock/unlock switch terminal 11
- to front power window motor LH terminal 2.

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

WINDOW DOWN

When the front LH switch in the main power window and door lock/unlock switch is pressed in the down position
Power is supplied

- through main power window and door lock/unlock switch terminal 11
- to front power window motor LH terminal 2.

Ground is supplied

- through main power window and door lock/unlock switch terminal 8
- to front power window motor LH terminal 1.

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

Front Driver Side Door / With Front and Rear Power Window Anti-pinch System

WINDOW UP

POWER WINDOW SYSTEM

When the front LH switch in the main power window and door lock/unlock switch is pressed in the up position
Power is supplied

- through main power window and door lock/unlock switch terminal 8
- to front power window motor LH terminal 1.

Ground is supplied

- through main power window and door lock/unlock switch terminal 11
- to front power window motor LH terminal 2.

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

WINDOW DOWN

When the front LH switch in the main power window and door lock/unlock switch is pressed in the down position

Power is supplied

- through main power window and door lock/unlock switch terminal 11
- to front power window motor LH terminal 2.

Ground is supplied

- through main power window and door lock/unlock switch terminal 8
- to front power window motor LH terminal 1.

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

Front Passenger Side Door

FRONT POWER WINDOW SWITCH RH OPERATION

WINDOW UP

When the front power window switch RH is pressed in the up position

Power is supplied

- through front power window switch RH terminal 8
- to front power window motor RH terminal 1.

Ground is supplied

- through front power window switch RH terminal 9
- to front power window motor RH terminal 2.

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

WINDOW DOWN

When the front power window switch RH is pressed in the down position

Power is supplied

- through front power window switch RH terminal 9
- to front power window motor RH terminal 2.

Ground is supplied

- through front power window switch RH terminal 8
- to front power window motor RH terminal 1.

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

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OPERATION

Signal is sent

- through main power window and door lock/unlock switch terminal 14
- to front power window switch RH terminal 16.

The operation of power window after receiving the signal is the same as operating the power window with front power window switch RH.

Rear Door (LH or RH) / With Front Left and Right Only Anti-pinch System

REAR POWER WINDOW SWITCH LH OR RH OPERATION

WINDOW UP

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

Power is supplied

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

Ground is supplied

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POWER WINDOW SYSTEM

- through rear power window switch LH or RH terminal 5
- to rear power window motor LH or RH terminal 2.

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 5
- to rear power window motor LH or RH terminal 2.

Ground is supplied

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

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

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OPERATION

Ground is supplied

- to rear power window switch LH terminal 7
- through body grounds B7 and B19 and
- to rear power window switch RH terminal 7
- through body grounds B117 and B132.

WINDOW UP

When the main power window and door lock/unlock switch (rear LH) is pressed in the up position

Power is supplied

- through main power window and door lock/unlock switch terminal 3
- to rear power window switch LH terminal 3
- through rear power window switch LH terminal 4
- to rear power window motor LH terminal 1.

Ground is supplied

- through rear power window switch LH terminal 5
- to rear power window motor LH terminal 2
- through rear power window switch LH terminal 2
- to main power window and door lock/unlock switch terminal 1.

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

When the main power window and door lock/unlock switch (rear RH) is pressed in the up position

Power is supplied

- through main power window and door lock/unlock switch terminal 5
- to rear power window switch RH terminal 3
- through rear power window switch RH terminal 4
- to rear power window motor RH terminal 1.

Ground is supplied

- through rear power window switch RH terminal 5
- to rear power window motor RH terminal 2
- through rear power window switch RH terminal 2
- to main power window and door lock/unlock switch terminal 7.

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

WINDOW DOWN

When the main power window and door lock/unlock switch (rear LH) is pressed in the down position

Power is supplied

- through main power window and door lock/unlock switch terminal 1
- to rear power window switch LH terminal 2
- through rear power window switch LH terminal 5
- to rear power window motor LH terminal 2.

Ground is supplied

POWER WINDOW SYSTEM

- through rear power window switch LH terminal 4
- to rear power window motor LH terminal 1
- through rear power window switch LH terminal 3
- to main power window and door lock/unlock switch terminal 3.

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

When the main power window and door lock/unlock switch (rear RH) is pressed in the down position
Power is supplied

- through main power window and door lock/unlock switch terminal 7
- to rear power window switch RH terminal 2
- through rear power window switch RH terminal 5
- to rear power window motor RH terminal 2.

Ground is supplied

- through rear power window switch RH terminal 4
- to rear power window motor RH terminal 1
- through rear power window switch RH terminal 3
- to main power window and door lock/unlock switch terminal 5.

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

Rear Door (LH or RH) / With Front and Rear Power Window Anti-pinch System

REAR POWER WINDOW SWITCH LH OR RH OPERATION WINDOW UP

When the rear power window switch LH or RH is pressed in the up position
Power is supplied

- through rear power window switch LH or RH terminal 8
- to rear power window motor LH or RH terminal 1.

Ground is supplied

- through rear power window switch LH or RH terminal 9
- to rear power window motor LH or RH terminal 2.

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 9
- to rear power window motor LH or RH terminal 2.

Ground is supplied

- through rear power window switch LH or RH terminal 8
- to rear power window motor LH or RH terminal 1.

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

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OPERATION

Signal is sent

- through main power window and door lock/unlock switch terminal 14
- to rear power window switch LH or RH terminal 16.

The operation of power window after receiving the signal is the same as operating the power window with the rear power window switch LH or RH.

AUTO OPERATION

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

Maxima models have two types of auto operation systems.

One is applied only for front doors and the other is for all doors.

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POWER WINDOW SYSTEM

POWER WINDOW SERIAL LINK

With front left and right only power window anti-pinch system

Main power window and door lock/unlock switch, front power window switch RH, and BCM transmit and receive the signal by power window serial link.

The signal is transmitted from BCM to main power window and door lock/unlock switch and front power window switch RH

- Keyless power window down signal.

The signal is transmitted from main power window and door lock/unlock switch to front power window switch RH

- Front door window RH operation signal.
- Power window control by key cylinder switch signal.
- Power window lock signal.
- Retained power operation signal.

With front and rear power window anti-pinch system

The signal is transmitted from BCM to main power window and door lock/unlock switch and front power window switch RH

- Keyless power window down signal.

The signal is transmitted from main power window and door lock/unlock switch to front power window switch RH

- Front door window RH operation signal.
- Power window control by key cylinder switch signal.
- Power window lock signal.
- Retained power operation signal.

The signal is transmitted from main power window and door lock/unlock switch to rear power window switch LH or RH

- Rear door window LH or RH operation signal.

POWER WINDOW LOCK

With front left and right only power window anti-pinch system

The power window lock is designed to lock operation of all windows except for front door window LH.

When in the lock position, ground of the rear LH and rear RH power window switches in the main power window and door lock/unlock switch is disconnected. The power window lock signal is transmitted to front power window switch RH by power window serial link. This prevents the power window motors from operating.

With front and rear power window anti-pinch system

The power window lock is designed to lock operation of all windows except for front door window LH.

When in the lock position, ground of the rear LH and rear RH power window switches in the main power window and door lock/unlock switch is disconnected. The power window lock signal is transmitted to front power window switch RH rear LH and rear RH power window switches by power window serial link. This prevents the power window motors from operating.

RETAINED POWER OPERATION

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

Power is supplied for 45 seconds / with front left and right only power window anti-pinch system

- to main power window and door lock/unlock switch terminal 10
- to rear power window switch (LH and RH) terminals 1 and 6
- from BCM terminal 53.

Power is supplied for 45 seconds / with front and rear power window anti-pinch system

- to main power window and door lock/unlock switch terminal 7
- from BCM terminal 53.

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

The retained power operation is canceled when the front LH or front RH door is opened.

RAP signal period can be changed by CONSULT-II. Refer to [GW-46, "CONSULT-II Inspection Procedure"](#) .

POWER WINDOW SYSTEM

ANTI-PINCH SYSTEM

With front left and right only power window anti-pinch system

Main power window and door lock/unlock switch and front power window switch RH monitor the power window motor operation and the power window position (full closed or other) for front LH and front RH power window by the signals from encoder and limit switch in front power window motor LH and RH.

When main power window and door lock/unlock switch or front power window switch RH detects interruption during the following close operation,

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

Main power window and door lock/unlock switch or front power window switch RH controls each front power window motor for open and the power window will be lowered about 150 mm (5.91 in).

With front and rear power window anti-pinch system

Main power window and door lock/unlock switch, front power window switch RH and rear power window switch LH and RH monitors the power window motor operation and the power window position (full closed or other) for each power window by the signals from encoder and limit switch in power window motor.

When a window switch detects interruption during the following close operation,

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

Main power window and door lock/unlock switch, front power window switch RH and rear power window switch LH and RH controls each power window motor for open and the power window will be lowered about 150 mm (5.91 in).

POWER WINDOW CONTROL BY THE KEY CYLINDER SWITCH

With front left and right only power window anti-pinch system

When ignition key switch is OFF, front power window LH and RH can be opened or closed by turning the front door key cylinder LH to the UNLOCK / LOCK position for more than 3 seconds.

- Front power windows can be opened as the door key cylinder is kept fully turning to the UNLOCK position.
- Front power windows can be closed as the door key cylinder is kept fully turning to the LOCK position.

The power window opening stops when the following operations are carried out.

- While performing open/close operation for the windows, power window is stopped when the door key cylinder is placed in the NEUTRAL position.
- When the ignition switch is turned ON while the power window opening operation is performed.

With front and rear power window anti-pinch system

When ignition key switch is OFF, front power window LH and RH and rear power window LH and RH can be opened or closed by turning the front door key cylinder LH to the UNLOCK / LOCK position for more than 3 seconds.

- All power windows can be opened as the door key cylinder is kept fully turning to the UNLOCK position.
- All power windows can be closed as the door key cylinder is kept fully turning to the LOCK position.

The power window opening stops when the following operations are carried out.

- While performing open/close operation for the windows, power window is stopped when the door key cylinder is placed in the NEUTRAL position.
- When the ignition switch is turned ON while the power window opening operation is performed.

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CAN Communication System Description

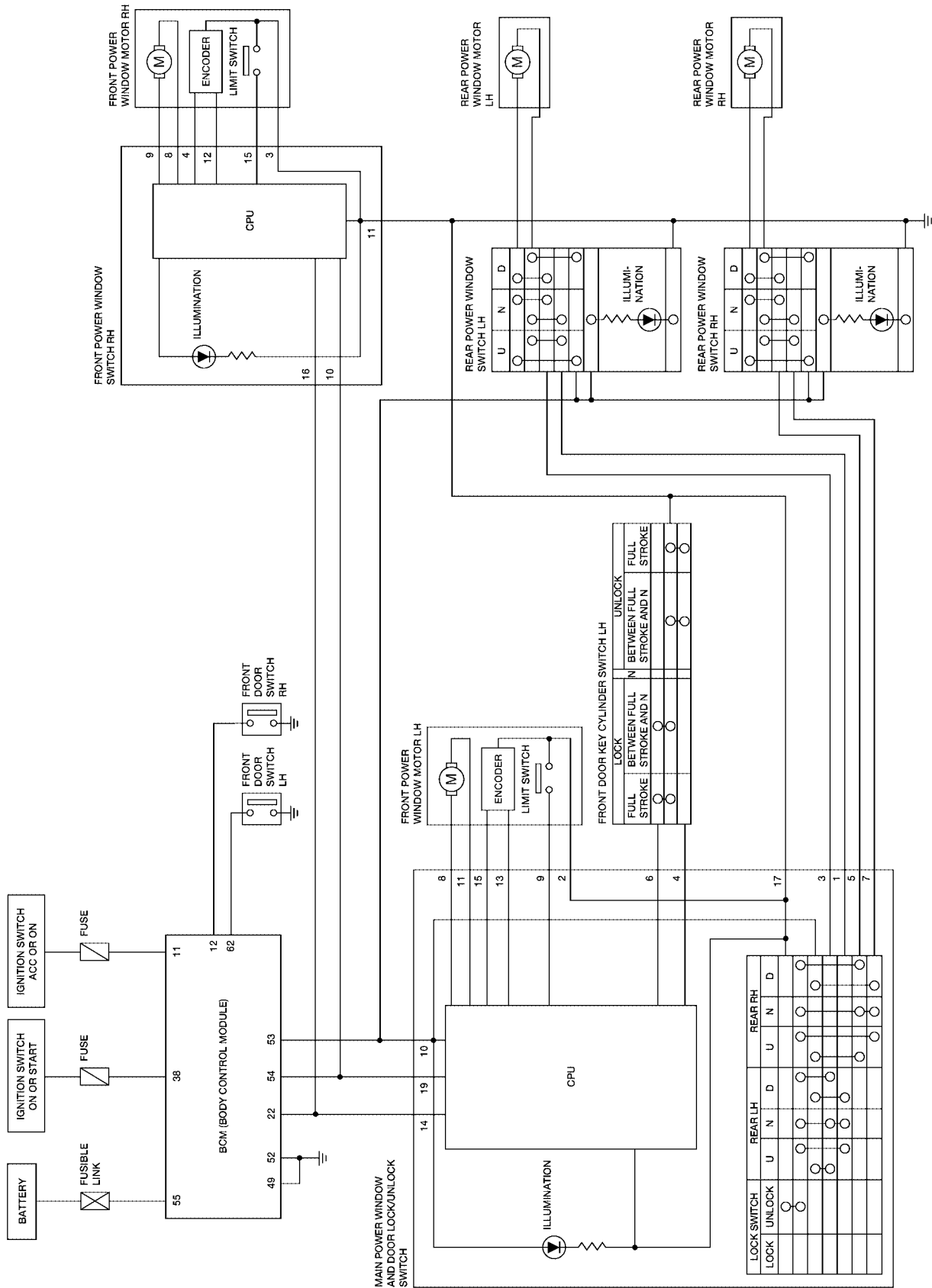
EIS001LP

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. Refer to [LAN-8, "CAN COMMUNICATION"](#).

POWER WINDOW SYSTEM

Schematic (With Front Left and Right Power Window Anti-pinch System)

EIS001LQ



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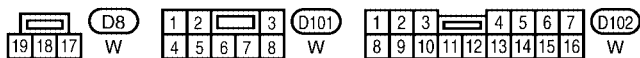
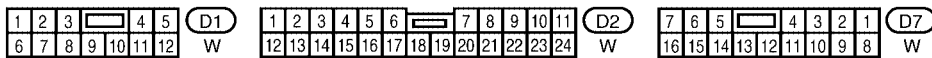
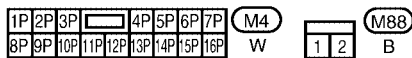
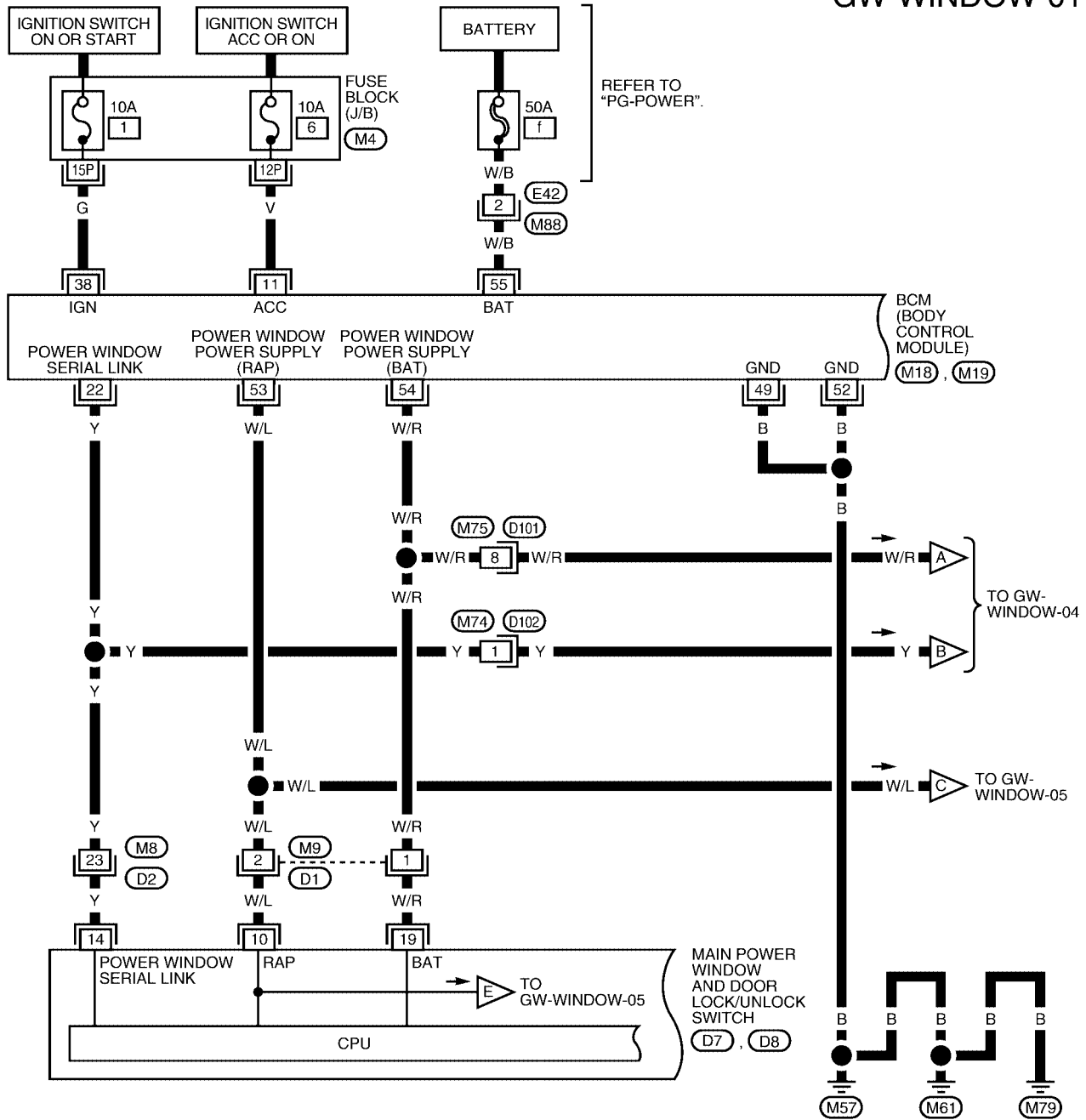
LIWA0053E

POWER WINDOW SYSTEM

Wiring Diagram – WINDOW – (With Front Left and Right Power Window Anti-pinch System)

EIS001LR

GW-WINDOW-01



REFER TO THE FOLLOWING.

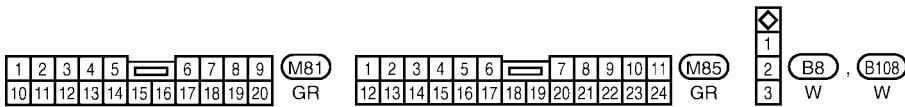
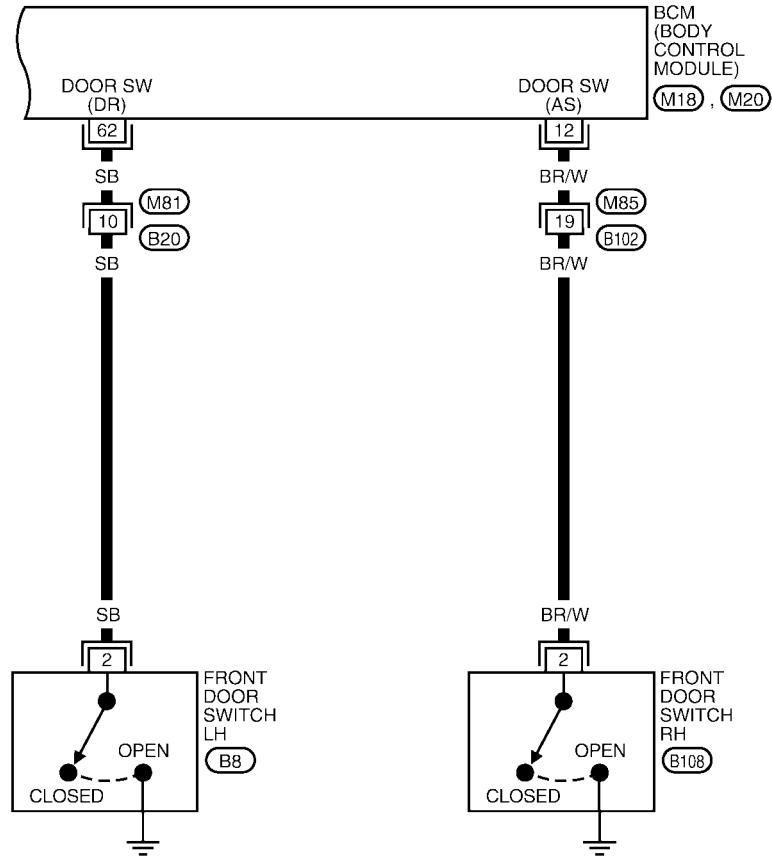
- (M4) - FUSE BLOCK - JUNCTION BOX (J/B)
- (M18), (M19) - ELECTRICAL UNITS

LIWA0054E

POWER WINDOW SYSTEM

GW-WINDOW-02

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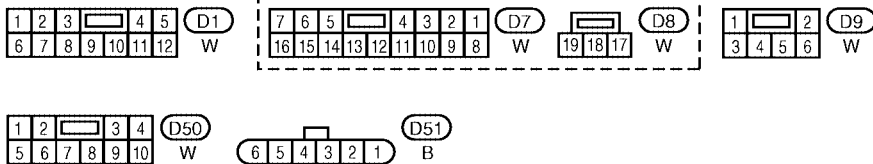
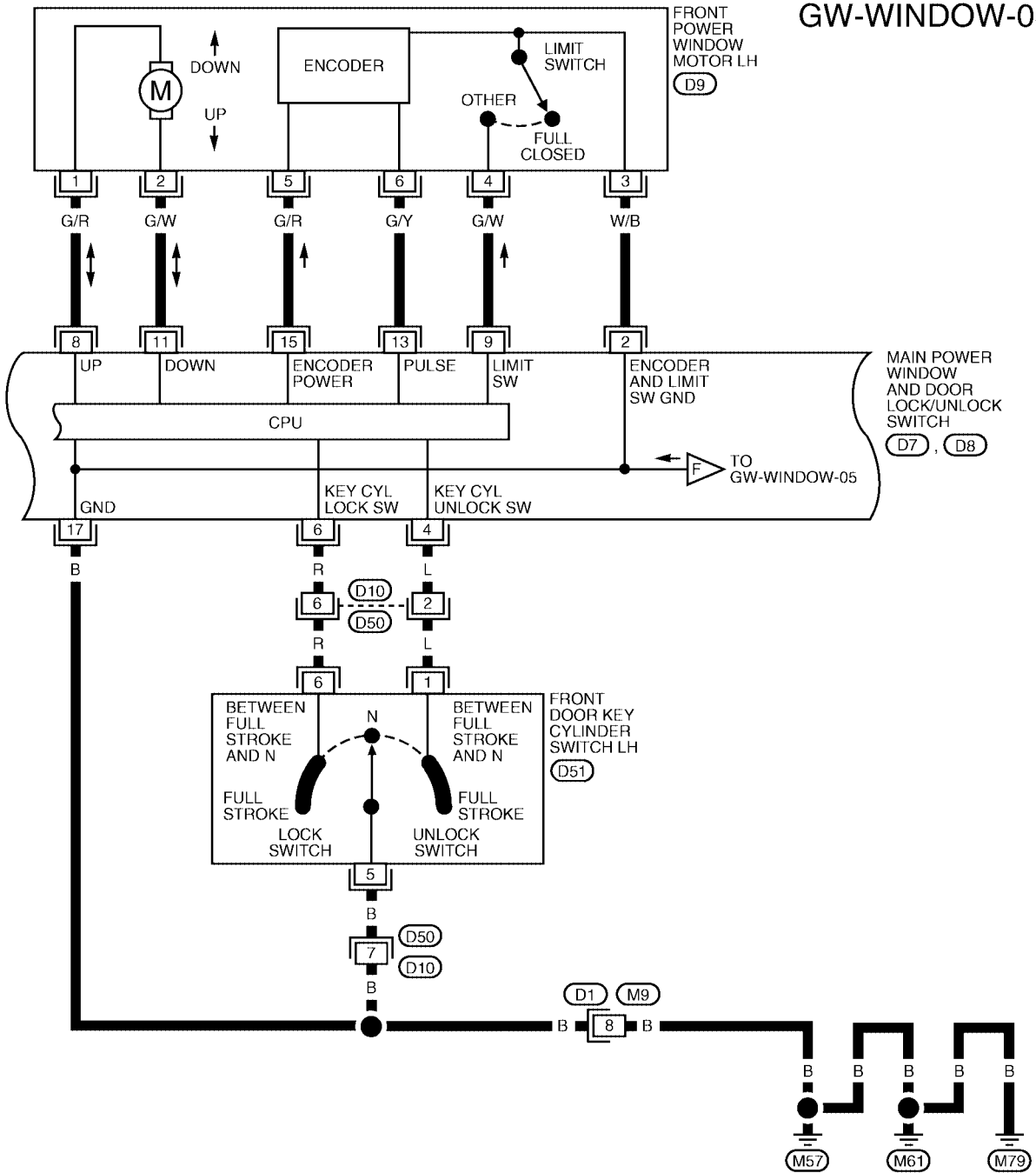


REFER TO THE FOLLOWING.
(M18), (M20) - ELECTRICAL UNITS

LIWA0055E

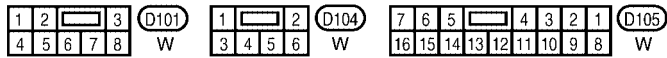
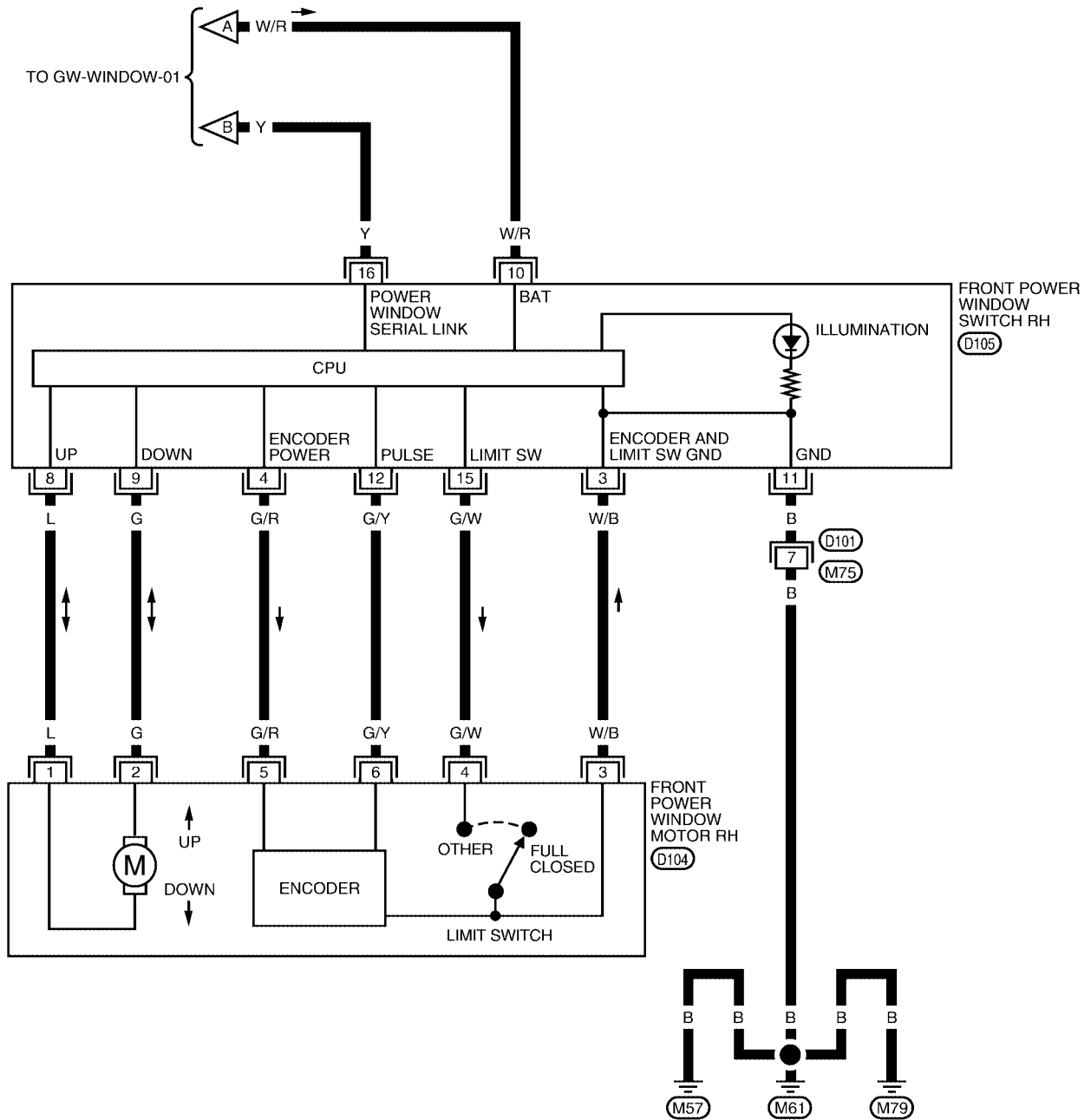
POWER WINDOW SYSTEM

GW-WINDOW-03



POWER WINDOW SYSTEM

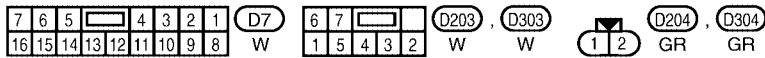
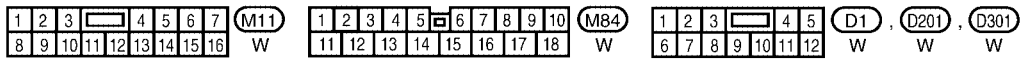
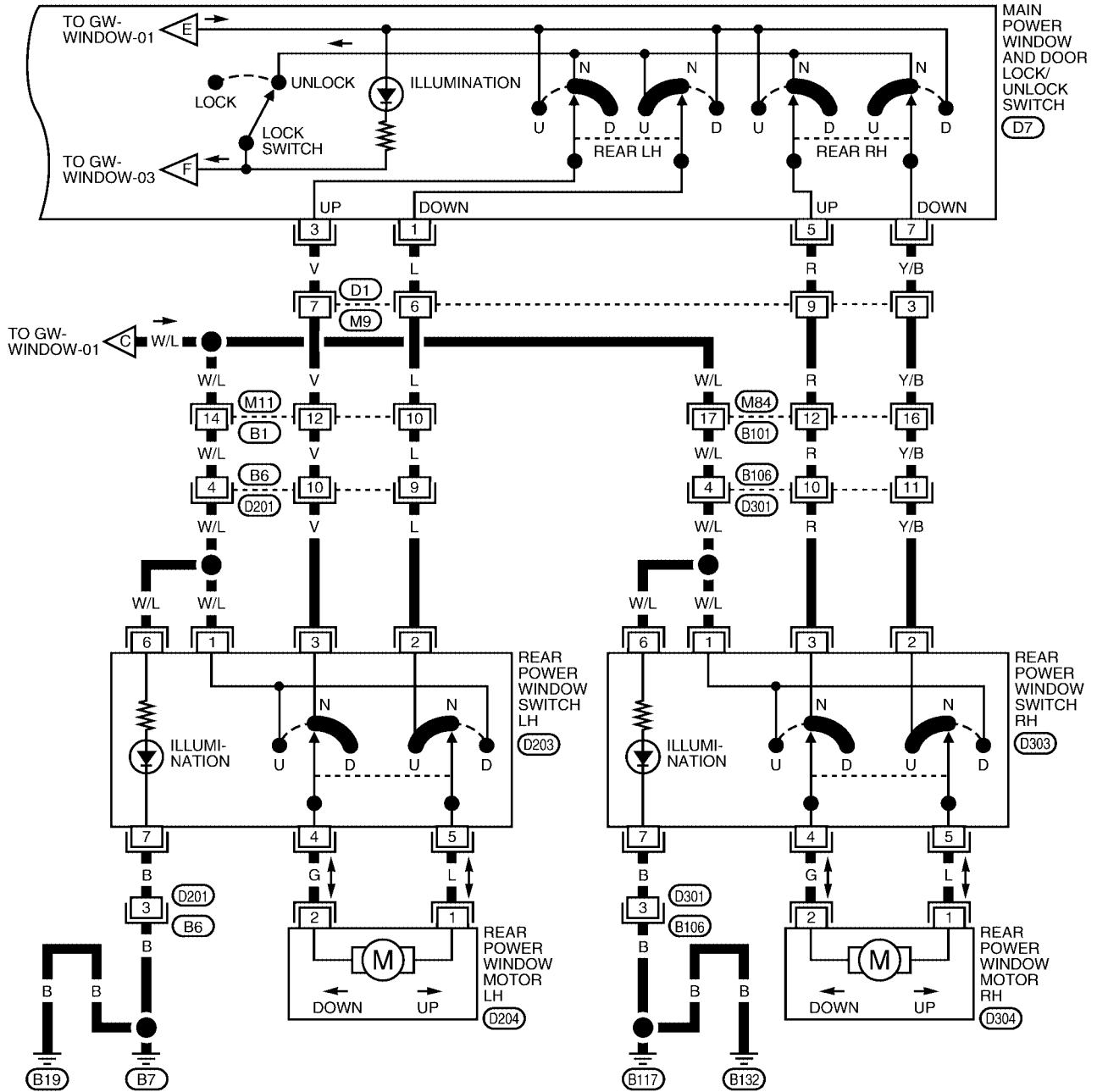
GW-WINDOW-04



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POWER WINDOW SYSTEM

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POWER WINDOW SYSTEM

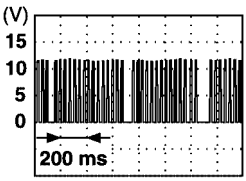
Terminal and Reference Value for Main Power Window and Door Lock/Unlock Switch / With Front Left and Right Only Power Window Anti-pinch System

EIS001LS

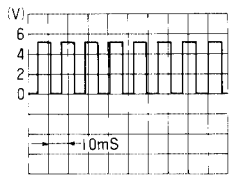
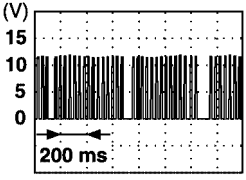
Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
1	L	Rear LH power window DOWN signal	When rear LH switch in main power window and door lock/unlock switch is DOWN at operated.	Battery voltage
2	W/B	Limit switch and encoder ground	—	0
3	V	Rear LH power window UP signal	When rear LH switch in main power window and door lock/unlock switch is UP at operated.	Battery voltage
4	L	Front door key cylinder (drive side) switch unlock signal	Key position (Neutral → Unlocked)	5 → 0
5	R	Rear RH power window UP signal	When rear RH switch in main power window and door lock/unlock switch is UP at operated.	Battery voltage
6	R	Front door key cylinder LH switch lock signal	Key position (Neutral → Locked)	5 → 0
7	Y/B	Rear RH power window DOWN signal	When rear RH switch in main power window and door lock/unlock switch is DOWN at operated.	Battery voltage
8	G/R	Front driver side power window motor UP signal	When power window motor is UP at operated	Battery voltage
9	G/W	Limit switch signal	Driver side door window is between fully-open and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5
10	W/L	RAP signal	When ignition switch ON	Battery voltage
			Within 45 second after ignition switch is turned to OFF	Battery voltage
			More than 45 second after ignition switch is turned to OFF	0
			When front door LH or RH open or power window timer operates	0
11	G/W	Front driver side power window motor DOWN signal	When power window motor is DOWN at operated	Battery voltage
13	G/Y	Encoder pulse signal	When power window motor operates.	

