

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”

E/IS002ZZ

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

WARNING:

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

Handling for Adhesive and Primer

E/IS002K2

- 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

E/IS002K3

When you read wiring diagrams, refer to the following:

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

When you perform trouble diagnosis, refer to the following:

- [GI-11, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"](#)
- [GI-27, "How to Perform Efficient Diagnosis for an Electrical Incident"](#)

Check for any service bulletins before servicing the vehicle.

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PREPARATION

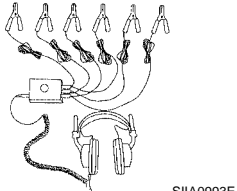
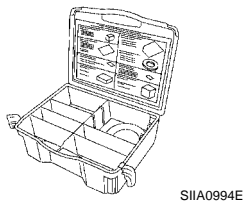
PREPARATION

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Special Service Tool

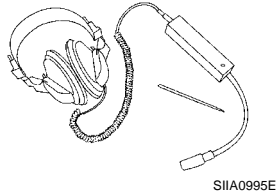
EIS002K4

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

Tool number (Kent-Moore No.) Tool name		Description
— (J-39570) Chassis ear	 <p style="text-align: right; font-size: small;">SIA0993E</p>	Locating the noise
— (J-43980) NISSAN Squeak and Rattle Kit	 <p style="text-align: right; font-size: small;">SIA0994E</p>	Repairing the cause of noise

Commercial Service Tool

EIS002K5

(Kent-Moore No.) Tool name		Description
(J-39565) Engine ear	 <p style="text-align: right; font-size: small;">SIA0995E</p>	Locating the noise

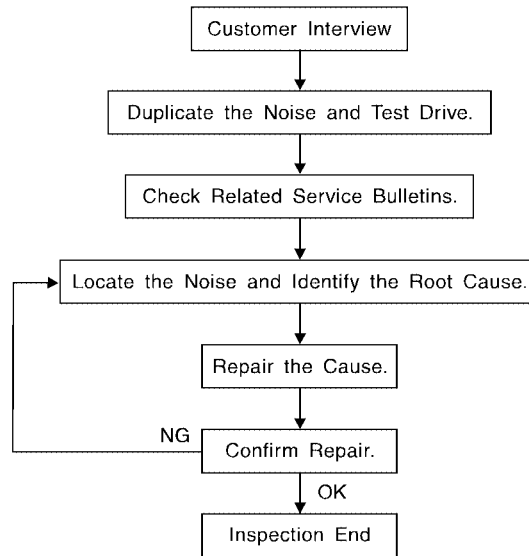
SQUEAK AND RATTLE TROUBLE DIAGNOSES

SQUEAK AND RATTLE TROUBLE DIAGNOSES

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Work Flow

EIS003P1



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

EIS003P2

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.

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.

OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage.

In addition look for:

1. Loose harness or harness connectors.
2. Front console map/reading lamp lense loose.
3. Loose screws at console attachment points.

SEATS

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

Cause of seat noise include:

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

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

UNDERHOOD

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

Causes of transmitted underhood noise include:

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

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

SQUEAK AND RATTLE TROUBLE DIAGNOSES

Diagnostic Worksheet

EIS003P3



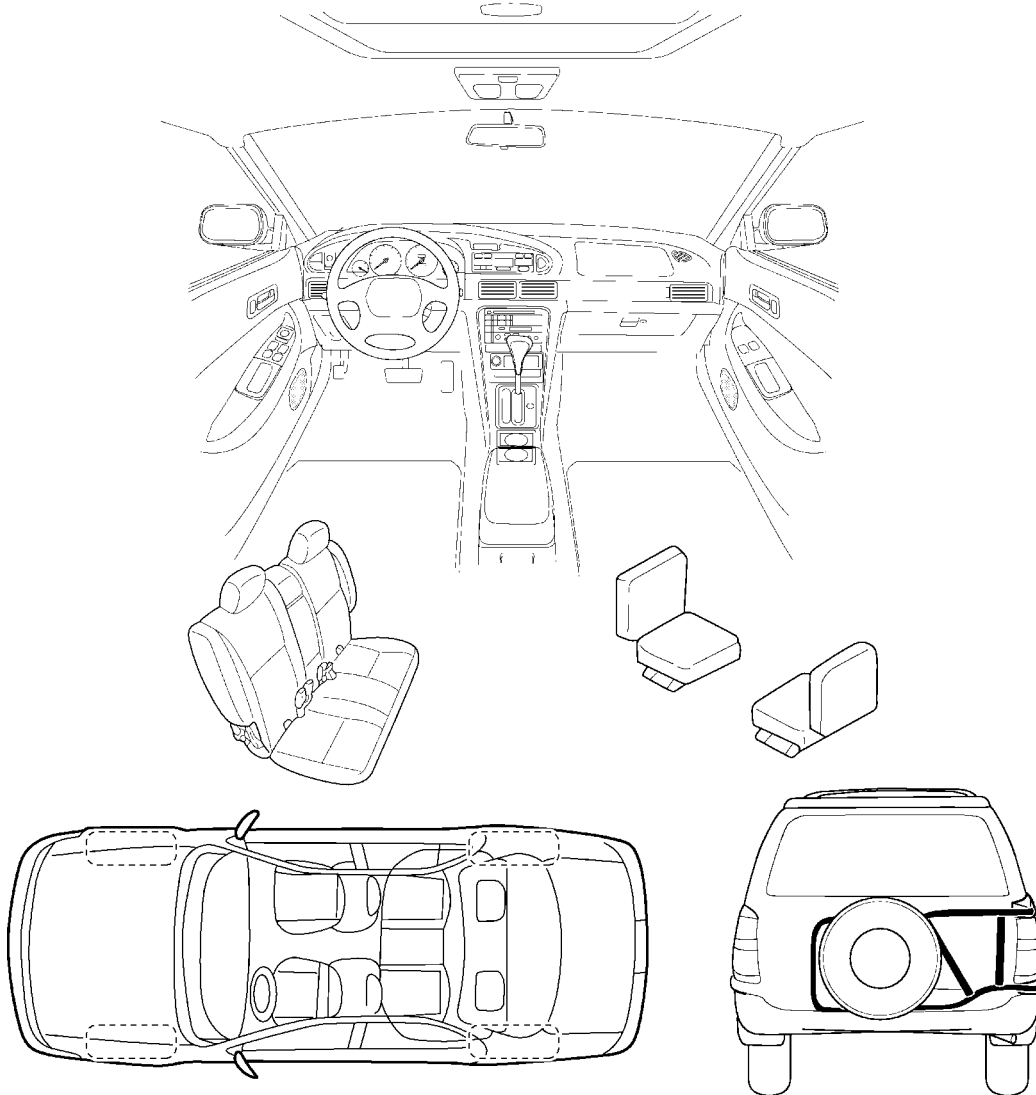
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

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

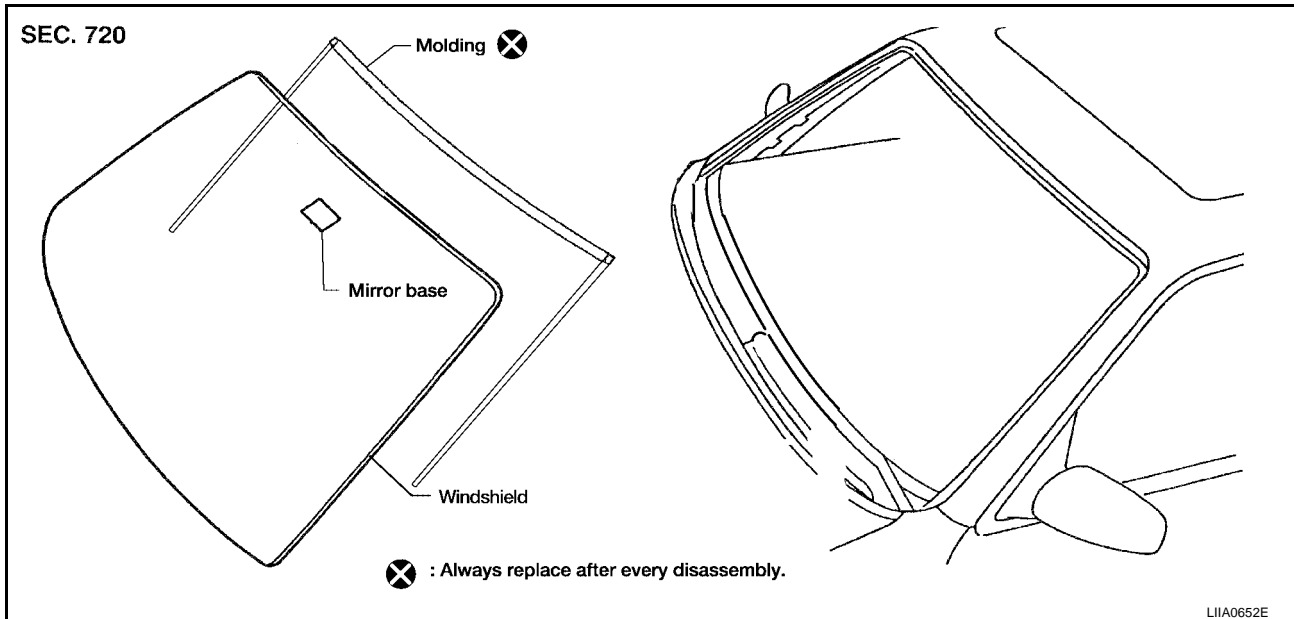
WINDSHIELD GLASS

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WINDSHIELD GLASS

Removal and Installation

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REMOVAL

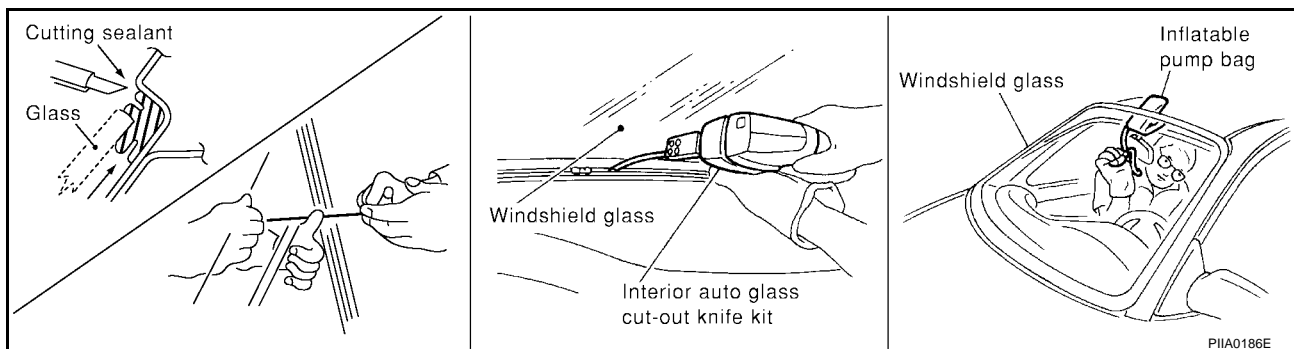
1. Remove the front pillar garnish. Refer to [EI-36, "BODY SIDE TRIM"](#).
2. Remove inside mirror. Refer to [GW-85, "Removal and Installation"](#).
3. Partially remove the headlining (front edge). Refer to [EI-43, "HEADLINING"](#).
4. Remove cowl top cover. Refer to [EI-21, "Removal and Installation"](#).
5. Apply a protective tape around the windshield glass to protect the painted surface from damage.
 - Remove glass using piano wire or power cutting tool and an inflatable pump bag.
 - If the 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 the 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.



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.

WINDSHIELD GLASS

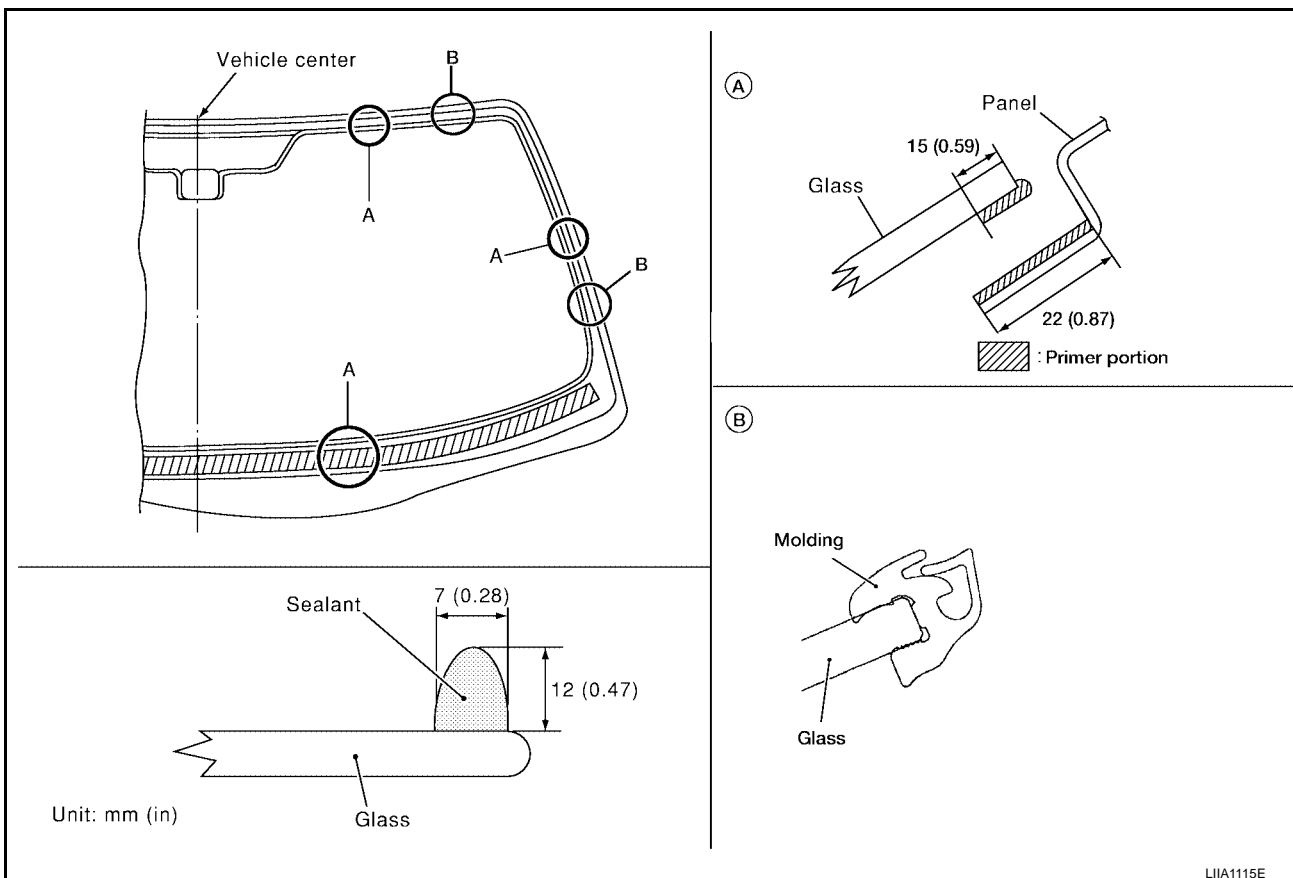
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.
- Install parts removed.

WARNING:

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

CAUTION:

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



Repairing Water Leaks for Windshield

Leaks can be repaired without removing and reinstalling glass.

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

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

REAR WINDOW GLASS AND MOLDING

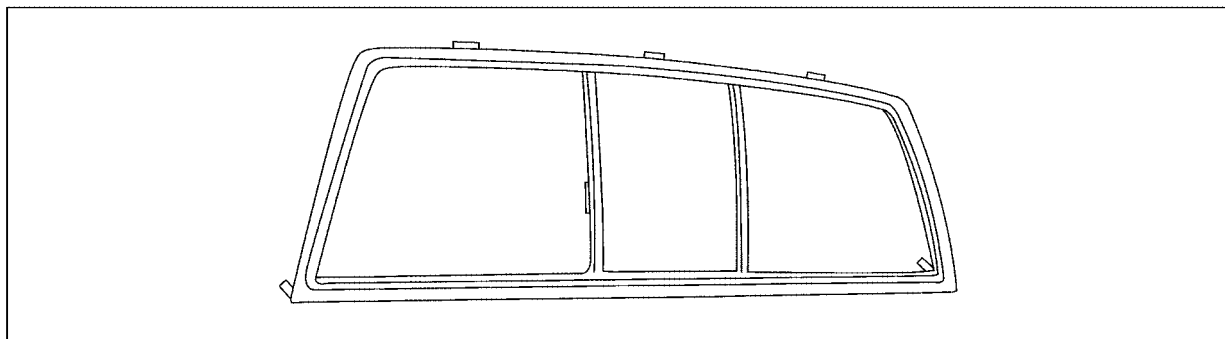
REAR WINDOW GLASS AND MOLDING

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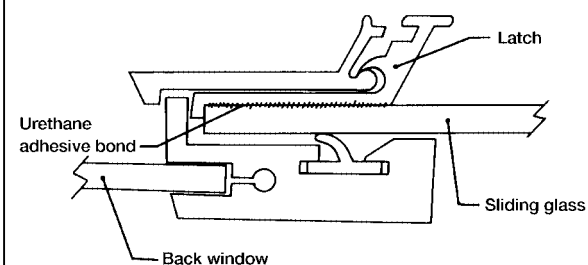
Removal and Installation

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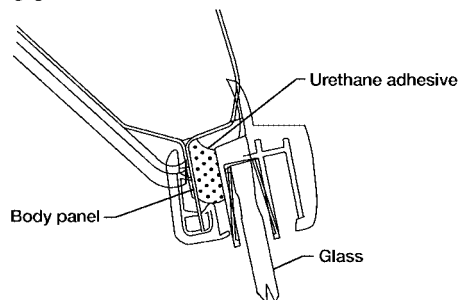
SEC. 797



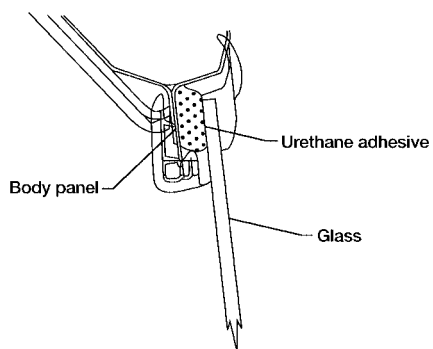
Latch



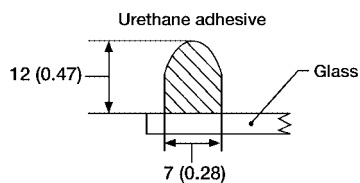
Sliding glass



Fixed glass



Apply urethane adhesive evenly.



Unit: mm (in)

LIA1243E

REMOVAL

Remove the rear pillar finishers. Refer to [EI-36, "BODY SIDE TRIM"](#) .

REAR WINDOW GLASS AND MOLDING

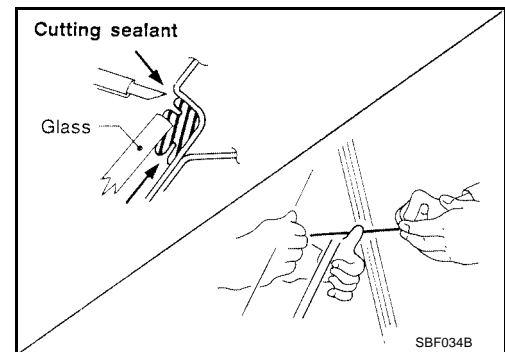
- Remove glass using piano wire or power cutting tool and an inflatable pump bag.
- If the rear window glass is to be reused, mark the body and the glass with mating marks.

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



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.
- 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 rear window in case of an accident.

CAUTION:

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

Repairing Water Leaks for Rear Window Glass

Leaks can be repaired without removing or reinstalling glass.

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

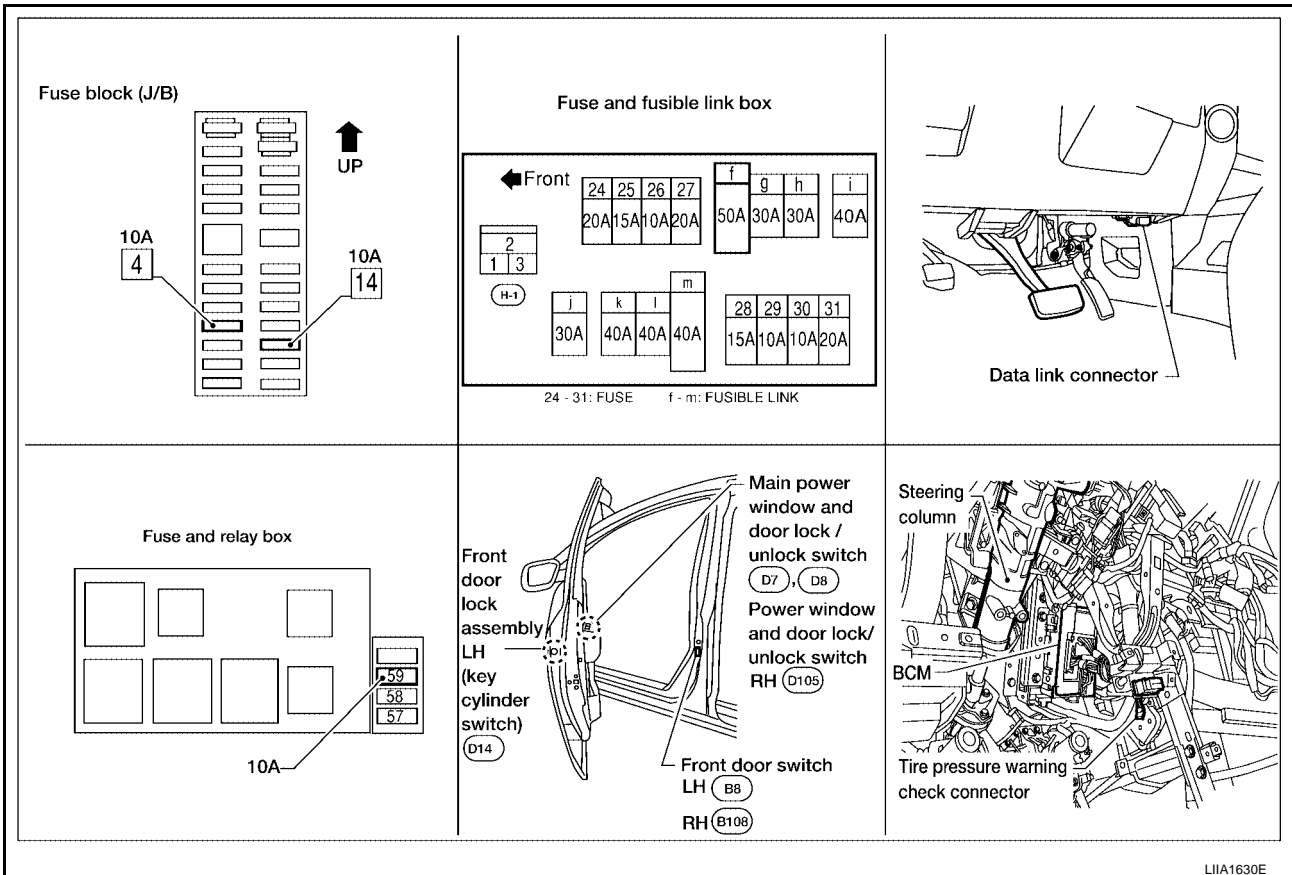
This can be done by applying water to the rear window area while pushing glass outward.

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

POWER WINDOW SYSTEM

Component Parts and Harness Connector Location

EIS002KA



System Description
KING CAB

EIS002KB

Power is supplied at all time

- from 50A fusible link (letter f , located in the fuse and fusible link box)
- to BCM terminal 70
- through BCM terminal 69
- to main power window and door lock/unlock switch terminal 1
- to power window and door lock/unlock switch RH terminal 10.

CREW CAB

Power is supplied at all time

- from 50A fusible link (letter f , located in the fuse and fusible link box)
- to BCM terminal 70
- through BCM terminal 69
- to main power window and door lock/unlock switch terminal 19
- to power window and door lock/unlock switch RH terminal 10.

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

- through 10A fuse (No. 59, located in the fuse and relay box)
- to BCM terminal 38
- through BCM terminal 68
- to main power window and door lock/unlock switch terminal 10.

KING CAB

With ignition switch in ON or START position,

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POWER WINDOW SYSTEM

Ground is supplied

- to BCM terminal 67
- to main power window and door lock/unlock switch terminal 15
- to power window and door lock/unlock switch RH terminal 11
- through body grounds M57, M61 and M79.

CREW CAB

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

- to BCM terminal 67
- to main power window and door lock/unlock switch terminal 17
- to power window and door lock/unlock switch RH terminal 11
- through body grounds M57, M61 and M79.

MANUAL OPERATION

Front Driver Side Door

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 2.

Ground is supplied

- through main power window and door lock/unlock switch terminal 11
- to front power window motor LH terminal 1.

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 1.

Ground is supplied

- through main power window and door lock/unlock switch terminal 8
- to front power window motor LH terminal 2.

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

Front Passenger Side Door

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH OPERATION

WINDOW UP

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

- through power window and door lock/unlock switch RH terminal 8
- to front power window motor RH terminal 2.

Ground is supplied

- through power window and door lock/unlock switch RH terminal 9
- to front power window motor RH terminal 1.

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

WINDOW DOWN

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

- through power window and door lock/unlock switch RH terminal 9
- to front power window motor RH terminal 1.

Ground is supplied

- through power window and door lock/unlock switch RH terminal 8

POWER WINDOW SYSTEM

- to front power window motor RH terminal 2.

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

King Cab

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OPERATION

Signal is sent

- through main power window and door lock/unlock switch terminal 12
- to power window and door lock/unlock switch RH terminal 16.

The operation of power window after receiving the signal is the same as operating the power window with power window and door lock/unlock switch RH.

Crew Cab

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OPERATION

Signal is sent

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

The operation of power window after receiving the signal is the same as operating the power window with power window and door lock/unlock switch RH.

Rear Door (Crew Cab LH or RH)

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 2.

Ground is supplied

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

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 1.

Ground is supplied

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

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

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OPERATION

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 2.

Ground 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 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

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POWER WINDOW SYSTEM

- to rear power window switch RH terminal 3
- through rear power window switch RH terminal 4
- to rear power window motor RH terminal 2.

Ground is supplied

- through main power window and door lock/unlock switch terminal 7
- to rear power window motor RH terminal 2
- through rear power window switch RH terminal 5
- to rear power window switch RH terminal 1.

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 1.

Ground is supplied

- to main power window and door lock/unlock switch terminal 3
- through rear power window switch LH terminal 3
- through rear power window switch LH terminal 4
- to rear power window motor LH terminal 2.

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 1.

Ground 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 2.

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

AUTO OPERATION

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

POWER WINDOW SERIAL LINK

Main power window and door lock/unlock switch, power window and door lock/unlock 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 power window and door lock/unlock switch RH

- Keyless power window down signal.

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

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

POWER WINDOW SYSTEM

POWER WINDOW LOCK

The power window lock is designed to lock operation of all windows except for front door window LH. When in the lock position, the power window lock signal is transmitted to power window and door lock/unlock switch RH by power window serial link. This prevents the power window motor 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

- to main power window and door lock/unlock switch terminal 10
- from BCM terminal 68.

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-40, "CONSULT-II Inspection Procedure"](#).

ANTI-PINCH SYSTEM

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

POWER WINDOW CONTROL BY THE FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)

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 turned to the UNLOCK position.
- Front power windows can be closed as the door key cylinder is kept fully turned to the LOCK position.
- 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, the power window opening stops.

CAN Communication System Description

EIS002KC

Refer to [LAN-8, "CAN COMMUNICATION"](#).

