SECTION GW
GLASS & WINDOW SYSTEM

CONTENTS

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000004884108

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 SR 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 SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- **When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.**

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000004881261

NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the ″LOCK″ position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.
For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.
If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Use the Intelligent Key or mechanical key to turn the ignition switch to the ″ACC″ position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

5. When the repair work is completed, return the ignition switch to the ″LOCK″ position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT-III.

Handling for Adhesive and Primer

INFOID:0000000001608342

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

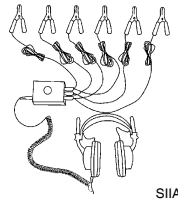
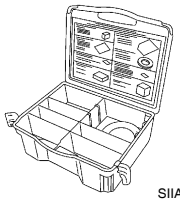
PREPARATION

PREPARATION

Special Service Tool

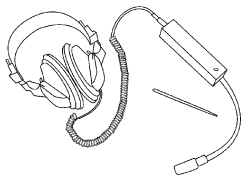
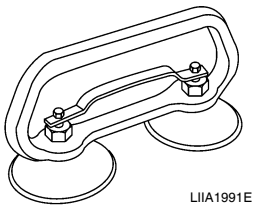
INFOID:0000000001608343

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  SIIA0993E	Locating the noise
— (J-43980) NISSAN Squeak and Rattle Kit  SIIA0994E	Repairing the cause of noise

Commercial Service Tool

INFOID:0000000001608344

(Kent-Moore No.) Tool name	Description
(J-39565) Engine ear  SIIA0995E	Locating the noise
(—) Suction Lifter  LIIA1991E	Holding door glass

ON-VEHICLE REPAIR

WINDSHIELD GLASS

Removal and Installation

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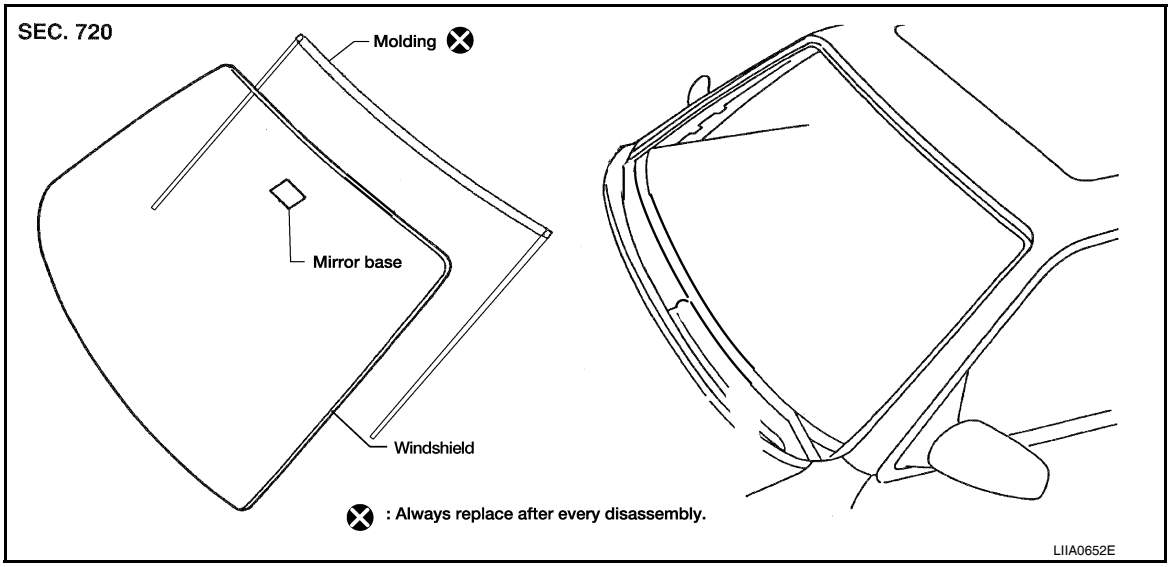
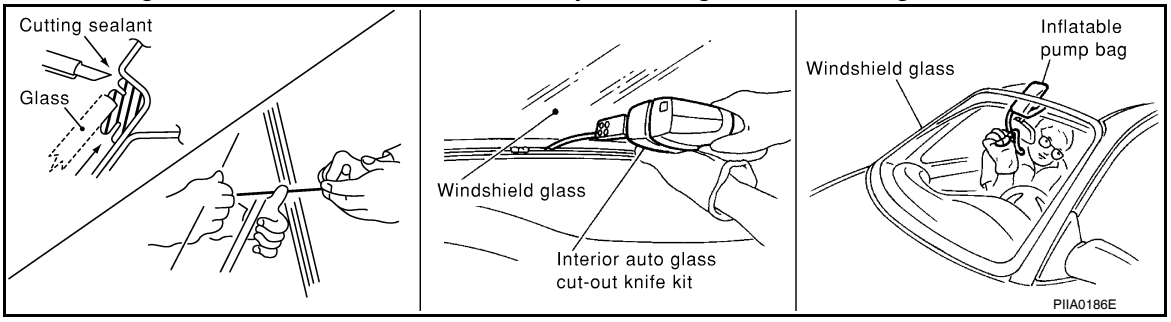