OCC3383D

POWER WINDOW SYSTEM

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
14	Y	Power window serial link	When ignition switch ON or power window timer operates	 PIIA2344J
15	G/R	Encoder power supply	When ignition switch ON or power window timer operates	10
17	B	Ground	—	0
19	W/R	BAT power supply	—	Battery voltage

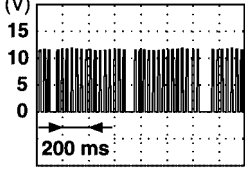
Terminal and Reference Value for Front Power Window Switch RH / With Front Left and Right Only Power Window Anti-pinch System EIS001LT

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
3	W/B	Limit switch and encoder ground	—	0
4	G/R	Encoder power supply	When ignition switch ON or power window timer operates	10
8	L	Front passenger side power window motor UP signal	When power window motor is UP at operated.	Battery voltage
9	G	Front passenger side power window motor DOWN signal	When power window motor is DOWN at operated.	Battery voltage
10	W/R	BAT power supply	—	Battery voltage
11	B	Ground	—	0
12	G/Y	Encoder pulse signal	When power window motor operates.	 OCC3383D
15	G/W	Limit switch signal	Passenger side door window is between fully-open and just before fully-closed position (ON)	0
			Passenger side door window is between just before fully-closed position and fully-closed position (OFF)	5
16	Y	Power window serial link	When ignition switch is ON or power window timer operating	 PIIA2344J

POWER WINDOW SYSTEM

Terminal and Reference Value for BCM / With Front Left and Right Only Power Window Anti-pinch System

EIS001LU

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
11	V	Ignition switch (ACC or ON)	Ignition switch (ACC or ON position)	Battery voltage
12	BR/W	Front door switch RH signal	ON (Open)	Battery voltage
			OFF (Close)	0
22	Y	Power window link signal	When ignition switch ON or power window timer operates	
38	G	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
49	B	Ground	—	0
52	B	Ground	—	0
53	W/L	Rap signal	When ignition switch ON	Battery voltage
			Within 45 second after ignition switch is turned to OFF	Battery voltage
			More then 45 second after igni- tion switch is turned to OFF	0
			When front door LH or RH is open or power window timer operates	0
54	W/R	Power window power supply	—	Battery voltage
55	W/B	BAT power supply	—	Battery voltage
62	SB	Front door switch LH signal	ON (Open)	Battery voltage
			OFF (Close)	0

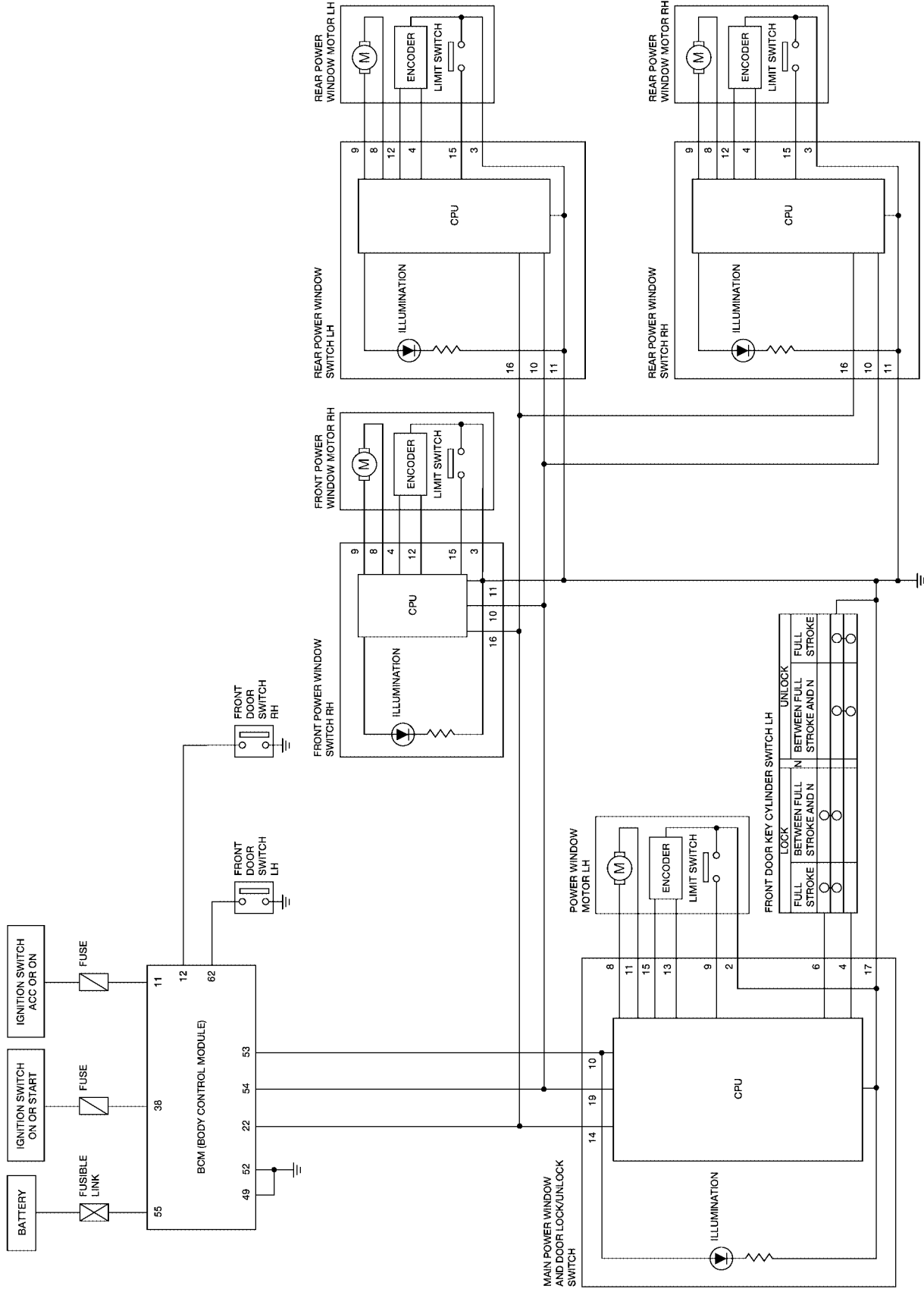
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POWER WINDOW SYSTEM

Schematic (With Front and Rear Power Window Anti-pinch System)

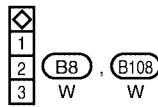
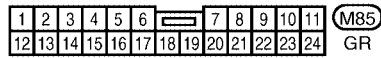
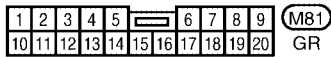
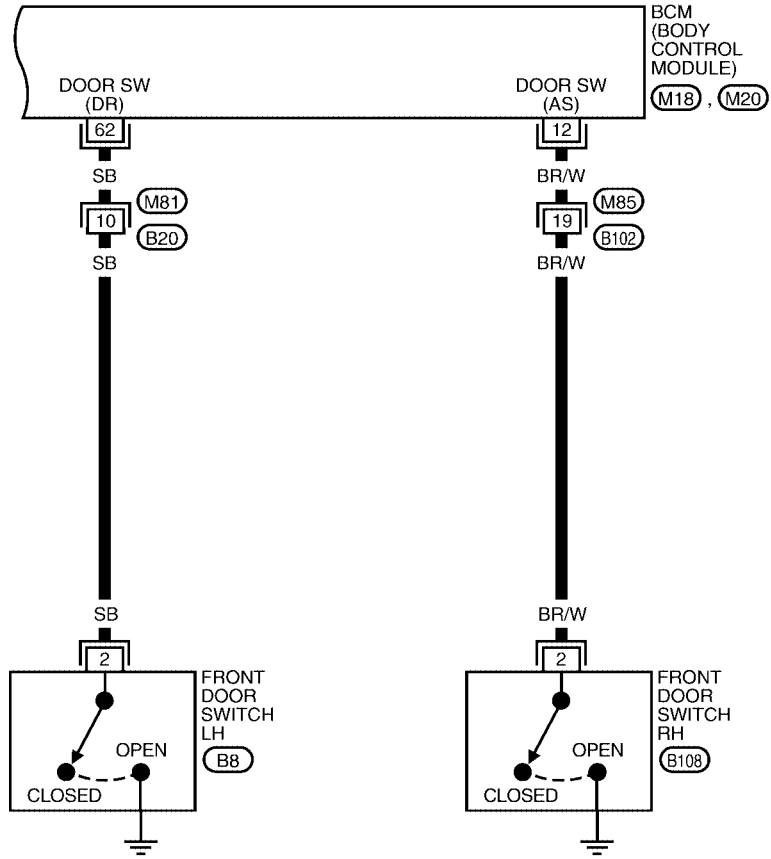
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LIWA0059E

POWER WINDOW SYSTEM

GW-WINDOW-07

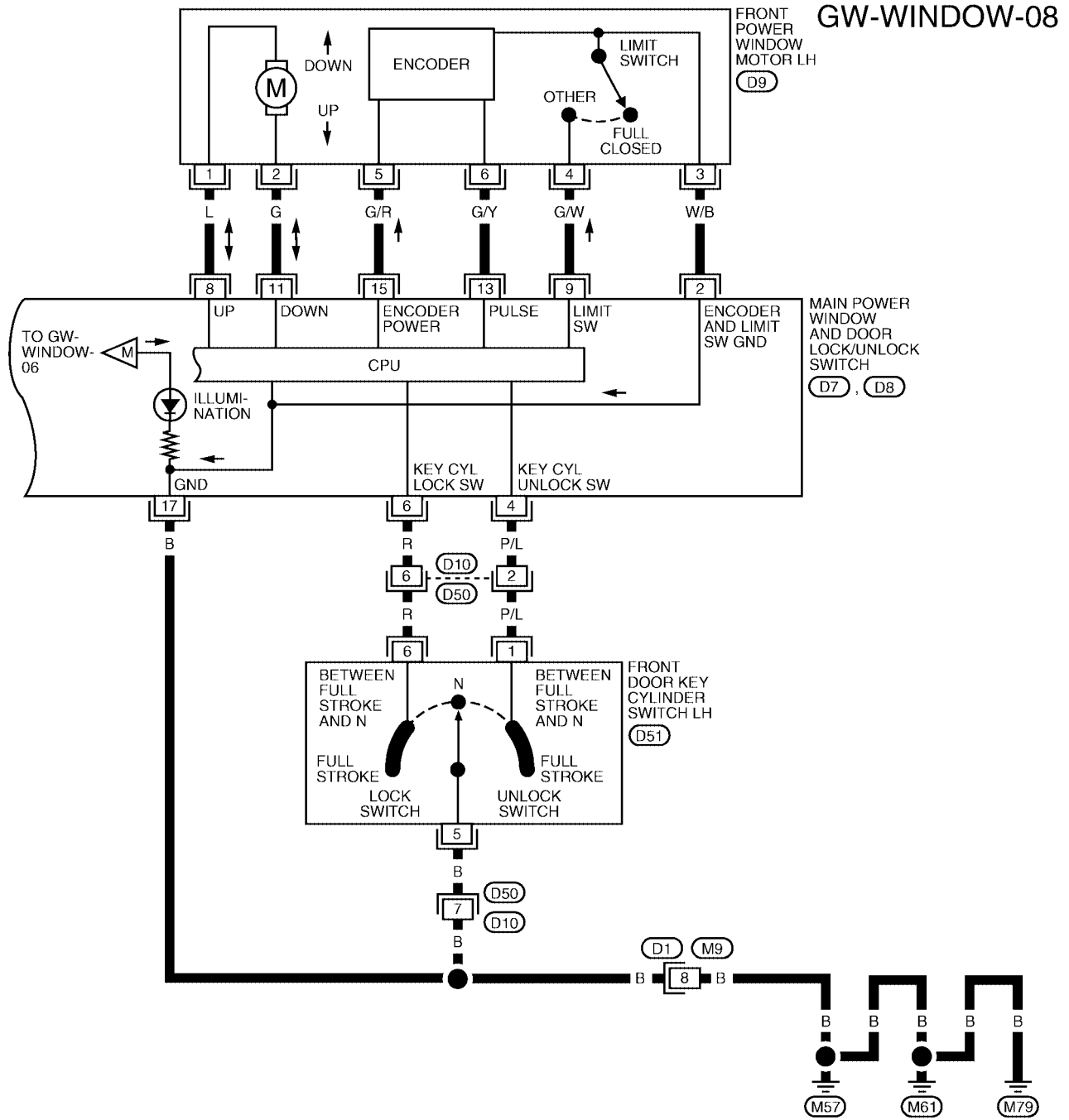


REFER TO THE FOLLOWING.

(M18), (M20) - ELECTRICAL UNITS

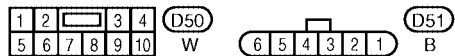
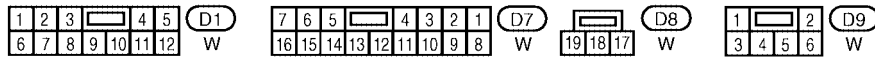
LIWA0061E

POWER WINDOW SYSTEM



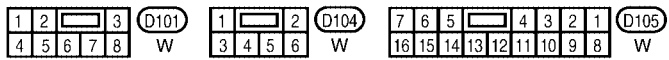
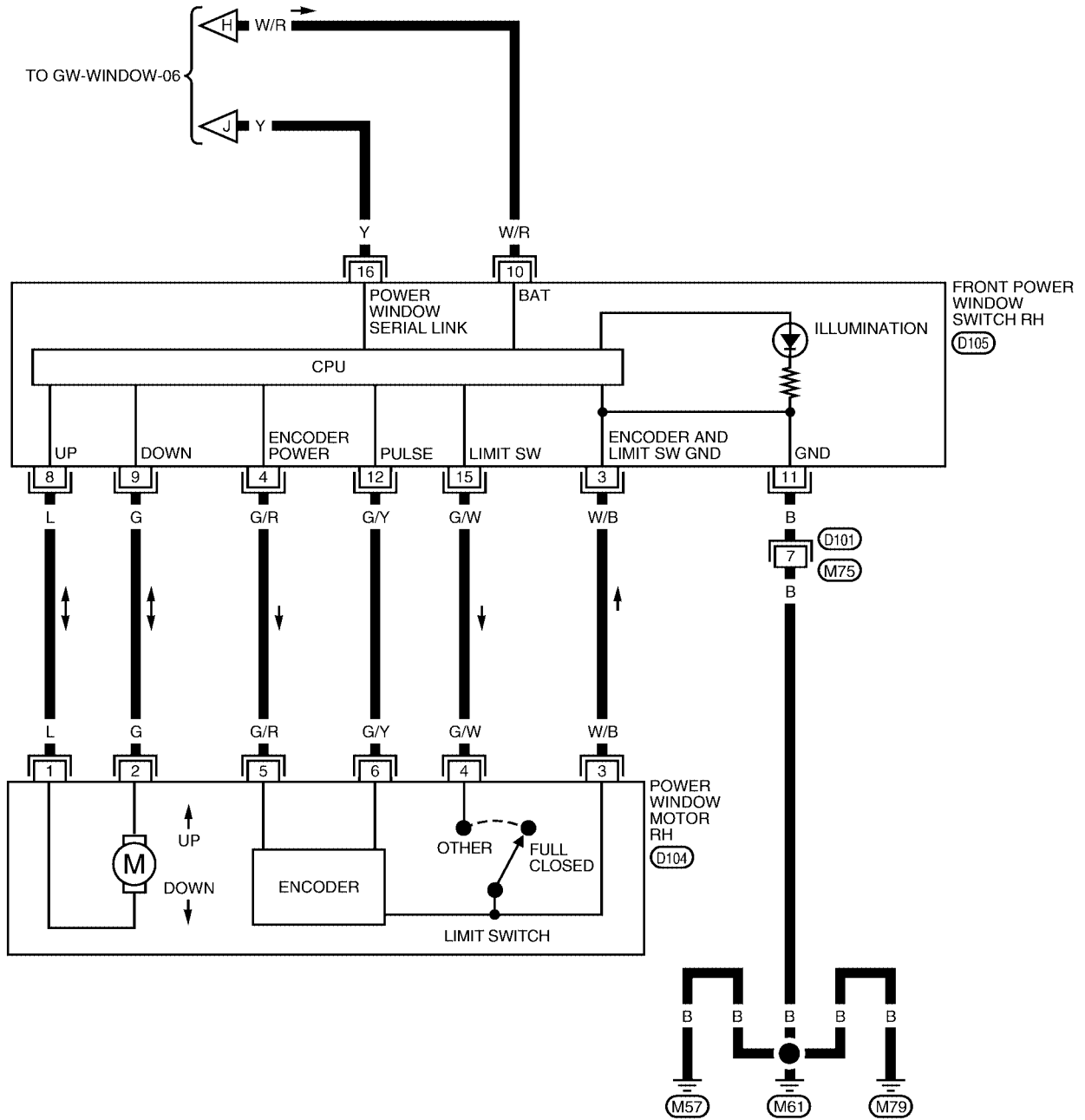
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POWER WINDOW SYSTEM

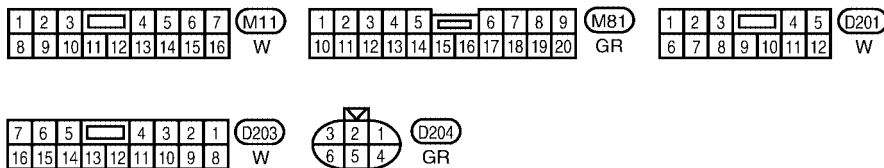
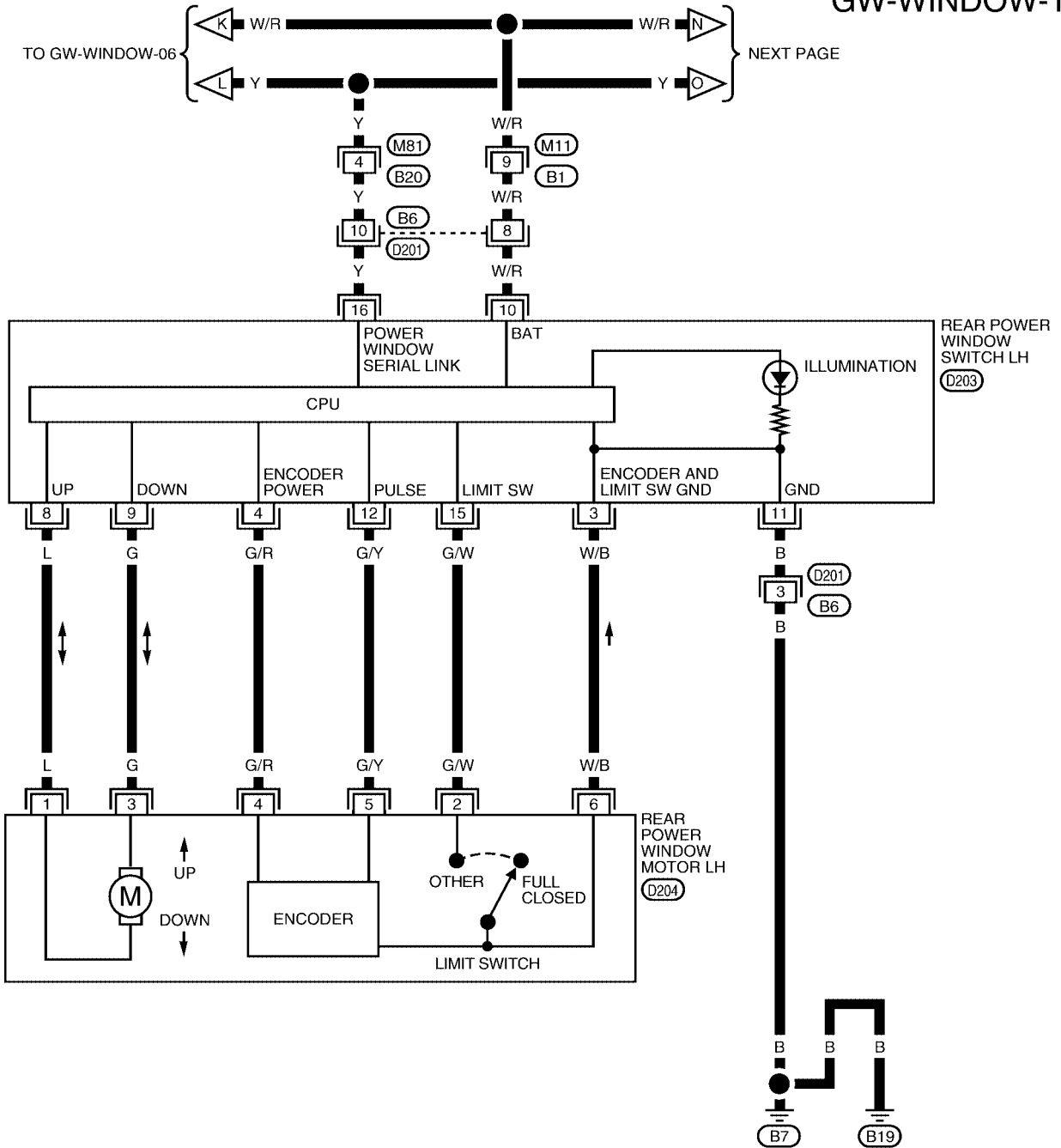
GW-WINDOW-09



LIWA0063E

POWER WINDOW SYSTEM

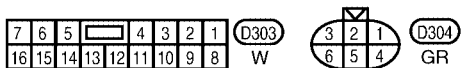
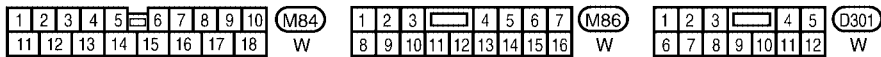
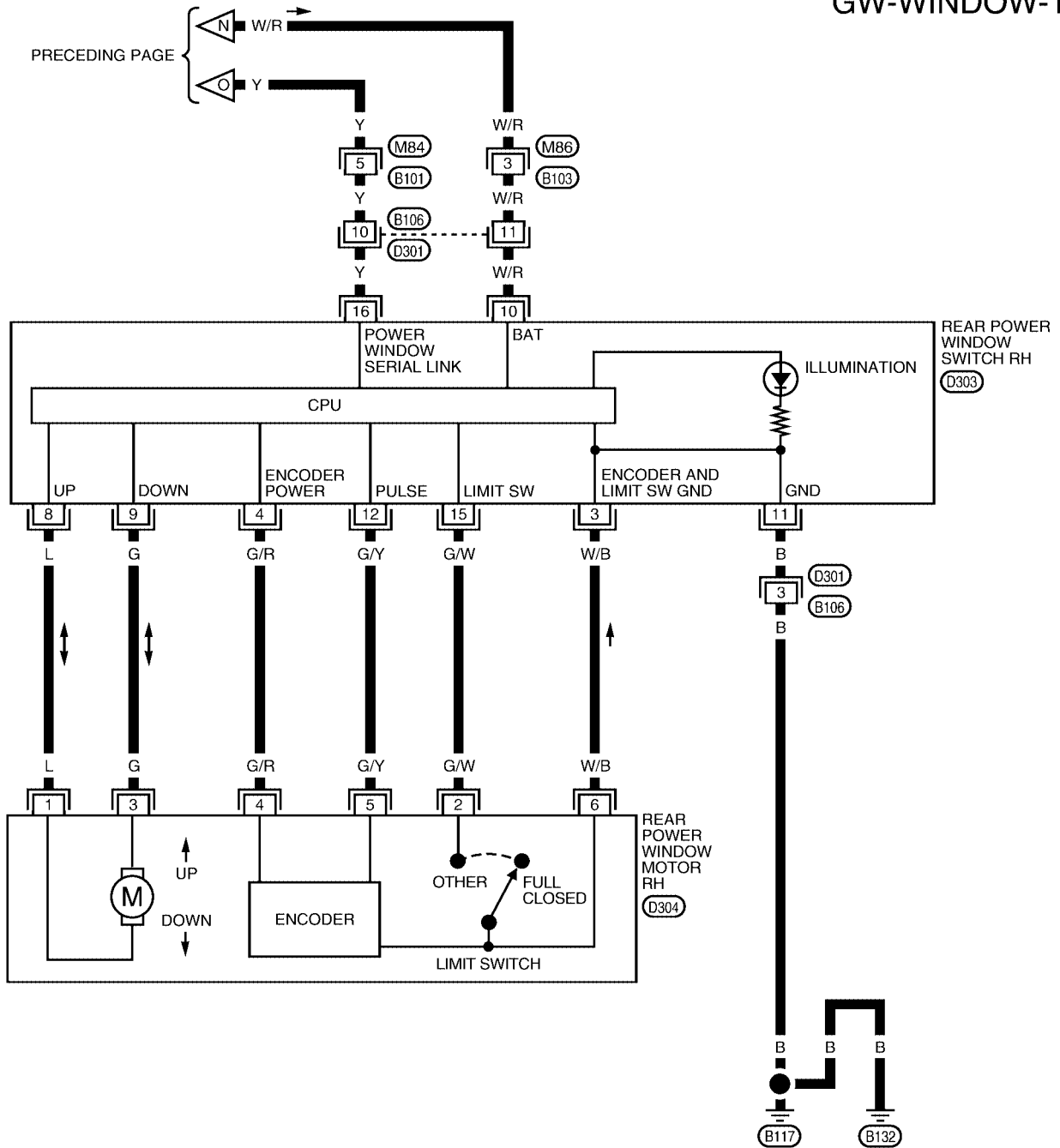
GW-WINDOW-10



LIWA0064E

POWER WINDOW SYSTEM

GW-WINDOW-11

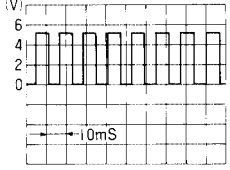
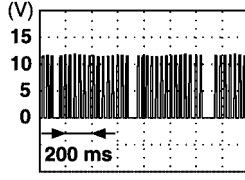


LIWA0065E

POWER WINDOW SYSTEM

Terminal and Reference Value for Main Power Window and Door Lock/Unlock Switch / With Front and Rear Power Window Anti-pinch System

EIS001LY

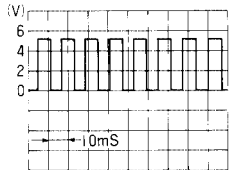
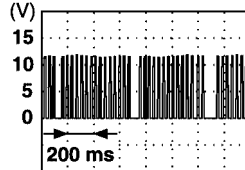
Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
2	W/B	Limit switch and encoder ground	—	0
4	P/L	Front door key cylinder LH switch lock signal	Key position (Neutral → Unlocked)	5 → 0
6	R	Front door key cylinder LH switch unlock signal	Key position (Neutral → Locked)	5 → 0
8	L	Front driver side power window motor UP signal	When power window motor is UP at operated	Battery voltage
9	G/W	Limit switch signal	Driver side door window is between fully-open and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5
10	W/L	Rap signal	When ignition switch ON	Battery voltage
			Within 45 second after ignition switch is turned to OFF	Battery voltage
			More than 45 second after ignition switch is turned to OFF	0
			When front door LH or RH is open or power window timer operates	0
11	G	Front driver side power window motor DOWN signal	When power window motor is DOWN at operated	Battery voltage
13	G/Y	Encoder pulse signal	When power window motor operates	 <p style="text-align: right; font-size: small;">OCC3383D</p>
14	Y	Power window serial link	When ignition switch ON or power window timer operates	 <p style="text-align: right; font-size: small;">PIIA2344J</p>
15	G/R	Encoder power supply	When ignition switch ON or power window timer operates	10
17	B	Ground	—	0
19	W/R	BAT power supply	—	Battery voltage

Terminal and Reference Value for Front Power Window Switch RH and Rear Power Window Switch LH and RH / With Front and Rear Window Anti-pinch System

EIS001LZ

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
3	W/B	Limit switch and encoder ground	—	0
4	G/R	Encoder power supply	When ignition switch ON or power window timer operates	10

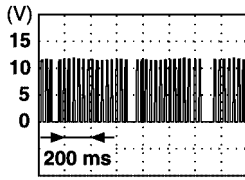
POWER WINDOW SYSTEM

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
8	L	Power window motor UP signal	When power window motor is UP at operated	Battery voltage
9	G	Power window motor DOWN signal	When power window motor is DOWN at operated	Battery voltage
10	W/R	BAT power supply	—	Battery voltage
11	B	Ground	—	0
12	G/Y	Encoder pulse signal	When power window motor operates	 <p style="text-align: right; font-size: small;">OCC3383D</p>
15	G/W	Limit switch signal	Door window is between fully-open and just before fully-closed position (ON)	0
			Door window is between just before fully-closed position and fully-closed position (OFF)	5
16	Y	Power window serial link	When ignition switch ON or power window timer operates	 <p style="text-align: right; font-size: small;">PIIA2344J</p>

POWER WINDOW SYSTEM

Terminal and Reference Value for BCM / With Front and Rear Power Window Anti-pinch

EIS001LX

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
11	V	Ignition switch (ACC or ON)	Ignition switch (ACC or ON position)	Battery voltage
12	BR/W	Front door switch RH signal	ON (Open)	Battery voltage
			OFF (Close)	0
22	Y	Power window serial link	When ignition switch is ON or power window timer operates	 <p style="text-align: right; font-size: small;">PIIA2344E</p>
38	G	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
49	B	Ground	—	0
52	B	Ground	—	0
53	W/L	Rap signal	When ignition switch is ON	Battery voltage
			Within 45 second after ignition switch is turned to OFF	Battery voltage
			More then 45 second after ignition switch is turned to OFF	0
			When front door LH or RH is open in power window timer is operat- ing	0
54	W/R	Power window power supply	—	Battery voltage
55	W/B	BAT power supply	—	Battery voltage
62	SB	Front door switch LH signal	ON (Open)	Battery voltage
			OFF (Close)	0

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POWER WINDOW SYSTEM

Work Flow

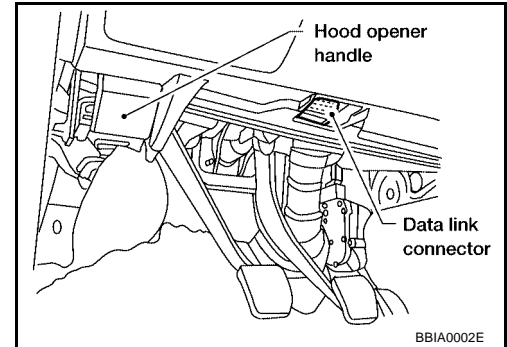
EIS001M0

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-19, "System Description"](#)
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-48, "Trouble Diagnoses Symptom Chart / With Front Left and Right Only Power Window Anti-pinch System"](#) or [GW-49, "Trouble Diagnoses Symptom Chart / With Front and Rear Power Window Anti-pinch System"](#) .
4. Does power window system operate normally? Yes, GO TO 5, If No, GO TO 3.
5. INSPECTION END.