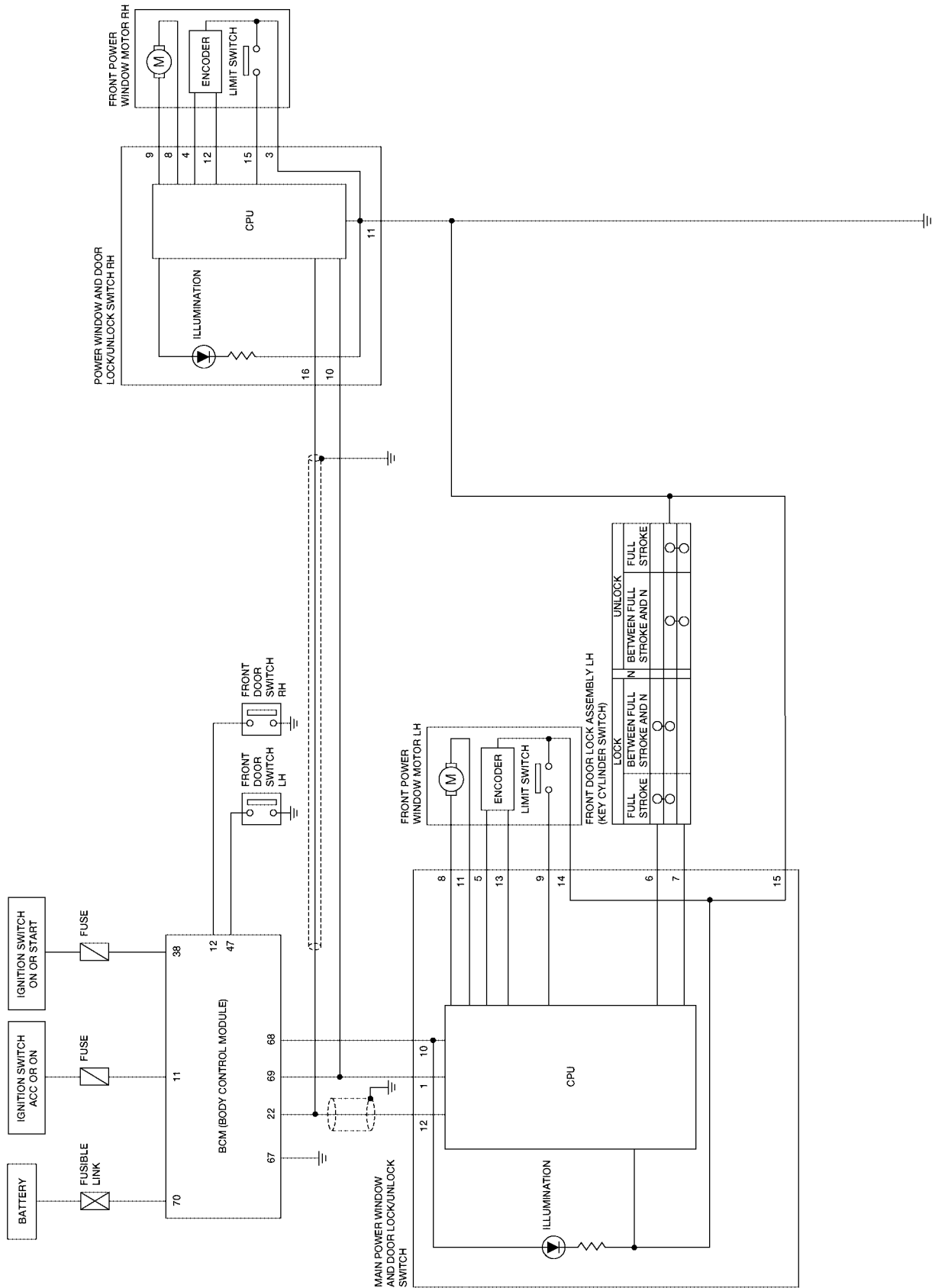
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POWER WINDOW SYSTEM

Schematic (King Cab)

EIS002KD



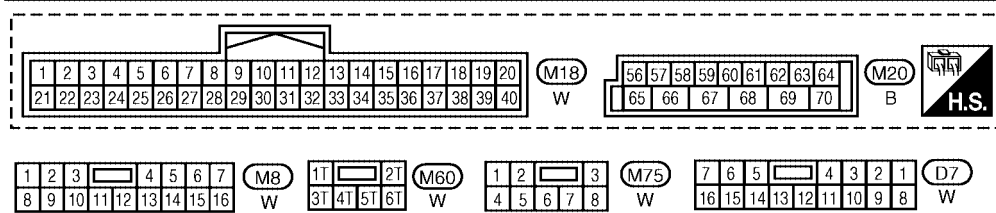
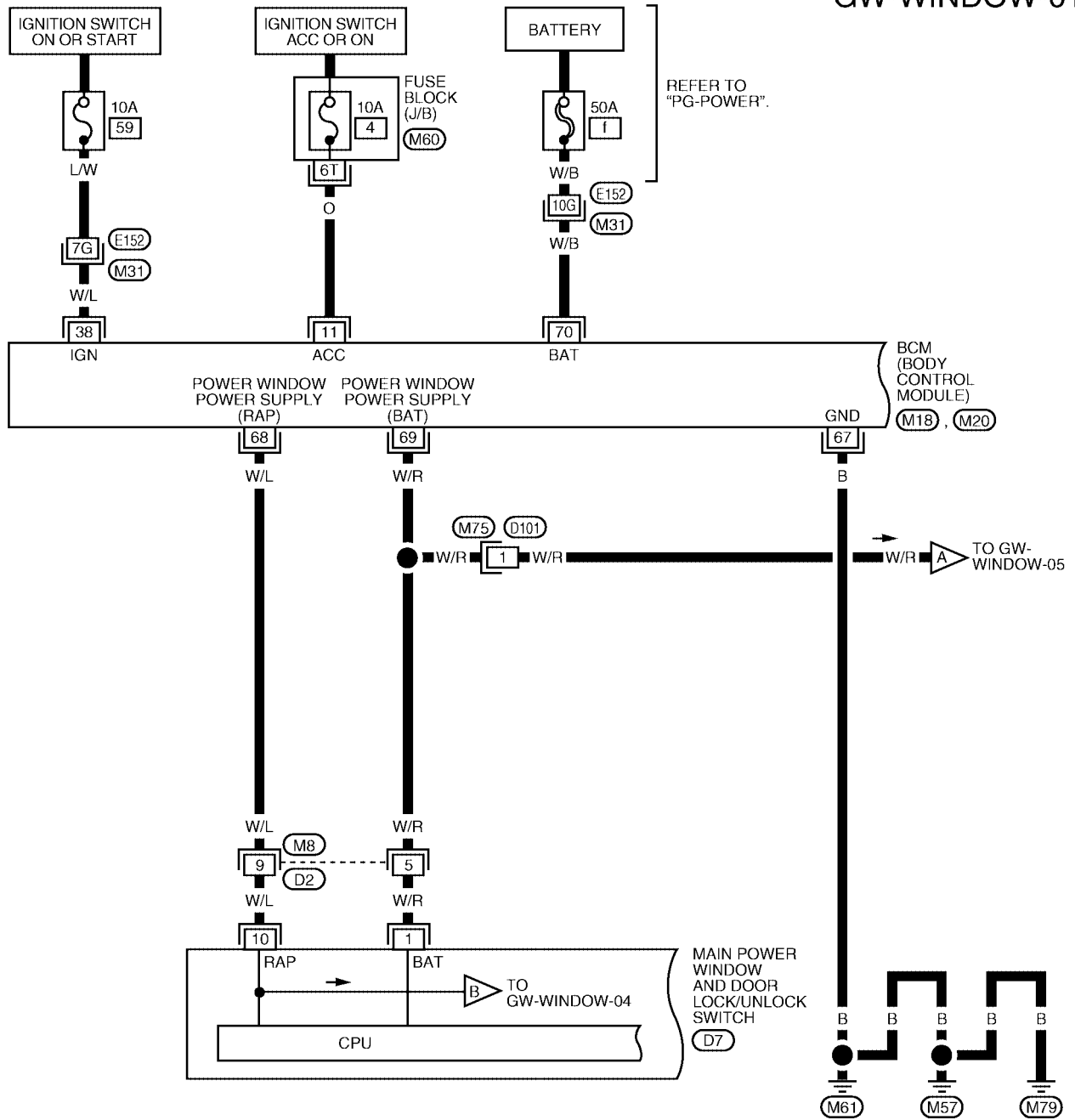
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POWER WINDOW SYSTEM

Wiring Diagram – WINDOW – (King Cab)

EIS002KE

GW-WINDOW-01



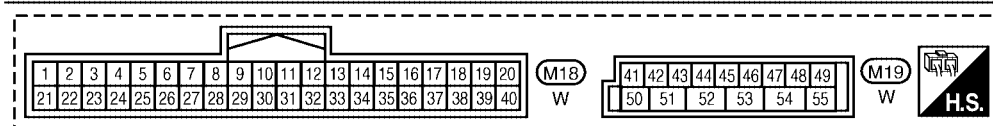
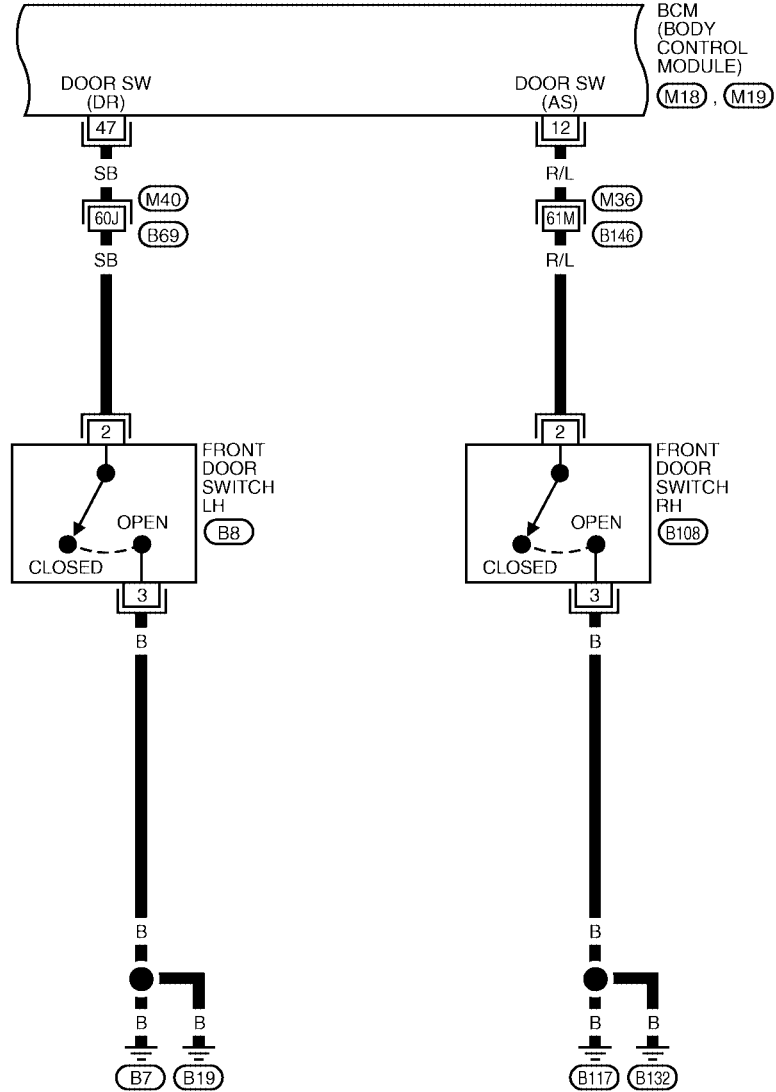
REFER TO THE FOLLOWING.

M31 - SUPER MULTIPLE JUNCTION (SMJ)

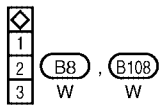
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POWER WINDOW SYSTEM

GW-WINDOW-02



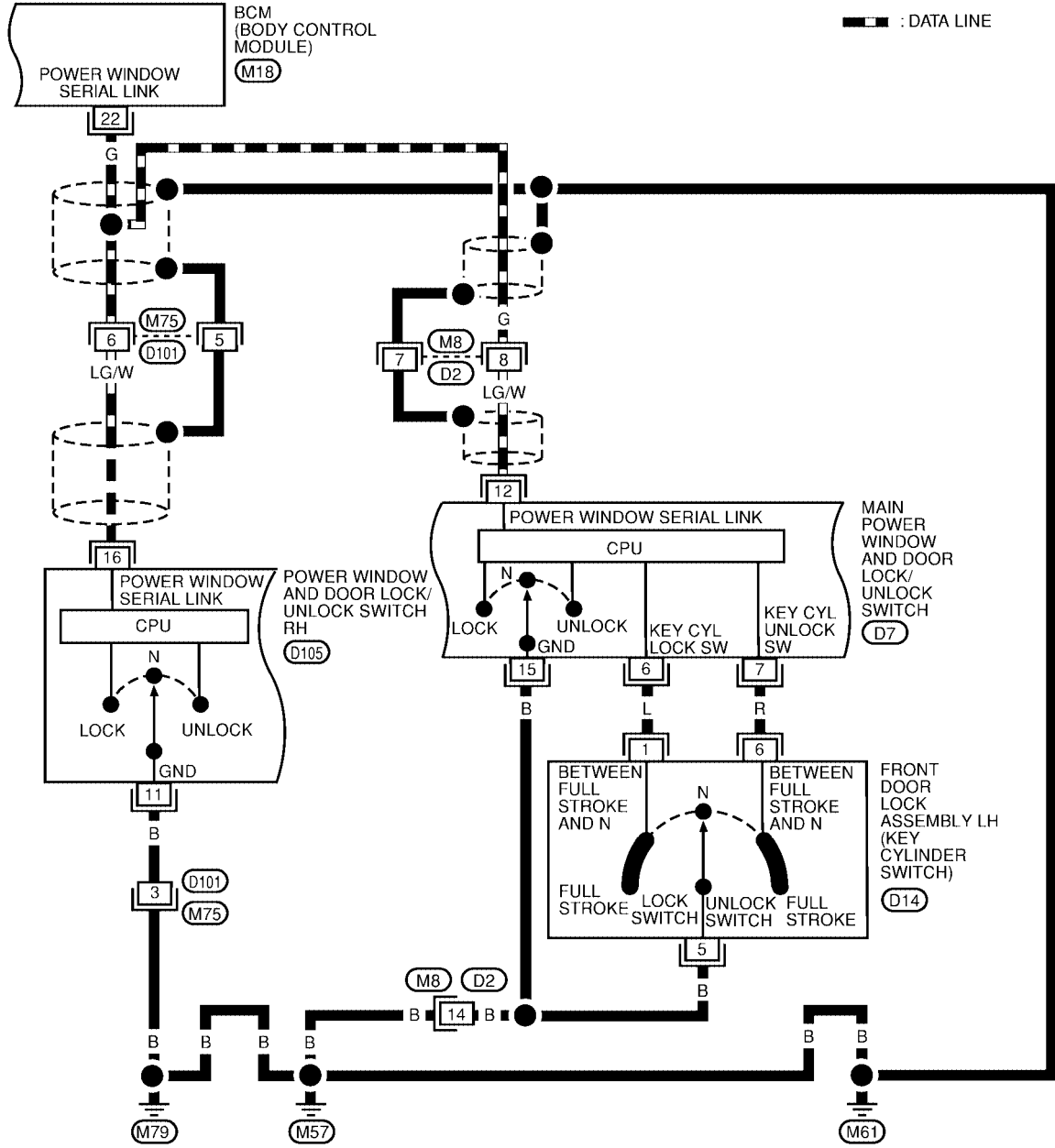
REFER TO THE FOLLOWING.
 (M36), (M40) - SUPER
 MULTIPLE JUNCTION (SMJ)



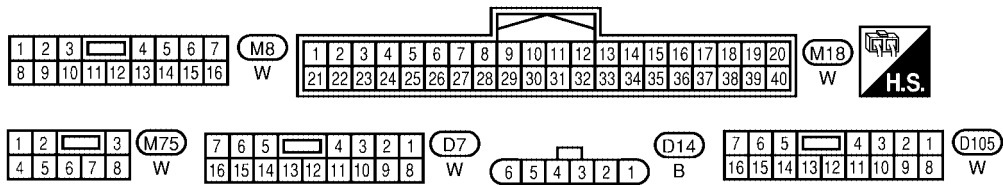
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POWER WINDOW SYSTEM

GW-WINDOW-03



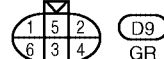
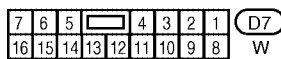
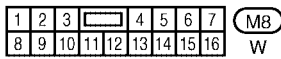
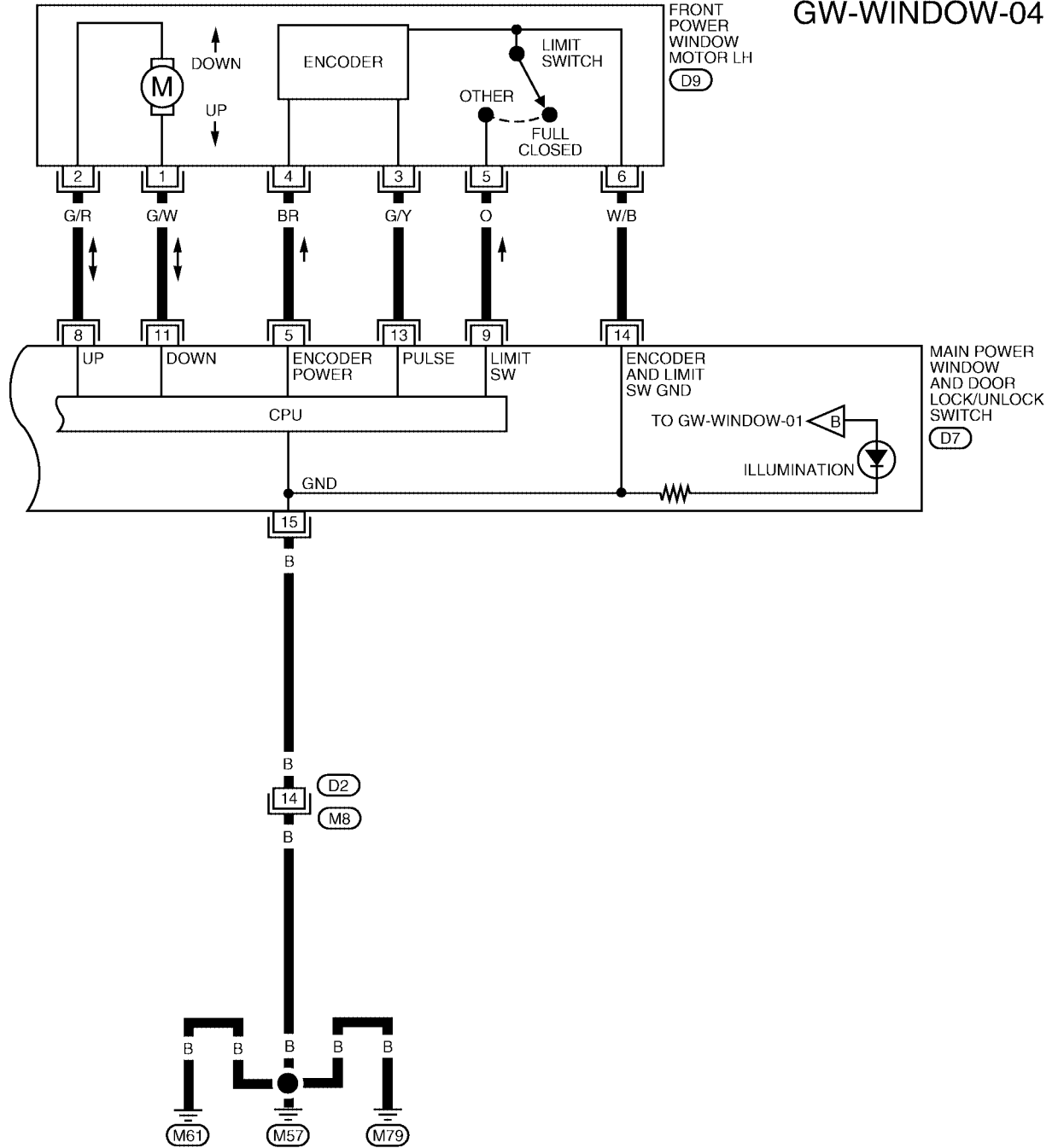
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POWER WINDOW SYSTEM

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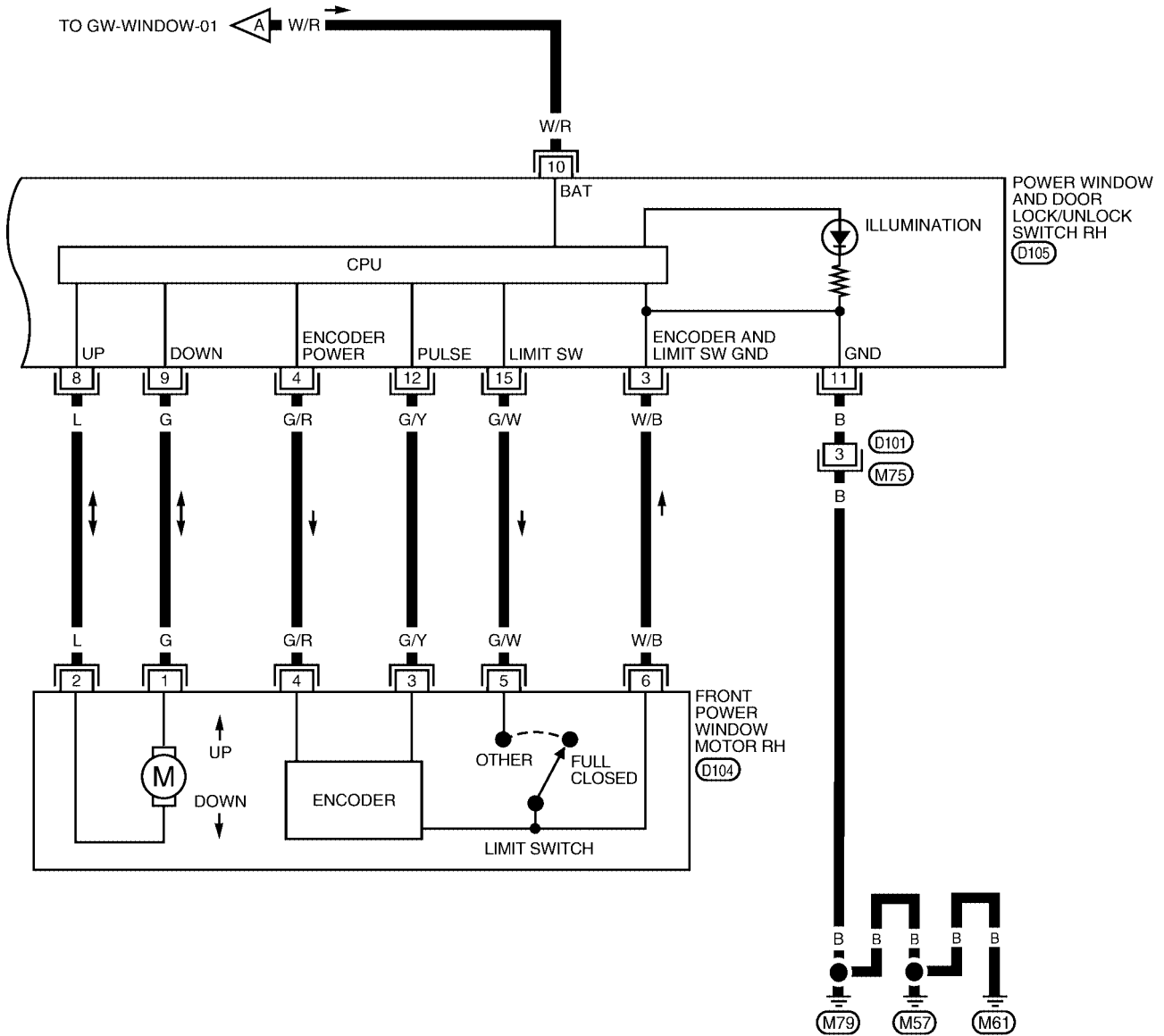


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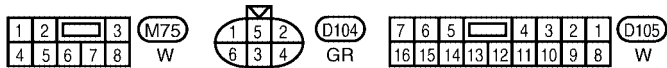
POWER WINDOW SYSTEM

GW-WINDOW-05

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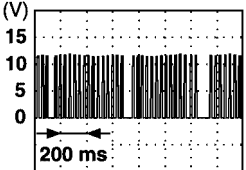
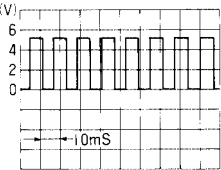


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POWER WINDOW SYSTEM

Terminal and Reference Value for Main Power Window and Door Lock/Unlock Switch (King Cab)

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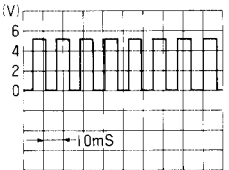
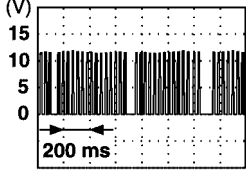
Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
1	W/R	Battery power supply	—	Battery voltage
5	BR	Encoder power supply	When ignition switch ON or power window timer operates	10
6	L	Front door lock assembly LH (key cylinder switch) lock signal	Key position (Neutral → Locked)	5 → 0
7	R	Front door lock assembly LH (key cylinder switch) unlock signal	Key position (Neutral → Unlocked)	5 → 0
8	G/R	Front power window motor LH UP signal	When power window motor is operated UP	Battery voltage
9	O	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 seconds after ignition switch is turned to OFF	Battery voltage
			More than 45 seconds 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 power window motor LH DOWN signal	When power window motor is operated DOWN	Battery voltage
12	LG/W	Power window serial link	When ignition switch ON or power window timer operates	 <p style="text-align: right; font-size: small;">PIIA2344J</p>
13	G/Y	Encoder pulse signal	When power window motor operates	 <p style="text-align: right; font-size: small;">OCC3383D</p>
14	W/B	Limit switch and encoder ground	—	0
15	B	Ground	—	0

Terminal and Reference Value for Power Window and Door Lock/Unlock Switch RH (King Cab)

EIS002KG

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	Front power window motor RH UP signal	When power window motor is operated UP	Battery voltage
9	G	Front power window motor RH DOWN signal	When power window motor is operated DOWN	Battery voltage
10	W/R	Battery 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	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	LG/W	Power window serial link	When ignition switch is ON or power window timer operating	 <p style="text-align: right; font-size: small;">PIIA2344J</p>

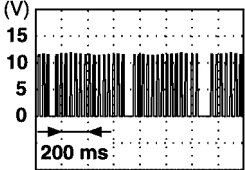
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POWER WINDOW SYSTEM

Terminal and Reference Value for BCM (King Cab)