REMOVAL

1. Remove inside mirror. Refer to MIR-10, "Removal and Installation".
2. Partially remove the headlining (front edge). Refer to INT-17, "Removal and Installation".
3. Remove cowl top cover. Refer to EXT-18, "Removal and Installation".
4. 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

Installation is in the reverse order of removal.

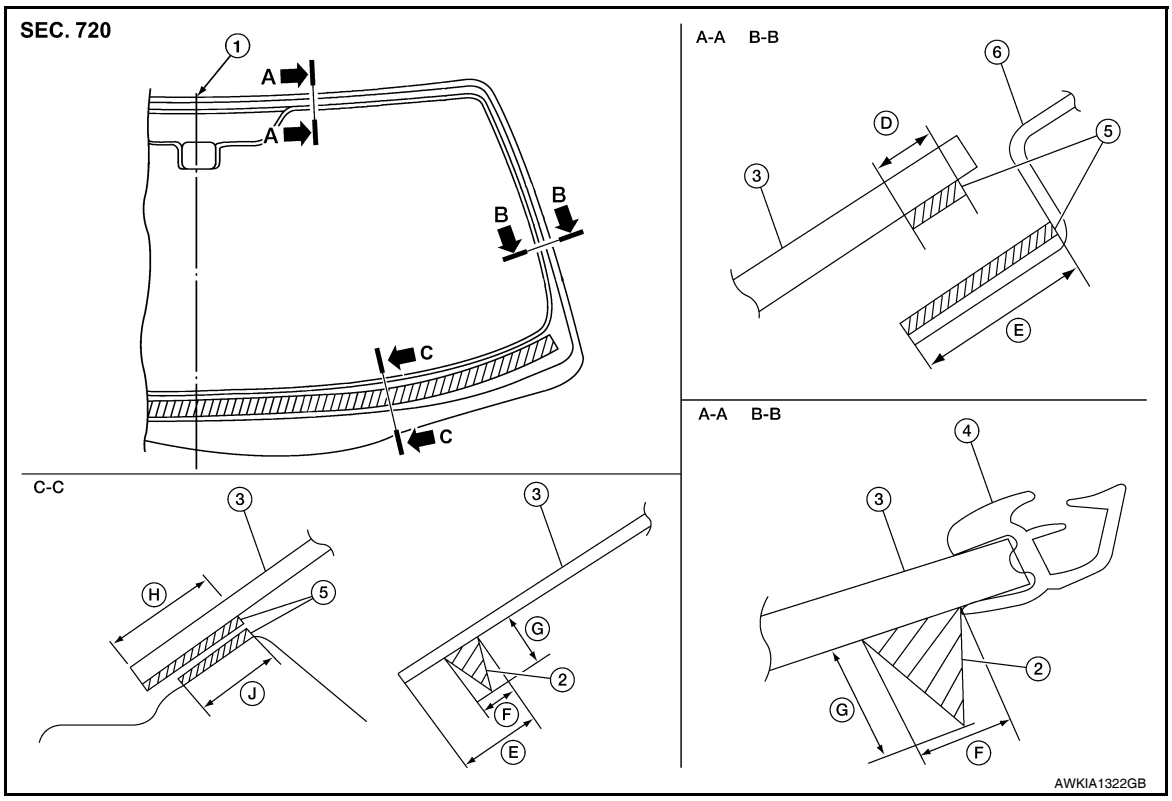
- Use a genuine NISSAN Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- The molding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

WARNING:

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



1.	Vehicle center	2.	Sealant	3.	Windshield glass
4.	Molding	5.	Primer portion	6.	Body panel
D.	14.0 mm (0.55 in)	E.	22.0 mm (0.87 in)	F.	8.5 mm (0.33 in)
G.	15.0 mm (0.59 in)	H.	26.0 mm (1.02 in)	J.	19.0 mm (0.75 in)