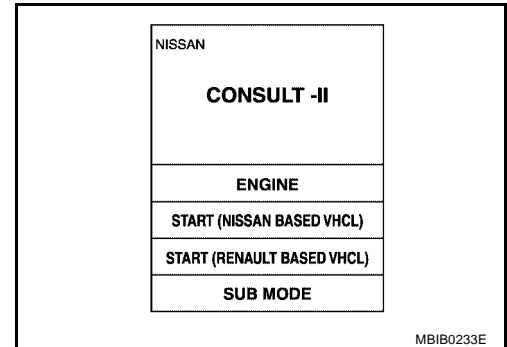
CONSULT-II Inspection Procedure

EIS001M1

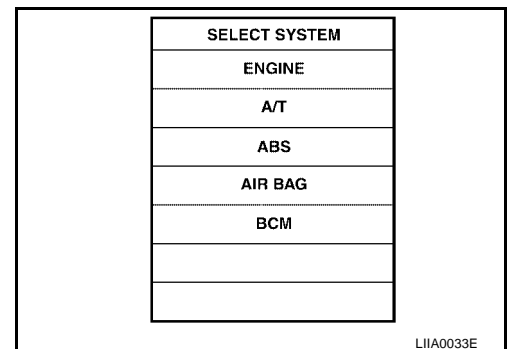
1. Connect "CONSULT-II and CONSULT-II CONVERTER" to the data link connector.



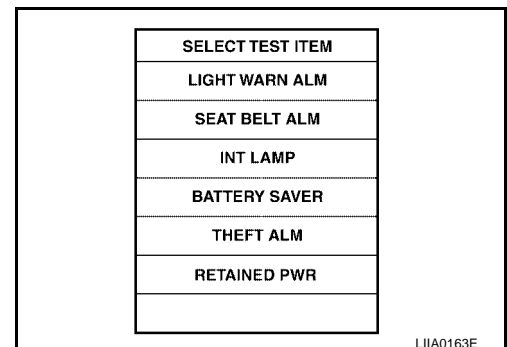
2. Turn ignition switch ON.
3. Touch "START (NISSAN BASED VHCL)".



4. Touch "BCM".
If "BCM" is not indicated, refer to [GI-36, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#) .

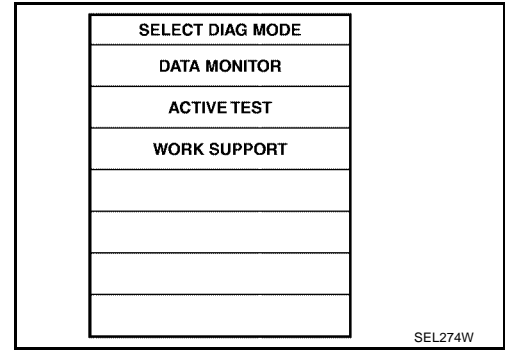


5. Touch "RETAINED PWR".



POWER WINDOW SYSTEM

6. Select diagnosis mode.
 "ACTIVE TEST" and "WORK SUPPORT" are available.



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ACTIVE TEST

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

E
F
G

WORK SUPPORT

Work item	Description
RETAINED PWR	<p>RAP signal's power supply period can be changed by mode setting. Selects RAP signal's power supply period between three steps</p> <ul style="list-style-type: none"> ● MODE1 (45 sec.) / MODE2 (OFF) / MODE 3 (2 min.).

H

GW

DATA MONITOR

Work item	Description
IGN ON SW	Indicates (ON / OFF) condition of ignition switch
DOOR SW-DR	Indicates (ON / OFF) condition of front door switch driver side
DOOR SW-AS	Indicates (ON / OFF) condition of front door switch passenger side

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POWER WINDOW SYSTEM

Trouble Diagnoses Symptom Chart / With Front Left and Right Only Power Window Anti-pinch System

EIS001M2

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

Symptom	Repair order	Refer to page
None of the power windows can be operated using any switch	1. BCM power supply and ground circuit check	GW-50
	2. Main power window and door lock/unlock supply and ground circuit check	
	3. Power window serial link check	GW-83 and GW-85
Driver side power window alone does not operated	1. Front power window motor LH circuit check	GW-54
	2. Replace main power window and door lock/unlock switch	EI-30 , "Front Door"
Front passenger side power window alone does not operated	1. Front power window switch RH power and ground circuit check	GW-52
	2. Power window serial link check	GW-83
	3. Front power window motor RH circuit check	GW-56
	4. Replace BCM	BCS-19 , "Removal and Installation of BCM" BCS-19
Rear LH side power window alone does not operated	1. Rear power window motor LH circuit check	GW-56
Rear RH side power window alone does not operated	1. Rear power window motor RH circuit check	GW-58
Anti-pinch system does not operate normally (Front LH)	1. Door window sliding part malfunction ● A foreign material adheres to window glass or glass run rubber. ● Glass run rubber wear or deformation. ● Sash is tilted too much, or not enough.	—
	2. Limit switch adjusting	GW-88
	3. Limit switch circuit check LH	GW-60
	4. Encoder circuit check LH	GW-68
Anti-pinch system does not operate normally (Front RH)	1. Door window sliding part malfunction ● A foreign material adheres to window glass or glass run rubber. ● Glass run rubber wear or deformation. ● Sash is tilted too much, or not enough.	—
	2. Limit switch adjusting	GW-88
	3. Limit switch circuit check RH	GW-64
	4. Encoder circuit check RH	GW-72
Power window retained power operation does not operate properly	1. Check the retained power operation mode setting.	GW-47
	2. Door switch check	GW-77
	3. Replace BCM.	BCS-19 , "Removal and Installation of BCM" BCS-19
Does not operate by key cylinder switch	1. Door key cylinder switch check	GW-79
	2. Replace main power window and door lock/unlock switch	EI-30 , "Front Door"
Power window lock switch does not function	1. Power window lock switch circuit check	GW-83 and GW-85

POWER WINDOW SYSTEM

Trouble Diagnoses Symptom Chart / With Front and Rear Power Window Anti-pinch System

EIS001M3

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

Symptom	Repair order	Refer to page
None of the power windows can be operated using any switch	1. BCM power supply and ground circuit check	GW-50
	2. Power window main switch power supply and ground circuit check	GW-51
	3. Power window serial link check	GW-83
Driver side power window alone does not operated	1. Front power window motor LH circuit check	GW-55
	2. Replace main power window and door lock/unlock switch	EI-30
Front passenger side power window alone does not operated	1. Front power window switch RH power and ground circuit check	GW-52
	2. Power window serial link check	GW-83
	3. Front power window motor RH circuit check	GW-56
	4. Replace BCM	BCS-19
Rear LH side power window alone does not operated	1. Rear power window switch LH or RH power and ground circuit check	GW-54
	2. Rear power window motor LH circuit check	GW-59
	3. Power window serial link check	GW-85
	4. Replace rear power window switch LH	EI-31
Rear RH side power window alone does not operated	1. Rear power window switch LH or RH power and ground circuit check	GW-54
	2. Rear power window motor RH circuit check	GW-60
	3. Power window serial link check	GW-85
	4. Replace rear power window switch RH	EI-31
Anti-pinch system does not operate normally (Front LH)	1. Door window sliding part malfunction <ul style="list-style-type: none"> ● A foreign material adheres to window glass or glass run rubber ● Glass run rubber wear or deformation ● Sash is tilted too much, or not enough 	—
	2. Limit switch adjusting	GW-88
	3. Limit switch circuit check LH	GW-62
	4. Encoder circuit check LH	GW-70
Anti-pinch system does not operate normally (Front RH)	1. Door window sliding part malfunction <ul style="list-style-type: none"> ● A foreign material adheres to window glass or glass run rubber ● Glass run rubber wear or deformation ● Sash is tilted too much, or not enough 	—
	2. Limit switch adjusting	GW-88
	3. Limit switch circuit check RH	GW-64
	4. Encoder circuit check RH	GW-72

POWER WINDOW SYSTEM

Symptom	Repair order	Refer to page
Anti-pinch system does not operate normally (Rear LH or RH)	1. Door window sliding part malfunction <ul style="list-style-type: none"> ● A foreign material adheres to window glass or glass run rubber ● Glass run rubber wear or deformation ● Sash is tilted too much, or no enough 	—
	2. Limit switch adjusting	GW-88
	3. Limit switch circuit check (rear LH or RH)	GW-66
	4. Encoder circuit check (rear LH or RH)	GW-74
Power window retained power operation does not operate properly	1. Check the retained power operation mode setting	GW-47
	2. Door switch check	GW-77
	3. Replace BCM	BCS-19
Does not operate by key cylinder switch	1. Door key cylinder switch check	GW-79
	2. Replace main power window and door lock/unlock switch	EI-30
Power window lock switch does not function	1. Power window lock switch circuit check	GW-36

BCM Power Supply and Ground Circuit Check

EIS001M4

1. CHECK FUSE

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

NOTE:

Refer to [GW-19, "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

2. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch ON.
- Check voltage between BCM connector M18, M19 terminal 38, 55 and ground.

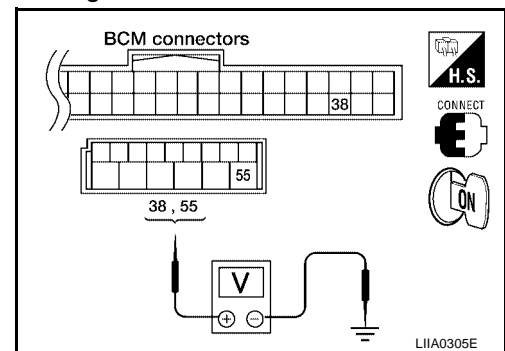
38 (G) – Ground :Battery voltage

55 (W/B) – Ground :Battery voltage

OK or NG

OK >> GO TO 3

NG >> Repair or replace harness.



POWER WINDOW SYSTEM

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM.
3. Check continuity between BCM connector M19 terminals 49, 52 and ground.

49 (B) – Ground

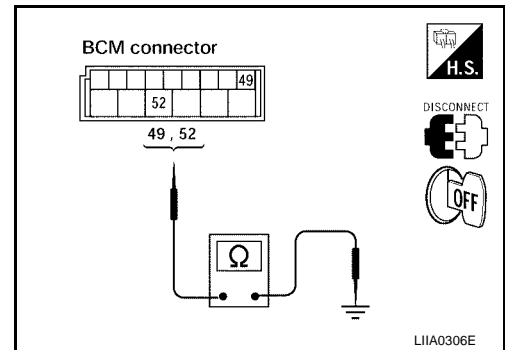
Continuity should exist.

52 (B) – Ground

Continuity should exist.

OK or NG

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



Main Power Window and Door Lock/Unlock Switch Power Supply Circuit Check / With Front and Rear Power Window Anti-pinch System

EIS001M5

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector D7 terminal 10, D8 terminal 19 and ground.

10 (W/L) – Ground

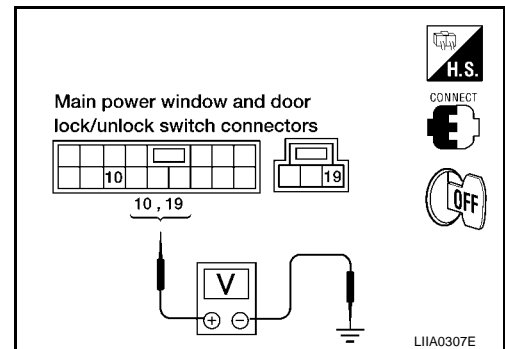
:Battery voltage

19 (W/R) – Ground

:Battery voltage

OK or NG

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



2. CHECK GROUND CIRCUIT

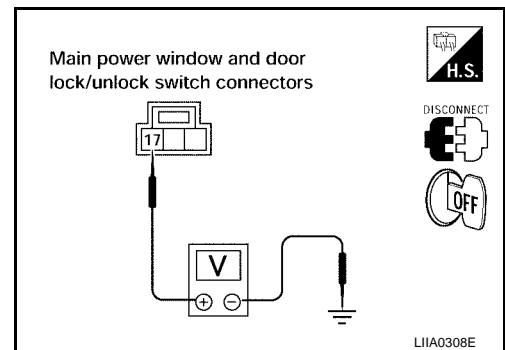
1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch.
3. Check continuity between main power window and door lock/unlock switch connector D8 terminal 17 and ground.

17 (B) – Ground

:Continuity should exist.

OK or NG

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



POWER WINDOW SYSTEM

3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY CIRCUIT

1. Disconnect BCM.
2. Check continuity between BCM connector M19 terminal 53, 54 and main power window and door lock/unlock switch connector D7 terminal 10 and D8 terminal 19.

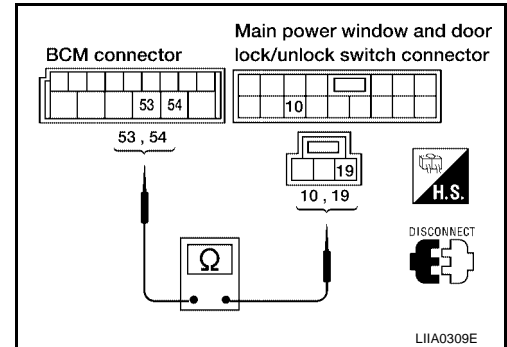
53 (W/L) – 10 (W/L) :Continuity should exist.

54 (W/R) – 19 (W/R) :Continuity should exist.

OK or NG

OK >> GO TO 4

NG >> Repair or replace harness.



4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M19 terminal 53, 54 and ground.

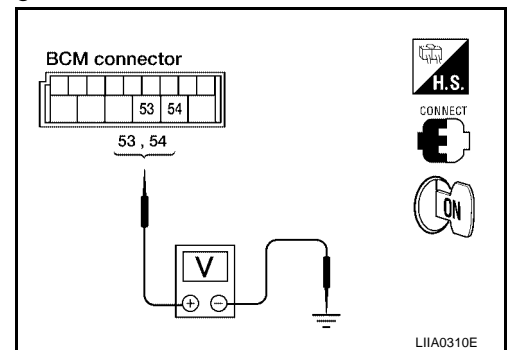
53 (W/L) – Ground :Battery voltage

54 (W/R) – Ground :Battery voltage

OK or NG

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

NG >> Replace BCM.



Front Power Window Switch RH Power Supply and Ground Circuit Check

EIS001M6

1. CHECK POWER SUPPLY CIRCUIT

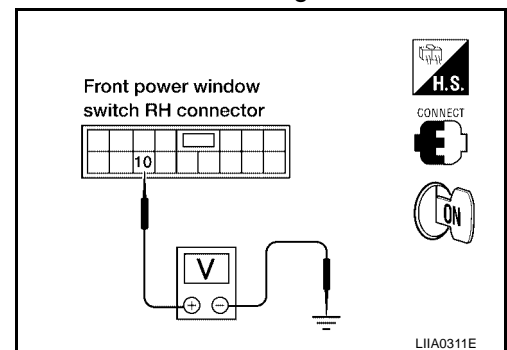
1. Turn ignition switch ON.
2. Check voltage between front power window switch RH connector D105 terminal 10 and ground.

10 (W/R) – Ground :Battery voltage

OK or NG

OK >> GO TO 2

NG >> Repair or replace harness.



POWER WINDOW SYSTEM

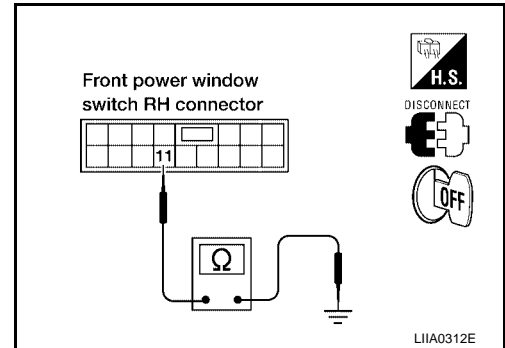
2. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window switch RH.
3. Check continuity between front power window switch RH connector D105 terminal 11 and ground.

11 (B) – Ground :Continuity should exist.

OK or NG

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



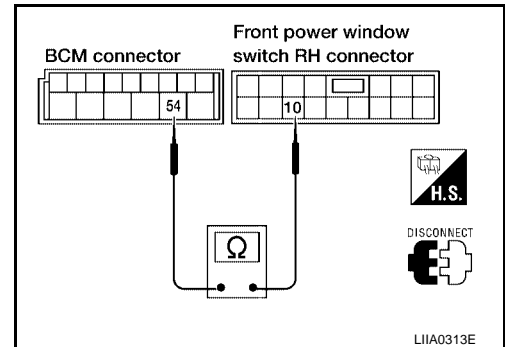
3. CHECK FRONT POWER WINDOW SWITCH RH POWER SUPPLY CIRCUIT

1. Disconnect BCM.
2. Check continuity between BCM connector M19 terminal 54 and front power window switch RH connector D105 terminal 10.

54 (W/R) – 10 (W/R) :Continuity should exist.

OK or NG

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



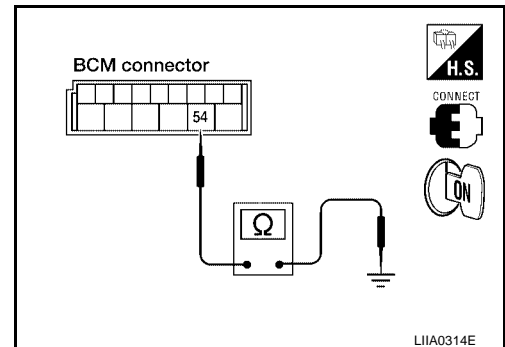
4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M19 terminal 54 and ground.

54 (W/R) – Ground :Battery voltage

OK or NG

- OK >> Check the condition of the harness and the connector
NG >> Replace BCM.



POWER WINDOW SYSTEM

Rear Power Window Switch LH or RH Power Supply and Ground Circuit Check / With Front and Rear Power Window Anti-pinch System

EIS001M7

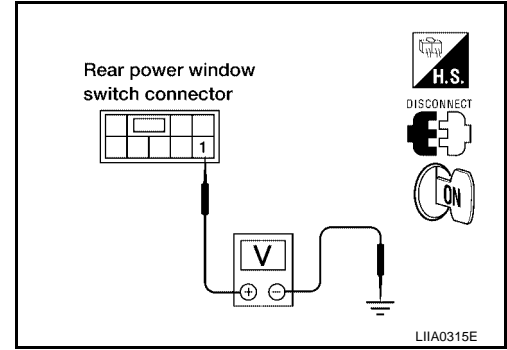
1. CHECK POWER WINDOW POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between rear power window switch LH or RH connector D203 (LH), D303 (RH) terminal 10 and ground.

1 (W/L) – Ground :Battery voltage

OK or NG

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



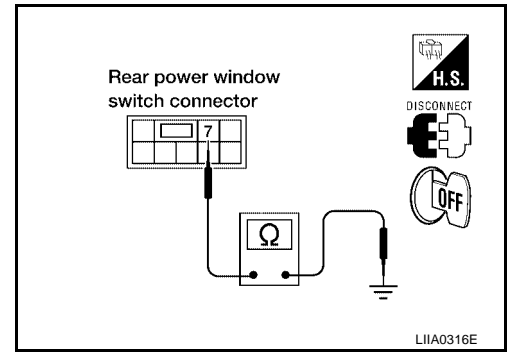
2. CHECK POWER WINDOW GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH or RH.
3. Check continuity between rear power window switch LH or RH connector D203 (LH), D303 (RH) terminal 7 and ground.

7 (B) – Ground :Continuity should exist.

OK or NG

- OK >> Rear power window switch LH or RH power supply and ground circuit is OK. Refer to symptom chart.
NG >> Repair or replace harness.



Front Power Window Motor LH Circuit Check / With Front Left and Right Only Power Window Anti-pinch System

EIS001M8

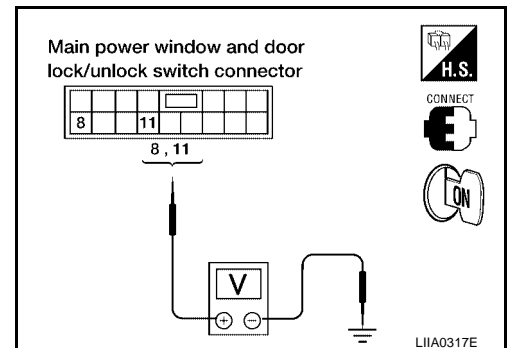
1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector D7 terminal 8, 11 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D7	8 (G/R)	Ground	Closing	Battery voltage
			Opening	0
	11 (G/W)		Closing	0
			Opening	Battery voltage

OK or NG

- OK >> GO TO 2.
NG >> Replace main power window and door lock/unlock switch.



POWER WINDOW SYSTEM

2. CHECK POWER WINDOW MOTOR CIRCUIT

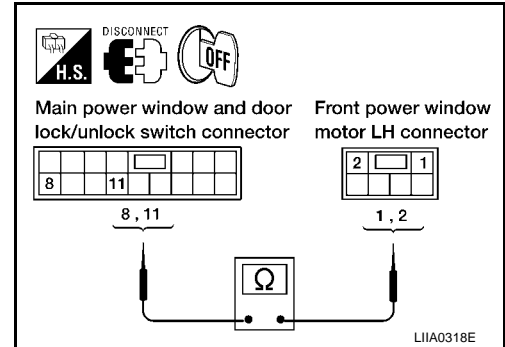
1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D7 terminal 8, 11 and front power window motor LH connector D9 terminal 1, 2.

8 (G/R) – 1 (G/R) :Continuity should exist.

11 (G/W) – 2 (G/W) :Continuity should exist.

OK or NG

- OK >> Replace front power window motor LH.
 NG >> Repair or replace harness.



Front Power Window Motor LH Circuit Check / With Front and Rear Window Anti-pinch System

EIS001M9

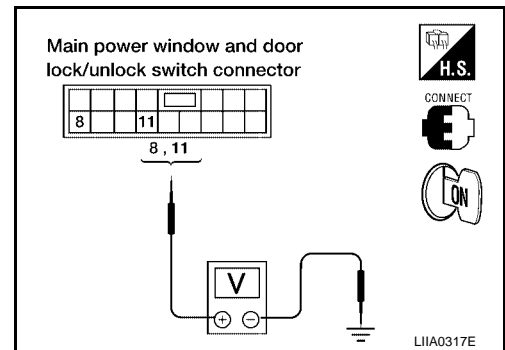
1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector D7 terminal 8, 11 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D7	8 (L)	Ground	Closing	Battery voltage
			Opening	0
	11 (G)		Closing	0
			Opening	Battery voltage

OK or NG

- OK >> GO TO 2
 NG >> Replace main power window and door lock/unlock switch.



2. CHECK POWER WINDOW MOTOR CIRCUIT

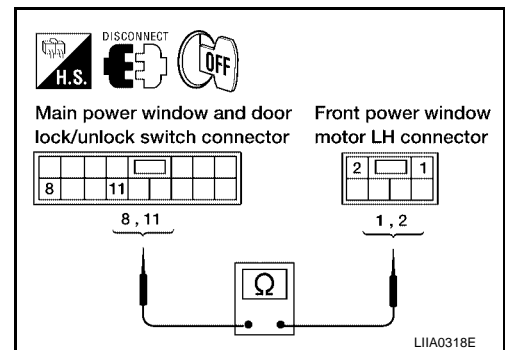
1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
3. Check continuity between main power window and door lock/unlock switch connector D7 terminal 8, 11 and front power window motor LH connector D9 terminal 1, 2.

8 (L) – 1 (L) :Continuity should exist.

11 (G) – 2 (G) :Continuity should exist.

OK or NG

- OK >> Replace front power window motor LH.
 NG >> Repair or replace harness.



POWER WINDOW SYSTEM

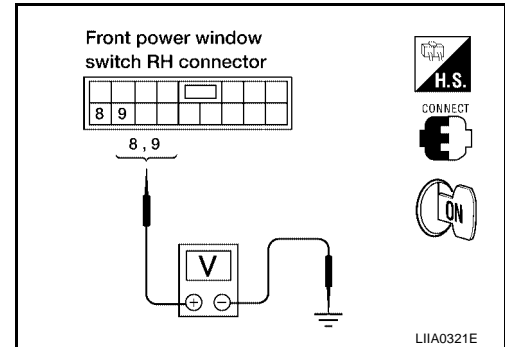
EIS001MA

Front Power Window Motor RH Circuit Check

1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Connect front power window switch RH.
2. Turn ignition switch ON.
3. Check voltage between front power window switch RH connector D105 terminal 8, 9 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D105	9 (G)	Ground	Closing	0
			Opening	Battery voltage
	8 (L)		Closing	Battery voltage
			Opening	0



OK or NG

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

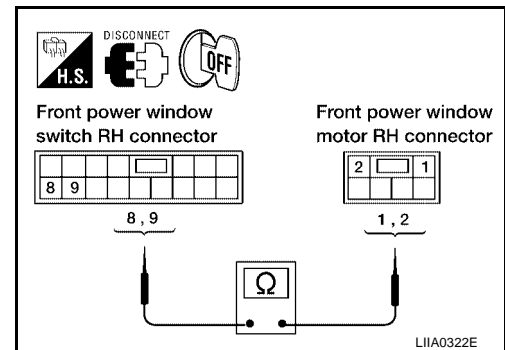
2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH and front power window switch RH.
3. Check continuity between front power window switch RH connector D105 terminals 8, 9 and front power window motor RH connector D104 terminals 1, 2.

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

OK or NG

- OK >> Replace front power window motor RH
 NG >> Repair or replace harness.



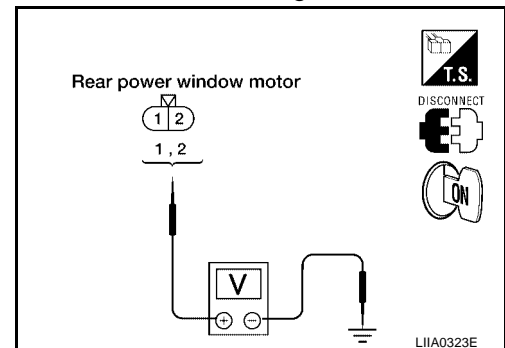
Rear Power Window Motor LH Circuit Check / With Front Left and Right Only Anti-pinch System

EIS001MB

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear power window motor LH.
3. Turn ignition switch ON.
4. Check voltage between rear power window motor LH connector D204 terminal 1, 2 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D204	2 (G)	Ground	Closing	Battery voltage
			Opening	0
	1 (L)		Closing	0
			Opening	Battery voltage



OK or NG

- OK >> Replace rear power window motor LH.
 NG >> GO TO 2

POWER WINDOW SYSTEM

2. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH.
3. Check continuity between rear power window switch LH connector D203 terminal 4, 5 and rear power window motor LH connector D204 terminal 1, 2.

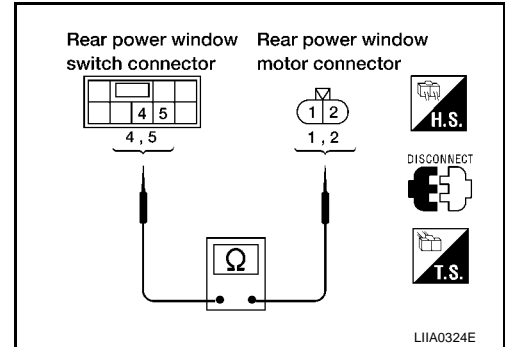
4 (G) – 2 (G) :Continuity should exist.

5 (L) – 1 (L) :Continuity should exist.

OK or NG

OK >> GO TO 3

NG >> Repair or replace harness.



3. CHECK POWER SUPPLY

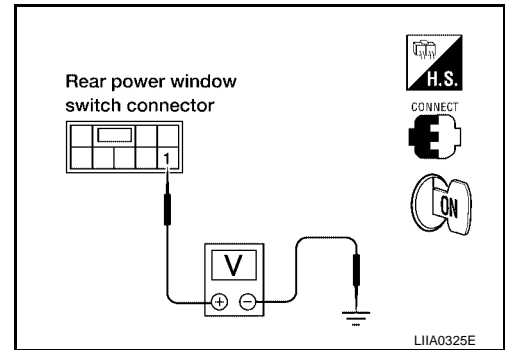
1. Connect rear power window switch LH.
2. Turn ignition switch ON.
3. Check voltage between rear power window switch LH connector D203 terminal 1 and ground.

1 (W/L) – Ground :Battery voltage

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

1. Confirm that power window lock switch is in unlocked position.
2. Check continuity between main power window and door lock/unlock switch connector D7 terminal 1, 3 and connector D8 terminal 17.

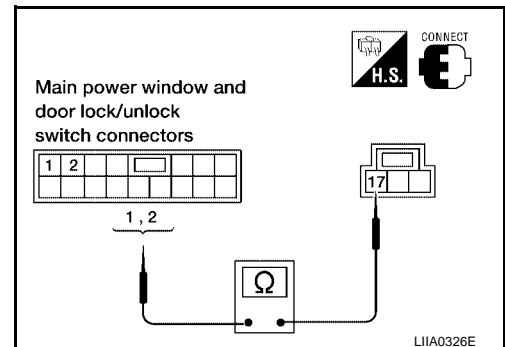
1 (L) – 17 (B) :Continuity should exist.

3 (V) – 17 (B) :Continuity should exist.

OK or NG

OK >> Repair or replace harness.

NG >> Replace main power window and door lock/unlock switch.