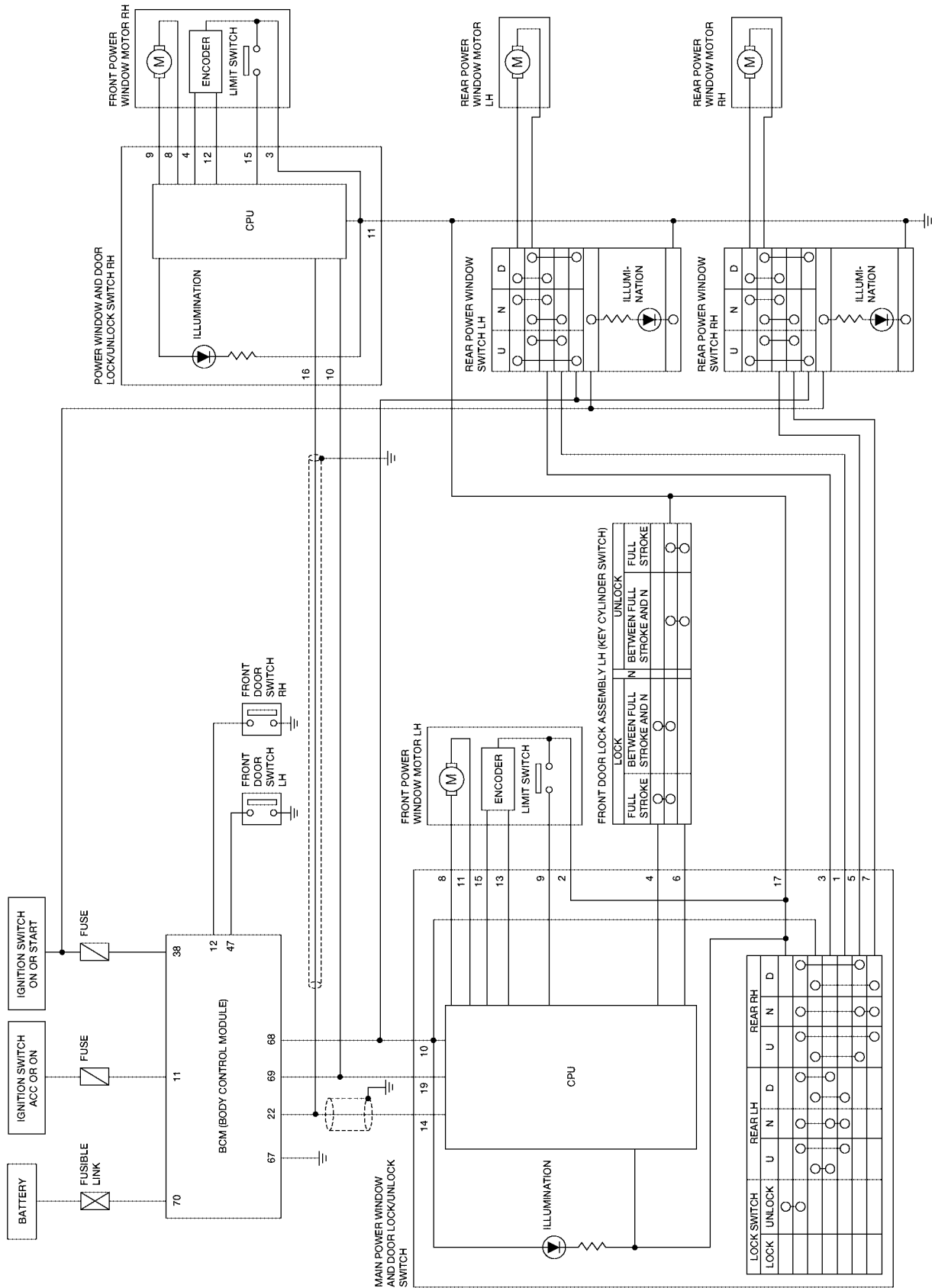
EIS002KH

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
11	O	Ignition switch (ACC or ON)	Ignition switch (ACC or ON position)	Battery voltage
12	R/L	Front door switch RH signal	ON (Open)	Battery voltage
			OFF (Close)	0
22	G	Power window serial link	When ignition switch ON or power window timer operates	 PIIA2344J
38	W/L	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
47	SB	Front door switch LH signal	ON (Open)	Battery voltage
			OFF (Close)	0
67	B	Ground	—	0
68	W/L	RAP signal	When ignition switch ON	Battery voltage
			Within 45 seconds after ignition switch is turned to OFF	Battery voltage
			More than 45 seconds after igni- tion switch is turned to OFF	0
			When front door LH or RH is open or power window timer operates	0
69	W/R	Power window power supply	—	Battery voltage
70	W/B	Battery power supply	—	Battery voltage

POWER WINDOW SYSTEM

Schematic (Crew Cab)

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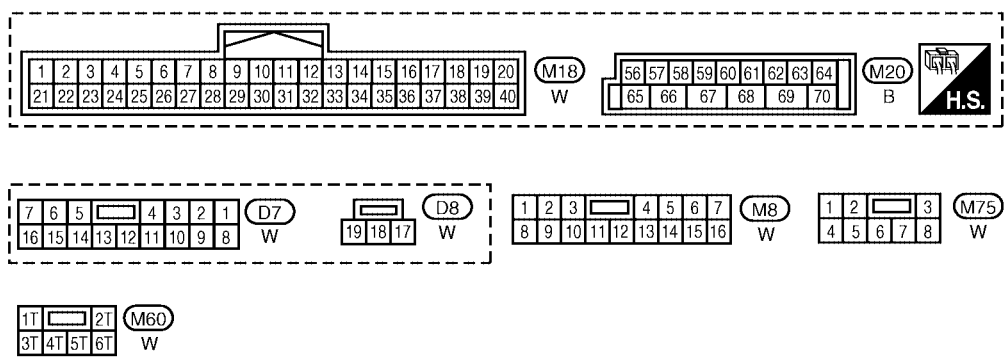
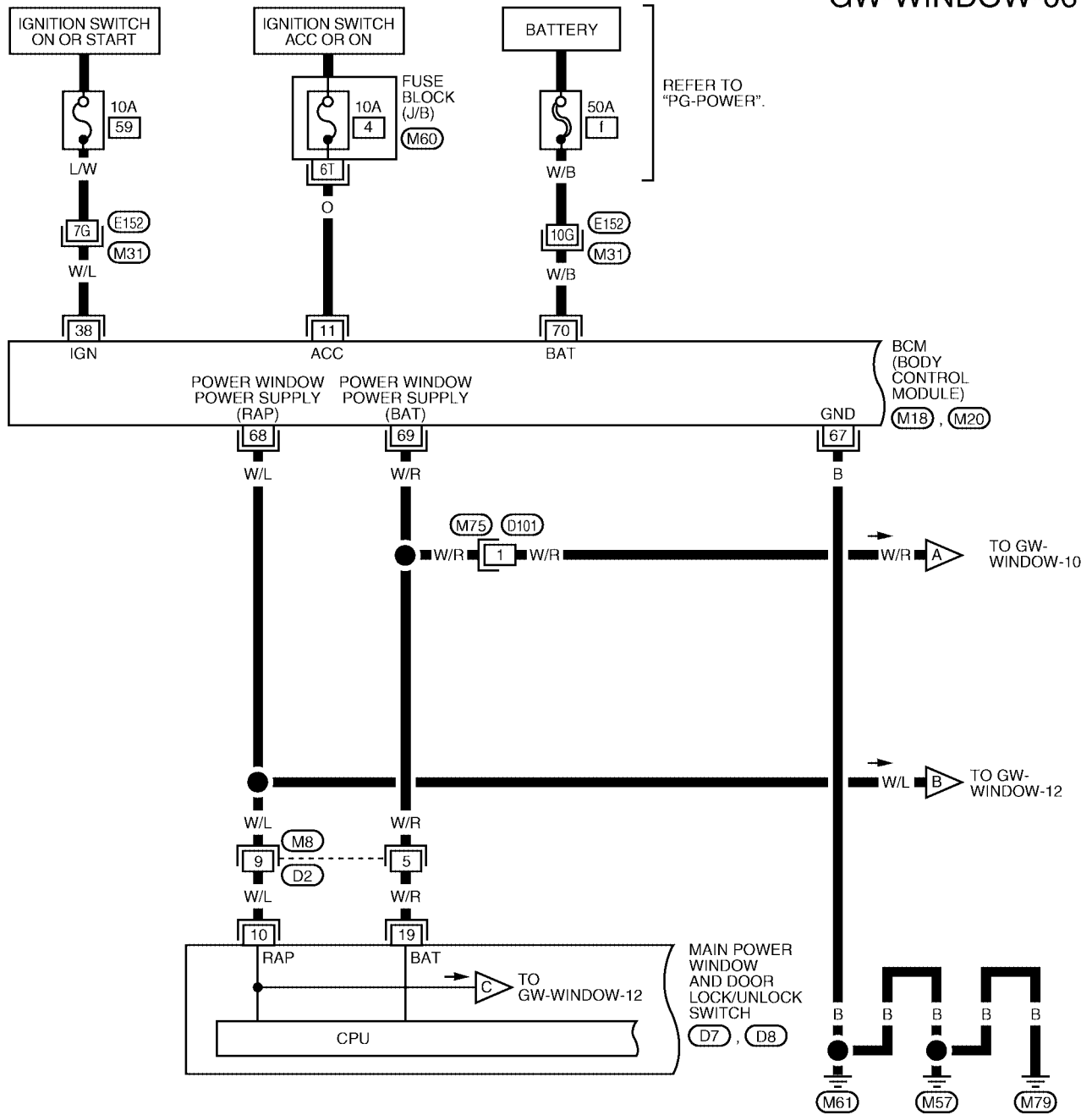
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POWER WINDOW SYSTEM

Wiring Diagram – WINDOW – (Crew Cab)

EIS00208

GW-WINDOW-06



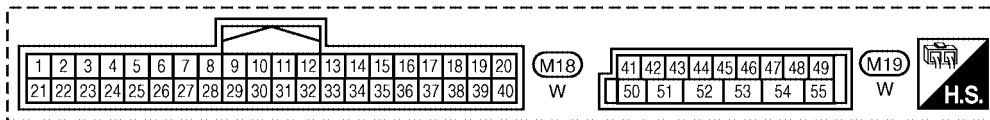
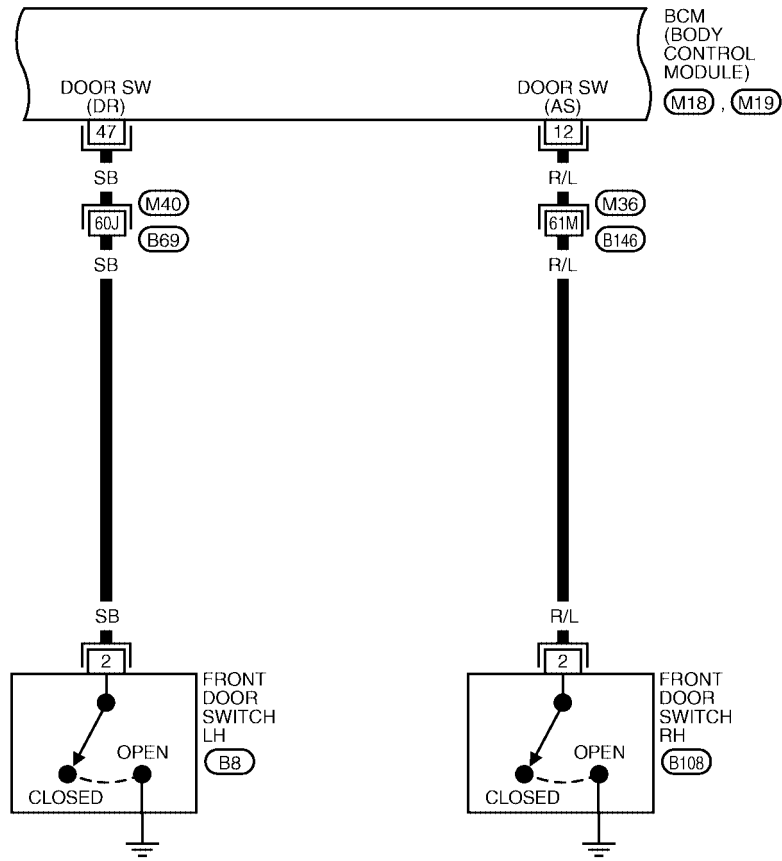
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(M31) - SUPER MULTIPLE JUNCTION (SMJ)

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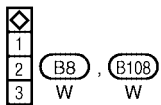
POWER WINDOW SYSTEM

GW-WINDOW-07

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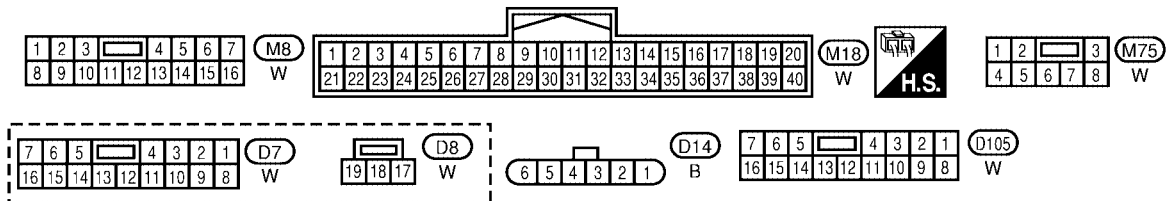
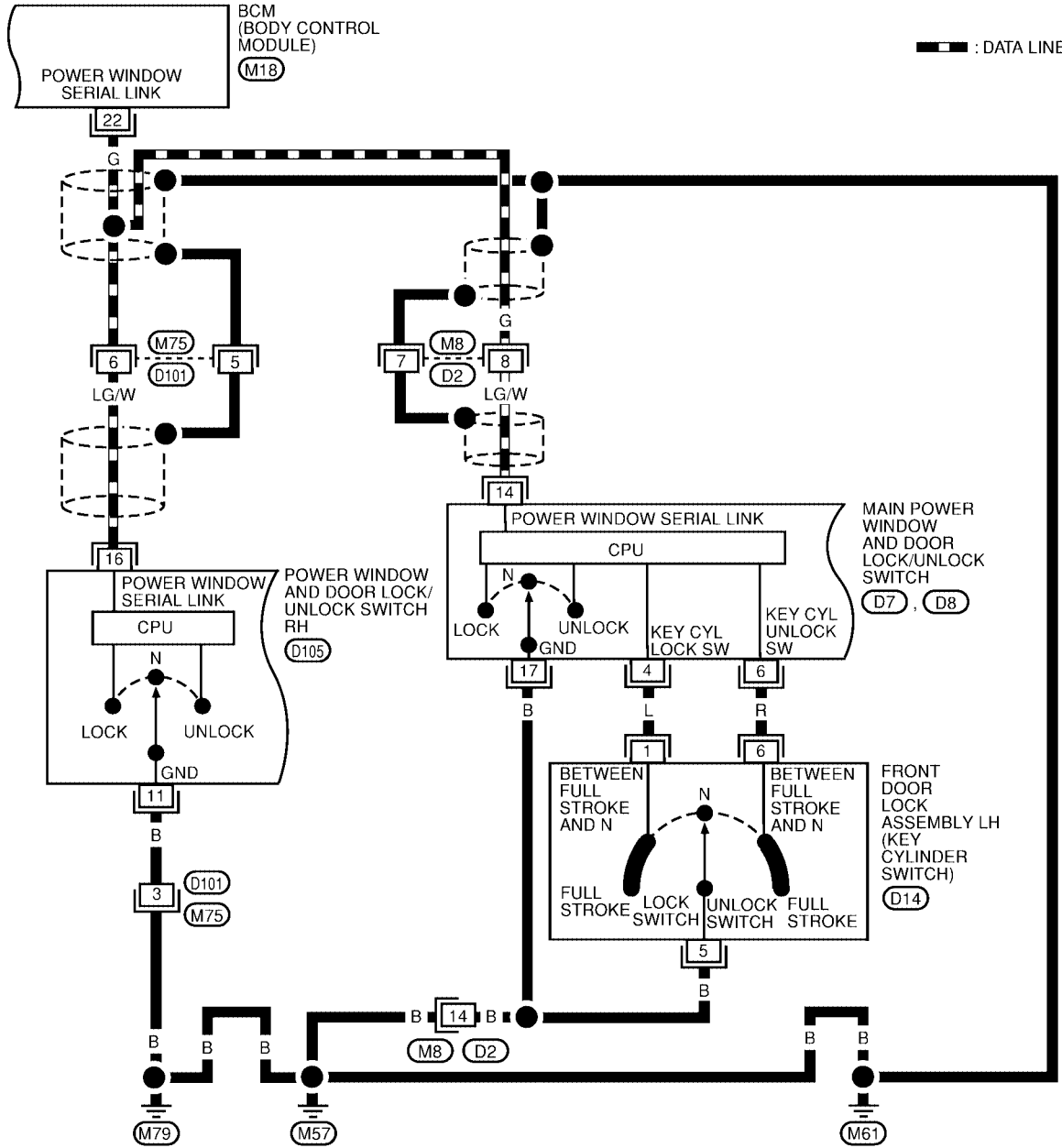
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(M36), (M40) - SUPER MULTIPLE JUNCTION (SMJ)



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POWER WINDOW SYSTEM

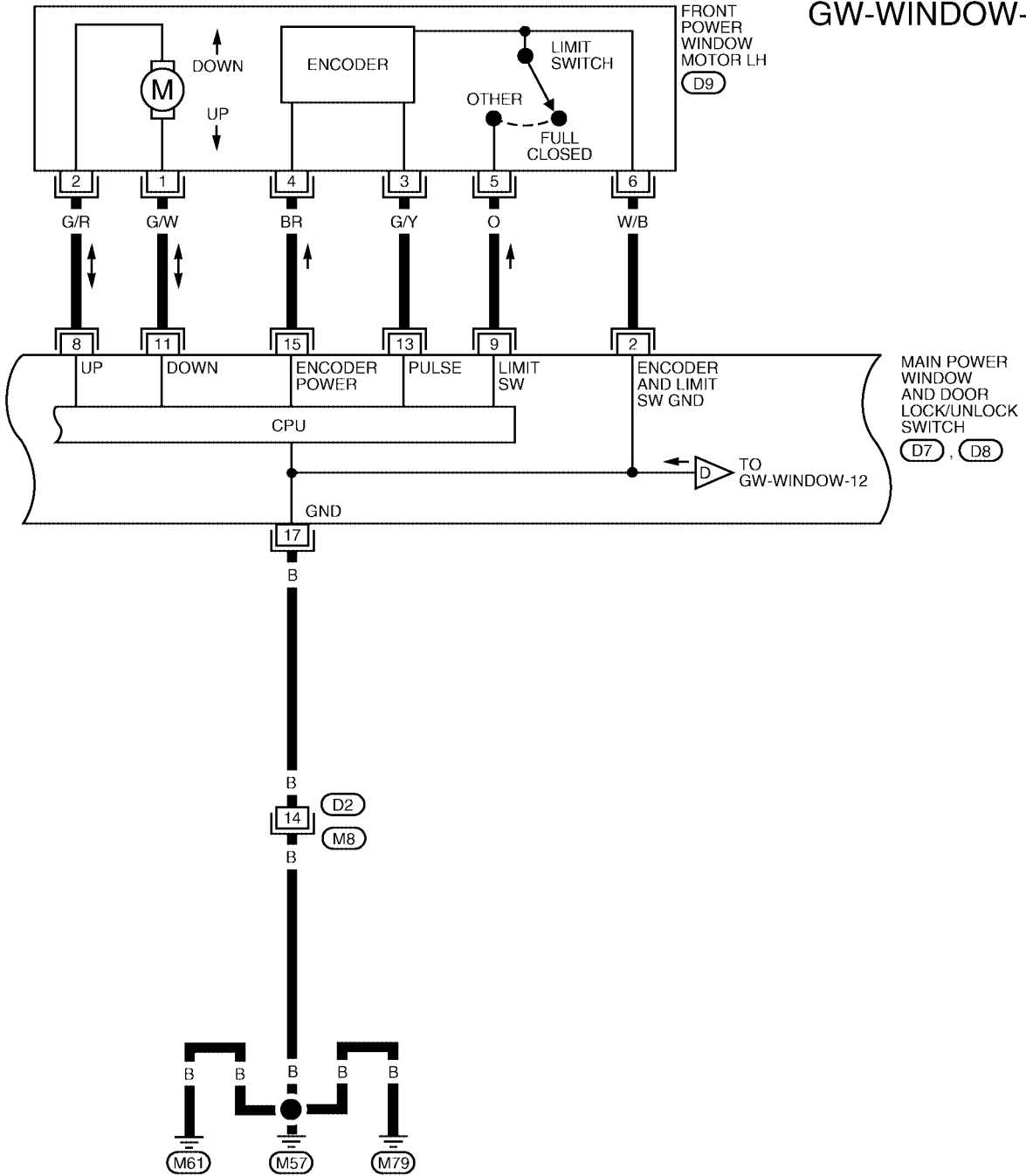
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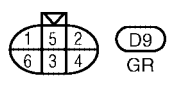
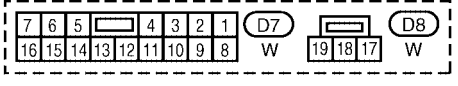
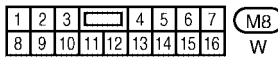
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POWER WINDOW SYSTEM

GW-WINDOW-09

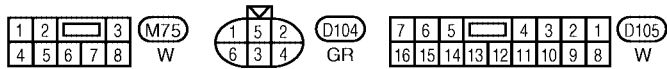
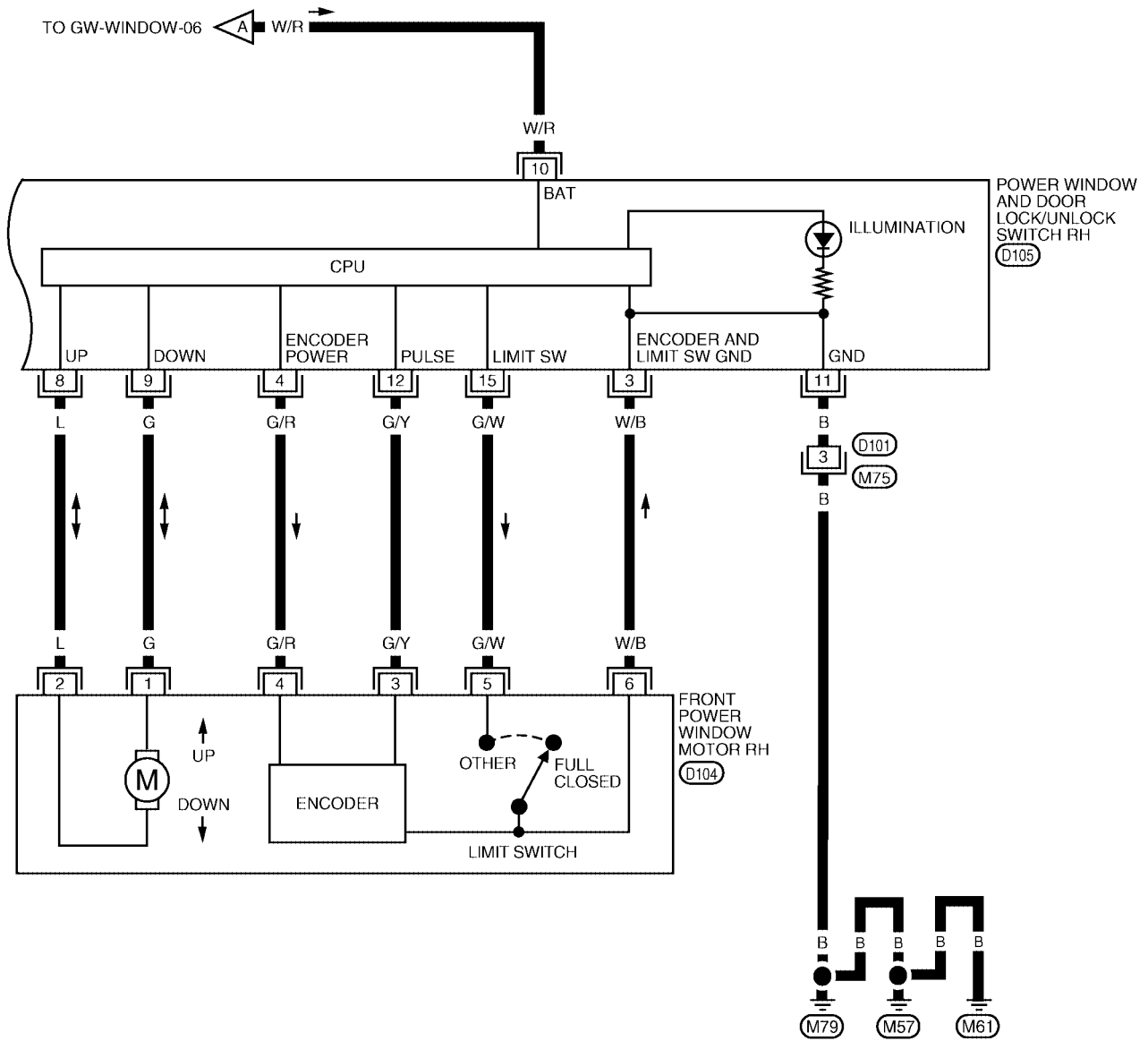


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POWER WINDOW SYSTEM

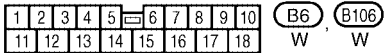
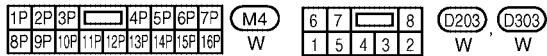
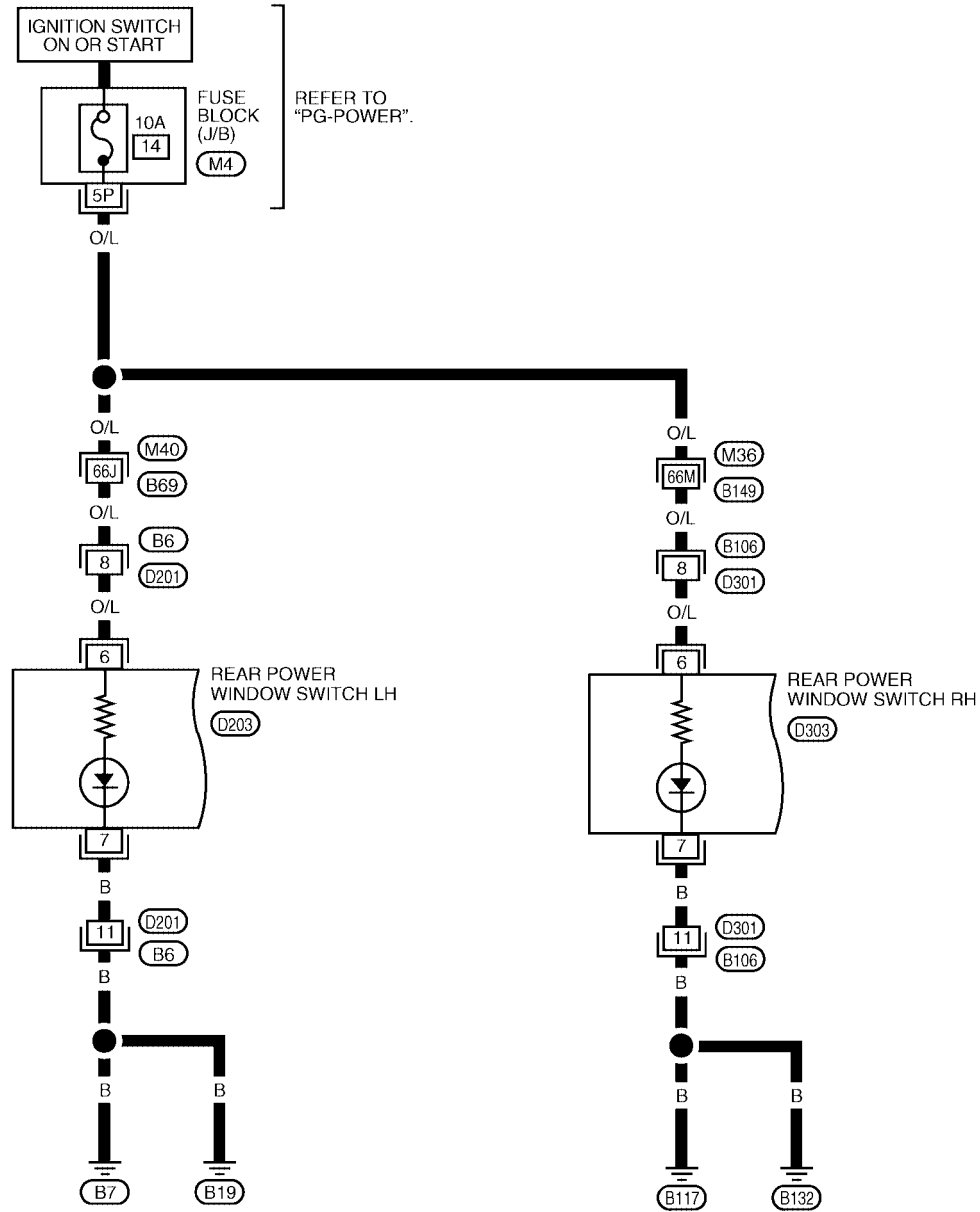
GW-WINDOW-10