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

Removal and Installation

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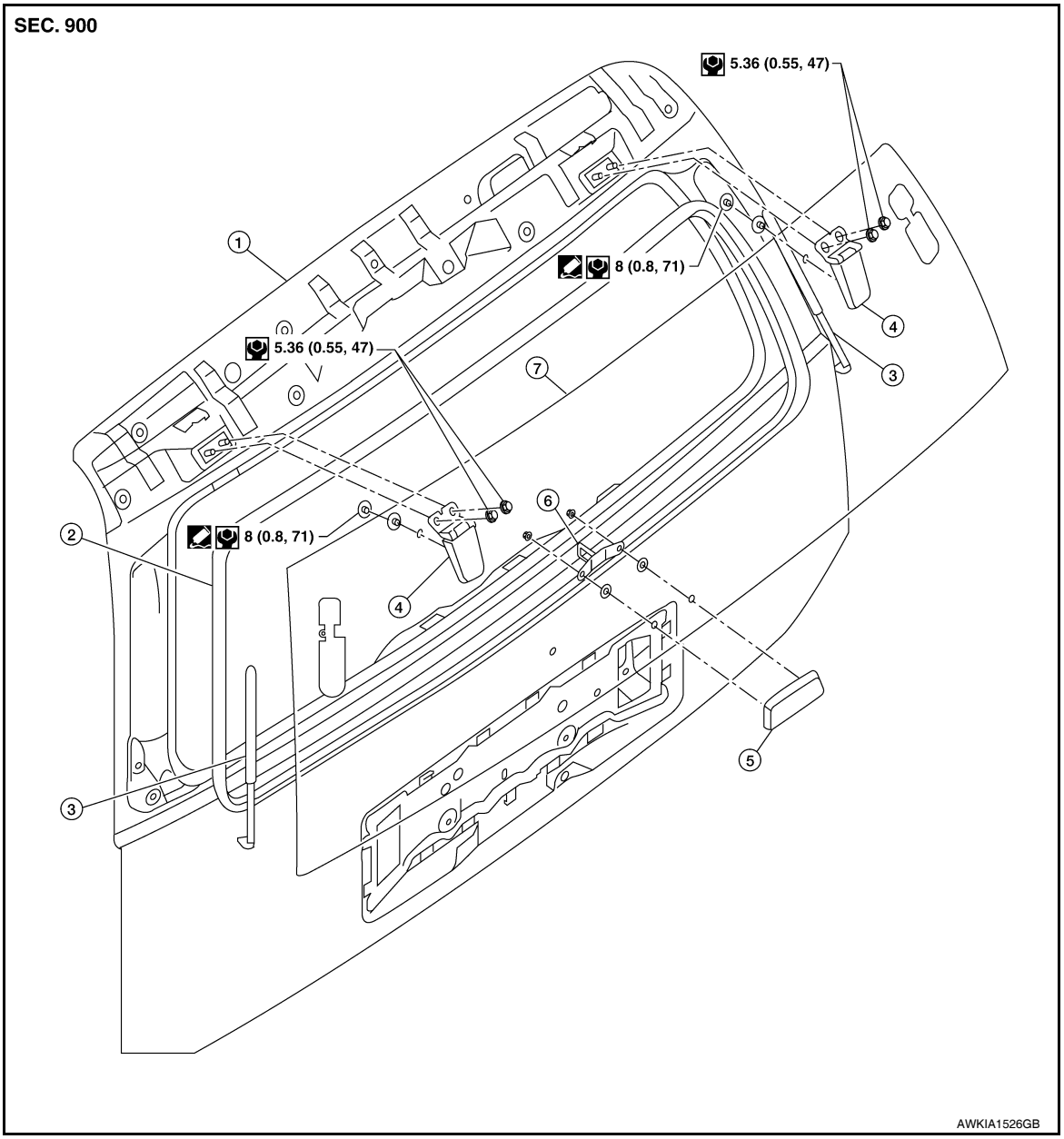


1. Back door assembly
2. Weatherstrip
3. Rear glass stay RH, LH
4. Rear window hinge assembly RH, LH
5. Rear window glass handle
6. Rear window glass latch striker
7. Rear glass assembly

: Medium strength Thread Locking Sealant (Blue)

REMOVAL

1. Remove the rear spoiler. Refer to EXT-26, "Removal and Installation".
2. Disconnect the rear window defogger electrical connectors.
3. Remove the rear glass stays.
4. Remove the hinge nuts and the rear glass assembly.
5. Remove the striker and handle.
6. Remove the rear glass hinges.

INSTALLATION

Installation is in the reverse order of removal.