POWER WINDOW SYSTEM

Rear Power Window Motor RH Circuit Check / With Front Left and Right Only Anti-pinch System

EIS001MC

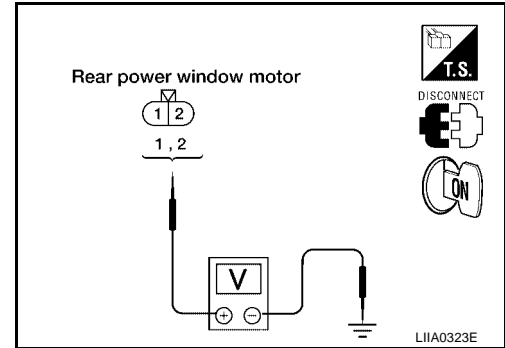
1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect rear power window motor RH.
3. Turn ignition switch ON.
4. Check voltage between rear power window motor RH connector D304 terminal 1, 2 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D304	2 (G)	Ground	Closing	Battery voltage
			Opening	0
	1 (L)		Closing	0
			Opening	Battery voltage

OK or NG

- OK >> Replace rear power window motor RH.
 NG >> GO TO 2



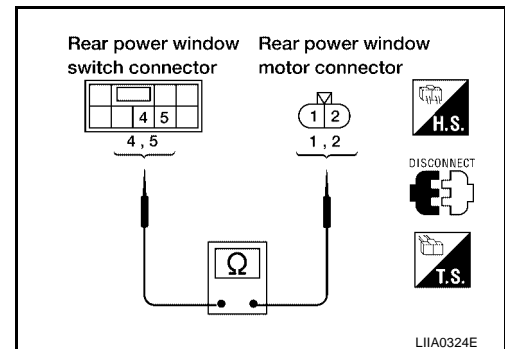
2. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH.
3. Check continuity between rear power window switch RH connector D303 terminal 4, 5 and rear power window motor RH connector D304 terminal 1, 2.

4 (G) – 2 (G) :Continuity should exist.
5 (L) – 1 (L) :Continuity should exist.

OK or NG

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



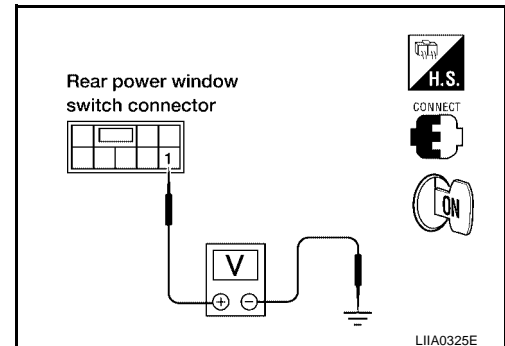
3. CHECK POWER SUPPLY

1. Connect rear power window switch RH.
2. Turn ignition switch ON.
3. Check voltage between rear power window switch RH connector D303 terminal 1 and ground.

1 (W/L) – Ground :Battery voltage

OK or NG

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



POWER WINDOW SYSTEM

4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

1. Confirm that power window lock switch is in unlocked position.
2. Check continuity between main power window and door lock/unlock switch connector D7 terminal 5, 7 and connector D8 terminal 17.

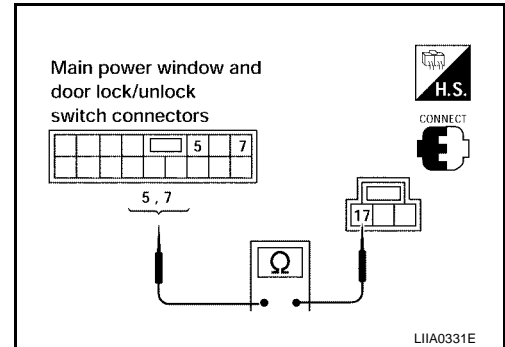
5 (R) – 17 (B) :Continuity should exist.

7 (Y/B) – 17 (B) :Continuity should exist.

OK or NG

OK >> Repair or replace harness.

NG >> Replace main power window and door lock/unlock switch.



Rear Power Window Motor LH Circuit Check / With Front and Rear Power Window Anti-pinch System

EIS001MD

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

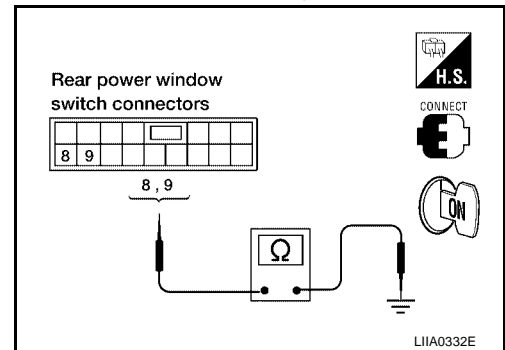
1. Turn ignition switch ON.
2. Check voltage between rear power window switch LH connector D203 terminal 8, 9 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D203	9 (G)	Ground	Closing	0
			Opening	Battery voltage
	8 (L)		Closing	Battery voltage
			Opening	0

OK or NG

OK >> GO TO 2

NG >> Replace rear power window switch LH.



2. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH and rear power window motor LH.
3. Check continuity between rear power window switch LH connector D203 terminal 8, 9 and rear power window motor LH connector D204 terminal 1, 3.

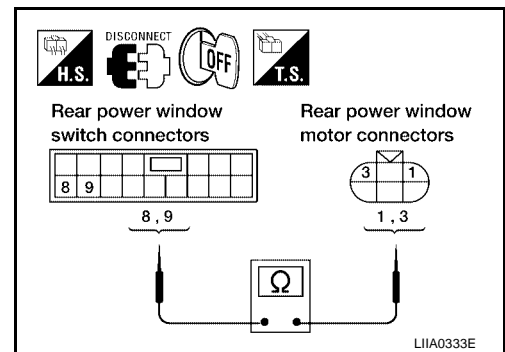
9 (G) – 3 (G) :Continuity should exist.

8 (L) – 1 (L) :Continuity should exist.

OK or NG

OK >> Replace rear power window motor LH.

NG >> Repair or replace harness.



POWER WINDOW SYSTEM

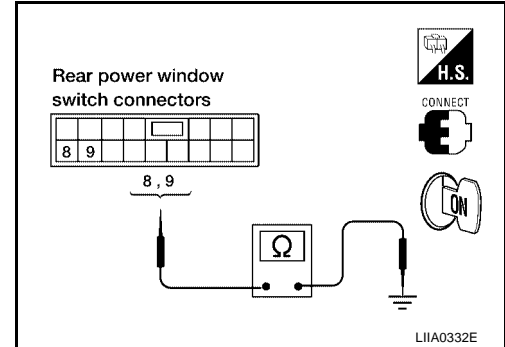
Rear Power Window Motor RH Circuit Check / With Front and Rear Power Window Anti-pinch System

EIS001ME

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between rear power window switch RH connector D303 terminal 8, 9 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D303	9 (G)	Ground	Closing	0
			Opening	Battery voltage
	8 (L)		Closing	Battery voltage
			Opening	0



OK or NG

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

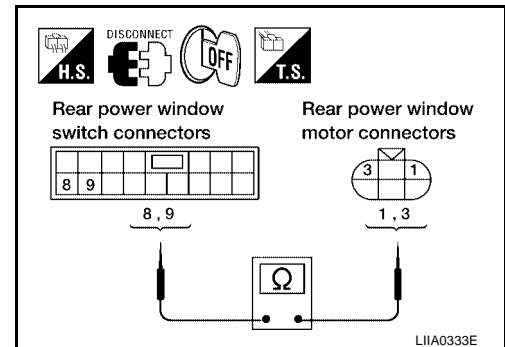
2. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH and rear power window motor RH.
3. Check continuity between rear power window switch RH connector D303 terminal 8, 9 and rear power window motor RH connector D304 terminal 1, 3.

9 (G) – 3 (G) :Continuity should exist.
8 (L) – 1 (L) :Continuity should exist.

OK or NG

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



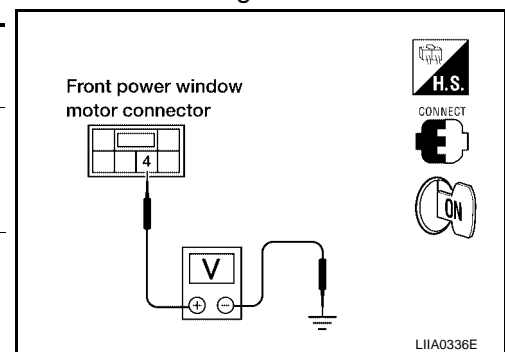
Limit Switch Circuit Check Front LH / With Front Left and Right Only Power Window Anti-pinch System

EIS001MF

1. CHECK FRONT POWER WINDOW MOTOR LH LIMIT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D9	4 (G/W)	Ground	Front door window LH is between fully-open and just before fully-closed position (ON)	0
			Front door window LH is between just before fully-closed position and fully-closed position (OFF)	5



OK or NG

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

POWER WINDOW SYSTEM

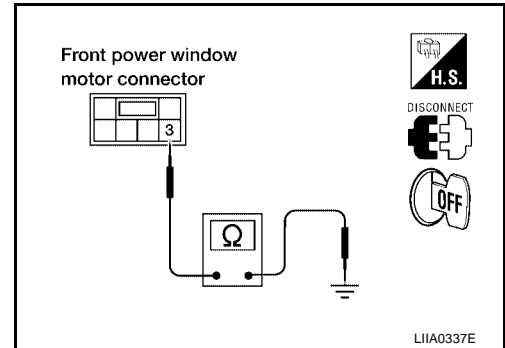
2. CHECK LIMIT SWITCH GROUND CIRCUIT

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

3 (W/B) – Ground :Continuity should exist.

OK or NG

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



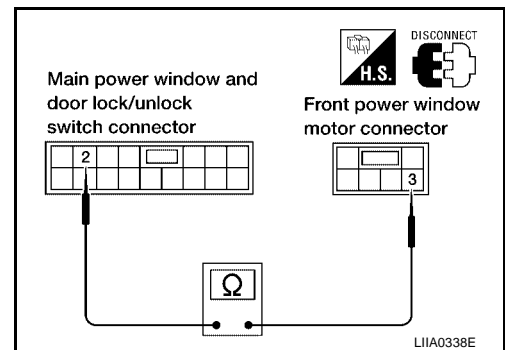
3. CHECK HARNESS CONTINUITY

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 3 and main power window and door lock/unlock switch connector D7 terminal 2.

3 (W/B) – 2 (W/B) :Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch.
NG >> Repair or replace harness.



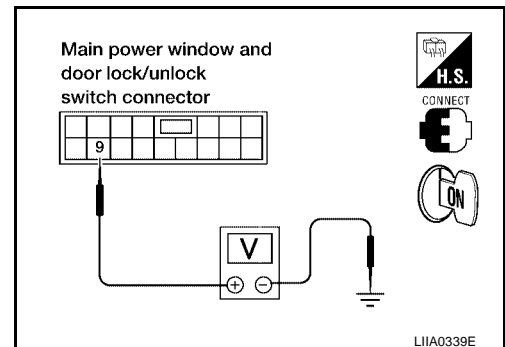
4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector D7 terminal 9 and ground.

9 (G/W) – Ground :Approx. 5V

OK or NG

- OK >> GO TO 5
NG >> Replace main power window and door lock/unlock switch.



POWER WINDOW SYSTEM

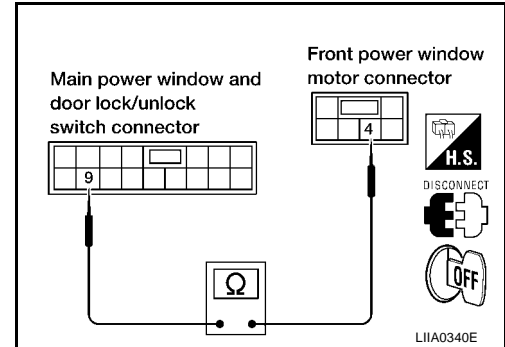
5. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 4 and main power window and door lock/unlock switch connector D7 terminal 9.

4 (G/W) – 9 (G/W) :Continuity should exist.

OK or NG

- OK >> GO TO 6
 NG >> Repair or replace harness.



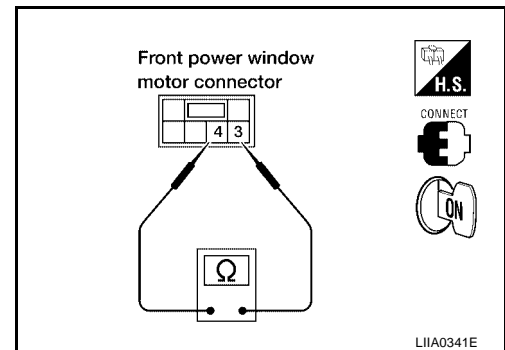
6. CHECK LIMIT SWITCH

1. Connect front power window motor LH and main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check continuity between front power window motor LH connector D9 terminal 3 and 4.

Connector	Terminals (Wire color)		Condition	Continuity
D9	4 (G/W)	3 (W/B)	Driver side door window is between fully-open and just before fully-closed position (ON)	Yes
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	No

OK or NG

- OK >> Repair or replace harness.
 NG >> Replace front power window motor LH.



Limit Switch Circuit Check Front LH / With Front and Rear Power Window Anti-pinch System

EIS001MG

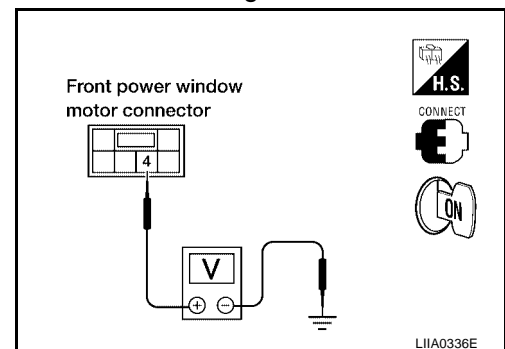
1. CHECK FRONT POWER WINDOW MOTOR LH LIMIT SIGNAL

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D9	4 (G/W)	Ground	Driver side door window is between fully-open and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5

OK or NG

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



POWER WINDOW SYSTEM

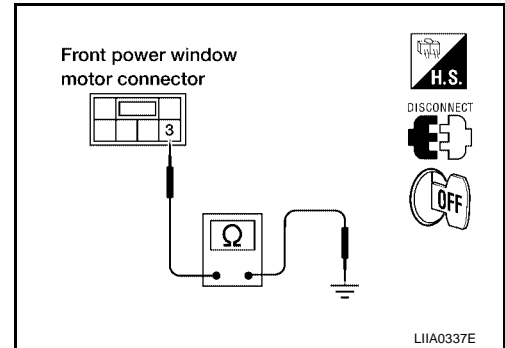
2. CHECK LIMIT SWITCH GROUND CIRCUIT

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

3 (W/B) – Ground :Continuity should exist.

OK or NG

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



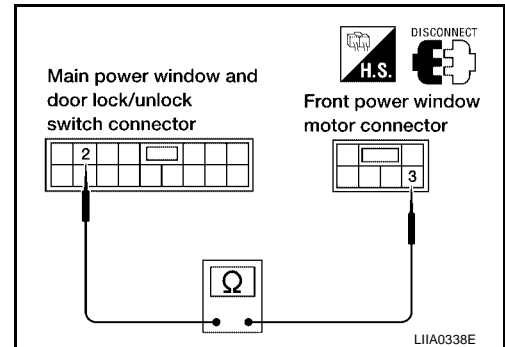
3. CHECK HARNESS CONTINUITY

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 3 and main power window and door lock/unlock switch connector D7 terminal 2.

3 (W/B) – 2 (W/B) :Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch.
NG >> Repair or replace harness.



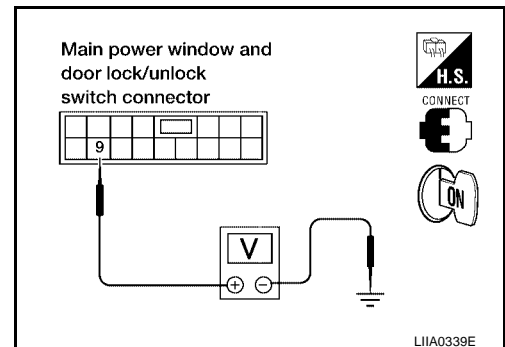
4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector D7 terminal 9 and ground.

9 (G/W) – Ground :Approx. 5V

OK or NG

- OK >> GO TO 5
NG >> Replace main power window and door lock/unlock switch.



POWER WINDOW SYSTEM

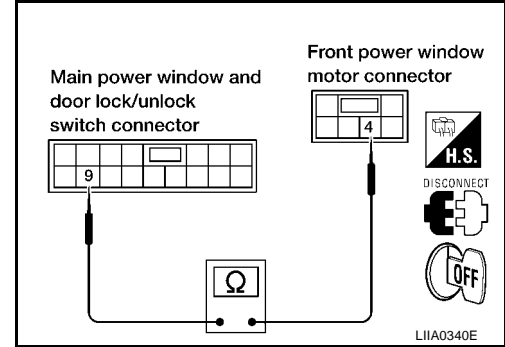
5. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 4 and main power window and door lock/unlock switch connector D7 terminal 9.

4 (G/W) – 9 (G/W) :Continuity should exist.

OK or NG

- OK >> GO TO 6
 NG >> Repair or replace harness.



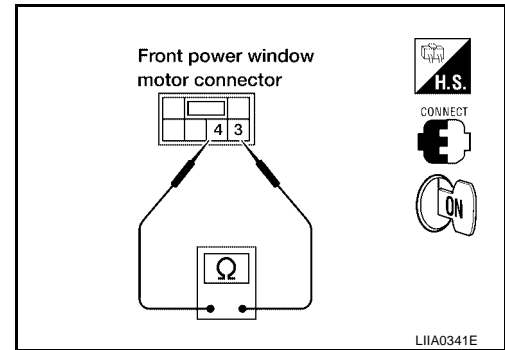
6. CHECK LIMIT SWITCH

1. Connect front power window motor LH and main power window and door lock/unlock switch.
2. Turn ignition switch ON.
3. Check continuity between front power window motor LH connector D9 terminal 3 and 4.

Terminals	Terminals (Wire color)		Condition	Continuity
D9	4 (G/W)	3 (W/B)	Front door window LH is between fully-open and just before fully-closed position (ON)	Yes
			Front door window LH is between just before fully-closed position and fully-closed position (OFF)	No

OK or NG

- OK >> Repair or replace harness.
 NG >> Replace front power window motor LH.



Limit Switch Circuit Check Front RH

EIS001MH

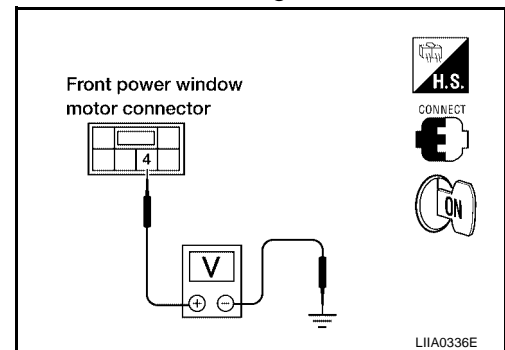
1. CHECK FRONT POWER WINDOW MOTOR RH LIMIT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between front power window motor RH connector D104 terminal 4 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D104	4 (G/W)	Ground	Passenger side door window is between fully-open and just before fully-closed position (ON)	0
			Passenger side door window is between just before fully-closed position and fully-closed position (OFF)	5

OK or NG

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



POWER WINDOW SYSTEM

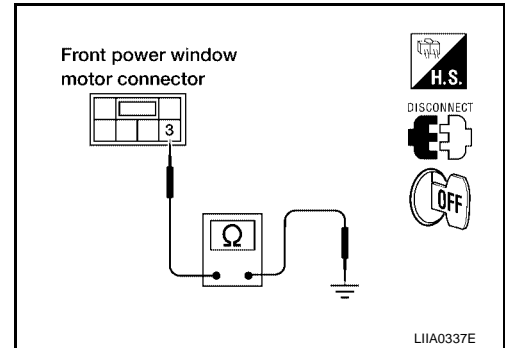
2. CHECK LIMIT SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH.
3. Check continuity between front power window motor RH connector D104 terminal 3 and ground.

3 (W/B) – Ground :Continuity should exist.

OK or NG

OK >> GO TO 4
NG >> GO TO 3



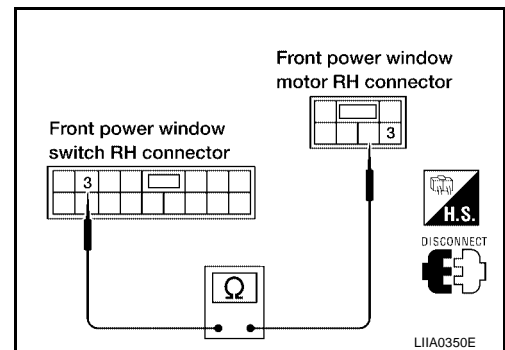
3. CHECK HARNESS CONTINUITY

1. Disconnect front power window switch RH.
2. Check continuity between front power window motor RH connector D104 terminal 3 and front power window switch RH connector D105 terminal 3.

3 (W/B) – 3 (W/B) :Continuity should exist.

OK or NG

OK >> Replace front power window switch RH.
NG >> Repair or replace harness.



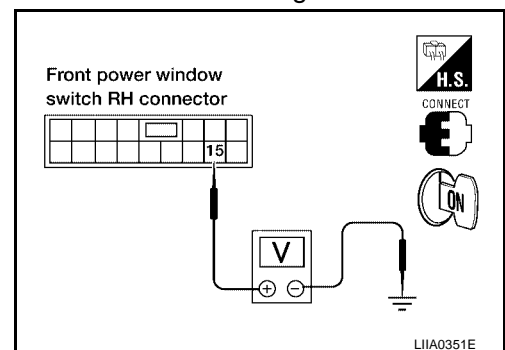
4. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between front power window switch RH connector D105 terminal 15 and ground.

15 (G/W) – Ground :Approx. 5V

OK or NG

OK >> GO TO 5
NG >> Replace front power window switch RH.



POWER WINDOW SYSTEM

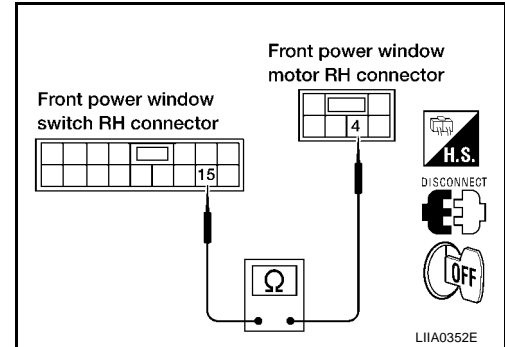
5. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect front power window switch RH.
3. Check continuity between front power window switch RH connector D105 terminal 15 and front power window motor RH connector D104 terminal 4.

15 (G/W) – 4 (G/W) :Continuity should exist.

OK or NG

- OK >> GO TO 6
 NG >> Repair or replace harness.



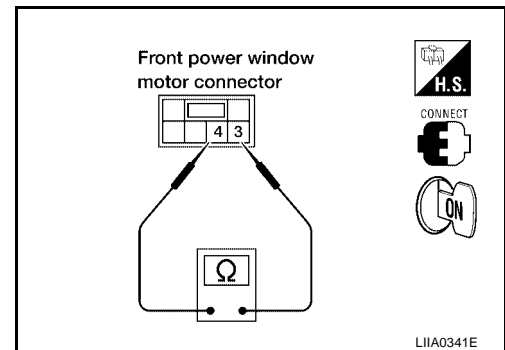
6. CHECK LIMIT SWITCH

1. Connect front power window motor RH and front power window switch RH connector.
2. Turn ignition switch ON.
3. Check continuity between front power window motor RH connector D104 terminal 3 and 4.

Connector	Terminals (Wire color)		Condition	Continuity
D104	4 (G/W)	3 (W/B)	Front door window RH is between fully-open and just before fully-closed position (ON)	Yes
			Front door window RH is between just before fully-closed position and fully-closed position (OFF)	No

OK or NG

- OK >> Repair or replace harness.
 NG >> Replace front power window motor RH.



Limit Switch Circuit Check Rear LH and RH / With Front and Rear Anti-pinch System

EIS001MI

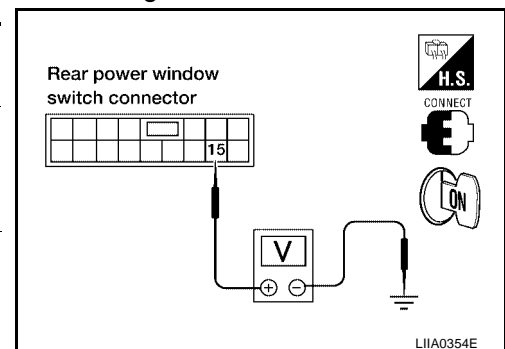
1. CHECK REAR POWER WINDOW MOTOR LH AND RH LIMIT SWITCH SIGNAL

1. Turn ignition switch ON.
2. Check voltage between rear power window switch LH or RH connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D203 (LH) D303 (RH)	15 (G/W)	Ground	Rear LH or RH door window is between fully-open and just before fully-closed position (ON)	0
			Rear LH or RH door window is between just before fully-closed position and fully-closed position (OFF)	5

OK or NG

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



POWER WINDOW SYSTEM

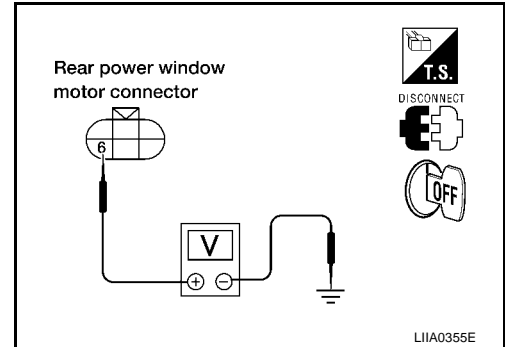
2. CHECK LIMIT SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH or RH.
3. Check continuity between rear power window motor LH or RH connector D204 (LH), D304 (RH) terminal 6 and ground.

6 (W/B) – Ground :Continuity should exist.

OK or NG

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



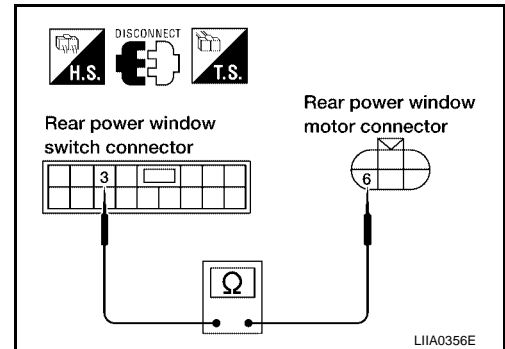
3. CHECK HARNESS CONTINUITY

1. Disconnect rear power window switch LH or RH.
2. Check continuity between rear power window motor LH or RH connector D204 (LH), D304 (RH) terminal 6 and rear power window switch LH or RH connector D203 (LH), D303 (RH) terminal 3.

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

OK or NG

- OK >> Replace rear power window switch LH or RH.
NG >> Repair or replace harness.



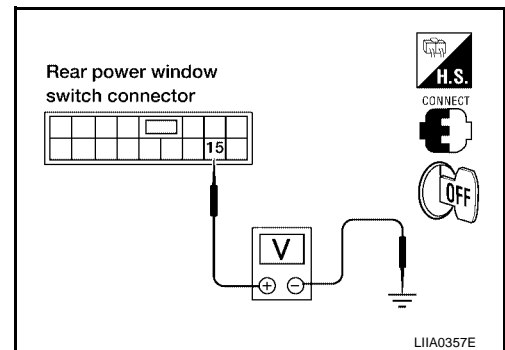
4. CHECK REAR POWER WINDOW SWITCH LH OR RH OUTPUT SIGNAL

1. Turn ignition switch OFF.
2. Check voltage between rear power window switch LH or RH harness connector D203 (LH) or D303 (RH) terminal 15 (G/W) and ground.

15 (G/W) – Ground :Approx. 5V

OK or NG

- OK >> GO TO 5
NG >> Replace rear power window switch LH or RH.



POWER WINDOW SYSTEM

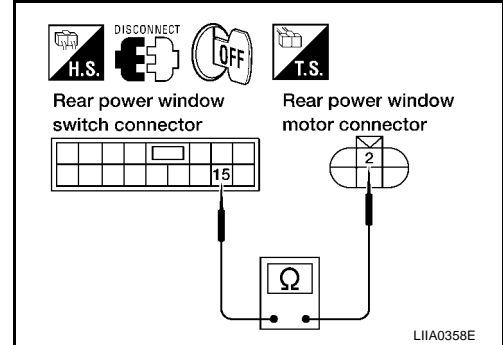
5. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH or RH.
3. Check continuity between rear power window switch LH or RH connector D203 (LH), D303 (RH) terminal 15 and rear power window motor LH or RH connector D204 (LH), D304 (RH) terminal 2.

15 (G/W) – 2 (G/W) :Continuity should exist.

OK or NG

- OK >> GO TO 6
 NG >> Repair or replace harness.



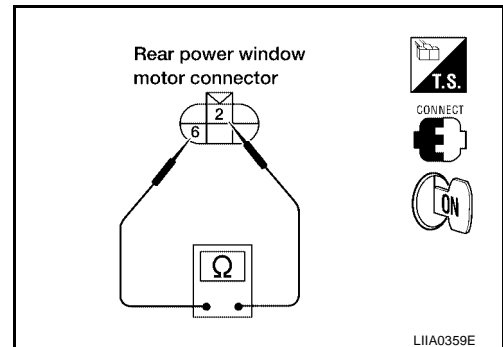
6. CHECK LIMIT SWITCH

1. Connect rear power window motor LH or RH and rear power window switch LH or RH.
2. Turn ignition switch ON.
3. Check continuity between rear power window motor LH or RH connector D204 (LH), D304 (RH) terminal 2 and 6.

Connector	Terminals (Wire color)		Condition	Continuity
D204 (LH) D304 (RH)	2 (G/W)	6 (W/B)	Rear door window LH or RH is between fully-open and just before fully-closed position (ON)	Yes
			Rear door window LH or RH is between just before fully-closed position and fully-closed position (OFF)	No

OK or NG

- OK >> Repair or replace harness.
 NG >> Replace rear power window motor LH or RH.



Encoder Circuit Check Front LH / With Front Left and Right Only Power Window Anti-pinch

EIS001MJ

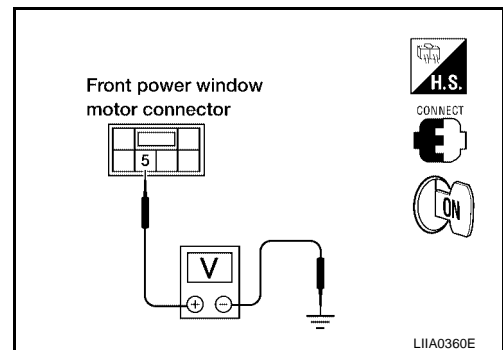
1. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window motor LH connector D9 terminal 5 and ground.

5 (G/R) – Ground : Approx.10V

OK or NG

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



POWER WINDOW SYSTEM

2. CHECK HARNESS CONTINUITY

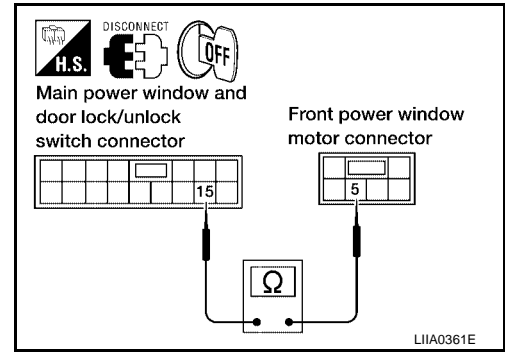
1. Turn ignition switch OFF.
2. Disconnect front power window motor LH and main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 5 and main power window and door lock/unlock switch connector D7 terminal 15.

5 (G/R) – 15 (G/R) : Continuity should exist.

OK or NG

OK >> Replace main power window and door lock/unlock switch.

NG >> Repair or replace harness.



3. CHECK ENCODER GROUND

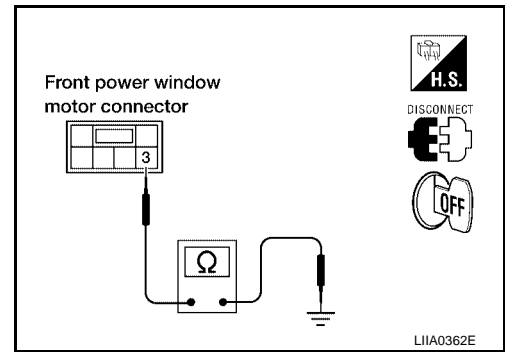
1. Turn ignition switch OFF.
2. Disconnect front power window motor LH.
3. Check continuity between front power window motor LH connector D9 terminal 3 and ground.