WIIA0271E

POWER WINDOW SYSTEM

GW-WINDOW-11

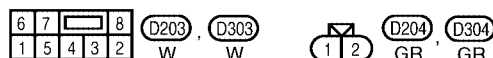
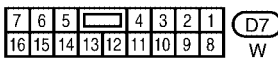
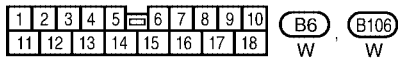
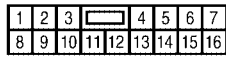
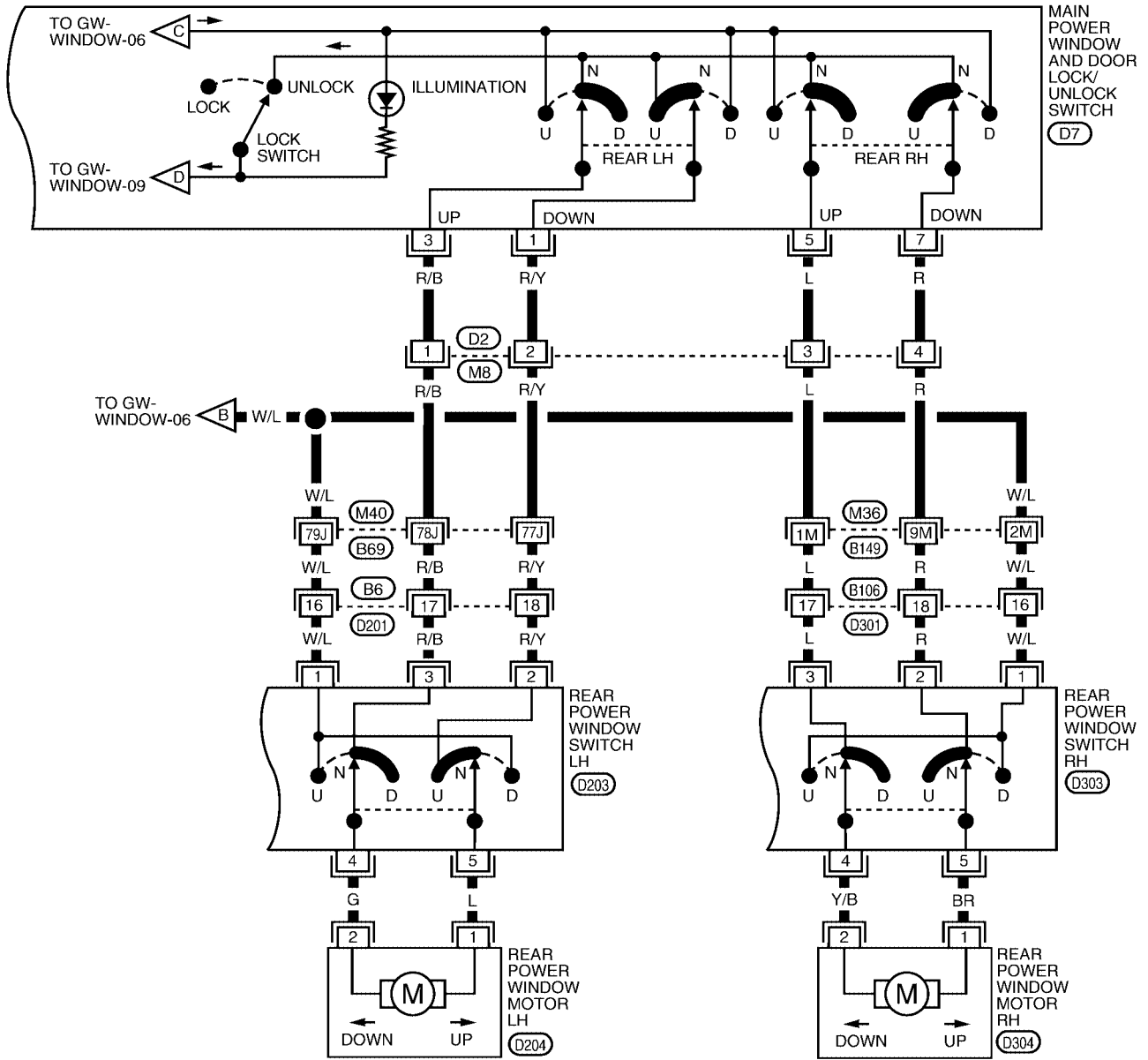


REFER TO THE FOLLOWING.
 (M36), (M40) - SUPER
 MULTIPLE JUNCTION (SMJ)

W1WA0272E

POWER WINDOW SYSTEM

GW-WINDOW-12



REFER TO THE FOLLOWING.

(M36), (M40) - SUPER MULTIPLE JUNCTION (SMJ)

LIWA0339E

POWER WINDOW SYSTEM

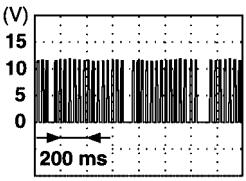
Terminal and Reference Value for Main Power Window and Door Lock/Unlock Switch (Crew Cab)

EIS00209

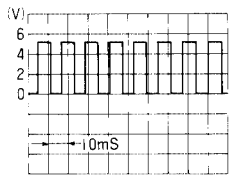
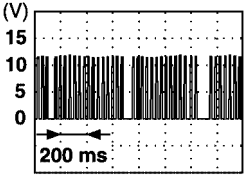
Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
1	R/Y	Rear power window LH DOWN signal	When rear LH switch in main power window and door lock/unlock switch is operated DOWN	Battery voltage
2	W/B	Limit switch and encoder ground	—	0
3	R/B	Rear power window LH UP signal	When rear LH switch in main power window and door lock/unlock switch is operated UP	Battery voltage
4	L	Front door lock assembly LH (key cylinder switch) lock signal	Key position (Neutral → Locked)	5 → 0
5	L	Rear power window RH UP signal	When rear RH switch in main power window and door lock/unlock switch is operated UP	Battery voltage
6	R	Front door lock assembly LH (key cylinder switch) unlock signal	Key position (Neutral → Unlocked)	5 → 0
7	R	Rear power window RH DOWN signal	When rear RH switch in main power window and door lock/unlock switch is operated DOWN	Battery voltage
8	G/R	Front power window motor LH UP signal	When power window motor is operated UP	Battery voltage
9	O	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 seconds after ignition switch is turned to OFF	Battery voltage
			More than 45 seconds 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 power window motor LH DOWN signal	When power window motor is operated DOWN	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	LG/W	Power window serial link	When ignition switch ON or power window timer operates	 PIIA2344J
15	BR	Encoder power supply	When ignition switch ON or power window timer operates	10
17	B	Ground	—	0
19	W/R	Battery power supply	—	Battery voltage

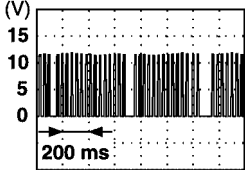
Terminal and Reference Value for Power Window and Door Lock/Unlock Switch RH (Crew Cab) EIS0020A

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 power window motor RH UP signal	When power window motor is operated UP	Battery voltage
9	G	Front power window motor RH DOWN signal	When power window motor is operated DOWN	Battery voltage
10	W/R	Battery 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	LG/W	Power window serial link	When ignition switch is ON or power window timer operating	 PIIA2344J

POWER WINDOW SYSTEM

Terminal and Reference Value for BCM (Crew Cab)

EIS0020B

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
11	O	Ignition switch (ACC or ON)	Ignition switch (ACC or ON position)	Battery voltage
12	R/L	Front door switch RH signal	ON (Open)	Battery voltage
			OFF (Close)	0
22	G	Power window serial link	When ignition switch ON or power window timer operates	 <p style="text-align: right; font-size: small;">PIIA2344J</p>
38	W/L	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
47	SB	Front door switch LH signal	ON (Open)	Battery voltage
			OFF (Close)	0
67	B	Ground	—	0
68	W/L	RAP signal	When ignition switch ON	Battery voltage
			Within 45 seconds after ignition switch is turned to OFF	Battery voltage
			More than 45 seconds after igni- tion switch is turned to OFF	0
			When front door LH or RH is open or power window timer operates	0
69	W/R	Power window power supply	—	Battery voltage
70	W/B	Battery power supply	—	Battery voltage

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POWER WINDOW SYSTEM

EIS002KI

Work Flow

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to [GW-15, "System Description"](#) .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction.
Refer to [GW-42, "Trouble Diagnoses Symptom Chart \(King Cab\)"](#) .
4. Does power window system operate normally? Yes, GO TO 5, If No, GO TO 3.
5. INSPECTION END.

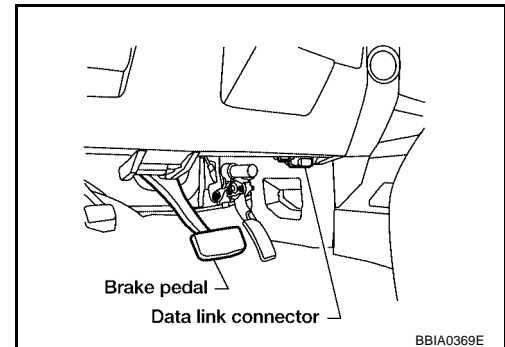
CONSULT-II Inspection Procedure

EIS002KJ

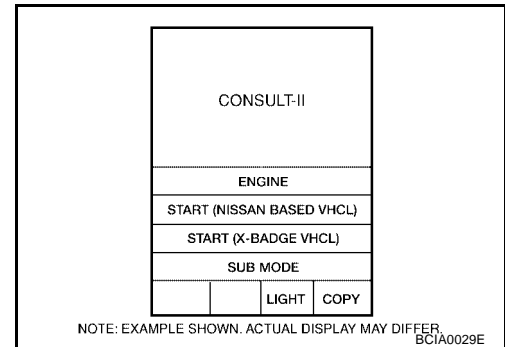
CAUTION:

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.

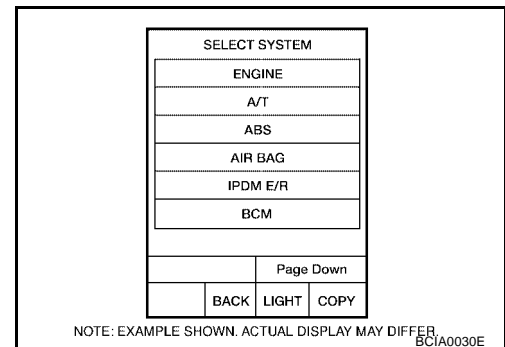
1. Connect CONSULT-II and CONSULT-II CONVERTER to the data link connector.



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

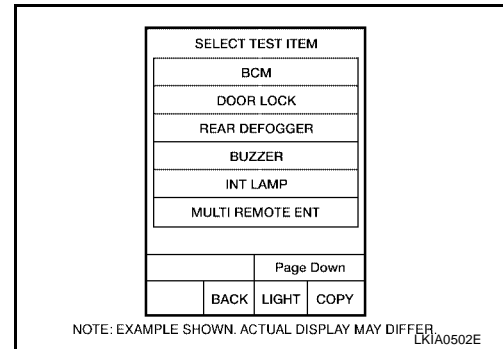


4. Touch "BCM".
If "BCM" is not indicated, refer to [GI-38, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#) .

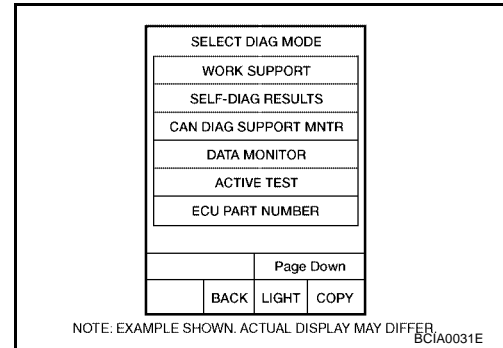


POWER WINDOW SYSTEM

5. Touch "RETAINED PWR".



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



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>

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.).

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

POWER WINDOW SYSTEM

EIS002KK

Trouble Diagnoses Symptom Chart (King Cab)

- 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-44
	2. Main power window and door lock/unlock power supply and ground circuit check	GW-45
	3. Power window serial link check	GW-67
	4. Replace BCM	BCS-25
Front power window LH alone does not operate	1. Front power window motor LH circuit check	GW-49
	2. Replace main power window and door lock/unlock switch	EI-32
Front power window RH alone does not operate	1. Power window and door lock/unlock switch RH power supply and ground circuit check	GW-47
	2. Power window serial link check	GW-67
	3. Front power window motor RH circuit check	GW-49
	4. Replace BCM	BCS-25
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-79
	3. Limit switch circuit check LH	GW-50
	4. Encoder circuit check LH	GW-55
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-79
	3. Limit switch circuit check RH	GW-53
	4. Encoder circuit check RH	GW-59
Power window retained power operation does not operate properly	1. Check the retained power operation mode setting.	GW-41
	2. Door switch check	GW-61
	3. Replace BCM.	BCS-25
Does not operate by front door lock assembly LH (key cylinder switch)	1. Front door lock assembly LH (key cylinder switch) check	GW-63
	2. Replace main power window and door lock/unlock switch	EI-32
Power window lock switch does not function	1. Power window lock switch circuit check	GW-67

POWER WINDOW SYSTEM

EIS0020C

Trouble Diagnoses Symptom Chart (Crew Cab)

- 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-44
	2. Main power window and door lock/unlock power supply and ground circuit check	GW-45
	3. Power window serial link check	GW-70
	4. Replace BCM	BCS-25
Front power window LH alone does not operate	1. Front power window motor LH circuit check	GW-49
	2. Replace main power window and door lock/unlock switch	EI-32
Front power window RH alone does not operate	1. Power window and door lock/unlock switch RH power supply and ground circuit check	GW-47
	2. Power window serial link check	GW-70
	3. Front power window motor RH circuit check	GW-49
	4. Replace BCM	BCS-25
Rear power window LH alone does not operate	1. Rear power window motor LH circuit check	GW-72
Rear power window RH alone does not operate	1. Rear power window motor RH circuit check	GW-74
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-79
	3. Limit switch circuit check LH	GW-52
	4. Encoder circuit check LH	GW-57
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-79
	3. Limit switch circuit check RH	GW-53
	4. Encoder circuit check RH	GW-59
Power window retained power operation does not operate properly	1. Check the retained power operation mode setting.	GW-41
	2. Door switch check	GW-61
	3. Replace BCM.	BCS-25
Does not operate by front door lock assembly LH (key cylinder switch)	1. Front door lock assembly LH (key cylinder switch) check	GW-65
	2. Replace main power window and door lock/unlock switch	EI-32
Power window lock switch does not function	1. Power window lock switch circuit check	GW-70

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POWER WINDOW SYSTEM

EIS002KL

BCM Power Supply and Ground Circuit Check

1. CHECK FUSE

Check 50A fusible link (letter f located in the fuse and fusible link box).
Check 10A fuse (No.59, located in the fuse and relay box).

NOTE:

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

OK or NG

OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse. Refer to [PG-3, "PRECAUTIONS"](#)

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM connector M18, M20 terminals 38, 70 and ground.

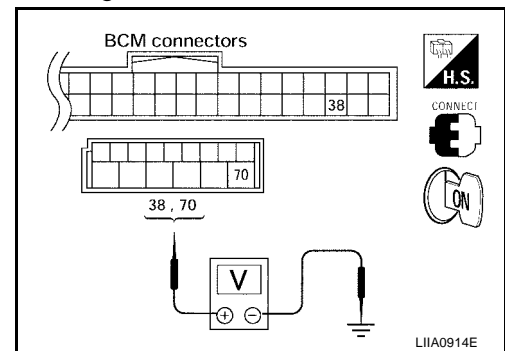
38 (W/L) – Ground : Battery voltage

70 (W/B) – Ground : Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. CHECK GROUND CIRCUIT

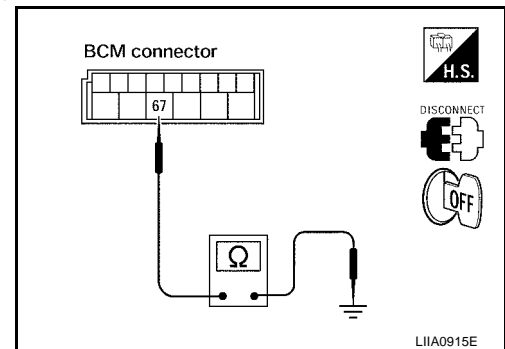
1. Turn ignition switch OFF.
2. Disconnect BCM.
3. Check continuity between BCM connector M20 terminal 67 and ground.

67 (B) – Ground : Continuity should exist.

OK or NG

OK >> Power supply and ground circuit is OK.

NG >> Repair or replace harness.



POWER WINDOW SYSTEM

Main Power Window and Door Lock/Unlock Switch Power Supply and Ground Circuit Check (King Cab)

EIS002KM

1. CHECK POWER SUPPLY CIRCUIT

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

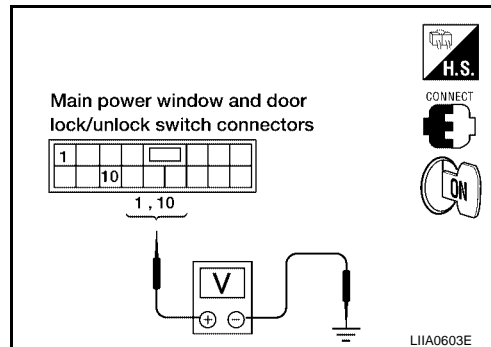
1 (W/R) – Ground : Battery voltage

10 (W/L) – Ground : Battery voltage

OK or NG

OK >> GO TO 2.

NG >> GO TO 3.



2. CHECK GROUND CIRCUIT

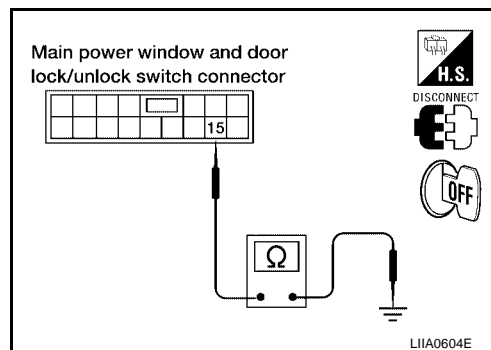
1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch.
3. Check continuity between main power window and door lock/unlock switch connector D7 terminal 15 and ground.

15 (B) – Ground : Continuity should exist.

OK or NG

OK >> Power supply and ground circuit are OK.

NG >> Repair or replace harness.



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

1. Disconnect BCM.
2. Check continuity between BCM connector M20 terminals 68, 69 and main power window and door lock/unlock switch connector D7 terminals 1, 10.

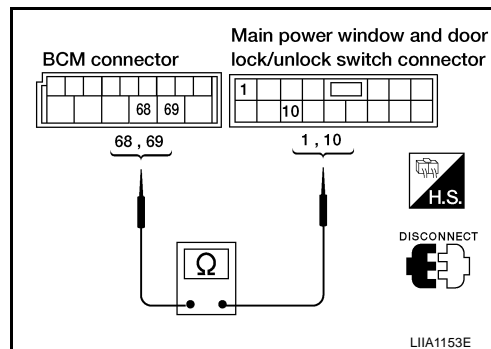
68 (W/L) – 10 (W/L) : Continuity should exist.

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

OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



POWER WINDOW SYSTEM

4. CHECK BCM OUTPUT SIGNAL

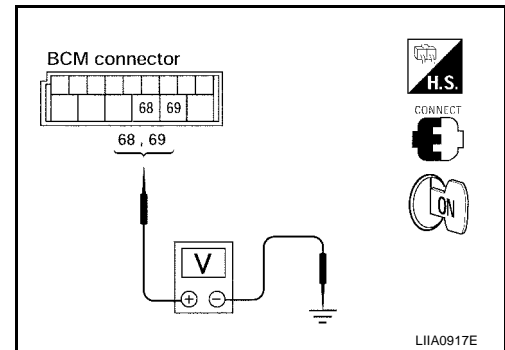
1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M20 terminals 68, 69 and ground.

68 (W/L) – Ground : Battery voltage

69 (W/R) – Ground : Battery voltage

OK or NG

- OK >> Check the condition of the harness and the connector.
NG >> Replace BCM. Refer to [BCS-25, "Removal and Installation of BCM"](#).



Main Power Window and Door Lock/Unlock Switch Power Supply and Ground Circuit Check (Crew Cab)

EIS0020D

1. CHECK POWER SUPPLY CIRCUIT

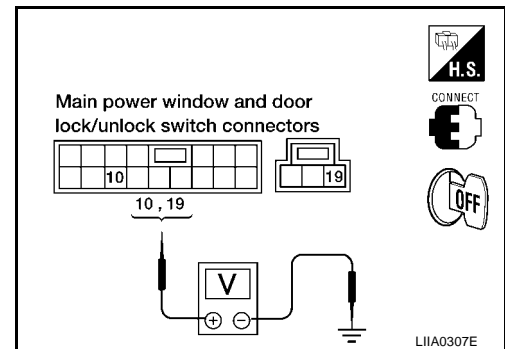
1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector D7 terminal 10, D8 terminal 19 and ground.

10 (W/L) – Ground : Battery voltage

19 (W/R) – Ground : Battery voltage

OK or NG

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



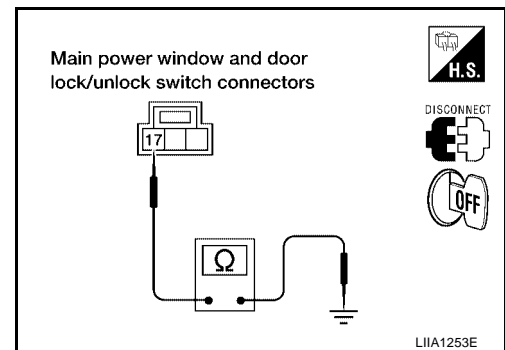
2. CHECK GROUND CIRCUIT

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 >> Power supply and ground circuit are OK.
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 M20 terminals 68, 69 and main power window and door lock/unlock switch connector D7 terminal 10 and D8 terminal 19.

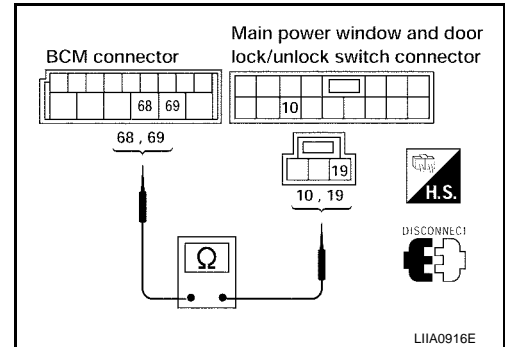
68 (W/L) – 10 (W/L) : Continuity should exist.

69 (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 M20 terminals 68, 69 and ground.

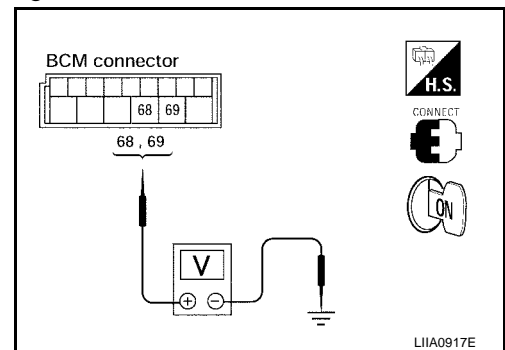
68 (W/L) – Ground : Battery voltage

69 (W/R) – Ground : Battery voltage

OK or NG

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

NG >> Replace BCM. Refer to [BCS-25, "Removal and Installation of BCM"](#) .



Power Window and Door Lock/Unlock Switch RH Power Supply and Ground Circuit Check

E/S002KN

1. CHECK POWER SUPPLY CIRCUIT

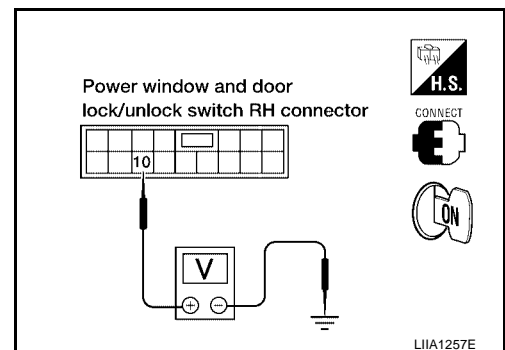
1. Turn ignition switch ON.
2. Check voltage between power window and door lock/unlock switch RH connector D105 terminal 10 and ground.

10 (W/R) – Ground : Battery voltage

OK or NG

OK >> GO TO 2.

NG >> GO TO 3.



POWER WINDOW SYSTEM

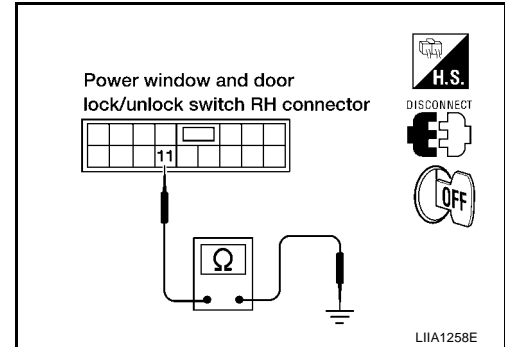
2. CHECK GROUND CIRCUIT

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

11 (B) – Ground : Continuity should exist.

OK or NG

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



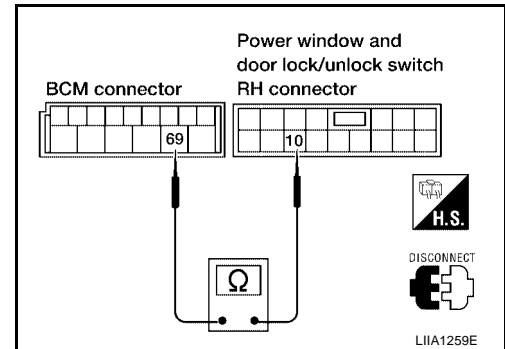
3. CHECK POWER WINDOW SWITCH RH POWER SUPPLY CIRCUIT

1. Disconnect BCM.
2. Check continuity between BCM connector M20 terminal 69 and power window and door lock/unlock switch RH connector D105 terminal 10.

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

OK or NG

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



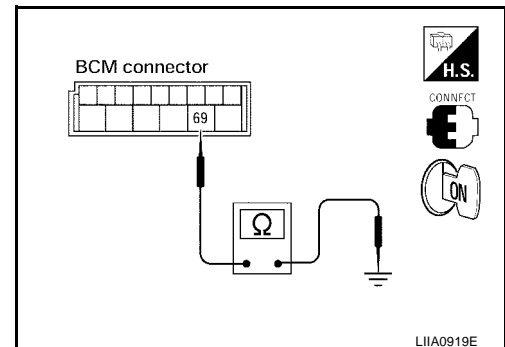
4. CHECK BCM OUTPUT SIGNAL

1. Connect BCM.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M20 terminal 69 and ground.

69 (W/R) – Ground : Battery voltage

OK or NG

- OK >> Check the condition of the harness and the connector
NG >> Replace BCM. Refer to [BCS-25. "Removal and Installation of BCM"](#).