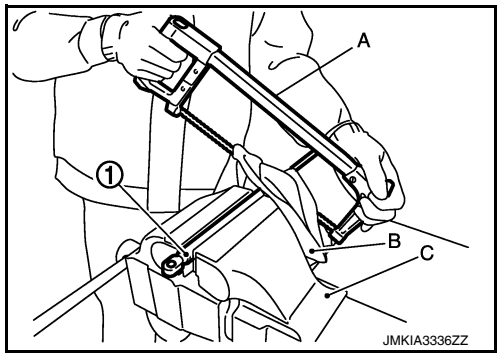
GLASS STAY

Disposal

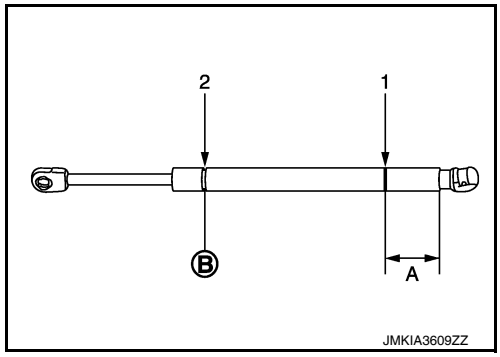
1. Secure glass stay (1) using a vise (C)
2. Using hacksaw (A) slowly make 2 holes in the glass stay (1), in numerical order as shown in the figure

CAUTION:

- **When cutting a hole on glass stay (1), always cover a hacksaw using a shop cloth (B) to avoid scattering metal fragments or oil**
- **Wear eye protection (safety glasses)**
- **Wear gloves**



A: 20 mm (0.787 In)
B: Cut at the groove



FRONT DOOR GLASS AND REGULATOR

Removal and Installation

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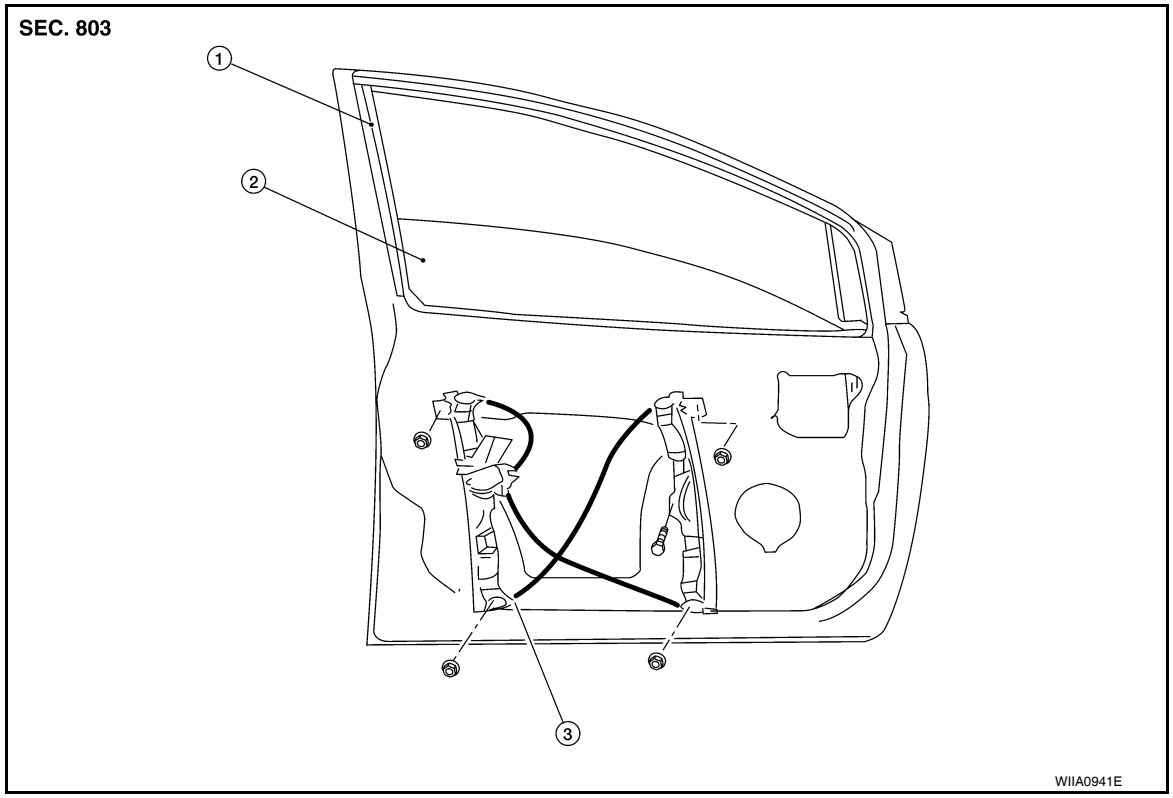
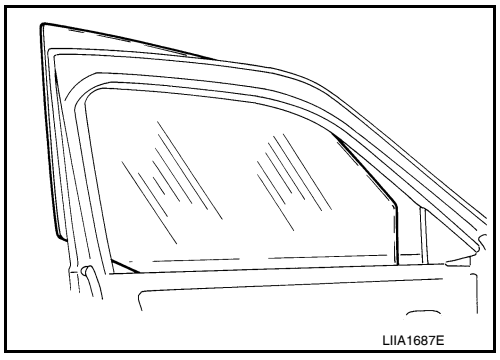