3 (W/B) – Ground : Continuity should exist.

OK or NG

OK >> GO TO 5

NG >> GO TO 4



4. CHECK ENCODER GROUND CIRCUIT

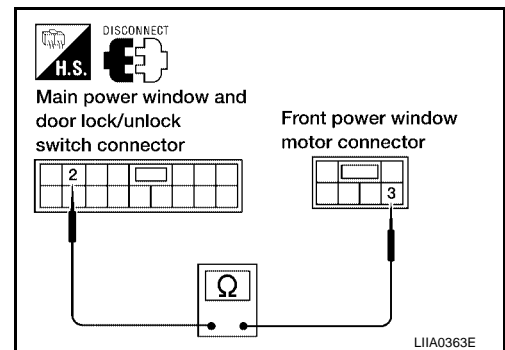
1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 3 and main power window and door lock/unlock switch connector D7 terminal 2.

3 (W/B) – 2 (W/B) : Continuity should exist.

OK or NG

OK >> Replace main power window and door lock/unlock switch.

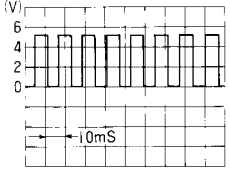
NG >> Repair or replace harness.

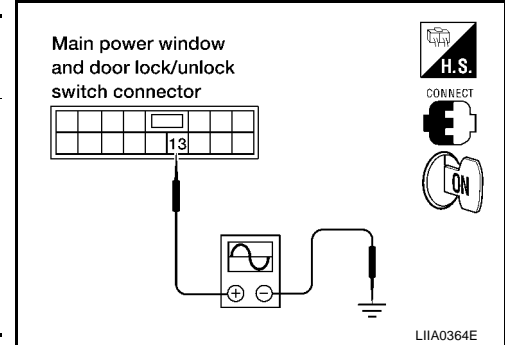


POWER WINDOW SYSTEM

5. CHECK ENCODER SIGNAL

1. Connect front power window motor LH.
2. Turn ignition switch ON.
3. Check the signal between main power window and door lock/unlock switch connector and ground with oscilloscope.

Connector	Terminals (Wire color)		Condition	Signal
	(+)	(-)		
D7	13 (G/Y)	Ground	Opening	 <p>OCC3383D</p>



OK or NG

- OK >> Replace main power window and door lock/unlock switch.
 NG >> GO TO 6

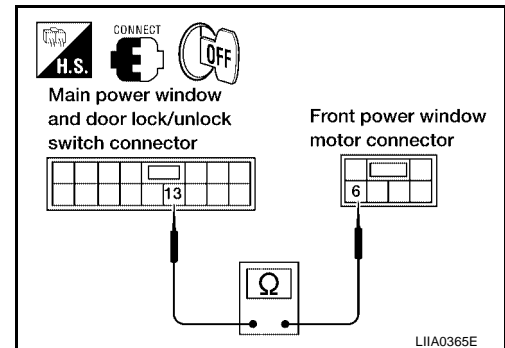
6. CHECK ENCODER CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window motor LH and main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 6 and main power window and door lock/unlock switch connector D7 terminal 13.

6 (G/Y) – 13 (G/Y) : Continuity should exist.

OK or NG

- OK >> Replace front power window motor LH
 NG >> Repair or replace harness.



Encoder Circuit Check Front LH / With Front and Rear Power Window Anti-pinch

EIS001MK

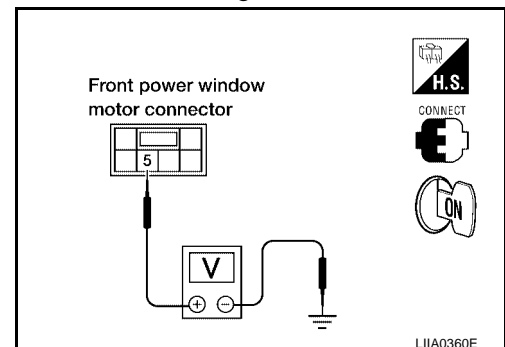
1. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window motor LH connector D9 terminal 5 and ground.

5 (G/R) – Ground : Approx.10V

OK or NG

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

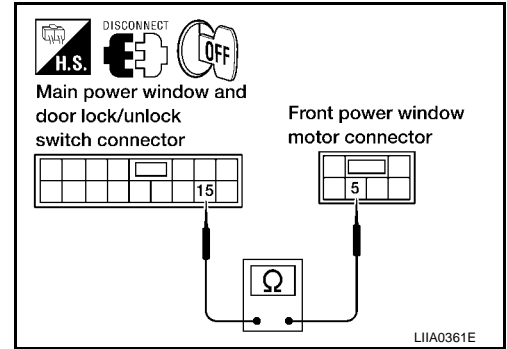


POWER WINDOW SYSTEM

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect front power window motor LH and main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 5 and main power window and door lock/unlock switch connector D7 terminal 15.

5 (G/R) – 15 (G/R) : Continuity should exist.



OK or NG

- OK >> Replace main power window and door lock/unlock switch.
- NG >> Repair or replace harness.

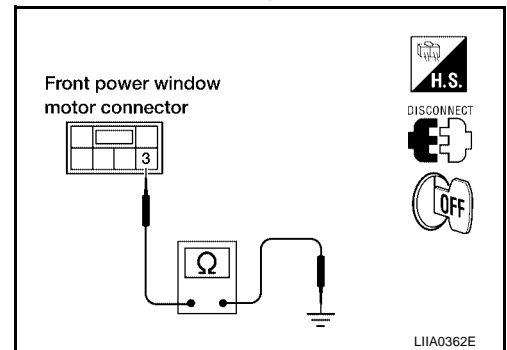
3. CHECK ENCODER GROUND

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

3 (W/B) – Ground : Continuity should exist.

OK or NG

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



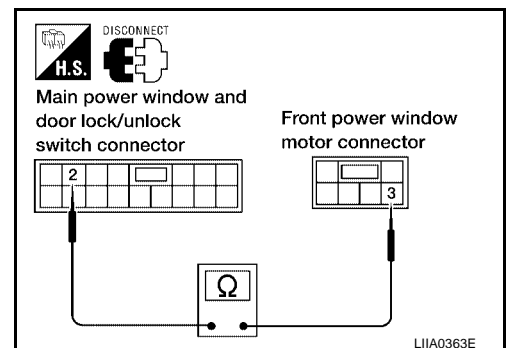
4. CHECK ENCODER GROUND CIRCUIT

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 3 and main power window and door lock/unlock switch connector D7 terminal 2.

3 (W/B) – 2 (W/B) : Continuity should exist.

OK or NG

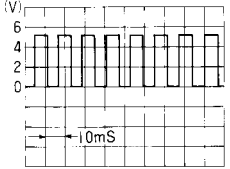
- OK >> Replace main power window and door lock/unlock switch.
- NG >> Repair or replace harness.

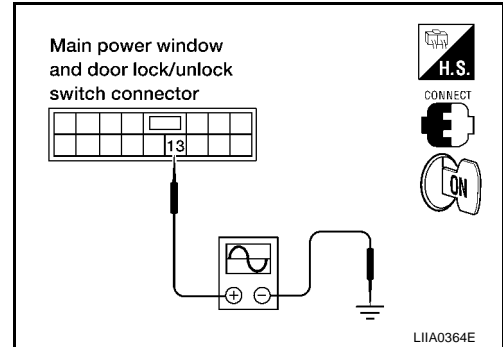


POWER WINDOW SYSTEM

5. CHECK ENCODER SIGNAL

1. Connect front power window motor LH.
2. Turn ignition switch ON.
3. Check the signal between main power window and door lock/unlock switch connector and ground with oscilloscope.

Connector	Terminals (Wire color)		Condition	Signal
	(+)	(-)		
D7	13 (G/Y)	Ground	Opening	 <p>OCC3383D</p>



OK or NG

- OK >> Replace main power window and door lock/unlock switch.
 NG >> GO TO 6

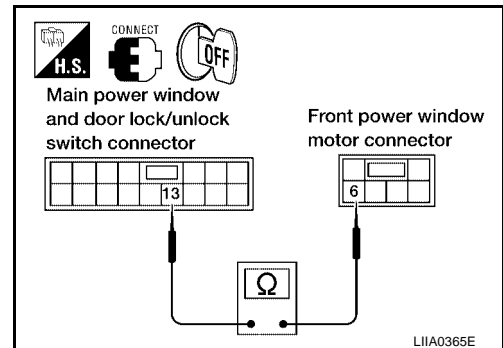
6. CHECK ENCODER CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window motor LH and main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 6 and main power window and door lock/unlock switch connector D7 terminal 13.

6 (G/Y) – 13 (G/Y) : Continuity should exist.

OK or NG

- OK >> Replace front power window motor LH
 NG >> Repair or replace harness.



Encoder Circuit Check Front RH

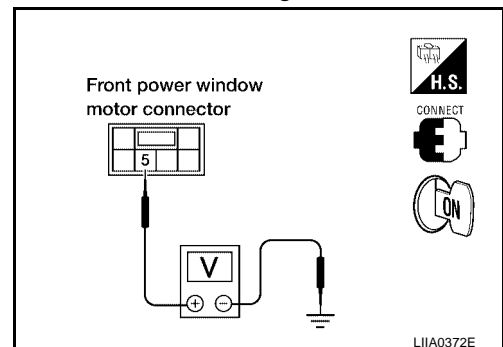
1. CHECK FRONT POWER WINDOW MOTOR RH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window motor RH connector D104 terminal 5 and ground.

5 (G/R) – Ground : Approx.10V

OK or NG

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

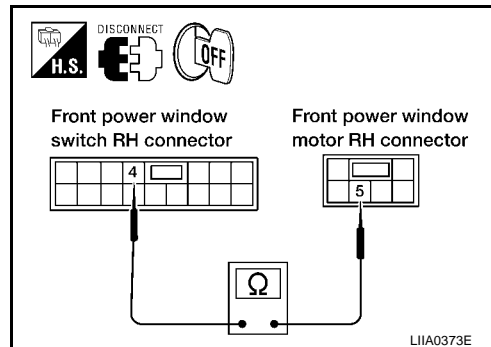


POWER WINDOW SYSTEM

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH and front power window switch RH.
3. Check continuity between front power window motor RH connector D104 terminal 5 and front power window switch RH connector D105 terminal 4.

5 (G/R) – 4 (G/R) : Continuity should exist.



OK or NG

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

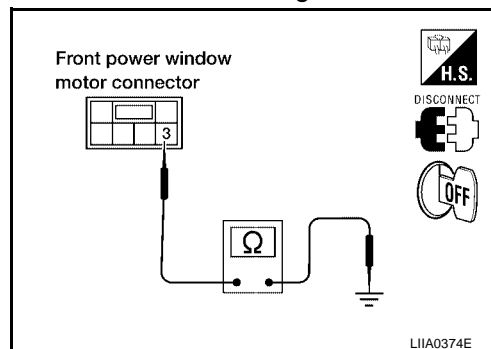
3. CHECK ENCODER GROUND

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH.
3. Check continuity between front power window motor RH connector D104 terminal 3 and ground.

3 (W/B) – Ground : Continuity should exist.

OK or NG

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



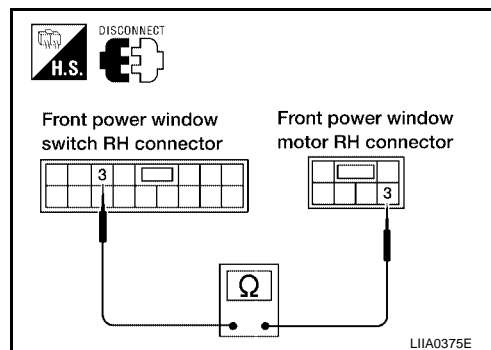
4. CHECK ENCODER GROUND CIRCUIT

1. Disconnect front power window switch RH.
2. Check continuity between front power window motor RH connector D104 terminal 3 and front power window switch RH connector D105 terminal 3.

3 (W/B) – 3 (W/B) : Continuity should exist.

OK or NG

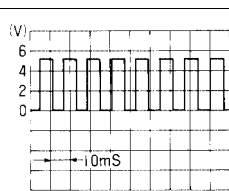
- OK >> Replace front power window switch RH.
- NG >> Repair or replace harness.

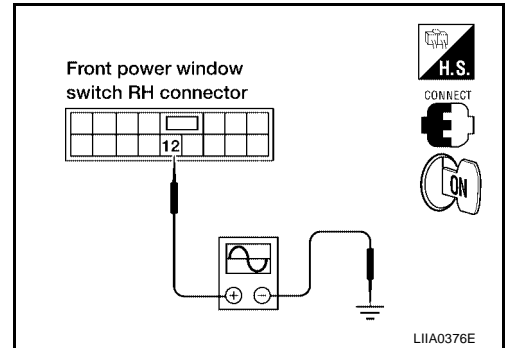


POWER WINDOW SYSTEM

5. CHECK ENCODER SIGNAL

1. Connect front power window motor RH.
2. Turn ignition switch ON.
3. Check the signal between front power window switch RH connector and ground with oscilloscope.

Connector	Terminals (Wire color)		Condition	Signal
	(+)	(-)		
D105	12 (G/Y)	Ground	Opening	 <small>OCC3383D</small>



OK or NG

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

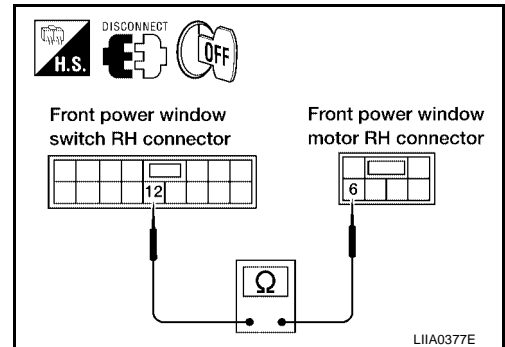
6. CHECK ENCODER CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front power window motor RH and front power window switch RH.
3. Check continuity between front power window motor RH connector D104 terminal 6 and front power window switch RH connector D105 terminal 12.

6 (G/Y) – 12 (G/Y) :Continuity should exist.

OK or NG

- OK >> Replace front power window motor RH.
 NG >> Repair or replace harness.



Encoder Circuit Check Rear LH or RH / With Front and Rear Power Window Anti-pinch System

EIS001MM

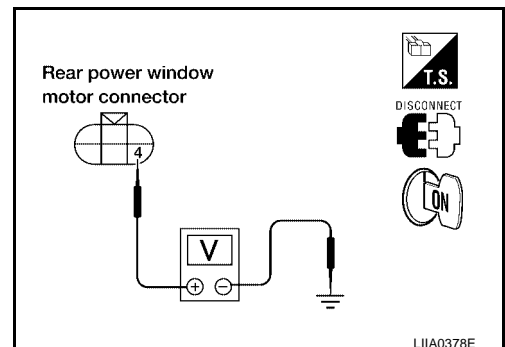
1. CHECK REAR POWER WINDOW MOTOR LH OR RH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between rear power window motor LH or RH connector D204 (LH) or D304 (RH) terminal 4 and ground.

4 (G/R) - Ground :Approx. 10V

OK or NG

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



POWER WINDOW SYSTEM

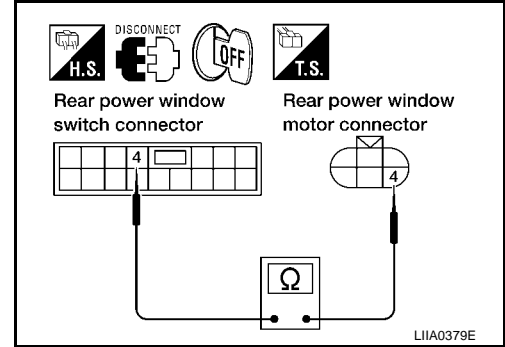
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window motor LH or RH and rear power window switch LH or RH.
3. Check continuity between rear power window motor LH or RH connector D204 (LH) or D304 (RH) terminal 4 and rear power window switch LH or RH connector D203 (LH) or D303 (RH) terminal 4.

4 (G/R) - 4 (G/R) : Continuity should exist.

OK or NG

- OK >> Replace rear power window switch LH or RH.
NG >> Repair or replace harness.



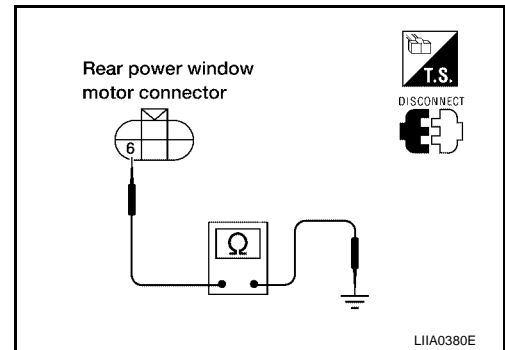
3. CHECK ENCODER GROUND

1. Turn ignition switch OFF.
2. Disconnect rear power window motor LH or RH.
3. Check continuity between rear power window motor LH or RH connector D204 (LH) or D304 (RH) terminal 6 and ground.

6 (W/B) - Ground : Continuity should exist.

OK or NG

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



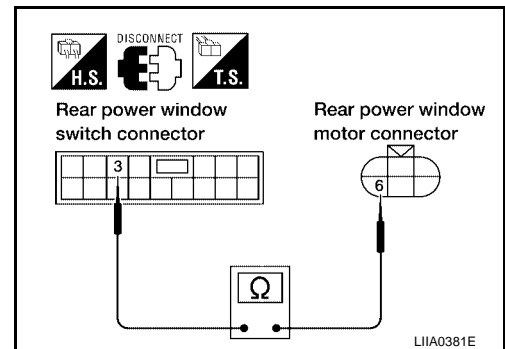
4. CHECK ENCODER GROUND CIRCUIT

1. Disconnect rear power window motor LH or RH.
2. Check continuity between rear power window motor LH or RH connector D204 (LH) or D304 (RH) terminal 6 and rear power window switch LH or RH connector D203 (LH), D303 (RH) terminal 3.

6 (W/B) - 3 (W/B) : Continuity should exist.

OK or NG

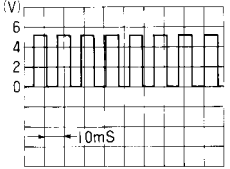
- OK >> Replace rear power window switch LH or RH.
NG >> Repair or replace harness.

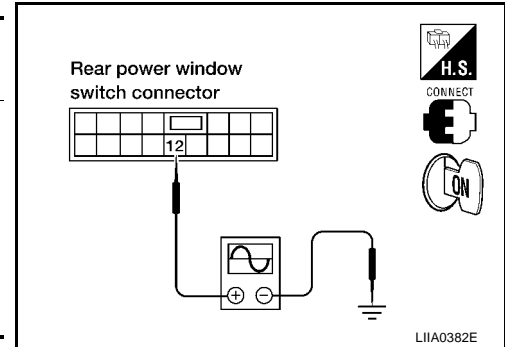


POWER WINDOW SYSTEM

5. CHECK ENCODER SIGNAL

1. Connect rear power window motor LH or RH.
2. Turn ignition switch ON.
3. Check the signal between rear power window switch LH or RH connector D203 (LH) or D303 (RH) terminal 12 and ground with oscilloscope.

Connector	Terminals (Wire color)		Condition	Signal
	(+)	(-)		
D203 (LH) D303 (RH)	12 (G/Y)	Ground	Opening	 <p>OCC3383D</p>



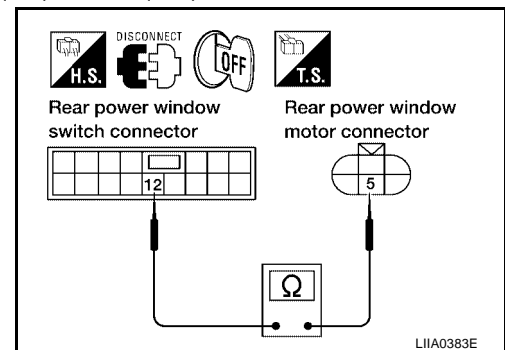
OK or NG

- OK >> GO TO 6
 NG >> Replace rear power window switch LH or RH.

6. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH or RH and rear power window motor LH or RH.
3. Check continuity between rear power window switch LH or RH connector D203 (LH) or D303 (RH) terminal 12 and rear power window motor LH or RH connector D204 (LH), D304 (RH) terminal 5.

12 (G/Y) – 5 (G/Y) : Continuity should exist.



OK or NG

- OK >> Replace rear power window motor LH or RH.
 NG >> Repair or replace harness.

POWER WINDOW SYSTEM

EIS001MN

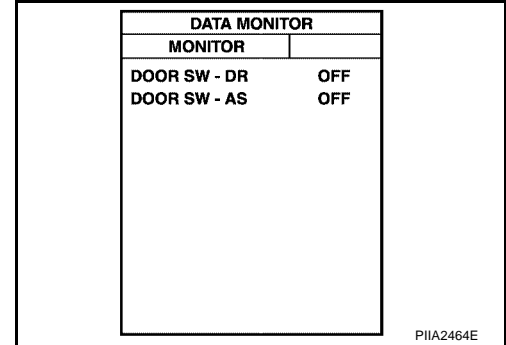
Door Switch Check

1. CHECK FRONT DOOR SWITCH INPUT SIGNAL

With CONSULT-II

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

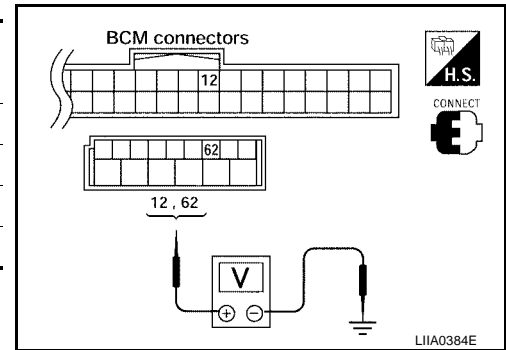
Monitor item	Condition	
DOOR SW-DR	OPEN	: ON
	CLOSE	: OFF
DOOR SW-AS	OPEN	: ON
	CLOSE	: OFF



Without CONSULT-II

Check voltage between BCM connector and ground.

Item	Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
		(+)	(-)		
Front RH	M18	12 (BR/W)	Ground	OPEN	0
				CLOSE	Battery voltage
Front LH	M20	62 (SB)	Ground	OPEN	0
				CLOSE	Battery voltage



OK or NG

- OK >> Front door switch is OK.
- NG >> GO TO 2

2. CHECK FRONT DOOR SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front door switch LH or RH and BCM connector.
3. Check continuity between front door switch connector B8 (LH) or B108 (RH) terminal 2 and BCM connector M18 terminal 12 and connector M20 terminal 62.

Front LH

2 (SB) – 62 (SB) :Continuity should exist.

Front RH

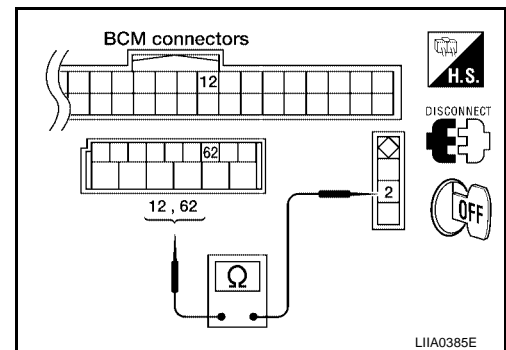
2 (BR/W) – 12 (BR/W) :Continuity should exist.

4. Check continuity between front door switch connector B8 (LH) or B108 (RH) terminal 2 and ground.

2 (SB or BR/W) – Ground :Continuity should not exist.

OK or NG

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



POWER WINDOW SYSTEM

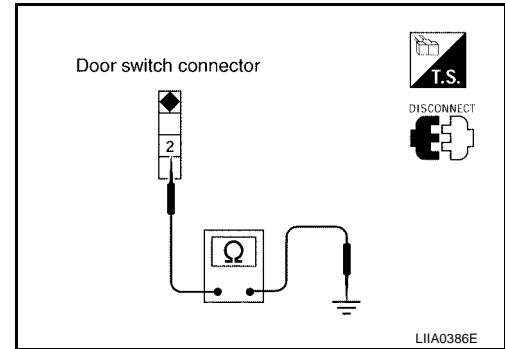
3. CHECK DOOR SWITCH

1. Disconnect front door switch LH or RH.
2. Check continuity between each front door switch terminal 2 and body ground part of front door switch.

Terminal		Door switch	Continuity
2	Body ground part of front door switch	Pushed	No
		Released	Yes

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.
- NG >> Replace malfunctioning front door switch.



POWER WINDOW SYSTEM

Front Door Key Cylinder Switch LH Check / With Front Left and Right only Anti-pinch System

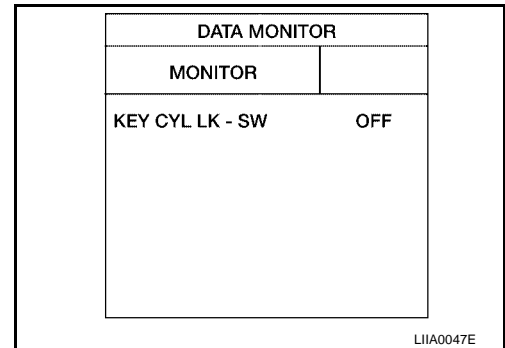
EIS001MP

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Ⓜ With CONSULT-II

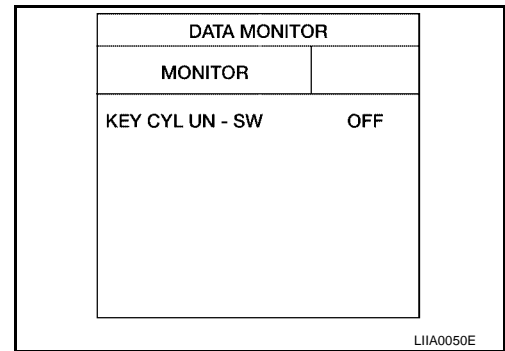
- Check door key cylinder switch ("KEY CYL LK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-47, "DATA MONITOR"](#)

"KEY CYL LK-SW" should be "ON" when key inserted in door key cylinder is turned to lock.



- Check door key cylinder switch ("KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-47, "DATA MONITOR"](#)

"KEY CYL UN-SW" should be "ON" when key inserted in door key cylinder was turned to unlock.



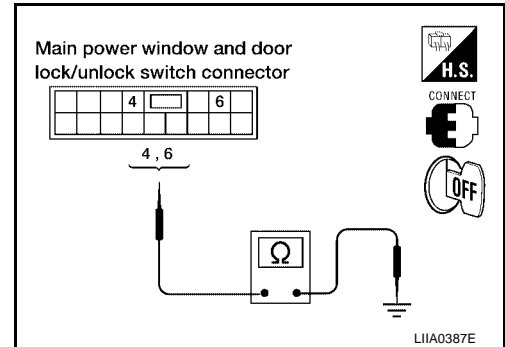
⊗ Without CONSULT-II

Check voltage between main power window and door lock/unlock switch connector and ground.

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

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.
- NG >> GO TO 2



POWER WINDOW SYSTEM

2. CHECK FRONT DOOR KEY CYLINDER SWITCH LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front door key cylinder switch LH connector.
3. Check continuity between main power window and door lock/unlock switch connector D7 terminals 4, 6 and front door key cylinder switch LH connector D51 terminals 1, 6.

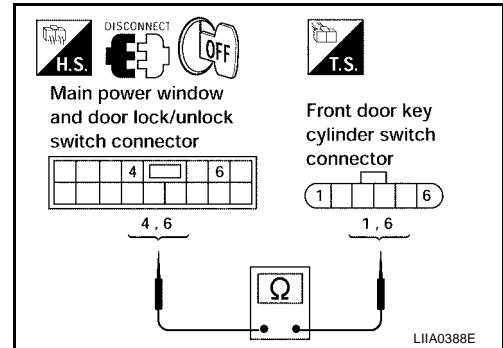
6 (R) – 6 (R) :Continuity should exist.

4 (L) – 1 (G) :Continuity should exist.

OK or NG

OK >> GO TO 3

NG >> Repair or replace harness.



3. CHECK FRONT DOOR KEY CYLINDER SWITCH LH GROUND

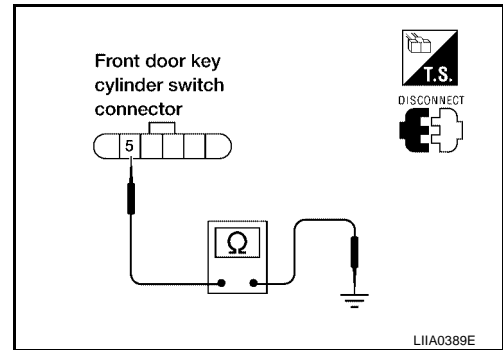
Check continuity between front door key cylinder switch LH connector D51 terminal 5 and ground.

5 (B) – Ground :Continuity should exist.

OK or NG

OK >> GO TO 4

NG >> Repair or replace harness.



4. CHECK FRONT DOOR KEY CYLINDER SWITCH LH

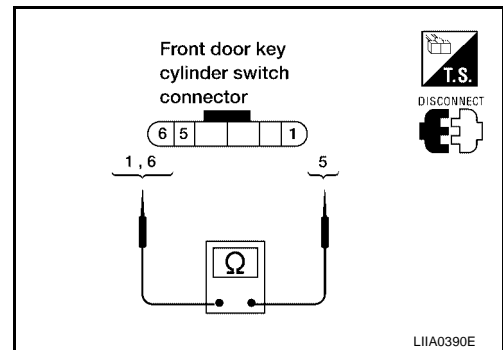
Check continuity between door key cylinder switch terminal 1, 6 and 5.

Terminals	Key position	Continuity
6	Neutral/Unlock	No
	Lock	Yes
1	Neutral/Lock	No
	Unlock	Yes

OK or NG

OK >> Further inspection is necessary. Refer to symptom chart.

NG >> Replace front door key cylinder switch LH.



POWER WINDOW SYSTEM

Front Door Key Cylinder Switch LH Check / With Front and Rear Power Window Anti-pinch System

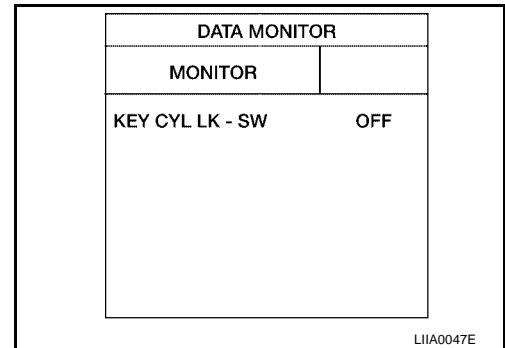
EIS001P8

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

④ With CONSULT-II

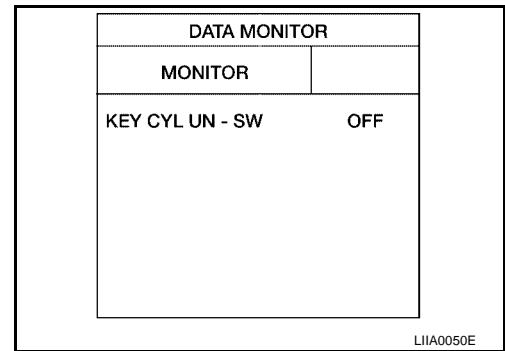
- Check door key cylinder switch ("KEY CYL LK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-47, "DATA MONITOR"](#)

"KEY CYL LK-SW" should be "ON" when key inserted in door key cylinder is turned to lock.



- Check door key cylinder switch ("KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-47, "DATA MONITOR"](#)

"KEY CYL UN-SW" should be "ON" when key inserted in door key cylinder was turned to unlock.