POWER WINDOW SYSTEM

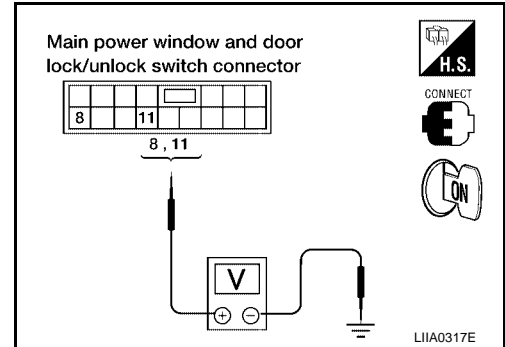
EIS002KO

Front Power Window Motor LH Circuit Check

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 terminals 8, 11 and ground.

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



OK or NG

- OK >> GO TO 2.
 NG >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .

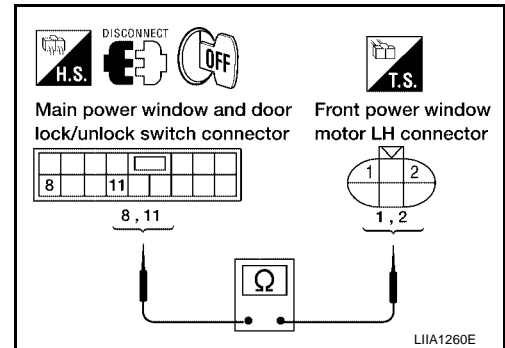
2. CHECK POWER WINDOW MOTOR CIRCUIT

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 terminals 8, 11 and front power window motor LH connector D9 terminals 1, 2.

8 (G/R) – 2 (G/R) : Continuity should exist.
11 (G/W) – 1 (G/W) : Continuity should exist.

OK or NG

- OK >> Replace front power window motor LH. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#) .
 NG >> Repair or replace harness.



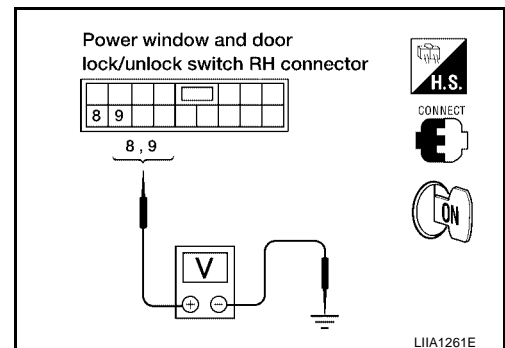
Power Window Motor RH Circuit Check

EIS002KP

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

1. Turn ignition switch ON.
2. Check voltage between power window and door lock/unlock switch RH connector D105 terminals 8, 9 and ground.

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



OK or NG

- OK >> GO TO 2.
 NG >> Replace power window and door lock/unlock switch RH. Refer to [EI-32, "Front Door"](#) .

POWER WINDOW SYSTEM

2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

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

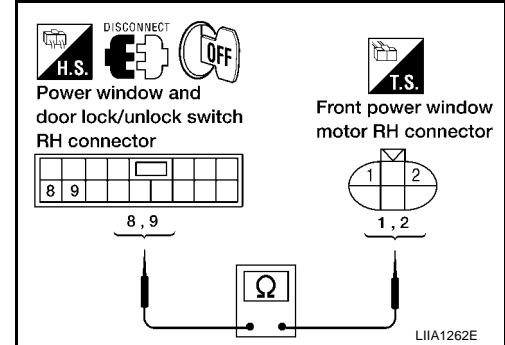
8 (L) – 2 (L) : Continuity should exist.

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

OK or NG

OK >> Replace front power window motor RH. Refer to [GW-78](#), "[Removal and Installation \(with Power Windows\)](#)".

NG >> Repair or replace harness.



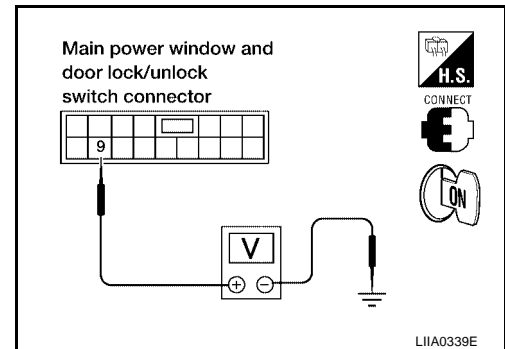
Limit Switch Circuit Check Front LH (King Cab)

EIS002KQ

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

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D7	9 (O)	Ground	Driver side door window is between fully-open and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5



OK or NG

OK >> Limit switch circuit is OK.

NG >> GO TO 2.

2. CHECK FRONT POWER WINDOW MOTOR LH LIMIT SIGNAL

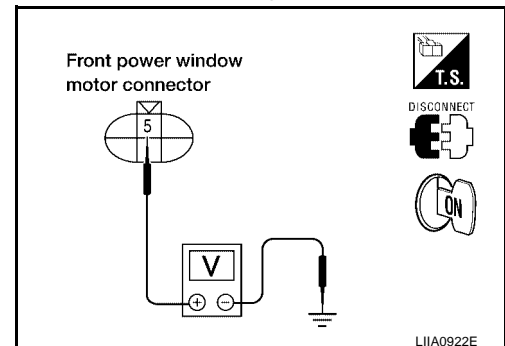
1. Turn ignition switch OFF.
2. Disconnect front power window motor LH.
3. Check continuity between front power window motor LH connector D9 terminal 5 and ground.

5 (O) – Ground : Approx. 5V

OK or NG

OK >> GO TO 3.

NG >> GO TO 5.



POWER WINDOW SYSTEM

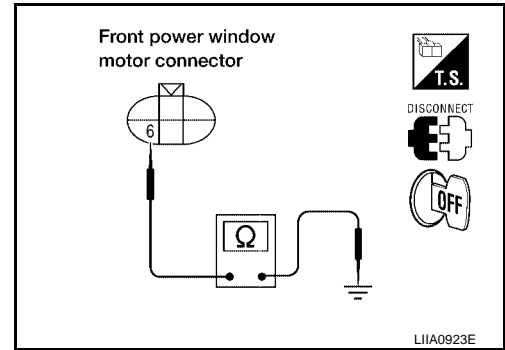
3. CHECK LIMIT SWITCH GROUND CIRCUIT

Check continuity between front power window motor LH connector D9 terminal 6 and ground.

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

OK or NG

- OK >> Replace front power window motor LH. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#).
- NG >> GO TO 4.



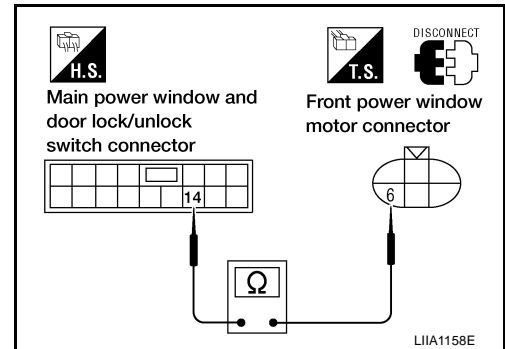
4. CHECK HARNESS CONTINUITY

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 6 and main power window and door lock/unlock switch connector D7 terminal 14.

6 (W/B) – 14 (W/B) : Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#).
- NG >> Repair or replace harness.



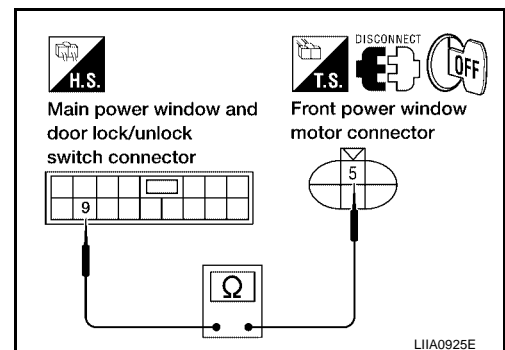
5. CHECK HARNESS CONTINUITY

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 5 and main power window and door lock/unlock switch connector D7 terminal 9.

5 (O) – 9 (O) : Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#).
- NG >> Repair or replace harness.



POWER WINDOW SYSTEM

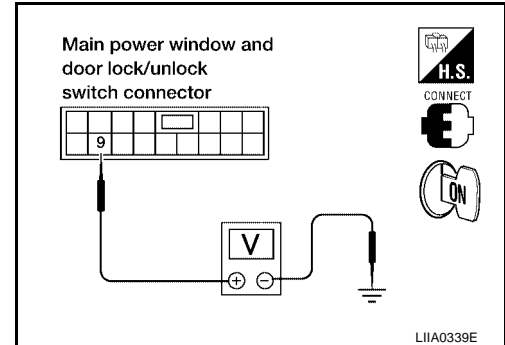
EIS0020G

Limit Switch Circuit Check Front LH (Crew Cab)

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

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D7	9 (O)	Ground	Driver side door window is between fully-open and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5



OK or NG

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

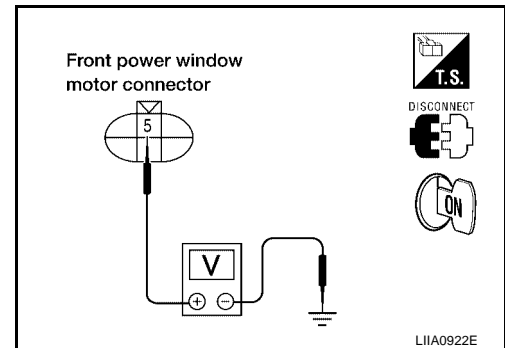
2. CHECK FRONT POWER WINDOW MOTOR LH LIMIT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect front power window motor LH.
3. Check continuity between front power window motor LH connector D9 terminal 5 and ground.

5 (O) – Ground : Approx. 5V

OK or NG

- OK >> GO TO 3.
 NG >> GO TO 5.



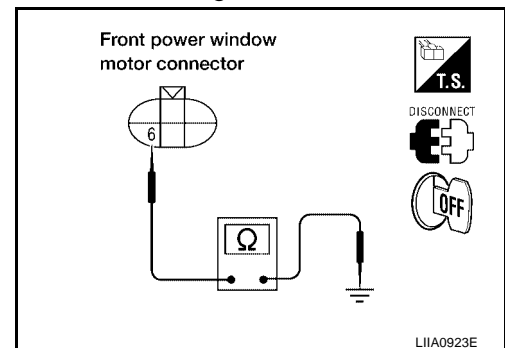
3. CHECK LIMIT SWITCH GROUND CIRCUIT

Check continuity between front power window motor LH connector D9 terminal 6 and ground.

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

OK or NG

- OK >> Replace front power window motor LH. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#).
 NG >> GO TO 4.



POWER WINDOW SYSTEM

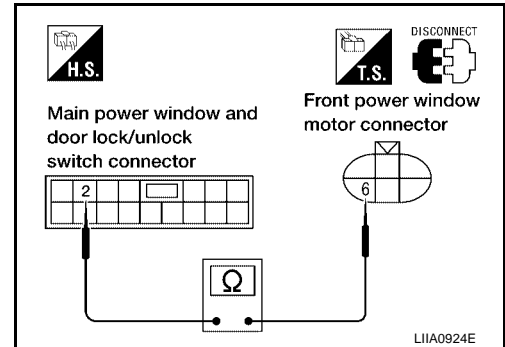
4. CHECK HARNESS CONTINUITY

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

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

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#).
- NG >> Repair or replace harness.



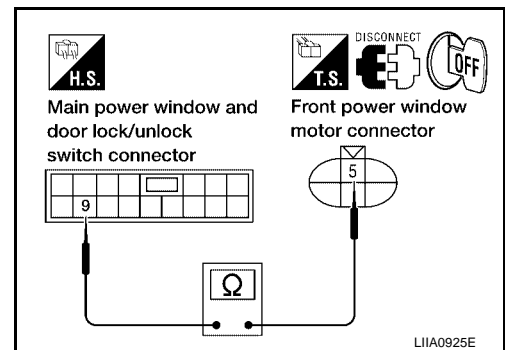
5. CHECK HARNESS CONTINUITY

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 5 and main power window and door lock/unlock switch connector D7 terminal 9.

5 (O) – 9 (O) : Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#).
- NG >> Repair or replace harness.

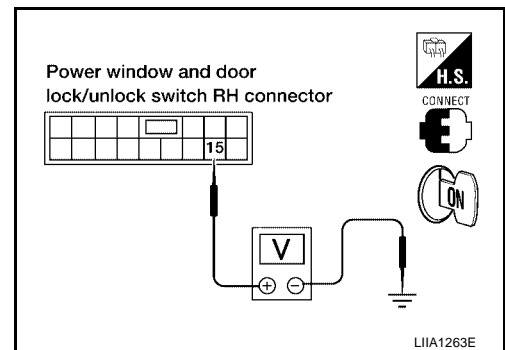


Limit Switch Circuit Check Front RH

1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH LIMIT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between power window and door lock/unlock switch RH connector D105 terminal 15 and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D105	15 (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

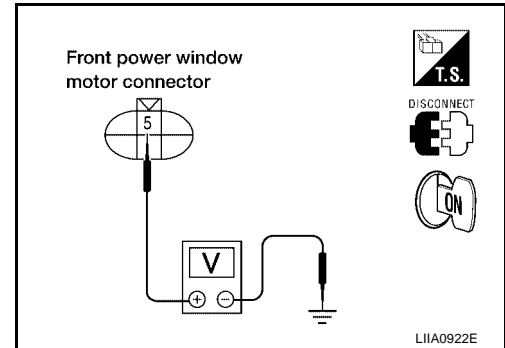
2. CHECK LIMIT SWITCH GROUND CIRCUIT

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

5 (G/W) – Ground : Approx. 5V

OK or NG

- OK >> GO TO 3.
NG >> GO TO 5.



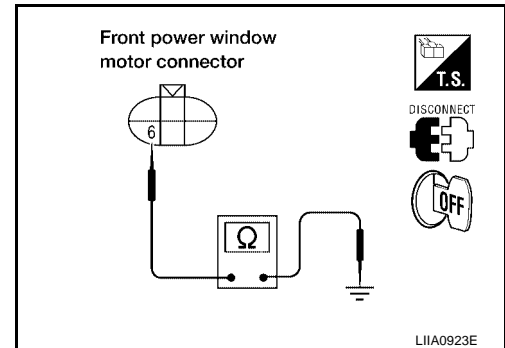
3. CHECK LIMIT SWITCH GROUND CIRCUIT

Check continuity between front power window motor RH connector D104 terminal 6 and ground.

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

OK or NG

- OK >> Replace front power window motor RH. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#).
- NG >> GO TO 4.



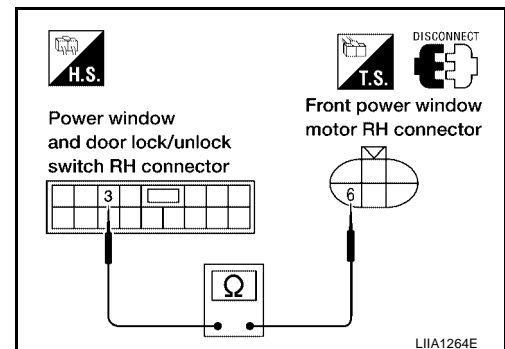
4. CHECK HARNESS CONTINUITY

1. Disconnect power window and door lock/unlock switch RH.
2. Check continuity between front power window motor RH connector D104 terminal 6 and power window and door lock/unlock switch RH connector D105 terminal 3.

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

OK or NG

- OK >> Replace power window and door lock/unlock switch RH. Refer to [EI-32, "Front Door"](#).
- NG >> Repair or replace harness.



POWER WINDOW SYSTEM

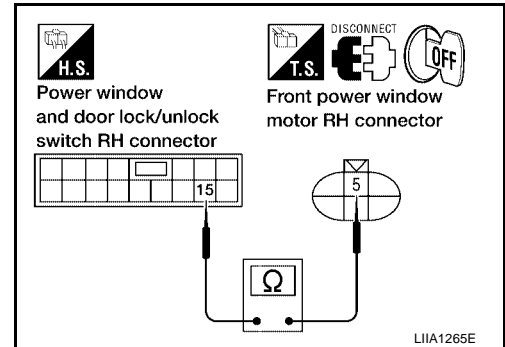
5. CHECK HARNESS CONTINUITY

1. Disconnect power window and door lock/unlock switch RH.
2. Check continuity between power window and door lock/unlock switch RH connector D105 terminal 15 and front power window motor RH connector D104 terminal 5.

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

OK or NG

- OK >> Replace power window and door lock/unlock switch RH.
Refer to [EI-32, "Front Door"](#) .
- NG >> Repair or replace harness.



Encoder Circuit Check Front LH (King Cab)

EIS002KS

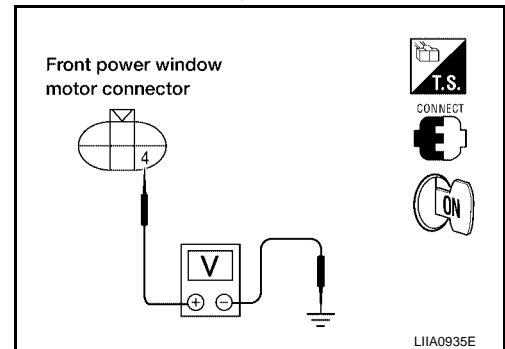
1. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

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

4 (BR) – Ground : Approx. 10V

OK or NG

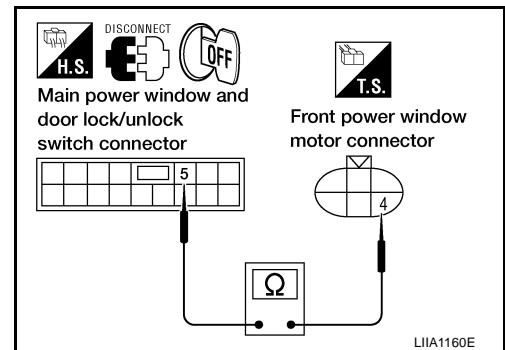
- OK >> GO TO 3.
- NG >> GO TO 2.



2. 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 5.

4 (BR) – 5 (BR) : Continuity should exist.



OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .
- NG >> Repair or replace harness.

POWER WINDOW SYSTEM

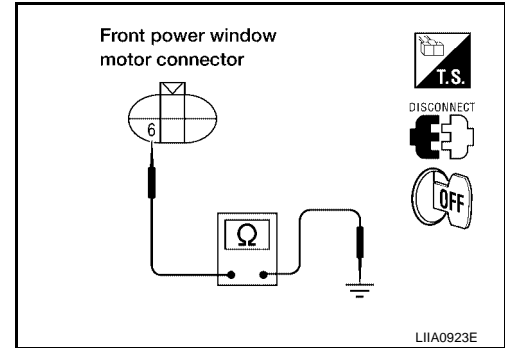
3. CHECK ENCODER GROUND

1. Turn ignition switch OFF.
2. Check continuity between front power window motor LH connector D9 terminal 6 and ground.

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

OK or NG

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



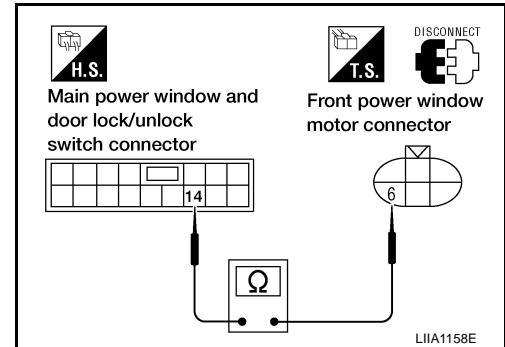
4. CHECK ENCODER GROUND CIRCUIT

1. Disconnect main power window and door lock/unlock switch.
2. Check continuity between front power window motor LH connector D9 terminal 6 and main power window and door lock/unlock switch connector D7 terminal 14.

6 (W/B) – 14 (W/B) : Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .
 NG >> Repair or replace harness.



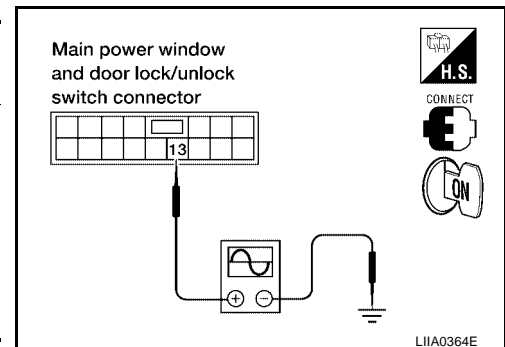
5. CHECK ENCODER SIGNAL

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	

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .
 NG >> GO TO 6.



POWER WINDOW SYSTEM

6. CHECK ENCODER CIRCUIT

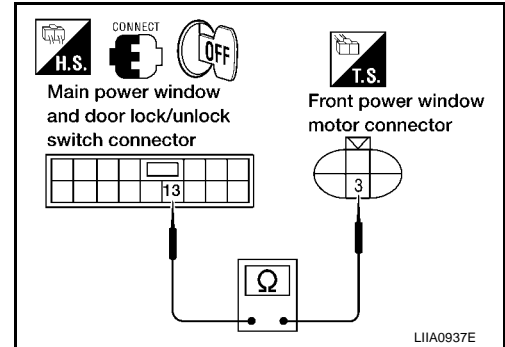
1. Turn ignition switch OFF.
2. Disconnect front power window motor LH and main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 3 and main power window and door lock/unlock switch connector D7 terminal 13.

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

OK or NG

OK >> Replace front power window motor LH. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#).

NG >> Repair or replace harness.



EIS0020H

Encoder Circuit Check Front LH (Crew Cab)

1. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

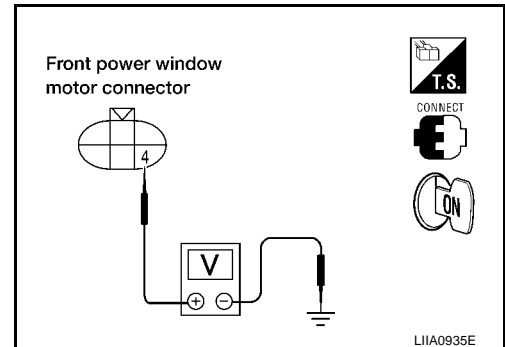
1. Turn ignition switch OFF.
2. Disconnect front power window motor LH.
3. Turn ignition switch ON.
4. Check voltage between front power window motor LH connector D9 terminal 4 and ground.

4 (BR) – Ground : Approx. 10V

OK or NG

OK >> GO TO 3.

NG >> GO TO 2.

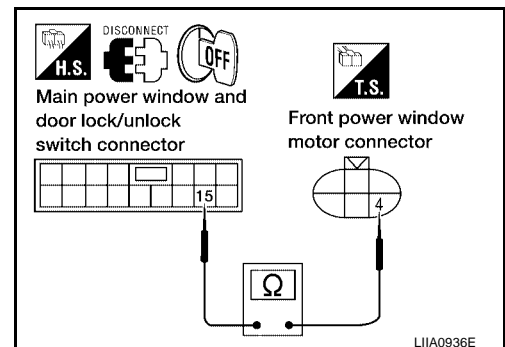


GW

2. 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 15.

4 (BR) – 15 (BR) : Continuity should exist.



OK or NG

OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#).

NG >> Repair or replace harness.

POWER WINDOW SYSTEM

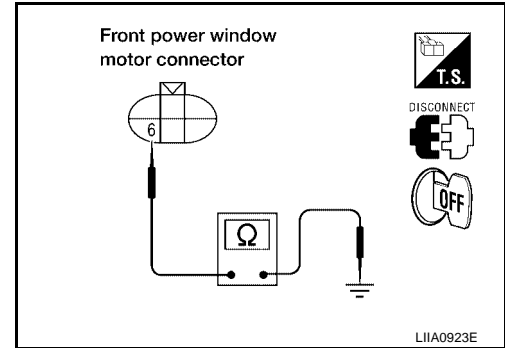
3. CHECK ENCODER GROUND

1. Disconnect front power window motor LH.
2. Check continuity between front power window motor LH connector D9 terminal 6 and ground.

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

OK or NG

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



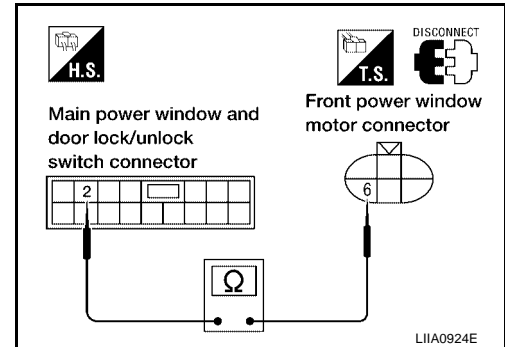
4. CHECK ENCODER GROUND CIRCUIT

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

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

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .
 NG >> Repair or replace harness.



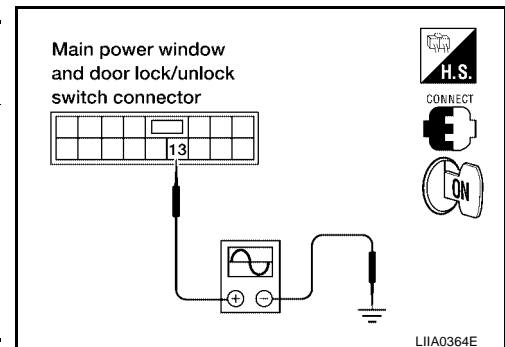
5. CHECK ENCODER SIGNAL

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	

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .
 NG >> GO TO 6.



POWER WINDOW SYSTEM

6. CHECK ENCODER CIRCUIT

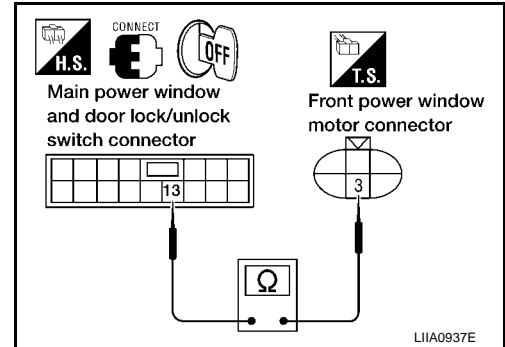
1. Turn ignition switch OFF.
2. Disconnect front power window motor LH and main power window and door lock/unlock switch.
3. Check continuity between front power window motor LH connector D9 terminal 3 and main power window and door lock/unlock switch connector D7 terminal 13.

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

OK or NG

OK >> Replace front power window motor LH. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#).

NG >> Repair or replace harness.



EIS002KT

Encoder Circuit Check Front RH

1. CHECK FRONT POWER WINDOW MOTOR RH POWER SUPPLY

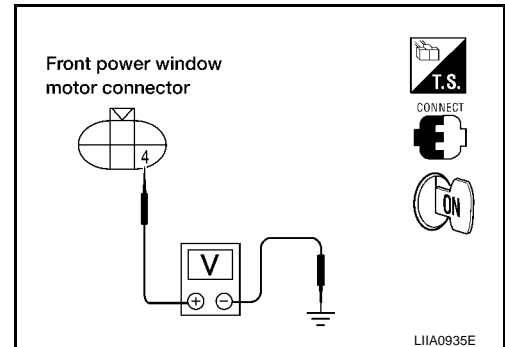
1. Turn ignition switch OFF.
2. Disconnect front power window motor RH.
3. Turn ignition switch ON.
4. Check voltage between front power window motor RH connector D104 terminal 4 and ground.

4 (G/R) – Ground : Approx. 10V

OK or NG

OK >> GO TO 3.

NG >> GO TO 2.