1. Door glass run
2. Door glass
3. Front door glass regulator assembly

FRONT DOOR GLASS

Removal

1. Remove the front door finisher panel. Refer to INT-11, "Removal and Installation".
2. Position aside the vapor barrier.
3. Remove the hole cover over rear glass bolt.
4. Operate the power window main switch to raise/lower the door window until the glass bolts can be seen.
5. Remove the inside seal.
6. Remove the glass bolts.
7. While holding the front door glass, raise it at the rear end and pull the glass out of the sash toward the outside of the door.



Installation

Installation is in the reverse order of removal.

Glass bolts : 6.1 N·m (0.62 kg-m, 54 in-lb)

NOTE:
If any of the following work has been done, reset the power window motor limit switch.
- Removal and installation of the regulator assembly.
- Removal and installation of the power window motor from the regulator.
- Installation of a new glass window.
- Installation of a new glass run.

Check the label on the power window motor for the part number. If the power window motor part number matches one of the following, the motor must be removed from the regulator and the limit switch reset using the "INSTALLATION WITHOUT RESET SWITCH" procedure in "FRONT DOOR GLASS REGULATOR ASSEMBLY".
- 80730-ZT01A
- 80731-ZT01A
- 80730-ZM70B
- 80731-ZM70B

If the power window motor part number does not match one of the part numbers above, the limit switch can be reset in the vehicle using the "INSTALLATION WITH RESET SWITCH" procedure.

NOTE:
- The label can be checked with the power window motor in the vehicle by using a mirror.
- Some of the power window motors with the part numbers above may appear to have a reset switch, but it will not reset the limit switch.

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 bolts, guide rail bolts, and glass and guide rail bolts to correct the glass position.

FRONT DOOR GLASS REGULATOR ASSEMBLY

Removal

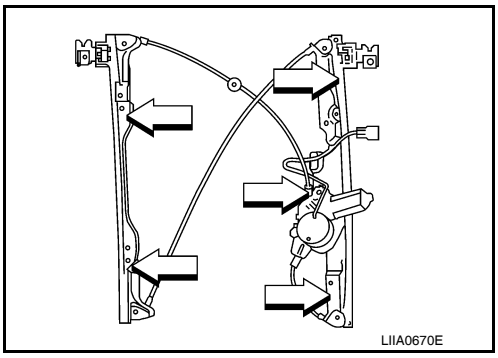
1. Remove the front door finisher panel. Refer to INT-11, "Removal and Installation".
2. Position aside the vapor barrier.
3. Remove the hole cover over rear glass bolt.
4. Operate the power window main switch to raise/lower the door window until the glass bolts can be seen.
5. Remove the inside seal.
6. Remove the glass bolts.
7. Raise the front door glass and hold it in place with suitable tool.
8. Disconnect the harness connector from the regulator assembly.
9. Remove the bolts and the regulator assembly.

Disassembly And Assembly

Remove the regulator motor from the regulator assembly.

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.



Installation

If any of the following work has been done, reset the power window motor limit switch.
- Removal and installation of the regulator assembly.

- Removal and installation of the power window motor from the regulator.
- Installation of a new glass window.
- Installation of a new glass run.

Check the label on the power window motor for the part number. If the power window motor part number matches one of the following, the limit switch must be reset using the "INSTALLATION WITHOUT RESET SWITCH" procedure.

- 80730-ZT01A
- 80731-ZT01A
- 80730-ZM70B
- 80731-ZM70B

If the power window motor part number does not match one of the part numbers above, the limit switch must be reset using the "INSTALLATION WITH RESET SWITCH" procedure.

NOTE:
Some of the power window motors with the part numbers above may appear to have a reset switch, but it will not reset the limit switch.

INSTALLATION WITHOUT RESET SWITCH - (Motors listed above)

Check the label on the power window motor for the part number. If the power window motor part number does not match one of the above, use the "INSTALLATION WITH RESET SWITCH" procedure.

NOTE:
Some of the power window motors may appear to have a reset switch, but it will not reset the limit switch.

1. Connect the door harness connector to the power window motor, and rotate the motor more than 5 turns in the glass raising (up) direction.