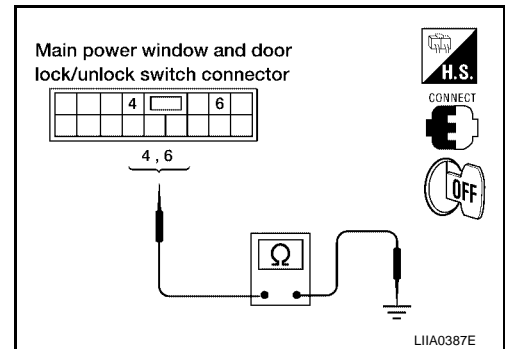
⊗ Without CONSULT-II

Check voltage between main power window and door lock/unlock switch connector and ground.

Connector	Terminals (Wire color)		Key position	Voltage (V) (Approx.)
	(+)	(-)		
D7	6 (R)	Ground	Neutral / Lock	5
			Lock	0
	4 (P/L)		Neutral / Unlock	5
			Unlock	0

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.
- NG >> GO TO 2



POWER WINDOW SYSTEM

2. CHECK FRONT DOOR KEY CYLINDER SWITCH LH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front door key cylinder switch LH connector.
3. Check continuity between main power window and door lock/unlock switch connector D7 terminals 4, 6 and front door key cylinder switch LH connector D51 terminals 1, 6.

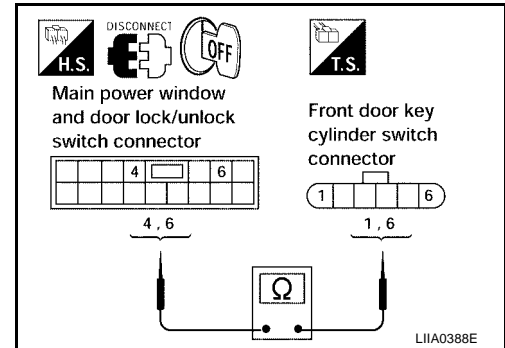
6 (R) – 6 (R) :Continuity should exist.

4 (P/L) – 1 (P/L) :Continuity should exist.

OK or NG

OK >> GO TO 3

NG >> Repair or replace harness.



3. CHECK FRONT DOOR KEY CYLINDER SWITCH LH GROUND

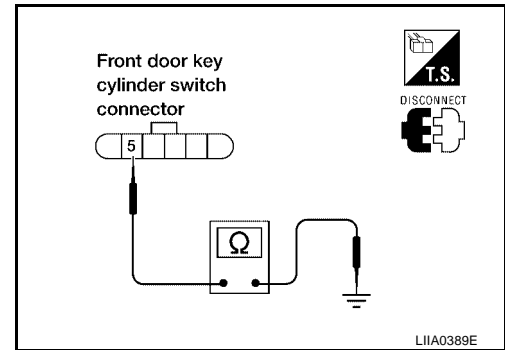
Check continuity between front door key cylinder switch LH connector D51 terminal 5 and ground.

5 (B) – Ground :Continuity should exist.

OK or NG

OK >> GO TO 4

NG >> Repair or replace harness.



4. CHECK FRONT DOOR KEY CYLINDER SWITCH LH

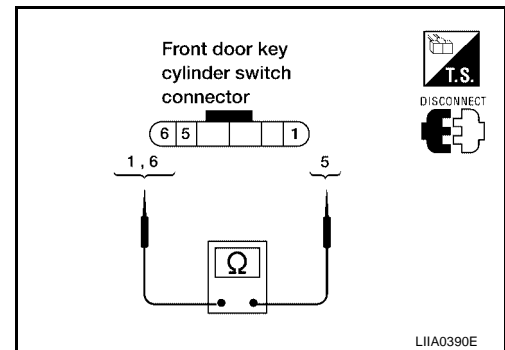
Check continuity between door key cylinder switch terminal 1, 6 and 5.

Terminals	Key position	Continuity
6	Neutral/Unlock	No
	Lock	Yes
1	Neutral/Lock	No
	Unlock	Yes

OK or NG

OK >> Further inspection is necessary. Refer to symptom chart.

NG >> Replace front door key cylinder switch LH.



POWER WINDOW SYSTEM

EIS001MR

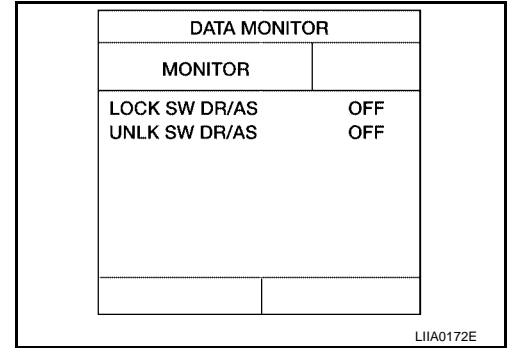
Power Window Serial Link Check Front LH and RH

1. CHECK SERIAL LINK OUTPUT SIGNAL

With CONSULT-II

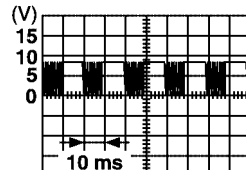
Check door lock and unlock switch ("LOCK SW DR/AS", "UNLK SW DR/AS") in DATA MONITOR mode for "REMOTE KEYLESS ENTRY SYSTEM" with CONSULT-II. Refer to [GW-47, "DATA MONITOR"](#).

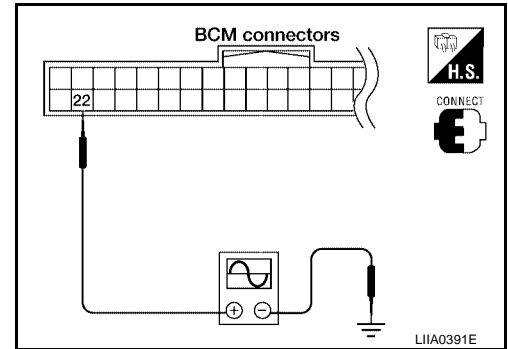
- When door lock and unlock switch is turned to LOCK
LOCK SW DR/AS :ON
- When door lock and unlock switch is turned to UNLOCK
UNLK SW DR/AS :ON



Without CONSULT-II

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

Connector	Terminals (Wire color)		Signal
	(+)	(-)	
M18	22 (Y)	Ground	 <p>PIIA1297E</p>



OK or NG

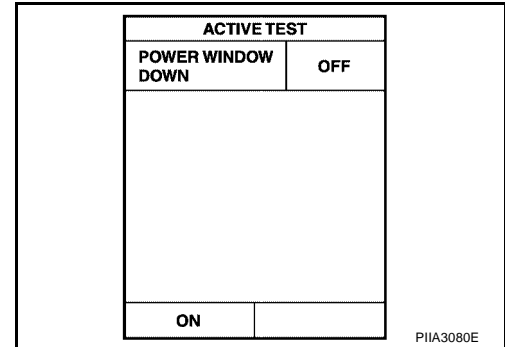
- OK >> GO TO 2
 NG >> GO TO 3

POWER WINDOW SYSTEM

2. CHECK BCM OUTPUT SIGNAL

Check power window serial link ("POWER WINDOW DOWN") in "ACTIVE TEST" mode with CONSULT-II. Refer to [GW-47. "ACTIVE TEST"](#).

When "ACTIVE TEST" is executed, is the window of driver side and passenger side lowered.



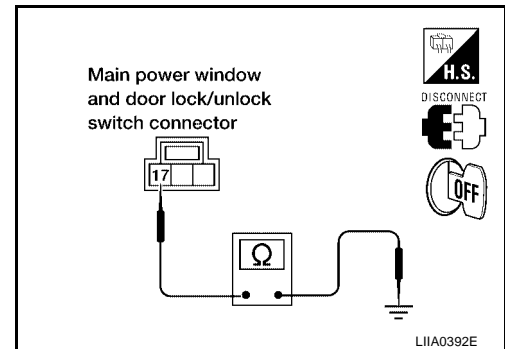
OK or NG

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

3. CHECK POWER WINDOW SWITCH GROUND

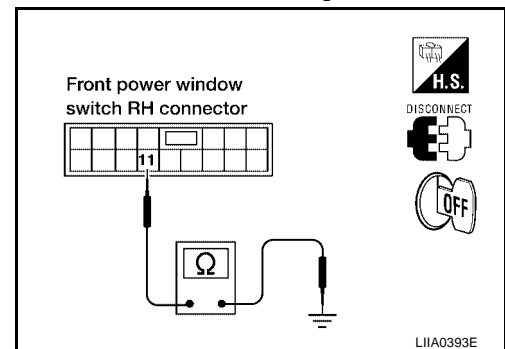
1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and front power window switch RH.
3. Check continuity between main power window and door lock/unlock switch connector D8 terminal 17 and ground.

17 (B) – Ground :Continuity should exist.



4. Check continuity between front power window switch RH connector D105 terminal 11 and ground.

11 (B) – Ground :Continuity should exist.



OK or NG

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

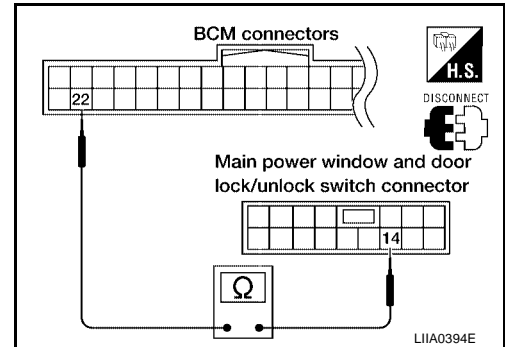
POWER WINDOW SYSTEM

4. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Disconnect BCM.
2. Check continuity between BCM connector M18 terminal 22 and main power window and door lock/unlock switch connector D7 terminal 14.

22 (Y) – 14 (Y)

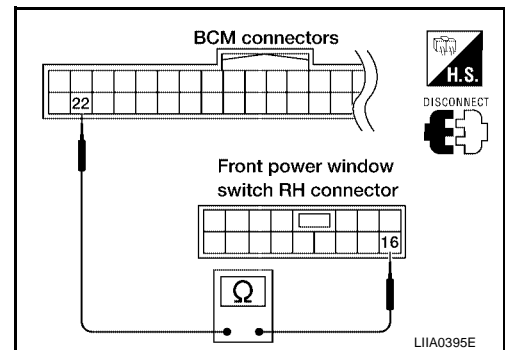
:Continuity should exist.



3. Check continuity between BCM connector M18 terminal 22 and front power window switch RH connector D105 terminal 16.

22 (Y) – 16 (Y)

:Continuity should exist.



OK or NG

- OK >> Replace main power window and door lock/unlock switch or front power window switch RH.
- NG >> Repair or replace harness.

Power Window Serial Link Check Rear LH or RH / With Front and Rear Power Window Anti-pinch System

EIS001MS

1. CHECK REAR POWER WINDOW SWITCH LH OR RH

1. Replace with operative rear power window switch LH or RH.
2. Does window operates normally?

OK or NG

- OK >> Replace rear power window switch LH or RH.
- NG >> GO TO 2

POWER WINDOW SYSTEM

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

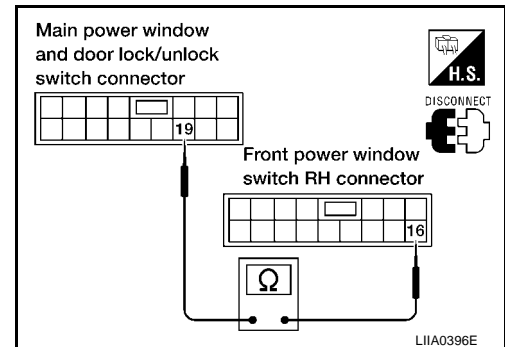
1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and rear power window switch LH or RH.
3. Check continuity between main power window and door lock/unlock switch connector D7 terminal 14 and rear power window switch connector D203 (LH) or D303 (RH) terminal 16.

14 (Y) – 16 (Y)

:Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch.
- NG >> Repair or replace harness.



FRONT DOOR GLASS AND REGULATOR

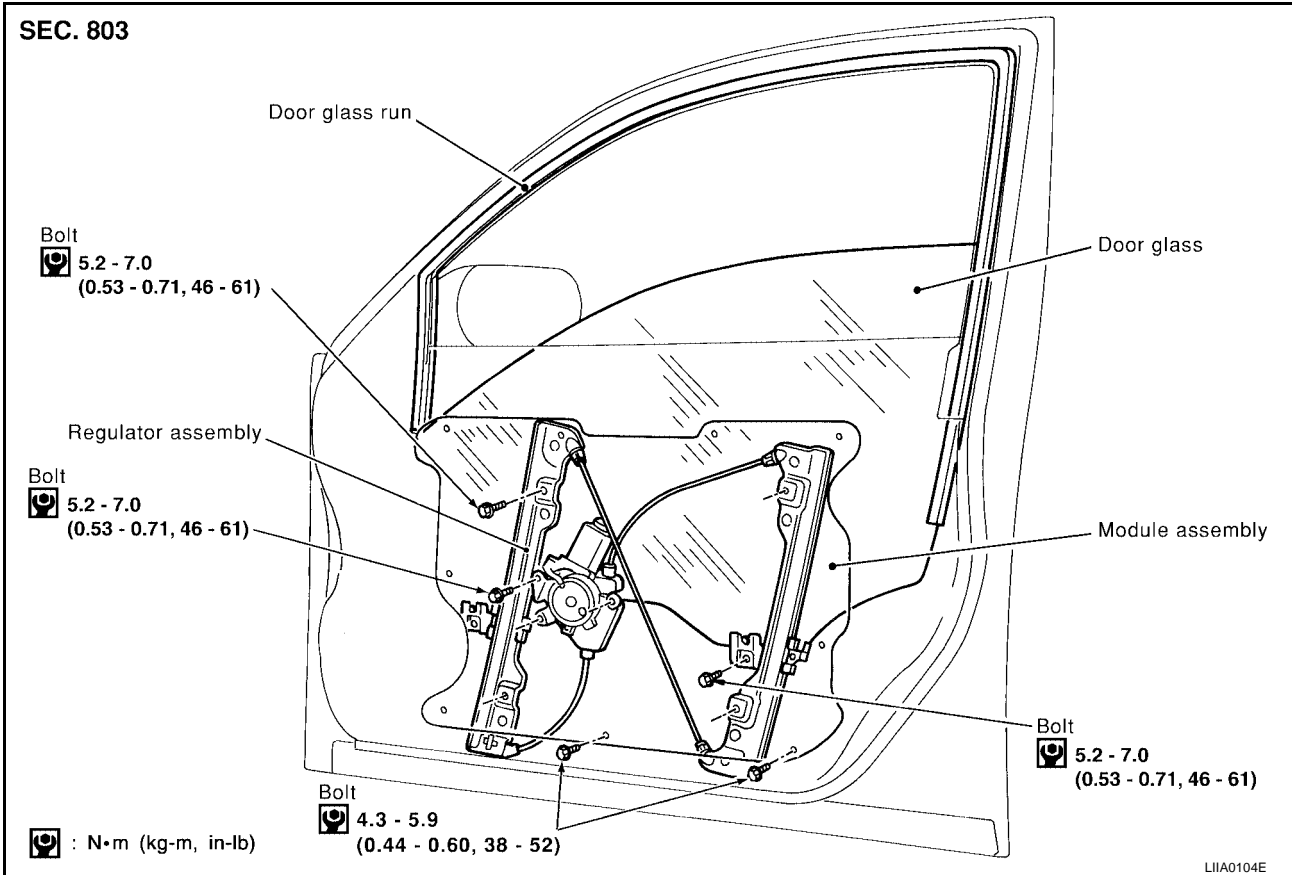
FRONT DOOR GLASS AND REGULATOR

PF:80300

Removal and Installation

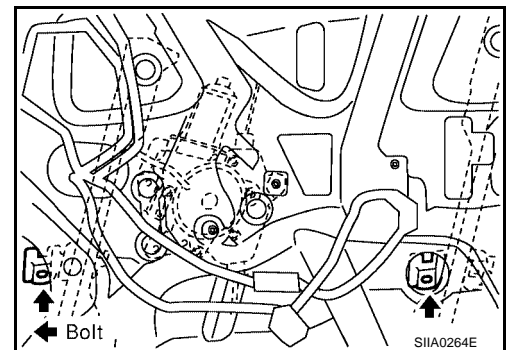
EIS001J1

SEC. 803

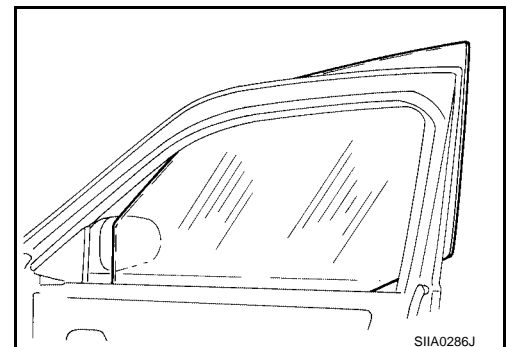


REMOVAL

1. Remove the front door finisher. Refer to [EI-30, "Front Door"](#).
2. Remove 2 hole covers over glass mounting bolts.
3. Operate the power window main switch to raise/lower the door window until the glass mounting bolts can be seen.
4. Remove the glass mounting bolts.
5. Remove the inside seal.



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

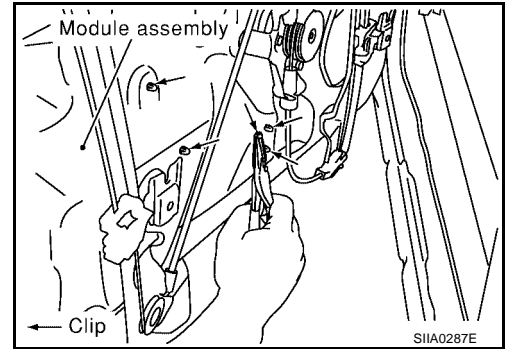


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FRONT DOOR GLASS AND REGULATOR

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

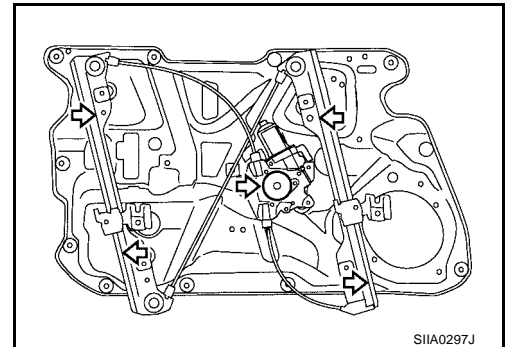


INSPECTION AFTER REMOVAL

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

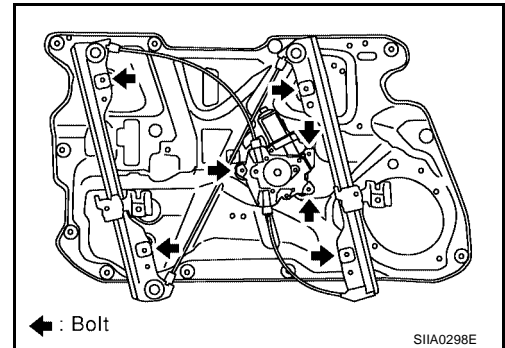
- Wire wear
- Regulator deformation
- Grease condition for each sliding part

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



DISASSEMBLY AND ASSEMBLY

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



INSTALLATION

1. Install the harness and connect the harness connector to the module assembly.
2. Install the module assembly. Refer to [GW-87, "Removal and Installation"](#).
3. Install the glass from outside to insure that it is in both the front and rear glass channels. Tighten glass mounting bolts to the specified torque.

Glass mounting bolts : 5.2 - 7.0 N·m (0.53 - 0.71 kg·m, 46 - 61 in·lb)

4. Install door finisher. Refer to [EI-30, "Front Door"](#).

FITTING INSPECTION

- Check that the glass is securely fit into the glass run groove.
- 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 mounting bolts, guide rail mounting bolts, and glass and guide rail mounting bolts to correct the glass position.

SETTING AFTER INSTALLATION

Setting of Limit Switch

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

- Removal and installation of the regulator.
- Removal and installation of the motor from the regulator.

FRONT DOOR GLASS AND REGULATOR

- Removal and installation of the glass.
- Removal and installation of the glass run.

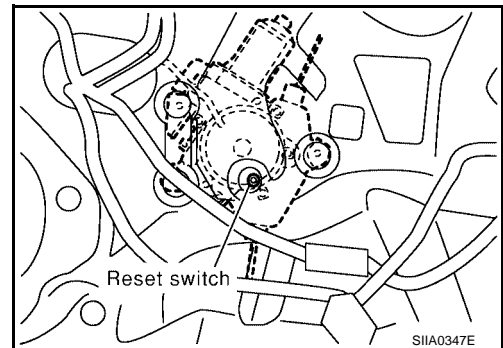
Resetting

After installing each component to the vehicle, perform the following procedure to reset the limit switch.

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

CAUTION:

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



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REAR DOOR GLASS AND REGULATOR

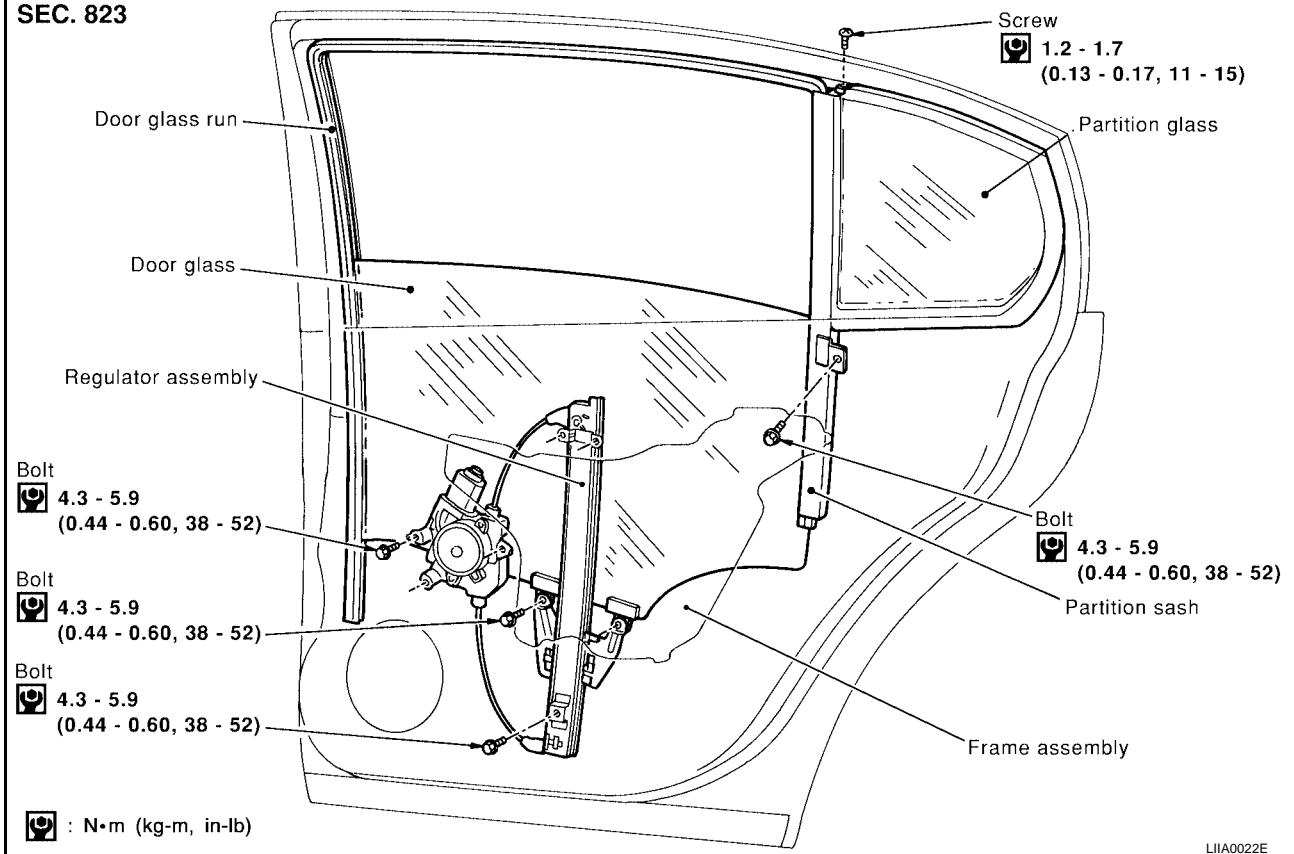
REAR DOOR GLASS AND REGULATOR

PF82300

Removal and Installation

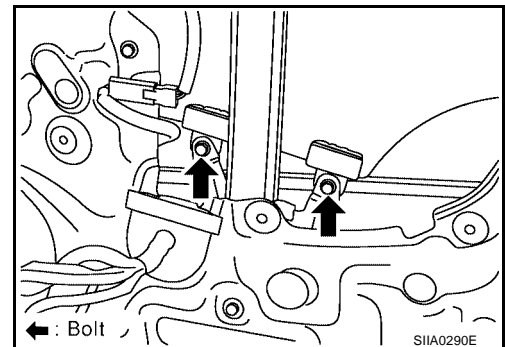
EIS001J2

SEC. 823

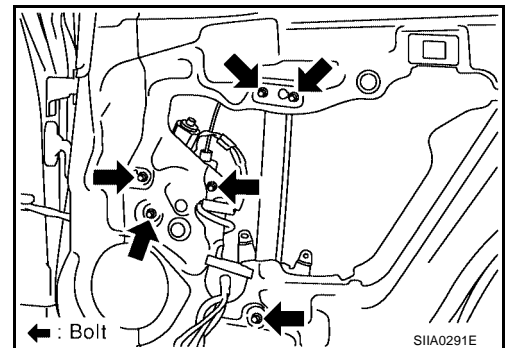


REMOVAL

1. Remove the rear door finisher. Refer to [EI-31, "Rear Door"](#).
2. Operate the power window switch to raise/lower the door window until the glass mounting bolts can be seen.
3. Remove the inside seal.
4. Remove the glass mounting bolts, and place the glass on the inner bottom of the panel.

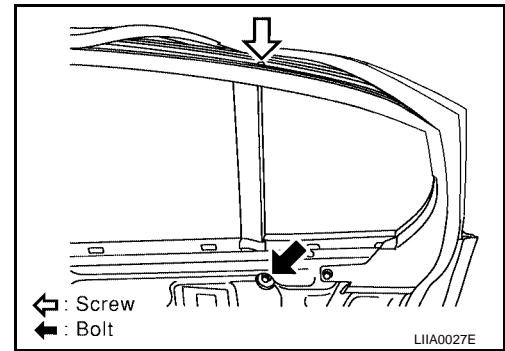


5. Remove the mounting bolts, and remove the regulator and guide channel from the panel.
6. Disconnect the connector for the regulator assembly.

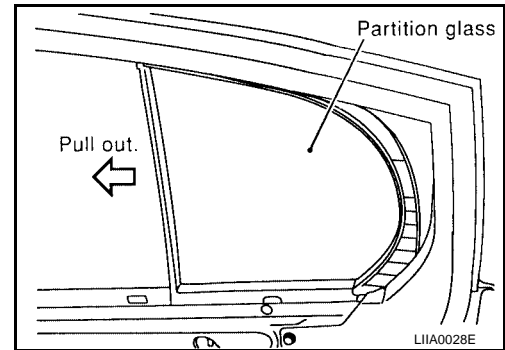


REAR DOOR GLASS AND REGULATOR

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



10. Remove the partition glass from the panel.

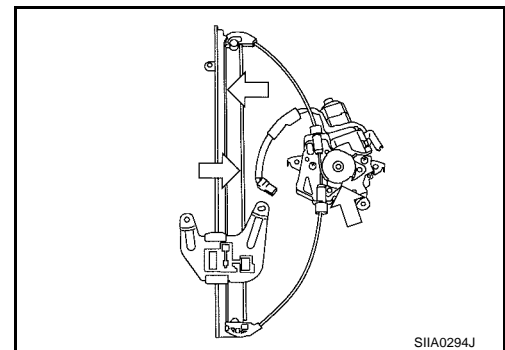


INSPECTION AFTER REMOVAL

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

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

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



INSTALLATION

Install in the reverse order of removal.

1. Install the partition glass in the panel.
2. Install the partition sash. Refer to [GW-90, "Removal and Installation"](#).
3. Connect the harness connector to the regulator assembly and install the regulator and guide channel. Refer to [GW-90, "Removal and Installation"](#).

4. Install the glass from outside to ensure that it is in both the front and rear glass channels. Tighten glass mounting bolts to the specified torque.

Glass mounting bolts : 4.3 - 5.9 N·m (0.44 - 0.60 kg-m, 38 - 52 in-lb)

5. Install the rear door finisher. Refer to [EI-31, "Rear Door"](#).

FITTING INSPECTION

- Check that the glass is securely fit into the glass run groove.
- 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 mounting bolts, guide rail mounting bolts, and glass and carrier plate mounting bolts to correct the glass position.