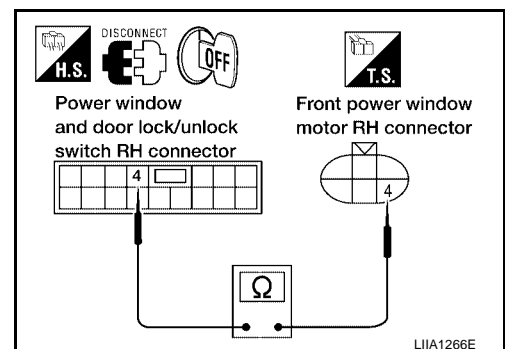


GW

2. CHECK HARNESS CONTINUITY

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

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



OK or NG

OK >> Replace power window and door lock/unlock switch RH. Refer to [EI-32, "Front Door"](#).

NG >> Repair or replace harness.

POWER WINDOW SYSTEM

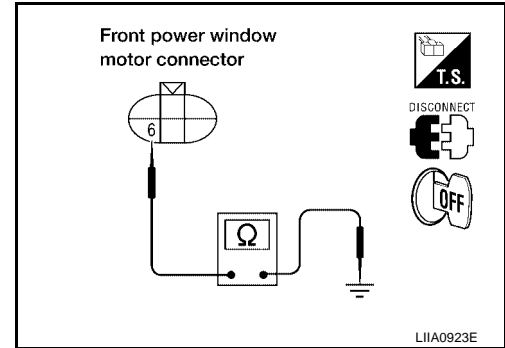
3. CHECK ENCODER GROUND

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

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

OK or NG

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



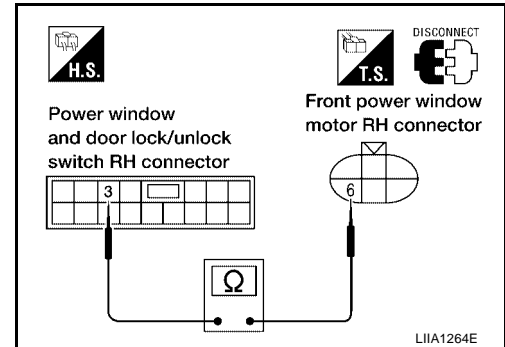
4. CHECK ENCODER GROUND CIRCUIT

1. Disconnect power window and door lock/unlock switch RH.
2. Check continuity between front power window motor RH connector D104 terminal 6 and power window and door lock/unlock switch RH connector D105 terminal 3.

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

OK or NG

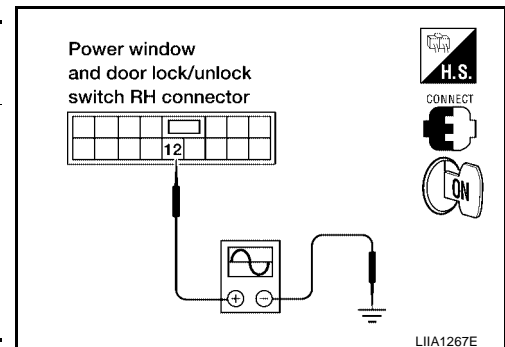
- OK >> Replace power window and door lock/unlock switch RH.
 Refer to [EI-32, "Front Door"](#) .
 NG >> Repair or replace harness.



5. CHECK ENCODER SIGNAL

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

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



OK or NG

- OK >> Replace power window and door lock/unlock switch RH. Refer to [EI-32, "Front Door"](#) .
 NG >> GO TO 6.

POWER WINDOW SYSTEM

6. CHECK ENCODER CIRCUIT

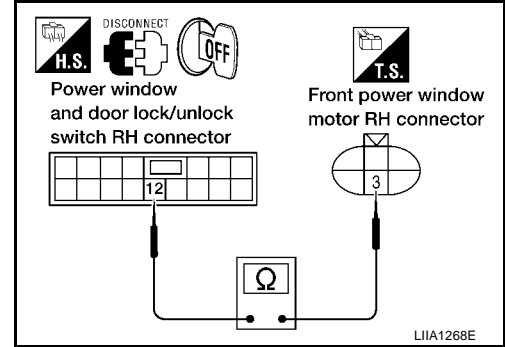
1. Turn ignition switch OFF.
2. Disconnect front power window motor RH and power window and door lock/unlock switch RH.
3. Check continuity between front power window motor RH connector D104 terminal 3 and power window and door lock/unlock switch RH connector D105 terminal 12.

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

OK or NG

OK >> Replace front power window motor RH. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#).

NG >> Repair or replace harness.



EIS002KU

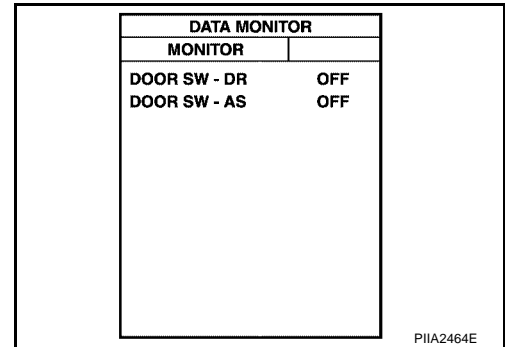
Door Switch Check

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.

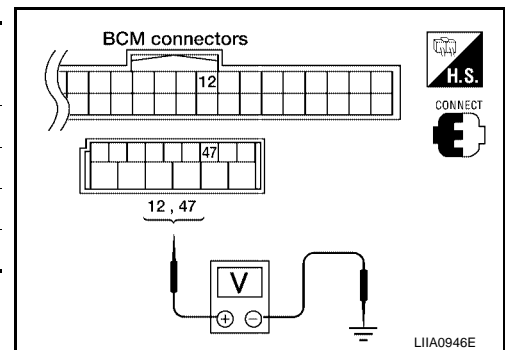
Monitor item	Condition
DOOR SW-DR	OPEN : ON
	CLOSE : OFF
DOOR SW-AS	OPEN : ON
	CLOSE : OFF



Without CONSULT-II

Check voltage between BCM connector and ground.

Item	Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
		(+)	(-)		
Front RH	M19	12 (R/L)	Ground	OPEN	0
				CLOSE	Battery voltage
Front LH	M20	47 (SB)	Ground	OPEN	0
				CLOSE	Battery voltage



OK or NG

OK >> Front door switch is OK.

NG >> GO TO 2.

POWER WINDOW SYSTEM

2. CHECK FRONT DOOR SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front door switch LH or RH and BCM.
3. Check continuity between front door switch connector B8 (LH) or B108 (RH) terminal 2 and BCM connector M19 terminal 47 (LH) or connector M18 terminal 12 (LH).

Front LH

2 (SB) – 47 (SB) : Continuity should exist.

Front RH

2 (R/L) – 12 (R/L) : Continuity should exist.

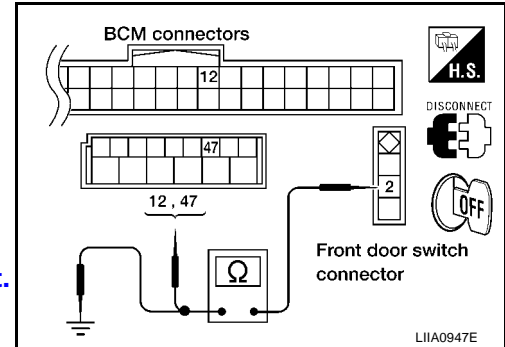
4. Check continuity between front door switch connector B8 (LH) or B108 (RH) terminal 2 and ground.

2 (SB or R/L) – Ground : Continuity should not exist.

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. CHECK DOOR SWITCH

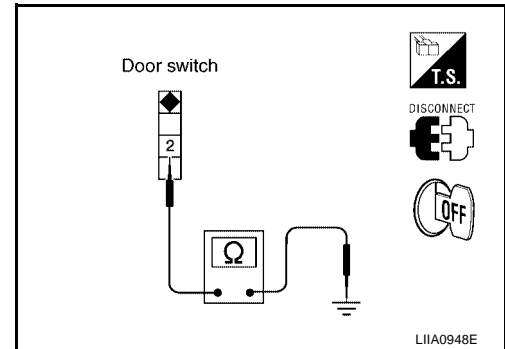
Check continuity between each front door switch terminal 2 and body ground part of front door switch.

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

OK or NG

OK >> Replace BCM. Refer to [BCS-25, "Removal and Installation of BCM"](#).

NG >> Replace malfunctioning front door switch.



POWER WINDOW SYSTEM

Front Door Lock Assembly LH (Key Cylinder Switch) Check (King Cab)

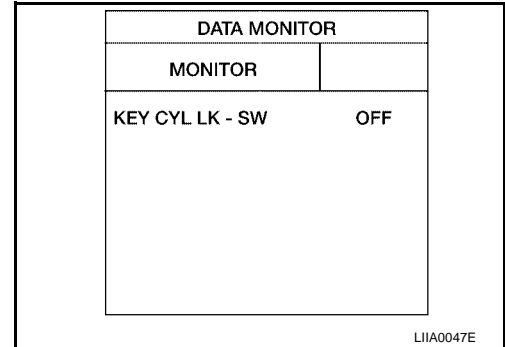
EIS002KV

1. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) INPUT SIGNAL

① With CONSULT-II

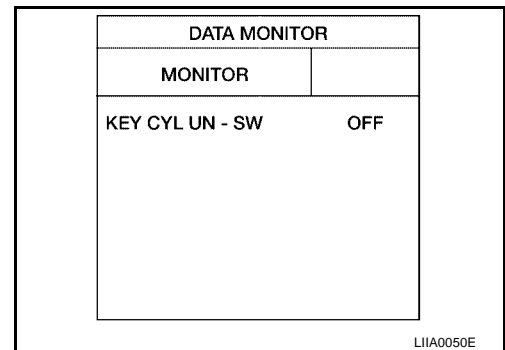
- Check front door lock assembly LH (key cylinder switch) ("KEY CYL LK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-41, "DATA MONITOR"](#).

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



- Check front door lock assembly LH (key cylinder switch) ("KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-41, "DATA MONITOR"](#).

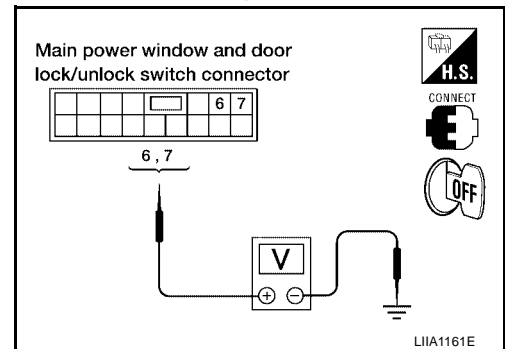
"KEY CYL UN-SW" should be "ON" when key inserted in door key cylinder was turned to unlock.



② 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 (L)	Ground	Neutral / Lock	5
			Lock	0
	7 (R)		Neutral / Unlock	5
			Unlock	0



OK or NG

- OK >> Front door lock assembly LH (key cylinder switch) is OK.
- NG >> GO TO 2.

2. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) CIRCUIT

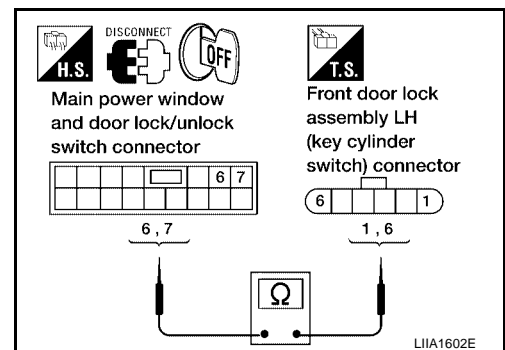
- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and front door lock assembly LH (key cylinder switch).
- Check continuity between main power window and door lock/unlock switch connector D7 terminals 6, 7 and front door lock assembly LH (key cylinder switch) connector D14 terminals 1, 6.

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

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

OK or NG

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



POWER WINDOW SYSTEM

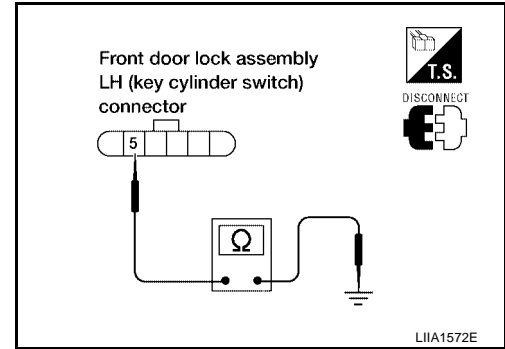
3. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) GROUND

Check continuity between front door lock assembly LH (key cylinder switch) connector D14 terminal 5 and ground.

5 (B) – Ground : Continuity should exist.

OK or NG

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



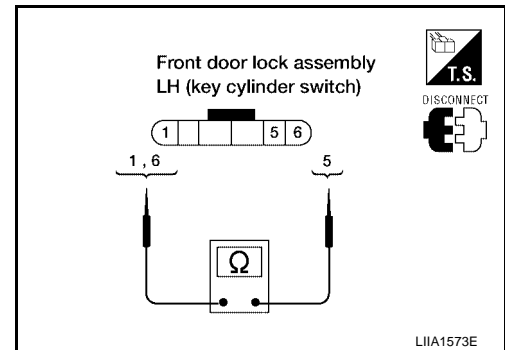
4. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)

Check continuity between front door lock assembly LH (key cylinder switch) connector D14 terminals 1, 6 and 5.

Terminals		Key position	Continuity
6	5	Neutral / Lock	No
		Unlock	Yes
1		Neutral / Unlock	No
		Lock	Yes

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .
- NG >> Replace front door lock assembly LH (key cylinder switch). Refer to [BL-128, "Removal and Installation"](#) .



POWER WINDOW SYSTEM

Front Door Lock Assembly LH (Key Cylinder Switch) Check (Crew Cab)

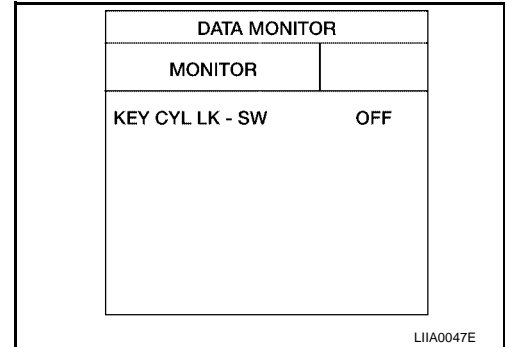
EIS0020E

1. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) INPUT SIGNAL

① With CONSULT-II

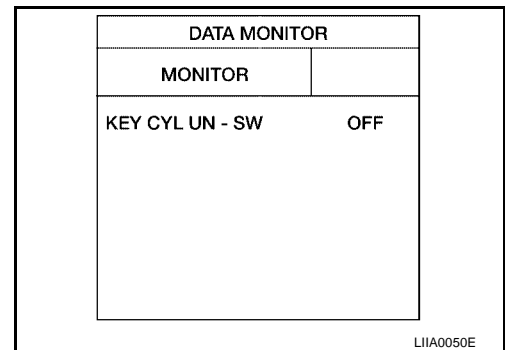
- Check front door lock assembly LH (key cylinder switch) ("KEY CYL LK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-41, "DATA MONITOR"](#).

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



- Check front door lock assembly LH (key cylinder switch) ("KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-II. Refer to [GW-41, "DATA MONITOR"](#).

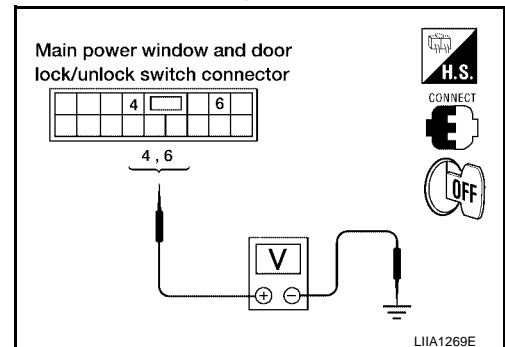
"KEY CYL UN-SW" should be "ON" when key inserted in door key cylinder was turned to unlock.



② 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 >> Front door lock assembly LH (key cylinder switch) is OK.
- NG >> GO TO 2.

2. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) CIRCUIT

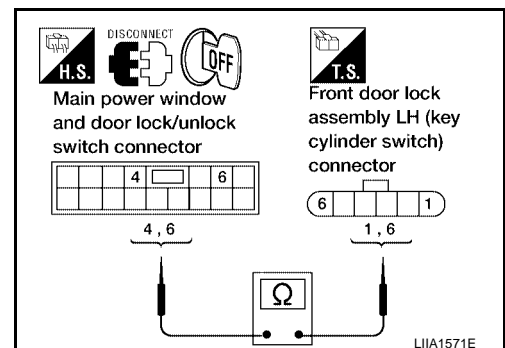
- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and front door lock assembly LH (key cylinder switch).
- Check continuity between main power window and door lock/unlock switch connector D7 terminals 4, 6 and front door lock assembly LH (key cylinder switch) connector D14 terminals 1, 6.

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

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

OK or NG

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



POWER WINDOW SYSTEM

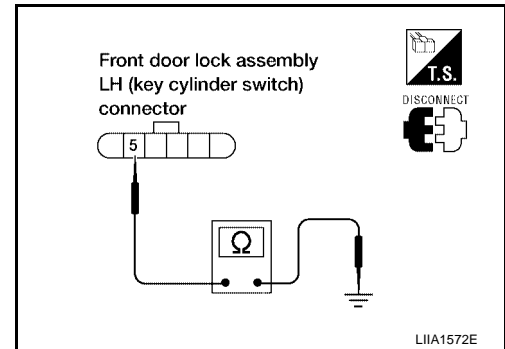
3. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) GROUND

Check continuity between front door lock assembly LH (key cylinder switch) connector D14 terminal 5 and ground.

5 (B) – Ground : Continuity should exist.

OK or NG

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



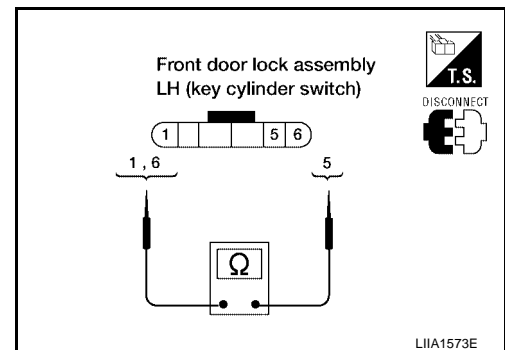
4. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)

Check continuity between front door lock assembly LH (key cylinder switch) connector D14 terminals 1, 6 and 5.

Terminals		Key position	Continuity
6	5	Neutral / Lock	No
		Unlock	Yes
1		Neutral / Unlock	No
		Lock	Yes

OK or NG

- OK >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#) .
- NG >> Replace front door lock assembly LH (key cylinder switch). Refer to [BL-128, "Removal and Installation"](#) .



POWER WINDOW SYSTEM

Power Window Serial Link Check Front LH and RH (King Cab)

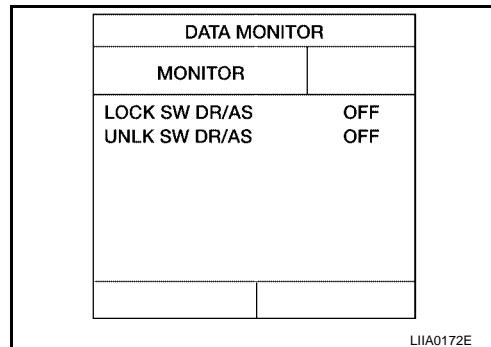
EIS002KW

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-41, "DATA MONITOR"](#).

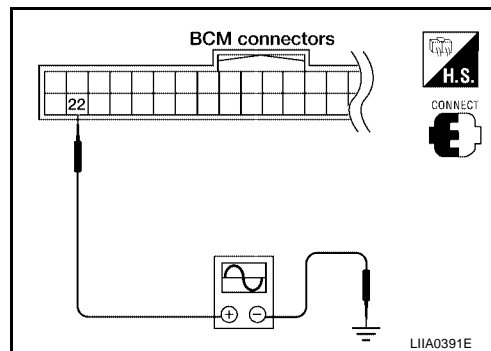
- When door lock and unlock switch is turned to LOCK
LOCK SW DR/AS : ON
- When door lock and unlock switch is turned to UNLOCK
UNLK SW DR/AS : ON



Without CONSULT-II

- Remove key from ignition switch, and make sure the driver side and passenger side doors are 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 (G)	Ground	<p>PIIA1297E</p>



OK or NG

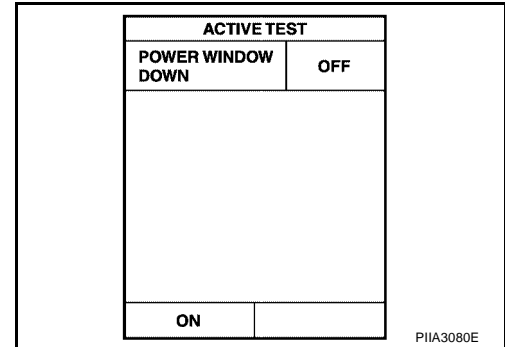
- OK >> GO TO 2.
- NG >> GO TO 3.

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-41, "ACTIVE TEST"](#).

When "ACTIVE TEST" is executed, are the driver side and passenger side windows lowered?



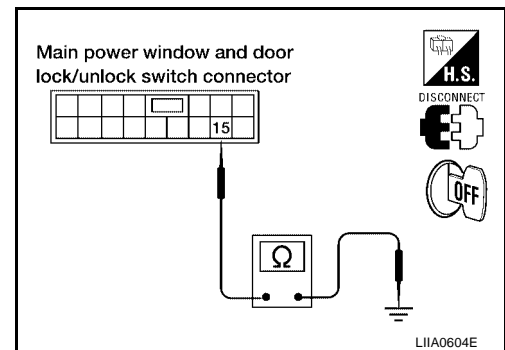
OK or NG

- 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 power window and door lock/unlock switch RH.
3. Check continuity between main power window and door lock/unlock switch connector D7 terminal 15 and ground.

15 (B) – Ground : Continuity should exist.

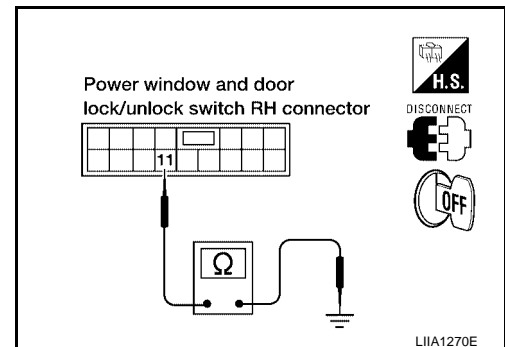


4. Check continuity between power window and door lock/unlock switch RH connector D105 terminal 11 and ground.

11 (B) – Ground : Continuity should exist.

OK or NG

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

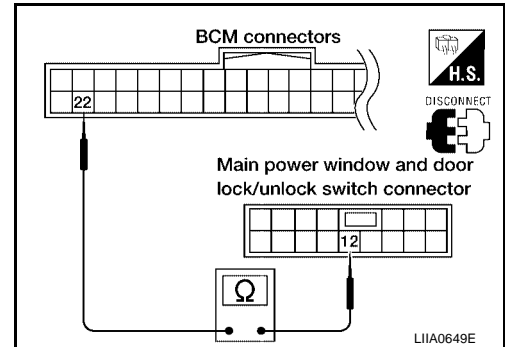


POWER WINDOW SYSTEM

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 12.

22 (G) – 12 (LG/W) : Continuity should exist.

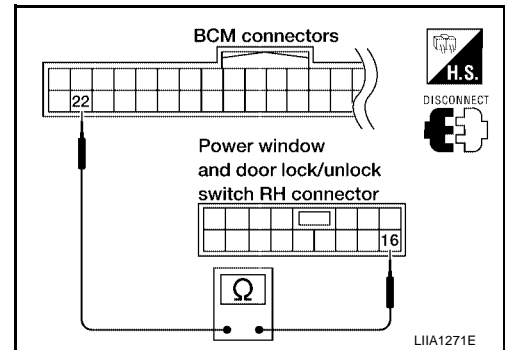


3. Check continuity between BCM connector M18 terminal 22 and power window and door lock/unlock switch RH connector D105 terminal 16.

22 (G) – 16 (LG/W) : Continuity should exist.

OK or NG

- OK >> Replace main power window and door lock/unlock switch or power window and door lock/unlock switch RH. Refer to [EI-32, "Front Door"](#).
- NG >> Repair or replace harness.



POWER WINDOW SYSTEM

EIS0020F

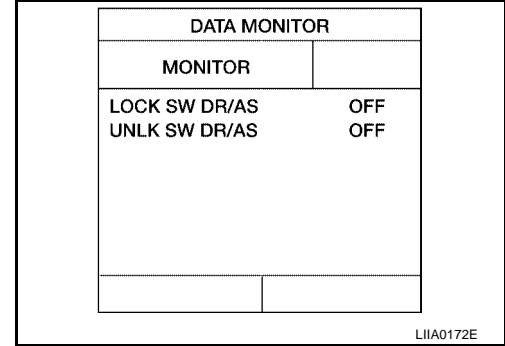
Power Window Serial Link Check Front LH and RH / Crew Cab

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-41, "DATA MONITOR"](#).

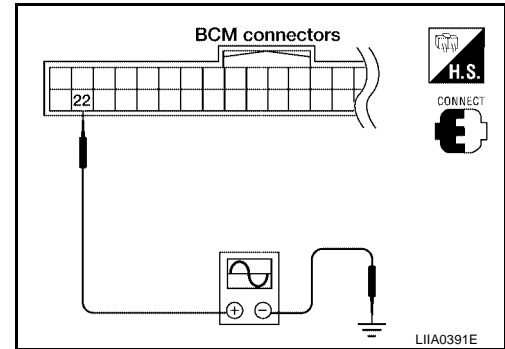
- When door lock and unlock switch is turned to LOCK
LOCK SW DR/AS : ON
- When door lock and unlock switch is turned to UNLOCK
UNLK SW DR/AS : ON



Without CONSULT-II

- Remove key from ignition switch, and make sure the driver side and passenger side doors are 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 (G)	Ground	



OK or NG

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

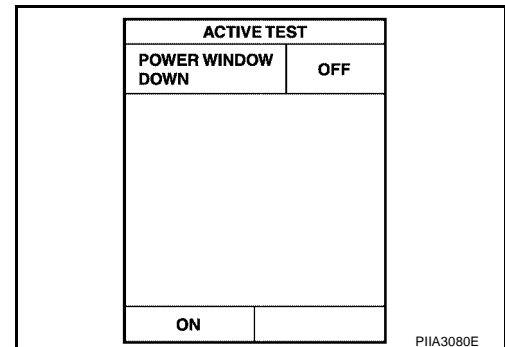
2. CHECK BCM OUTPUT SIGNAL

Check power window serial link ("POWER WINDOW DOWN") in "ACTIVE TEST" mode with CONSULT-II. Refer to [GW-41, "ACTIVE TEST"](#).

When "ACTIVE TEST" is executed, are the driver side and passenger side windows lowered?

OK or NG

- OK >> Further inspection is necessary. Refer to symptom chart.
- NG >> Replace BCM. Refer to [BCS-25, "Removal and Installation of BCM"](#).

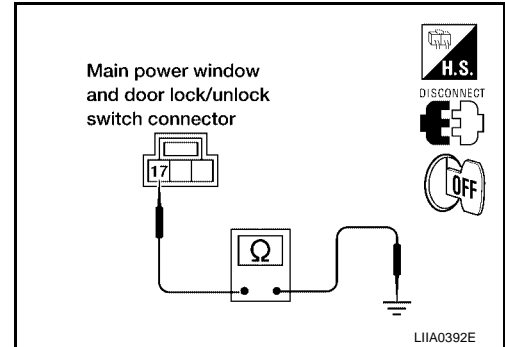


POWER WINDOW SYSTEM

3. CHECK POWER WINDOW SWITCH GROUND

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch and power window and door lock/unlock 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.