   Power Window Motor Up Direction
   - **LH motor rotate counterclockwise**
   - **RH motor rotate clockwise**

2. Install the power window motor onto the regulator.
3. Install the regulator assembly into the door and secure regulator assembly with the nuts and bolt.

   Regulator assembly nuts and bolt : 7.5 N·m (0.77 kg-m, 66 in-lb)

4. Install the glass into the door and align with the regulator, then install the glass bolts.

   Glass bolts : 6.1 N·m (0.62 kg-m, 54 in-lb)

5. Raise the glass to the top position.
   CAUTION:
   Do not operate the glass automatically to raise the glass to the top.
6. Reposition the vapor barrier.
7. Install the front door finisher panel. Refer to INT-11, "Removal and Installation".

INSTALLATION WITH RESET SWITCH - (Motors not listed above)

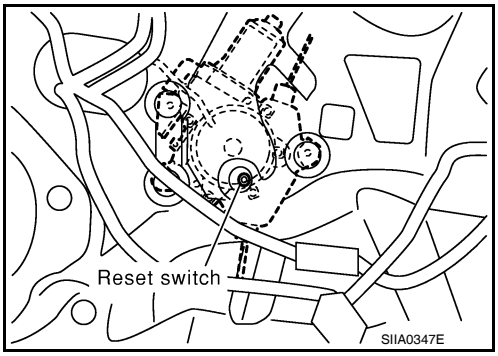
1. Install the power window motor onto the regulator.
2. Install the regulator assembly into the door and secure regulator assembly with the nuts and bolt.

   Regulator assembly nuts and bolt : 7.5 N·m (0.77 kg-m, 66 in-lb)

3. Connect the door harness connector to the power window motor.
4. Install the glass into the door and align with the regulator, then install the glass bolts.

   Glass bolts : 6.1 N·m (0.62 kg-m, 54 in-lb)

5. Reset the limit switch.
   a. Raise the glass to the top position.
   b. While pressing and holding the reset switch, lower the glass to the bottom position.
   c. Release the reset switch. Verify that the reset switch returns to the original position, if not, pull the switch using suitable tool.
   d.Raise the glass to the top position.
   CAUTION:
   Do not operate the glass automatically to raise the glass to the top position.



6. Reposition the vapor barrier.
7. Install the front door finisher panel. Refer to INT-11, "Removal and Installation".

REAR DOOR GLASS AND REGULATOR

Removal and Installation

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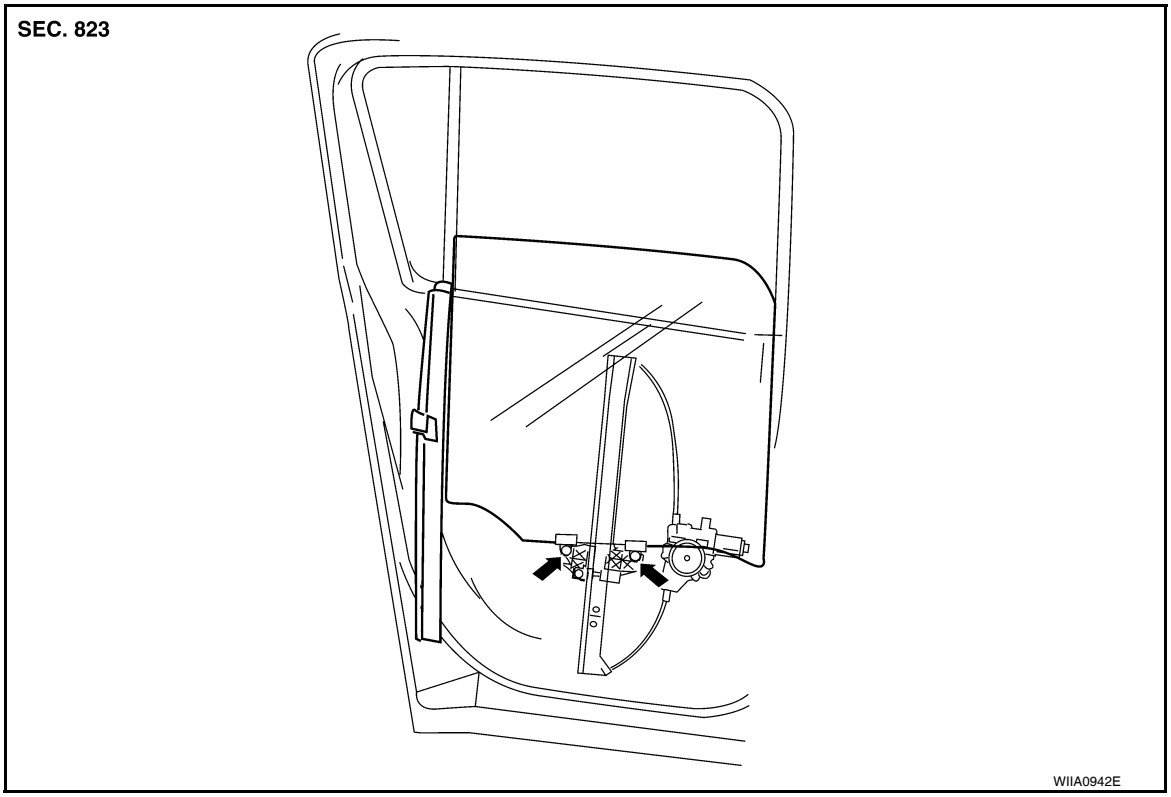
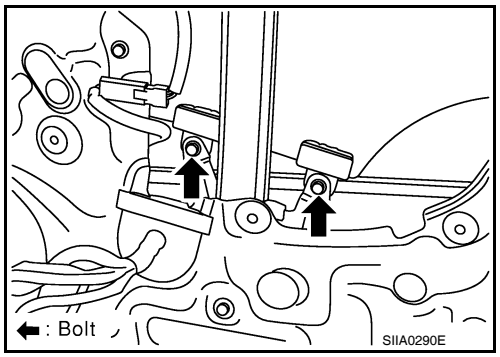