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INSIDE MIRROR

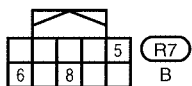
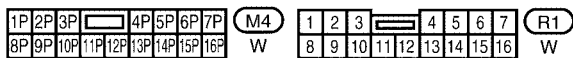
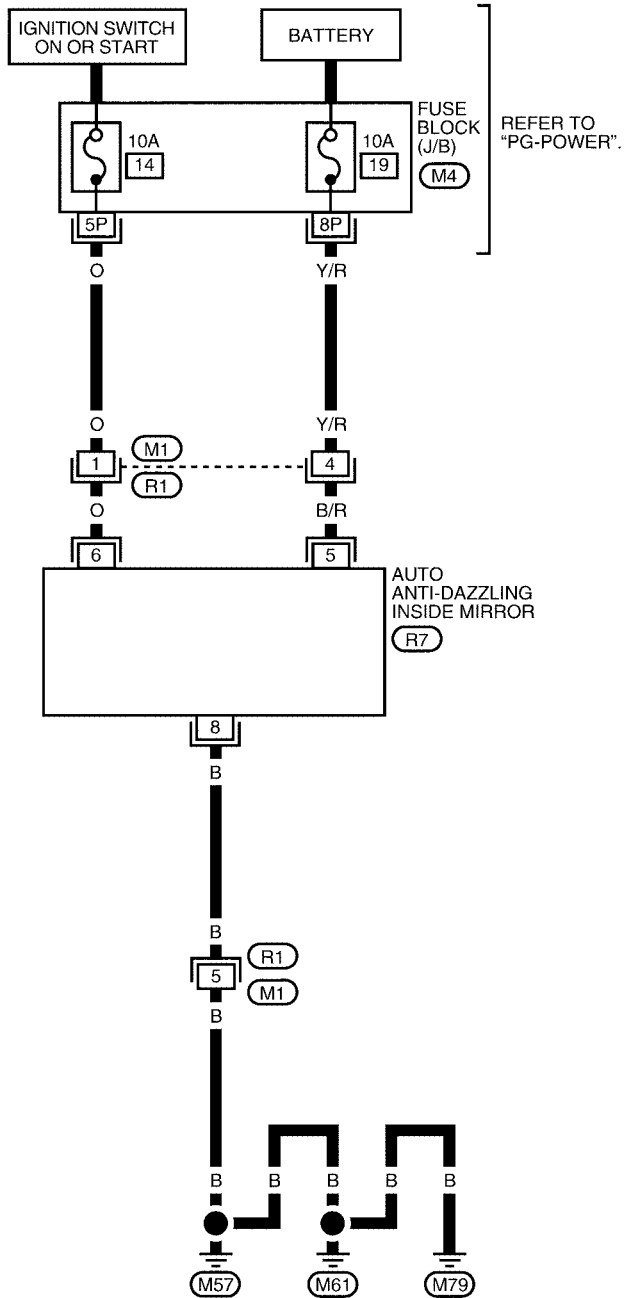
PFP:96321

INSIDE MIRROR

Wiring Diagram -I/MIRR-

EIS001J3

GW-I/MIRR-01



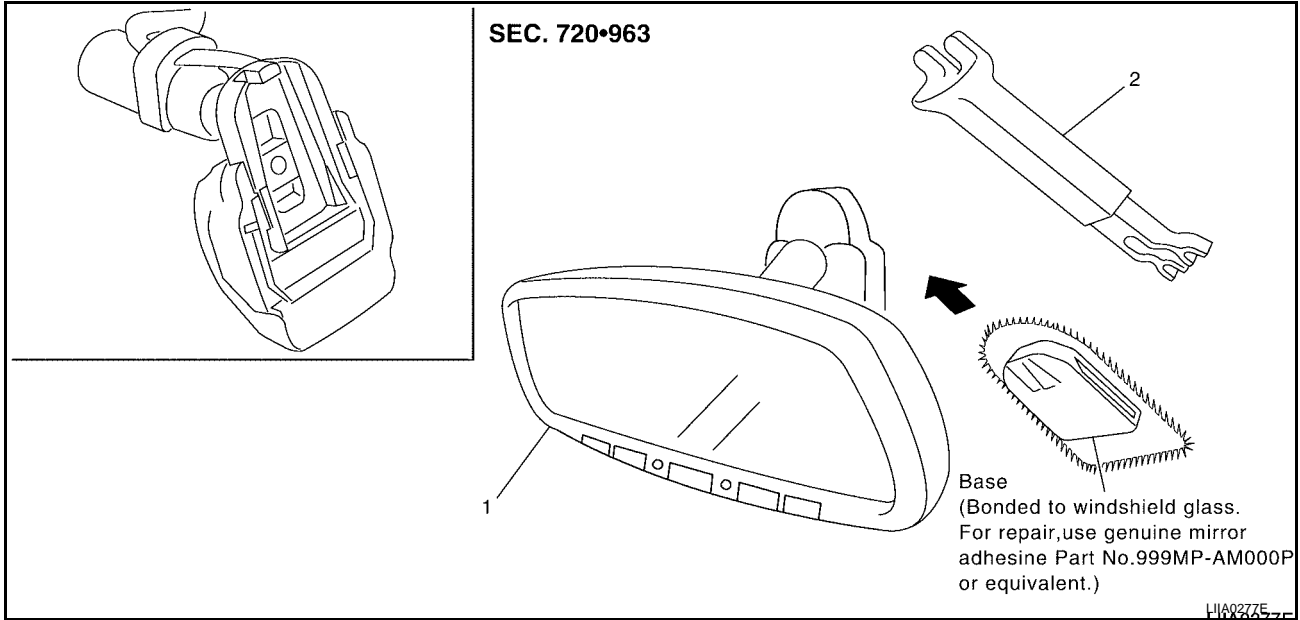
LIWA0066E

INSIDE MIRROR

EIS001J4

Removal and Installation INSIDE MIRROR

1. Remove connector cover.
2. Slide the mirror upward to remove.
3. Disconnect the connector.



1. Inside mirror

2. Inside mirror finisher

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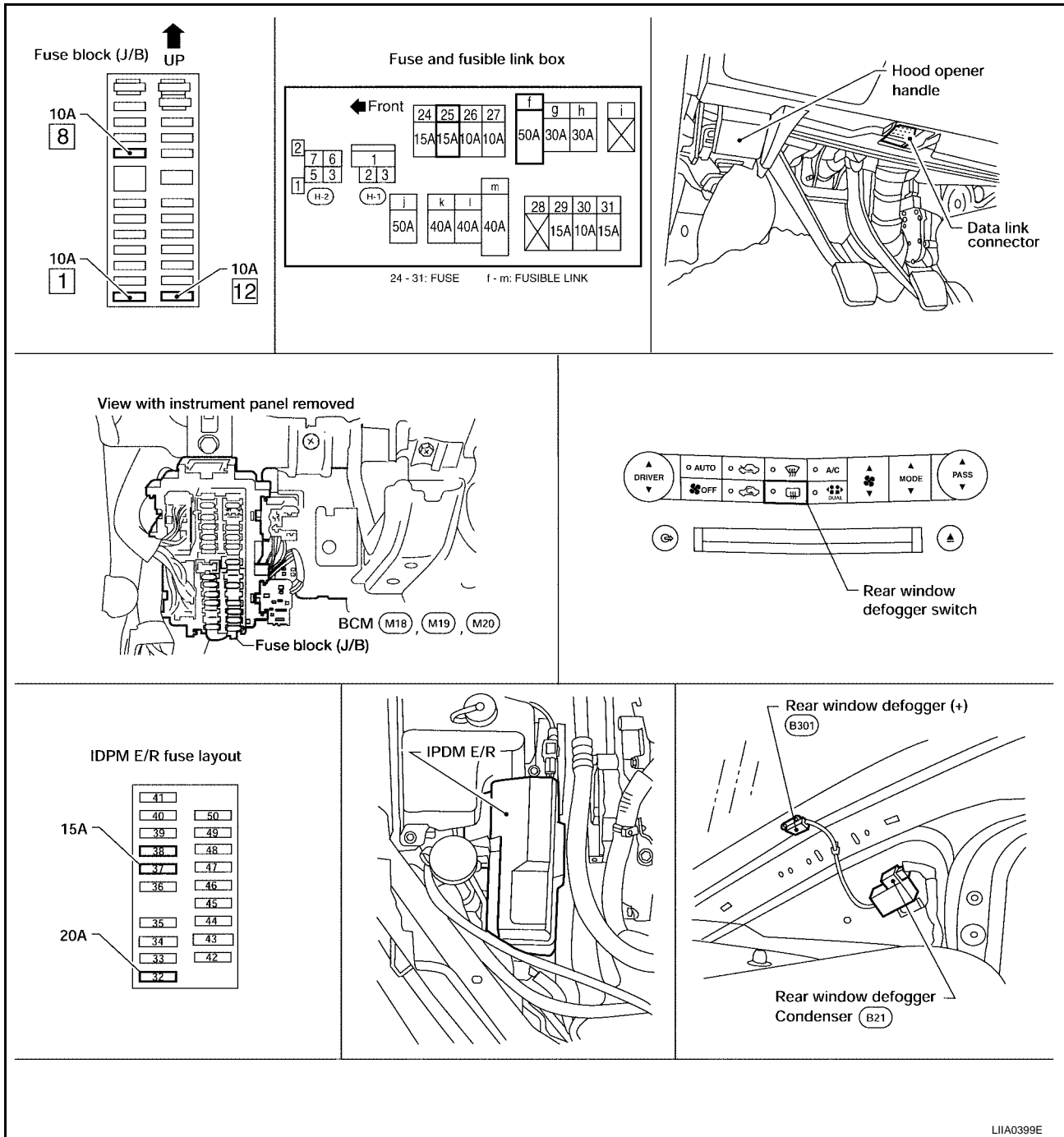
REAR WINDOW DEFOGGER

REAR WINDOW DEFOGGER

PFP:25350

Component Parts and Harness Connector Location

EIS0010R



LIA0399E

System Description

EIS0010S

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

The rear window defogger operates only for approximately 15 minutes.

Power is supplied at all times

- through 20A fuse (No. 32, and 37, located in the IPDM E/R)
- to rear window defogger relay terminals 3 and 6
- through 50A fusible link [letter f, located in the fuse block (J/B)]
- to BCM terminal 55.

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

REAR WINDOW DEFOGGER

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

Ground is supplied

- to BCM terminals 49 and 52
- to unified meter and A/C amp. terminal 29 and 30
- through body grounds M57, M61 and M79
- to IPDM E/R terminals 38 and 60
- through body grounds E15 and E24.

When unified meter and A/C amp. (rear window defogger switch) is turned to ON,

Ground is supplied

- to BCM terminal 9
- through unified meter and A/C amp. terminal 38
- through unified meter and A/C amp. terminal 29 and 30
- through body grounds M57, M61 and M79.

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 and display control unit (with navigation) or display unit (without navigation) via DATA LINE (CAN H, CAN L).

When display control unit (with navigation) or display unit (without navigation) receives rear window defogger switch signals, and display on the screen.

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

Ground is supplied

- to rear window defogger relay terminal 2
- through IPDM E/R terminal 52
- through IPDM E/R terminal 60
- through body grounds E15 and E24

and then rear window defogger relay is energized.

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

When rear window defogger relay is turned to ON, (with door mirror defogger)

Power is supplied

- through rear window defogger relay terminals 5 and 7
- through fuse block (J/B) terminal 2q
- through 10A fuse [No. 8, located in the fuse block (J/B)]
- through fuse block (J/B) terminal 5n.
- to door mirror defogger (LH and RH) terminal 2.

Door mirror defogger (LH and RH) terminal 1 is grounded through body grounds M57, M61 and M79.

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

CAN Communication System Description

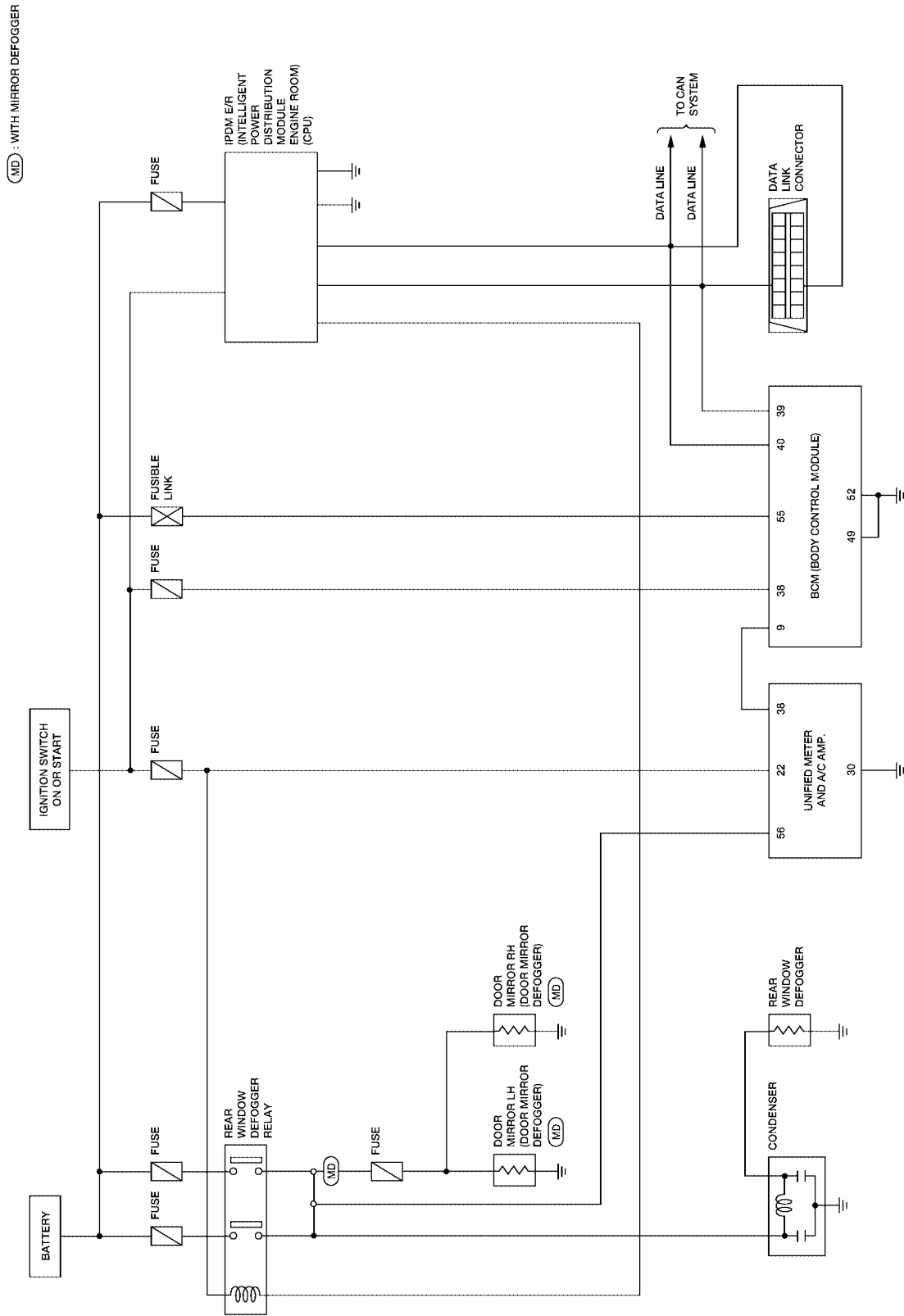
EIS001J7

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

REAR WINDOW DEFOGGER

Schematic – DEF –

EIS0010T



REAR WINDOW DEFOGGER

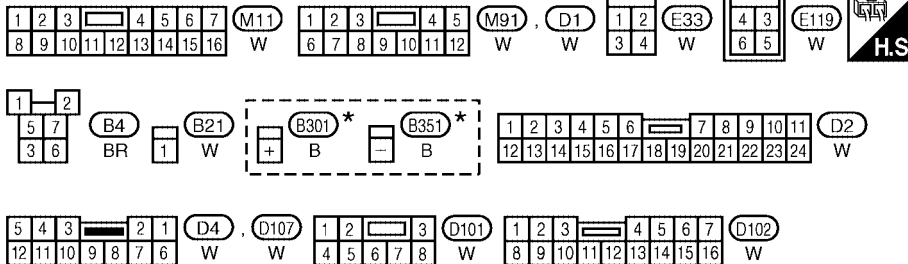
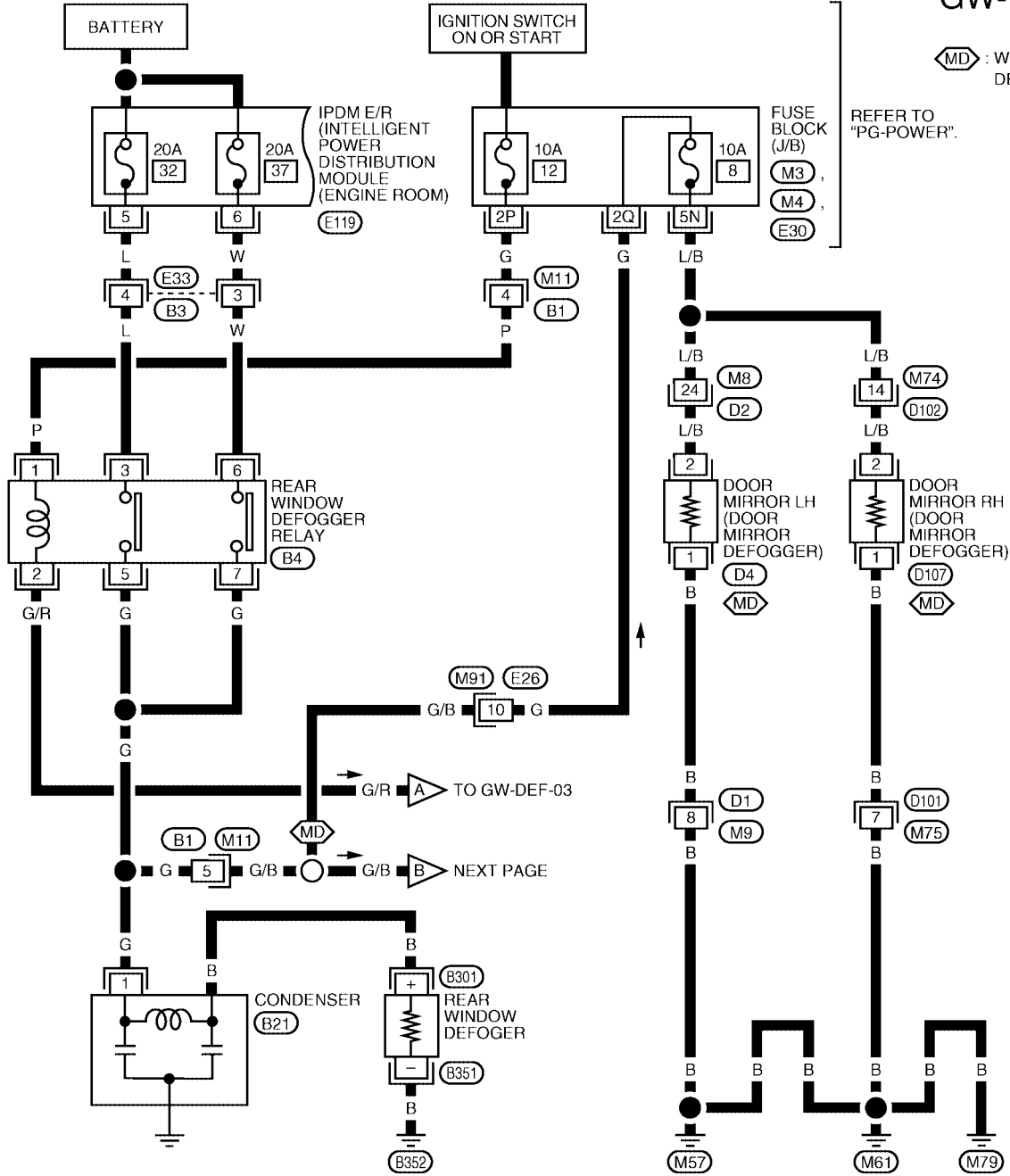
EIS0010U

Wiring Diagram -DEF-

GW-DEF-01

MD : WITH MIRROR DEFOGGER

REFER TO "PG-POWER".



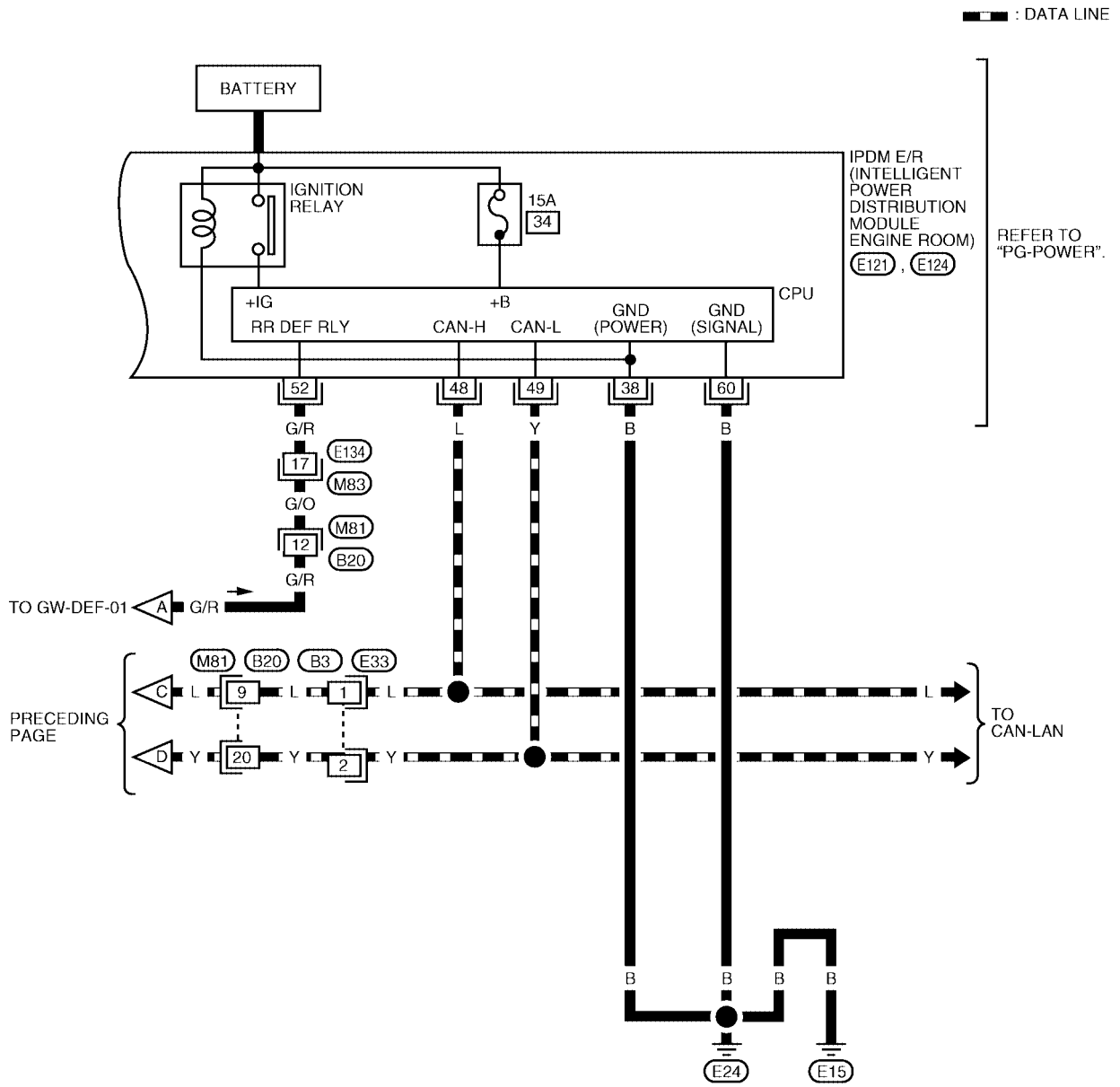
REFER TO THE FOLLOWING.
 M3, M4, E30 - FUSE BLOCK - JUNCTION BOX (J/B)

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

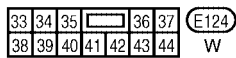
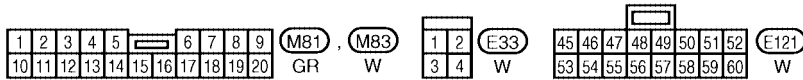
LJWA0068E

REAR WINDOW DEFOGGER

GW-DEF-02



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LIWA0070E

REAR WINDOW DEFOGGER

Terminal and Reference Value for BCM

EIS0010V

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
9	W	Rear window defogger switch signal	When rear window defogger switch is pressed.	0
			When rear window defogger switch is OFF.	5
38	G	Ignition switch ON or START	Ignition switch (ON or START position)	Battery voltage
39	L	CAN H	—	—
40	Y	CAN L	—	—
49	B	Ground	—	0
52	B	Ground	—	0
55	W/B	Battery power supply	—	Battery voltage

Terminal and Reference Value for IPDM E/R

EIS0010W

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
5	W	Battery power supply	—	Battery voltage
6	L	Battery power supply	—	Battery voltage
38	B	Ground (Power)	—	0
48	L	CAN H	—	—
49	Y	CAN L	—	—
52	G/R	Rear window defogger relay control signal	When rear window defogger switch is ON.	0
			When rear window defogger switch is OFF.	Battery voltage
60	B	Ground (Signal)	—	0

Work Flow

EIS0010X

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-94, "System Description"](#) .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to [GW-102, "Trouble Diagnoses Symptom Chart"](#) .
4. Does rear window defogger operate normally? YES: GO TO 5, NO: GO TO 3.
5. INSPECTION END.

REAR WINDOW DEFOGGER

EIS0010Y

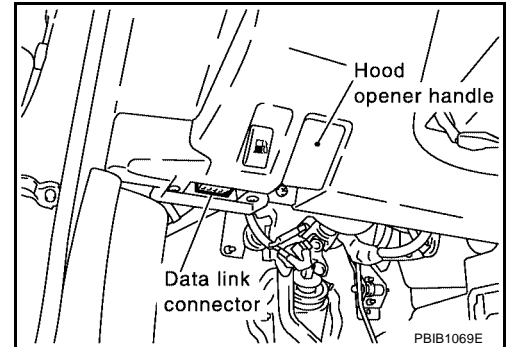
CONSULT-II Function

CONSULT-II BASIC OPERATION PROCEDURE

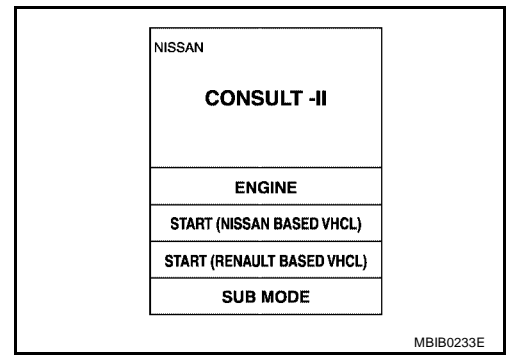
CAUTION:

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.

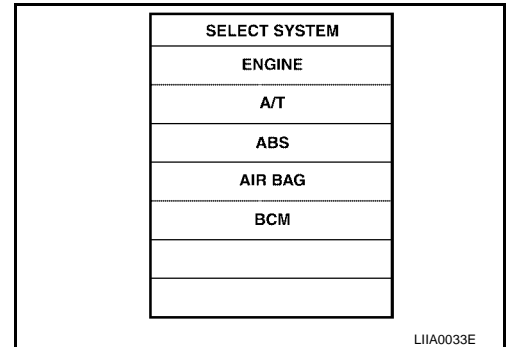
1. Turn ignition switch OFF.
2. Connect "CONSULT-II" and CONSULT-II CONVERTER to data link connector.



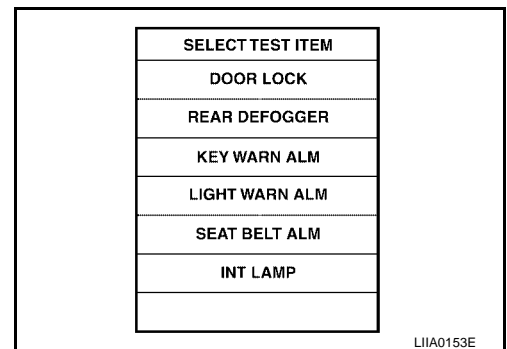
3. Turn ignition switch ON.
4. Touch "START (NISSAN BASED VHCL)".



5. Touch "BCM".
If "BCM" is not indicated, go to [GI-36](#) , "CONSULT-II Date Link Connector (DLC) Circuit"



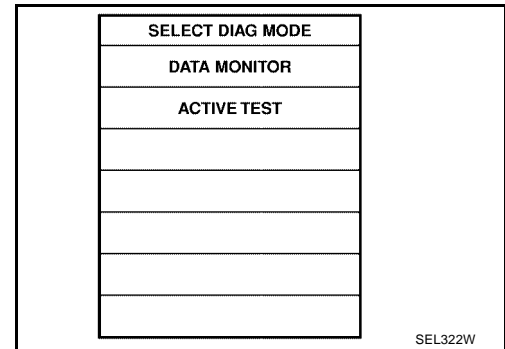
6. Touch "REAR WINDOW DEFOGGER".



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REAR WINDOW DEFOGGER

7. Select diagnosis mode, "DATA MONITOR" and "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.

Trouble Diagnoses Symptom Chart

EIS0010Z

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

Symptom	Diagnoses / Service procedure	Refer to page
Rear window defogger and door mirror defoggers do not operate. (With door mirror defogger)	1. BCM power supply and ground circuit check	GW-103
	2. IPDM E/R auto active test check	PG-19
	3. Rear window defogger switch circuit check	GW-104
	4. Rear window defogger power supply circuit check	GW-105
	5. Replace IPDM E/ R	PG-26
Rear window defogger does not operate. (Without door mirror defogger)	1. BCM power supply and ground circuit check	GW-103
	2. IPDM E/R auto active test check	PG-19
	3. Rear window defogger switch circuit check	GW-104
	4. Rear window defogger power supply circuit check	GW-105
	5. Rear window defogger circuit check	GW-107
	6. Filament check	GW-112
	7. Replace IPDM E/ R	PG-26
Rear window defogger does not operate but both of door mirror defoggers operate. (With door mirror defogger)	1. Rear window defogger circuit check	GW-107
	2. Filament check	GW-112
Both door mirror defoggers do not operate but rear window defogger operates. (With door mirror defogger)	1. Door mirror defogger power supply circuit check	GW-108
Driver side door mirror defogger does not operate.	1. Driver side door mirror defogger circuit check	GW-110
Passenger side door mirror defogger does not operate.	1. Passenger side door mirror defogger circuit check	GW-111
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-112

REAR WINDOW DEFOGGER

EIS001P0

BCM Power Supply and Ground Circuit Check

1. CHECK FUSE

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

NOTE:

Refer to [GW-94, "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-3, "POWER SUPPLY ROUTING CIRCUIT"](#) .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM connector M18, M19 terminal 38, 55 and ground.

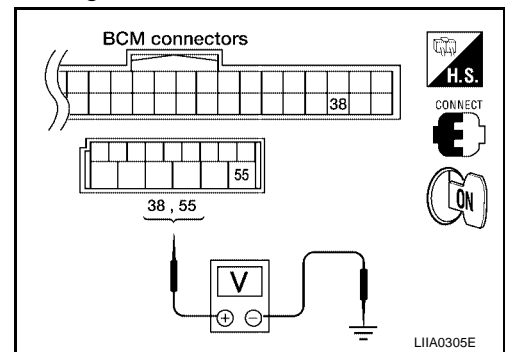
55 (W/B) – Ground :Battery voltage

38 (G) – 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 M19 terminals 48, 52 and ground.

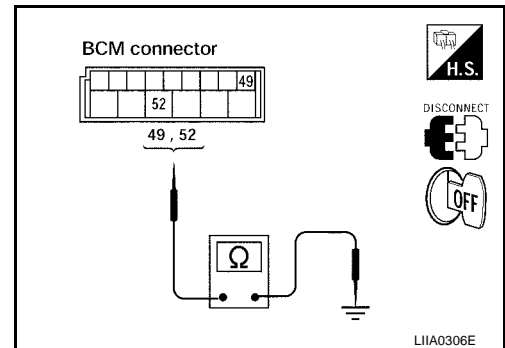
49 (B) – Ground : Continuity should exist.

52 (B) – Ground : Continuity should exist.

OK or NG

OK >> BCM power supply and ground circuit is OK.

NG >> Repair or replace harness.



REAR WINDOW DEFOGGER

EIS001P1

Rear Window Defogger Switch Circuit Check

1. CHECK REAR WINDOW DEFOGGER SWITCH OPERATION

④ With CONSULT-II

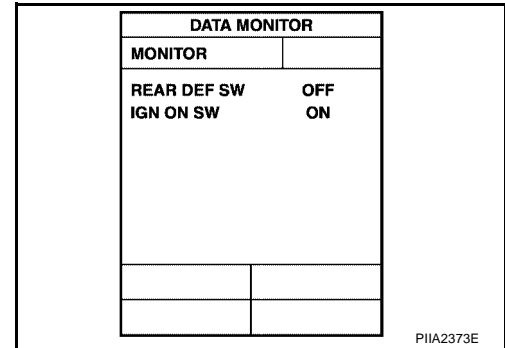
Check ("REAR DEF SW", "IGN ON SW") in DATA MONITOR mode with CONSULT-II.

When rear window defogger switch is turned to ON

REAR DEF SW : ON

When ignition switch is turned to ON

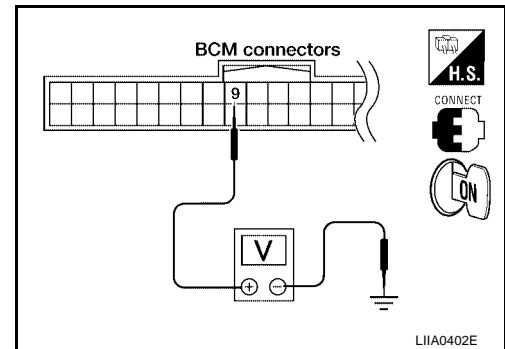
IGN ON SW : ON



⊗ With out CONSULT-II

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M18	9 (W)	Ground	Rear window defogger switch is pressed.	0
			Rear window defogger switch is OFF.	5



OK or NG

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

2. CHECK REAR WINDOW DEFOGGER SWITCH CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and unified meter and A/C amp.
3. Check continuity between BCM connector M18 terminal 9 and unified meter and A/C amp. connector M89 terminal 38.

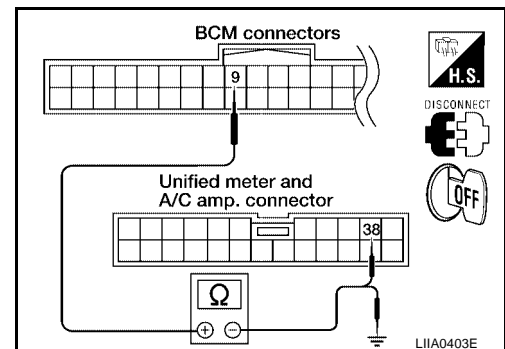
9 (W) – 38 (W) : Continuity should exist.

4. Check continuity between BCM connector M18 terminal 9 and ground

9 (W) – Ground : Continuity should not exist.