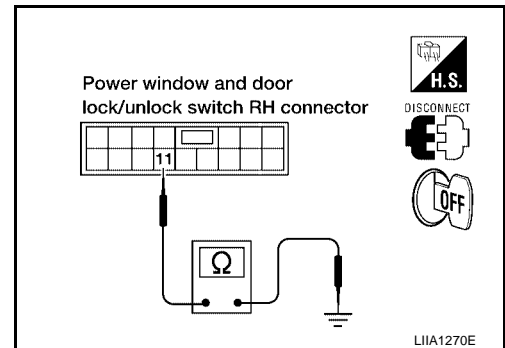


4. Check continuity between power window and door lock/unlock switch RH connector D105 terminal 11 and ground.

11 (B) – Ground : Continuity should exist.

OK or NG

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

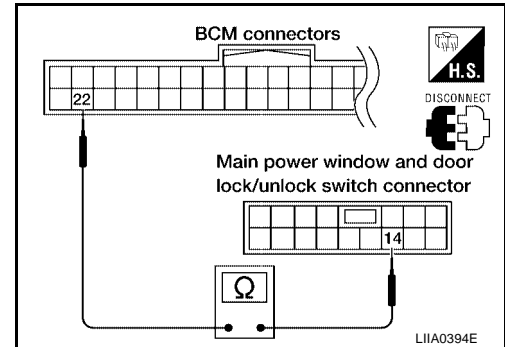


POWER WINDOW SYSTEM

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 (G) – 14 (LG/W) : Continuity should exist.



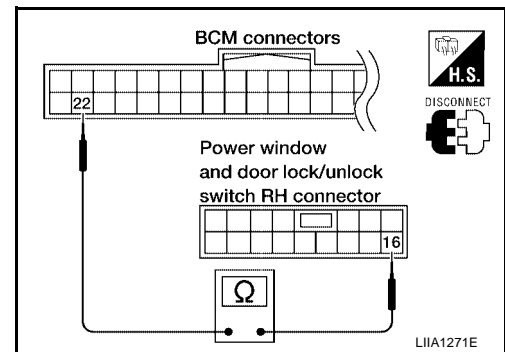
3. Check continuity between BCM connector M18 terminal 22 and power window and door lock/unlock switch RH connector D105 terminal 16.

22 (G) – 16 (LG/W) : Continuity should exist.

OK or NG

OK >> Replace main power window and door lock/unlock switch or power window and door lock/unlock switch RH. Refer to [EI-32, "Front Door"](#).

NG >> Repair or replace harness.



Rear Power Window Motor LH Circuit Check (Crew Cab)

EIS002KX

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

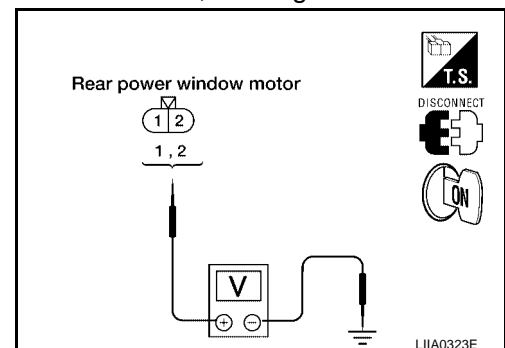
1. Turn ignition switch OFF.
2. Disconnect rear power window motor LH.
3. Turn ignition switch ON.
4. Check voltage between rear power window motor LH connector D204 terminal 1, 2 and ground.

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

OK or NG

OK >> Replace rear power window motor LH. Refer to [GW-80, "Removal and Installation"](#).

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.

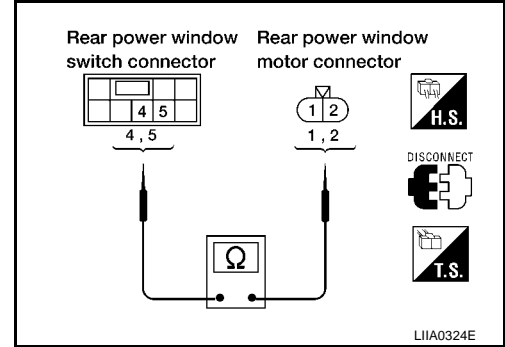
4 (G) – 2 (G) : Continuity should exist.

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

OK or NG

OK >> GO TO 3

NG >> Repair or replace harness.



3. CHECK POWER SUPPLY

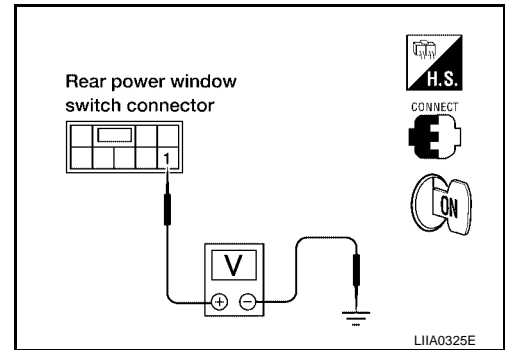
1. Connect rear power window switch LH.
2. Turn ignition switch ON.
3. Check voltage between rear power window switch LH connector D203 terminal 1 and ground.

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

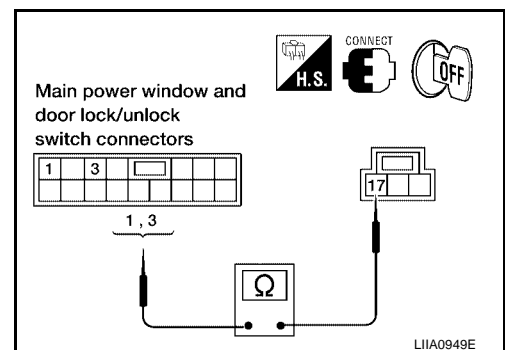
1 (R/Y) – 17 (B) : Continuity should exist.

3 (R/B) – 17 (B) : Continuity should exist.

OK or NG

OK >> Repair or replace harness.

NG >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#).



POWER WINDOW SYSTEM

EIS002KY

Rear Power Window Motor RH Circuit Check (Crew Cab)

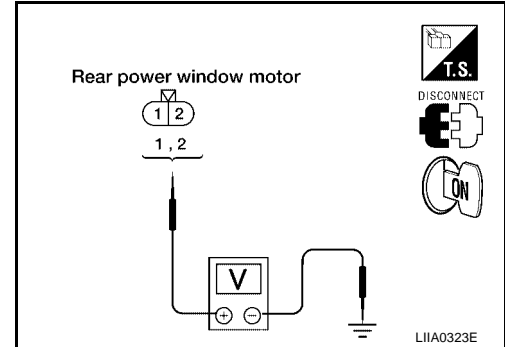
1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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 (Y/B)	Ground	UP	Battery voltage
			DOWN	0
	1 (BR)		UP	0
			DOWN	Battery voltage

OK or NG

- OK >> Replace rear power window motor RH. Refer to [GW-80](#), "[Removal and Installation](#)".
- NG >> GO TO 2.



2. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

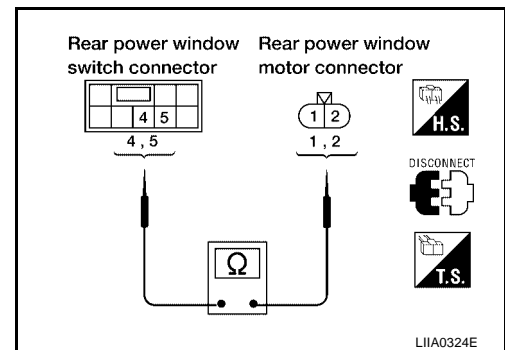
1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH.
3. Check continuity between rear power window switch RH connector D303 terminal 4, 5 and rear power window motor RH connector D304 terminal 1, 2.

4 (Y/B) – 2 (Y/B) : Continuity should exist.

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

OK or NG

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



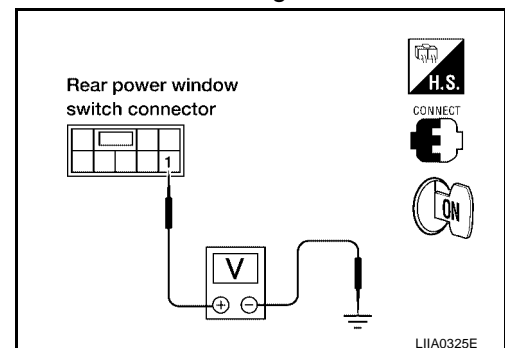
3. CHECK POWER SUPPLY

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

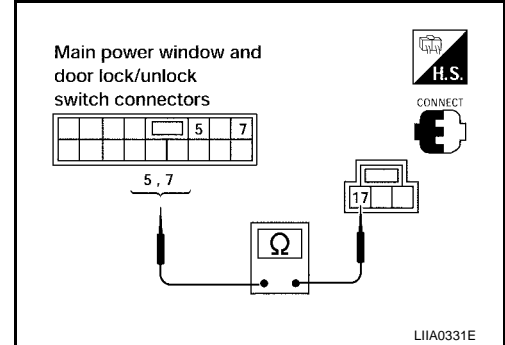
5 (O/L) – 17 (B) : Continuity should exist.

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

OK or NG

OK >> Repair or replace harness.

NG >> Replace main power window and door lock/unlock switch. Refer to [EI-32, "Front Door"](#).



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

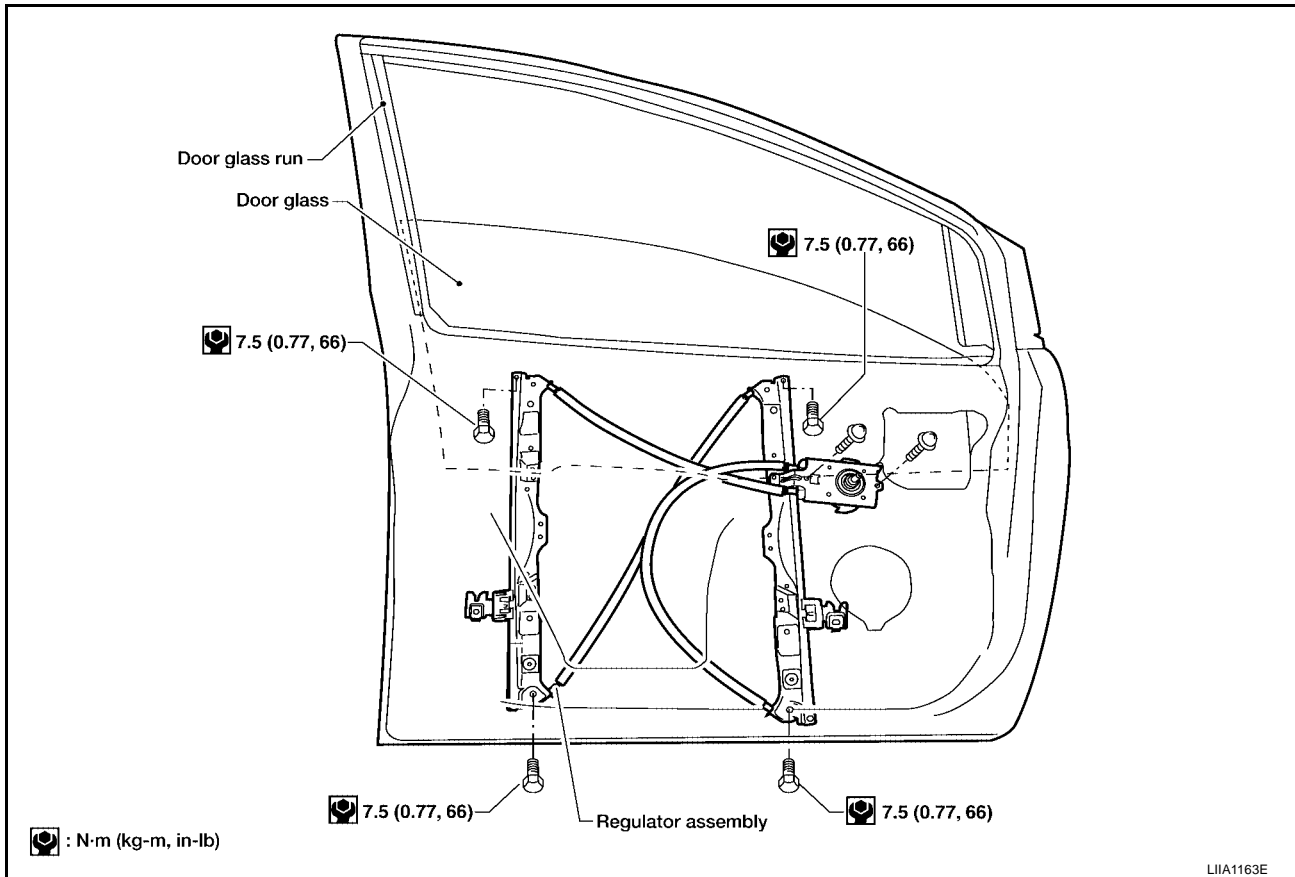
FRONT DOOR GLASS AND REGULATOR

FRONT DOOR GLASS AND REGULATOR

PFP:80300

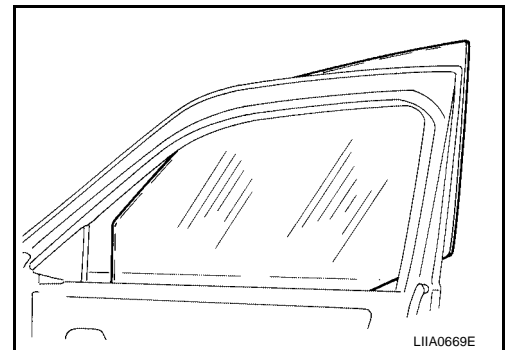
Removal and Installation (with Manual Windows)

EIS002L4



REMOVAL

1. Remove the front door speaker. Refer to [AV-66. "Removal and Installation of Front Door Speaker"](#) .
2. Remove the hole cover over rear glass mounting bolt.
3. Operate the window handle to raise/lower the door window until the glass mounting bolts can be seen.
4. Remove the inside seal.
5. Remove the glass mounting bolts.
6. While holding the door window, raise it at the rear end to pull the glass out of the sash toward the outside of the door.



7. Remove the mounting bolts, and remove the regulator assembly.

FRONT DOOR GLASS AND REGULATOR

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

INSTALLATION

1. Install the regulator assembly. Refer to [GW-76, "Removal and Installation \(with Manual Windows\)"](#).
2. 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 : 6.1 N·m (0.62 kg·m, 54 in·lb)

3. Install front door speaker. Refer to [AV-66, "Removal and Installation of Front Door Speaker"](#).

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.

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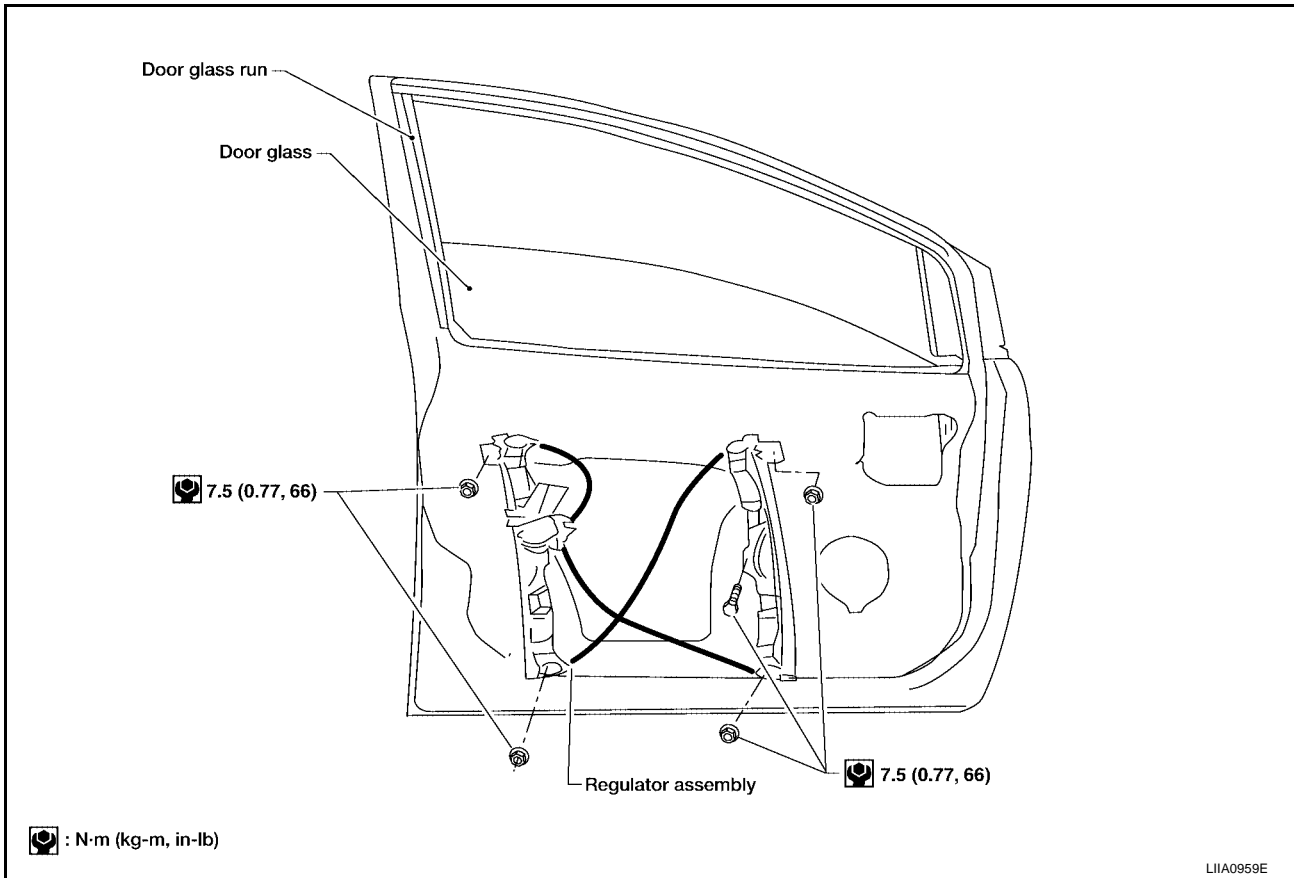
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FRONT DOOR GLASS AND REGULATOR

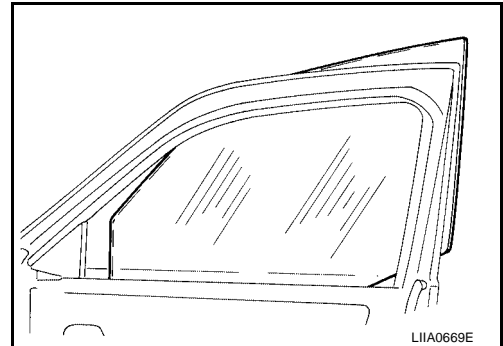
Removal and Installation (with Power Windows)

EIS0020K



REMOVAL

1. Remove the front door speaker. Refer to [AV-66, "Removal and Installation of Front Door Speaker"](#).
2. Remove the hole cover over rear glass mounting bolt.
3. Operate the power window main switch to raise/lower the door window until the glass mounting bolts can be seen.
4. Remove the inside seal.
5. Remove the glass mounting bolts.
6. While holding the door window, raise it at the rear end to pull the glass out of the sash toward the outside of the door.



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

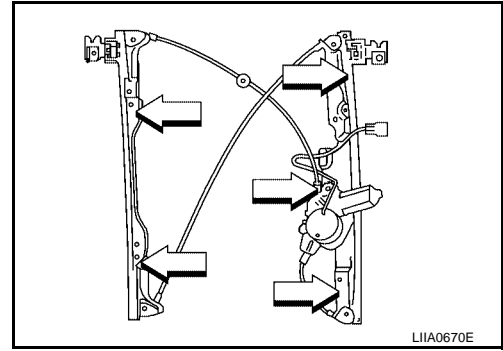
FRONT DOOR GLASS AND REGULATOR

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 power window motor from the regulator assembly.

INSTALLATION

1. Install the regulator assembly. Refer to [GW-78, "Removal and Installation \(with Power Windows\)"](#).
2. Connect the harness connector to the regulator assembly.
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 : 6.1 N·m (0.62 kg·m, 54 in·lb)

4. Install front door speaker. Refer to [AV-66, "Removal and Installation of Front Door Speaker"](#).

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

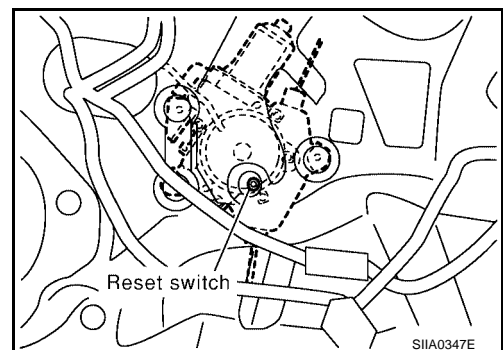
Resetting

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

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

CAUTION:

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



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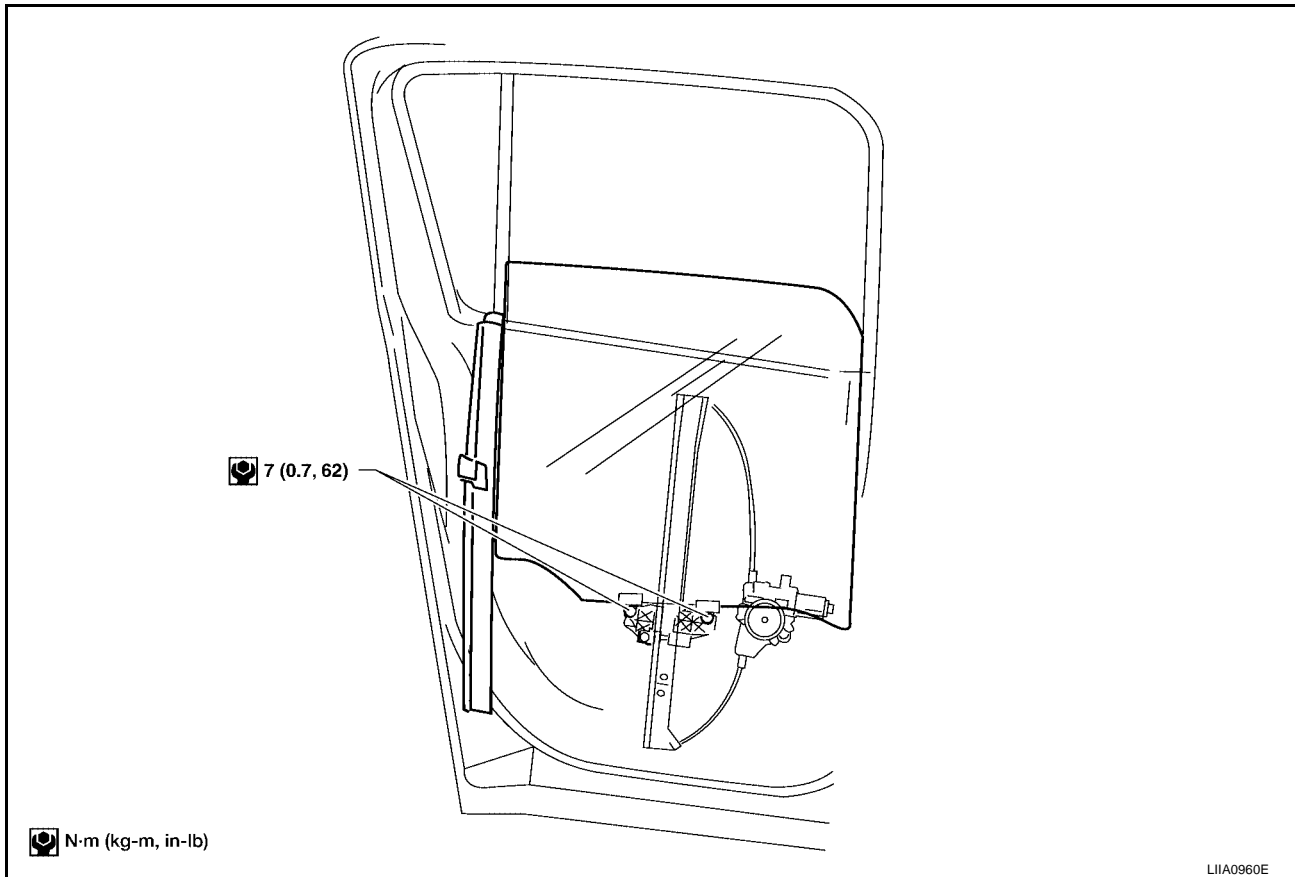
REAR DOOR GLASS AND REGULATOR

REAR DOOR GLASS AND REGULATOR

PFP:82300

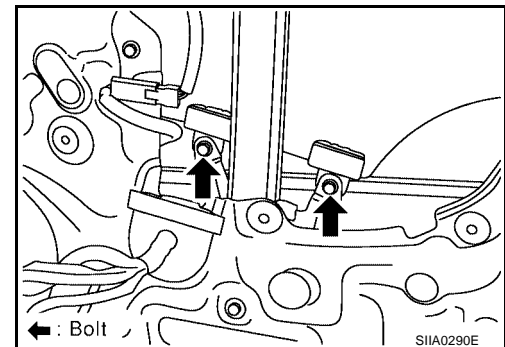
Removal and Installation

EIS002L5

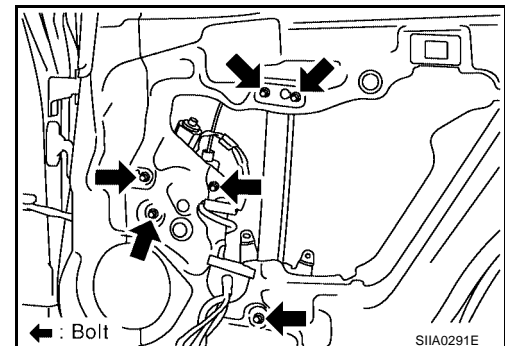


REMOVAL

1. Remove the rear door finisher. Refer to [EI-33, "Rear Door - Crew Cab"](#).
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 run from the partition glass.
5. Remove the partition sash mounting bolt (lower) and screw (upper) to remove the sash.
6. Remove the glass mounting bolts, and remove the glass.