REAR DOOR GLASS

Removal

1. Remove the rear door finisher. Refer to INT-11, "Removal and Installation".
2. Temporarily reconnect the power window switch.
3. Operate the power window switch to raise/lower the door window until the glass bolts can be seen.
4. Partially remove the inside seal.
5. Remove the glass run from the partition glass.
6. Remove the partition sash bolt (lower) and screw (upper) to remove the sash.
7. Remove the glass bolts and glass.



Installation

Installation is in the reverse order of removal.

Glass bolts : 6.1 N·m (0.62 kg-m, 54 in-lb)

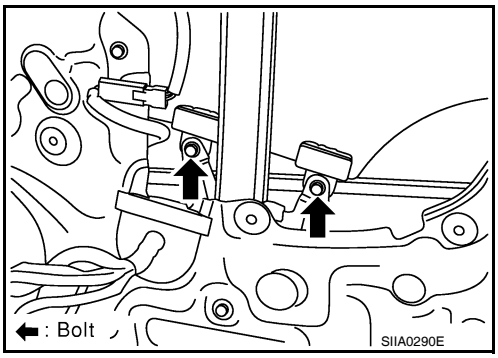
Fitting Inspection

- 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 bolts, guide rail bolts, and glass and carrier plate bolts to correct the glass position.

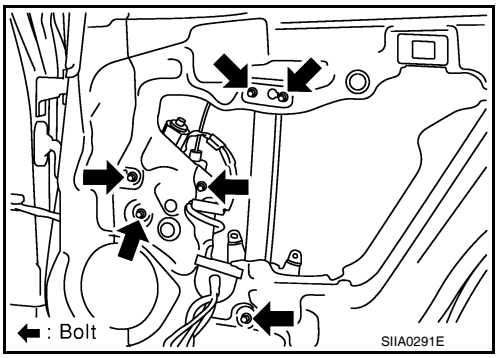
REAR DOOR GLASS REGULATOR

Removal

1. Remove the rear door finisher. Refer to INT-11, "Removal and Installation".
2. Temporarily reconnect the power window switch.
3. Operate the power window switch to raise/lower the door window until the glass bolts can be seen.
4. Partially remove the inside seal.
5. Remove the glass bolts.
6. Raise the glass and hold in place with suitable tool.



7. Remove the bolts, and the regulator and guide channel.
8. Disconnect the connector from the regulator assembly.



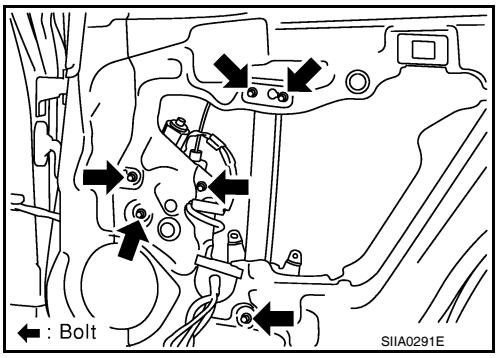
Inspection after removal

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

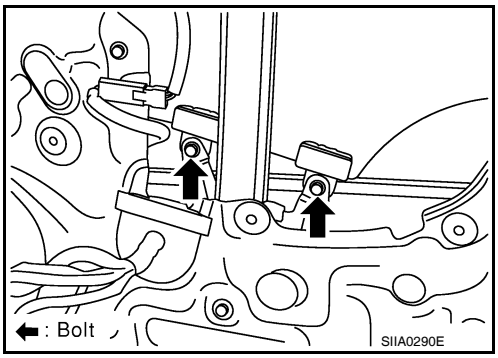
1. Connect the harness connector to the regulator assembly and install the regulator and guide channel.