OK or NG

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



REAR WINDOW DEFOGGER

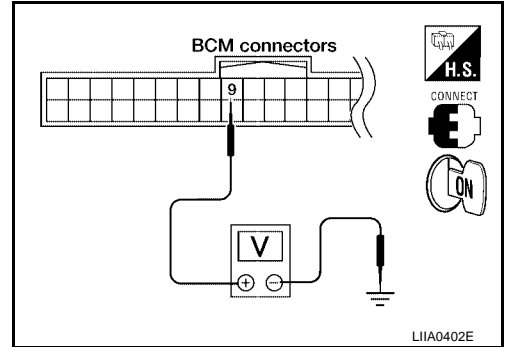
3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M18 terminal 9 and ground.

9 (W) – Ground : Approx. 5

OK or NG

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



Rear Window Defogger Power Supply Circuit Check

EIS001P2

1. CHECK FUSE

Check if any of the following fuses for fuse block (J/B) and IPDM E/R are blown.

COMPONENT PARTS	TERMINAL NO. (SIGNAL)	AMPERE	FUSE NO.
Fuse block (J/B)	2P (Ignition power supply)	10A	#12
IPDM E/R	5 (Battery power supply)	20A	#37
	6 (Battery power supply)	20A	#32

NOTE:

Refer to [GW-94, "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 [GW-94, "Component Parts and Harness Connector Location"](#).

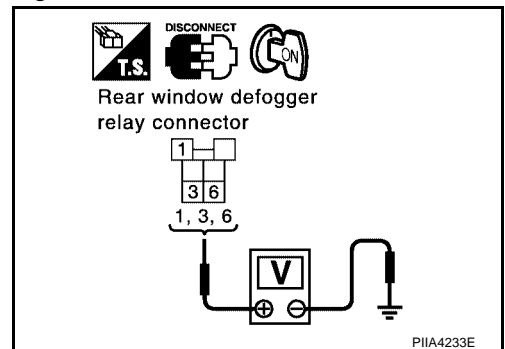
2. CHECK REAR WINDOW DEFOGGER RELAY POWER SUPPLY CIRCUIT

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

Connector	Terminals (Wire color)		Voltage (V) (Approx.)
	(+)	(-)	
B4	1 (P)	Ground	Battery voltage
	3 (L)		
	6 (W)		

OK or NG

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



REAR WINDOW DEFOGGER

3. CHECK REAR WINDOW DEFOGGER RELAY

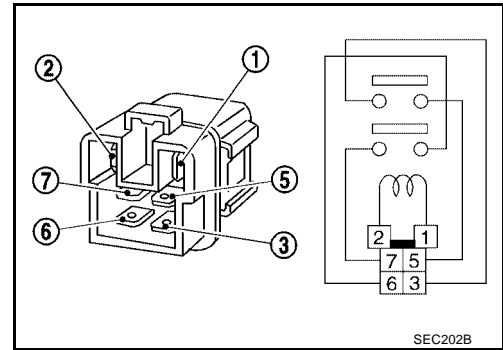
Check continuity between rear window defogger terminals 3 and 5, 6 and 7.

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

OK or NG

OK >> GO TO 4

NG >> Replace rear window defogger relay.



4. CHECK REAR WINDOW DEFOGGER RELAY GROUND CIRCUIT

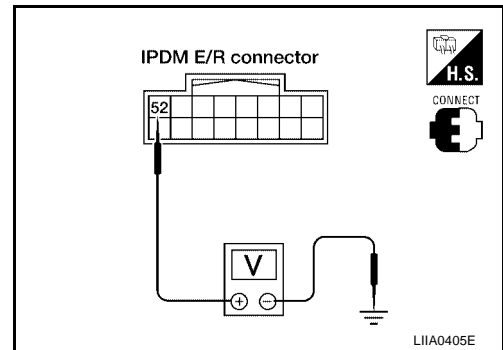
1. Install rear window defogger relay.
2. Turn ignition switch ON.
3. Check voltage between IPDM E/R connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
E121	52 (G/R)	Ground	When rear window defogger switch ON	0
			When rear window defogger switch OFF	Battery voltage

OK or NG

OK >> Rear window defogger power supply circuit check is OK.

NG >> GO TO 5



5. CHECK IPDM E/R HARNESS

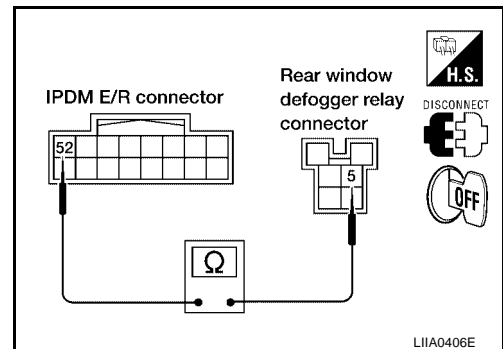
1. Turn ignition switch OFF.
2. Disconnect IPDM E/R and rear window defogger relay.
3. Check continuity between IPDM E/R connector E121 terminal 52 and rear window defogger relay connector B4 terminal 2.

52 (G/R) – 2 (G/R) : Continuity should exist.

OK or NG

OK >> GO TO 6

NG >> Repair or replace harness.



REAR WINDOW DEFOGGER

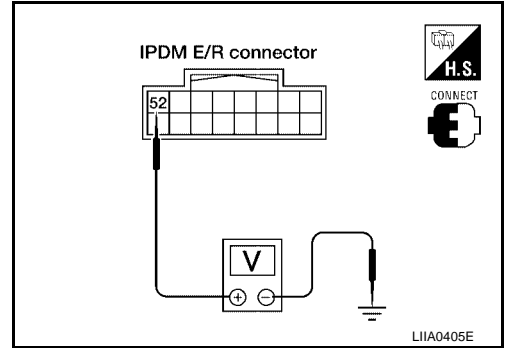
6. CHECK REAR WINDOW DEFOGGER RELAY OUTPUT SIGNAL

1. Connect IPDM E/R and rear window defogger relay.
2. Turn ignition switch ON.
3. Check voltage between IPDM E/R connector E121 terminal 52 and ground.

52 (G/R) – Ground : Battery voltage

OK or NG

- OK >> Replace IPDM E/R.
 NG >> Repair or replace harness.



Rear Window Defogger Circuit Check

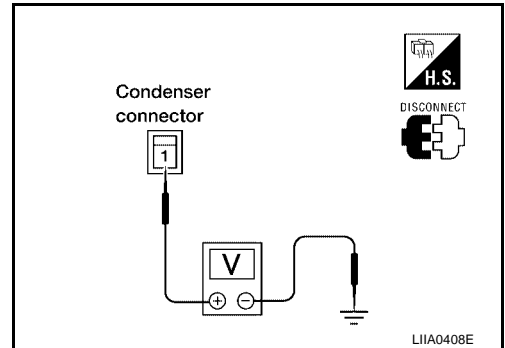
1. CHECK REAR WINDOW DEFOGGER POWER SUPPLY CIRCUIT 1

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
B21	1 (G)	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



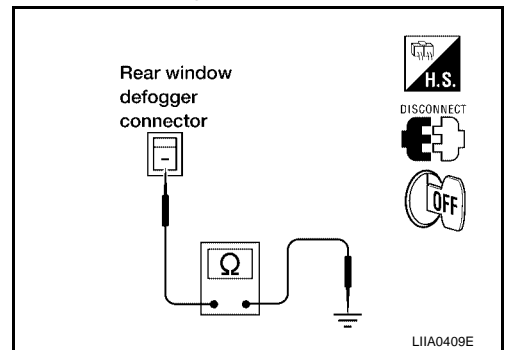
2. CHECK REAR WINDOW DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between rear window defogger connector B351 terminal - and ground.

- (B) – Ground : Continuity should exist.

OK or NG

- OK >> Check filament. Refer to [GW-112, "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.



REAR WINDOW DEFOGGER

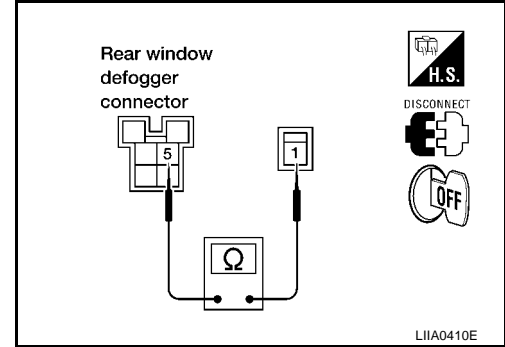
3. CHECK CONDENSER HARNESS

1. Turn ignition switch OFF.
2. Disconnect rear window defogger relay.
3. Check continuity between rear window defogger relay connector B4 terminal 5 and condenser connector B21 terminal 1.

5 (G) – 1 (G) : Continuity should exist.

OK or NG

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



Door Mirror Defogger Power Supply Circuit Check

EIS001P4

1. CHECK FUSE

Check if any of the following fuses for fuse block (J/B) are blown.

COMPONENT PARTS	TERMINAL NO. (SIGNAL)	AMPERE	FUSE NO.
Fuse block (J/B)	5N (Battery power supply)	10A	#8

NOTE:

Refer to [GW-94, "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 [GW-94, "Component Parts and Harness Connector Location"](#) .

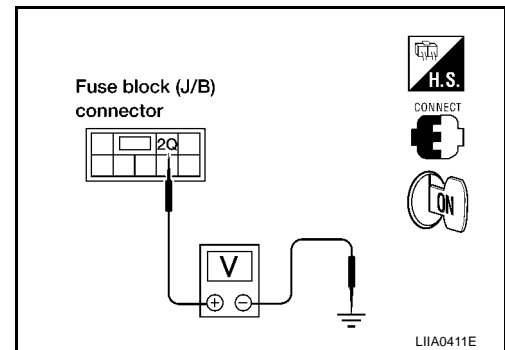
2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 1

1. Turn ignition switch ON.
2. Check voltage between fuse block (J/B) connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
E30	2Q (G/B)	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF	0

OK or NG

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



REAR WINDOW DEFOGGER

3. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY 2

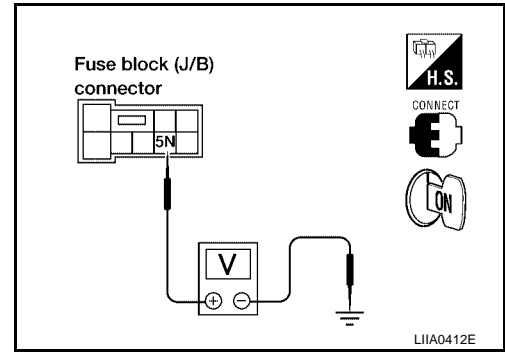
Check voltage between fuse block (J/B) connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
M3	5N (L/B)	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF	0

OK or NG

OK >> GO TO 4

NG >> Replace fuse block (J/B).



4. CHECK DOOR MIRROR DEFOGGER CIRCUIT

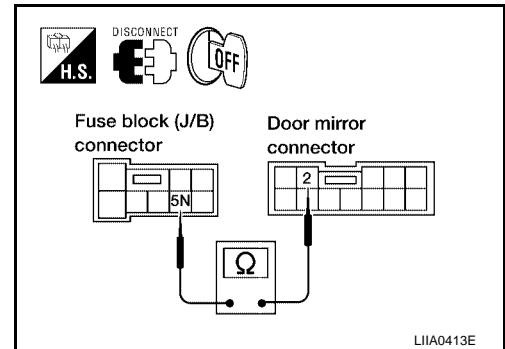
1. Turn ignition switch OFF.
2. Disconnect fuse block (J/B) and door mirror LH or RH.
3. Check continuity between fuse block (J/B) connector M3 terminal 5N and door mirror connector D4 (LH) or D107 (RH) terminal 2.

5N (L/B) – 2 (L/B) : Continuity should exist.

OK or NG

OK >> GO TO 5

NG >> Repair or replace harness.



5. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

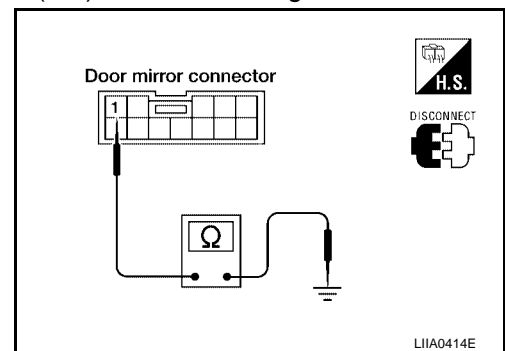
Check continuity between each door mirror connector D4 (LH) or D107 (RH) terminal 1 and ground.

1 (B) – Ground : Continuity should exist.

OK or NG

OK >> GO TO 6

NG >> Repair or replace harness.



REAR WINDOW DEFOGGER

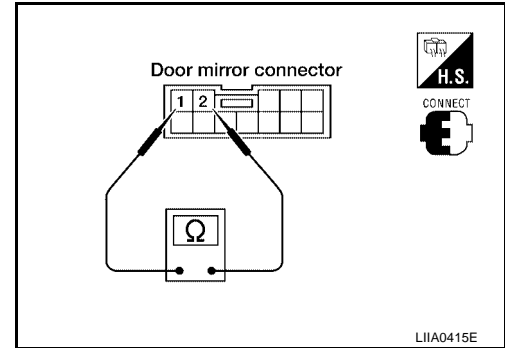
6. CHECK DOOR MIRROR DEFOGGER

1. Connect door mirror LH or RH.
2. Check continuity between each door mirror connector D4 (LH), D107 (RH) terminals 1 and 2.

2 (L/B) – 1 (B) : Continuity should exist.

OK or NG

- OK >> Check the condition of the harness and the connector.
 NG >> Replace malfunctioning door mirror LH or RH.



Door Mirror LH Defogger Circuit Check

EIS001P5

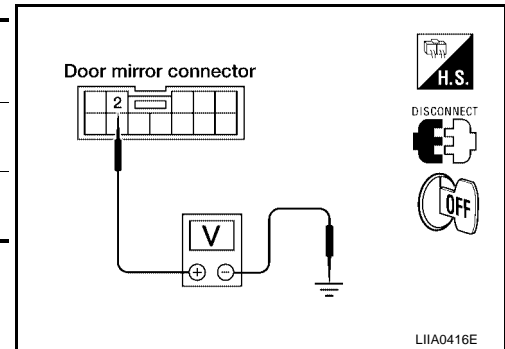
1. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror LH.
3. Turn ignition switch ON.
4. Check voltage between door mirror LH connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D4	2 (L/B)	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF	0

OK or NG

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



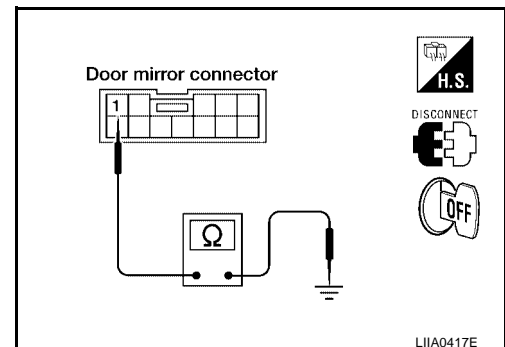
2. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between door mirror LH connector D4 terminal 1 and ground.

1 (B) – Ground : Continuity should exist.

OK or NG

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



REAR WINDOW DEFOGGER

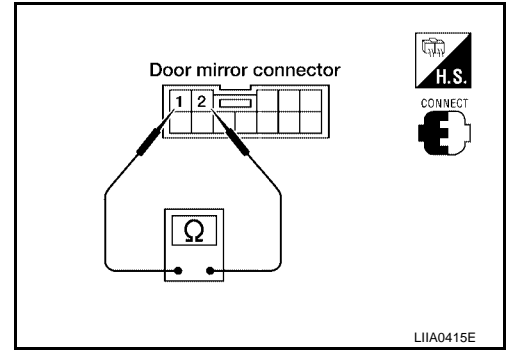
3. CHECK DOOR MIRROR DEFOGGER

1. Connect door mirror LH.
2. Check continuity between door mirror LH connector D4 terminals 1 and 2.

2 (L/B) –1 (B) : Continuity should exist.

OK or NG

- OK >> Repair or replace harness.
 NG >> Replace door mirror LH.



Door Mirror RH Defogger Circuit Check

EIS001P6

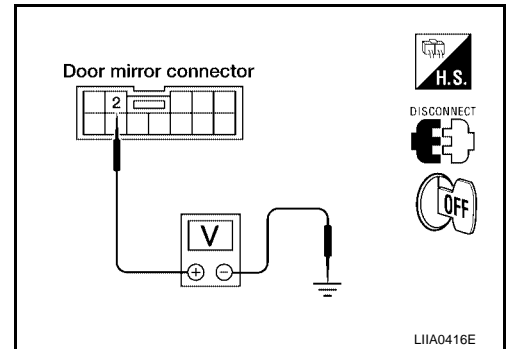
1. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror RH.
3. Turn ignition switch ON.
4. Check voltage between door mirror RH connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D107	2 (L/B)	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF	0

OK or NG

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



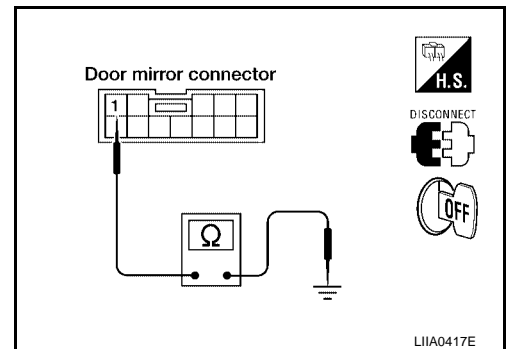
2. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between door mirror RH connector D107 terminal 1 and ground.

1 (B) – Ground : Continuity should exist.

OK or NG

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



REAR WINDOW DEFOGGER

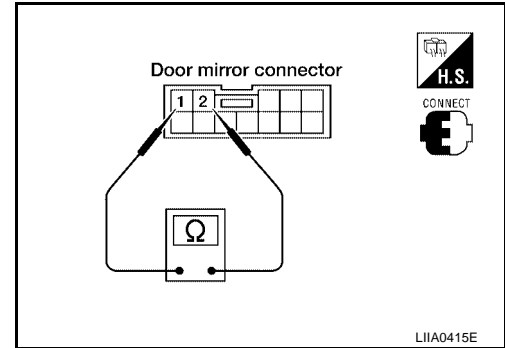
3. CHECK DOOR MIRROR DEFOGGER

1. Connector door mirror RH.
2. Check continuity between each door mirror RH connector D107 terminals 1 and 2.

2 (L/B) – 1 (B) : Continuity should exist.

OK or NG

- OK >> Repair or replace harness.
NG >> Replace door mirror RH.



Rear Window Defogger Signal Check

EIS001P7

1. CHECK REAR WINDOW DEFOGGER SWITCH LAMP

Unified meter and A/C amp. self-diagnosis is executed. Refer to [AV-82, "AV Switch Self-Diagnosis Function"](#)

Does rear window defogger switch light?

OK or NG

- OK >> GO TO 2
NG >> Replace unified meter and A/C amp.

2. CHECK AV COMMUNICATION LINE

AV communication line check is executed. Refer to [AV-89, "AV Communication Line Check"](#)

Is rear window defogger displayed on the display?

OK or NG

- OK >> GO TO 3
NG >> Replace display control unit.

3. CHECK CAN COMMUNICATION LINE

CAN communication line check is executed. Refer to [AV-90, "CAN Communication Line Check"](#)

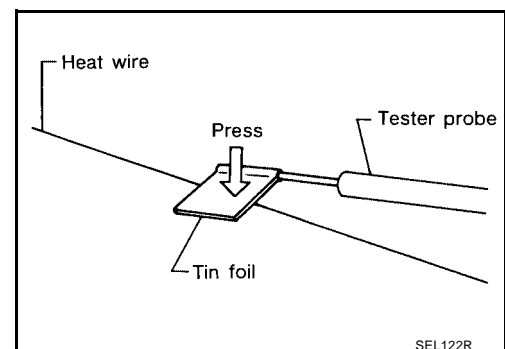
OK or NG

- OK >> Check the condition of the harness and the connector.
NG >> In addition, it is necessary to check CAN communication line. Refer to [AV-90, "CAN Communication Line Check"](#)

Filament Check

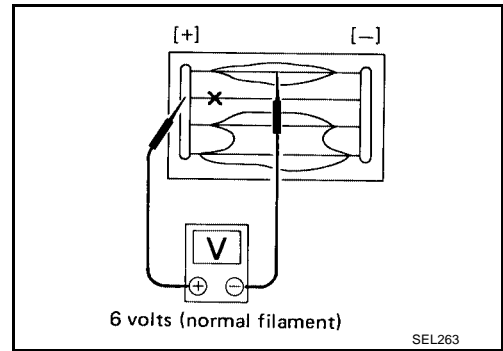
EIS001JH

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

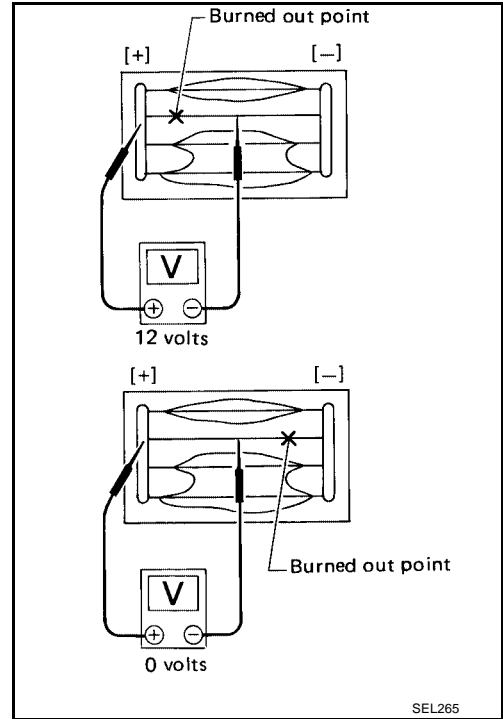


REAR WINDOW DEFOGGER

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



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

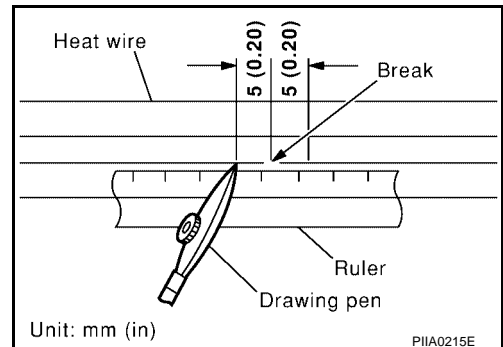


Filament Repair REPAIR EQUIPMENT

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

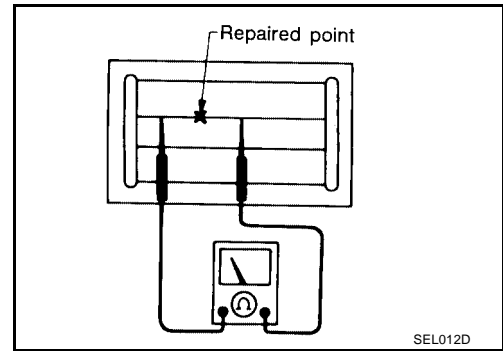
REPAIRING PROCEDURE

- Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
- Apply a small amount of conductive silver composition to tip of drawing pen. Shake silver composition container before use.
- 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.

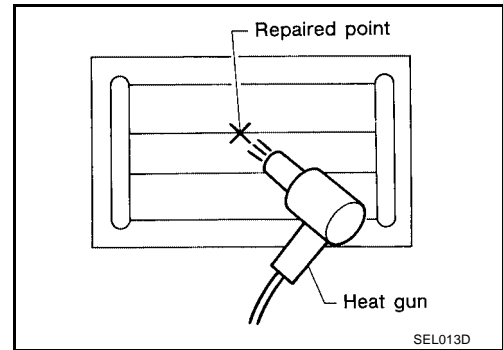


REAR WINDOW DEFOGGER

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

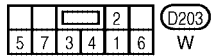
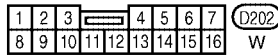
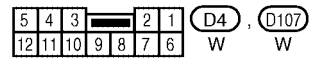
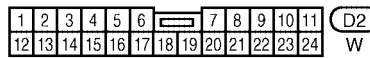
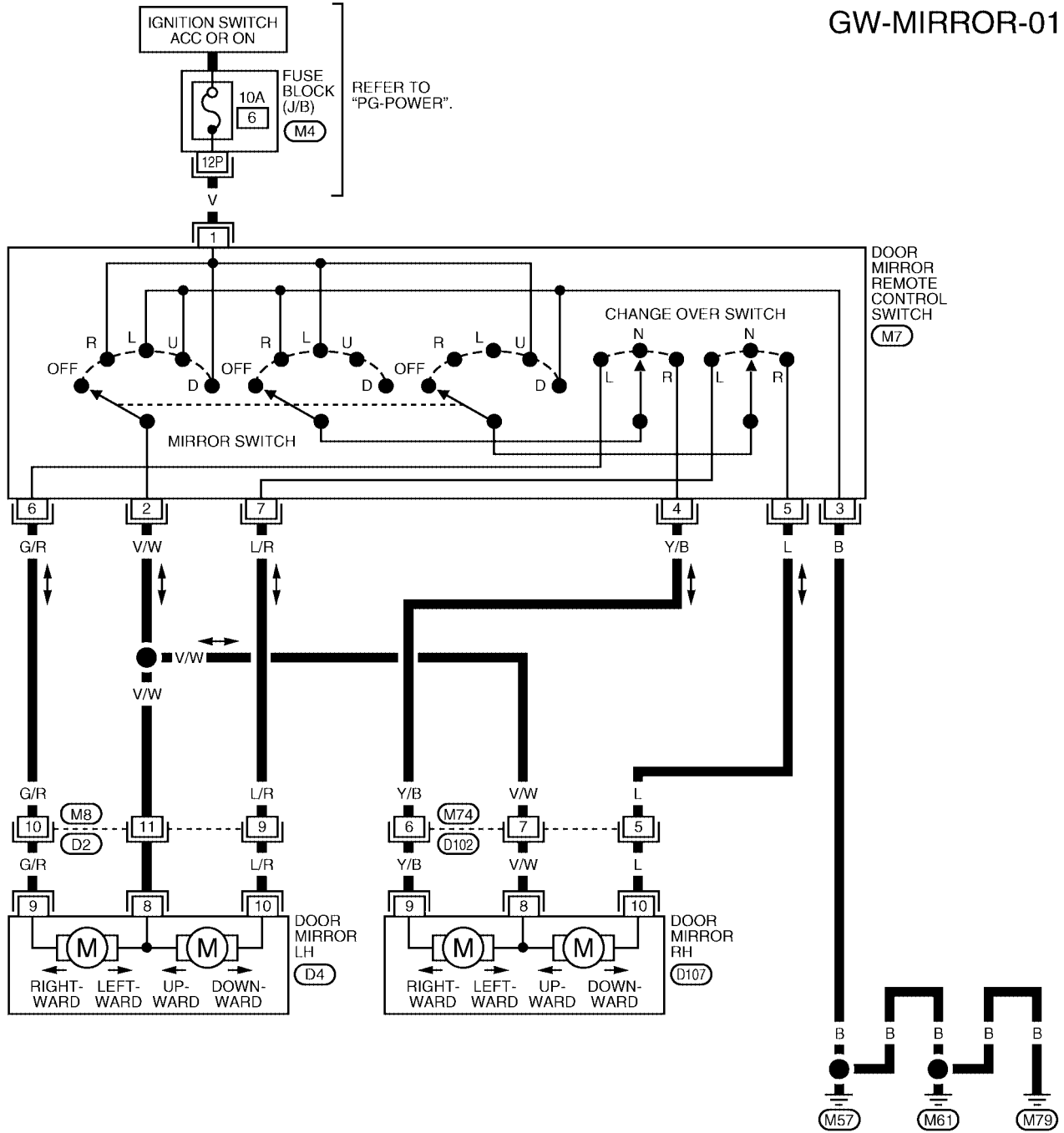
DOOR MIRROR

Wiring Diagram –MIRROR–

PF9:96301

EIS001JJ

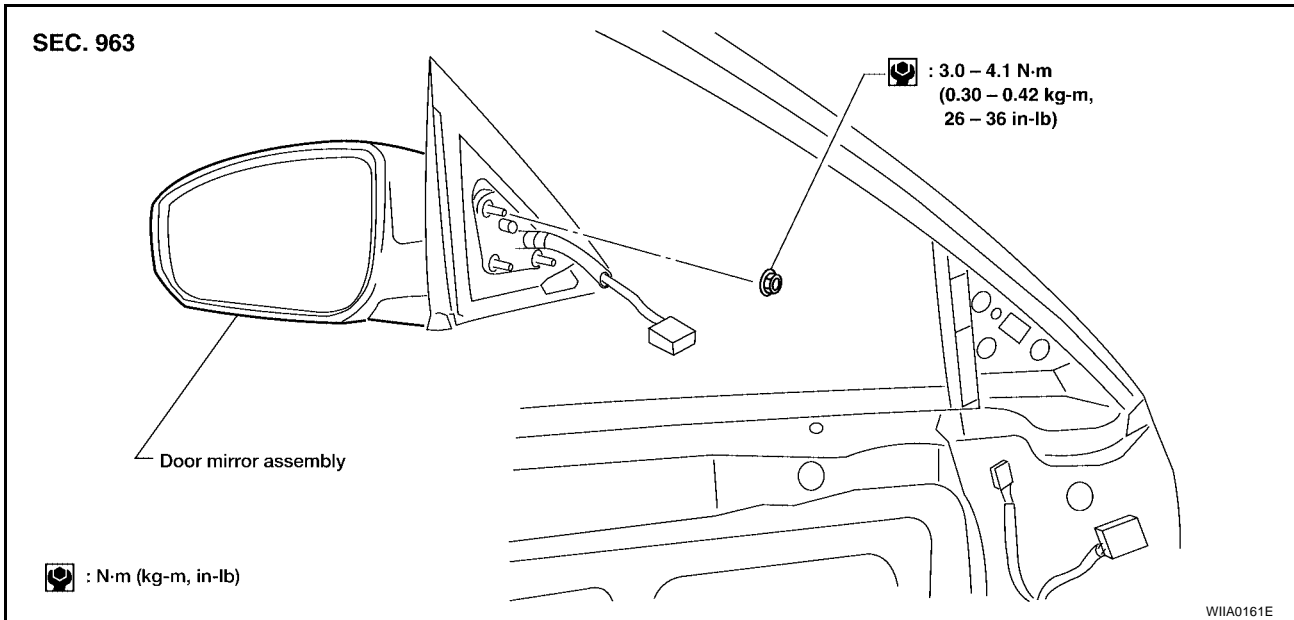
GW-MIRROR-01



DOOR MIRROR

Door Mirror Assembly

EIS001JK



REMOVAL AND INSTALLATION

NOTE:

Be careful not to damage the mirror bodies.

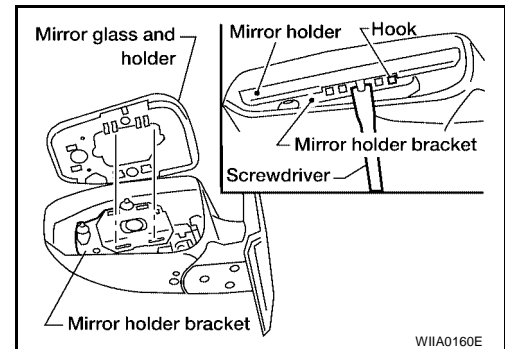
1. Remove the front door sash cover. Refer to [AV-57, "Removal and Installation of Tweeter"](#).
2. Remove the door mirror harness connector.
3. Remove the door mirror mounting nuts, and remove the door mirror assembly.

Install in the reverse order of removal.

Door Mirror Glass

REMOVAL

1. Set mirror assembly mirror glass upward.
2. Apply protective tape to mirror housing as shown.
3. Insert a screwdriver as shown and remove mirror glass by pushing up two hooks.
4. Disconnect two electrical connectors from mirror holder.



INSTALLATION

1. Set mirror holder bracket and mirror assembly in the horizontal position.
2. Connect two electrical connectors to the back of the mirror holder.
3. Heat lower hooks with a hair dryer to prevent breaking the hooks.
4. Align upper hooks to bracket.
5. Align lower hooks to bracket and push lower part of mirror glass down into bracket until you hear a click. Ensure that mirror glass is secure in door mirror.