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



REAR DOOR GLASS AND REGULATOR

9. 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

INSTALLATION

1. Install the partition glass in the panel.
2. Install the partition sash. Refer to [GW-80, "Removal and Installation"](#).
3. Connect the harness connector to the regulator assembly and install the regulator and guide channel. Refer to [GW-80, "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 : 6.1 N·m (0.62 kg·m, 54 in-lb)

5. Install the inside seal.
6. Install the rear door finisher. Refer to [EI-33, "Rear Door - Crew Cab"](#).

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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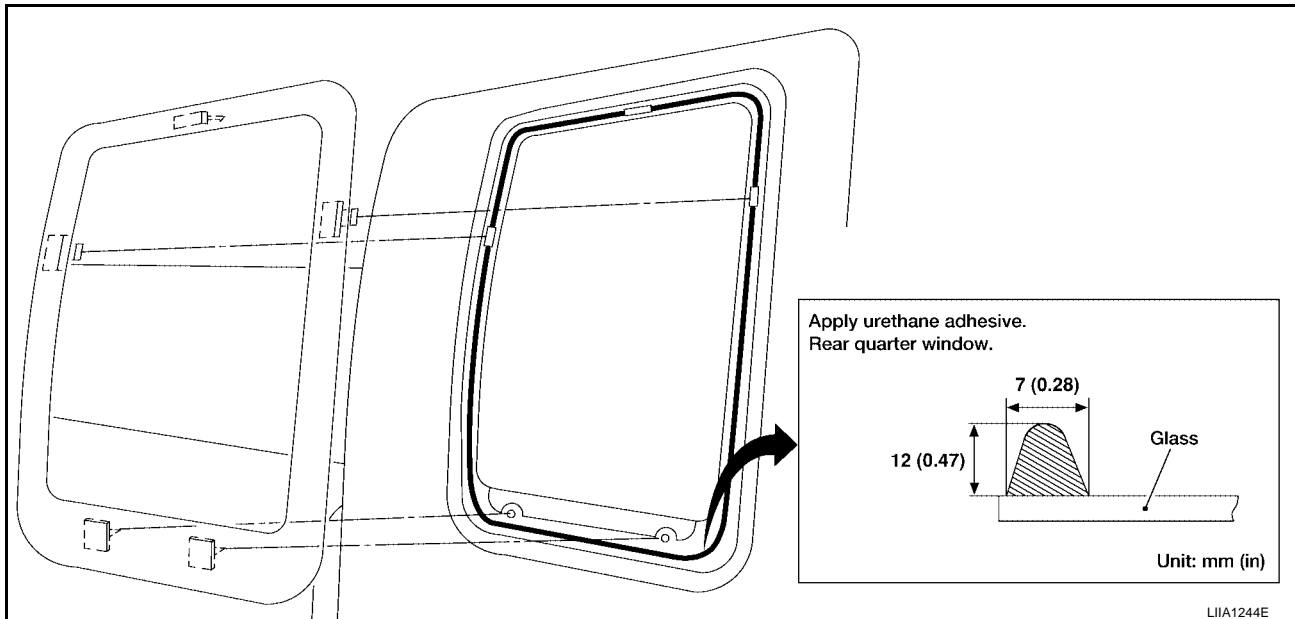
SIDE WINDOW GLASS

SIDE WINDOW GLASS

PFP:83300

Removal and Installation

EIS002L6



REMOVAL

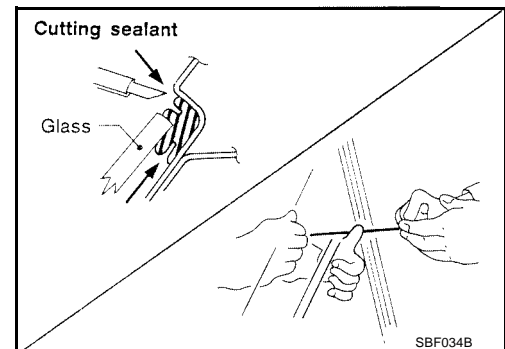
1. Remove the rear door finisher. Refer to [EI-34, "Rear Door - King Cab"](#).
 - Remove glass using piano wire or power cutting tool and an inflatable pump bag.
 - If the window glass is to be reused, mark the body and the glass with mating marks.

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



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.
- 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 removed parts.

WARNING:

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

SIDE WINDOW GLASS

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. A
- Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator. B
- Do not leave primers or adhesive cartridge unattended with their caps open or off. C
- The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time varies depending on temperature and humidity. The curing time will increase under lower temperatures and lower humidities. C

Repairing Water Leaks for Side Window Glass

Leaks can be repaired without removing or reinstalling glass. D

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 side window area while pushing glass outward.

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

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INSIDE MIRROR

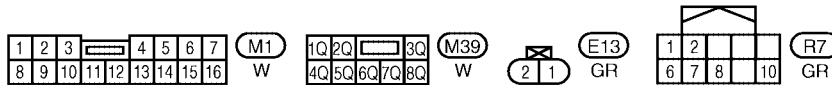
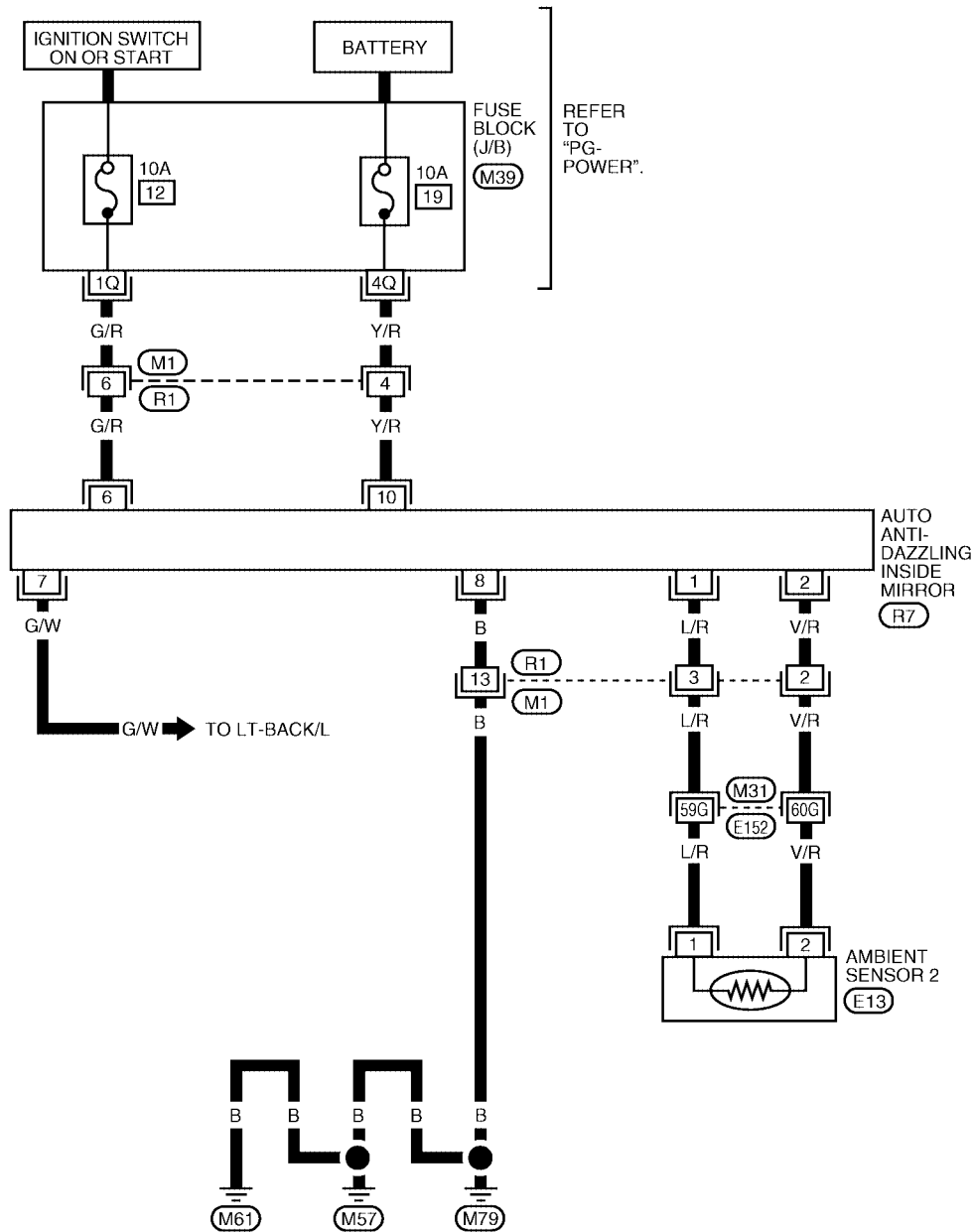
PFP:96321

INSIDE MIRROR

Wiring Diagram -I/MIRR-

EIS002L8

GW-I/MIRR-01



REFER TO THE FOLLOWING.

(M31) - SUPER MULTIPLE JUNCTION (SMJ)

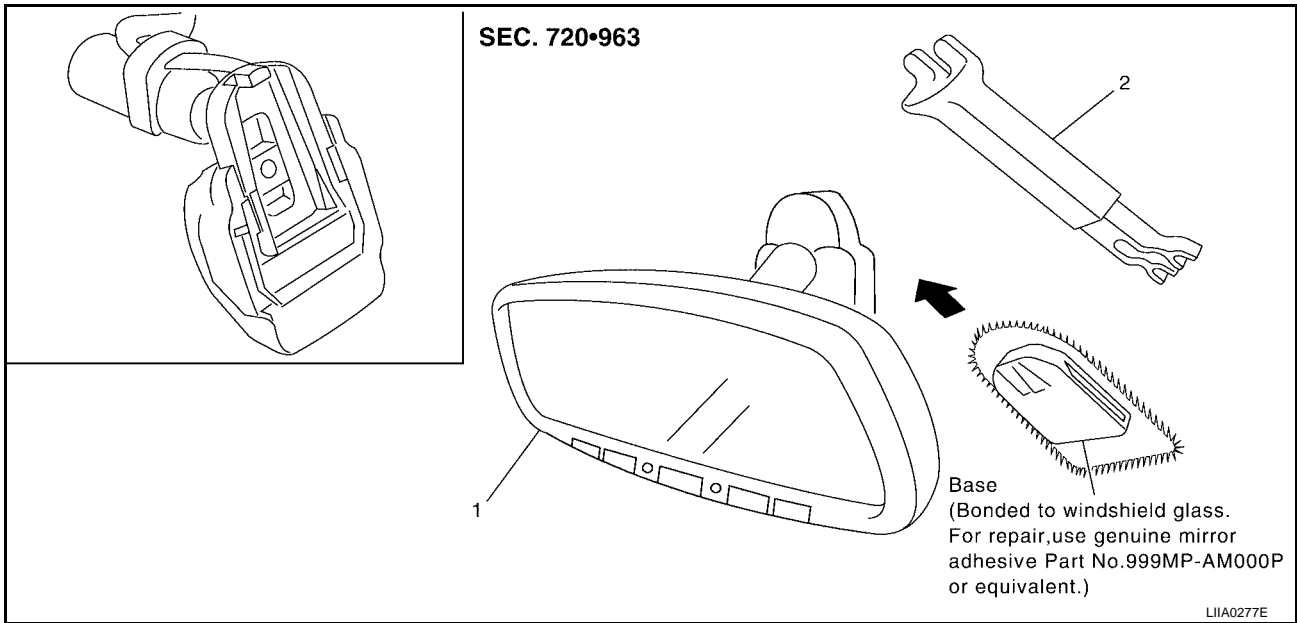
WIWA0211E

INSIDE MIRROR

EIS002L9

Removal and Installation

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



1. Inside mirror

2. Inside mirror finisher

Install in the reverse order of removal.

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DOOR MIRROR

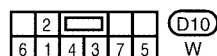
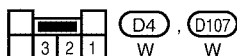
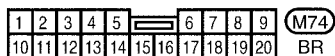
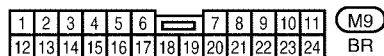
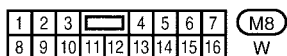
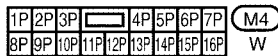
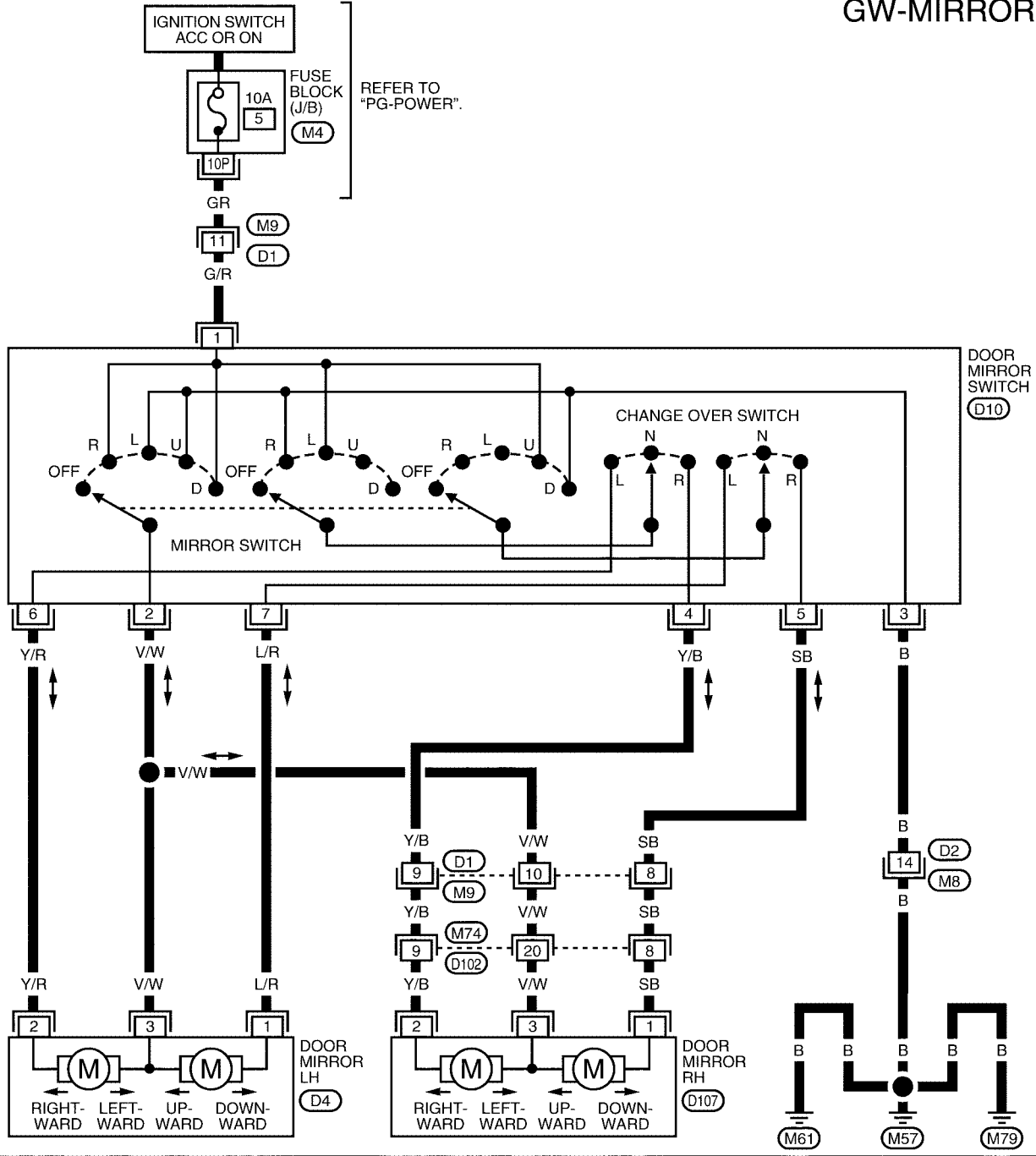
PFP:96301

EIS002LX

DOOR MIRROR

Wiring Diagram –MIRROR–

GW-MIRROR-01

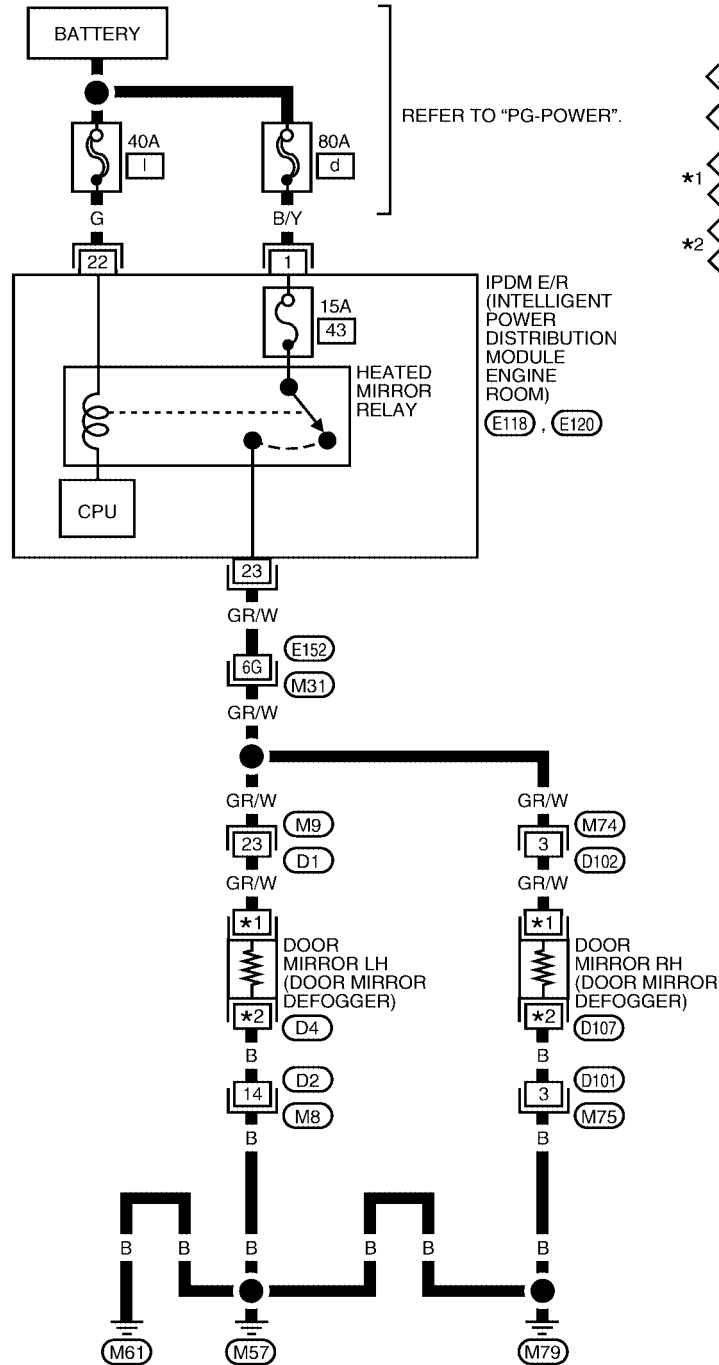


LIWA0209E

DOOR MIRROR

Wiring Diagram - H/MIRR -

EIS0020J

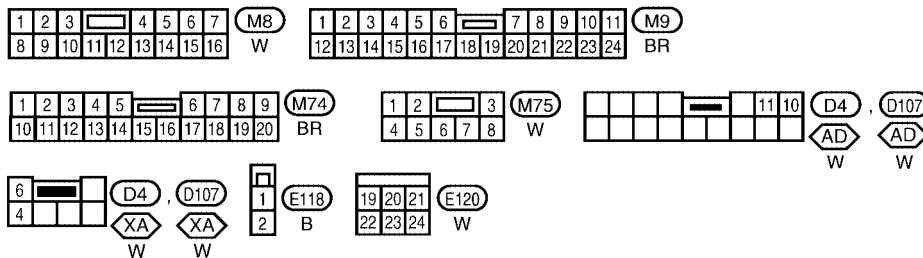


GW-H/MIRR-01

- ⬡AD : WITH AUTOMATIC DRIVE POSITIONER
- ⬡XA : WITHOUT AUTOMATIC DRIVE POSITIONER
- *1 ⬡AD : 10
- ⬡XA : 4
- *2 ⬡AD : 11
- ⬡XA : 6

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REFER TO THE FOLLOWING.

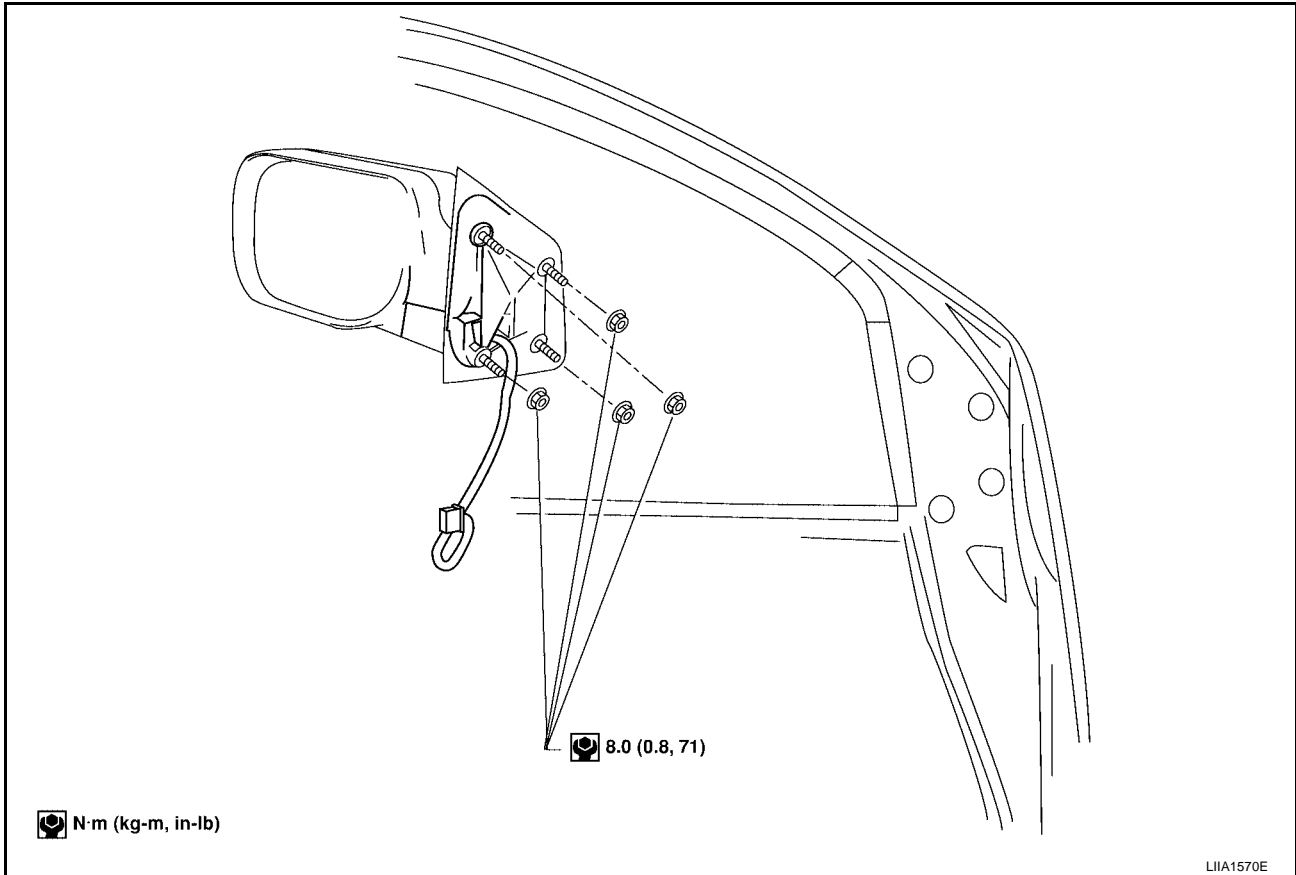
⬡M31 - SUPER MULTIPLE JUNCTION (SMJ)

LIWA0340E

DOOR MIRROR

Door Mirror Assembly STANDARD MIRROR

EIS002LY



Removal and Installation

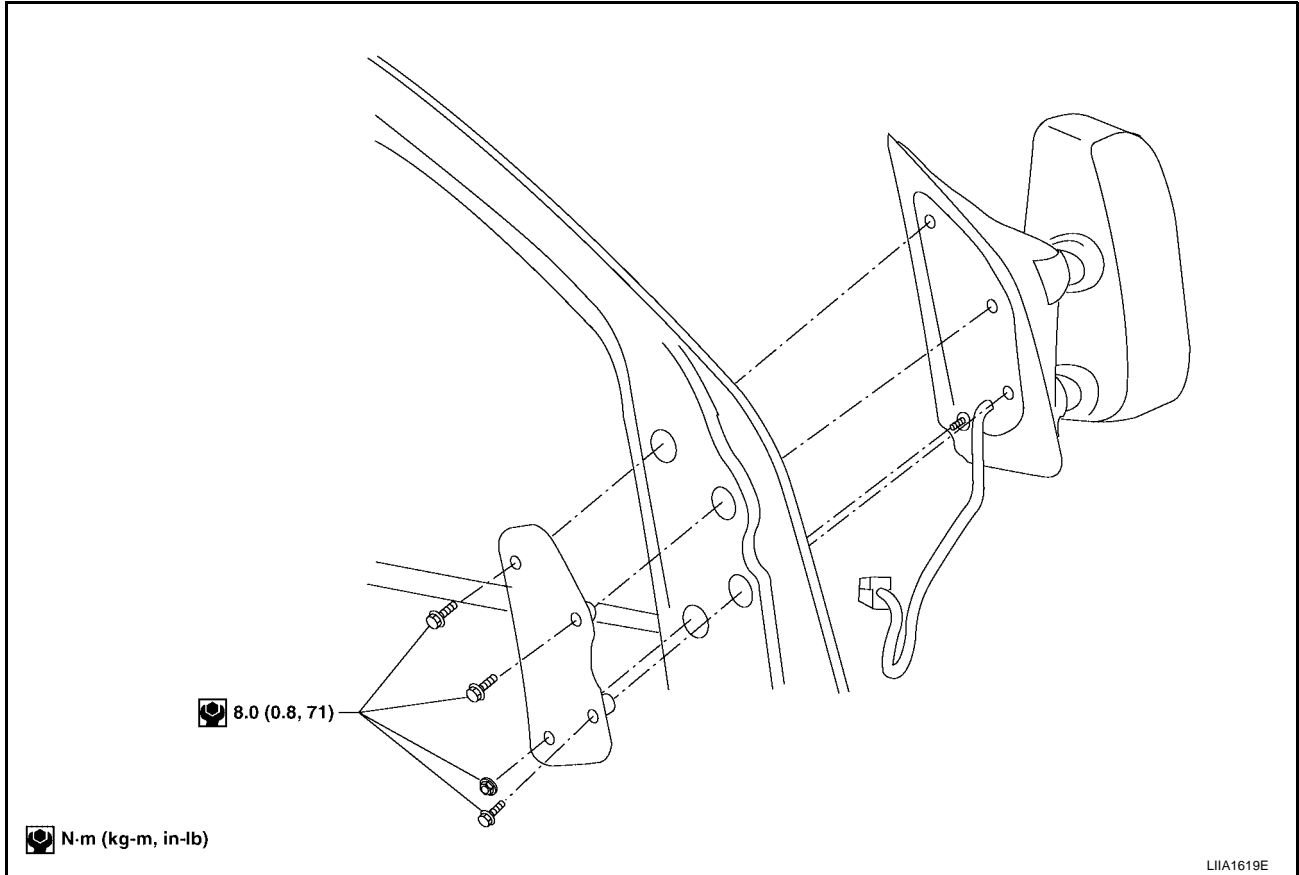
NOTE:

Be careful not to damage the mirror bodies.

1. Remove the front door finisher. Refer to [EI-32, "Front Door"](#).
 2. Disconnect the mirror electrical connector.
 3. Remove the door mirror mounting nuts, and remove the door mirror assembly.
- Install in the reverse order of removal.

DOOR MIRROR

TRAILER TOW MIRROR



Removal and Installation

NOTE:

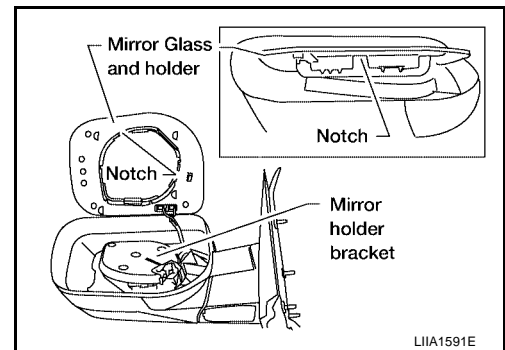
Be careful not to damage the mirror bodies.

1. Remove the front door finisher. Refer to [EI-32, "Front Door"](#).
2. Disconnect the mirror electrical connector.
3. Remove the door reinforcement plate.
4. Remove the door mirror assembly.

Install in the reverse order of removal.

DOOR MIRROR GLASS REMOVAL

1. Remove door mirror assembly. Refer to [GW-88, "Door Mirror Assembly"](#).
2. Set mirror assembly mirror glass upward.
3. Apply protective tape to mirror housing.
4. Insert a screwdriver into notch and remove mirror glass by pushing up two hooks.
5. Disconnect two electrical connectors from mirror holder.



DOOR MIRROR

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.
6. Install door mirror assembly. Refer to [GW-88, "Door Mirror Assembly"](#)