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

Glass bolts : 6.1 N·m (0.62 kg-m, 54 in-lb)

3. Install the inside seal.
4. Install the rear door finisher. Refer to INT-11, "Removal and Installation".



SIDE WINDOW GLASS

Removal and Installation

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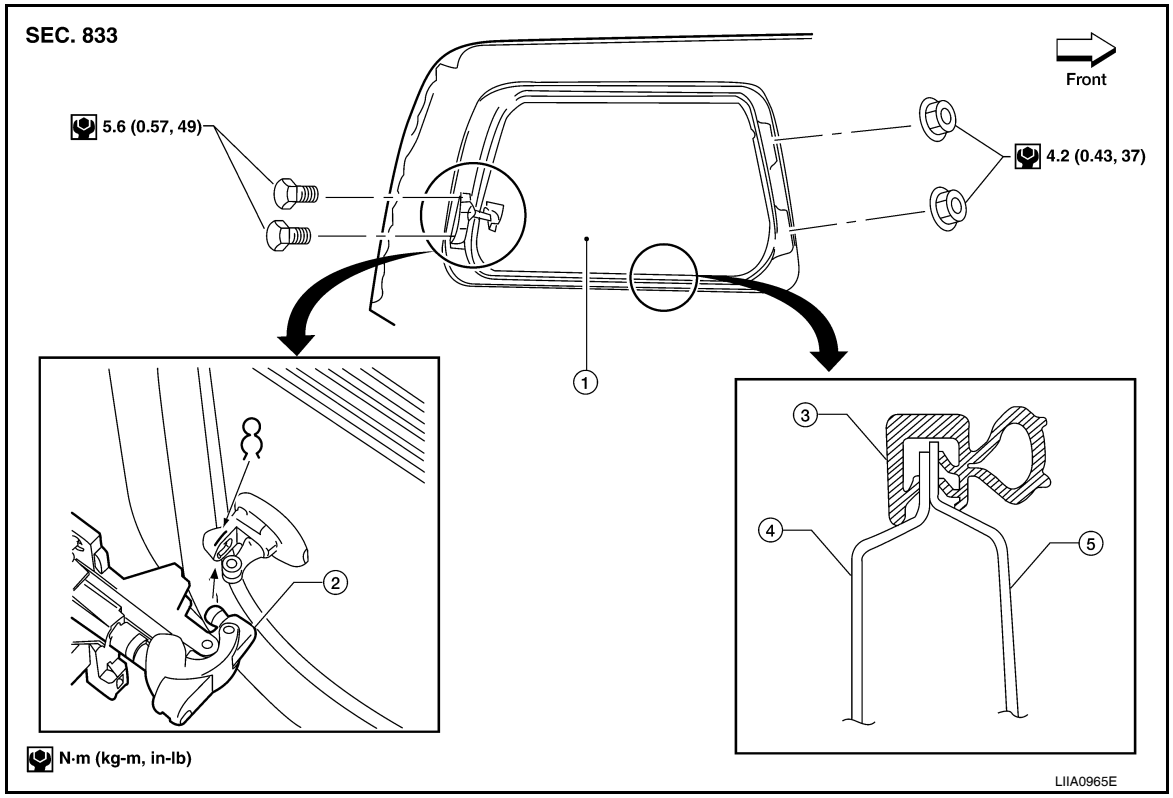

1. Rear side window glass
2. Rear side window motor
3. Weatherstrip
4. Inner panel
5. Outer panel

REMOVAL

1. Remove the rear lower and upper finisher. Refer to INT-19, "Removal and Installation".
2. Disconnect the rear side window motor harness.
3. Remove the rear side window motor mounting bolts.
4. Remove the rear side window front mounting nuts.

INSTALLATION

1. Install the glass from outside to insure that it is even with the top and bottom of the opening. Tighten rear side window front mounting nuts to the specified torque.

   Glass mounting nuts : 4.2 N·m (0.43 kg-m, 37 in-lb)

2. Install rear side window motor mounting bolts. Tighten rear side window latch mounting bolts to the specified torque.

   Motor mounting bolts : 5.6 N·m (0.57 kg-m, 49 in-lb)

3. Connect the rear side window motor harness.
4. Install rear pillar upper and lower finisher. Refer to INT-19, "Removal and Installation".